TECHNICAL GUIDANCE MATERIALS

VOLUME 3

OPERATIONS INSPECTOR HANDBOOK

TECHNICAL GUIDANCE MATERIAL

Introduction

Technical Guidance Material includes Inspector Manual for Civil Aviation Operations, Airworthiness and Personnel Licensing Inspectorate Personnel.

These Manuals provide mandatory directions, information and procedures to the Authority's inspectors and officers in the certification, surveillance, audit and regulation enforcement duties. The Manuals are publicly available in the interests of transparency and to provide further advice to industry in its dealings with the Authority.

For ease of use the Inspector Manuals are grouped in four areas general and those relating to each specialty (i.e. Personnel Licensing, Aeromedical, Operations and Airworthiness). The general Manual are those cutting across specialties and provides information of a general nature relating to all.

TECHNICAL GUIDANCE MATERIAL

PREFACE

This manual is one in the set of manuals forming the Nigerian Civil Aviation Authority's, Directorate of Operations internal documentation set. This manual is produced to provide the information, policy and procedures needed to perform the tasks as required by the Civil Aviation Act and the Nigeria Civil Aviation Regulations.

This volume of the manual has been prepared for the use and guidance of Operations Aviation Safety Inspectors in the performance of their duties. I require all staff to use this manual in the performance of their duties. However, it is emphasized that all matters pertaining to an inspector's duties and responsibilities cannot be covered in this manual. Inspectors are expected to use good judgment in matters where specific guidance has not been given.

The manual is dynamic documents. As a result of experience, changes in legislation and within the industry, as well as new technology, there may be the need for amendments. I encourage the contribution of comments and recommendations for revision/amendment action to this publication for the improvement of its content.

The Director General, identified in the footer of this manual, is accountable for approving the contents and amendments of this manual.

Capt. Muhtar Usman
Director General, NCAA

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CHAPTER 1

Air Operator Certification - The Certification Process (Pre-Application Phase)

1.0 PURPOSE

1.1 This Chapter provides direction and guidance on the certification process for the issue of an Air Operator Certificate as required by Part 9 of the Nigeria Civil Aviation Regulations. This process, if followed, will lead to successful compliance with the requirements of the Regulations.

1.2 Under no circumstances will an applicant be certified until the Authority is confident that the prospective certificate holder is capable of fulfilling the required responsibilities, and willing to comply with the Regulations in an appropriate and continuing manner.

2.0 REFERENCE

2.1 **The Civil Aviation Act 2006;**

2.2 **Part 9 of the Nigeria Civil Aviation Regulations**;

2.3 **Part 8 of the Nigeria Civil Aviation Regulations;**

2.4 **Part 2 of the Nigeria Civil Aviation Regulations;**

2.5 **Part 6 of the Nigeria Civil Aviation Regulations;**

2.6 **Part 7 of the Nigeria Civil Aviation Regulations;**

2.7 **Part 5 of the Nigeria Civil Aviation Regulations;**

2.8 FORM:O-OPS001A

3.0 CERTIFICATION OF COMMERCIAL AIR TRANSPORT OPERATORS

The certification process described in this Order and in Advisory Circular NCAA-AC-OPS001, "Certification of an Air Operator," is for an applicant seeking an air operator certificate (AOC) under Part 9 of the Nigeria Civil Aviation Regulations. The Authority should provide a copy of NCAA-AC-GEN003 and NCAA-AC-OPS001 to applicants requesting certification as an AOC holder. The applicant should also be required to acquire all the ACs and read them and become acquaint with the details therein.

4.0 INITIAL ENQUIRIES OR REQUESTS

4.1 **Initial Enquiries**

Initial enquiries about certification or requests for application may come in various formats from individuals or organisations. These enquiries may be in writing or in the form of meetings with the Authority personnel. Requests for applications may come from inexperienced and poorly prepared individuals, from well-prepared and financially sound organisations, or from organisations and individuals ranging between these extremes

4.2 **Applicant Orientation**

Upon initial contact, the Authority inspection personnel should provide the applicant with a Pre-Application Statement of Intent (PASI) , Advisory Circulars NCAA-AC-GEN003 and NCAAAC-OPS001 and should guide the applicant with information on how to acquire a set of the Civil Aviation Regulations. In addition, inspection personnel should answer general questions on the air operator certification process. The inspectors should advise the enquirer to read appropriate Regulations and become thoroughly versed with the Regulations.

***NOTE**: Inspectors should instruct applicants to complete the PASI in accordance with the instructions in NCAA-AC - OPS001 and to submit the completed PASI to the Authority office.*

4.3 **Preliminary Discussion**

4.3.1 After the applicant has reviewed NCAA-AC-GEN003 and NCAA-AC-OPS001, the assigned Authority inspector should briefly explain the requirements of the Authority that the applicant must meet in the certification process. The inspector should ask the applicant to schedule an appointment for further discussions, allowing enough time for the applicant to thoroughly review and understand the requirements of NCAA-AC-OPS001. The applicant should plan to bring key management personnel and their completed resumes to the pre-application meeting.

4.3.2 The Authority certification team must review the qualifications of the applicant‘s management personnel (Regulation 2.2.2 of Part 9 of the Nigeria Civil Aviation Regulations). A resume must be submitted for each required management position and that the resumes must contain the basic information necessary to determine regulatory compliance. The depth of review should be only to determine that there are no obvious omissions or significant discrepancies. An example of a significant discrepancy might be that the regulation requires an individual to hold an Airline Transport Pilot Licence (ATPL), but the resume shows that the individual holds only a Commercial Pilot Licence. A detailed review of the management qualifications and effectiveness will be accomplished during the document compliance and the demonstration and inspection phases.

5.0 FORM: O-OPS001 - ‘PRE-APPLICATION STATEMENT OF INTENT (PASI)’

5.1 **Purposes of a PASI**

5.1.1 Often, a prospective operator will request information about certification as an air operator, but the prospective operator is not fully aware of the regulatory requirements and the costs involved. The

completed POPS denotes intent by the applicant to continue the certification process. It also allows the Authority to plan activities and prepare to commit resources.

5.1.2 The Director responsible for Safety Oversight will use the PASI to evaluate the complexity of the proposed operation and to determine whether trained and experienced inspectors are available to conduct the certification process. The PASI is used by the administrative office of the Authority to record the pre-certification number assigned to the applicant. A pre-certification number is assigned to an applicant for the purpose of tracking the progress of the AOC certification project.

5.2 **Authority Office Review of the PASI**

5.2.1 Upon receipt of a signed PASI, the Director responsible for Safety Oversight will assign an inspector to review the form to ensure that there is sufficient information to further process the pre-application. The inspector will ascertain that the proposed operation is consistent with the Regulations under which the applicant will be required to operate.

5.2.2 If the PASI is unacceptable, the reasons for its unacceptability shall be described in section 2 of the form and returned to the applicant. The Authority shall notify the applicant, either verbally and by letter, that the PASI is unacceptable for the reasons detailed in section 2 of the form and that a new PASI is required. A copy of the rejected PASI shall be retained in the Authority office files.

5.2.3 When the PASI is acceptable, the Authority shall complete section 2 of the form. Within 5 working days, the "Action" box of section 2 shall be checked, and the PASI shall be forwarded to the Director responsible for Safety Oversight who shall process the PASI within 5 working days of receipt.

5.2.4 The PASI is used by the Director responsible for Safety Oversigh to assess workload of the inspectorate office and to forecast staffing and training needs. The assessment at this time also determines the capability of the Authority to conduct the certification project.

6.0 ASSIGNMENT OF THE CERTIFICATION TEAM

6.1 **Selection of Team Members**

When a PASI is acceptable and a pre-certification number is established, the Director responsible for Safety Oversight shall select a team for the certification project. The team shall consist of at least one flight operations inspector (FOI) and an airworthiness inspectors (AWI) to cover both mechanical (A & C) and avionics (X & R). The assigned operations inspector should be qualified on at least one of the aircraft, preferably the largest, proposed to be used.

6.2 **Designation of Certification Project Manager (CPM)**

The Director responsible for Safety Oversight will designate one member of the certification team to serve as the CPM. The person designated as CPM should have completed appropriate training and should have previous experience in the certification of an air operator under Part 9 of the Nigeria Civil Aviation Regulations or equivalent system of certification. It is desirable that a person with extensive inspector experience be designated as the CPM, although, depending on the situation, other inspectors may be acceptable.

7.0 RESPONSIBILITIES OF CPM AND THE CERTIFICATION TEAM

7.1 Responsibilities of the CPM

7.1.1.1 The CPM and other certification team members shall conduct themselves in a professional and responsible manner with the applicant. The CPM shall serve as the primary spokesperson, on issues regarding the particular certification, for the Authority throughout the certification process. Consequently, the CPM must thoroughly co-ordinate all certification matters with all other specialists assigned to the certification project. The CPM shall be responsible for ensuring that all certification job functions are completed.

7.1.1.2 All correspondence, both to and from the applicant, shall be co-ordinated with the CPM. The CPM shall notify the Director responsible for Safety Oversight of any information that may significantly affect or delay the certification project. The CPM shall ensure that individuals involved with the certification project and the Director responsible for Safety Oversight are kept fully informed of the current status of the certification. The schedule of events and certification job aids should be used as guides for the conduct of these status meetings.

7.2 Responsibilities of the Certification Team Members

Each team member shall respond to requests for assistance made by the CPM and keep the CPM informed of the status of the certification. Any discrepancy that may delay the certification effort must be brought immediately to the attention of the CPM.

7.3 Responsibilities of the Director responsible for Safety Oversight

The CPM shall keep the Director responsible for Safety Oversight informed of any unusual aspects of the certification process or of those aspects that may attract the attention of local or national political entities or the media.

7.4 Responsibilities of Inspector

Inspectors shall provide advice and guidance to the applicant in all phases of the process. However, the inspector will not write the applicants manuals nor get involved in the applicants responsibilities in the planned organisation. During the process the inspector also has the role of evaluating various elements of the applicants planned operations.

7.5 Responsibilities of the Applicant

The applicant must develop all required documents for submission with the formal application, and successfully complete all programmes required for certification.

8.0 PRE-APPLICATION MEETING

8.1 General

8.1.1 In preparation for the meeting the assigned inspector should remind the applicant that his key management personnel would be expected to attend the pre-application meeting and should be prepared to discuss in general terms, specific aspects of the applicant's proposed operation. The

inspector should discuss the certification process in depth. Emphasis should be placed on the expectations of the Authority, what the applicant should expect from the Authority and the sequence of events.

8.1.2 At the end of the meeting, the inspector will give the applicant an Application Information Package.

8.2 Application Information Package

8.2.1 The pre-application meeting between the CPM, other certification team members and the applicant sets the tone for the rest of the certification process. Therefore, it is important that the CPM be thoroughly prepared to conduct the meeting. The CPM should review the PASI and assemble an application information package to be given to the applicant. The application information package shall consist of at least the following:

a) FORM: O-OPS001 - Pre-Application Statement of Intent (PASI),if not previously provided;
b) NCAA-AC-OPS001, if not previously provided;
c) NCAA-AC-GEN003, if not previously provided
d) NCAA-AC-GEN005 (Quality System Programme);
e) FORM: O-OPS001A - AOC Certification Job Aid and Schedule of Events;
f) Sample Operations Specifications;
g) Other publications or documents that the CPM considers appropriate (e.g., cabin safety/base inspections).

8.2.2 At the pre-application meeting, the applicant and any key personnel attending the meeting should be briefed in as much detail as necessary to ensure that they understand the certification process using the certification job aid and the schedule of events format as guides to facilitate the discussion and to ensure that all elements of the certification process are covered. The applicant should be encouraged to ask questions about any area of the process not clearly understood.

8.3 Verifying Information on the PASI

The first item for discussion should be verification of the information on the PASI, such as the type of operation, types of aircraft, geographic areas of operation, and location of facilities. When changes to this information occur, the applicant shall annotate the changes on the PASI. If the changes significantly affect the anticipated scope and/or type of operation, a copy of the revised PASI shall be forwarded to the Director responsible for Safety Oversight.

8.4 Informing the Applicant of Pertinent Regulations

8.4.1 It is essential that the applicant understands which regulations are applicable to the proposed operation. A list of regulations appropriate to various types of operations is presented in NCAAAC-OPS001.The applicant should be advised to acquire and become familiar with the Civil Aviation Regulations and other Advisory Circulars pertinent to the proposed operation.

8.4.2 The applicant and the applicant's personnel must be made aware of their responsibilities during the certification process. It is to their benefit to submit required items as soon as they become available, and to notify the Authority immediately of any problems or changes in the proposed operation.

8.5 **Route Authorization**

The applicant should be advised that it is his responsibility to obtain the Air Transport Licence as well as the relevant route authorisation to provide commercial air transport operations from the Directorate of Air Transport Regulation.

9.0 INSTRUCTIONS TO THE APPLICANT ON THE FORMAL APPLICATION

9.1 **Requirements of Formal Application**

9.1.1 It is essential during the pre-application meeting that the applicant has a clear understanding of the form, content and documents required for the formal application. The applicant shall be informed that the formal application must be submitted to the Authority office and after initial review, notification of its acceptance or rejection will be provided by letter within 10 working days. The applicant should be encouraged to submit the formal application as far in advance as possible of the intended starting date.

9.1.2 The inspector should inform the applicant that while the Authority inspectors will furnish informal guidance and advice during the preparation of required documents and manuals, the production of acceptable documents and manuals is solely the responsibility of the applicant.

9.2 **Formal Application Letter or Form**

9.2.1 The inspector shall inform the applicant that the formal application must be in a specific format provided by the Authority; or it may consist of a letter containing a statement that the letter serves as a formal application for an air operator certificate. The letter must contain the full and official name of the applicant.

9.2.2 The owner shall sign this letter when applying as an individual or sole proprietorship, all partners when applying as a partnership, or an authorized officer(s) when applying as an organisation such as a company or a corporation. The letter shall contain the physical location address of the applicant's intended primary operating location.

9.2.3 The applicant's mailing address shall be included in the formal application letter if different from that shown on its letterhead. This letter shall also include the full name and address of the applicant's agent for service.

9.2.4 Additionally, the letter will confirm the identity of key management personnel such as the general manager, Director of operations, Director of safety, Director of maintenance, Chief pilot, and quality manager, as applicable

10.0 APPLICATION ATTACHMENTS

10.1 **General**

The formal application letter shall be accompanied by at least the attachments described in the following subparagraphs. The applicant must understand that this letter and these attachments will be the minimum information acceptable for meeting the requirements of Regulation 1.1.5 of Part 9 of the Nigeria Civil Aviation Regulations.

10.2 **Schedule of Events**

10.2.1 The applicant needs to understand that the schedule of events is a key document to be presented with the formal application. The schedule of events is a list of all manuals, documents, items, activities, programmes, aircraft and facility acquisitions that the applicant shall accomplish or make ready for Authority inspection before certification.

10.2.2 The schedule of events will include the applicant's best estimate of the date the item, activity, programme, aircraft, or facility acquisitions will be accomplished or ready for inspection. The applicant shall be informed that the schedule of events must be constructed in a logical and sequential manner. The schedule of events shall also provide for a reasonable amount of time for the Authority to review and accept or approve each item or event, before scheduling other items or events that are dependent on such acceptance or approval.

10.2.3 The applicant should be informed that failure to accomplish an item or event in a satisfactory or timely manner in accordance with the schedule of events could result in a delay in certification. The applicant should be advised that if deficiencies are detected during the review of manuals and other documents, they would be returned for amendment or correction. Such action may also cause additional delays in the certification process.

10.2.4 The applicant should be encouraged to use this format; however, other formats may be acceptable if they provide information necessary for the certification team to ensure the applicant is proceeding on in an appropriate manner.

10.3 **Company Operations Manuals**

10.3.1 This attachment to the formal application may be in the form of one or more manuals or volumes. These manuals must contain information about the applicant's organisation, general policies, duties, and responsibilities of personnel, operational control policy, and procedures. In practice, these manuals are often known as the general operations manual (GOM) or flight operations manual (FOM), and the maintenance control manual (MCM).

10.3.2 The applicant should ensure that the manuals are in compliance with at least the following references of the Nigeria Civil Aviation Regulations as applicable to the applicant's operation:

Regulation	
9.2.2.4 (a) (2)	Easy to revise
9.2.2.4 (a) (3)	Revision control, each page dated
9.065	Company general policies
9.2.2.4 (a) (1)	Duties and responsibilities of employees
9.2.2.4 (a) (5)	References to appropriate regulations
9.3.1.23	Flight dispatching and operational control
IS 9.3.1.2 5.3	Flight crew succession to command
IS 9.3.1.4 3.1 (n)	Procedures for take-off in adverse weather
IS 9.3.1.3	Training
9.3.2.4 (b) (5)	a reference to the maintenance programme required under regulation 64

IS 9.3.1.2 5.3 8.2.1	Refuelling or de-fuelling
IS 9.3.1.2 (c) 17	Procedures for the handling, notifying and reporting of accidents and occurrences
IS 9.4.1.4 2.0	General Organisation
IS 9.4.1.4 3.0	Maintenance Procedures
IS 9.2.2.5	Records retention system
9.3.2.9	Airworthiness release and aircraft log entry procedures

10.4 **Company Training Curricula**

10.4.1 The company-training curriculum must be attached to the formal application.

10.4.2 The company-training curriculum must include at least the following curriculum segments for each applicable crew member or flight operations officer position:

a) Company Procedures Indoctrination Training -Regulation 8.10.1.9 of the Nigeria Civil Aviation Regulations; Regulation 9.2.2.9 of the Nigeria Civil Aviation Regulations;

b) Emergency Equipment Drills Training-Regulation 8.10.1.13 of the Nigeria Civil Aviation Regulations;

c) Initial Aircraft Ground Training-Regulation 8.10.1.14 of the Nigeria Civil Aviation Regulations;

d) Initial Aircraft Flight Training-Regulation 8.10.1.15 of the Nigeria Civil Aviation Regulations.

10.5 **Management Qualification Resumes**

10.5.1 This attachment shall include resumes that contain information on the qualifications, certificates, ratings, and experience of personnel selected for the following positions, or equivalent:

a) Accountable Manager - when authority includes that outlined under Regulation 9.2.2.2 (a) of the Nigeria Civil Regulations;
b) Director of operations;
c) Chief pilot;
d) Quality manager;
e) Director of Maintenance;
f) Director of Safety; and
g) Chief Inspector

10.5.2 The applicant shall be informed that the effectiveness of his management personnel will be observed throughout the certification process. If during the pre-application meeting, it becomes apparent that a proposed management candidate does not meet the required experience outlined in the appropriate Regulations the applicant should be informed that he may apply for an exemption for the prospective certificate holder to employ that person if equivalent aeronautical experience is shown by documentation. This request for an exemption must be made to the Authority as soon as

practical to enable the individual who will hold the position to be involved early in the certification process.

10.5.3 If an applicant intends to request approval for an exemption from required management personnel (fewer or different personnel), this request must be made by letter. The applicant must show that he is able to perform operations safely under the fewer or different positions requested. Justification shall take into account the size and scope of the operation as well as the qualifications of intended personnel. It must also be shown that the persons can be reasonably expected to effectively perform the functions associated with the subject positions in accordance with the Regulations and the procedures outlined in the proposed manual. If fewer or different positions are approved, this approval will be made part of the operations specifications.

10.6 **Documents of Purchase, Contracts, and Leases**

10.6.1 An attachment with these documents should provide evidence that the applicant has acquired aircraft, facilities and services to conduct the type of operation proposed. This evidence may be in the form of proof of formal purchases, leases or contractual arrangements. These documents should provide evidence that the applicant is committed to making arrangements for aircraft, supporting facilities and services as necessary for the proposed operation.

10.6.2 Examples of the types of equipment, facilities, and services that should be addressed in these documents, contracts, or leases include the following:

a) Aircraft;

b) Station facilities and services;

c) Weather and Notices to Airmen (NOTAM) gathering facilities and services;

d) Communications facilities and service;

e) Flight Planning;

f) Maintenance facilities and service;

g) Aeronautical charts and related publication;

h) Airport analysis and obstruction data;

i) Contract training or facilities.

10.7 **Statement of Compliance**

10.7.1 Preparation of the statement of compliance benefits the applicant by systematically ensuring that all applicable regulatory aspects are appropriately addressed during the certification process. The statement of compliance shall be in the form of a complete listing of all appropriate Regulations sections pertinent to the operation which the applicant is proposing. This list should reference any applicable subpart and each relevant regulation of the subpart. Next to each regulation, sub-regulation, paragraph an sub-paragraph, the applicant must provide a specific reference to a manual or other document and may provide a brief narrative description that describes how the applicant will comply with each regulation.

10.7.2 This statement of compliance also serves as a master index to the applicant's manual system to expedite the Authority's review and approval of the operation and manual system. The statement of compliance is an important source document during the certification process. After the certification process is completed, the statement of compliance should be kept current as changes are incorporated in the applicant's system.

10.7.3 Where the statement of compliance has been developed (for example, the manual material submitted with the formal application), a manual reference or a description of the method of compliance must be entered next to the applicable regulatory section.

10.7.4 The list of the specific regulations and sub regulations, including all paragraph and subparagraphs, shall be presented in the manner of one of the following examples:

Example 1: Statement of compliance Table Format

Regulation	Title	Manual Reference
Reg. 5.1.1 of Part 8 of the Nigeria Civil Aviation Regulations	Authority of the PIC	FOM, page 37-5, paragraph 35
Reg. 2.2.8 (a) of Part 9 of the Nigeria Civil Aviation Regulations	Contents of a journey log	FOM, page 43-6, paragraph 37

Example 2
Sample references for Part 8 of the Nigeria Civil Aviation Regulations**:**
Specific Regulatory Requirement compliance –

To current ref in Nig CARs Initial Specialized Operations Training

1. GOM, Chapter 2, Section 2.01(D)
   Training Manual, Chapter 4, Sections 4.20(A) and 4.21(B1)

   (a) GOM, Chapter 2, Section 2.11(E)
   Training Manual, Chapter 4, Sections 4.20(B) and 4.21(F)

   (b) GOM, Chapter 2, Section 2.09(F); Chapter 3, Section3.10 (C2a)
   Training Manual, Chapter 4, Section 4.21(H)

   (c) Training Manual, Chapter 4, Section 4.21(J)

Example 1- Statement of compliance
To current ref in Nig CARs Ops of Aircraft Supervised Line Flying: Pilots

a) FOM p. 217, paragraph 237
b) FOM p. 218, paragraph 238
c) FOM p. 219, paragraph 240
d) FOM p. 219, paragraph 240
e) FOM p. 220, paragraph 241

Example 3 - Statement of compliance

To current ref in Nig CARs-Reporting Mechanical Irregularities

The FOM, page 37-5, paragraph 35, instructs the pilot-in-command (PIC) on the requirements for, and methods of completing, the aircraft technical log. The PIC is required to review the log before each flight and to ascertain the status of each previous entry. The MCM page 58-33, paragraph 665(1) (A), instructs maintenance personnel on the requirement to record irregularities discovered during pre-flight checks and other types of checks.

Example 4 **STATEMENT OF COMPLIANCE AND INTERFACE MATRIX (SOC/IM)**

Nig. CARs	Subject	Primary Reference	Secondary Reference	Ops Specs	Flight Operations Manual	Cabin Crew Manual	Flight Crew Training and Checking Manual	Maintenance Control Manual	Comments
NCAR Part 8 - Operations									
8.1	General								
8.1.1.	Applicability and Definitions	FOM 2.1.2	MCM 2.1.2		FOM 2.1.2		FCT&CM.1.7		Mechanical discrepancies are confirmed reported at the conclusion of each flight.
8.1.1.1	Applicability								
8.1.1.2	Definitions								
8.1.1.3	Abbreviations								
-									
8.2	General Operations Requirements								

This preferred sample Compliance Statement And Interface Matrix (SOC/IM) is the most useful format for both operators and NCAA inspectors because it presents a clear comparison of information contained in each manual throughout each operator's system of manuals and documents. The SOC/IM is useful in helping ensure that each manual containing reference information applicable to a particular regulation is addressed when the content of any one manual is revised... thus ensuring that policies, procedures and instructions are created an maintained in a consistent manner throughout the operator's management system.

An "Interface," is that point where procedures converge. For example, an operator's procedures and instructions to flight crew for reporting mechanical discrepancies must be congruent with the manner in which airworthiness engineers receive it. Similarly, the way a flight crew receives dispatch information from the operator must match how dispatchers transmit it. The SOC/IM is not only a statement of compliance, it is an interface management tool.

As illustrated above, the format of the SOC/IM includes the applicable Nig. CARs number, the regulation subject, a primary & secondary manual reference, and a reference for any Operations Specifications that may apply. Then there are columns for each manual that comprises the air organization's (AOC, AMO, ATO) system of company manuals. Location designations indicate where references to each Part, Paragraph, sub-paragraph and item from within the Nig. CARs can be found in the operations specifications and in each manual or other document listed across the top. In this way, the reader can read down each column to identify which regulations are addressed each manual. Alternatively, the reader can scan each row to identify where in each manual each regulation, part, paragraph, sub-paragraph or item is addressed.

11.0 CONCLUSION OF PRE-APPLICATION MEETING

11.1 **General**

The CPM shall ensure that the applicant understands that the formal application with the previously described attachments must be complete and acceptable or the entire formal application will be rejected.

11.2 **Applicant is Adequately Prepared**

At the close of the pre-application meeting, the CPM should determine whether the applicant is prepared to proceed with the certification process. If it appears the applicant understands the requirements of a formal application and will proceed to that phase, the CPM should encourage the applicant to informally co-ordinate required documents, as they are developed, with the certification team before formal submission.

11.3 **Applicant is not prepared**

11.3.1 If it is evident that the applicant is not adequately prepared to proceed with the certification process, the CPM should advise the applicant of the reasons for concern. When it is apparent the applicant will not be able to prepare an adequate formal application, the CPM should advise the applicant to request another pre-application meeting after more complete preparation on the applicant's part.

11.3.2 It is appropriate for the CPM to recommend to the applicant one or more of the following actions:

a) Further review of the Advisory Circular NCAA-AC-OPS001;
b) A more thorough review of the applicable regulations;
c) Changes in proposed key management personnel;
d) Retain the services of a professional aviation consultant;
e) Cease efforts to become NCAA certified.

12.0 TERMINATION OF THE PRE-APPLICATION PROCESS

12.1 If at any time during the pre-application phase the applicant formally terminates all efforts toward certification or a period of 90 days has elapsed without any perceived activity by the applicant or the Authority otherwise determines that the applicant will not proceed with the certification process, the PASI will be returned to the applicant.

12.2 The Authority will notify the applicant in writing that this action terminates the pre-application process and that the applicant would have to submit a new PASI in order to initiate the certification process again. The Director responsible for Safety Oversight shall be notified of any certification project that is terminated. Should the applicant again request to apply, a new pre-certification number will be assigned.

CHAPTER 2

Operations Specifications

1.0 PURPOSE

This Chapter gives direction and guidance to inspectors for the issue of Operations Specifications to air operators under Part 9 of the Nigeria Civil Aviation Regulations and review and accept them under Part 10 of the Nigeria Civil Aviation Regulations. Direction and guidance are also included for amending, cancelling, suspending, or revoking the Operations Specifications for these air operators. In this Order the phrase "Operations Specifications" will be referred to as "OpSpecs."

1.1 REFERENCE

1.1.1 Regulation 9.1.1.7 of the Nigeria Civil Aviation Regulations
1.1.2 FORM: O-OPS001F

2.0 CONCEPTUAL NEED FOR OPSPECS

2.1 Within the commercial air transport industry there is a need to establish and administer safety standards to accommodate many variables. These variables include - a wide range of aircraft; varied air operator capabilities; the various situations requiring different types of air transportation and the continual, rapid changes in aviation technology. It is impractical to address these variables through the promulgation of safety regulations for each and every type of commercial air transport situation and the varying degrees of air operator capabilities.

2.2 Also it is impractical to address the rapidly changing aviation technology and environment through the regulatory process. Safety regulations would be extremely complex and unwieldy if all possible variations and situations were addressed by regulations. Instead, the safety standards established by regulation should have a broad application that allows varying acceptable methods of compliance.

2.3 The OpSpecs provide an effective method for establishing safety standards that address a wide range of variables. In addition, OpSpecs can be adapted to a specific air operator's class and size of aircraft and type and kind of operation. OpSpecs can be tailored to suit an individual air operator's needs. Only those authorisations, limitations, standards, and procedures that are applicable to an air operator need to be included.

2.4 **Legal Basis for OpSpecs**

2.4.1 The Civil Aviation Act 2006 empowers the Authority to issue an Air operator Certificate (AOC) to qualified applicants. The certificate shall specify the minimum safety standards for the operation of the air operator.

2.4.2 The Air Operator Certificate under Regulation 1.1.7 of Part 9 of the Nigeria Civil Aviation Regulations specifies that the AOC is issued in 2 parts consisting of a certificate for public display and a multi-page AOC –Operations Specifications" containing the terms and conditions applicable to the air operator.

2.4.3 The air operator's operations must be conducted in accordance with the terms, conditions and limitations contained in the OpSpecs.

2.4.4 Part 9 of the Nigeria Civil Aviation Regulations also states that policy and procedures manuals developed by the air operator must not be contrary to the Civil Aviation Regulations and the Operations Specifications.

2.4.5 Regulation 1.1.9 of Part 9 of the Nigeria Civil Aviation Regulations further states that the Authority may amend any AOC (the OpSpecs are a part of the AOC) if the Authority determines that safety in commercial air transport and the public interest require the amendment. The Authority, therefore, may add other items to the contents of the OpSpecs whenever necessary to cover particular situations.

2.5 Standard OpSpecs

2.5.1 Standard OpSpecs paragraphs have been developed specifying limitations, conditions and other provisions with which air operators must comply. The process ensures that commercial air transport air operators conducting comparable operations with comparable equipment are held to the same standards.

2.5.2 Occasionally, a situation may occur in which it becomes necessary to issue an air operator an OpSpecs paragraph that is non-standard because of a unique situation not provided for in the standard paragraphs. Non-standard OpSpecs paragraphs shall not be less restrictive than, nor contrary to, the provisions in standard paragraphs. In those cases when a non-standard paragraph is more restrictive than the standard paragraph, justifiable reasons must exist, since the air operator could be placed at a competitive disadvantage.

2.6 Availability of OpSpecs to Crewmembers and Other Employee Personnel

2.6.1 Part 9 of the Nigeria Civil Aviation Regulations requires that OpSpecs information be included in an air operator's operations manual. Many air operators meet this requirement by including a copy of the applicable parts of the OpSpecs in the appropriate sections of their manuals.

2.6.2 The language used in OpSpecs, however, is not designed to apply to particular situations, but is written to specify absolute minimum conditions or provisions for a broad range of issues and situations. The application of a particular OpSpecs authorization, limitation, or provision may not be readily apparent to a particular situation. As a result, OpSpecs that are legal documents are not easy to use or interpret during any particular operational situation. Preferably, air operators should extract information from the OpSpecs and include it in their manuals for ready use by their crewmembers and other employee personnel. Opspecs must be carried on-board all commercial flights.

2.6.3 The OpSpecs information in an air operator's manual should pertain only to that air operator's type of operation and be written in a manner that is directly applicable to the air operator's crewmembers or Mother employee personnel.

2.7 The Development of OpSpecs

2.7.1 For purposes of standardisation and administrative convenience, OpSpecs may be divided into separate parts as follows:

a) Part A - General Provisions;
b) Part B - En-route Authorizations and Limitations;
c) Part C - Aerodrome Authorizations and Limitations;
d) Part D - Maintenance;
e) Part E - Mass and Balance;
f) Part F - Interchange Of Equipment Operations;
g) Part G - Aircraft Leasing Operations;

2.7.2 The exact content of the various parts of the Operations Specifications will vary depending upon the nature and scope of the operation and the provisions of the regulations. However, in general terms, the parts should cover the following:

a) **Part A General Provisions** - Specify the make and model of aircraft authorised for use, the maximum passenger seating capacity authorised by the State, authorised system of flight following lease and interchange operations, and any other general authorizations or limitations not covered by the other parts;

b) **Part B En-route authorizations and limitations -** Specify the routes or route segments which may be used by the air operator, the conditions under which deviations from such routes are authorised, minimum en-route altitudes, conditions under which operations are authorised under VFR and operations within minimum navigation performance specifications (MNPS) airspace;

c) **Part C Aerodrome (or heliport) authorizations and limitations** -Specify destination and alternate aerodromes authorised for use, instrument approach procedures, aerodrome (or heliport) operating minima authorised including take-off minima and any special operating limitations in respect of minima;

d) **Part D Maintenance -** Specify all special maintenance authorizations for inspections, overhauls, and rework of components. (Instructions for completion of Part D are contained in the Appendix);

e) **Part E Mass and balance -** Specify all authorizations of standard mass quantities and mass and balance control. (Instructions for completion of Part E are contained in the Appendix).

f) **Part F - Interchange Of Equipment Operations -** Specify all operations authorised under the term of the Interchange of Equipment Agreement between air operators in accordance with the applicable provisions of the Nigeria Civil Aviation Regulations.

g) **Part G - Aircraft Leasing Operations -** Specify all operations authorised under the terms of the lease agreements between air operators in accordance with the applicable provisions of the Nigeria Civil Aviation Regulations.

3.0 AUTHORIZATIONS AND LIMITATIONS OF OPSPECS WHEN OPERATING OUTSIDE THE TERRITORY OF NIGERIA

3.1 Part A of the OpSpecs contains general authorizations and/or limitations not covered by other parts. Authorizations and limitations for operations conducted by air operators outside Nigeria would be documented in this part.

3.2 The OpSpecs should stipulate that the provisions of the certification and operating regulations applicable to domestic air operators (air operators operating within Nigeria) are authorised for air operators conducting operations over routes and route segments outside Nigeria. Approved routes for operations outside Nigeria would be documented in Part B of the OpSpecs.

3.3 In preparation for conducting international operations, air operators should obtain and comply with all economic and safety requirements applicable to each State of intended operation

3.4 Foreign air operators who wish to operate in and out of Nigeria need to only submit their OpSpecs approved by the state of the operator when conducting commercial air transport operations in and out of Nigeria.

3.5 **Amendments of OpSpecs**

3.5.1 Regulation 9.1.1.9 of the Nigeria Civil Aviation Regulations specifies that an air operator‘s AOC (of which OpSpecs are a part) can be amended as a result of the air operator's request or because the Authority determines that safety in commercial air transport and the public interest require the amendment.

3.5.2 An amendment may be initiated either at the air operator's request or by the Authority. The procedures for these two methods of initiating an amendment are as follows:

a) An air operator may, in accordance with Regulation 9.1.1.9 (a) (2) of the Nigeria Civil Aviation Regulations initiate an application to amend its OpSpecs by submitting an application for an amendment. The application may consist of the air operator completing the OpSpecs page it proposes to amend and submitting that page with all supporting data to the Authority.

b) In lieu of submitting an OpSpecs page, the air operator may submit a letter requesting an OpSpecs amendment. The air operator's letter of request should be written as an application for an OpSpecs amendment. It should state the proposed changes and contain an explanation for the proposal; it should also contain all supporting information. In accordance with Regulation 9.1.1.9 (e) of the Nigeria Civil Aviation Regulations amendments shall be made at least 30 days before the proposed effective date of the amendment.

c) The application is reviewed by the Authority as follows:

(i) If the application is incomplete (usually as a result of insufficient supporting information), the Authority should inform the applicant that the application is not acceptable in its present form but would be considered upon the receipt of additional, specified supporting documents and/or information;

(ii) The Authority may determine that the application is not acceptable because: the air operator's request does not provide for an adequate level of safety in commercial air transportation, it would not be in the best interest of the public, or it is in conflict with the Authority policy or the Regulations. In such a case, the applicant should be informed, in writing that the application is unacceptable and the inspector should include a statement explaining why it is not acceptable. The air operator will have certain rights of appeal.

d) The Authority may initiate amendments to an air operator‘s OpSpecs by notifying him in writing of the proposed amendment. Such an amendment may arise as a result of a change in the air operator‘s operating environment, or when the Authority has specific safety concerns. In such cases the following procedures apply:

(i) For an amendment due to a change in the air operator's operational environment, the Authority should create a new OpSpecs paragraph to ensure uniform compliance with a certain aspect of the Regulations. In such cases, the Authority may initiate and amend an air operator's OpSpecs due to the change, without the air operator having to complete the application section of the OpSpecs form. Once the air operator has demonstrated compliance with all appropriate Regulations, including operational and airworthiness requirements, the amended OpSpecs may be issued;

(ii) Regulation 9.1.1.9 (a) (1) of the Nigeria Civil Aviation Regulations allows the Authority to initiate an amendment to an air operator‘s OpSpecs when he determines that safety in commercial air transport and the public interest necessitates such an amendment. When amending an air operator's Operations Specifications under these regulations, the Authority would notify the air operator in writing and the amendment becomes effective thirty days after notice (except in the case of an emergency amendment) to the air operator unless subsequently withdrawn in accordance with Regulation 9.1.1.9 (c) of the Nigeria Civil Aviation Regulations.

e) In the case of an emergency amendment as described in Regulation 9.1.1.9 (b) of the Nigeria Civil Aviation Regulations, the written notification is effective on the date the air operator receives the notification. The air operator shall operate in accordance with the amendment unless it is subsequently withdrawn. This case applies only when an emergency exists which requires immediate action with respect to safety in commercial air transport and when the other procedures to amend Operations Specifications found in Regulation 9.1.1.9 (d) and (e) of the Nigeria Civil Aviation Regulations are impractical or contrary to the public interest. Examples of situations that would justify an emergency amendment to an air operator‘s operations specifications are -

(i) The air operator is knowingly operating a make/model/series of aircraft that is authorised in its OpSpecs, but is doing so either with unqualified crewmembers or with the aircraft not in an airworthy condition; or

(ii) The air operator is continuing to operate flights into an airport or area that has been shown to be unsafe due to inadequate or unavailable facilities either because of a natural disaster or civil strife.

3.6 **Surrendering Of OpSpecs**

3.6.1 Upon a change in his operating environment, an air operator should exchange the appropriate paragraphs of its OpSpecs for the amended paragraphs that reflect the new operating environment. The criteria to hold a particular OpSpecs authorization are no less than those required for its original issue. For example, if an air operator was issued an authorization to conduct operations in MNPS airspace but no longer has aircraft equipped to conduct that kind of operation, the air operator must surrender the MNPS authorization.

3.6.2 If an air operator ceases all operations and is no longer equipped or able to conduct any kind of operation, the Authority shall request that the air operator voluntarily surrender the entire OpSpecs document. Depending upon the circumstances, the Authority may also request that the air operator voluntarily surrender the AOC as well. Seasonal air operators who are equipped to resume operations are not required to surrender OpSpecs during the inactive season.

3.6.3 If an air operator does not meet the requirement to hold an OpSpecs paragraph, but refuses to surrender the paragraph, the Authority would amend the OpSpecs in accordance with Regulation 9.1.1.9 (d) of the Nigeria Civil Aviation Regulations If safety is affected, then an emergency amendment under Regulation 9.1.1.9 (b) of the Nigeria Civil Aviation Regulations would be appropriate.

3.6.4 If an air operator voluntarily surrenders a part of his OpSpecs, amended OpSpecs must be issued to reflect the air operator's new operating environment. If an air operator surrenders his entire OpSpecs document to the Authority, the air operator‘s status as an AOC shall be terminated in accordance with Authority policy.

3.7 **Suspension or Revocation of OpSpecs**

Suspension or revocation of an air operator's OpSpecs may be necessary after legal enforcement action.

4.0 Operations Specifications for each aircraft model
Note: - Nig CARs part 8.2.18 requires a copy of the AOC and Operations specification of this section to be carried on-board all commercial flight.

4.1 For each aircraft model in the operators fleet, identified by aircraft make, model and series the following list of authorizations, conditions and limitations shall include issuing authority contact details, operator name and AOC number, date of issue and signature of the authority represent ative, aircraft model, types and area of operations special limitation and authorizations.

Note: if authorizations and limitations are identical for two or more models, these models may be grouped in single list.

4.2 The Operations specifications layout referred to in shall be as follows
Note: The MEL constitutes an intergral part of the operations manual.

APPENDIX

GUIDELINES FOR DEVELOPMENT AND ISSUE OF OPERATIONS SPECIFICATIONS PART D AND E

1.0 GENERAL

1.1 Part D is necessary to provide detailed maintenance-related authorizations and limitations for a particular air operator that are not specifically prescribed by the Civil Aviation Regulations. For example, time limitations for overhaul, inspections and checks may vary with aircraft type and the type of maintenance programme followed. Since most aircraft have parts that are life-limited by the manufacturer, such authorization and limitations need to be specified in the OpSpecs and when approved, the provisions of the OpSpecs are as legally binding as the Civil Aviation Regulations themselves.

1.2 The OpSpecs developed by Authority would retain a standardised format that includes only those authorizations, limitations, standards, and procedures that is applicable to the individual AOC.

1.3 Co-ordination among Flight Operations and Airworthiness inspectors is essential when working with the air operator/applicant in developing Operations Specifications. Co-ordination ensures the following:

1.3.1 That all inspectors are aware of changes or pending changes to an air operator's/applicant's operation; and

1.3.2 That the air operator/applicant is not needlessly bothered by repetitious questions.

1.4 It must be recognised that the details of the OpSpecs must be initially drafted by the applicant and the final version be acceptable to the air operator and the Authority Inspectors. Accordingly, every possible effort should be made by the Authority Inspectors to detect and resolve any difficulties which might result in a delay or possible rejection of the applicant's OpSpecs.

2.0 MAINTENANCE OPERATIONS SPECIFICATIONS - PART D

2.1 It is generally convenient to divide Part D into two categories of material. One category is that, which specifies the inspection, check and overhaul time limits for airframes, power plants, propellers, rotors and other equipment. The pages of Part D listed above are generally referred to as —Maintenance Pages". Another category is that which consists of a number of maintenance-related authorizations which are required by the unique characteristics of the proposed operations. These specified authorizations are generally divided into sub-categories, depending on the air operator's operations. A description of the individual authorization pages and maintenance pages are described below:

2.1.1 **Part D - Table of Contents** - This Table of Contents (TOC) page is an integral section of an air operator's Operations Specifications in that it is used to account for the specific paragraphs issued to a specific AOC. Each time an OpSpecs is issued, amended, rescinded, or revoked the TOC

must also be amended to show the new effective date to correspond with the OpSpecs page.

2.1.2 **Page D 1 - General** - This page applies to aircraft subject to an Airworthiness Maintenance and Inspection Programme. It contains conditions that must be met for an air operator to operate its aircraft under the terms of its operating provisions.

2.1.3 **Page D 2 - Check, Inspection and Overhaul Time Limits** - These pages specify the time limits and conditions for the aircraft services, checks and inspections approved for the AOC. Limits expressed in terms other than time (in-service, clock, or calendar) need to be defined. The symbolsused in the maintenance pages would also be defined on this page. These pages may also be used to authorise the use of an identifiable programme, i.e. a manufacturer's program.

2.1.4 **Page D 3 - Reliability Programme Authorization -** These pages are used to authorise and control reliability programmes which would fall into one of two categories:

a) Those which control the inspection, check and overhaul time for the entire airframe or power plant; or

b) Those which control the inspection, check and overhaul time for complete systems or for individually specified items within the system (i.e., hydraulic system, pumps, valves, actuators).

2.1.5 In the case listed in (a) above, the authorization listed on the page may serve as the sole control as far as the OpSpecs are concerned. When the entire airframe or power plant is governed by a reliability programme, there is no need to list individual items on the aircraft maintenance pages (D 16). However the airframe or power plant controlled by an approved programme must be identified on the authorization page. In the case listed in b) above, where complete systems or selected individual items are controlled by a reliability programme, reference to the control programme must be made on the authorization page, specifically identifying the controlling document. Individual items must be further identified on the aircraft maintenance page (D 16) on which they appear by an asterisk, control programme name, acronym, or other symbol. The identification marks and symbols used must be identified on an authorization page (D2).

2.1.6 **Page D 4 - Short-Term Escalation Authorization** - Applicants who wish to establish authorization for short-term increases in maintenance intervals (escalation) for aircraft, power plants, systems, or appliances not authorised short-term escalation through a reliability program. This page must reference the air operator's Maintenance Control Manual, or other approved document defining those procedures, in a manner that requires the OpSpec page to be amended whenever the procedure is revised.

2.1.7 **Page D 6 - Leased Aircraft Maintenance Authorization** - This authorization allows an air operator (lessee) to use a lessor's approved maintenance programme for the leased aircraft. In other words, this page is prepared so that an air operator is authorised to use two different maintenance programs for the same type aircraft. This page applies only to aircraft that are intended to be returned to the lessor at a time specified in the lease agreement. This authorization allows the lessor to retain compatibility of the aircraft with other aircraft remaining in his possession.

2.1.8 **Page D 7 - Parts Pool Authorization** - Under the provisions of Regulation 9.3.2.12 (h) of the Nigeria Civil Aviation Regulations, this page may be approved for a air operator desiring to enter into a parts pooling agreement with foreign air operators or AMOs whose employees do not hold an Aircraft Maintenance Engineer Licence issued by the Authority. In those cases where an air operator wishes to enter into such an agreement, an authorization page should be prepared containing at least the following:

a) A statement that only those parts pool participants specified herein shall be eligible to provide parts to (names of eligible AOC/AMO holders);

b) A statement that (name of air operator) shall not utilise any part provided by any participant identified herein unless such part meets with the applicable provisions of the Regulations and the air operator's Maintenance Control Manual.

2.1.9 **Page D 8 - Prorated Time Authorization** - Whenever the proration process is used to establish initial maintenance starting times an authorization page needs to be included in the air operator's OpSpecs, Part D. (Explanation of initial starting times: Proration is a procedure to determine the time consumed under one maintenance system and to establish the remaining time under a new system. air operators often sell or lease their equipment to other air operators. This —used" equipment will have accumulated a certain amount of time in service. This time is transferred to the new air operator and may be phased in or prorated to the new air operator's approved time limitations). This authorization is essential not only for proper time accountability, but also for the transfer of the correct times should the aircraft be sold to another air operator. This page should indicate to all concerned that the aircraft is being operated under adjusted times since overhaul, calculated via the proration process. [Information on proration calculation is available in the United States FAA Advisory Circular 121-1, as amended].

2.1.1 **Page D 9 - Parts Borrowing Authorization -** The Operations Specifications must specify that the air operator can borrow a part from another air operator when the time in service of the available part exceeds the air operator's approved overhaul time limit. The parts, however, cannot exceed the lender's approved time limits. In the case of a life limited part, the part may not be operated beyond its approved service life.

2.1.11 **Page D 10 - Ferry Flight Authorization** - This page authorises an air operator, whose aircraft are maintained under a continuous airworthiness and inspection programme, to issue a special flight permit with continuing authorization to conduct ferry flights. This permit can only be issued under the Authority of Regulation 5.4.1.7 of the Nigeria Civil Aviation Regulations.

2.1.12 **Page D 11 - Minimum Equipment List (MEL) Authorization** - Regulation 9.3.1.12 of the Nigeria Civil Aviation Regulations requires an air operator to provide a MEL approved by the Authority for use of its personnel during the performance of their duties. This page sets forth the conditions and limitations that must be met by the air operator to be able to operate its aircraft under the terms of the MEL

2.1.13 **Page D 12 - Aircraft Listing Authorization** - air operators certified in accordance with Part 9 of the

Nigeria Civil Aviation Regulations are prohibited by Regulation 2.3.1 (b) of the same regulations from operating a specific type of aircraft unless that aircraft is listed on the AOC. This page conveys the authorization to operate such aircraft. The aircraft may be listed on this page or a current list attached to this page. In either case the listing shall include at least the following information:

a) Type of aircraft by make, model, and series;
b) Registration numbers or letters;
c) Serial numbers;
d) Date;
e) The statement —This list supersedes any previous Lists" or similarly worded statement.

2.1.14 the aircraft listing may contain the air operator's aircraft that are not in revenue service.This includes, but not limited to aircraft that are in heavy maintenance, in storage, awaiting parts, newly purchased. However, for aircraft not in service, the air operator must have procedures in place specifying how these aircraft are handled i.e. short term/long term storage procedures.

2.1.15 **Page D 13 - Leased Foreign Registered Aircraft Authorization** - This page authorises an air operator to maintain leased, foreign registered aircraft, by adopting the foreign air operator's approved maintenance program as its own. The Authority airworthiness inspectors must evaluate the air operator's proposed foreign maintenance program to be used for its leased foreign-registered aircraft before approving this OpSpecs page.

2.1.16 the airworthiness requirements of foreign countries may differ greatly from Authority requirements. Aircraft changes may have to be made before a national air operator can use a foreign aircraft. Such changes may invalidate the Airworthiness Certificate. In such cases, an exemption may be required from the foreign airworthiness Authority. To maintain the validity of the foreign airworthiness certificate, the national air operator may have to perform more extensive inspection or tests than those required by its Authority approved continuous airworthiness and inspection programme and/or the Nigeria Civil Aviation Regulations.

2.1.17 **Page D 14 - Substantial Maintenance Authorization -** This page allows an air operator on a continuing basis, to make arrangements with other organizations listed in Table 1 of this OpSpecs to perform substantial maintenance in accordance with the air operator's continuous airworthiness and inspection programme.

a) Contractors are defined as: any person with whom the air operator has made an arrangement, (informal/oral or formal/written) for the performance of any maintenance, preventive maintenance, or alterations involving the air operator's authorised aircraft and/or components thereof. This includes arrangements with persons or organizations that supply parts and/or components, other than new, on a lease, exchange, or sale basis;

b) Substantial Maintenance is defined for the purpose of this OpSpecs as: Any activity involving a C-check or greater maintenance visit; any engine maintenance requiring case separation or tear down; and/or major alterations or major repairs performed on airframes, engines or propellers. The following provide examples:

(i) Accomplishment of scheduled heavy maintenance inspections, i.e., ~~C~~" checks, ~~D~~" checks, or equivalent, which may include accomplishment of Airworthiness Directives (ADs), Corrosion Prevention and Control Program tasks applicable to the aircraft primary structure;

(ii) Accomplishment of off-aircraft maintenance or alteration or engines that involves: the separation of modules or propellers; major engine repairs and; repairs to life limited parts, such as compressors, turbine disks, engine cases, but excluding, for example blades, vanes, and burner cans.

c) Prior to using a maintenance provider for the first time, the air operator must conduct an onsite audit of the maintenance provider. The air operator's on site audit must demonstrate to the Authority Airworthiness Inspectors the maintenance provider has at least the following:

(i) Capability;

(ii) Organizational structure;

(iii) Competent and trained personnel;

(iv) The air operator's manual or relevant parts;

(v) Adequate facilities and equipment.

2.1.18 **Page D 16 - Maintenance Pages -** These pages provide an orderly itemised listing of the inspection, check and overhaul time limits for airframes, power plants, propellers, rotors and appliances for air operators with no reliability program or partial reliability program. The symbology used on the maintenance page is defined in the authorization page entitled —Check, Inspection and Overhaul Time Limits".

Note: *See paragraph 2.A.4. Reliability Programme Authorization for further explanation of these maintenance pages.*

3.0 MASS AND BALANCE OPERATIONS SPECIFICATIONS - PART E

3.1 Page E 1 - Aircraft Mass and Balance - This page has been established to maintain control of mass and balance of the air operator's aircraft and to ensure that the aircraft are loaded within the gross mass and centre of gravity limitations. By using an approved mass and balance program an air operator/applicant is authorised to use other than known weights for crew, passengers, baggage, or cargo. The mass and balance control program, including loading schedules and charts, are approved on the OpSpecs by the Maintenance Inspector. This program must be included in the air operator's Operations Manual and the Maintenance Control Manual.

3.2 The air operator may develop and submit for approval any method or procedure by which it can show that an aircraft:

3.2.1 Is properly loaded according to approved loading schedules or charts;

3.2.2 Will not exceed authorised mass and balance limitations during all ground and flight operations;

3.2.3 Will be periodically reweighed and its data re-evaluated;

3.2.4 Will have its data recalculated, if change necessitate.

CHAPTER 3

The Statement of Compliance

1.0 PURPOSE

1.1 The purpose of this Chapter is to guide Inspectors in the evaluation of an AOC, AMO and ATO applicant's Statement of Compliance. Check Model Directives

2.0 REFERENCE

2.1 **The Civil Aviation Act 2006;**

2.2 **The Nigeria Civil Aviation Regulations -**

2.2.1 **Part 2, Personnel Licensing;**

2.2.2 **Part 3, Approved Training Organisations;**

2.2.3 **Part 5, Airworthiness;**

2.2.4 **Part 6, Approved Maintenance Organisation ;**

2.2.5 **Part 7, Instruments and Equipment;**

2.2.6 **Part 8, Operation of Aircraft;**

2.2.7 Part 9, Air Operators Certification and Administration;

3.0 GUIDANCE

3.1 **Statement of Compliance serves the following two purposes:**

3.1.1 It ensures the applicant has adequately addressed all regulatory requirements applicable to the

proposed operation;

3.1.2 It aids the certification team in determining where the regulatory requirements have been addressed in the applicant's manuals, programs, and procedures. In evaluating the applicant's Statement of Compliance the certification team may find it helpful to compare (in a side by side manner) the Regulations, the applicant's manuals and the Statement of Compliance. The Statement of Compliance documents how the applicant intends to comply with each applicable regulation.

3.2 Preparation of the Statement of Compliance benefits the applicant by systematically ensuring that all applicable regulatory aspects are appropriately addressed during the certification process. The Statement of Compliance shall be in the form of a complete listing of all appropriate Regulations sections pertinent to the operation the applicant is proposing. This list should reference any applicable subpart and each relevant section of the subpart. Next to each subparagraph, the applicant should provide a specific reference to a manual or other document, or may provide a brief narrative description that describes how the applicant will comply with each regulation. This statement also serves as a master index to the applicant‘s manual system to expedite the Authority‘s review and approval of the operation and manual system. The Statement of Compliance is an important source document during the certification process. After the certification process is completed, the Statement of Compliance should be kept current as changes are incorporated in the applicant‘s system.

3.3 The initial Statement of Compliance shall be in the form of a complete listing of all pertinent sections and subparts relevant to the Nigeria Civil Aviation Regulations. Where compliance information has been developed, a manual reference or description of method of compliance must be entered next to the applicable regulatory section. If the method of compliance has not been fully developed, the applicant should indicate that the compliance information will be provided in the final Statement of Compliance. The initial Statement of Compliance may be abbreviated where appropriate. However, the initial Statement of Compliance, which does not clearly document an applicant‘s knowledge of regulatory requirements, is unacceptable. Statements such as "will comply" are not sufficient. The initial Statement of Compliance (and later, the final Statement of Compliance) provides the only written evidence the applicant/operators understanding of the regulatory requirements.

3.4 A final statement of compliance must be reviewed by the inspection team. Demonstrations must not be conducted until the certification team is satisfied, through the final statement of compliance, that all regulatory requirements have been adequately addressed.

3.5 If the applicant's Statement of Compliance does not serve the preceding purposes, the deficient areas shall be communicated to the applicant and the applicant required torectify the deficiencies. Demonstration flights will not be conducted until the certification team is satisfied, through its review of the Statement of Compliance and formal application package, that all regulatory requirements have been adequately addressed. The applicant's methods of compliance will be evaluated throughout the demonstration and inspection phase.

3.6 The Certification Project Manager shall review the Statement of Compliance within 10 working days to determine that it complies with the form and content and that the applicant has proceeded in an appropriate manner. The Statement of Compliance will be given a detailed review later in the certification process.

CHAPTER 4

Manuals, Procedures, and Checklists

1.0 PURPOSE

1.1 This Chapter provides direction and guidance to be used by the Authority inspectors for processing, reviewing, and accepting or approving manuals, procedures, and checklists.

1.2 Section 1 contains general background information and definitions of the terms used in this Order.

1.3 Section 2 contains guidance for Flight Operations Inspectors and Airworthiness Inspectors for approving or accepting an operator's manuals, procedures, and checklists

2.0 REFERENCE

2.1 Part 9 of the Nigeria Civil Aviation Regulations.

2.2 CHECKLISTS: CL:O-OPS009; CL:O-OPS010; CL:O-OPS014; CL:O-OPS32; CL:O-OPS034; CL:O-OPS036, CL:O-OPS037; CL:O-OPS44; CL:O-OPS056; CL:O-OPS057

3.0 OVERVIEW OF MANUAL REQUIREMENTS

3.1 Part 9 of the Nigeria Civil Aviation Regulations requires operators to prepare and keep current various manuals and checklists for the direction and guidance of flight and ground personnel conducting air transportation operations.

3.2 Operations Manual - Regulation 9.3.1.2 of the Nigeria Civil Aviation Regulations requires that each operator prepare and keep current an operations manual providing operator procedures and policy guidance for all of its personnel. The air operator‘s operations manual must include a description of the organisational structure and the relationship between the operations department and the other departments of the company. The manual must also include adequate policy, direction, and guidance for the safe and efficient performance of the duties assigned to each category of employee. The Operations Manual may be published in parts, as a single document, or as a series of volumes.

4.0 DEFINITIONS

4.1 The following terms are defined according to their use in this Order:

4.1.1 Abbreviated Procedure: A list of sequential procedural steps without an amplified description or amplified set of instructions;

4.1.2 Accepted: "Accepted" is used to describe a document, manual, or checklist that does not have, or is not required to have, Authority approval. Only portions of an operator‘s manuals are required to

have Authority approval. The remaining portions are "accepted" by the Authority. Operators are required to submit the entire operations manual to the Authority for review. If the Authority concludes that an accepted section of the operations manual is not in compliance, the Authority must formally notify the operator of the deficiency. Upon notification, the operator must take action to resolve the deficiency;

4.1.3 Aircraft Flight Manual (AFM): An approved aircraft flight manual is prepared by the manufacturer and approved by the State of aircraft design;

4.1.4 Aircraft Operating Manual (AOM): An approved aircraft operating manual is a manual that is developed by, or for, a specific operator for a specific aircraft type and which is approved by the Authority, in accordance with the provisions of Regulation 9.3.1.4 of the Nigeria Civil Aviation Regulations;

4.1.5 "Alternate": When "alternate" is used to describe a procedure or checklist, it refers to a procedure that may be employed instead of another procedure. Alternate procedures may either be normal, non-normal, or abnormal procedures;

4.1.6 Amplified Procedure: A description of sequential procedural steps with detailed explanatory descriptions and/or instructions accompanying each step;

4.1.7 Operations Manual (OM): A manual approved/accepted by the Authority containing procedures, instructions and guidance for use by operational personnel in the execution of their duties;

4.1.8 Approved: When "approved" is used to describe a document, manual, or checklist, it means that it requires Authority approval and that the Authority has evaluated and specifically approved the document, manual, or checklist;

4.1.9 *Caution: An instruction concerning a hazard that if ignored could result in damage to an aircraft component or system which would make continued safe flight improbable.

4.1.10 Checklist: A formal list used to identify, schedule, compare, or verify a group of elements or actions. Although a checklist may be published in a manual, it is usually intended to be used by itself, so that reference to a manual is made unnecessary. Checklists are usually formatted and presented on paper, however, they may be formatted on electronic or mechanical devices, or presented in an audio format. A checklist may or may not represent an abbreviated procedure. The items listed on a checklist may be unrelated and may not represent a procedure, such as most "normal" checklists. Abnormal and emergency checklists, however, do represent procedures;

NOTE: *Checklists and procedures are often confused. Operators have sometimes titled procedures "expanded checklists" or titled checklists "abbreviated procedures." A procedure is a set of actions or decisions prescribed to achieve a specified objective. A checklist is a physical aid used to overcome the limitations of human memory.*

4.1.11 **Document**: A written description of a system, a method, or a procedure; a written statement of authorisations, conditions, or limitations; or a file of information. A document serves as an official

record of understanding and agreement between the Authority and the operator, describing the means the operator will use to comply with regulatory requirements. An approved document is not a manual. Relevant information from a document, however, may be extracted and published in user manuals. For example, the Operations Specifications (OpSpecs) are not a manual but an approved document from which information is extracted;

4.1.12 Emergency: When "emergency" is used to describe a procedure or checklist, it refers to a non-routine operation in which certain procedures or actions must be taken to protect the crew and the passengers, or the aircraft, from a serious hazard or potential hazard;

4.1.13 *High Workload Environment: Any environment in which multiple demands on the flight crew necessitate the prioritising of work functions. For example, IFR operations below 10,000 feet during arrival or departure from a terminal area (including taxiing) are considered to be high workload environments;

4.1.14 Immediate Action: An action that must be taken in response to a nonroutine event so quickly that reference to a checklist is not practical because of a potential loss of aircraft control, incapacitation of a crewmember, damage to or loss of an aircraft component or system - which would make continued safe flight improbable;

4.1.15 Maintenance Control Manual (MCM): A manual approved by the Authority containing procedures, instructions and guidance for use by maintenance and other concerned operational personnel in the execution of their duties;

4.1.16 Non-normal or "Abnormal": When "non-normal" or "abnormal" is used to describe a procedure or checklist, it refers to a nonroutine operation in which certain procedures or actions must be taken to maintain an acceptable level of systems integrity or airworthiness;

4.1.17 Normal: When "normal" is used to describe a procedure or checklist, it refers to a routine operation (without malfunctions);

4.1.18 Normal Checklist: A checklist comprised of all of the phase checklists used sequentially in routine flight operations;

4.1.19 Phase Checklist: A checklist used to establish and/or verify aircraft configuration during a specific phase of flight. An example of a phase checklist is an "after takeoff checklist;"

4.1.20 Pilot Flying (PF): The pilot who is controlling the path of the aircraft at any given time, whether or not the aircraft is in flight or on the ground;

4.1.21 Pilot Not Flying (PNF): The pilot who is not controlling the path of the aircraft;

4.1.22 Policy: A written requirement established by an operator's management that is expected to be complied with by appropriate employee personnel. A policy may be within a procedure or stated separately. A written requirement such as, "No flight may depart on a cross-country flight without a

spare case of oil" is an example of a policy;

4.1.23 Procedure: A logical progression of actions and/or decisions in a fixed sequence that is prescribed by an operator to achieve a specified objective. In short, a procedure is step by step guidance on how to do something;

4.1.24 Recommendation: A preferred technique or action described by the operator which employees are expected to follow whenever practical. A recommendation is not a policy requirement;

4.1.25 Supplemental: When "supplemental" is used to describe a procedure or checklist, it refers to a procedure which may be employed in addition to a normal, non-normal, or abnormal procedure. Supplemental procedures may either be normal or non-normal procedures;

4.1.26 *Systems Management: The management of those systems which sustain the mechanical functions of the aircraft as opposed to the management of the aircraft's thrust, flight path, or aerodynamic configuration;

4.1.27 Technique: A method of accomplishing a procedural step or manoeuvre;

4.1.28 User Manual: A segment of an Operations Manual (OM) or a MCM that provides instruction, policies, procedures, and guidance to a specific category of employee. Examples of user manuals that are commonly used in the air transportation industry include the following:

a) Aircraft operating manual;
b) Training programmes manuals and Security manual;
c) Cabin crew or cabin service manual;
d) Operations Control manual;
e) Station operations manual;
f) Route guides and airport manual;
g) Dangerous goods handling manual;
h) Runway analysis manual.

NOTE: *The user manual titles listed above are only examples of common titles currently in use in industry. Inspectors should not interpret this as a list of required titles. Operators may choose to divide the OM in any convenient way and may select different user manual titles.*

4.1.29 *Warning: An instruction about a hazard that if ignored could result in injury, loss of aircraft control, or loss of life;

NOTE: *Items marked with * provides information or instruction of such significance that special emphasis is required.*

5.0 DISTRIBUTION AND AVAILABILITY OF MANUALS

5.1 Each operator is required to maintain a complete manual (or set of manuals) at his principal base of operations and to furnish a complete manual (or set of manuals) to the Authority.

5.2 In addition, each operator must make available or furnish applicable parts of the manual (user manuals) to flight and ground operations personnel who conduct or support flight operations. The manual may be in conventional paper format or in another form that is convenient for the user.

5.3 Each employee to whom the manual or a user manual is furnished must ensure it is kept current. Each employee must have access to appropriate manuals or parts of manuals when performing assigned duties.

6.0 REVIEW OF MANUALS

6.1 Manuals must be reviewed by the Flight Operations Inspectors and other qualified inspectors to ensure they contain adequate content and are in compliance with applicable regulations, safe operating practices, and the operator's operations specifications. While inspectors are encouraged to provide guidance and advice to operators in the preparation of their manuals, the development and production of an acceptable manual is solely the responsibility of the operator.

6.2 **Initial Review.** Before the initial certification of an applicant, a comprehensive review of the applicant's OM, user manuals and MCM must be conducted by the Flight Operations Inspectors. In addition, those items in the operator's Statement of Compliance that require the operator to develop a policy statement, system, method, or procedure, must be addressed. If user manuals are furnished, those topics that apply to the specific user must be addressed. Each topic must be presented with enough detail to ensure that the user can properly carry out the portion of the policy or procedure for which the user is responsible.

6.3 **Review of Changes to Manuals.** The inspector should review each revision or proposed revision to a manual. Inspectors should not limit this review to a strict consideration of the change itself but should also consider the impact of the change on the operator's overall manual system, training programme, and type of operation. Changes in the operator's operations specifications should be accompanied by a review of applicable sections of the operator's manual.

6.4 **Enroute and Ramp (Apron) Inspection.** Inspectors conducting en-route and ramp inspections should review the flight manual and those portions of the OM or MCM carried by the flight crew for completeness and currency. When a flight is long enough to make it practical, inspectors should review these manuals more in-depth, particularly those sections that are operationally relevant to the flight in progress.

6.5

6.6 **Periodic Review of Manuals.** The continual review of an operator's manuals is necessary because both the aviation environment and the operations conducted by the operator are constantly changing. Each Inspector is responsible for developing a surveillance plan for the operator's manual system. At least one portion of the operator's operations manual should be reviewed annually, and the entire operations manual should be reviewed over a period of 1 to 3 years (depending on the

complexity of the operation). This periodic review should be planned as a distinct event so that every portion of the manual is systematically reviewed at some time over a 1 to 3 year cycle. This periodic review should be co-ordinated between airworthiness inspectors and other inspectors to ensure an appropriate exchange of information and to avoid redundant reviews.

7.0 FORMAT AND STYLE OF MANUALS

7.1 Each page of a manual must include the most recent revision date. In general, manuals and checklists should be easy to use and understand, and in a format that can be easily revised. When evaluating manuals and checklists for ease of use and understanding, inspectors should consider the following guidance concerning format and style:

7.1.1 **Form.** All or part of a manual may be prepared and maintained in conventional paper format (book form) or in other forms, such as microfilm or computer based storage with electronic image;

7.1.2 **Preface Page.** The first page of a user manual should be a preface page containing a brief statement of the manual's purpose and intended user. The preface page should also contain a statement which emphsises that the procedures and policies in the user manual are expected to be used by company personnel;

7.1.3 **Revision Control.** Each manual should be easy to revise. Also, each manual should contain a revision control page or section from which the user can readily determine whether the manual is current. This page or section should preferably follow the preface page but it can be organised in any logical manner. The control date of the most recent revision of each individual page must appear on each page. Complex operators should establish a bulletin system to bring temporary information or changes that should not be delayed by a formal revision process, to the attention of the user. The bulletin system should have a means of control that includes giving bulletins a limited life and systematically incorporating them into appropriate manuals in a timely manner. Users should be able to easily determine whether they possess all current bulletins;

7.1.4 **Table of Contents.** Each manual should have a table of contents containing lists of major topics with their respective page numbers;

7.1.5 **References.** Manuals must include references to specific regulations when appropriate. A reference to regulations or other manual material is appropriate when it is necessary to clarify the intent of the text or when it is useful to the user for looking up specific subject matter. References should not be made to advisory circulars and to preambles of the Regulations, as these sources are advisory and not binding in nature. Operators should use caution when adapting the text of advisory documents into their manuals. Advisory text may not translate into a directive context;

7.1.6 **Definitions.** Significant terms used in manuals should be defined. Any acronym or abbreviation not in common use should also be defined;

7.1.7 **Elements of Style.** Manuals and checklists should be composed in the style of general technical writing. This style should be clear, concise, and easy to understand. When evaluating manuals, inspectors should be knowledgeable of the following suggestions for accomplishing clarity in

technical writing:

a) Whenever possible, short, common words should be used. Examples of this include: using the words "keep" or "hold" instead of "maintain"; using the word "start" instead of "establish"; and using the word "stop" instead of "terminate;"

b) When a word has more than one meaning, the most common meaning should be used. For example, the word "observe" should be used to mean "see and take notice of" rather than "obey and comply;"

c) Operators should standardise terminology whenever practical. For example, since the terms "throttles" and "thrust levers" refer to the same item, the operator should choose one term and use it consistently throughout the manual. Once a particular term has been used in a specific sense it should not be used again in another sense grade;

d) Terms which command actions should be clearly defined, such as "checked," "set," and "as required." Since auxiliary verbs such as "may" and "should" are ambiguous and can create room for doubt, they should not be used when a definite action is commanded. Instead, verbs such as "shall" and "must" are preferable to use when an action is commanded, because they are more definite;

e) All "instructions" should be given in the imperative mood and the active voice. For example, "Hold the speed between VREF and VREF plus 10 knots" is preferable to "The speed needs to be held between VREF and VREF plus 10 knots;"

f) To provide appropriate degrees of emphasis on specific points in the text, "cautions," "warnings," and "notes" should be in the operator's manuals and checklists;

g) Any instruction, particularly a warning or a caution, must begin with a simple directive in the imperative mood that informs the reader precisely what must be done. To avoid obscuring the directive in the background information, the directive must be stated first and then followed with an explanation. An example of how a directive can be obscured in background information is as follows: "Warning - To avoid the hazard of striking ground handling personnel with the free end of a swinging tow bar, do not place feet on rudder pedals until the Pilot in command (PIC) takes the salute from the ground handler. The hydraulic nose wheel steering can sling the tow bar with hazardous force." In contrast the following is an example of the preferred method of placing the directive first: "Warning - Do not place feet on rudder pedals until the pilot in command (PIC) takes the signal from the ground handler. The hydraulic nose wheel steering can sling a tow bar with sufficient force to cause serious injury to ground handling personnel;"

h) Descriptions in the manual should not be overloaded, but should be presented simply and sequentially. An example of an overloaded description is as follows: "A Constant Speed Drive (CSD) per engine drives the AC generator at a constant speed of 8,000 RPM regardless of the speed of the engine or the load on the generator." The following is an example of a clearer, more concise description: "A CSD is mounted between each engine and generator.

The CSD holds the generator speed at a constant 8,000 RPM;"

i) Long sentences should be avoided in the manual. The following example consists of subject matter put into a long sentence which makes it difficult to understand: "During gear retraction, the door operating bar located on the landing gear leg contacts and turns the latch, withdrawing the roller from the slot as a second roller entraps the door operating bar." The following example consists of the same subject matter used in the previous example, however, when it is broken down into shorter sentences, it is easier to understand: "During landing gear retraction, the door operating bar on the landing gear leg is pressed against the door latch. The latch turns, freeing the door roller. The roller moves out of the slot. A second roller then traps and holds the door operating bar."

8.0 ADEQUACY OF PROCEDURES

8.1 The following general guidance is provided for inspectors to use when evaluatig procedures in any manual, including flight manuals:

8.1.1 **Objective** - The objective of a procedure must be stated clearly unless it is so commonly understood that a statement of the objective is not necessary;

8.1.2 **Logical Sequence** - Procedures are to flow in a logical step-by-step sequence. The most effective procedures are usually simple and each contains only the information necessary for accomplishing that procedure. Preferably procedures should be described in a sequential step by step format rather than a narrative format;

8.1.3 **General Considerations:**

a) A procedure must be an acceptable method for accomplishing an intended objective;

b) The individual responsible for each step of a procedure must be clearly identified;

c) The acceptable standards of performance for a procedure are to be stated if those standards are not commonly understood or clearly obvious;

d) Since a variety of personnel with differing levels of expertise are involved in procedures, adequate information concerning the accomplishment of a procedure must be provided for the least experienced individual. A procedure may be described very briefly and concisely when the user is capable of achieving the objective without extensive direction or detail. When the user has limited training or experience, however, a procedure must be described in enough detail for the user to correctly accomplish it. When the user has limited access to other sources of information and guidance while performing a procedure, enough detail should be provided to make the user independent of other sources of information;

e) When a form, checklist, or tool is necessary to accomplish a procedure, the location of that item must be indicated in the procedure;

f) Enough time should be available under normal circumstances for the user to accomplish a procedure. If sufficient time is not available to the user for accomplishing a procedure, either the procedure itself or the user's duties must be revised.

9.0 APPROVAL AND ACCEPTANCE OF MANUALS AND CHECKLISTS

9.1 General

9.1.1 This part contains direction and guidance for Inspectors when reviewing an operator's manuals and checklists for approval or acceptance. This process is based on the general process for approval or acceptance

9.1.2 The Approval Process - The approval process for an operator‘s checklist normally consists of phases one, two, three, and five of the general process. It may be necessary, however, for a Inspector to require that phase four (the demonstration and inspection phase) be included in the approval process.

9.1.3 The Acceptance Process - The acceptance process for a manual or manual section normally consists of phases one, two, and three of the general process. The operator must submit to the Inspector current copies of required manuals for Authority review. An operator‘s entire manual system must be reviewed during the document evaluation phase of initial certification. Once an operator is certified, the operator may revise, distribute, and use accepted material even though the Inspector has not completed a review of it. If after review, the Inspector determines that portions of the manuals or checklists are unacceptable, the operator must revise the unacceptable portions after notification by the Inspector.

9.1.4 Evaluation of Manuals for Authority Acceptance or Approval - An operator may develop and publish in its manual any policy, method, procedure, or checklist that the operator finds necessary for the type of operations conducted. These policies, methods, procedures, and checklists, however, must comply with the Regulations and be consistent with safe operating practices. Inspectors should encourage operators to be innovative and progressive in developing such policies, methods, procedures, and checklists. The Inspector's role in the review process is to provide an independent and objective evaluation of the operator's manual material. The Inspector must ensure that the operator's material complies with the Regulations, is consistent with safe operating practices, and is based on sound rationale or demonstrated effectiveness.

9.1.5 Discrepancies - When an Inspector finds a discrepancy in an operator's existing manual material, the Inspector shall take action to have that discrepancy resolved. Usually such discrepancies can be resolved through informal discussions. When informal discussion cannot resolve the discrepancy, the Inspector is required to formally recommend withdrawal of Authority approval or acceptance from the operator.

9.2 **Establishing a Framework for Review**

9.2.1 Methods for Manual or Checklist Organisation - During the Pre-application phase, the Inspector should inform the operator that there are various methods that can be used to organise and format

manuals, manual sections, and checklists requiring Authority approval/acceptance. The Inspector may inform the operator of the content of the following subparagraphs, which describe at least four possible methods that an operator may use:

9.2.2 Limited Content - An operator may choose to limit the content of the manual solely to approved material. When this method is used, the entire manual must be approved and the operator may not revise the manual without additional review by the Inspector. While this method facilitates the Authority review and acceptance, the manual may be difficult to use because the intended user may have to frequently switch back and forth between the approved checklists and other manuals containing accepted material. When the operator chooses this method, Certification Project Manager (CPM's) must ensure that a header or footer is on each page indicating the material is approved;

9.2.3 Grouping Material - An operator may choose to group the Authority approved material in specified sections of the manual and place accepted material in the remaining sections. With this method, the Inspector must ensure that a header or footer is on each page of the approved sections indicating that the material on that page is approved by the Authority. The operator may submit the approved and accepted sections to the Inspector as separate packages;

9.2.4 Interspersed Material - An operator may choose to intersperse Authority approved material and accepted material throughout the manual. When an operator chooses this method, the Inspector must ensure that the operator has clearly identified approved material each time it appears in the manual. This method of organisation allows for efficient manual use, but makes the operator's publication process and the approval process difficult;

9.2.5 Approval Document - The operator may choose to place material in an "approval document" solely for the purpose of obtaining Authority approval of that material. An approval document is a document and therefore may not be used as a manual. After the document has been approved, the operator must develop user manuals, which incorporate the approved information from the document along with detailed, guidance and supplementary information. When this method is used, the user manuals are treated as "accepted" material and do not have to be individually approved. The Inspector must, however, review the user manuals to ensure that the information in them is consistent with the approval document. When using this method, the operator may revise the information in user manuals without prior approval by the Authority, provided the revision is consistent with, and does not conflict with, the information in the approval document. If the operator or the Inspector finds it necessary for the approval document to be revised, the operator must submit the proposed revision for review and approval. A revision to an approval document must be approved before the operator can incorporate the changed information into the user manuals. When an operator uses this method for submitting manual or checklist material for approval, CPMs must ensure that the operator has stated on the first page of the user manuals that the manual contains approved material. The manuals or checklists provided to the user, however, do not have to be specifically identified as being approved ones.

9.2.6 Submission of Material - During the Pre-application phase, the Inspector should advise the operator on how to submit the documents, manuals, checklists and subsequent revisions for approval or acceptance.

9.2.7 Approval Submission - For material that requires approval by the Authority, the Inspector should advise the operator to submit the following:

a) Two copies of the document, manual, manual section, checklist, or revision to be approved; one copy of the printed version of the electronic checklist (as applicable); one copy of a report indicating differences between the proposed and current versions of the electronic checklist (as applicable); or

b) One copy of the document, manual, manual section, checklist, or revision, and two copies of the page control sheets for the material (the page control sheets, must show an appropriate revision number or original page number for each page, and the effective date of each page);

c) A copy of any supporting documentation or analysis.

9.2.8 Acceptance Submission - For material that is to be evaluated for acceptance by the Authority, the Inspector should advise the operator to submit the following:

a) A copy of the manual, manual section, checklist, or revision to be reviewed; and
b) A copy of the page control sheets for the material to be reviewed when appropriate.

9.2.9 The Inspector will perform a cursory review of submissions - This review is intended to ensure that the applicant's submission is clear and contains all required documentation. This review is performed before the in-depth review.

9.3 **In-Depth Review Phase**

9.3.1 A detailed analysis of the operator's submission is performed during the document evaluation phase.
During this phase, a qualified inspector must review the operator's submission in detail to determine that the submission is complete and technically correct. The time to complete phase three depends on the scope and complexity of the submission. During the cursory review, the Inspector should determine how long the in-depth review will take. The Inspector shall give the operator an estimate of the time it should take to complete the review process at the formal application meeting.

9.3.2 The review and analysis should confirm that the operator's submission conforms to, or is consistent with, the following:

a) Civil Aviation Regulations;
b) Criteria and guidance in this Order;
c) The operator's Operations Specifications (OpSpecs);
d) Criteria and guidance in NCAA-AC-OPS001 as amended;
e) Applicable aircraft flight manuals, manufacturer's operating bulletins, and airworthiness directives;
f) Safe operating procedures;
g) The operator's cockpit resource management policies.

9.3.3 The Inspector should thoroughly consider the operator's experience and history when evaluating procedures and checklists. When an operator has a history of successful operations, the Inspector should normally approve submissions consistent with the operator's existing procedures.

9.3.4 The Inspector may require verification tests of some procedures and checklists before granting approval.

9.3.5 These verification tests may be conducted in either phase 3 or 4 of the certification process. For example, verification of an aeroplane checklist would occur in phase 3 of the process to permit the applicant to commence flight training.

9.3.6 Review of electronic checklist modifications, in applications with the ability to automatically detect the completion of an action, shall include verification that detection is based on monitored conditions that are consistent with the objective of the action (for example, a checklist action item for LANDING GEAR. DOWN would show complete on the sensing of the gear handle being down and the gear indication being down). The review and verification should be accomplished using a paper copy of the electronic checklist annotated with the monitored condition for each action whose completion is automatically detected.

9.4 Granting Authority Approval

9.4.1 The Inspector recommends issue of approval to manuals, manual sections, and checklists. During this phase the Inspector must formally notify the operator of the approval and also complete a specific record of the approval. For manuals and manual sections, which are not required to have Authority approval, written notification of acceptance is not required and shall not be given.

9.4.2 Notification of Approval. When the Inspector has evaluated and found the document, manual,manual section, or checklist, satisfactory the following approval procedures shall apply:

a) For a document, manual, or checklist that contains page control sheets, the Inspector shall annotate both copies of the page control sheets with the phrase "NCAA Approved." Under the words "NCAA Approved," CPMs shall enter the effective date of approval and sign both copies on behalf of the Authority. The operator may pre-print the words "NCAA Approved" and blank lines for the date and signature on the page control sheets or the Inspector may use a stamp to add the approval annotation on each sheet;

b) For manuals, manual sections, or checklists that do not contain page control sheets, the approval annotation must be placed by the Inspector on each page of the material. In this case the approval annotation must be made on two copies of the material. The annotation shall be the same as discussed above. This procedure should be used only for very short manuals, manual sections, or checklists (usually fewer than 5 pages) or when the use of page control sheets are not practical or serve little purpose;

c) When page control sheets are used, the Inspector shall return one copy of the annotated page control sheets to the operator. In the remaining cases one copy of the approved material must be returned to the operator with a notification letter stating that the material is

approved. The letter should also contain a statement advising the operator to maintain, for its records, the signed page control sheets or the material with the approval annotation. The Inspector shall retain the second copy of the signed page control sheets, or the annotated material, Authority files;

d) When electronic checklists are submitted for approval, the operator will prepare a release/cover sheet for the printed version of the electronic checklist. The release/cover sheet will contain the pre-printed words and lines as discussed above. The Inspector's annotation shall be the same as discussed in subparagraph above.

9.4.3 Notification of Disapproval. The co-ordination, revision, and editing activities that take place throughout all phases of the process should eventually result in approved products. Under certain circumstances, however, it may be appropriate for the Inspector to terminate the process. For example, the operator may not take any action on the material for 30 days. To terminate the approval process, the Inspector shall return the entire submission to the operator with a letter that states that the Authority is unable to grant approval, along with the reasons why it cannot be granted.

9.4.4 The Inspector shall maintain a record of approval for each operator-submitted document, manual, manual section, and checklist. Records of approval to revisions of this material must also be maintained. The records should consist of page control sheets, notification letters, and any other related correspondence. While superseded portions of documents, manuals, or checklists do not have to be retained, CPMs may retain this type of material if they determine that it is appropriate. The Inspector should include with the material in the operator's file a brief memorandum containing the reasons for retaining the material.

CHAPTER 5

Training Programme Approval Process

1.0 PURPOSE

1.1 This Chapter provides guidance on the approval process of an operator's training programme and establishes procedures for granting approval or withdrawing approval of all or part of a training curriculum.

1.2 The training approval process discussed in this Order applies only to applicants for or holders of an AOC certificate.

2.0 REFERENCE

2.1 Regulation 9.3.1.3 of the Nigeria Civil Aviation Regulations

2.2 Regulation 8.4.1.2 of the Nigeria Civil Aviation Regulations referring to Crew member and Flight Operations Officer Qualifications-Commercial Air Transport.

2.3 IS 9.3.1.2 of the Nigeria Civil Aviation Regulations.

2.4 CHECKLIST: CL:O-OPS005

3.0 BACKGROUND

3.1 Training curriculum approvals follow the five phase general process for approval or acceptance as described in Order NCAA-O-OPS001. The basic steps of this process must be followed. Each phase, however, may be adjusted to accommodate existing circumstances. Depending on the complexity of the operator's request and the availability of resources in the Authority, the approval process may be accomplished in only a few days, or the process may last many months.

3.2 The approval process applies to each operator requesting approval of a new curriculum as with initial air operator certification, or a revision to a currently approved curriculum. Inherent in the approval process is the responsibility of the Authority to deny approval of any training which does not meet regulatory requirements or which has been found deficient. Training curricula, which have been granted approval and later found, either to be in conflict with regulatory requirements or to be ineffective must be appropriately modified by the operator, or the approval must be withdrawn.

4.0 INITIATING THE APPROVAL PROCESS - PHASE ONE

4.1 The training approval process can be initiated by either the operator or the Authority as follows:

4.1.1 **Operator Initiated.** The operator informs the Authority that he is planning to establish a new

training curriculum or to change an existing curriculum; and

4.1.2 **Authority Initiated**. The Authority informs an operator that revisions to his training programme are required based on recently acquired information relative to training techniques, aviation technology, aircraft operational history, operator performance, or regulatory changes.

4.2 When a proposal is initiated by the operator, as it is in the pre-application phase of the certification process, one of the first steps the Flight Operations Inspector (FOI) or Certification Project Manager (CPM) should take is to obtain the following basic information:

4.2.1 Type of operation;

4.2.2 Type of equipment to be operated;

4.2.3 Geographic areas of operation;

4.2.4 Proposed training schedules;

4.2.5 Proposed date of revenue operations;

4.2.6 Proposed contract training, if any;

4.2.7 Type of simulator to be used, if any; and

4.2.8 Facilities to be used.

5.0 AUTHORITY INVOLVEMENT IN PHASE ONE

5.1 Early in the process, the Authority and the operator should establish, through discussion, a common understanding of both the regulatory training requirements and the direction and guidance provided in this Order. The Inspector or CPM and the operator must examine the entire operation to ensure that any training necessitated by operational requirements, authorisations, or limitations (such as those in the operations specifications, minimum equipment lists, deviations, and exemptions), is included in the operator's training curricula.

5.2 The training programme is the area most affected by operational changes. The Inspector should review all general requirements in the regulations and in this Order that apply to the proposed operation. The Inspector should be aware of changes to the information initially provided by the operator. The Inspector should discuss with the operator the sequence and timing of events, which occur in the development, and the granting of initial and final approval of a training curriculum.

5.3 If the operator's proposal involves complex operations (such as long range navigation or polar navigation operations), the Inspector shall consult appropriate sections of this Order and other relevant documents and be prepared to advise the operator during this phase. In such a case, the Inspector should also determine whether assistance from other appropriate experts is necessary.

5.4 The Authority inspector should be prepared to provide advice to an operator during training curriculum development. During phase one, the operator must be informed of the procedure for requesting initial approval and of the types of additional supporting information that the Inspector will require the operator to submit. An inspector should be prepared to provide advice and guidance to the operator on the following:

5.4.1 The general format and content of curricula, curriculum segments, training modules, and flight manoeuvres and procedures documents;

5.4.2 Courseware;

5.4.3 Facilities;

5.4.4 Qualifications of instructor personnel; and

5.4.5 Other areas of the operator's proposed training programme.

5.5 Early Authority involvement is also important for the following reasons:

5.5.1 The Authority advice and guidance during development of training may provide a useful service to the operator. This advice may save the operator and the Authority from unnecessary use of resources. It may also prevent the operator from submitting a training curriculum proposal that would not be approved by the Authority;

5.5.2 The Inspector will become familiar with the material the operator intends to submit. This facilitates review of the proposal before the granting of initial approval;

5.5.3 The Inspector can begin planning long term needs, such as qualification of inspectors on the operator's aircraft, and evaluation of the programme's overall effectiveness.

Note: *Early Authority inspector involvement in the development of training programmes is appropriate. The inspector, however, must act in an advisory capacity only. The inspector must avoid active participation in the actual training programme development. The operator is responsible for the development of his own training programme. The inspector must not assume that responsibility.*

5.6 As the operator's proposals solidify, any significant requirements that may affect the Authority office or inspector resources should be discussed with the Director responsible for Safety Oversight. The inspector may need training on an operator's aircraft type. Requests for inspectors from outside the Authority to assist in the training approval process may be necessary.

5.7 The operator should be aware of the potential for delays in approval. Such delays may be caused by any of the following reasons:

5.7.1 The applicant for an Air Operator Certificate (AOC) not meeting the schedule of events;

5.7.2 The applicant for AOC failing to expeditiously transmit information to the Authority;

5.7.3 A change in plans, for example, changing either the training locations or the type of aircraft;

5.7.4 Inadequate, insufficient, or unclear material submitted in the formal application in phase 2;

5.7.5 Deficiencies in the training discovered during phases two, three, or four;

5.7.6 Delays in obtaining equipment (such as simulators) or simulator approval;

5.7.7 Higher priority work (such as accidents) assigned to the FOI or other inspectors associated with the training approval process.

6.0 REQUESTS FOR INITIAL APPROVAL - PHASE TWO

6.1 In phase two, the operator submits his training proposal in writing, for initial approval, to the Authority. The operator is required to submit to the Authority an outline of each curriculum or curriculum segment and any additional relevant supporting information requested by the Inspector. These outlines, any additional supporting information and a letter must be submitted to the Authority. This letter should request Authority approval of the training curriculum. Two copies of each curriculum or curriculum segment outline should be forwarded along with the letter of request to the Authority.

6.2 Each operator must submit his own specific curriculum segment outlines appropriate for the type of aircraft and kinds of operations. These outlines may differ from one operator to another and from one category of training to another in terms of format, detail, and presentation. Each curriculum should be easy to revise and should contain a method for controlling revisions, such as a revision numbering system. Curricula for different duty positions may be combined in one document provided the positions are specifically identified and any differences in instruction are specified for each duty position. Each curriculum and curriculum segment outline must include the following information:

6.2.1 Operator's name;

6.2.2 Type of aircraft;

6.2.3 Duty position;

6.2.4 Title of curriculum and/or curriculum segment including the category of training;

6.2.5 Consecutive page numbers;

6.2.6 Page revision control dates and revision numbers;

6.2.7 Each curriculum and curriculum segment must also include the following items, as appropriate:

6.2.8 Prerequisites prescribed by the Regulations or required by the operator for enrolment in the

curriculum;

6.2.9 Statements of objectives of the entire curriculum and a statement of the objective of each curriculum segment;

6.2.10 A list of each training device, mock-up, system trainer, procedures trainer, simulator, and other training aids which require Authority approval (The curriculum may contain references to other documents in which the approved devices, simulators, and aids, are listed);

6.2.11 Descriptions or pictorial displays of normal, abnormal, and emergency manoeuvres and procedures which are intended for use in the curriculum, when appropriate (These descriptions or pictorial displays, when grouped together, are commonly referred to as the flight manoeuvres and procedures document. The operator may choose to present detailed descriptions and pictorial displays of flight manoeuvres and procedures in other manuals. For example, the flight manoeuvres and procedures document may be described in an aircraft-operating manual. However, as a required part of the training curriculum, it must either be submitted as part of the curriculum or be appropriately referenced in the curriculum);

6.2.12 An outline of each training module within each curriculum segment (Each module should contain sufficient detail to ensure that the main features of the principal elements or events will be addressed during instruction);

6.2.13 Training hours which will be applied to each curriculum segment and the total curriculum;

6.2.14 The checking and qualification modules of the qualification curriculum segment used to determine successful course completion, including any regulatory qualification requirements for crewmembers or flight operations officer/dispatchers to serve under Part 8 of the Nigeria Civil Aviation Regulations operations (such as line checks or operating familiarisation).

7.0 ADDITIONAL RELEVANT SUPPORTING INFORMATION - PHASE TWO

7.1 When applying for an Air Operator Certificate, an applicant must submit any additional relevant supporting information requested by the Inspector as supported by Regulation 9.1.1.4 of the Nigeria Civil Aviation Regulations. This information is that additional information the Inspector finds necessary for determining whether the proposed training programme is feasible and adequately supported. It is information, which would be difficult to include in a curriculum outline format. The type and amount of supporting information needed will vary depending on the type of training, aircraft types to be operated, and kinds of operations.

7.2 The Inspector must determine the appropriate types of supporting information to be required. This should be limited to only that information critical to the determination of the proposed training programme's acceptability. The following list of types of relevant supporting information is not all inclusive, but includes information that is typical.

7.2.1 A description of facilities is appropriate if the Inspector is unfamiliar with the facilities, or if the facilities are not readily available for examination;

7.2.2 A list of ground and flight instructors and their qualifications may be requested. This information is particularly important if the operator intends to use contract instructors. The Inspector should determine whether the proposed instructors meet regulatory requirements and if they are qualified to conduct training;

7.2.3 A detailed description of each flight simulator and training device is appropriate when the simulator or training device is not readily available for the Inspector's examination. This detailed description is particularly important when the operator intends to contract for a specific flight simulator or training device. This description should provide sufficiently detailed information to enable the Inspector to determine whether the training and checking to be conducted is appropriate for the level of the flight simulator or training device to be used;

7.2.4 A detailed description of minimum student qualifications and enrolment prerequisites is appropriate when such prerequisites are not described in detail in the curriculum. Examples of these prerequisites which may need to be detailed as supporting information include: type of airman license, aircraft type qualifications, previous training programmes, minimum flight hours, experience with other commercial air transport operators, and recency of experience. This description may be useful to the Inspector when determining whether the proposed amount of detail outlined in training modules and the proposed training hours are adequate;

7.2.5 Copies of training forms and records to be used for recording student progress and the completion of training may be required. This ensures the operator has planned for the Regulations record-keeping requirements. This type of supporting information shall be required of applicants for an air operator certificate. It may also be required of operators with any significant revision to existing training programmes. These forms, records, or computer transmittal worksheets must be designed so that attendance and course completion information is recorded and retrievable for verifying regulatory compliance;

7.2.6 Supporting information may include samples of courseware, such as training modules/lesson plans and instructor guides. Descriptions of other types of courseware, such as home study, computer-based instruction, and Line Oriented Flight Training (LOFT) scenarios, should be in enough detail to provide an understanding of how the training will be administered and of the proposed instructional delivery method. This information should describe the instructor/student interaction and indicate methods for measuring student learning.

8.0 INITIAL REVIEW OF REQUESTS FOR APPROVAL - PHASE TWO

8.1 In phase two the Inspector must review the submitted training curriculum and supporting information for completeness, general content, and overall quality. This is the cursory review performed in the Formal Application Phase. A detailed examination of the documents is not required during phase two.

8.2 If after initial review, the submission appears to be complete and of acceptable quality or if the deficiencies are immediately brought to the operator's attention and can be quickly resolved, the

Inspector
may begin the phase three in-depth review in the Document Evaluation Phase.

8.3 If the submission is determined to be incomplete or obviously unacceptable, the approval process is terminated and the CPM must immediately inform the Director responsible for Safety Oversight and return the documents via the Director responsible for Safety Oversight (the Director), within 5 working days, with an explanation of the deficiencies. The documents must be immediately returned, so that the operator will not erroneously assume the Authority is continuing the process to the next phase. The approval process can be resumed when the revised training curriculum or curriculum segment is resubmitted.

Note: *An applicant for a certificate in Phases 2 and 3 of the certification process may be unable to provide all information required for his training programme. For example, the applicant may not yet know what training facilities or devices he intends to use. The lack of such information in the formal application does not necessarily indicate that the training curriculum attachment be returned. There should be an understanding between the applicant and the PM that such portions are missing.*

9.0 IN-DEPTH REVIEW OF SUBMITTED CURRICULA - PHASE THREE

9.1 The CPM may use Figure 7 to initiate the phase three in-depth review without all the required information. Initial approval, however, of a curriculum segment must be withheld until all portions pertinent to the curriculum segment have been examined. For example, it may be appropriate to initially approve a ground training curriculum segment even though the simulator has not yet been evaluated and approved for flight training. However, effective evaluation of training curricula can be hampered when an excessive number of incomplete curriculum segments are permitted. The CPM shall either delay initial approval of training curricula or return them to the applicant when an excessive number of incomplete curriculum segments have been submitted with the formal application.

9.2 Phase three is initiated when the Authority begins a detailed analysis and evaluation of a training curriculum or curriculum segment. The purpose of this phase is to determine the acceptability of training curricula for initial approval. This phase ends either with the initial approval or with the rejection of all or part of the training curriculum. To complete an evaluation in a timely manner the CPM may need to involve other Authority personnel early in this phase. Certain specialists or offices may be required to participate in the approval process as follows:

9.2.1 A dangerous goods inspector should be involved in dangerous goods materials training issues;

9.2.2 Various safety inspector specialities should be involved when appropriate. For example, navigation specialists should be involved with evaluating special navigation operations, security inspector for the security training module;

9.2.3 Additional Authority resources may need to be located to accomplish the approval process;

9.2.4 The Director General/Managing Director may be requested to provide assistance with obtaining training quotas for selected inspectors or with obtaining information concerning exemptions.

9.3 Before granting initial approval for a specific curriculum or curriculum segment, the Inspector must ensure that the following evaluations are accomplished:

9.3.1 A side-by-side examination of the curriculum outline with the appropriate regulations and with the direction provided in this Order must be performed. This examination is to ensure that training will be given in at least the required subjects and in-flight training manoeuvres. It should also ensure that appropriate training would be given on safe operating practices;

9.3.2 An examination of the courseware developed or being developed by the operator must be performed. This review should include a sampling of available courseware such as training modules/lesson plans, audio-visual programmes, flight manoeuvres and procedure documents, and student handouts. The courseware must be consistent with each curriculum and curriculum segment outline. From this review, the Inspector should be able to determine whether the operator is capable of developing and producing effective training courseware;

9.3.3 An inspection of training facilities, training devices, and instructional aids (which will be used to support the training) must be performed if the Inspector is not familiar with the operator's training programme capabilities, as would be the case for initial air operator certification;

9.3.4 The training hours specified in each curriculum segment outline must be evaluated. An inspector should not attempt to measure the quality or sufficiency of training by the number of training hours alone. This can only be determined by direct observation of training and testing (or checking) in progress. Or, if not an initial certification, by examination of surveillance and investigation reports. The specified training hours must be realistic, however, in terms of the amount of time it will take to accomplish the training outlined in the curriculum segment so as to achieve the stated training objectives. During the examination of courseware, an inspector should note the times allotted by the operator for each training module. These times should be realistic in terms of the complexity of the individual training modules. The number of training hours for any particular curriculum segment depends upon many factors. Some of the primary factors are as follows:

a) Regulatory requirements;
b) Complexity of the specific aircraft;
c) Complexity of the type of operation;
d) Amount of detail that needs to be covered;
e) The experience and knowledge level of the students;
f) Efficiency and sophistication of the operator's entire training programme (including itemssuch as instructor proficiency, training aids, facilities, courseware, and the operator's experience with the aircraft).

9.3.5 If after completing these evaluations, the Inspector determines that the curriculum or curriculum segment is satisfactory and adequately supported, and that the training hours are realistic, initial approval should be granted. Sometimes a portion of the submittal may appear to be satisfactory. However, if that portion is dependent upon another undeveloped portion or another unsatisfactory portion, initial approval must be withheld. For example, a pilot in command Beech-craft aircraft (BE-100) initial equipment, flight training curriculum segment is satisfactory but related training modules

within the initial equipment ground training curriculum segment are unsatisfactory. In such a case, it may be inappropriate to grant initial approval to the initial equipment flight training curriculum segment until the ground training curriculum segment is determined to be satisfactory.

9.3.6 During phase three of the approval process, the Inspector must establish priorities to ensure that, if appropriate, the granting of initial approval is not unnecessarily delayed. These priorities should assure that deficiencies are resolved so that initial approval can be granted before the operator's planned starting date for training.

10.0 EXPIRATION DATES FOR INITIAL APPROVALS

10.1 When the Inspector determines that a training curriculum or curriculum segment should be initially approved, he must also determine an appropriate expiration date for the initial approval. The expiration date is important throughout phase four of the approval process when the operator conducts and the Authority evaluates the training curriculum in the Demonstration Inspection Phase.

10.2 Regulation 9.3.1.3 of the Nigeria Civil Aviation Regulations requires the operator to obtain —approval" of training curricula. The word -approval" as used in Regulation 9.3.1.3 of the Nigeria Civil Aviation Regulations shall be treated as meaning final approval, not initial approval. The initial approval expiration date provides an incentive to the operator for refining all aspects of the programme to assure that this requirement is met. The expiration date also provides the Inspector with a time frame with which to plan evaluation activities for determining the effectiveness of the training. The expiration date assigned to an initially approved training curriculum must not exceed 12 months from the date of initial approval.

10.3 The Inspector may recommend grant of the final approval any time before the expiration date. Except when unforeseen circumstances preclude an adequate evaluation of training effectiveness, an extension to the initial approval expiration date should not be permitted. A new expiration date, however, may be established for a curriculum segment when there are significant revisions to an initially approved curriculum segment such as the case when an operator is establishing a new training programme or the Authority is requiring changes.

11.0 METHOD OF GRANTING INITIAL APPROVAL

11.1 Initial approval is granted by letter. Sample letters granting initial approvals are included at the endof this paragraph (figures 1 and 2). The initial approval letter must include at least the following information:

11.1.1 Specific identification of the curricula and/or curriculum segments initially approved, including page numbers and revision control dates;

11.1.2 A statement that initial approval is granted, including the effective and expiration dates;

11.1.3 Any specific conditions affecting the initial approval, if applicable;

11.1.4 A request for advance notice of training schedules so that training may be evaluated;

11.1.5 If the Inspector is recommending a reduction in the programmed hours specified by Part 8 of the Nigeria Civil Aviation Regulations, a statement concerning the basis for the reduction in requirements.

11.2 An initial approval letter serves as the primary record of curriculum or curriculum segment pages that are currently effective. Initial approval should be stamped on each page of a curriculum. The stamp must clearly indicate initial approval and the expiration date. Other acceptable methods include a list of effective curriculum or curriculum segment pages, or pages with a pre-printed signature and date blocks.

11.3 The original pages of the curriculum or curriculum segment shall be returned to the operator with the transmittal letter. These documents should be retained by the operator as an official record. A copy of the training curriculum or curriculum segment, with a copy of the transmittal letter granting initial approval attached, shall be maintained on file in the Authority office by the Inspector during the period that the initial approval is valid. The Inspector shall also maintain on file with the curriculum all additional relevant supporting information.

ABC Airlines
Director of Operations/Training (as appropriate)
(Appropriate address)

Dear Mr. Jumanne:

Effective _____, initial approval is granted to ABC Airline's SD-330 Pilot in Command and Co pilot- Initial Equipment Flight Training, pages 1 through 10, dated 11 March 20--. This training curriculum is initially approved in accordance with the provisions of Regulation 9.3.1.3 of the Nigeria Civil Aviation Regulations, effective 30 March 20___.

Initial approval of this training curriculum shall remain in effect until _____, (24-months later), or upon the granting of final approval, whichever occurs first. In accordance with Regulation 8.10.1.43 of the Nigeria Civil Aviation Regulations, ABC Airlines is requested to notify this office at least 5 working days in advance of any training to be conducted under this programme so that the Authority may evaluate the effectiveness of the training.

For: Director General

FIGURE 1
LETTER OF INITIAL APPROVAL

ABC Airlines
Director of Operations/Training (as appropriate)
(Appropriate address)

Dear Mr. Masanja:

This letter is in reference to ABC Airline's B-737 Pilot in Command and Co pilot -Initial Equipment Ground Training curriculum, pages 100/1 through 100/15, dated 14 April 200___. This curriculum is granted initial approval, effective 30 April 20___. The approval is contingent upon a satisfactory evaluation of your advanced systems ground trainer scheduled for 28 and 29 April 200___.

The expiration date of this initial approval is 30 April (24-months later). This office requests ABC Airlines provide at least 5 working days advance notice of any training to be conducted under this curriculum to allow for evaluation of the training in accordance with Regulation 8.10.1.43 of the Nigeria Civil Aviation Regulations

Approval of the reduced training hours from the programmed training hours currently in effect will be based on the demonstrated improved training techniques available from your advanced systems ground trainer.

For: Director General

FIGURE 2
LETTER OF INITIAL APPROVAL

12.0 METHOD OF DENYING INITIAL APPROVAL

12.1 If the Authority determines that initial approval of a proposed training curriculum or curriculum segment must be denied, the operator shall be notified in writing of the reasons for denial. This letter must contain an identification of the deficient areas of the training curriculum and a statement that initial approval is denied. It is not necessary that each minor deficiency, which resulted in the denial, be identified; however the major deficiencies should be outlined in the letter.

12.2 It is the operator's responsibility to redevelop or correct the deficient area before resubmission to the Authority. A copy of the denial letter and a copy of the proposed training curriculum or curriculum segment shall be kept on file in the Authority office. Figure 3 is a sample letter of a denial of initial approval.

ARK Airlines
Director of Operations/Training (as appropriate) (Appropriate address)
Dear Mr. Nyanja:

This letter is in response to your request for initial approval of Revision 2 to ARK Airline's DC-9 Pilot in Command and Co pilot-Recurrent Ground Training curriculum, dated 2 August 20___. Your request for initial approval of revision 2 is denied for the following reason:

More than 70 percent of your scheduled operations occur in areas which, during the winter months, are subject to cold weather, snow, ice, and sleet. Your pilot workforce must have adequate training in the safe operating practices associated with a cold weather environment to enable them to cope effectively with such hazards. Revision 2 deletes training previously given on major aspects of cold weather operations and does not provide any identifiable instruction to your crews for operating flights in such conditions. Presently there is not another course of training for Airline's pilots containing adequate information on cold weather procedures.

For: Director General

FIGURE 3
LETTER OF DENIAL OF INITIAL APPROVAL

13.0 EVALUATING INITIALLY APPROVED TRAINING CURRICULA - PHASE FOUR

13.1 The Demonstration and Inspection Phase begins when the operator starts training under the initially approved curriculum. This phase should provide the operator with adequate time to test the programme and the flexibility to adjust the programme during Authority evaluation.

13.2 The Inspector must require an operator to provide ongoing schedules of all training and checking to be accomplished under an initially approved training curriculum. The Inspector must closely monitor training conducted under initial approval. Whenever possible, the first session of training conducted under initial approval should be monitored by the Inspector or a qualified operations inspector.

13.3 The Authority inspector does not need to observe every training session. A sufficient sampling of the training sessions, however, should be observed as a basis for a realistic evaluation. Inspectors qualified in the type aircraft, and other individuals knowledgeable of the curriculum subject matter, should assist in evaluating the training.

13.4 During training under initial approval, the operator is expected to evaluate and appropriately adjust training methods as needed. Often adjustments can be made by changing courseware and instructional delivery without (or with only minor) revisions to the initially approved curriculum. Conversely, it may be necessary for the operator to substantially change the curriculum that may require another initial approval action by the Inspector before the changes can be put into effect. Sometimes proposed revisions may be transmitted to the Inspector just before the initial approval expiration date. If the change is significant, the Inspector may need to establish a different expiration date for the curriculum segment, or for the revised portions, to allow adequate time for a proper evaluation.

13.5 During phase four, the operator must demonstrate the ability to effectively train crewmembers and flight operations officer/dispatchers. Each deficiency identified during the evaluation of training conducted under an initially approved curriculum must be discussed with the operator. If the deficiencies are significant, they must be documented and kept on file.

13.6 In most cases, when the cause of a deficiency has been accurately identified, the operator will make the necessary changes to correct the deficiency to obtain final approval. Each significant deficiency that has been accurately identified must be immediately corrected. If an operator does not take appropriate corrective action, the Inspector shall advise the operator in writing that initial approval is withdrawn.

14.0 ELEMENTS AVAILABLE FOR EVALUATING TRAINING - PHASE FOUR

14.1 The Inspector must develop a plan for systematically evaluating training given under the initially

approved training curriculum. This plan should remain in effect throughout the initial approval period. There are four elements that can be evaluated when assessing the overall effectiveness of training programmes. These four elements are: curriculum segment outlines, courseware, instructional delivery methods and training environment, and testing and checking. These elements are interrelated; however, each can be separately evaluated.

14.2 Before evaluating a training programme, an inspector must become familiar with the contents of the curricula or curriculum segments to be evaluated. This preparation is essential if an inspector is to determine whether an operator has developed an effective course of instruction from its initially approved training curriculum. For initial certification, this would have been conducted in the Document Evaluation Phase

14.3 Direct examination of courseware includes reviewing materials such as training modules/lesson plans, workbooks, or flight instructor guides. The inspector must determine whether the courseware is consistent with the curriculum or curriculum segment and that it has been organised to facilitate effective instructional delivery. Courseware is usually the training programme element that is most adaptable to revision or refinement. Inspectors must review at least a sampling of the courseware.

14.4 Direct observation of instructional delivery includes surveillance of training methods, such as instructor lectures, computer based instruction presentations, and in-flight instruction. Effective learning can only occur when an instructor is organised, prepared, and properly uses the courseware and various training aids. The inspector must determine that the instructional delivery is consistent with the courseware. For example, the inspector should note whether the instructor teaches the topics specified in the training module/lesson plan. Training aids and devices should function as intended during the instructional delivery. In addition, during training, the inspector should be sensitive to the type of questions being asked by students and should identify the reasons for any excessive repetition. These conditions may indicate ineffective instructional delivery or courseware. The inspector must also determine if the instructional environment is conducive to learning. Distractions, which adversely affect instructional delivery, such as excessive temperatures, extraneous noises, poor lighting, cramped classrooms or workspaces, are deficiencies because they interfere with learning.

14.5 Direct observation of testing and checking is an effective method for determining whether learning has occurred. Examining the results of tests, such as oral or written tests or flight checks, provides a quantifiable method for measuring training effectiveness. The Inspector must examine and determine the contributing factors of significant failure trends.

14.6 If this is not an initial certification surveillance and investigation of operator activities also could be used in assessing curriculum segments.

14.6.1 Curriculum Segment Outlines - Curriculum segment outlines contain the specific training modules and the amount of time allocated for the curriculum segment. The modules must be consistent with regulatory requirements and safe operating practices. This element requires direct examination;

14.6.2 Courseware - Courseware converts curriculum outline information into usable instructional material. Courseware must be consistent with the curriculum outline and be organised to permit effective

instructional delivery. It is readily adaptable to adjustments and refinement by the operator. This element usually requires direct examination;

14.6.3 Instructional Delivery Methods and Training Environment - Instructional delivery methods are used to convey information to the student. Effective learning is maximised if the instructional delivery adheres to and properly uses the courseware. The training environment should be conducive to effective learning. This element requires direct observation;

14.6.4 Testing And Checking - Testing and checking is method for determining whether learning has occurred. Testing and checking standards are used to determine that a desired level of knowledge and skill has been acquired. Testing and checking also measures the effectiveness of courseware and instructional deliver. This element requires direct observation. It can be supplemented by examining operator records of test and checks.

14.7 If the results of the inspection are acceptable and no discrepancies are found the inspectors should:

14.7.1 Inform the operator (debrief);

14.7.2 Continue with the certification process

14.7.3 Complete "final approval" documentation;

14.7.4 File the demonstration results.

15.0 METHOD FOR GRANTING FINAL APPROVAL - PHASE FIVE

15.1 The granting of final approval of an operator's training curriculum should be based on the results of the evaluation, the Inspector must determine whether to grant or deny final approval of a training curriculum on behalf of the Authority. This determination must be made before the expiration date of the initial approval. If the Inspector decides that final approval should be granted, the following procedures apply:

15.1.1 Programmes that Contain a List of Effective Pages. Final approval of the training curriculum can be granted and documented by the Inspector on the List of Effective Pages. This means that the Authority has given final approval of every page of the operator's training curriculum, as listed on that page, but only one Authority approval block must be completed and signed;

a) The stamped page that documents final approval of the training curriculum and/or curriculum segment shall be stamped for approval, dated, and signed by the Inspector on behalf of the Authority. The approval stamp that appears on the page should be a facsimile of the stamp that appears in this paragraph;

b) The original curriculum and/or curriculum segment must contain the one page that documents Authority approval on the List of Effective Pages. The curriculum and/or curriculum segment must be transmitted to the operator with an approval letter signed by the Inspector in accordance with this Order;

15.1.2 Programmes that do not contain a List of Effective Pages. The original and a copy of each page of the training curriculum and/or curriculum segment shall be stamped for approval, dated, and signed by the Inspector. The approval stamp shall appear on each page and be a facsimile of the following stamp:

AUTHORITY FINAL APPROVAL
OFFICE DESIGNATOR:_____
EFFECTIVE DATE: _____
NAME: _____
SIGNATURE: _____of the Authority

15.1.3 The original stamped curriculum or curriculum segment must be transmitted to the operator with an approval letter signed by the Inspector on behalf of the Authority. This letter must specifically identify the curriculum or curriculum segment; contain a statement that final approval is granted; and provide the effective date of approval. This letter must also state that final approval shall remain in effect until otherwise notified by the Authority that a revision is necessary in the interest of safety. If the Inspector is authorising a reduction in the programmed hours specified by regulations, the letter must contain a statement concerning the basis for reduction. A copy of the stamped curriculum or curriculum segment, and a copy of the approval letter must be kept on file in the Authority office. Figures 4 and 5 are sample letters of final approval

ABC Airlines, Inc.
Director of Training
(appropriate address)

Dear Mr. Nyancha:

Final approval is granted to ABC Airlines' Cabin Crew Member - Recurrent Ground Training curriculum, for pages 1 through 5, dated May 21, 2003, and for pages 6 through 7, dated April 15, 2004.

The effective date of final approval is January 20, 2004. ABC Airlines may continue to train in accordance with this curriculum unless a revision is required by the Authority in the interest of safety or, until ABC Airlines revises the curriculum.

Approval of a reduction in training hours from 16 hours to 8 hours is based on ABC Airline's continued use of the SAS A-300 cabin-training mock-up.

For: Director General

FIGURE 4
LETTER OF FINAL APPROVAL

ABC Airlines, Inc.
Director of Operations
(appropriate address)

Dear Mr. Mifanomingi:

Final approval is granted to ABC Airlines, Inc., Beech 99 Pilot in Command Upgrade Ground Training curriculum, pages 1 through 6, dated 10 December 20___.

The effective date of this final approval is 9 June 20___. ABC Airline may continue to train in accordance with this curriculum unless a revision is required by the Authority in the interest of safety or, until ABC Airlines revises the curriculum.

For: Director General

FIGURE 5
LETTER OF FINAL APPROVAL

16.0 WITHDRAWING APPROVAL OF TRAINING CURRICULA

16.1 Before withdrawing approval of a certificated operator's training curriculum or curriculum segment, the Inspector shall make reasonable efforts to convince the operator to make the necessary revisions. It is important to understand that withdrawing approval could be detrimental to the operator's business.

16.2 The operator's ability to hold a certificate may be in question if a new curriculum is not submitted for initial approval within a reasonable period of time. A decision to withdraw approval must be based on sound judgement and justifiable safety reasons. When sufficient reasons are established, it is mandatory for the Inspector to take immediate action to remove the Authority approval from an ineffective or noncompliant training curriculum.

16.3 When an approval is withdrawn, the Inspector must ensure that the operator clearly understands that any further training conducted under an unapproved curriculum is contrary to the Regulations requirements. The two methods for withdrawing approval of a training curriculum are as follows:

16.4 Allowing an initially approved training curriculum to expire without granting final approval; and

16.5 Withdrawing approval of an initially approved training curriculum before the expiration date.

17.0 EXPIRED TRAINING CURRICULA

17.1 A training curriculum granted initial approval expires not be later than 12 months after the initial approval date. If the Inspector does not grant final approval before the expiration date, training under that curriculum must terminate as of that date.

17.2 Therefore, the Inspector shall not allow an initially approved curriculum to expire due to the Authority‘s inability to administratively grant final approval. Final approval may not be granted to an operator's training curriculum for several reasons. One reason, for example, may be the operator's inability to achieve an acceptable level of training effectiveness during phase four. Another example of a reason for not granting final approval is the discontinued use of the initially approved curriculum.

17.3 When the Inspector decides not to grant final approval before the expiration date, he must notify the operator through the Director responsible for Safety Oversight of this decision in writing, at least 30 days before the expiration date. An operator not so notified, may mistakenly assume that the initial approval will continue in effect until receipt of notification of either final approval or termination. The notification letter should contain the reasons for allowing the curriculum to expire and should state that any further training under the expired curriculum will not be in compliance with regulatory

requirements.

17.4 An Inspector who fails to provide this 30-day notification must establish a new expiration date so that appropriate notification can then be given to the operator.

ABC Airlines, Inc.
Director of Training
(Appropriate address)

Dear Mr. Kindakinda:

This letter notifies you that the Authority initial approvals of the following training curriculum segments are withdrawn, effective April 1, 2004:

1. The emergency training segment for the DC-9 Co pilot Initial New Hire Training curriculum, pages 9.1 through 9.3, dated 11/15/03.
2. The emergency training segment for the DC-9 Pilot in Command Upgrade Training curriculum, pages 9.31 through 9.33, dated 6/1/03.

The investigation of the in-flight incident that occurred on ABC Airline's flight 943 on February 10, 0000 revealed that the flight crew members did not take positive action to isolate the source of smoke caused by malfunctioning cabin light ballast. During the Authority interview, the flight crewmembers displayed a lack of concern about the importance of taking immediate and positive action to control in-flight fire and smoke. In addition, since this incident, inspectors from this office have been emphasising fire and smoke combating procedures during oral testing of the DC-9 pilots taking the above listed training. These inspectors have observed that many of your DC-9 pilots have a serious lack of knowledge about fire and smoke control procedures and the use of fire fighting equipment, particularly the type of extinguishers to be used in different classes of fire.

We have discussed these deficiencies with your staff and they have effectively revised the Emergency Training curriculum segment for the DC-9 PIC/Co pilot Recurrent Training. Your staff, however, advises that they will not revise the training curricula listed above. Therefore, AUTHORITY initial approval is withdrawn. Initial approval can be re-obtained by revising the curriculum to require detailed instruction on fire and smoke control procedures and firefighting equipment.

It is contrary to Regulation 4.1.5 of Part 8 of the Nigeria Civil Aviation Regulations, for an air operator to use pilots in commercial air transport operations who have not been trained in accordance with an Authority approved training curriculum.

CHAPTER 6

Approval of Operator's Mass and Balance Control Programme

1.0 PURPOSE

This Chapter provides guidance for evaluating an operator/applicant's mass and balance control programme/procedures.

2.0 REFERENCES

3.1 Regulations 8.6.2.17 and 8.6.2.18 of the Nigeria Civil Aviation Regulations, and Regulation 9.3.1.16 of the Nigeria Civil Aviation Regulations Regulations;

3.2 NCAA-AC-AWS016

3.3 ICAO Doc 9760.

3.4 CHECKLIST: CL:O-OPS006

3.0 GENERAL

3.1 Approved mass and balance control procedures are the only means for an operator/applicant to authorize the use of other than known mass for crew, passengers, baggage, or cargo. The mass and balance control programme, including loading schedules and charts, are approved on operations specifications (OpSpecs) by an Airworthiness Inspector (AWI). This programme must be included in the operator/applicant's policies and procedures manual.

3.2 The operator/applicant may develop and submit for approval any method or procedure by which he can show that an aircraft -

3.2.1 Is properly loaded according to approved configuration (loading schedules or charts);

3.2.2 Will not exceed authorized mass and balance limitations during all ground and flight operations;

3.2.3 Will be periodically reweighed and its data re- evaluated; and

3.2.4 Will have its data recalculated, if changes necessitate.
The operator/applicant's mass and balance control procedures may either be an independently controlled document which includes all the instructions and procedures for maintenance, operations, and baggage/cargo control, or it may be included in the manual.

4.0 USE OF KILOGRAM AS THE UNIT OF MASS

4.1 In accordance with ICAO Annex 5 and the International System of Units (SI), the actual and limiting masses of aircraft, the payload and its constituent elements, the fuel load, etc are expressed in the Civil Aviation Regulations in kilogram as the unit of mass. However, in many approved Flight Manuals and other operational documentation, these quantities are published as weights in pounds in accordance with the common language.

4.2 Guidance on the application of the SI in Annex 5 to the Convention on International Civil Aviation states -

4.2.1 In common use, the term weight" nearly always means mass", thus when one speaks of a person's weight, the quantity referred to is mass;

4.2.2 In science and technology, the term weight has usually meant the force that, if applied to the body, would give it acceleration equal to the local acceleration of free fall. Thus, because weight is a force which is a mass time acceleration, due to gravity, a person's weight is conditional on his location, but mass is not;

4.2.3 Since weight is a force, in the SI system its unit of measurement is the Newton.

4.3 In common use, the term weight nearly always means mass. In the SI system, where kilogram is used it properly expresses mass. For example maximum authorized takeoff weight of 5700 kg", should more properly be expressed as maximum takeoff mass of 5700 kg".

5.0 ESTABLISHED MASS AND CENTRE OF GRAVITY (CG) LIMITS

5.1 During type certification, the aircraft manufacturer must flight test mass and balance under all conditions and establish centre of gravity limits. An operator must ensure that during any phase of operation, the loading, mass and CG of the aircraft comply with the limitations specified in the aeroplane flight manual or helicopter flight manual as applicable or the operations manual if more restrictive.

5.2 If an operator/applicant proposes an unusual or complex mass and balance programme, or a programme substantially different from the Approved Aircraft Flight Manual or Pilot Operating Handbook, engineering assistance may have to be requested.

6.0 LOADING PROCEDURES

6.1 **Use of Average Passenger Mass**
Under Regulation 9.3.1.16 of the Nigeria Civil Aviation Regulations, an operator may use either approved standard average mass or actual mass for passengers, carry-on baggage and checked baggage and actual mass for cargo.

6.2 **Determination of Actual Passenger Mass** - Actual passenger mass may be determined by:

6.2.1 Scale weighing of each passenger prior to boarding the aircraft, including handbags carried on

board by the passenger; or

6.2.2 Asking each passenger his mass and adding to it a predetermined constant to provide for handbags and clothing. This constant may be approved for an operator on the basis of studies performed by the operator that consider particular routes and seasonal variations, when applicable. Personnel listing passengers on this basis should receive instructions for estimating passenger mass to reasonably confirm their accuracy.

6.3 **Carry-On Baggage** - Procedures must be provided for controlling carry-on baggage. Such procedures must include the following:

6.4 Carry-on baggage must be limited to articles that may be placed in an overhead compartment or under seats. No article may be placed in an overhead compartment that causes the mass limit of the compartment to be exceeded;
Carry-on baggage mass must either be accounted for in the same manner as checked baggage or be added to the passenger mass.

7.0 CARRY-ON BAGGAGE WHERE CARRY-ON STOWAGE SPACE IS LIMITED

7.1 An operator of aircraft with limited carry-on baggage stowage space should develop for approval by the Civil Aviation Authority, a programme that identifies how the operator would accurately identify what is carry-on baggage and what is checked baggage.

7.2 This programme should clearly explain how the operator would handle passengers who have two pieces of carry-on baggage.

8.0 AIRCRAFT MASS - WEIGHING OF AIRCRAFT

8.1 Further determination of mass, subsequent to the initial determination of the aircraft mass, should be carried out, at such times and in such manner as the Authority may require or approve.

8.2 An operator/applicant may use a contractor to weigh items required to be weighed. However, the operator/applicant is responsible for ensuring the contractor complies with the operator/applicant‘s approved mass and balance control programme. This includes ensuring scales are calibrated and tested in accordance with the operator/applicant‘s policies and procedures manual. Scales used to weigh passengers, aircraft, cargo, and baggage must be calibrated according to the national Authority responsible for weights and measures standards.

9.0 PROCEDURES

9.1 **Coordinate with the Operator/Applicant.** The operator/applicant must submit the following for review:

9.1.1 Manual or revision;

9.1.2 Mass and Balance Programme document (if not part of a manual);

9.1.3 Pertinent operator procedures;

9.1.4 Instructions for completing forms used in aircraft mass control and aircraft loading; and

9.1.5 Mathematical justification for loading provisions or schedules.

9.2 **Review the Operator/Applicant's Manual/Programme** Document. The AWI will coordinate with the FOI in the review of the manual which must include procedures, levels of authority, and information appropriate to the Regulations. In addition, the following must be included:

9.2.1 Manual introduction, to include:
- a) Description of the philosophy and the goals of the manual;
- b) Description of the division of contents between volumes, if more than one volume; and
- c) List of effective pages, including dates.

9.2.2 Manual revision and distribution procedures, to ensure:
- a) Current information is provided to all manual holders; and
- b) Manuals are available to maintenance, operations, and ground personnel and are furnished to the Authority.

9.2.3 Definitions of all significant terms used in the programme. The definitions must reflect their intended use and include any acronyms or abbreviations unique to the manual;

9.2.4 Description of the organizational unit responsible for the control and maintenance of the mass and balance programme, to include:
- a) Definitions of lines of authority; and
- b) Description of the support structure.

9.2.5 Job descriptions for all elements;

9.2.6 Training programmes that include the following:
- a) Maintenance personnel;
- b) Operations and dispatch personnel; and
- c) Ground handling personnel.

9.2.7 A means of documenting and retaining individual training records;

9.2.8 Procedures for:
- a) Determining standards and schedules for calibration of aircraft scales;
- b) Pre-weighing instructions and requirements;
- c) Determining which aircraft are to be weighed.
- d) Establishing and maintaining equipment lists for each aircraft;

e) Recording the type and serial number for each scale used, airplane mass, residual fluids, and scale tare mass;
f) Initial weighing of aircraft;
g) Monitoring and adjusting individual aircraft or fleet, empty mass, and CG;
h) Periodic reweighing of aircraft (Ensuring aircraft are configured in accordance with approved data;

9.2.9 A loading schedule consisting of graphs/tables or a special loading schedule for a calculator or computerized programme. These schedules must ensure that pertinent data is available concerning all probable mass and balance conditions of the aircraft;

9.2.10 Load documentation meeting the requirements of Regulations 8.6.2.17 and 8.6.2.18 of the Nigeria Civil Aviation Regulations, in which all required loading information shall be entered by personnel responsible for mass and balance control, including procedures for:

a) Completing the load manifest;
b) Ensuring load manifest is carried on the aircraft;
c) Retaining the load manifest for the time periods specified in the Nigeria Civil Aviation Regulations;
d) Distribution of the load manifest in accordance with the Nigeria Civil Aviation Regulations;

9.2.11 Procedures to be used by crew members, cargo handlers, and other personnel concerned with aircraft loading, for the following:

a) Distribution of passengers;
b) Distribution of fuel;
c) Distribution of cargo;
d) Verification and acceptance of actual cargo mass as listed on a bill of lading;
e) Restriction of passenger movement during flight, if applicable;
f) Dangerous goods requirements, if applicable;

9.2.12 A drawing of each cargo and/or passenger configuration to include emergency equipment locations;

9.2.13 Mathematical justification for loading provisions or schedules. This may be included under separate cover and not as part of the operator manual;

9.2.14 An alternate procedure for allowing manual computations, if a computerized mass and balance programme is utilized curn;

9.2.15 Procedures for a mass range system, if applicable, that ensures:

a) The range is typical of passengers carried on similar operations;
b) Computations for critical load considerations support the ranges;
c) Personnel responsible for loading the aircraft are required to prepare appropriate loading records;
d) The system includes methods for loading passengers whose mass are outside the range; and
e) |Loading records indicate the number of passengers within the stated range and account for passengers that do not fall within the range;

9.2.16 A system for loading non-standard mass groups, such as athletic squads or military groups and their baggage, which must utilize actual mass for both passengers and baggage;

9.2.17 Procedures to verify actual mass of cargo;

9.2.18 Standards and schedules for calibration of commercial scales used to determine baggage/cargo mass;

9.2.19 Procedures to ensure that carry-on baggage is limited to articles which may be placed in overhead compartments or under seats. Carry-on baggage mass must be accounted for in the same manner as checked baggage or added to the average passenger mass.

9.3 **Review the Operator/Applicant's Operations Specifications.** The AWI will review the draft Operations Specifications (OpSpecs) to ensure that it includes the following:

9.3.1 Aircraft make/model/series;

9.3.2 Type of loading schedule;

9.3.3 Loading schedule instructions for;

9.3.4 Mass and balance control procedures.
Note: The above items must be referenced by indicating the locations in the operator/applicant's manuals; e.g., volume, chapter.

9.4 **Analyze the Results**. Upon completion of review, analyze the results and determine whether the operator/ applicant's manual and operations specifications meet all requirements.

9.5 **Meet With Operator/Applicant.** Discuss any discrepancies with the operator/ applicant and advise what areas need corrective action.

10.0 RESULTS

10.1 After the review is completed the inspector will meet with the applicant or operator to discuss required Manual/programme document changes and recommendations to resolve discrepancies. This should be followed by a written notification:

10.1.1 If discrepancies are found:

a) The notice will be accompanied by a completed Activity Report listing specific discrepancies found and recommendations, outlining what will be required to correct the discrepancies; and

b) Treat re-submissions as revisions.

10.1.2 When the inspector is satisfied that the aircraft Manual/programme document meets the requirements:

a) Circle the –Ap" block on the Activity report as approved and advise the Certification Project

Manager (CPM);

b) Return the original approved Manual/programme document to the applicant or operator accompanied by a letter of approval; and

c) Maintain a copy of the Manual/programme document at the Authority.

10.2 These same procedures will be followed when a to the original or approved Manual/programme document is received from the operator.

CHAPTER 7

Approval and Acceptance of an Aircraft Operating Manual (AOM)

1.0 PURPOSE

This Chapter provides guidance to Flight Operations Inspectors (FOIs) on the evaluation and approval of an Aircraft Operating Manual (AOM).

2.0 REFERENCE

2.1 **Regulation 9.3.1.4 of the Nigeria Civil Aviation Regulations.**

2.2 **Aircraft Operating Manual (applicable).**

2.3 CHECKLISTS: CL:O-OPS007; CL:O-OPS020B

3.0 GENERAL

3.1 Part 9 of the Nigeria Civil Aviation Regulations require the operator to submit an AOM containing the normal, abnormal and emergency procedures relating to the operation of the aircraft to the Authority for approval. An approved AOM is an approved manual that needs to be carried aboard an aircraft. Inspectors must evaluate an operator's AOM using the guidance that follows.

3.2 **Identification as an Approved Manual.** Inspectors must ensure that an AOM and the Aircraft Flight Manual (AFM) are clearly marked as approved manuals for a specific operator. Sections of an AOM which contain approved information must also be clearly identified.

3.3 **Approved Sections of an AOM.** Inspectors must ensure that the approved sections of an AOM contain all of the information that is required by the flight crew to operate the aircraft. Inspectors should evaluate the approved sections of an AOM for the following:

3.3.1 The procedures section of an AOM must contain all procedures required by the Aircraft Flight Manual and for each operation the operator conducts. As a minimum, the operator must include sufficient detail to allow a trained flight crewmember to safely and effectively operate the aircraft. The Procedures Section of the manual may be divided into subsections such as normal, abnormal, and emergency procedures;

3.3.2 The operator's performance data in an AOM must contain the data from the AFM and instructions on how to use that data. Operators may assign the responsibility for performing takeoff and landing data computations to flight crew or ground personnel. The flight crew must have access toadequate data in the cockpit, (including information for the specific airport and runway to be used) to perform the computations for which they are responsible. When takeoff and landing data is presented in tabular format for specific runways, it is often referred to as an airport analysis. Performance data

may be published under separate cover and be given titles such as performance manual or airport analysis. When performance data is published under separate cover, it must be identified as a portion of the AOM. Takeoff and landing performance data may be stored in an on board or ground based computer;

3.3.3 The Limitations Section of an AOM must be clearly identified as being approved. The Limitations Section of an AOM must contain each limitation, which is contained in the AFM.

3.4 **Accepted Sections of an AOM.** Accepted sections of an AOM may contain supplementary information such as aircraft and systems descriptions, an expanded explanation of procedures, special policies and procedures, and other selected topics pertinent to operation of the aircraft type. The accepted sections of an AOM must conform to the regulations and safe operating practices but do not need to conform to corresponding sections of the AFM, either in format or content. Inspectors should ensure that the AOM developed by or for the operator contains sufficient explanation and guidance for the use by flight crew in the safe operation of the particular aircraft type. Background information or information that is not specific to the operation of the particular aircraft should be placed in a section of the Operations Manual, rather than in a supplementary section of the AOM.

4.0 AIRCRAFT SYSTEMS DESCRIPTION

Operators must provide crew members with a systems description of an aircraft's systems and components that contains sufficient detail to allow flight crew members to adequately understand and perform all procedures in the approved manual. AFMs and AOMs may or may not contain a systems description section. The aircraft systems description section of a manual is "accepted" as opposed to "approved." Operators may choose to place the systems description information in an accepted section of an AOM or in a section of the Operations Manual such as the Training Manual Section.

5.0 PROCEDURES

5.1 Inspectors should not construe procedures published in an AFM to be the only or best means of accomplishing a specific objective. Because AFM procedures are formulated primarily for aircraft certification purposes, Inspectors should encourage operators to develop procedures appropriate to revenue operations for inclusion in an AOM.

5.2 Procedures incorporated in an AOM should be tailored by the operator to accommodate the operator's type of operation, fleet standardisation objectives, and cockpit management objectives. As an operator's operations become more complex, it is progressively more important to include detailed guidance in his AOM, which is specifically tailored to the operator's operations.

5.3 Aircraft which have been modified by Supplemental Type Certificate (STC) may require different procedures than unmodified aircraft. FOI‘s must co-ordinate approval of procedures with Airworthiness Inspector‘s (AWI‘s) to ensure modifications are accounted for in the operator's procedures

5.4 Procedural information included in an AOM must be presented in a step-by-step format. A procedural step in an AFM procedure must be included in the equivalent AOM procedure, unless the inspector approves the deletion through the process described in subparagraph I that follows.

5.5 Operators are responsible for developing effective Standard Operating Procedures (SOP's). The development process for standard operating procedures consists of the operator or other qualified party (such as the manufacturer) conducting a painstaking task analysis of the man machine environment relationship. Although this analysis is time consuming and expensive, it is necessary to meet the required level of safety in air transport operations. Operators shall confirm with the manufacturers recommendation in the development of Standard Operating Procedures.

5.6 Inspectors should ensure that operators standardise their operating procedures both within and across aircraft types to the greatest extent possible. Inspectors should make operators aware of the following information concerning procedures for standardisation:

5.6.1 Standardised procedures promote understanding and effective communications between crewmembers. Research has shown that standardised procedures and effective communications are significant factors in reducing error in the cockpit and in enhancing safety;

5.6.2 Crewmembers of most large operators operate numerous different aircraft during their career. Standardised procedures enhance a crew members transfer of learning and minimise negative transfer when the crew member transitions from one aircraft to another; and

5.6.3 A complete standardisation of procedures is not possible when there are significant differences between "manufacturer's" and "installed" equipment, but a high degree of standardization can still be achieved. For example, the flight procedures for: engine failure after V1, engine fire after V1, and a missed approach with an engine out, can be designed to be identical. Each procedure might include the aircraft climbing at a reference speed to an identical clean up height, then accelerating, then retracting the flaps, and then continuing the climb at specified engine-out climb speed. The reference speeds might vary depending on the aircraft mass, but the procedure could otherwise be identical. If the operator designed these procedures carefully, they could be used on all aircraft in the operator's fleet.

5.7 Inspectors may approve combined procedural steps. For example, an AFM or RFM procedure specifies a two-step procedure such as the following: Step 1 - Smoke Goggles On, and Step 2 - Oxygen (O2) Mask On. The inspector could approve a one-step procedure such as the following: Step 1. Smoke Goggles and O2 Mask on. If there is a specific reason, however, for not combining the steps, the inspector must not approve such combinations. For instance, if in the previous example, for some reason the smoke goggle has to be put in place before the O2 mask can be put into place, the two-step procedure should be retained.

5.8 Inspectors may approve an arrangement of procedural steps in a different sequence from the sequence in the AFM. The operator must demonstrate to the Inspectors satisfaction that the change in sequence is safe and effective through validation testing. The inspector shall ensure adverse

effects are not introduced. For example, with many aircraft the flaps are required to be extended or the trim to be set to specific settings before an adequate control check can be accomplished. If this sequence is reversed, the control check is invalid.

5.9 Inspectors may approve the combination of similar procedures into a single procedure. For example, it may be desirable for an operator to combine engine fire, engine failure, and severe engine damage procedures into a single procedure. Inspectors may approve the resulting procedure when validation testing demonstrate that the procedure is clear, easy to use, and retains the safeguards of the individual procedures it replaces on the other hand if the combined procedure results in a complex and potentially error prone procedure, the inspector shall not approve it.

5.10 The inspector shall require the operator to present evidence that newly developed procedures are effective. This may be done by analysis, documentation, or validation tests. Tests may be conducted by the manufacturer, the operator, or another competent party (such as a contractor). The
Flight Operations Inspector qualified in the aircraft type must evaluate the effectiveness of such tests.

5.11 **Normal Procedures**

5.11.1 The normal procedures section of an AOM must contain procedures for each normal operation that flight crew members are required to perform. Each normal procedure should be amplified by the operator with sufficient instruction to ensure that the procedure is properly accomplished. Inspectors must ensure that this instruction is thorough enough to provide the least experienced flight crewmember with sufficient information to perform the procedures.

5.11.2 Many operators include normal operating checklists and an explanation of how to accomplish each step of the checklists in the normal Procedures Section of the AOM. This is an acceptable practice; however, it is important to understand that an explanation of how to perform the normal checklist is not the only material required in the normal Procedures Section of an AOM. Guidance for operational procedures for which there are no checklists (such as the takeoff procedure) must also be addressed. Procedures for crew co-ordination and for the use of checklists must be included. The Procedures Section of an AOM must contain clearly specified crew duties. For example, the Procedures Section should contain a specific assignment for the crewmember who is responsible for setting power and maintaining directional control when the co-pilot is conducting a takeoff.

5.11.3 Where an AFM or RFM does not contain normal procedures for specific operations, inspectors may require the Operator to develop and publish normal procedures in the AOM when the procedures are necessary to ensure an adequate level of safety. Instrument approach procedures, adverse weather operations, long range navigation, and special procedures for CAT II and CAT III operations are all examples of required normal procedures which may not be in an AFM or RFM.

5.11.4 Operators may need to develop extensive procedures for operating computer-based systems in the cockpit. A description of computer displays and controls does not normally provide a crew member with adequate information to operate such systems. Procedures for computer operations should be keyed to menus and display prompts. Procedures should be written in an interactive format rather

than as a rote listing of keystrokes.

5.12 **Manoeuvres and Procedures Document**

5.12.1 Regulations require that operators publish "detailed descriptions or pictorial displays of the approved normal, abnormal, and emergency manoeuvres, procedures and functions that will be performed during each flight training phase or flight check, indicating those manoeuvres, procedures and functions that are to be performed during the in-flight portions of flight training and flight checks". Operators must obtain approval of the manoeuvres and procedures descriptions before they are published.

5.12.2 Before approving the operator's "manoeuvres and procedures document," Inspectors shall ensure that it contains the tolerances, which must be maintained in training and checking. Inspectors shall ensure that the operator's standards are appropriate for the aircraft being flown and for the operation being conducted

5.13 **Abnormal and Emergency Procedures**

5.13.1 Abnormal and emergency procedures in an AFM are usually presented in more detail than normal procedures. The steps and the order of steps in these procedures are often critical. Inspectors must exercise caution in approving the modification of abnormal and emergency procedures. The effects of most procedural steps on the airworthiness of the aircraft are obvious but the effects of some are not. For example, it may be necessary to depressurize a hydraulic system to successfully perform a manual landing gear extension. Deleting a step or a change in the sequence of steps of such a procedure could make the procedure ineffective. There have been instances in which operators have erroneously proposed modifying an AFM procedure, and Inspectors have unintentionally approved the modification, which invalidated the certification basis of the aircraft. Inspectors should use the guidance that follows when evaluating an operator's abnormal or emergency procedures in AFMs or AOMs.

5.13.2 When an operator proposes to modify an abnormal or emergency procedure, the operator must show that the modified procedure does not adversely affect the airworthiness of the aircraft. The operator may establish the safety and effectiveness of proposed procedures by corresponding with the manufacturers and by analysis, documentation, or validation tests.

5.13.3 Inspectors shall contact the applicable appropriate authority and obtain concurrence before approving deletion of an item or the rearrangement of items on these checklists. Appropriate authority concurrence may be expressed informally (by telephone). Appropriate authority concurrence is not required if the operator provides evidence that the appropriate authority has already concurred with the identical procedure for another party (such as another operator or manufacturer).

5.14 **Immediate Actions**

5.14.1 An immediate action is an action that must be accomplished so expeditiously (in order to avoid or stabilize a hazardous situation) that time is not available for a crewmember to refer to a manual or

checklist. Crewmembers must be so familiar with these actions that they can perform them correctly and reliably from memory. Inspectors must ensure that immediate action situations are included in an operator's AFM or AOM, as appropriate. Situations that require immediate action include, but are not limited to the following:

a) Imminent threat of crew member incapacitation;
b) Imminent threat of loss of aircraft control;
c) Imminent threat of destruction of a system or component which makes continued safety of the flight and subsequent landing improbable.

5.14.2 Under these criteria, a flight crew donning oxygen masks in response to a depressurisation or turning off the fuel and ignition in case of a hot start are situations requiring mandatory immediate action items. The loss of thrust on a jet engine during cruise, however, would not normally require an immediate action item according to these criteria.

5.14.3 Inspectors must ensure that immediate action items are explicitly identified as such in an operator's AOM. It is not acceptable for immediate action items to be hidden (not specifically identified as an immediate action) in procedures or checklists.

5.14.4 Certain situations that either require or appear to require immediate action have proven to be a stimulus for generating incorrect and inappropriate flight crew actions. Therefore, immediate action items must be strictly limited to only those actions necessary to stabilise the situation. Inspectors must ensure that all remaining actions are accomplished by "challenge do verify" (CDV) checklists. CDV checklists have checklist items that require confirmation from a second crewmember before the step may be taken.

5.14.5 Inspectors may approve an operator's proposal to replace immediate action items in an AFM procedure with challenge do verify (CDV) checklist procedures in an AOM, provided the operator shows compliance with the criteria in this paragraph and also demonstrates an equivalent level of safety through validation tests.

5.15 Mandatory Confirmation Items

5.15.1 There are certain critical procedural steps that must be confirmed by a second crewmember before the step may be taken. Inspectors must ensure that an operator's procedures, which contain such critical procedural actions, clearly identify the critical actions and the crewmember that is responsible for giving the confirmation.

5.15.2 The types of procedural actions that require this confirmation include the following:

a) Actions resulting in the shutting down of an engine;
b) Actions resulting in the deactivation of flight controls;
c) Actions that if performed incorrectly, in the wrong sequence, or at the wrong time would produce a catastrophic result, even if the incorrect action is not highly likely;
d) Actions where past experience or analysis has shown that there is a high probability for error or incorrect action and which creates a hazardous situation.

5.16 Crew Member Responsibilities

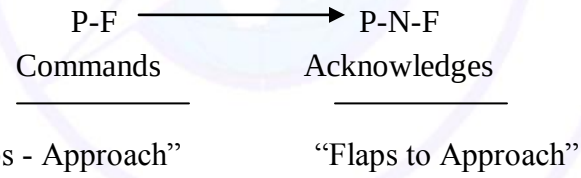
5.16.1 The AOM must clearly define the various crew member responsibilities. Inspectors should use the following guidance when ensuring that the operator clearly states policy and guidance for cockpit management in the AFM or AOM, as applicable.

5.16.2 **PIC Responsibilities.** The operator's policy and guidance should make it clear that the PIC's primary responsibility is to manage the actions of the crew and the conduct of the flight. While the PIC may delegate the management of the flight and manipulation of the controls to the co-pilot, the AOM must not indicate that the PIC can delegate the responsibility for safe conduct of the flight.

5.16.3 **Responsibilities of Flight Crew members Not in Command.** The operator‘s Operations Manual should contain policy and guidance to those flight crew members not in command, as to their responsibilities to the PIC and their responsibilities for the safe conduct of the flight.

5.16.4 **Co-pilot Responsibilities.** The AOM must contain guidance for the PIC concerning the conditions and circumstances in which a co-pilot may operate the aircraft. The operator's policies must delineate the limits of authority delegated to the co-pilot when the co-pilot is the pilot flying (PF). The operator's policies should address crew management in critical situations. For example, there may be certain situations in which the co-pilot should be the pilot flying (PF) so that the PIC can concentrate on managing those situations, particularly ensuring that required actions and appropriate checklists are properly accomplished. Procedures for transfer of control must be clearly addressed in the AOM. PNF stands for Pilot not flying.

5.16.5 **Communications.** In general, proper cockpit management requires effective communication and co-operative action between crewmembers, which form consecutive, closed loops. An example of this interaction is in the illustration that follows.



5.16.6 **Co-ordination.** Research has shown that effective flight crew co-ordinate their actions before any action is required. Inspectors shall ensure that AOMs contain a requirement for briefings and also adequate guidance for the content of those briefings.

5.17 **Operations not Evaluated in Aircraft Certification**

5.17.1 If the operator proposes to conduct operations, which have not been evaluated during aircraft certification, the inspector must ensure that the operator has developed and obtained approval of procedures for the conduct of the proposed operation. Such operations are often indicated by the absence of a procedure for the operation in the AFM. Examples of such operations could include power-back and taxi with engine shutdown. Inspectors should use the following guidance when evaluating those operations not evaluated during aircraft certification.

5.17.2 Inspectors must ensure that each operation conducted must be specifically addressed by a

procedure. For example, it should not be assumed that a procedure for shutting down and then restarting an engine during a taxi delay is equivalent to a procedure for delaying an engine start on initial taxi out. The same procedure may not be used for more than one operation unless analysis shows that more than one operation may be safely conducted using the same procedure.

5.17.3 FOI's must ensure that an operational procedure is thoroughly co-ordinated with AWI's. Since adverse effects that a procedure could cause to the airworthiness of an aircraft or its systems may not be immediately apparent, the inspector must ensure co-ordination with airworthiness inspectors. For example, a procedure for taxiing with engine shutdown could have a detrimental effect on the landing gear system if high asymmetrical engine thrust is used during sharp turns. If there is any question concerning the effects a procedure may have on the airworthiness of the aircraft, the inspector must co-ordinate with and obtain concurrence from the appropriate authority before granting approval of the procedures.

5.18 **Limitations**

5.18.1 Inspectors must ensure that when operating limitations are incorporated in an AOM, that each limitation is identified to that contained in the AFM. Inspectors should use the following guidance when evaluating the limitations of an operator's AOM.

5.18.2 Inspectors should evaluate the operator's AOM to ensure that all AFM operating limitations are published in the AOM and are clearly identified as AFM limitations. The limitations section of an AOM must contain every limitation from the AFM. Operators may add limitations to AOMs which were not in an AFM. One method of accomplishing this is for the operator to express all operator-imposed limitations as policy statements in applicable procedures. When the operator chooses to blend AFM and operator imposed limitations in the limitations section of an AOM, the inspector must ensure that the operator used a method for clearly distinguishing each AFM limitation from the operator imposed limitations.

5.18.3 The operator is responsible for informing crewmembers of all AFM operating limitations. Crewmembers are responsible for observing all AFM limitations. The inspector must ensure that the AOM contains a statement that crewmembers are responsible for being aware of and for observing all limitations.

6.0 RESULTS

6.1 After the review of the AOM is completed the assigned inspector will notify the operator in writing accompanied by a completed general activity form with the listed discrepancies-

6.1.1 If discrepancies are found:

a) The notice will be accompanied by a completed prescribed form listing specific discrepancies found and recommendations, outlining what will be required to correct the discrepancies;

b) Treat re-submissions as revisions;

6.1.2 When the inspector is satisfied that the AOM meets all requirements:

a) Circle the —Ap block on the Activity checklist as approved and advice the CPM;
b) Return the original approved AOM to the operator accompanied by a letter of approval;
c) Maintain a copy of the AOM at the Authority;

6.1.3 These same procedures will be followed when a revision to the original or approved AOM is received from the operator.

CHAPTER 8

Approval and Acceptance of Minimum Equipment Lists (MELs) and Configuration Deviation Lists (CDLs)

1.0 PURPOSE

1.1 This Chapter provides guidance to both Flight Operations and Airworthiness Inspectors on the continued operation of an aircraft with specific items of equipment inoperative under certain circumstances.

2.0 REFERENCE

2.1 Regulation 9.3.1.12 of the Nigeria Civil Aviation Regulations.

2.2 Part 7 of the Nigeria Civil Aviation Regulations.

2.3 Master Minimum Equipment List (MMEL) and Configuration Deviation List (CDL) as applicable.

2.4 CHECKLIST: CL:O-OPS008

3.0 GENERAL

3.1 This Order contains:

3.1.1 Definitions and a general overview of the MEL / CDL systems;

3.1.2 Information and guidance on developing and approving MELs;

3.1.3 Information and guidance for operations and airworthiness inspectors on MEL/CDL use during operations; and

3.1.4 Information about the development, approval, and usage of the CDL.

4.0 APPLICABILITY

The Flight Operations Inspector (FOI) is the primary Authority official responsible for the overall process of administering, evaluating, and approving an operator's MEL as well as accepting the CDL where applicable.

It is essential that the FOI works with the Airworthiness Inspector (AWI), and other individuals or groups involved in this process.

5.0 DEFINITIONS

5.1 Aircraft Evaluation Group (AEG) of the State of Design. The AEG in the State of Manufacturer is responsible for the development, revision and publication of an MMEL for those aircraft within its area of responsibility;

5.2 Aeroplane Flight Manual (AFM)/Rotorcraft Flight Manual (RFM). The term, aircraft flight manual, can apply to either an AFM or an RFM. The Aircraft flight manual is the document approved by the responsible authority for aircraft certification during type certification. The approved aircraft flight manual for the specific aircraft is listed on the applicable type certificate data sheet. The approved aircraft flight manual is the source document for operational limitations and performance parameters for an aircraft. The Authority requires an approved aircraft flight manual for aircraft type certification;

5.3 The Aircraft Maintenance Manual (AMM). The AMM is the source document for aircraft maintenance procedures. The term AMM can apply to either an aeroplane or a rotorcraft manual. The Authority requires an AMM for aircraft certification;

5.4 Air Transport Association of America (ATA) Specification 100. ATA Specification 100, Manufacturer's Technical Data, is an international industry numbering standard developed to identify systems and components on different aircraft in the same format and manner;

5.5 Configuration Deviation List (CDL). Aircraft certified under the provisions of a State's Civil Air Regulations and intended for use in air transport operations may be approved for operations with missing secondary airframe and engine parts. The aircraft source document for such operations is the CDL.

5.6 Inoperative. Inoperative means that a system or component has malfunctioned to the extent that it does not accomplish its intended purpose and/or is not consistently functioning normally within its approved operating limits or tolerances;

5.7 Master Minimum Equipment List (MMEL). The MMEL is a list of equipment that the Authority of the State of manufacturer has determined that they may be inoperative under certain operational conditions and still provides an acceptable level of safety. The MMEL contains the conditions, limitations and procedures required for operating the aircraft with these items inoperative. The MMEL is used as a starting point in the development and review of an individual operator's MEL;

5.8 Minimum Equipment List (MEL). The MEL is derived from the MMEL and is applicable to an individual operator. The operator's MEL takes into consideration the operator's particular aircraft configuration, operational procedures and conditions. When approved and authorised for use, the MEL permits operation of the aircraft under specified conditions with certain inoperative equipment;

6.0 PURPOSE OF MEL

6.1 The Regulations permit the authorisation of an MEL if the Authority finds that compliance with all the aircraft equipment requirements is not necessary in the interest of safety for a particular operation. Through the use of appropriate conditions or limitations, the MEL provides for improved scheduled reliability and aircraft utilisation with an equivalent level of safety.

6.2 This process is possible because of the installation of additional and redundant instruments, equipment and/or systems in present transport aircraft. Without an approved MEL, inoperative instruments, components and equipment would ground the aircraft until repair or replacement of the non-functioning equipment. An MEL is approved for a specific make and model of aircraft, and the use of it is authorised by its Operations Specifications.

7.0 ITEMS LISTED ON THE MEL

7.1 There are three or two categories of items that may be contained in the operator's MEL:

7.1.1 MMEL items; and

7.1.2 Passenger convenience items.

7.1.3 Administrative control items

7.2 MMEL Items. The MEL will list all of the items for which the operator seeks relief and that are appropriate for its operation. The operator, by not listing at its discretion certain items in its MEL, may be more restrictive than permitted by the MMEL.

7.3 Passenger Convenience Items. The passenger convenience items, as contained in the operator's approved MEL, are those related to passenger convenience, comfort, or entertainment, such as, but not limited to, galley equipment, movie equipment, in-flight phones, ashtrays, stereo equipment and overhead reading lamps. It is incumbent on the operator and the FOI to develop procedures to ensure that those inoperative passenger convenience items are not used. Passenger convenience items do not have fixed repair intervals. Items addressed elsewhere in the MMEL shall not be authorised relief as a passenger convenience item. "M" and "O" procedures may be required and should be developed by the operator, approved by the FOI, and included in the air operator's appropriate document.

8.0 TIMELY REPAIR OF ITEMS THAT ARE INOPERATIVE

8.1 The MEL is intended to permit the operation of an aircraft with certain inoperative items for a limited period of time until repairs can be accomplished. The operator is responsible for establishing a controlled and effective repair programme.

8.2 Repair Interval. Operators must make repairs within the time period specified by the MEL. Although the MEL might permit multiple days of operation with certain inoperative equipment, operators must repair the affected item as soon as possible.

8.3 Day of Discovery. The day of discovery is the calendar day an equipment malfunction was recorded in the aircraft technical log or record. This day is excluded from the calendar days or flight days specified in the MEL for the repair of an inoperative item of equipment. This provision is applicable to all MEL items, such as categories "A," "B," "C," and "D." The operator and the FOI must establish a reference time in which the calendar day or flight day begins and ends 24 hours later. This reference time is established to ensure compliance with timely repair of equipment and items. The reference time shall be based on Universal Time Coordinated (UTC).

8.4 **MMEL Definitions.** More than one set of MMEL definitions exist due to years of evolving changes during which not all MMELs have been updated to the latest revision of the definitions. However, only the most up-to-date set of definitions may be used with a specific MMEL. Only certain portions of the latest definitions may be appropriate for a specific air operator's MEL.

8.5 **Continuing Authorisations.** Approval of an MEL authorises an operator to use a continuing authorisation to approve extensions to the maximum repair interval for category "B" and "C", provided the Authority is notified within 24 hours of the operator's exercise of extension authority. The certificate holder is not authorised to extend the maximum repair time for category "A" and "D" items, as specified in the approved MEL. Misuse of the continuing authorisation may result in an amendment of the operator's Operations Specifications by removing the operator's authority to use an MEL.

9.0 RECORDKEEPING

When an item of equipment becomes inoperative, the operator must report it by making an entry in the aircraft technical log, as prescribed by Regulations 8.5.1.18 and 8.5.1.19 of the Nigeria Civil Aviation Regulations.

10.0 MULTIPLE ITEMS THAT ARE INOPERATIVE

Individual MEL requirements are designed to provide coverage for single failures enroute. When operating with multiple inoperative items, the operator should consider the interrelationships between those items and the effect on aircraft operation and crew workload, including consideration of a single additional failure occurring en-route.

11.0 FLEET APPROVAL

An operator who has a single MEL for multiple aircraft may reflect equipment in its MEL that is not installed on all aircraft in its fleet. In this case, the item's title in the operator's MEL will reference any specific aeroplane identification (usually registration number) unless the operator determines that there is need to do so.

12.0 ACCESS TO MEL

Regulation 9.3.1.12 of the Nigeria Civil Aviation Regulations requires that the MEL is made available for use among others by the flight crewmembers. This implies the MEL should be carried aboard the aircraft or that the flight crews have direct access to the MEL information prior to flight. Other means of direct access require approval.

13.0 CONFLICT WITH OTHER CAA APPROVED DOCUMENTS

The MEL shall not conflict with other approved documents such as the aircraft flight manual limitations and airworthiness directives. The operator's MEL may be more restrictive than the MMEL, but under no circumstances shall the operator's MEL be less restrictive.

14.0 ADDITIONAL INSTRUCTIONS, NECESSARY TO CLARIFY THE ACTIONS TO BE TAKEN UNDER CERTAIN CONDITIONS AND/OR SITUATIONS REGARDING THE MEL

14.1 Some items/systems listed in the MMEL/MEL contain standard phrases such as "provided alternate, normal and emergency procedures, and/or operating restrictions are established and used." The intent of such provisions is that it is incumbent on the operator to develop the necessary manual instructions for his personnel so that appropriate action will be taken, resulting in an acceptable level of safety.

14.2 When operating in accordance with the MEL, the communications equipment used between the flight deck and the cabin crew (whether inoperative or functional), require specific instructions for inclusion in the appropriate air operator's manuals: the Flight Manual, Aircraft Operating Manual, Operations Manual and Cabin Crew Member Manual. In some cases it may be appropriate to include such instructions in the operators MEL (O) procedure. Instructions in these manuals concerning specific inoperative equipment situations must be consistent with instructions in the other manuals.

14.3 To ensure a clear understanding of the action to be taken in emergency or abnormal situations, the pilot in command (PIC) will brief the flight crew, lead cabin crew and/or concerned cabin crew on the procedures to be followed. Examples of methods of cockpit notification to cabin could include various cockpit combinations such as cabin chimes to indicate different events, use of a separate evacuation signalling system, PA announcements, etc. The briefing is to ensure that when cabin/flight deck communication equipment becomes inoperative, procedures to be followed for each of the following events can be carried out:

14.3.1 Fire and/or smoke in the flight deck or passenger cabin;

14.3.2 Hi-jacking;

14.3.3 Ditching;

14.3.4 Emergency landing;

14.3.5 Evacuation the passenger cabin/Rejected Takeoff evacuation; or

14.3.6 Passenger problem (medical/disturbance).

Note: *It is not the Authority's intention to impose a requirement to preclude a cabin crew from opening the flight deck door to report an emergency situation.*

14.4 Action. Inspectors are directed to inform each of their operators of the need to include additional instructions, to clarify actions to be taken in the case of emergency or abnormal situations, concerning the MEL conditions and limitations. Inspectors should also inform their operators of the need for the PIC's to brief the flight crew, lead cabin crew and/or concerned cabin crew of the actions to be taken in emergency or abnormal situations, in preparation for the possible break down of cabin/flight deck communication equipment.

15.0 MEL APPROVAL PROCESS

15.1 **General**

This part contains specific direction, guidance, and procedures to be used by flight operations and airworthiness inspectors when evaluating and approving MELs. The operator's MEL is developed by the operator from the appropriate Master Minimum Equipment List (MMEL) and then approved by the Authority. The approval process for an MEL follows the general process for approval or acceptance.

15.2 **MEL Acceptability**

15.2.1 The general criteria for MEL acceptability are as follows:

a) **Equally or More Restrictive.** The operator's MEL must not be less restrictive than the MMEL, the Civil Aviation Regulations, the operations specifications, the aircraft flight manual limitations, certification maintenance procedures, or airworthiness directives (ADs);

b) **Appropriate.** The MEL must be appropriate to the individual aircraft make and model;

c) **Specific.** The operator's operations ("O") and maintenance ("M") procedures must be specific to the aircraft and the operations conducted;

d) **Applicability.** An MEL should be applicable for the civil aviation regulations under which the operator is certificated.

15.3 **Initial Phase of MEL Approval**

15.3.1 In this phase of the MEL approval process, the operator should consult with the flight operations inspector (FOI) regarding requirements for either developing an MEL or for revising an existing MEL. The FOI may consult with the AWI and the appropriate specialist in the State of design.

15.3.2 **Operator Familiarisation.** In phase one of the MEL approval process, the FOI should determine the scope of the task, based on the operator's experience with MELs. FOIs should adapt the discussion to fit the operator's needs and experience, and should provide advice and guidance to the operator as necessary. FOIs must ensure that the operator clearly understands that MEL document preparation is solely the operator's responsibility.

15.3.3 **Required Document Submittal.** FOIs should advise the operator that, for an MEL to be approved, the following documents must be submitted:

a) The proposed MEL or MEL changes;

b) Necessary "O" and "M" procedures, which may be based on the aircraft manufacturer's recommended procedures, Supplemental Type Certificate (STC) modifier's procedures, or equivalent operator procedures;

c) A description of the MEL management programme and its procedures as required by the Operations Specifications, unless an MEL management programme is already in place;

d) Any required guidance material developed by the operator, such as training material, guidance, and deferral procedures for both maintenance and operations personnel.

NOTE: *Several manufacturers have produced manuals of recommended procedures for operating with inoperative equipment. The Boeing Dispatch Deviation Guide (DDG) is an example of these manuals. When a manufacturer's recommended procedures exist, operators shall use them. Where a manufacturer recommended procedures do not exist, operators should coordinate with the manufacturer in developing specific procedures. Flight operations and Airworthiness inspectors should ensure acceptability of the procedures by the appropriate Aircraft Evaluation Group of the State of design before approving such procedures.*

15.3.4 **Materials Provided by the Operator.** Operators shall ensure that an updated copy of an MMEL and all subsequent amendments for a specific aircraft is submitted to the Nigeria Civil Aviation Authority in either hard copy or electronic format, along with appropriate guidance material.

15.3.5 **Document Form.** The operator may submit MEL draft documents to the Authority either on hard copy (printed on paper) or on computer disk, as mutually agreed upon between the operator and the FOI. The operator and the FOI should discuss the techniques that will be used for revising and editing the proposed document. It is important that the operator understand that when the process is complete, the final proposed MEL must be submitted on paper unless otherwise approved by the Authority.

15.3.6 **MEL Format.** The MMEL format has been standardised to facilitate the development, revision and approval of both master and operator documents. If the master document contains eight total sections, then eight of these sections should be included in each operator's MEL. The FOI should review a detailed list of each MMEL section to determine that all items are addressed in the operator's MEL.

15.3.7 **Generic Single Engine MMELs.** Where a generic MMEL for single engine aircraft has been

developed by the State of design, this MMEL may be used for single engine aeroplane and helicopters of that State if a specific MMEL has not been issued. Operators may use this generic MMEL in constructing their MEL. When an operator is approved to use this generic MMEL as the basis for his MEL, and a specific MMEL for the individual aircraft type is subsequently issued, the operator's MEL must be revised within a specified time frame prescribed by the Authority to conform to the specific MMEL.

15.4 **Final Phase of MEL Approval Process**

15.4.1 The final phase begins when the operator formally submits the proposed MEL or MEL changes to the FOI. The FOI should initially review the operator's submittal to verify that it is complete, contains the required elements as listed paragraphs and is detailed enough to permit a thorough evaluation of the MEL. In this process the FOI will ensure that Cabin Safety items are properly accounted for.

15.4.2 **Unacceptable Submittal.** If the FOI finds the proposed MEL package to be incomplete or unacceptable at this time or at any other time in the approval process, the FOI should contact the operator. A sample letter is provided in figure 3. If a mutually acceptable correction cannot be immediately agreed upon, the entire package must be immediately returned to the operator or his representative, along with an explanation of the problems found within the documents.

15.4.3 **Acceptable Submittal.** If the FOI finds the proposed MEL package to be complete and to contain the required information in an acceptable format, the detailed analysis begins. During this analysis, the FOI should co-ordinate with the AWI to perform a detailed examination of the proposed MEL document and other supporting documents and procedures. If the operator does not currently have an MEL programme, its MEL management programme must also be reviewed for acceptability. Inspectors should examine the technical content and quality of the proposed MEL document and other supporting documents and procedures as follows:

a) **Timely Review.** FOIs should promptly address all deficiencies and notify the operator of any discrepancies or outstanding issues. The FOI and the operator may informally coordinate by telephone to clarify minor discrepancies or misunderstandings;

b) **Reference Material.** Inspectors should use the MMEL and this Order as the primary reference document when reviewing and approving the MEL. In addition, inspectors should use the following references:

(i) Related Nigeria Civil Aviation Regulations;
(ii) Appropriate CAA advisory Circulars;
(iii) Approved flight manual;
(iv) Operator's Operations Specifications;
(v) Operator's manuals;
(vi) Any MEL policy letter published by NCAA;

15.4.4 Co-ordination with Technical Groups. During this phase, the FOI may wish to co-ordinate with the appropriate aircraft evaluation group of the State of design for guidance.

15.4.5 Change in Schedule of Events. If certain MMEL items must be addressed within a specific time frame, the FOI should notify the operator of this requirement as soon as possible. If the operator is unable to meet these schedule requirements, the FOI should negotiate a new schedule with the operator.

15.5 **MEL Evaluation**

15.5.1 Inspectors should compare the operator's MEL changes against the corresponding items in the current MMEL for the specific aircraft type. In addition, inspectors should verify that the operator's MEL contains the following required items:

a) Cover Page: The MEL cover page contains the operator's name and the make and model of the aircraft to which the MEL applies;

b) Table of Contents: The table of contents contains a list of all of the pages in the MEL by title and the corresponding page identification (usually a page number);

c) Log of Revisions: The log contains the revision identification (usually a number) and date of the revision. It may also contain a list of the revised pages, a block for the initials of the person posting the change, and additional enhancements for use by the operator;

d) Preamble: The standard MMEL preamble section must be reproduced word for word in each MEL, without modification;

e) Definitions: The standard MMEL definitions section must be reproduced word for word in each MEL, without modification;

f) Control Page: The control page is used as a method for keeping track of the status of the MEL and includes a record of the revision status or the date of each page of the operator's MEL. It may also be used as a means of conveying CAA approval of the MEL. The control page is also referred to as the "List of Effective Pages."

15.5.2 Minimum Contents. At a minimum, the control page must contain the following:

a) The operator's name;
b) A listing of all of the pages in the MEL (including the date of each page and its page number or revision number);
c) The MMEL revision number on which the MEL is based;
d) A signature block containing space for signature conveying CAA approval of the MEL;
e) Optional Contents. The operator may include additional information on the control page to provide flexibility and additional approval functions;
f) Highlights of Change Page (Optional). This page contains a synopsis of the changes made by the operator in each revision.

15.5.3 Additional Items. The operator may include additional information sections in excess of the six sections.

a) Individual Air Transport Association of America (ATA) System Page Evaluation. These pages contain a list of individual items of equipment in the aircraft together with provisions for the operation of the aircraft when the items are inoperative. The reviewing inspector should examine the individual ATA system pages, ensuring that the MEL is at least as restrictive as the MMEL and that operator's procedures are adequate and appropriate. The inspector should also examine the material contained on these pages for conflict with the Regulations, with the approved flight manual emergency procedures and limitations, and with the operator's operations specifications. The following elements are included:

(i) The ATA Numbering System. Operators should use the standard ATA numbering system, similar to the manner used in the MMEL, for numbering individual pages in this section. An example of this numbering system would be the communications page; the first page would be 23-1; the second page would be 23-2;

(ii) Individual Items of Equipment. The MMEL contains listed items of installed equipment that may be inoperative.

b) MMEL Items not listed on the Operator's MEL. If items listed on the MMEL are not listed on the MEL there is no relief;

c) MMEL Items Listed on the Operator's MEL. Each piece of equipment that is installed on the aircraft and that is contained in the MMEL, for which the operator seeks relief and that is appropriate for its operation, should be listed on the appropriate page of the operator's MEL within the associated ATA system. The operator may be more restrictive than permitted by the MMEL by not listing certain items in its MEL. Each item title on the operator's MEL will generally be entered exactly as it is shown on the MMEL. Exceptions include the following:

(i) When the MMEL uses a generic term to address equipment that serves a similar function when various operators use different names for that equipment; or

(ii) When the MMEL lists functions rather than individual pieces of equipment within that category such as "Navigation Equipment" or "Communications Equipment." In such cases, the MEL must contain a list of the individual equipment items or systems within that category that are actually installed on the aircraft, such as "VHF Communications Transceivers." When items of this type consist of several components of a system, the item may be listed as a complete system, such as "VOR Navigation System," consisting of a VOR navigation receiver and its associated indicator. The inspector should ensure that the operator has not listed inappropriate items or items that are listed individually elsewhere in the MMEL. However, the FOI is authorised to approve generic MMEL relief for navigation or communication equipment that is appropriate such as ILS, VOR, VHF, HF and GPS.

d) Items Listed on the MMEL but not Installed on the Operator's Aircraft. In this case the operator should list the item as shown on the MMEL, and show the Number Installed as zero. Therefore, the "Number Required for Dispatch" would also be zero, and the remark "Not Installed" may be noted under "Remarks and Exceptions"; repair category designators should

be omitted;

e) Triple Asterisk Symbol (***). The triple asterisk symbol is used in an MMEL to indicate that an item is not installed on some models of the aircraft. Operators should not produce or use this symbol in the MEL;

f) Repair Category. Each item of equipment listed in the operator's MEL, except for Administrative Control Items and Passenger Convenience Items, must include the repair category designator for that item as shown on the MMEL. These designators, categorised as "A," "B," "C," or "D," indicate the maximum time that an item may remain inoperative before repair is made. The actual repair categories corresponding to these letters are provided in the "Notes and Definitions" section of the MMEL. The operator may choose to adopt a more restrictive repair category than the one shown on the MMEL, but may not relax the requirement. Components or subsystems of items categorised in the MMEL, such as items of communications or navigation equipment that are not listed individually in the MMEL, must retain the repair category shown on the MMEL when listed as separate items on the MEL;

g) Passenger Convenience Items. Passenger convenience items relate to the convenience, comfort, and entertainment of passengers and must never affect the airworthiness of the aircraft. These items do not carry a specific repair category; however, the operator should make repairs to convenience items within a reasonable time frame. Normally, the operator lists these items individually in ATA chapters 25 and 38. Passenger convenience items may be included elsewhere in the MEL if clearly identified as passenger convenience items. FOIs should review the proposed MEL to decide which passenger convenience items are components of an item appearing in the MMEL. When listing passenger convenience items on the MEL, the operator must list each item for which the operator wishes relief. The operator may make a list of passenger convenience items that, once it is acceptable to the FOI, is held at the certificate holding CAA office. Passenger convenience items also apply to cargo aeroplanes, as appropriate:

   (i) No item is included as an administrative control item if it is included elsewhere in the MMEL;
   (ii) Administrative items are not included as a subsystem of items listed in the MMEL;
   (iii) Administrative items are not granted relief in the MEL unless the release conditions or limitations are contained in another approved document.

h) Number of Items Installed. The MEL will normally contain the actual number of items ofparticular equipment installed on the aircraft. This number may be either greater or less than the number shown on the MMEL. The MMEL shows the number of items installed as the number of those items normally installed on a particular aircraft type. Individual aircraft operated by an operator may have a different number of items. Frequently the MMEL shows a dash in the "Number Installed" column. This dash indicates that variable quantities of these items are usually installed on the aircraft. If the operator has an MEL for a single aircraft or identical aircraft, the actual number of these items on the particular aircraft must be listed in the MEL. If the operator has an MEL for multiple aircraft, and the equipment is not installed on all aircraft or there is a variable quantity between aircraft, the operator's MEL will not reference specific aircraft identifications; the "Number Installed" column may contain a dash;

i) Number of Items Required for Dispatch. Normally, the number of items required for dispatch is determined by the State of aircraft design, and may be modified in the MEL in only two cases as follows:

(i) When the item is not installed on the aircraft, in which case a zero shall be shown as the number required for dispatch;

(ii) When the item is shown in the MMEL as being a variable number required for dispatch.

NOTE: *In this case, the reviewing inspector should ascertain that the operator has made a determination as to the number required for dispatch. There can be several factors that establish this number. In some cases, it is determined by a reference to specific requirements listed in the "Remarks or Exceptions" column of the MMEL.An example would be cabin lights. In this case, the MMEL may show a variable number installed while the "Remarks or Exceptions" column might state that 50 percent of those items be operable. The number required for dispatch would therefore be 50 percent of the number of lights determined to be actually installed on the individual aircraft. Another case where the MMEL may show a variable number required for dispatch is when the "Remarks or Exceptions" column of the MMEL contains the statement, "As required by regulation." In this case, the number is the minimum quantity of these items that must be installed for operations under the least restrictive regulation under which the operator conducts operations.*

j) "Remarks or Exceptions." Certain items demand specific relief developed by the operator as authorised through his Operations Specifications, area of operation and Nigeria Civil Aviation Regulations. "As required by regulation" is an example of this type of relief;

k) Other Items. Other items in which relief has been specifically written to reflect actions or restrictions to the operation may be changed only when the MMEL is changed. Generally they contain "O" and "M" procedures in which the operator develops his company procedures to comply with the MEL;

l) Evaluation of Associated Documentation. The inspector should evaluate the supporting documentation submitted by the operator to ensure that it is complete and appropriate;

m) The Operations Manual. Inspectors should evaluate the operator's manual to ensure that it contains adequate guidance for the operator's personnel in conducting operations using the MEL. Generally, if the operator does not presently have an MEL programme, the applicable portions of his manual and other guidance material should be submitted at the time the MEL is submitted for initial review. When evaluating the operations manual, inspectors should ensure procedures for documenting inoperative equipment (in the aircraft technical log) and any required maintenance procedures are clear. At a minimum, provisions for recording the following items should be developed:

(i) An identification of the item of equipment involved;
(ii) A description of the nature of the malfunction;
(iii) An identification of the person making the entry; and
(iv) The MEL item number for the equipment involved.

n) Crew Notification. The operator should establish procedures for advising the pilot in

command (PIC) of inoperative items and required procedures such as affixing placards, alternate operating procedures, and instructions for the isolation of malfunctions. The PIC and the operator are both responsible for ensuring that flights are not dispatched or released until all of the requirements of the "O" procedures and "M" procedures have been met;

o) Flight Restrictions. The operator should establish procedures to ensure that dispatch or other operational control personnel, as well as the flight crew, are notified of any flight restrictions required when operating with an item of equipment that is inoperative. These restrictions may involve maximum altitudes, limitations for the use of ground facilities, weight limitations, or a number of other factors;

p) Training Programme Material. Inspectors should ensure that the operator's flight and ground personnel training programmes contain adequate instruction for MEL use;

q) MEL Management Programme. The FOI should co-ordinate closely with both the AWI and the operator on the MEL management programme. Operators must develop an MEL management programme as a comprehensive means of controlling the repair of items listed in the approved MEL. Operators must include a description of the programme in their maintenance manual, maintenance control manual, or other documents. The MEL management plan must include the following:

(i) A method for tracking the date and time of deferral and repair;
(ii) The procedures for controlling extensions to maximum repair categories;
(iii) A plan for co-ordinating parts, maintenance, personnel, and aircraft at a specific time and place for repair;
(iv) A review of items deferred due to unavailability of parts; and
(v) The specific duties and responsibilities of the managers of the MEL management programme, listed by job title.

15.6 Terms and Conditions of Relief

15.6.1 This section contains the terms and conditions of relief granted to an operator for operating the aircraft with items of installed equipment that are inoperative. The operator must state the terms and conditions under which operations may be conducted with inoperative items for the operator's particular organisation and aircraft. The reviewing inspector must address the following elements of this section:

a) Standard Phraseology. When reviewing the MEL, inspectors should ensure that the operator generally uses the phraseology used in the MMEL to ensure clarity and standardisation;

b) "As Required by Regulations." The general term, "As Required by Regulations," applies to ATA chapters 23 (Communications), 31 (Instruments), 33 (Lights), and 34 (Navigation Equipment). When this term appears in the "Remarks or Exceptions" section of an MMEL, the operator's MEL must contain the specific conditions that apply. The operator usually must research the applicable regulations in detail to develop the appropriate provisions that apply to that operator's particular operations. An example of typical distance measuring equipment (DME) remark could read, "Not required for flights below FL 240."

NOTE: *The operator's MEL must clearly establish the actual requirement for its operation when the MMEL stipulates "As required by regulation." It is not acceptable for the MEL to simply refer to the regulation.*

c) "O" and "M" Procedures:

(i) "O" and "M" procedures must contain descriptions of the individual steps necessary to accomplish each process. For example, if the MMEL contains an "M"symbolwith a provision that a valve must be closed, the operator must include the appropriate procedures to close the valve as part of the operator's manual or MEL.

The reviewing inspector must ensure that the procedure addresses the following:

a) How the procedure is accomplished;
b) The order of accomplishing the elements of the procedure;
c) The actions necessary to complete the procedure;

(ii) For example, if the MMEL contains an "M" symbol with a provision that a valve must be closed, the operator must include detailed steps and actions for closing and testing the valve and installing the placard. The actual written procedures may be contained within the "Remarks or Exceptions" section of the MEL, in separate documents, or attached as an appendix. Inspectors should consult the Guidelines for "O" and "M" Procedures of the MMEL when evaluating these procedures. The section about the Guidelines for "O" and "M" Procedures does not have to be contained within the operator's MEL. If the "O" and "M" procedures are not contained within the MEL, the MEL should include a reference to the location of the procedures;

NOTE: *While inspectors should ensure that the procedures are detailed and explicit, it is not necessary that the operator repeat obvious requirements of the MEL item, of the regulation, or of other established standards.*

(iii) "O" Procedures. The "(O)" symbol indicates a requirement for a specific operations procedure that must be accomplished in planning for and/or operating with the listed item inoperative. Normally, these procedures are accomplished by the flight crew; however, other personnel may be qualified and authorised to perform certain functions. The satisfactory accomplishment of all procedures, regardless of who performs them, is the responsibility of the operator. Appropriate procedures are required to be published as a part of the operator's manual or MEL;

(iv) "M" Procedures. The "(M)" symbol indicates a requirement for a specific maintenance procedure, which must be accomplished prior to operation with the listed item inoperative. Normally these procedures are accomplished by maintenance personnel; however, other personnel may be qualified and authorised to perform certain functions. Maintenance personnel should accomplish procedures requiring specialised knowledge or skill, or requiring the use of tools or test equipment. The satisfactory accomplishment of all maintenance procedures, regardless of who performs them, is the responsibility of the operator. Appropriate procedures are required to be published as part of the operator's manual or MEL;

(v) Provisos. The "Remarks and Exceptions" section of the MMEL generally contains provisos that include specific conditions under which an item of equipment may be inoperative. These provisos must be carried over either verbatim into the operator's MEL or by using equivalent terminology. Provisos are distinct from "O" and "M" procedures. A procedure is an action that must be performed. A proviso is a condition that must exist. For a proviso that operations must be conducted under VFR, an operation under an IFR flight plan is not permitted, regardless of the weather conditions. When reference is made to visual meteorological conditions (VMC), operations may be conducted under an IFR flight plan, but only in VMC.

16.0 DEMONSTRATION PHASE

A demonstration phase is normally not required for an MEL approval. When an operator is developing an MEL in conjunction with original certification for initial issuance of an operating certificate, or when instituting service with a new aircraft type, a demonstration of the operator's ability to use an MEL may be conducted during any required aircraft demonstration flight.

17.0 RESULTS

17.1 **When the FOI completes his review:**

17.1.1 If problems are found, he will notify the assigned AWI in writing that the review is complete but that problems were found. The activity report comments sheet should list the specific problems with enough detail so proper corrections can be made.

17.1.2 The owner/operator should be given a copy of both operations and maintenance discrepancies in writing under one cover letter. An example letter is at Figure 1. The operator should make the needed corrections to both areas before re-submitting the MEL.

17.1.3 If everything is in accordance with the requirements the FOI should notify the AWI in writing that the flight operations review is complete and acceptable.

17.1.4 When both FOI and AWI are satisfied with the proposed MEL the Authority should mark all the MEL List of Effective Pages —APPROVED" with a signature and date of approval. The Authority will send a letter of approval to the owner/operator. An example letter is at Figure 2. The AWI will complete Section D095 of the Operations Specifications. The AWI must ensure that prior to authorizing the Operations Specifications; the MEL management programme has been approved. A sample D095 Operations Specifications is at Figure 3.

17.1.5 Once approved the, Authority should keep on file a written copy of the approved MEL. The Original approved MEL, Master MEL, and Dispatch Deviation Guide should be returned to the owner/operator.

FIGURE 1

EXAMPLE OF LETTER TO OPERATOR DENYING APPROVAL OF MEL

[Date]

Name
Director of Operations International Air, Ltd.
Address
Dear (Name):

This letter is to inform you that the Minimum Equipment List (MEL) submitted for approval on June 6 is being returned to your office. A comparison of International Air's MEL against the current Master Minimum Equipment List (MMEL) shows that in the following places International Air's MEL is less restrictive than the MMEL.

Specifically, these System and Sequence Numbers do not comply with acceptable procedures:

1. Page 24-1, item 3. DC Loadmeter
2. Page 28-1, item 1. Boost Pumps
3. Page 30-3, item 13. Pitot Heater

Additionally, International Air's MEL does not include the required Control Page.

If you have further questions on the MEL approval process, please feel free to contact me.

Sincerely,

Name
Operations inspector

FIGURE 2

EXAMPLE OF LETTER TO OPERATOR APPROVING AN MEL

[Date]

Name
Director of Operations International Air, Ltd. Address

Dear Name:

This letter is to inform you that the Minimum Equipment List (MEL) submitted for approval on June 6 as been approved. The control page has been signed and paragraph D095 of the Operations Specifications has been issued.

Sincerely,

Name
Operations inspector

Figure 3

Nigerian Civil Aviation Authority	**Operations Specifications**	NCAA Control: 31 May 2007 NCAA Revision:

D095.	**Minimum Equipment List (MEL) Authorization**

2. Certificate Holder is authorized to use an approved Minimum Equipment List (MEL) for the aircraft listed in paragraph A003 of these Operations Specification provided the conditions and limitations of this paragraph are met. Certificate holder shall not use an MEL for any aircraft that is not specifically authorized by these operations specifications.

d. Maximum Times between Deferral and Repair. Except as provided in subparagraph c, the air operator shall have items repaired within the time intervals specified for the categories of items listed below:

i. Category A. Items in this category shall be repaired within the time interval specified in the remarks column of the air operator's approved MEL.

ii. Category B. Items in this category shall be repaired within 3 consecutive calendar days (72 hours excluding the calendar day the malfunction was recorded in the aircraft maintenance log and/or record.

iii. Category C. Items in this category shall be repaired within 10 consecutive calendar days (240 hours) excluding the calendar day the malfunction was recorded in the aircraft maintenance log and/or record.

iv. Category D. Items in this category shall be repaired within one hundred and twenty (120) consecutive calendar days (2,880 hours), excluding the day the malfunction was recorded in the aircraft maintenance log and/or record.

e. MEL Management Programme. Certificate holder shall develop and maintain a comprehensive programme for managing the repair of items listed in the approved MEL. The air operator shall include in a document or its manual a description of the MEL management programme. The MEL management programme must include at least the following provisions:

vi. A method which provides for tracking the date and when appropriate, the time an item was deferred and subsequently repaired. The method must include a supervisory review of the number of deferred items per aircraft and a supervisory review of each deferred item to determine the reason for any delay in repair, length of delay, and the estimated date the item will be repaired.

vii. A plan for bringing together parts, maintenance personnel, and aircraft at a specific time and place for repair.

viii. (3) A review of items deferred because of the unavailability of parts to ensure that a

valid back order exists with a firm delivery date.

ix. (4) A description of specific duties and responsibilities by the job title of personnel who manage the MEL management programme.

x. (5) Procedures for controlling extensions to specified maximum repair intervals as permitted by subparagraph c, to include the limit of the extension, documentation of reason for the extension and the procedures to be used for authorizing extensions.

f. Certificate holder is authorized to use a continuing authorization to approve extensions to the maximum repair interval for category B and C items as specified in the approved MEL provided the responsible CAA Office is notified within 24 hours. The certificate holder is not authorized to approve any extensions to the maximum repair interval for category A and D items as specified in the approved MEL. The Authority may deny the use of this continuing authorization if abuse is evident.

Figure 3

NCAA Control: 05-May-31

Nigerian Civil Aviation Authority **Operations Specifications** NCAA Revision:

The certificate number on the reverse side of this form identifies the air operator whose name appears in Part A-001 of these Operations Specifications.

☐ 1. The Nigerian Civil Aviation Authority issues the Operations Specifications on the reverse side to certificate holder.

☐ 2. Certificate holder _____ hereby makes application for the AOC's operations specifications appearing on the reverse side hereof, (if this application amends previously approved operations specifications, tick the amendment box below and briefly describe the changes in the space below)

☐ Initial Issue ☐ Amendment

Reasons and supporting data for amendment (if space insufficient attach additional pages as required)

I certify that the statements submitted as supporting data are true and I am duly authorised to make this application on behalf of certificate holder

_____ _____ _____
Name and Title Signature Date

3. The Operations Specifications set forth on the reverse side are approved by the Authority.

4. Name of Inspector:_____ Signature_____ Date:_____
for: The Director General

5. Effective Date of Approval: Amendment No.:

6. I hereby accept and receive the Operations Specifications appearing on the reverse side on behalf of the Air Operator.

_____ _____ _____
Name and Title Signature Date

18.0 MEL USE IN SERVICE

18.1 **General**

This section contains specific direction, guidance, and procedures for operations and airworthiness inspectors on the revision, administration, and policy application for administering MELs that have been approved for use by operators operating under the provisions of the Regulations.

18.2 **Revision Procedures**

18.2.1 Revisions to an MEL. Either the operator or the Civil Aviation Authority may initiate revisions to an operator‘s MEL. Operator initiated revisions may be equal to or more restrictive than the Master Minimum Equipment List (MMEL). It is not necessary for an operator to submit an entire MEL when requesting the approval of a revision. The minimum submission would consist of only the affected pages; the approval by the Authority may only consist of specific items. These items are approved within a controlled process, and the operator will produce the final MEL document. If the revision results in individual pages either being added or deleted, a revised table of contents page is also required. The issuance of an airworthiness directive (AD) will not be the basis for change to an operator's MEL unless this results in appropriate changes to the MMEL.

NOTE: *When operations ("O") or maintenance ("M") procedures are required for the MMEL, it is the operator's responsibility to use manufacturer developed procedures in order to meet the requirements for inclusion of the item on the MEL. Where a manufacturer’s recommended procedures do not exist operators must coordinate with the manufacturer in developing specific procedures. FOI’s and AWI’s should ensure acceptability of the procedures by the appropriate aircraft evaluation group of the State of design before approving such procedures. The FOI is not authorised to grant MEL relief unless the operator provides acceptable “O” and “M” procedures.*

18.2.2 MEL Revision Initiated by an Operator. An operator initiated MEL revision will normally fit into one of the following three categories:

a) Operators may propose changes to an MEL that are equal to, or more restrictive than, the MMEL. These revisions are approved by the Authority using the same procedures, as those required for an original MEL approval;

b) Items Requiring an MMEL Change. Operators may request changes to an MEL for systems or components that have yet to be identified in the MMEL. However, the MEL cannot be revised until the MMEL has been revised to permit the proposed MEL change. The most common instance of a revision request of this type occurs when an operator installs additional equipment on an aircraft and provisions for that equipment are not included on the current MMEL;

c) Major Aircraft Modifications. Major aircraft modifications, such as a supplemental type certificate (STC), a major alteration or a type certificate (TC) amendment, may invalidate the MEL for that aircraft. Operators should review the MEL to assess the impact of any planned modification and should immediately notify the Authority of these modifications and the

impact on the MEL. The Authority should obtain guidance from the State of aircraft design, to determine if a revision to the MMEL is required.

18.2.3 MEL Revisions Initiated by the Civil Aviation Authority. The Authority may initiate an MEL revision that is not based on a revision to the MMEL. The Authority should make such a request to the operator in writing, stating specific reasons why the revision is necessary. An Authority initiated revision may be made upon the discovery that an operator has modified an aircraft or that faulty maintenance or operations procedures exist. The Authority should work closely with the operator and make every effort to resolve the matter in a mutually agreeable manner. The operator should be given a reasonable time period to make the required changes depending on whether safety of flight is affected. In the event that the operator declines to make the required change, the FOI may consult with the AWI to initiate an amendment of the operator's Operations Specifications to rescind the authority for the MEL.

18.2.4 Modifications within a Fleet. If an operator has been granted approval to use the MEL for a fleet, and the operator installs a new piece of equipment in one or more aircraft, the operator may continue to operate that aircraft under the provisions of the currently approved MEL. The operator may not defer repair of the new item until an appropriate revision to the MEL has been approved.

18.3 **Tracking of Revision Status**

FOIs shall maintain a copy of the current MEL for each assigned operator's aircraft type. The FOI shall update the MMEL to record and track the revision status of the operator's MEL.

18.4 **Availability of MEL for Flight Crewmembers**

18.4.1 Flight crewmembers must have direct access to the MEL at all times prior to flight. Regulations require that the operator carry the MEL aboard each aircraft.

18.4.2 The operator may choose to use some system of access to the MEL other than the MEL document. For example, the flight crew may obtain access to the MEL through the ARINC Communications Addressing and Reporting System (ACARS). The critical element in approving an alternate form of access is whether or not the flight crew has a direct means of access to the appropriate information in the MEL, specifically "O" and "M" procedures.

18.4.3 Direct access should not be construed to mean access through telephone or radio conversations with maintenance or other personnel. If the operator chooses to provide the flight crew with access to the MEL by other than printed means, the method must be approved in the operator's MEL programme.

18.5 **Method of Authorising Flight Crewmember Access to MEL**

18.5.1 The Authority may approve a method other than printed means for providing the flight crew with access to the MEL. Before authorising such a method, the Authority must be confident that the operator has an adequate means in place to provide flight crews with the complete equivalent of the actual text of the MEL. This method must be described in detail in the operator's accepted

operations manual or equivalent.

18.5.2 When the decision is made to authorise this alternative method, the Authority should use appropriate provisions. In this case, the "Applicable Regulation" to the Operations Specifications would be Regulation 8.4.1.8 of the Nigeria Civil Aviation Regulations, and the "Remarks and/or References" section would refer to the appropriate section of the operator's manual.

18.6 **Discrepancies Discovered During Flight**

18.6.1 Use of the MEL is not applicable to discrepancies or malfunctions that occur or are discovered during flight. Once an aircraft moves under its own power, the flight crew must handle any equipment failure in accordance with the approved Flight Manual.

18.6.2 A flight is considered to have departed when the aircraft moves under its own power for the purpose of flight. Discrepancies occasionally occur between the time the flight departs and the time it takes off. If the flight manual contains procedures for handling that discrepancy, or if the pilot in command (PIC) deems that the discrepancy does not affect the safety of flight, the flight may continue. The discrepancy must be addressed prior to the next departure.

18.6.3 For those operators who are required to use a dispatch or flight release, the PIC must handle a discrepancy that occurs after the issuance of the release, but before the flight departs, in accordance with the MEL. The PIC must obtain a new or amended dispatch or flight release, as well as any required airworthiness release. This new or amended release must contain any applicable flight restrictions necessary for operation with any item of equipment that is inoperative.

18.7 Documentation of Discrepancies

Provisions of the MEL preamble require that an airworthiness release be issued or an entry be made in the aircraft technical log prior to conducting any operations with items of equipment that are inoperative.

18.8 **Conflict with Airworthiness Directives**

18.8.1 Occasionally an AD may apply to an item of equipment that may be authorised to be inoperative under the MEL. The item shall not simply be deferred under the MEL in order to avoid or delay compliance with the AD or an Authority approved alternate means of compliance with the AD. In all cases, when an AD has been issued, the operator must comply fully with the terms of the AD or an Authority approved alternate means of compliance with the AD.

18.8.2 The authority must approve any alternative method of compliance with the AD as provided in the AD. In other cases, the provisions of an AD may allow operation of the aircraft on the condition that certain items of installed equipment be used or be operable. In those cases, the affected items must be operable even though the MEL may provide for deferral of repair.

18.9 **Interrelationships of Inoperative Components**

18.9.1 When the MEL authorises a component of a system to be inoperative, only that component may be affected. When a system is authorised to be inoperative, individual components of that system may also be inoperative. Any warning or caution systems associated with that system must be operative

unless specific relief is authorised in the MEL. The operator must consider the interrelationship of inoperative components.

18.9.2 This consideration must include the following:

a) The interrelationship of one piece of equipment on another;
b) The crew workload;
c) The operation of the aircraft;
d) The flight restrictions.

18.10 **Repair Categories**

18.10.1 When an item of equipment becomes inoperative, and repair is deferred under an MEL, the operator must make repairs as specified by the associated repair category designator ("A," "B," "C," or "D") and the operator's MEL management system.

18.10.2 In the event that more items are installed then those that are required for normal operation, the "C" repair category may be used. For example, if one altitude alerting system is required and the associated repair category is "B," but there are two such systems installed, failure of the first system could be deferred as specified for a "C" category item (10 days). Failure of the remaining system would limit at least one system to the repair category for the "B" category item (3 days). See the definitions section of the MEL for an explanation of repair categories.

19.0 CONFIGURATION DEVIATION LISTS

19.1 General

This section contains information for operations and airworthiness inspectors concerning the development and approval processes of configuration deviation lists (CDL). Transport aircraft may be approved for operations with missing secondary airframe and engine parts. Approval for operating with these parts missing would be authorised by the State of aircraft design. Evaluation and approval of CDLs are functions of the State of aircraft design.

19.2 **Development and Approval of a CDL**

An aircraft manufacturer develops a proposed CDL for a specific aircraft type. For United States (U.S.) certificated aeroplanes, the CDL, once approved, is incorporated into the limitations section of the aeroplane flight manual (AFM) as an appendix. For manufacturers outside the U.S., the CDL may be a stand-alone document and part of the Structure Repair Manual, or another manufacturer's document. Some operators may choose to attach a copy of the CDL to their MEL for easy and ready reference by flight crews.

19.3 Use of the CDL - Operators must follow the CDL limitations when operating with a configuration deviation. Operators are required to observe the following:

19.3.1 The limitations in the CDL when operating with certain equipment missing (except as noted in the appendix to the approved flight manual);

19.3.2 The flight operations, restrictions, or limitations that are associated with each missing airframe and engine part;

19.3.3 Any placard(s) required by the CDL describing associated limitations, which must be affixed in the cockpit in clear view of the pilot in command (PIC) and other appropriate crewmembers.

19.4 **Operational Control**

The Authority must ensure that the operator has developed appropriate procedures for the PIC and, if appropriate, procedures for notifying Dispatch of the CDL missing parts by an appropriate notation in the aircraft technical logbook or other acceptable means e.g. ‗O' & ‗M' Procedures.

CHAPTER 9

Acceptance of Operator's Aircraft Performance Data

1.0 PURPOSE

This Chapter contains information and guidance to Flight Operations Inspectors (FOIs) for reviewing and acceptance of performance data in Manuals.

2.0 REFERENCES

2.1 Regulations 8.7.1.3 and 8.7.2.3 of the Nigeria Civil Aviation Regulations and Regulation 9.3.1.14 of the Nigeria Civil Aviation) Regulations

2.2 CHECKLIST: CL: O-OPS022**;**

3.0 PERFORMANCE DATA COMPUTATION ACCEPTANCE

3.1 Performance Data Computation Systems. A performance data computation system is defined asthe system the operator uses to produce the data required to operate an aeroplane within the performance limitations specified in the Aircraft Flight Manual (AFM). The performance data computation system consists of at least the following components:

3.1.1 An airport data acquisition, maintenance, and dissemination system (a necessary subsystem for all aircraft operated under Part 8 and Part 9 of the Nigeria Civil Aviation Regulations).

***NOTE**: The majority of this data is available from commercial and government aeronautical charting services. Operators of large transport and commuter category aeroplanes, however, require obstacle data for takeoff computations that are more detailed than those usually supplied by a standard charting service. Operators may contract for obstacle data from commercial sources or may collect the data themselves. Performance data for each variant aircraft the operator operates should be in a format readily usable by the flight crew member (This data may be obtained from the AFM directly or purchased in a digital format suitable for computer processing.)*

3.1.2 Manual computation procedures or a computer algorithm is used for converting aircraft performance data from the AFM format to the format used by the flight crew member (the system must make all necessary computations for determining the maximum allowable weight for takeoff and for determining the V speeds to be used at the selected weight).

3.2 **Current Industry Practices.** There are a wide range of methods for collecting airport and obstacledata; preparing airport analyses and, for preparing, publishing, and distributing the performance data sections of AOMs. To implement each or all of these functions, operators may either establish a department within the company or contract the work out. Operators may contract for the collection of airport and obstacle data but produce the airport analysis in-house. Other

operators may supply airport data to aircraft manufacturers or other contractors who prepare the airport analysis. Generally, major operators do more of this process in-house, while smaller operator's contract for these services.

3.3 Approval Criteria. FOIs may approve any method of performance data computation and presentation that meets the following criteria:

3.3.1 The system must make all of the computations required in the AFM and in the pertinent operating rules;

3.3.2 Provisions must be made in the system for all makes, models, and variations of aircraft used by the operator;

3.3.3 The system must account for all pertinent variables such as temperature, weight, thrust, runway condition, and obstacles;

3.3.4 The system must be appropriate to the operator's requirements. Large, highly complex aeroplanes usually require very different systems from those required for small, simple aeroplanes;

3.3.5 The system must be reliable in that identical answers must be generated each time the process is entered with identical parameters;

3.3.6 The system must be accurate in that it generates performance data that agrees with AFM data within the degree of accuracy inherent in the original AFM data. For example, when the AFM data is accurate to ±2%, the operator's system must produce results that do not deviate from the AFM data by more than ±2%;

3.3.7 The system should be relatively simple, easy to use, and not prone to error;

3.3.8 When simplifying assumptions are made, those assumptions must be clearly and completely stated in the operator's AOM or Operations Manual as operator imposed limitations (for example a maximum field elevation of 4,000 feet/1220 metres and minimum runway length of 5,000 feet/1520 metres). When the assumptions cannot be met, the actions to be taken by the flight crew member, flight followers, and flight operations officers must be clearly specified. In such cases, operations must be prohibited or alternate procedures specified;

3.3.9 The flight crew member procedures for generating, obtaining, and verifying data must be thoroughly described in the procedures section of the Operations Manual. In the case of the same procedure applying to all aeroplanes, the flight crew member procedures must be described in a section of the Operations Manual.

4.0 MANUAL COMPUTATION SYSTEM FROM AFM DATA

4.1 Operators may choose to have flight crew member and flight operations officers, conduct manual data computations from the AFM performance section for each takeoff.

4.2 This system is flexible because it can be used for any runway for which the required input parameters can be obtained. The disadvantage of such a system is that computations can be difficult, complex, time consuming, and error prone. Flight crew members and flight operations officers must be carefully and thoroughly trained in such a system.

4.3 Flight crew members must be supplied with the location of the controlling obstacle for each runway used. While this system is widely used for small aeroplanes, it is impractical for the routine operations of large aeroplanes because of the complexity of the required computations and the high probability of human error. The system is, however, available to the operator for backup in the case of computer failure and for special one-time requirements.

5.0 TABULATED DATA METHOD

5.1 AFM data may be combined with airport and runway data and published in tabular format. The product of this tabulated data method is usually termed an airport analysis. Typically, the flight crew member is provided with a table for each runway and flap setting. The flight crew member enters the temperature on the table to determine maximum allowable takeoff weight and then enters the actual weight to determine the V speeds. Additional corrections are required for factors such as wet or contaminated runways and winds.

5.2 Tabulated data is easier to use, less error prone and requires less training than is required for AFM data. A properly designed AOM system retains most of the operating flexibility of the AFM system. A tabulated data system reduces, but does not eliminate, human error. A disadvantage of the tabulated data system is that crew members must maintain an up to date chart for each runway from which operations are authorised. A means must be available to transmit current charts to the flight crew member before they are needed. Provisions must be made for temporarily shortened runways.

5.3 The operator must be capable of generating performance data tables which retain the degree of accuracy inherent in the AFM data. Generally, this must be done manually, by carefully picking data points from a graph, entering the data into a computer, and carefully verifying the generated points. The amount of work required to prepare tabulated data from an AFM often precludes operators from generating their own data packages. Often the operator will be required to buy a digital data package from the manufacturer from which to generate the required tables. FOIs may accept other sources, however, when the operator can adequately establish the accuracy of the data.

5.4 The operator's system must be capable of performing all of the required computations for each take off situation, including the selection of the correct controlling obstacle for each flap setting.

6.0 SIMPLIFIED DATA METHOD

6.1 A simplified data system is based on a specified set of assumptions about the conditions under which the aircraft will be operated. For example, take-offs might be limited to runways longer than 5,000 feet/1520 metres and less than 4,000feet/1220 metres elevation. In this system, the crew member is supplied with a simple chart or set of cards which gives the V speeds at specified weight

increments. This chart is used on all runways.

6.2 The operator performs an airport analysis for each airport served and demonstrates that when the aircraft is operated in accordance with the specified set of assumptions, it will perform either equal to, or better than, the performance required in the applicable regulations on all runways the crew member is authorised to use.

6.3 Some of the system's advantages are: its relative simplicity, the lack of crew member error, the ease of crew member training, and the speed with which the crew member can determine V speeds. Some of the system's disadvantages are: it often imposes severe performance penalties on operators, it is inflexible, and operations must either be terminated or an alternate system used when the simplifying assumptions cannot be met (for such conditions as: construction, part of runway closed, ice, rain, or shortened runways). The system is best suited for operators who serve a limited number of locations regularly and who operate either at large airport, near sea level, or at moderate temperatures.

7.0 REAL TIME METHOD

7.1 A real time data system is one in which the required computations are made immediately before take-off for every flight. Usually the data is relayed to the flight crew member by radio or through Aircraft Communications Addressing and Reporting System (ACARS).

7.2 The advantages of such a system are that it is extremely flexible, up to date, and efficient. Changes in obstacles due to construction, weight, temperature, and runway can be handled immediately. Also, the operator can take maximum advantage of the performance capabilities of the aeroplane.

7.3 Some disadvantages of the system are that it is expensive, it requires extensive equipment and highly trained personnel to operate, and that adequate backup must be available should the main computer go off line. The operator must be able to collect all of the required data, process it, and transmit it to the crew member quickly.

8.0 EVALUATION OF AN OPERATOR'S SYSTEM

8.1 Generally, FOIs do not have the capability to verify each data point when accepting the performance data section of a MANUAL. The validity and reliability of the computation system itself, however, can be evaluated.

8.2 FOIs shall require the operator to provide an analysis, with documentation, of the following:

8.2.1 Source of the computer program;

8.2.2 Assumptions on which the computer program is based (for example, they must determine if the correct factors are used for each type of aircraft);

8.2.3 Source and accuracy of the databases used;

8.2.4 Operator's capability for handling data;

8.2.5 Results of parallel manual calculations made with AFM data to confirm results.

8.3 The FOI should co-ordinate with the Airworthiness Inspector (AW) to ensure that the operator's aeroplanes meet the specifications of the certification regulations.

8.4 When the operator contracts for data or computation, the operator is responsible for the validity of the results. An FOI may find that the contractor has been previously evaluated and accepted for another operator. The FOI may accept reputable sources for these services that have been previously evaluated without the documentation discussed in previous subparagraph 8.2. If the contractor's capabilities and qualifications have not been previously established, the FOI shall require the operator to fully substantiate the contractor's qualifications before granting approval to the operator system.

8.5 Operators should procure computer programs from a reliable source. The computer programmers should be qualified in both education and experience. The validity of the computer program should be validated by aeronautical engineers and computer specialists.

8.6 All of the calculations required in the regulations for the type of aeroplane involved (as discussed in section 1) must be performed, including en-route and destination calculations.

8.7 For real time systems, the operator's method of obtaining data for a specific flight and for transmitting that data to and from the individual performing the calculations must be shown to be accurate and timely.

8.8 The FOI or a designated inspector should review the verification process conducted by the operator. Several runways at different airports should be selected for verification with the AFM data. Short runways with obstacles should be checked by manual calculation, particularly at airports with higher temperatures and elevations.

8.9 The operator should be able to identify all of the obstacles evaluated by the computer and the one selected as the limiting obstacle in each case. The FOI must be aware that under different temperature and weight conditions, a different flap setting may be required, and different obstacles may be controlling. The inspector should ensure that the operator has verified the limiting obstacle under various conditions and flap settings.

9.0 SELECTED TOPICS AND PRACTICES RELATING TO AIRCRAFT PERFORMANCE AND DATA ACQUISITION SYSTEMS

9.1 Approval of Driftdown and Fuel Dumping Procedures

9.1.1 Operators may request the Authority approval of driftdown or fuel dumping to show compliance with terrain clearance requirements. The FOI may accept the drift down and fuel dumping procedures in

accordance with the guidance of this paragraph.

9.1.2 **Approval Procedures.** FOIs should grant approval of driftdown and fuel dumping procedures by means of a non-standard paragraph in Part B of the Operations Specifications (OpSpecs). The FOI may enter the entire procedure into the OpSpecs paragraph. The preferred procedure, however, is for the FOI to enter, in the OpSpecs, a reference to the section of the operator's Operations Manual which contains the procedure, the limitations, and the data.

9.1.3 **Driftdown Data and Procedures:**

(a) Operators should base their proposals on manufacturer‘s data and recommended procedures. In the absence of such data and procedures, the operator must develop the necessary data and procedures;

(b) The FOI should require the operator that creates drift down procedures to coordinate with the manufacturer to validate the procedures and data through validation tests.

9.1.4 **Training Programs and Manuals.** When the operator adopts drift down or fuel dumping procedures, the procedures, limitations, and performance data must be included in the operator's manuals and training program.

9.2 **En-route Operations with Landing Gear Extended**

9.2.1 This paragraph contains direction and guidance to be used by FOIs when reviewing and accepting an operator's procedures for en-route operations with the landing gear extended. There are two gear down situations for which operators may seek approval. In the first situation, the operator may seek approval to dispatch an aircraft with the landing gear secured in the down position. In the second situation, the flight crew member may not be able to retract the landing gear after takeoff. In most circumstances, an operator cannot comply with the performance requirements of Part 8 of the Nigeria Civil Aviation Regulations when the landing gear cannot be retracted after takeoff. The PIC of such a flight is normally forced to return to the departure airport or to divert to a takeoff alternate airport. Operators may, however, operate a revenue flight with the gear down when the operator can show compliance with regulatory requirements. FOIs should review the following:

9.2.2 **Procedures and Data.** Operators must provide flight crew members with procedures and accepted aeroplane performance data for gear extended operations. The procedures must include speed limitations and fuel consumption data sufficient to show compliance with regulatory requirements. FOIs should ensure that the operator has included this information in the operator's Operations Manual. Instruction on procedures must be included in the operator's training program.

9.2.3 **Amended Release.** FOIs should verify that the operator's Operations Manual contains adequate direction and guidance to both Pilots in Command (PICs) and flight control personnel for amending the dispatch or flight release. FOIs should co-ordinate review of manual material with the AWI.

9.3 **High Speed Taxi Starts With One Power plant Inoperative**

Safety policy is not to accept high-speed taxi start procedures due to the increased risk involved with these operations. When an operator makes a compelling case for approval for such procedures, the FOI should co-ordinate with others as required.

9.4 Approval of Unpaved Runways for Turbojet Operations

9.4.1 This paragraph contains direction and guidance to FOIs for approval of the use of unpaved runways. Although the Authority discourages the operation of turbojet equipment on other than hard surfaced runways, operation of such equipment from a well-compacted, non-paved surface is possible.

9.4.2 Approval of Landing Surface. FOIs must accept the use of an unpaved runway surface for turbojet operations. Approval for this type of operation must be based on actual flight test performance data acceptable to the Authority. Before the FOI accepts turbojet operations at any airport with other than paved runways, the FOI will determine that the following conditions are met:

a) Takeoff and landing field lengths must be based on accepted flight test data for the particular type aircraft on the type of runway surface to be used;

b) Flight test data must show that foreign object ingestion into the engines and gravel impingement upon the aircraft structure are not significant factors;

c) The surface of the runway to be used must be reasonably stable throughout the various weather seasons; otherwise, the operations must be restricted to particular seasons.

9.4.3 Approval Procedures. An airport with unpaved runways is required to have special operational procedures and flight crew member training. Approval of operations at an airport with unpaved runways is granted in OpSpecs. FOIs may reference the appropriate section of the operator's manuals in the OpSpecs.

9.5 Commercial Air Transport Winter Operations

9.5.1 This paragraph contains guidance to be used by inspectors for reviewing those portions of manuals, procedures, and training programs concerning operations in winter weather conditions. The FOI must ensure that the operator's manuals contain specific instructions and information to flight crew members for operating each type of aircraft operated in adverse weather conditions or prohibit such operations. The FOI should also review the content of the operator's training program to ensure adequate coverage of adverse weather operations.

9.5.2 Training Requirements. The following subject areas should be considered in the operator's training program that is related to winter operations. These items are neither comprehensive nor exclusive, and the FOI may require additional criteria.

a) The requirement for a thorough pre-flight inspection in extreme temperatures;

b) A description of the performance and control problems that would differ from normal

conditions during takeoff and landing with water, slush, or wet snow on the runway;

c) The speed, weight, and runway length adjustments that would be made when operating on contaminated runways;

d) Criteria for takeoff, en-route, and destination weather conditions;

e) The causes and effects to the aircraft from hydroplaning or aquaplaning;

f) The effects of increased viscosity of fluids in cold temperatures;

g) Adverse effect of cold temperatures on hydraulic fittings and seals;

h) The effects of cold weather conditions to fuel pumps and fuel filter drains;

i) Fuel contamination, fuel leaks caused by cold weather operations;

j) The hazards associated with wet snow or slush in wheel wells when entering freezing temperatures;

k) Techniques and procedures for braking, steering, and reversing with water, slush or snow on taxiways and runways;

l) De-icing and anti-icing procedures and equipment for frost, ice, or snow removal from airfoils, control surfaces, and static ports;

m) Proper adjustment of cables and rods used to manipulate flight controls;

n) A description of landing surface conditions and appropriate braking action.

CHAPTER 10

Carry-On Baggage Programmes Review Process

1.0 PURPOSE

This Chapter provides guidance to Flight Operations Inspectors (FOI) on the evaluation, review and approval of operators carry-on baggage programme.

2.0 REFERENCE

2.1 Regulations 8.9.2.7 and 8.9.2.14 of the Nigeria Civil Aviation Regulations.

2.2 CHECKLIST: CL:O-OPS010

3.0 GUIDANCE

3.1 Part 8 of the Nigeria Civil Aviation Regulations require an air operator to issue a policy on carry-on baggage. This is due to changes in passengers travelling habits, such as the introduction of wheeled luggage. In addition, with short connection times, passengers are not guaranteed that their checked baggage will make a connecting flight. Therefore, many passengers find it more desirable to carry on their own baggage.

3.2 An operator's Authority-approved carry-on baggage programme should encompass the following areas:

3.2.1 Compliance with Existing Regulations. The operator's approved carry-on baggage programme should ensure compliance with all applicable regulations. An operator's approved programme will not deviate from applicable requirements contained in the Regulations;

3.2.2 **Description of Carry-On Baggage.** The operator's programme should include a description of carry-on baggage provided in the following subparagraphs. The operator's programme should include guidance regarding items that are considered carry-on baggage and must be properly stowed. Approved child restraint devices that are properly used during flight are not considered as carry-on baggage:

a) **Size and Amount of Carry-On Baggage.** The operator's programme should provide information about the acceptable size of carry-on baggage. For example, some operators could have carry-on baggage programmes that limit the size of each carry-on to 114 linear centimetres or 129.5 linear centimetres with the handles and wheels. However, a size limit should only be used if it is necessary to ensure proper stowage of carry-on baggage. In addition, the programme should also provide information regarding the number of bags that are permitted per passenger, e.g., a limit of two bags per passenger. For example, an operator's programme could stipulate that passengers could carry on one bag with

dimensions that do not exceed 114 linear centimetres (129.5 linear centimetres with wheels and handles) and a second bag that does not exceed one-half of the linear inches of the first bag. Another possibility would be a two-bag limit, and stipulate that neither bag can exceed a certain linear inch limit;

b) **Mass Assessment of Carry-On Baggage.** Questions regarding mass and balance are addressed in other sections of this bulletin. However, it should be noted that mass and balance assessments are one factor in the carry-on baggage programme. The operator's carry-on baggage programme must be designed to ensure that the approved mass and balance programme is not compromised;

3.2.3 **Child Restraint Devices.** The operator's programme should include a discussion of child restraint devices and how they will be handled as part of the air carrier's carry-on baggage programme. Child restraint devices that are not used during the flight are to be stowed either as carry-on baggage or as checked baggage.

3.2.4 **Proper Stowage of Carry-On Baggage.** Each operator's approved carry-on baggage programme should contain information about the proper stowage of carry-on baggage and cargo in the cabin, including the following:

a) **Procedures for Proper Stowage.** Depending upon the aircraft being used, the cabin configuration and other factors, the Authority could approve a carry-on baggage programme that ensures that each piece of baggage fits under the seat in front of the passenger such that no part of the bag protrudes beyond the fully upright seat back or causes obstruction to passenger movement to, from, or across the aisle. Depending upon the aircraft being used, the cabin configuration, and other factors, the approval for carry-on baggage programmes for proper stowage of items in overhead bins could be issued if the programme ensures that baggage fits securely in the overhead compartment and the bin doors close without any forced effort. Additionally, approval for a carry-on baggage programme could be issued if the programme is designed to minimise or eliminate the chances of baggage and other articles falling out when the bin doors are opened;

b) **Procedures for the Proper Stowage of Carry-On Baggage, Cargo, and Unusual Items in the Cabin.** The operator's carry-on baggage programme should provide information regarding the procedures for proper stowage of carry-on baggage and cargo in the cabin, as follows:

(i) Procedures to ensure that all carry-on baggage is stowed in an approved compartment or other specifically approved area;

(ii) Methods to ensure carry-on baggage and cargo do not exceed the placarded weight limitations or certificated load limits for the stowage areas, where they are stowed, or the restraints used to secure them. This should emphasise that overhead bin weight limits cannot be exceeded and that the bins should be easily closed;

(iii) A list of specific items that can be carried in the cabin but outside of specified carry-on baggage compartments. Items that an operator might wish to carry in the cabin outside of approved stowage areas should be extremely limited and should be listed in the operator's approved carry-on baggage programme. The procedures for the stowage of

these unusual articles should specify locations where these items can be stowed and the proper method for restraining them. The restraints used should ensure that the article will not shift under emergency load conditions specified for the same or similar restraint or equipment approved by the Authority for use by the operator in the same aircraft. To ensure that articles do not shift under the specified load conditions, an approved weight limitation for each restraint or "tie-down" area is necessary. For example, a valuable violin, if listed in the operator's carry-on baggage programme, could be such a specific item, provided that the instrument is properly strapped to an approved and designated seat;

(iv) Procedures for Stowage of Unusual Articles. Passengers may want to carry large or fragile objects that need special stowage. Operators may not want to check these fragile items. However, many times it is difficult to find a place to stow these items in the cabin. The best solution is for passengers to ensure fragile objects are securely packed to withstand normal handling. If an item cannot be checked or stowed in a manner that ensures the safety of the aircraft and its occupants, or if the passenger believes that the item cannot be packaged to withstand normal handling, then the item will have to be shipped by some other means.

c) **Assurance that Carry-On Baggage does not Interfere with Emergency Equipment.** The operator's programme must ensure that no item is stowed in any manner that may interfere with direct and easy access to, and use of, emergency equipment. The Authority recommends that operators designate a required crew member position the responsibility for ensuring that emergency equipment access is unrestricted:

(i) Stowage of canes or other assist devices in accordance with existing regulations and in approved areas, such as under a seat, approved cargo bins, or fitted holders, if appropriate, along the fuselage wall;

(ii) Verification of Proper Stowage. Procedures for verifying that each article of baggage is properly stowed before all the passenger entry doors are closed should be addressed in carry-on baggage programmes. The Authority recommends that operators give this assignment to a specific crew member position. For example, an operator could assign this responsibility to the senior cabin crew member.

d) **Screening.** Each operator's carry-on baggage programme should clearly describe the procedures and personnel that will be used to prevent the boarding of baggage that, for any reason, cannot be properly stowed. The programme should include the following elements:

(i) Area of operation, including terminal and scanning point facilities, that will be used to determine whether baggage should be restricted from the aircraft;

(ii) Scanning point facilities and locations, including operations at facilities other than those owned, or ordinarily used, by the operator;

(iii) Personnel responsible for the scanning. The duties of personnel who are responsible for scanning should be clearly defined and manageable;

(iv) Procedures to prevent boarding of carry-on baggage that will exceed the placarded weight of the approved stowage areas, cargo bins, and "tie-down" areas;

(v) Procedures to prevent the boarding of carry-on baggage that will exceed the number or size that is specified as a limit in the operator's carry-on baggage programme;

(vi) Procedures to prevent the boarding of carry-on baggage that will exceed the total

space of the approved stowage areas available on an aircraft.

e) **Information Provided to Passengers.** Each operator should also have established procedures for informing travellers and travel agents about the specific carry-on requirements of each flight. Operators have the flexibility to accommodate travellers with —special baggage problems," provided the baggage can be safely stowed. For example, a musician's cello, delicate ceramic, or a piece of art would be considered —special baggage." Operators should provide information to passengers about their procedures for accommodating —special baggage" prior to the flight. In addition, passengers should be provided with information about the types of materials that should not be carried in their carry-on baggage, such as dangerous goods;

f) **Manuals.** The operator should ensure that the appropriate part of the crew members' manual provides information about the operator's approved carry-on baggage programme. This should include: Proper methods of stowing carry-on baggage, cargo, and other articles carried in the cabin; handling of items that have been boarded and cannot be properly stowed; crew co-ordination necessary to ensure items are properly stowed; assignment of crew member responsibility for verification; assignment of crew member responsibility for ensuring that carry-on baggage will not hinder the availability and use of emergency equipment; and other pertinent information that the operations inspector determines should be in the crew members' manual;

g) **Training.** Operators should provide training to appropriate ground personnel and to all crew members regarding the operator's approved programme. The training should include, but not limited to: Carry-on baggage limitations; baggage scanning; processing of carry-on baggage that cannot be accommodated in any of the passenger compartments; proper stowing of carry-on baggage; stowing of cargo and unusual items in the cabin; crew co-ordination; applicable passenger information; types of and limitations on, stowage provisions; verification that carry-on baggage is stowed so it does not interfere with emergency equipment; and the handling of carry-on baggage during an emergency.

4.0 APPROVAL OF CARRY ON BAGGAGE PROGRAMME

4.1 Regulation 9.2.14 of Part 8 of the Nigeria Civil Aviation Regulations requires that no carry-on baggage is taken on-board the aircraft unless it can be adequately and securely stowed in accordance with the AOC holder's Operations Manual procedures. And that passenger entry doors are only closed for take-off after crew have made sure that all carry-on baggage has been properly stored and secure.

4.2 AOC holders shall have a programme approved by the Authority detailing procedures to be followed to meet the requirements of Regulation 9.2.14 of Part 8 of the Nigeria Civil Aviation Regulations, in their Operations Manual. The description of the approved carry on baggage programme must address the items discussed in NCAA-AC-OPS013 on Carry-On Baggage.

CHAPTER 11

Exit Row Seating Programme Review Process

1.0 PURPOSE

This Chapter provides guidance for inspectors on the requirements of exit row seating.

2.0 REFERENCES

2.1 Regulation 8.9.2.11 of the Nigeria Civil Aviation Regulations, (Exit Row Seating), regulates exit seating in aircraft operated by commercial air transport operators.

2.2 CHECKLIST: CL:O-OPS011

3.0 GUIDANCE AND PROCEDURES

3.1 The regulation prescribes requirements relating to the seating of passengers near emergency exits. FOIs must ensure that air operators' manuals, as appropriate, contain the applicable portions of the operators' approved exit seating programme.

3.2 The following Job Aid provides FOIs with guidance for determining operators‘ compliance with Regulation 8.9.2.11 of the Nigeria Civil Aviation Regulations, ―Exit Row Seating”.

CHAPTER 12

Approval and Acceptance of a Cabin Crew Manual

1.0 PURPOSE

This Chapter contains direction and guidance for Flight Operations Inspector (FOI) when approving operator's cabin crew manual.

2.0 REFERENCES

2.1 Regulation 9.3.1.17 of the Nigeria Civil Aviation Regulations.

2.2 CHECKLIST: CL:O-OPS012

3.0 GENERAL

3.1 An operator may develop and publish in his or her manual any policy, method, procedure, or checklist that the operator finds necessary for the type of operations conducted. These policies, methods, procedures, and checklists, however, must comply with the Civil Aviation Regulations and be consistent with safe operating practices.

3.2 FOIs should encourage operators to be innovative and progressive in developing such policies, methods, procedures, and checklists. The FOI's role in the review process is to provide an independent and objective evaluation of the operator's manual material.

3.3 The FOI must ensure that the operator's material complies with the Nigeria Civil Aviation Regulations, is consistent with safe operating practices, and is based on sound rationale or demonstrated effectiveness.

4.0 EVALUATION OF A CABIN CREW MANUAL FOR APPROVAL PURPOSES

4.1 FOIs should use the Inspection checklist —Preparation of Cabin crew Manual," to assist them in the acceptance of manuals required for Cabin crews (CC) engaged in operations conducted under Regulation 9.3.1.17 of the Nigeria Civil Aviation Regulations. The inspection checklist should be used as follows:

4.1.1 Make a copy of Preparation of Cabin Crew Manual' Inspection Guide Checklist;

4.1.2 Give the copy to the appropriate representative of the operator, and ask that person to document the pertinent page number for each item;

4.1.3 When satisfactory, initial each item;

4.1.4 Make appropriate remarks and recommendations;

4.1.5 When the entire manual is satisfactory, sign the bottom of the last page of the job aid.

4.2 FOIs should ensure that the information and procedures contained in the Cabin Crew manual are consistent with the information and procedures throughout all of the operator's manuals. A review may be accomplished by comparing information and procedures (such as the operator's carry-on baggage program, exit seating programme, and emergency procedures) in the Cabin Crew manual with those contained in the operator's aircraft operating,/operations manual and passengers information cards;

4.3 FOIs should use the List of Effective Pages to determine currency and completeness of the Cabin Crew manual;

4.4 FOIs should co-ordinate with the Dangerous Goods inspector to review the security and hazardous materials procedures that are described in the Cabin Crew manual.

CHAPTER 13

Reduced Vertical Separation Minima (RVSM OPS) Certification

1.0 PURPOSE

This Chapter is issued for the guidance on the Reduced Vertical Separation Minima (RVSM) Certification. Reduced Vertical Separation Minima refers to a vertical separation minimum of 300 m (1000 ft) between FL 290 and FL 410 inclusive.

2.0 REFERENCES

2.1 Regulation 8.8.1.21 and 8.10.1.16 of the Nigeria Civil Aviation Regulations.

2.2 Regulation 7.4.1.3 and 7.4.1.5 of the Nigeria Civil Aviation Regulations.

2.2.1 CHECKLIST: CL:O-OPS013

2.3 ICAO Doc 9574 - Manual on Implementation of a 300 m (1000 ft) Vertical Separation Minimum between FL 290 and FL 410 Inclusive is the source guidance reference for RVSM operations.

2.4 The RVSM Minimum Aircraft System Performance Specification (MASPS) include specifications and procedures for the separate aspects of type approval, release from production and continued airworthiness and is included in the following documents for global application:

2.4.1 European Joint Aviation Authority (JAA) Temporary Guidance Leaflet (TGL) No.6 – Guidance Material on the Approval of Aircraft and Operators for Flight in Airspace above FL 290 where a 300m (1000 ft) Vertical Separation Minimum is Applied - or any subsequent version thereof; or

2.4.2 USA Federal Aviation Administration (FAA) Document 91-RVSM, Interim Guidance Material on the Approval of Operators/Aircraft for RVSM Operations.

2.5 The above documents were developed in compliance with the guidance material in ICAO Doc 9574 and have been cited in ICAO Doc 9574 as being acceptable means for RVSM approval.

2.6 Additional guidance may be found in the following documents:

2.6.1 FAA Advisory Circulars 90-96 and 91-70;

2.6.2 Global Change GC-59 (MMEL);

2.6.3 EUR Doc 009;

2.6.4 North Atlantic MNPS, Ninth Edition.

2.7 The guidance in this manual is based on FAA 91-RVSM.

3.0 ACTION

3.1 Using the guidance provided in NCAA TGM VOL 3, Approval of Aircraft and Operators for Flight in Airspace Above Flight Level (FL) 290 Where a 1,000 Foot Vertical Separation Minimum is Applied (as amended), inspectors shall ensure that operators meet the standards of Regulation 8.8.1.21 of the Nigeria Civil Aviation Regulations.

3.2 Inspector Approval or Acceptance. The terms approve" and Accept" are used in this order. The approval or acceptance of an operator's proposal by the Authority is accomplished by writing a Letter of Acceptance or approval to the operator.

4.0 BACKGROUND

4.1 RVSM Airspace

RVSM airspace is any airspace or route where aircraft are separated by 1,000 feet vertically between flight level (FL) 290 and FL 410, inclusive. Generally, aircraft and operators that have not been authorized to conduct RVSM operations cannot operate at FLs where RVSM is applied. Exceptions to this rule are published by individual Air Traffic Service Providers. Air Traffic Service Providers have elected to implement RVSM as a means to provide more fuel/time efficient altitudes and routes to operators and to enhance en route airspace capacity.

5.0 SOURCES OF INFORMATION

5.1 **FAA RVSM Homepage**

The RVSM homepage provides information on RVSM programs in various areas of the world. The RVSM homepage can be accessed at: www.faa.gov/ats/ato/rvsm1.htm.

5.2 **Regulations**

5.2.1 Regulation 8.8.1.21 of the Nigeria Civil Aviation Regulations prohibits operations in airspace designated as Reduced Vertical Separation Minimum airspace without the written authorization of the Authority. Regulations 7.4.1.3 and 7.4.1.5 of the Nigeria Civil Aviation Regulations, are the regulations for instruments and equipment requirements;

5.2.2 Aircraft and operators must be authorized by the Authority to conduct operations in RVSM airspace. The criteria evaluated to issue this authorization consist of three basic elements as follows:

a) An aircraft must be determined to comply with the requirements of Regulation 8.8.1.21 of the Nigeria Civil Aviation Regulations, Regulations 7.4.1.3 and 7.4.1.5 of the Nigeria Civil Aviation Regulations. and ICAO Document 9574;

b) The operator's maintenance programme must be found to comply with the requirements of 91-RVSM and (ICAO) Document 9574 It must be established that the operator has adopted RVSM operating policies and procedures for pilots and flight operations officers that are acceptable to the Authority.

6.0 OVERVIEW OF THE AUTHORIZATION PROCESS

6.1 The Flight Operations Inspector (FOI), and the Airworthiness Inspector (AWI) should coordinate the issue of OpSpecs to grant the operator authorization to conduct RVSM operations for a specific aircraft type or group. The CAA will issue the OpSpecs paragraphs if the following conditions exist:

6.1.1 The Authority determines that the operator‘s aircraft comply with RVSM standards -

a) For in-service aircraft, the Authority determines that inspections and aircraft system modifications are completed as required by the applicable Service Bulletin (SB), Service Letter, Supplemental Type Certificate (STC) or other Aircraft Certification Office approved documents.

b) For aircraft manufactured in an RVSM compliant-condition, the Authority determines that the Aeroplane Flight Manual (AFM) or Type Certificate Data Sheet (TCDS) contain a statement of RVSM eligibility;

6.1.2 The NCAA approves the operator‘s RVSM maintenance programme;

6.1.3 The NCAA approves the operator‘s RVSM operations programme;

6.1.4 The NCAA accepts the operator‘s plan to participate in monitoring programmes;

6.1.5 If required by the FOI in coordination with the AWI, the operator successfully completes a validation flight.

7.0 RVSM AUTHORIZATION PROCESS AND POLICY

7.1 Coordination between Inspectors. Before issuing RVSM authorizations, there must be coordination between the FOI and the AWI assigned to the project.

7.2 Authorization Process Events. Nig CARs 7.4.1.3, 7.4.1.5 titled Reduced vertical separation minimum provides guidance on the major events in the RVSM authorization process. Also, the ~~-~~Getting Started” section of the RVSM Documentation Web page contains an outline or checklist of the events or steps in the authorization process. It includes references to applicable document paragraphs and sections.

7.3 **Issue of LOA.** LOAs must be issued for ~~-~~initial” RVSM authorization for each operator airframe. An operator is not, however, required to obtain a new or amended LOA to start RVSM operations with an aircraft for which he has previously received RVSM approval in an RVSM area of operations that

is new to him. Operators are responsible for compliance with any operational policy and procedures specific to the new area of operations.

7.4 Relationship between RVSM Authorization and Horizontal Navigation Authorizations. Currently, in designated oceanic airspaces, operators are required to obtain both RVSM authorization and certain horizontal navigation authorizations. These are separate, specific authorization actions. For example, to operate in North Atlantic Minimum Navigation Performance Specification (NAT MNPS) airspace, operators are required to obtain both RVSM and NAT MNPS authorization. In Pacific oceanic airspace, operators are required to obtain both RVSM and Required Navigation performance 10(RNP-10) authorization.Nig CARs 7.4.1.1(b).

7.5 Determining Aircraft RVSM Compliance. The phrases, determining aircraft RVSM compliance,‖ and initial RVSM airworthiness approval,‖ both appear in RVSM documents to indicate that the NCAA has determined that the operator‘s aircraft comply with RVSM standards. The following are guidance for determining aircraft RVSM compliance:

7.5.1 For most in-service aircraft, the RVSM airworthiness documents take the form of SBs, Service Letters or STCs. These documents contain requirements that are specific to individual aircraft types or groups and generally require inspections and/or hardware or software modifications. The operator must submit documents to the NCAA to show that the required actions have been completed for each airframe that will operate in RVSM airspace;

7.5.2 For aircraft manufactured RVSM-compliant, the AFM or TCDS must contain statements that show the aircraft to be eligible for RVSM operations;

7.5.3 When the inspector determines that individual operator airframes is RVSM compliant, the Operator‘s file must be updated against the airframes listed in the OpSpecs or in a Letter of Authorization (LOA), as appropriate.

7.6 RVSM Maintenance Programme Approval. NCAA TGM VOL 4 contains airworthiness inspector guidance for the evaluation and approval of an operator‘s RVSM maintenance programme. It also, contains guidance on the content of maintenance programmes in Paragraph 10.

7.7 An applicant for authorization to operate within RVSM airspace shall apply in a form and manner prescribed by Authority. The application must include the following :

(1) An approved RVSM maintenance program outlining procedures to maintain RVSM aircraft in accordance with the requirements of this TGM. Each program must contain the following:

(i) periodic inspections, functional flight tests, and maintenance and inspection procedures, with acceptable maintenance practices, for ensuring continued compliance with the RSVM aircraft requirements.
(ii) A quality assurance program for ensuring continuing accuracy and reliability of test equipment used for testing aircraft to determine compliance with the RVSM aircraft requirments.
(iii) Procedures for returning noncompliant aircraft service.

(2) For an applicant who operates under part 8 and 9 of Nig CARs initial and recurring pilot training requirement.
(3) Policies and procedures: An applicant who operates under part 8 and 9 of Nig CARs policies and procedures that will enable it to conduct RVSM operations safety.
(c) Validation and Demonstration. In manner prescribed by the Administrator, the operator must provide evidence that
(1) It is capable to operate and maintain each aircraft group for which it applies for approval to operate in RVSM Airspace; and

(2) Each pilot has an adequate knowledge of RVSM and procedures requirements, policies, And procedures

7.7.1 Pilot Knowledge. Inspectors should consider any one of the options listed below to be an acceptable method for the operator to show the NCAA that pilot knowledge of RVSM policy/procedures is adequate prior to operating in RVSM airspace. The inspector may:

a) Accept certificates documenting completion of a course of instruction on RVSM policy and procedures;

b) Accept an operator's in-house training program;

c) Evaluate a training course prior to accepting a training certificate by reviewing the syllabus, attending the course, or administering a written or oral exam.

7.7.2 Operations Manuals. In accordance with Nig CARs, operators must incorporate RVSM operating practices and procedures into their operations manuals or documents. Any one of the options listed below may be considered acceptable. The inspector may:

a) Accept an operator's stand-alone RVSM operations manual as part of the application for RVSM authority after reviewing it for completeness and correctness.

b) Accept documentation of the operator's RVSM operations policy/procedures provided as a section of the operator's application for RVSM authority after reviewing it for completeness and correctness.

7.7.3 Operating Practices and Procedures. Nig CARs, provides operating practices and procedures applicable to all RVSM operations. Appendix 4, paragraph 7, lists special emphasis items for pilot training.

7.7.4 Specific Practices and Procedures for RVSM operations in oceanic airspace. Nig CARs, and TGM VOL 3, provides specific practices and procedures for RVSM operations in oceanic airspace. International NOTAMs and other countries' Aeronautical Information Publications also contain operational policy/procedures for RVSM operations.

7.7.5 Operations Training and Operating Practices and Procedures. Operators may use IG Nig CARs and, TGM VOL 3 and 4, as the basis for their RVSM operations training and operating practices/procedures. Operators will be responsible for incorporating this material into their programmes prior to conducting RVSM operations.

7.8 **Validation Tests and Flights.**

7.8.1 NCAA TGM Vol 3 chapter 13 and checklist O-OPS013 provides guidance on the RVSM validation test.In some, cases review of the operator's RVSM application and programme documents will suffice for validation test purposes. However, as determined by the FOIs and AWIs, the final step of the approval process may be the completion of a validation flight. The NCAA may accompany the operator on a flight to verify that RVSM operations and maintenance procedures and practices are used effectively. The validation flight may be accomplished during a revenue flight, as determined by the NCAA on a case-by-case basis;

7.8.2 Validation flights are NOT required to be conducted in conjunction with the monitoring flights described below. Also, the validation flight may be conducted before monitoring requirements are completed.

8.0 MONITORING PROGRAMMES

8.1 **Objective of Monitoring.** The primary goal of monitoring is to provide a quality control check on the altitude-keeping performance of the wide variety of operators and aircraft. It has been determined that this may be accomplished by sampling a number of airframes of each aircraft type that an operator will operate in RVSM airspace. Altitude-keeping performance data is analysed to determine that the aircraft fleet, as well as individual operators, exhibits performance that is consistent with RVSM standards.

8.2 Operator Plan and Monitoring Requirements. In its application for RVSM authorization,Nig CARs calls for each operator to submit a plan to participate in monitoring programs.
It further notes that the current monitoring requirements for individual operators.

Note: *Operators are not required to complete monitoring prior to being granted an LOA.*

8.3 Monitoring Procedures. Monitoring procedures for ground-based and Global Positioning System (GPS)-based monitoring systems are published on the RVSM Documentation Web page. Operator aircraft of a specific type or group are monitored after they have been determined to be RVSM compliant. Currently, the operator can have his aircraft monitored by either the ground-based Height Monitoring Unit (HMU) or a portable GPS-based Monitoring Unit (GMU) that can be placed on the aircraft.

9.0 DATABASE OF RVSM COMPLIANT AIRCRAFT

9.1 The Authority is in the process of developing a database listing RVSM compliant aircraft on its register. The data will include the following:

9.1.1 Operator identification;

9.1.2 Aircraft make/model/series;

9.1.3 Aircraft registration mark (5N-mark);

9.1.4 Manufacturer‘s serial number;

9.1.5 Initial RVSM Airworthiness Approval date for each individual airframe;

9.1.6 For in-service aircraft, the date work was completed to comply with appropriate RVSM airworthiness document (e.g., SB, SL, STC).

9.1.7 For in-production or new-production aircraft, the date that the OpSpecs or LOA was issued.

9.2 Following operational approval of an operator and aircraft type, the date operational approval was granted (refers to the date that operations specifications or LOA is issued to the operator) must be entered in the database.

10.0 RVSM CERTIFICATION

10.1 Pre-Application Phase

10.1.1 Compliance Statement

The "RVSM Certification" Compliance Statement should be used for this certification process. The applicant will provide the Authority with either an electronic or paper copy of this Compliance Statement.

10.1.2 Required Documents

The applicant will be provided with a copy of Tables 8-1, 8-2, and 8-3 from Appendix 8 of the AOC manual annotated in the right (R) column to show the documents that must be included in their formal application submission:

- Compliance Statement
- Schedule of Events
- Flight Operations Manual Revisions (AWO policies)
- Condensed and Expanded Checklists (AWO procedures incorporated)
- Minimum Equipment List (AWO dispatch requirements and provisos incorporated)
- Flight Crew Aircraft Operating Manual (AWO procedures and systems operations)
- Route Guide (Airports and Minima)
- Flight Crew Training and Checking (AWO syllabus, checking, line experience)
- MCM/MME (revisions to incorporate AWO Maintenance Control processes)
- Aircraft and Component Maintenance Program (incorporation of necessary checks and standards)
- Maintenance Task Cards (required to provide for the necessary checks)
- Maintenance Planning Document
- Component Manufacturer's Maintenance Manual
- Individual Aircraft RVSM Compliance Statements

10.1.3 Schedule of Events

The applicant will submit the Schedule of Events in electronic and hard paper copies.

The CPM will ensure that all necessary NCAA actions are entered in the Schedule of Events (SOE).

Subsequently, the CPM will enter a running record of the return-for-work or acceptable determinations.

The CPM will printout the SOE each Monday morning.

10.1.4 Formal Application Phase

Operations Certification Report

The certification team leader should initiate an operations certification report and immediately annotate the evaluations that are not applicable.

Airworthiness Certification Report

The CPM should initiate an airworthiness certification report and immediately annotate those evaluations that are “not applicable” to this particular certification process.

10.1.5 Document Evaluation Phase

10.1.5.1 Early Training Evaluation and Initial Approval

The following items should be scheduled for evaluation as soon as possible after completion of the formal application phase for the necessary training approvals:

- Aircraft-specific Checklists
- Flight Crew Operating Manual
- Crew and Maintenance Training Contracts
- Aircraft-Specific Ground Training Curricula
- Aircraft-Specific Simulator and Flight Training Curricula
- Aircraft-Specific Simulator to be used
- Proposed Aircraft-Specific Proficiency Check
- Proposed Aircraft-Specific Check Pilots
- Aircraft-Specific Systems Maintenance Training

10.1.6 Inspection and Demonstration Phase

10.1.6.1 Minimum Required Inspections

The minimum inspections that must be conducted prior to certification are: (assuming no special certification issues)

10.1.7 Operations

The Operations team will complete all appropriate job tasks before the validation flights.

During the validation flight the Operations Team will complete all appropriate job tasks.

10.1.8 Airworthiness

The Airworthiness team will complete inspections all appropriate job tasks before the validation flight(s).

10.1.8.1 Demonstration Flight

A validation flight will be accomplished with the first flights.

10.1.9 Approval Phase

10.1.9.1 AOC and Operations Specifications

E9 will be added to the Operations Specifications.

10.1.9.2 Completed Certification Report

No special instructions.

10.2 Operational approval

10.2.1 General

Airspace where RVSM is applied should be considered special qualification airspace. The specific aircraft type or types that the operator intends to use will need to be approved by the responsible authority before the operator conducts flight in RVSM airspace. In addition, where operations in specified airspace require approval in accordance with an ICAO Regional Navigation Agreement, an operational approval will be needed. This document provides guidance for the approval of specific aircraft type or types, and for operational approval.

10.2.2 Approval of Aircraft

Each aircraft type that an operator intends to use in RVSM airspace should have received RVSM airworthiness approval from the NCAA, prior to approval being granted for RVSM operations, including the approval of continued airworthiness programmes.

It is accepted that aircraft, which have been approved in compliance with JAA Information Leaflet No. 23 or FAA Interim Guidelines 91-RVSM, satisfy the airworthiness type certification.

10.2.3 Continued Airworthiness Maintenance Procedures

RVSM maintenance requirements are detailed in the NCAA TGM VOL 4 Airworthiness Handbook.

10.2.4 Maintenance Documents

The following items should be reviewed, as appropriate:

(a) Maintenance Manuals.
(b) Structural Repair Manuals.
(c) Standard Practices Manuals.
(d) Illustrated Parts Catalogues.
(e) Maintenance Programme.
(f) MMEL/MEL.

10.2.5 Operational Approval

Approval will be required for each aircraft group and each aircraft to be used for RVSM operations. Approval will be required for each operator and the responsible authority will need to be satisfied that

(a) Each aircraft holds airworthiness approval;
(b) Each operator has continued airworthiness programmes (maintenance procedures);
(c) Where necessary, operating procedures unique to the airspace have been incorporated in operations manuals;
(d) High levels of aircraft height keeping performance can be maintained.

10.2.6 Content of Operator RVSM Application

The following material should be made available to the NCAA, in sufficient time to permit evaluation, before the intended start of RVSM operations.

(a) *Airworthiness Documents* Documentation that shows that the aircraft has RVSM airworthiness approval.

(b) *Description of Aircraft Equipment* A description of the aircraft equipment appropriate to operations in an RVSM environment.

(c) *Training Programmes and Operating Practices and Procedures* Holders of Air Operators Certificates (AOC) may need to submit training syllabi for initial, and where appropriate, recurrent training programmes together with other appropriate material to the responsible authority. The material will need to show that the operating practices, procedures and training items, related to RVSM operations in airspace that requires NCAA operational approval, are incorporated. Non-AOC operators will need to comply with local procedures to satisfy the responsible authority that their knowledge of RVSM operating practices and procedures is equivalent to that set for AOC Holders, sufficient to permit them to conduct RVSM operations.

(d) *Operations Manuals and Checklists* The appropriate manuals and checklists should be revised to include information/guidance on standard operating

procedures. Manuals should include a statement of the airspeeds, altitudes and weights considered in RVSM aircraft approval; including identification of any operating limitations or conditions established for that aircraft group. Manuals and checklists may need to be submitted for review by the authority as part of the application process.

(e) *Past Performance* Relevant operating history, where available, should be included in the application. The applicant should show that changes needed in training, operating or maintenance practices to improve poor height keeping performance, have been made.

(f) *Minimum Equipment List* Where applicable, a minimum equipment list (MEL), adapted from the master minimum equipment list (MMEL) and relevant operational regulations, should include items pertinent to operating in RVSM airspace.

(g) *Maintenance* When application is made for operational approval, the operator should establish a maintenance programme acceptable to the NCAA.

(h) *Plan for Participation in Verification/Monitoring Programmes* The operator should establish a plan acceptable to the responsible authority, for participation in any applicable verification/ monitoring programme. This plan will need to include, as a minimum, a check on a sample of the operator's fleet by an independent height monitoring system.

10.2.6.1 Validation Flight(s)

The content of the RVSM application may be sufficient to verify the aircraft performance and procedures. However, the final step of the approval process may require a validation flight. The NCAA may appoint an inspector for a flight in RVSM airspace to verify that all relevant procedures are applied effectively. If the performance is satisfactory, operation in RVSM airspace may be permitted.

10.2.6.2 Form of Approval Documents

(a) *Holders of an Air Operator's Certificate* Approval to operate in designated RVSM airspace areas will be granted an Approval issued by the responsible authority in accordance with Nig. CARs, or in compliance with national regulations where operational approval is required by an ICAO Regional Agreement. Each aircraft group for which the operator is granted approval will be listed in the Approval.

(b) *Non AOC Holders* These operators will be issued with an Approval as required by national regulations or with Nig. CARs. These approvals will be valid for a period specified in national regulations and may require renewal.

Note: Subject to compliance with applicable criteria, an RVSM Approval combining the airworthiness approval and the operational approval is available from the NCAA.

10.2.6.3 Airspace Monitoring

For airspace where a numerical Target Level of Safety is prescribed, monitoring of aircraft height keeping performance in the airspace by an independent height monitoring system is necessary to verify that the prescribed level of safety is being achieved. However, an independent monitoring check of an aircraft is not a prerequisite for the grant of an RVSM approval.

10.2.6.4 Suspension, Revocation and Reinstatement of RVSM Approval

The incidence of height keeping errors that can be tolerated in an RVSM environment is small. It is expected of each operator to take immediate action to rectify the conditions that cause an error. The operator should report an occurrence involving poor height keeping to the responsible authority within 72 hours. The report should include an initial analysis of causal factors and measures taken to prevent repeat occurrences. The need for follow up reports will be determined by the responsible authority.

10.2.6.5 Operators Actions

The operator should make an effective, timely response to each height keeping error. The NCAA may consider suspending or revoking RVSM approval if the operator's responses to height keeping errors are not effective or timely. The NCAA will consider the operator's past performance record in determining the action to be taken.

10.2.6.6 Reinstatement of Approval

The operator will need to satisfy the responsible authority that the causes of height keeping errors are understood and have been eliminated and that the operator's RVSM programmes and procedures are effective. At its discretion and to restore confidence, the NCAA may require an independent height monitoring check of affected aircraft to be performed.

CHAPTER 14

Emergency Evacuation and Ditching Demonstrations

1.0 PURPOSE

This Chapter provides direction and guidance to inspectors for planning, observing, and evaluating emergency evacuation and ditching demonstrations. Effective emergency evacuation procedures have significantly reduced the number of casualties in survivable aircraft accidents. The Authority considers an operator's ability to perform these procedures an extremely important factor of aviation safety.

2.0 REFERENCE

2.1 Regulation 9.2.3.5 of the Nigeria Civil Aviation Regulations.

2.2 FORM:O-OPS014

3.0 GENERAL

2.1 The Authority requires that air operators engaged in passenger-carrying operations must conduct a full capacity or a partial aborted takeoff evacuation demonstration for any aeroplane with a seating configuration of more than 44 passenger seats.

2.2 The emergency evacuation and ditching demonstrations may be conducted during the certification process or as a separate event as prescribed in this Order. During the certification process the emergency evacuation and ditching demonstrations evaluation will be conducted by the Certification Team under the Certification Project Manager (CPM). In the case of a separate event the evaluation will be conducted by the Demonstration Team Members under the Demonstration Team Leader (DTL).

2.2 Air operators engaged in passenger-carrying operations must conduct a full capacity or partial ditching evacuation demonstration for any land aeroplane intended for extended over water operations. The need to conduct full-capacity or partial demonstrations depends on whether another air operator engaged in passenger-carrying operations, or the aeroplane manufacturer, had previously accomplished a full-capacity demonstration. These demonstrations specifically test the following areas:

2.2.1 The operator's emergency training program and crewmember competency;

2.2.2 The operator's emergency evacuation and ditching procedures;

2.2.3 The reliability and capability of the emergency equipment on the aeroplane.

2.3 A transport category aeroplane manufacturer must conduct emergency evacuation demonstrations. The demonstrations must be conducted in accordance with regulations applicable to the type certification and the State of aircraft design. Observation and evaluation of this demonstration is the responsibility of the Authority. This demonstration tests the following:

2.3.1 The basic aeroplane design and the efficiency with which passengers can be safely evacuated from it;

2.3.2 The emergency evacuation systems on the aeroplane;

2.3.3 The manufacturer's/operator's Authority approved emergency evacuation procedures.

3.0 REGULATORY REQUIREMENTS

3.1 Regulation 9.2.3.5 of the Nigeria Civil Aviation Regulations specifies the requirements for conducting these demonstrations. The regulation cites when they must be performed, how they are to be conducted and the specific criteria that must be met by the operator or manufacturer.

3.2 **Full-Capacity Aborted Takeoff.**

3.2.1 Regulation 9.2.3.5(a) of the Nigeria Civil Aviation Regulations requires an AOC holder engaged in passenger carrying operations to conduct a full-capacity emergency evacuation demonstration for the aircraft configuration in 90 seconds or less. It is a policy that this Regulation is applicable to each type and model aeroplane with a configuration of more than 44 passenger seats that is used in passenger carrying operations. A full-capacity emergency evacuation demonstration simulates an aborted takeoff. Before initiation of the demonstration, a passenger participant must occupy each installed passenger seat;

3.2.2 After the initiation signal, all passenger participants and crew members must be evacuated using the aeroplane's emergency evacuation equipment and not more than 50 percent of the emergency exits and slides. The demonstration must show that the aeroplane and its emergency equipment, using the operator's emergency procedures, allows for the evacuation of its full seating capacity, including crew members in 90 seconds or less. Additionally, if an operator proposes to use a type and model aeroplane with a seating configuration greater than has ever been previously demonstrated for that particular type and model, the operator must conduct a full-capacity demonstration with that type and model of aeroplane.

3.3 **Partial Aborted Takeoff:** Regulation 9.2.3.5 (2) of the Nigeria Civil Aviation Regulations specifies conditions under which an air operator may not be required to demonstrate a full capacity demonstration. If an air operator‘s written petition for an exemption from the requirements of regulation 9.2.3.5 (a) of the Nigeria Civil Aviation Regulations satisfies, the operator may be permitted to conduct a partial emergency evacuation demonstration in accordance with regulation 9.2.3.5 (3) of the Nigeria Civil Aviation Regulations. No passenger participants are used in a partial demonstration. A partial emergency evacuation demonstration simulates an aborted takeoff

and requires that, before initiation of the demonstration, the cabin crews occupy their normal takeoff positions. After the initiation signal, the aircraft's emergency evacuation equipment and 50 percent of the required emergency exits and slides must be ready for use in 15 seconds or less. A partial emergency evacuation demonstration must be conducted in the following situations:

3.3.1 When an operator intends to place in service a type and model of aeroplane that is new to the operator but which has previously had a full-capacity emergency evacuation demonstration conducted in accordance with Part 9 of the Nigeria Civil Aviation Regulations and Part 5 of the Nigeria Civil Aviation Regulations;

3.3.2 When an operator "significantly changes" the number of cabin crew members, their seating location, their evacuation duties, or emergency procedures:

a) "Significant change," as used in the preceding subparagraph 3.2.2 above, is a determination made by the Flight Operations Inspector when an operator proposes to change the number of cabin crew members, their seating location, their evacuation duties, or emergency procedures:

(i) Number. When a change in seating configuration of the aircraft in service requires the addition of a cabin crew, Regulation 9.3.1.7 of the Nigeria Civil Aviation Regulations, a partial demonstration is required if that operator has not previously demonstrated the higher seating capacity and larger complement of cabin crews. A change in seating capacity, which does not result in the addition of a required cabin crew or results in a fewer number of required cabin crews, usually does not constitute a "significant change" and a partial demonstration usually is not required. In some cases, however, depending on changes in cabin crew duties and/or procedures, a change in seating capacity that does not result in the addition of a cabin crew or results in fewer cabin crew members may require a partial demonstration;

(ii) Location. When an operator changes a cabin crew seating assignment, for any reason, the Flight Operations Inspector must consider if that action significantly changes the cabin crew's duties or responsibilities. For example, changing a cabin crew‘s seating assignment from one floor level exit to an adjacent floor level exit may not constitute a "significant change" in cabin crew duties. However, if an operator changes the seating location because of a new procedure, which requires, for the first time, cabin crews to open over wing window exits, that action would constitute a "significant change" and would require a partial demonstration;

(iii) Duties and procedures. When an operator changes emergency evacuation duties or procedures, the Flight Operations Inspector must consider the scope and character of the change in determining the requirement for a partial evacuation. For example, if the degree of change requires cabin crew member actions or knowledge, which has never been previously required or demonstrated a partial demonstration is required. If the change in duties or procedures is minor or can adequately be dealt with through the operator's training program, a demonstration may not be required.

b) Whenever an operator proposes to make one of the changes previously discussed, the Flight Operations Inspector, in determining the degree and significance of the change, must consider cabin crew knowledge, experience and the operator's training program, and the

increase in complexity of the duties for each cabin crew member in terms of additional exits, seats, or briefing responsibilities.

3.4 When an operator changes the number, location, type of emergency exits, or the type of opening mechanisms on the emergency exits used for aircraft evacuation, a demonstration may be required by the Authority. Any such proposal made by an operator must be immediately forwarded to the Person responsible for Safety Oversight for consideration and determination of whether a full capacity, a partial, or no demonstration is required.

3.5 IS 9.9.2.3.5(d) of the Nigeria Civil Aviation Regulations specifies the criteria used for evaluating a partial evacuation demonstration. The operator must demonstrate the effectiveness of its crew member emergency training and evacuation procedures by accomplishing the following:

3.5.1 Conducting a demonstration without passenger participants using the operator's line operating procedures;

3.5.2 Opening the exits and deploying the slides as selected by the Authority and "Prepare for use" of those exits and slides within 15 seconds;

NOTE: *"Prepare for use" is defined as the emergency exits being fully opened and, if applicable, the emergency exit slides being completely deployed or inflated and properly positioned on the ground in a manner which would not impede passenger or crew member egress.*

a) Using operator cabin crew members who have completed the approved training program for the type and model of aeroplane being demonstrated and who have passed a knowledge or practical test on emergency equipment and procedures;

b) Opening 50 percent of the total emergency exits and deploying 50 percent of the exit slides.

NOTE: *If the operator-developed emergency evacuation procedures require cabin crew members to open required nonfloor-level emergency exits, 50 percent of those exits must also be opened during the demonstration.*

(4) **Ditching.** Regulation 9.2.3.5(d) of the Nigeria Civil Aviation Regulations requires an operator who intends to operate a land plane in extended over water operations to conduct a ditching demonstration. IS.9.2.3.5(e) of the Nigeria Civil Aviation Regulations, prescribe the conditions applicable to the conduct of the ditching evacuation demonstration.

4.0 THE ABORTED TAKE-OFF DEMONSTRATION: PHASE ONE

4.1 The regulatory requirements previously outlined in this Order identify the three occasions when an air operator engaged in passenger carrying operations must conduct an emergency evacuation demonstration. An emergency evacuation demonstration is required when the operator proposes to operate a specific aeroplane type and model:

4.1.1 For the first time either a new, as with initial certification, or existing operator;

4.1.2 When there is a "significant change" in the number of cabin crew members, their seating location, their evacuation duties, or emergency procedures (as determined by the Authority);

4.1.3 When there is a change in the number, location, type of emergency exits, or type of opening mechanism on the emergency exits used for aircraft evacuation (as determined by the Authority)

4.2 When an operator's situation meets one or more of these conditions, the Authority must determine the requirement for either a full capacity or a partial aborted takeoff evacuation demonstration.

4.2.1 A full-capacity demonstration is required in the following situations:

a) When the aeroplane type and model and its proposed full passenger seating capacity has not been previously demonstrated by another State air operator or by a domestic or foreign manufacturer in accordance with airworthiness regulations applicable to the state of design;

b) When an aeroplane has undergone a change in its exit configuration and/or design (as determined by the Authority).

4.2.2 A partial demonstration is required in the following situations:

a) When an aeroplane (new to an operator) has previously had a full-capacity demonstration, conducted by an air operator or manufacturer, for the maximum seating configuration to be used by the operator acquiring the aeroplane;

b) When the operator is undergoing original or initial certification;

c) If the Authority determines a "significant change" has occurred in the number of cabin crew members, their location, or their duties and emergency procedures;

d) If the Authority determines a change has occurred in seating configuration, exits, or some other material alteration of the aeroplanes original design that would require a partial demonstration.

4.2.3 The most commonly performed demonstration is the partial aborted takeoff emergency evacuation demonstration. The general criteria (with the exception of the 15 seconds time limit and passenger participants) are similar to the full-capacity aborted takeoff demonstration. For the purposes of this Order, the requirements of the partial and full-capacity evacuation demonstration process is combined into one section. Additional requirements, exclusively imposed by the full-capacity evacuation demonstration, are shown in an appropriately titled box.

4.3 **Briefing the Operator on Demonstration Requirements**

4.3.1 After the Authority demonstration team leader determines whether a partial or full-capacity demonstration is required, the operator must develop a plan outlining the manner in which the demonstration is to be conducted. The inspectors must meet with the operator as often as

necessary to ensure the operator clearly understands which documents and information are required for the plan to be accepted for evaluation.

4.3.2 The operator may not practice, rehearse, or describe the demonstration for the passengers (when passengers' actions are required by the operator's procedures) nor may any participant have taken part in this type of demonstration within the preceding six months;

4.3.3 Management personnel from operations and maintenance must be available at the site for either a full-capacity or partial demonstration. These individuals must have authority to direct modifications to the emergency evacuation demonstration plan at the time of the demonstration. Additionally, they must be able to respond to the Authority requirements for specific corrective actions due to deficiencies that may occur during the demonstration. Other operator personnel present at the demonstration site should have a direct role in conducting the demonstration. The operator should be informed that, although other operator personnel may observe the demonstration, it is the operator's responsibility to ensure that these persons do not pose a distraction or affect the demonstration's outcome;

4.3.4 Other persons, who are not employees of the operator or personnel of the Authority, must have specific reasons to observe the emergency evacuation demonstration. Usually, these individuals will be representatives of the aircraft manufacturer, manufacturers of other items of equipment used during the demonstration, or other such organisations that have a direct interest in aviation safety;

4.3.5 The cabin crew member complement must consist of the minimum number of cabin crew members that the operator proposes to use on the aeroplane in commercial air transport passenger-carrying operations, and in no case shall the minimum number be less than that specified in Regulation 3.1.7(b) of Part 9 of the Nigeria Civil Aviation Regulations.

4.3.6 The aeroplane must be positioned in a normal ground attitude and configured for takeoff. Each passenger compartment door or curtain must be positioned, as it would be for a normal takeoff.

4.4 The Operator's Plan

4.4.1 The operator shall obtain approval by the Authority before conducting the emergency evacuation demonstration (full-capacity or partial). The operator should submit the plan as far in advance as possible. The Authority requires that the plan be submitted at least 30 working days before the intended date of a demonstration. The operator's plan shall contain the following information:

4.4.2 A letter of request which states the following:

a) The applicable regulation, [Regulation 9.2.3.5 of the Nigeria Civil Aviation Regulations], that requires a full-capacity or partial emergency evacuation demonstration be conducted;

b) The aeroplane type and model and full seating capacity (including crew members) to be demonstrated;

c) The number of cabin crew members and their duty assignment positions to be used during the demonstration;

d) The proposed date, time, and location of the evacuation demonstration;

e) The name and telephone number of the operator's evacuation demonstration co-ordinator (spokesperson);

f) A clear description of how the operator proposes to initiate the demonstration, the signal to be used for the purpose of timing. The operator must understand that the signal has to be given to both cabin and ground personnel simultaneously to initiate the demonstration. It should be emphasised that the Authority is responsible for developing the initiation procedure and the method for blocking exits. The Demonstration Team Leader (DTL) will thoroughly review this procedure for adequacy.

4.4.3 A diagram, representative of the aeroplane to be demonstrated, which includes the following:

a) The location and designation of all exits by type and the designated exit pairs;

b) The assigned seating location of each required crew member during takeoff;

c) The interior cabin configuration showing the location of each passenger seat, the galleys, aisles, lavatories, and passenger compartment partitions and bulkheads;

d) The location and type of emergency equipment on the aircraft including:
   (i) Fire extinguishers;
   (ii) Portable oxygen bottles/masks;
   (iii) Megaphones;
   (iv) Crash axes;
   (v) Emergency ropes/tapes;
   (vi) Life rafts/slide rafts;
   (vii) Individual floatation devices or life preservers;
   (viii) First aid and medical kits.

4.4.4 Copies of the appropriate crew member manual pages describing emergency evacuation duties and responsibilities.

4.4.5 A copy of the passenger information card which will be used on the aircraft during revenue operations.

4.4.6 A description of the emergency equipment installed on the aircraft including at least the type and model of each item of equipment, as applicable.

4.4.7 A list of flight and cabin crew members who are or will be qualified to participate in the demonstration must be in the operator's plan. The flight crew members must be qualified in the aircraft to be used. Cabin crew members, in accordance with IS 9.2.3.5(c) of the Nigeria Civil Aviation Regulations, must have completed an Authority approved training program and passed drills and competence check on the type aircraft, emergency equipment, and procedures. Cabin

crew members designated by the Authority to participate in the demonstration shall not be provided emergency training or aircraft emergency equipment familiarisation more than that specified in the operator's approved training program before the demonstration.

NOTE: *The flight crew members must take no active role in assisting others inside the cabin during the demonstration.*

4.4.8 A description must be in the plan of how the operator will ensure the demonstration is conducted in the "dark of the night," or in conditions which simulate the "dark of the night." The regulations do not define "dark of the night." For the purpose of emergency evacuation demonstrations, "dark of the night" shall mean a level of illumination that approximates the natural illumination that occurs 90 minutes after official sunset under clear sky conditions. This lower level of illumination is needed to properly evaluate the aeroplane's emergency lighting system and passenger and crewmember performance in darkened conditions. Levels of illumination significantly darker can interfere with a proper evaluation of the demonstration. Therefore, this approximate level of illumination should be maintained by natural or artificial means. The most effective way of controlling the level of illumination is to conduct the demonstration in a darkened hangar.

4.4.9 A description of how the operator plans to ensure that the aeroplane is positioned in a location, either indoors or outdoors, which will allow the unobstructed deployment of all emergency evacuation slides or slide rafts, as applicable

5.0 THE ABORTED TAKEOFF DEMONSTRATION: PHASE TWO

5.1 When the operator's emergency evacuation demonstration plan is submitted, the Authority shall in phase two, make a cursory review of the submission to ensure all the required information and documents required in phase one are included.

5.2 While a thorough analysis of the submission is conducted during phase three, in phase two the Authority should respond to the operator's plan in a timely manner. Minor omissions or deficiencies can often be resolved by contacting the operator's evacuation demonstration coordinator. If discrepancies can be resolved quickly, the process moves to phase three.

5.3 If the operator's plan has a significant number of required items or documents missing or is obviously incomplete, the entire submission must be returned to the operator with a written explanation of why it is unacceptable. The operator shall be advised that the Authority will take no further action until an acceptable plan is submitted.

6.0 THE ABORTED TAKEOFF DEMONSTRATION: PHASE THREE

6.1 During phase three the Authority shall conduct a thorough analysis and evaluation of the operator's plan.

6.2 The inspectors must ensure that the information in or attached to the operator's letter of request is acceptable and consistent with the proposed type of demonstration. During this analysis and review the Flight Operations Inspectors shall ensure the following:

6.2.1 The operator's emergency training program has been approved by the Authority;

6.2.2 Evacuation procedures in the operator's manuals, including individual crew member assignments, are realistic, can be practically accomplished;

6.2.3 The passenger information card is understandable and consistent with the type and model of aeroplane to be demonstrated;

6.2.4 The emergency equipment is acceptable for the type of operation proposed.

6.3 Certain items in the proposal may require on site evaluations. For example, the hangar or ramp area the operator intends to use for the demonstration should be inspected for its adequacy. The inspector should determine that the operator has, or is making provisions for participant safety during the demonstration including the use of safety observers, stands, padding, mats, and any other appropriate safety measures.

6.4 Deficiencies noted during this analysis and review must be resolved with the operator's evacuation demonstration co-ordinator. If major discrepancies surface during the Authority evaluation or if the Authority and the operator are unable to resolve significant issues, the operator's plan must be returned with a letter explaining why it is being returned. The operator shall be informed that the discrepancies outlined in the letter must be corrected and a plan resubmitted before the Authority takes further action. If, after a detailed evaluation, the submission is found acceptable, the operator shall be notified that the Authority has accepted it.

7.0 THE ABORTED TAKEOFF DEMONSTRATION: PHASE FOUR

7.1 During phase four, the Authority plans, observes, and evaluates the operator's aborted takeoff emergency evacuation demonstration. The planning segment of this phase is particularly important and normally requires thorough co-ordination and clear instruction and guidance for both the Authority and operator participants to ensure that the demonstration is conducted and evaluated objectively.

7.2 Specific guidance and instruction for planning and conducting the full capacity and partial aborted takeoff evacuation demonstrations are in paragraph 4.

8.0 THE ABORTED TAKEOFF DEMONSTRATION: PHASE FIVE

8.1 Upon successful completion of an aborted takeoff emergency evacuation demonstration, the operator shall be immediately notified at the site of the demonstration. The results of the demonstration are reported as specified in paragraph 7.

8.2 The aircraft make model and the maximum demonstrated passenger-seating capacity must be listed and approved in the operations specifications.

9.0 ABORTED TAKEOFF DEMONSTRATION PROCEDURES

9.1 The Demonstration Team

9.1.1 A team leader shall head the Authority team responsible for evaluating the emergency evacuation demonstration. For an initial certification, the Certification Project Manager (CPM) serves as the demonstration team leader.

9.1.2 When an existing operator conducts a demonstration, the Authority will normally assign one of the inspectors to serve as the demonstration team leader. The team leader should be assigned as early as possible in the process and no later than the beginning of phase three. The team leader is responsible for planning, conducting, and evaluating the emergency evacuation demonstration. The team leader serves as the focal point and central spokesperson for the Authority on all matters pertaining to the demonstration. Other members of the Authority team should be assigned as needed and consist of operations, maintenance, and avionics inspectors familiar with commercial air transport operations and applicable regulatory requirements.

9.2 **Pre-Demonstration Meeting With Operator**

9.2.1 After reviewing and thoroughly evaluating the operator's plan (phase three), the team leader should meet with the operator's evacuation demonstration co-ordinator.

9.2.2 During this meeting the team leader should accomplish the following:

a) Review the operator's plan and ensure that the operator is thoroughly familiar with the applicable criteria to be used during the demonstration;

b) Ensure that the operator is aware of his responsibilities regarding participant safety including provisions for safety observers, stands, ramps, padding, and ambulance co-ordination, as applicable;

c) Review the method and signals for initiating the demonstration and timing criteria;

d) In co-ordination with the operator, determine the signal to be used to terminate the demonstration such as an air horn, or some other clear, distinguishable audible signal. (Experience has demonstrated that a whistle blast may not be adequate.) A suitable device should be agreed upon as early as possible in the planning stage, and tested to assure its adequacy;

e) Resolve any unanswered questions or issues the operator may have before conducting the demonstration.

9.3 **Authority Team Planning**

9.3.1 The DTL or CPM shall conduct a meeting with team members to assure each team member has a specific assignment during the demonstration. This includes timekeeping, position (inside or outside the aeroplane), and inspecting the emergency equipment, the aeroplane, and any applicable documents. The DTL or CPM should distribute an aircraft diagram to each inspector showing his or her assigned locations for the demonstration.

9.3.2 The team must determine which emergency exits shall be opened and the manner in which other exits will be blocked. Typical crew members used in the demonstration must be selected at random from a list provided by the operator of at least two full crew complements. Normally, typical crew members should not include those used in previous demonstrations, emergency procedures instructors, supervisors, check pilots, operator‘s safety officers, or others who may have an above average level of experience or exposure to emergency evacuation requirements.

9.3.3 The DTL or CPM must ensure each team member is aware of the signal to be used to initiate the demonstration and the signal to be used to terminate the demonstration. During the meeting, regulatory requirements and demonstration criteria should be reviewed to assure common understandings.

9.4 Selecting Exits

9.4.1 In aeroplanes having an even number of exits not more than 50 percent of the total number of exits and slides may be opened and deployed. When an aeroplane has an odd number of emergency exits, subtract one (if possible, an unpaired exit). Fifty percent of that number of exits shall be opened and the associated slides (if applicable) deployed. The remaining exits must be blocked.

9.4.2 Any emergency exit assigned to a cabin crew member as part of his/her evacuation duties may be selected for use during the demonstration. These floor level exits (doors) and nonfloor-level exits (windows or plugs) may be used provided they are designated as primary exits to be opened by a cabin crew member in the operator's evacuation procedures. Ventral (stairs) and tail cone exits should not be used unless they are paired with another exit. If there is any doubt as to which exits are paired, consult the State of aircraft design responsible for the type certificate of the aircraft make/model.

9.4.3 The DTL or CPM must carefully review the operator's emergency evacuation procedures. During partial demonstrations, only the cabin crew member's primary exits, as designated by the operator's manual, may be used. When deciding which doors or exits are to be opened during a partial demonstration, the Authority shall not select a door that is not designated as a primary cabin crew member duty to open, or a secondary door or exit that could not possibly be opened and ready for use in 15 seconds. It is recommended that one exit from each exit pair be selected. Exit pairs should be identified by the operator in the interior configuration diagram. After determining which exits will be used, the team should not divulge that information to the operator.

9.5 Blocking Exits

9.5.1 The operator should propose the method for blocking exits. The demonstration team must review the proposal to determine its acceptability.

9.5.2 The following are examples of acceptable methods of blocking exits during an emergency evacuation demonstration:

a) Tape a swatch of red cloth covering each door window and window exit. Secure a line to the covering long enough to reach the ramp or hangar floor. At the initiation signal, designated inspectors will pull the lines to remove the coverings from the door windows or window exits that are to be used and leave the coverings on the windows that are not to be used;

b) Position inspectors inside the aeroplane at each door or window exit before starting the demonstration. When the evacuation is initiated, the inspectors positioned in front of exits to be opened shall move from that position as quickly as possible. Inspectors positioned in front of exits not to be used will block the exits by raising their hands and stating, "this exit is blocked." This is the most effective method for blocking over wing exits;

c) To simulate a fire at the blocked exits, rig red lights (which when illuminated simulate fire) in front of the appropriate door windows or window exits. The lights at the exits to be blocked must be illuminated simultaneously with the initiation signal.

9.5.3 When a method of blocking exits has been determined, the Authority DTL or CPM must notify the operator's project co-ordinator of Authority concurrence with the method and ensure the operator will provide the required maintenance and logistical support to prepare the exit blocking methods.

9.6 **Initiation Signal**

9.6.1 It is essential that team members be aware of the demonstration initiation signal. The operator should propose a method that provides the same initiation signal for participants inside the aeroplane and Authority team members outside the aeroplane. The preferred method is for a operator employee to interrupt the aeroplane's normal source of power by one of the following actions:

a) Disconnecting, or turning off an external source of power or a ground power unit;

b) Disconnecting or turning off the auxiliary power unit.

9.6.2 This method of initiating the demonstration provides a clear initiation signal in the following ways:

a) Inside the aeroplane, the cabin crew members and team members will observe the normal cabin lighting extinguish and the emergency lighting system illuminate as their signal to commence the evacuation demonstration;

b) Outside the aeroplane, Authority observers (stationed at each exit) and the DTL or CPM (who serves as the timekeeper) will observe the external lights (for example, taxi lights, anti-collision lights, position lights, and logo lights) extinguish. This is the signal to initiate the timing and other necessary observation actions of the team.

9.7 **Participants**

9.7.1 Due to the complexity involved in conducting an emergency evacuation demonstration, only those individuals who have a genuine need or concern should be present during the demonstration. Interested but unessential personnel may present hazards, interfere, or in other ways affect the outcome of the demonstration.

9.7.2 The operator is responsible for all non- Authority personnel who observe the demonstration. Those not directly involved in the demonstration should be kept at a reasonable distance from the aeroplane by some means such as ropes or lines.

9.7.3 The DTL or CPM is responsible for Authority personnel who observe the demonstration.The Authority observers should be limited to those who are required to evaluate the conduct of the demonstrations or need to be involved for specific reasons such as the following:

a) Authority inspectors whose operators will be acquiring the same or similar type aircraft as the one being demonstrated;

b) Government officials or designees;

c) Authority personnel concerned with technical or engineering components of the aircraft.

9.8 **Pre-Demonstration Inspection**

9.8.1 Before the demonstration, the Authority team must inspect the aeroplane and emergency equipment. The aeroplane must be configured and equipped for takeoff, in accordance with the operator's manuals and procedures. The aeroplane must be configured in the proposed full passenger-seating configuration with all appropriate emergency equipment installed.

9.8.2 The team shall inspect each of the following items to ensure regulatory compliance:

a) Hand fire extinguishers for crew, passenger, and cargo compartments;
b) Protective breathing equipment;
c) First aid equipment;
d) Crash axe;
e) Megaphones;
f) Interior emergency exit markings;
g) Floatation devices or life preservers;
h) Lighting for interior emergency exit markings;
i) Emergency light operation;
j) Emergency exit operating handles;
k) Emergency exit access;
l) Exterior exit markings;
m) Exterior emergency lighting and escape route;
n) Floor level exits;
o) Additional emergency exits;

p) Ventral or tail cone exits;
q) Portable lights;
r) Seats, safety belts, and shoulder harnesses;
s) Emergency equipment required for extended over water operations;
t) Public address system;
u) Passenger information signs/placards;
v) Aeroplane fire detection and protection system (operational test);
w) Passenger information cards;
x) Cockpit escape system;
y) Slides and slide rafts.

NOTE: *For the purpose of a partial evacuation demonstration only, the slides may be beyond scheduled inspection criteria. However, the operator must request this option in his demonstration plan and state that it accepts full responsibility for any failure of the demonstration due to a malfunction of the slides. The DTL or CPM will have the option to either accept or deny this proposal.*

9.9 **Pre-Demonstration Briefings**

9.9.1 Before the actual demonstration, three separate briefings should be conducted for the following participants:

a) Crew members involved in the demonstration;

b) Passenger participants (if applicable);

c) The Authority team.

9.9.2 The operator's evacuation demonstration co-ordinator should provide crew members with certain information regarding the demonstration. The DTL CPM must be in attendance at this briefing to resolve any questions to ensure the following information is included:

a) The purpose of the demonstration is to evaluate the following:
   (i) The effectiveness of the operator's training program as reflected by the crew members' actions;
   (ii) The adequacy of the operator's emergency procedures;
   (iii) The effectiveness and reliability of the aeroplane emergency equipment.

b) The initiation signal, which begins the demonstration, must be clearly specified;

c) The significance of the 90 seconds time limit (for full-capacity evacuations) or the 15 seconds time limit (for partial evacuation), as appropriate, should be discussed;

d) The signal to be used by the DTL or CPM for terminating (stopping) the demonstration such as an air horn, or some other clear audible means should be described. Any evacuation activity in progress must immediately cease with a "stop" signal;

e) The importance of safety during the demonstration including crew member responsibilities, safety observer duties, and limitations should be emphasised.

9.9.3 The DTL or CPM shall brief the team as follows:

a) State the objectives of the demonstration;
b) Review the initiation signal;
c) Review observer assignments with regard to exits to be used or blocked;
d) Review the signal that stops the demonstration;
e) Remind the team members not to discuss the results of their observations with persons other than the DTL or CPM.

9.10 Conducting the Demonstration

9.10.1 The DTL or CPM shall ensure all pre-demonstration briefings and inspections are conducted before the actual demonstration. The following sequence of events represents an acceptable means, derived from past experience, for conducting the demonstration.

9.10.2 For both full-capacity and partial demonstrations cabin crew members shall accomplish the following:

(a) Prepare for a normal departure in accordance with the operator's procedures, including closing and securing all exits, galleys, and arming the emergency evacuation system for takeoff;
(b) Conduct a passenger briefing in accordance with Regulation 8.9.1.4 and 8.9.2.17 of the Nigeria Civil Aviation Regulations;
(c) Be seated at their assigned positions with their restraint systems fastened.

9.10.3 The team then ensures each external door and exit, and each internal door or curtain is in position for a normal takeoff.

9.10.4 Before the initiation signal, the flight crew shall accomplish all tasks on appropriate checklists and configure the aeroplane for a normal takeoff. The flight crew must be seated in their normal positions with their restraint systems fastened.

9.10.5 After completing all required pre-takeoff actions, the captain shall inform the DTL or CPM (who is positioned forward of the nose of the aircraft), by ground interphone, that he/she is ready for takeoff.

9.10.6 Once the DTL or CPM has been told that the crew is ready, he/she must make certain all team members and operator safety observers (if used) are ready and in position. The DTL or CPM will then issue a warning signal (air horn or whistle blast), which should precede the initiation signal by approximately 30 seconds. Depending upon the method approved by the Authority (as in the operator's plan) the DTL or CPM shall inform the operator evacuation demonstration co-ordinator to initiate the demonstration.

9.10.7 The DTL or CPM will begin timing with two stopwatches (a primary and a back up) when the external aeroplane lights extinguish. At the end of the appropriate time period (90 or 15 seconds, as

appropriate) the DTL or CPM shall issue a clear, audible signal terminating (stopping) the demonstration.

9.10.8 For a partial demonstration, each Authority observer assigned to exits which are to be used, shall be responsible for determining that his/her assigned exit was opened and each slide or slide raft (as applicable) was prepared for use before the DTL or CPM's termination signal. Any exit, slide, or slide raft that was not prepared for use before the termination signal constitutes an unsatisfactory demonstration.

9.10.9 The team members assigned to the cabin shall ensure that all required equipment worked properly (for example, floor proximity lighting, emergency exit lights).

9.10.10 It is important that team members do not discuss the results of their observations with operator personnel or passenger participants. After the demonstration has been terminated, the team shall confer immediately on the observation of each team member and the overall conduct of the demonstration before advising the operator of the demonstration results.

10.0 DITCHING DEMONSTRATIONS

10.1 General

10.1.1 An applicant or certificate holder who proposes to operate a landplane (passenger or all cargo) in extended over water operations must conduct a ditching demonstration. This demonstration is conducted in accordance with the requirements specified in IS 9.2.3.5 (e) of the Nigeria Civil Aviation Regulations and the direction and guidance provided in this Order.

10.1.2 The purpose of the demonstration is to evaluate the operator's ability to safely prepare the passengers, aeroplane, and ditching equipment for a planned water landing. During the demonstration the following four areas are evaluated:

a) Emergency training program;

b) Ditching procedures;

c) Crew member competency;

d) Equipment reliability and capability.

10.2 Regulatory Requirements

10.2.1 Ditching Demonstration. IS 9.2.3.5 (e) of the Nigeria Civil Aviation Regulations requires an operator to conduct a ditching demonstration if the proposed type and model of land plane is to be used in extended over water operations.

10.2.2 IS 9.2.3.5 (e) of the Nigeria Civil Aviation Regulations provides requirements for a partial ditching evacuation demonstration. During a partial demonstration the air operator's assigned cabin crew members shall:

a) Prepare the cabin for ditching within 6 minutes after the intention to ditch is announced;
b) Remove each life raft from storage (one life raft or slide raft selected by the Authority, shall be inflated and properly launched); and;
c) Cabin crew members shall enter the raft and completely set it up for extended occupancy;
d) The raft shall include all required emergency equipment;
e) Cabin crew members shall demonstrate their knowledge and use of each item of required emergency equipment.

10.3 **The Ditching Demonstration Plan**

10.3.1 Ditching demonstrations are normally conducted during daylight hours or in a lighted hangar after the satisfactory completion of the aborted takeoff emergency evacuation demonstration.

10.3.2 In these situations, the same DTL or CPM and team members should conduct and observe the ditching demonstration. However, if an operator plans to initiate flights into extended over water areas for the first time, with an aeroplane that it previously operated over land areas, the operator must conduct a ditching demonstration.

10.3.3 If the operator plans to conduct the ditching demonstration in conjunction with the emergency evacuation aborted takeoff demonstration, the operator's aborted takeoff demonstration plan must include information applicable to the ditching demonstration such as the following:

a) Type of ditching demonstration;
b) Copies of the operator's manual relating to crew members ditching duties and responsibilities;

c) A description of applicable emergency equipment used for ditching (such as life rafts, survival gear) including the type and model of the emergency equipment.

10.3.4 If the operator must conduct a ditching demonstration that is not in conjunction with an emergency evacuation aborted takeoff demonstration, the operator's demonstration plan must be submitted at least 30 working days before the date of the actual demonstration and include the following additional information:

a) The aeroplane type and model which will be used;

b) The proposed date, time, and location of the ditching demonstration;

c) The name and telephone number of the operator's ditching demonstration co-ordinator;

d) A representative diagram of the aircraft which includes the following:
   (i) Location and designation of each exit;

   (ii) Location of each item of emergency ditch equipment including:

aa) Life rafts/slide rafts;
bb) Survival radios;
cc) Pyrotechnic signalling devices;
dd) Passenger/crew member life preservers or individual floatation devices.

e) A list of all crew members who will participate in the demonstration.

10.4 **Review of the Ditching Demonstration Plan**

10.4.1 When the ditching demonstration plan has been submitted, the Authority inspectors must review the proposal to ensure that

(a) The proposed demonstration will meet the criteria in IS 9.2.3.5 (e) of the Nigeria Civil Aviation Regulations; and
(b) That the emergency training program and ditching procedures in the operator's manual must have been approved and accepted and provide for safe operating practices.

10.4.2 The team must plan for the observation and evaluation of the ditching demonstration. Normally, the demonstration is conducted after the completion of a successful aborted takeoff emergency evacuation demonstration. If an aborted takeoff emergency evacuation demonstration is not conducted, the person responsible for safety oversight shall appoint an Authority ditching demonstration team and a DTL or CPM in the same manner as was accomplished for the aborted takeoff demonstration.

10.5 **Conduct of the Ditching Demonstration**

10.5.1 The ditching demonstration shall be conducted in the following manner:

a) Before the ditching demonstration the team shall inspect each item of emergency ditching equipment for compliance with appropriate airworthiness and other relevant directives;

b) The DTL or CPM ensures inspectors and crew members are at their assigned positions and then advises the pilot in command to commence the demonstration;

c) The pilot in command initiates the demonstration by ordering (according to the operator's procedures) the crew members to prepare for ditching.

NOTE: *It is imperative that emergency equipment, crew member competency, and emergency procedures provide for rapid evacuation since during an actual ditching situation, the aeroplane may remain afloat for only a short time. During the demonstration, emphasis is on crew member ability and efficiency in the time period between the decision to ditch and the actual water landing. Six minutes is considered the maximum time acceptable for ditching preparation beginning with the ditching announcement to the simulated water landing. This preparation means participating crew members must correctly put on life preservers, brief passenger participants (if applicable), secure the cabin, and complete all required checklists and procedures within 6 minutes of the ditching announcement. Failure to be prepared at the end of 6 minutes constitutes an unsatisfactory demonstration.*

d) The DTL or CPM begins timing when the pilot in command issues the prepare for ditching order. At the end of the 6-minute "planned ditching" period the crew must be prepared for a simulated water landing. After the simulated water landing, all life rafts must be removed from stowage. This action is not specifically timed, however the crew members must demonstrate competency in removing the rafts from stowage and the raft must be capable of being removed from the aeroplane for deployment in a reasonable period of time. For full-capacity demonstrations all life rafts and slide rafts will be launched and inflated. During a partial ditching demonstration one life raft (or slide raft), designated by the DTL or CPM, is launched and inflated. For the purpose of this demonstration "launching" a life raft means to remove it from stowage, manipulate it out of the aeroplane (via stands or ramps), and position it on the ground before inflation. "Launching" a slide raft means to inflate it in a normal manner and then lower it to the ground;

NOTE: *For ditching demonstrations on aircraft configured with slide rafts, it is not necessary to detach each slide raft from its respective door mounting. However, each slide raft must be inspected for its airworthiness. Any life rafts stowed inside the aeroplane must be removed from stowage and placed on the cabin floor for inspection.*

e) Crew members assigned to any inflated raft shall be questioned about actual launch procedures then enter the raft and locate and describe the use of each item of emergency equipment within the raft.

11.0 EVALUATING EVACUATION AND DITCHING DEMONSTRATIONS

11.1 Areas to be Evaluated

11.1.1 During phase four of the aborted takeoff, emergency evacuation demonstration, or the ditching demonstration, the Authority team must evaluate the following areas:

a) Crew member compliance and effectiveness in performing assigned duties and responsibilities. For example, a cabin crew member's effectiveness in assessing outside conditions, opening exits, and passenger evacuation commands. Another example is passengers assisting in launching life rafts during a ditching demonstration. The cabin crew member's instructions to the passengers must conform to the information provided in the operator's manual;

b) The flight crew members effectiveness in exercising command responsibilities and the co-ordination and communication between the flight crew and cabin crew members;

c) The capability of each item of emergency equipment (whether it performed its intended functions). Did the emergency equipment cause any deficiencies or delays?

d) All designated exits and slides were opened, deployed, and "prepared for use" within the appropriate time criteria. For a full-capacity evacuation demonstration, that all designated exits and slides were properly operated and all passengers and crew members were

properly evacuated within 90 seconds. For a partial evacuation demonstration, that all designated exits were opened and slides were "prepared for use" within 15 seconds;

e) For ditching demonstrations, that the cabin, passenger and cabin crew members were made ready for a water landing within 6 minutes. The life rafts were efficiently removed from storage, and all designated life vests, life rafts, and or slide rafts were properly inflated.

11.2 **Determining Results of Demonstrations**

11.2.1 Failing to meet a specified time limit is automatic grounds for an unsatisfactory demonstration. Deficiencies in other areas such as crew member effectiveness or equipment malfunctions that occur even when timing criteria is met may be grounds for determining the demonstration unsatisfactory.

11.2.2 The severity of the deficiency and the basic cause must be carefully considered. If the cause of a relatively severe deficiency was due to improper operator training, procedures or maintenance, the demonstration should be judged as unsatisfactory. For example, if all emergency lighting failed to illuminate due to a maintenance problem, there is sufficient grounds for determining the demonstration unsatisfactory.

11.2.3 Minor deficiencies can usually be resolved with responsible operator personnel without having to declare the demonstration unsatisfactory.

12.0 REPORTING EVACUATION DEMONSTRATIONS

12.1 **General**

12.1.1 The DTL/CPM is responsible for preparing and distributing the emergency evacuation or ditching demonstration report.

12.1.2 The report shall include at least the following:

a) Emergency Evacuation/Ditching Demonstration Report (figure 001), is required for each demonstration attempt. For example, if two demonstrations are unsuccessful and a third is satisfactory, three forms shall be completed and submitted as part of the demonstration report package;

b) The passenger information-briefing card required by Regulations 8.9.1.4 and 8.9.2.7 of the Nigeria Civil Aviation Regulations shall be attached to the report;

c) A diagram of the aircraft is required, including emergency equipment, exits, exits used, the number of approved passenger seats, and the location of seats which were used by cabin crew members;

d) A list of names and speciality of each member of the Authority team.

CHAPTER 15

Demonstration and Special Demonstration Flights

1.0 PURPOSE

This Chapter provides guidance to inspectors on the evaluation of demonstration and special demonstration flights.

2.0 REFERENCES

2.1 Regulation 9.2.3.6 of the Nigeria Civil Aviation Regulations.

2.2 FORM: O-OPS015

3.0 GENERAL

2.1 Part 9 of the Nigeria Civil Aviation Regulations requires the Authority to evaluate each applicant's ability to conduct commercial air transport operations safely and in accordance with regulations applicable to the type of operations and the type of aircraft proposed by the operator.

2.2 The Authority conducts its evaluation by observing the applicant‘s performance of demonstration flights in accordance with Regulation 9.2.3.6 of the Nigeria Civil Aviation Regulations. The Authority must consider the applicant‘s demonstration flights to be satisfactory before it will issue an Air Operator Certificate (AOC) to an applicant.

2.3 The Regulations also requires the Authority to determine that an air operator is capable of conducting operations safely and in compliance with applicable regulatory standards before authorising the certificate holder to operate in a designated special area or using a specialised navigation system.

2.4 The structured methods used by the Authority to determine an applicant's capabilities are called demonstration Flights” and ~~S~~special-demonstration Flights”. This Order contains direction and guidance to be used by inspectors for conducting these tests. For a comparison of demonstration and special demonstration flight requirements (see figure 001)
NOTE: *The term, "applicant," as used in this Order means either a candidate applying for an AOC, or an air operator requesting additional operating authorisation.*

3.0 DEMONSTRATION FLIGHTS

3.1 Regulation 9.2.3.6 of the Nigeria Civil Aviation Regulations require applicants seeking authorization to operate certain types of aircraft in commercial air transport service to satisfactorily demonstrate their capability to the Authority before being granted operating authority. These applicants must conduct demonstration flights.

3.2 Demonstration flights consist of a demonstration of the applicant's ability to operate and maintain an aircraft new to the operator's fleet or the applicant's ability to conduct a particular kind of operation, such as scheduled or charter, passenger carrying or cargo. The applicant is required to operate and maintain the aircraft to the same standards required of a certificate holder that is fully certificated and that holds the necessary authorisations.

3.3 Demonstration flights should not be confused with aircraft certification tests, which are tests conducted by the aircraft manufacturer to demonstrate the airworthiness of the aircraft. Regulation 9.2.3.6 (a) of the Nigeria Civil Aviation Regulations requires an applicant to successfully complete demonstration flights before the Authority may authorise the operation of each aircraft type.

4.0 SPECIAL-DEMONSTRATION FLIGHTS

4.1 Regulation 9.2.3.6 of the Nigeria Civil Aviation Regulations requires an applicant to demonstrate the capability to conduct proposed operations in designated special areas, or when using specialized navigation in compliance with regulatory requirements before being granted authority to conduct these operations by the Authority.

4.2 The Authority requires the applicant to successfully complete special-demonstration flights in the following circumstances:

4.2.1 Before being authorised to add any areas of operation outside the territory of the certificating State to operations specifications and,

4.2.2 Before being issued any operations specifications paragraphs that authorise special means of navigation.

4.3 Though demonstration and special-demonstration flights satisfy different requirements, both tests may be conducted simultaneously when appropriate.

5.0 TESTING METHODS ACCEPTABLE TO THE AUTHORITY

5.1 Applicants must demonstrate to inspectors that they can conduct flight and maintenance operations to the standards required for commercial air transport operations. Operations could range from the relatively simple to the more sophisticated. A simple operation may involve an operator that possesses authority issued by the Authority to operate locally, but is requesting authorisation to expand operations outside Nigeria. The operator may only have to demonstrate that it has the proper documentation to conduct the expanded operations.

5.2 For more sophisticated operations, such as Category II (CAT II), Category III (CAT III), and extended range operations with two engines (ETOPS), acceptable means that applicants may use to demonstrate compliance have been published in the Advisory Circular.

6.0 DISCUSSION OF DEMONSTRATION AND SPECIAL-DEMONSTRATION FLIGHTS

Part 8.0 through 12.0 of this Order contain direction and guidance to be used by inspectors for

conducting demonstration flights, and Part 13.0 contains direction and guidance for conducting special-demonstration flights.

7.0 THE DEMONSTRATION AND SPECIAL-DEMONSTRATION FLIGHT PROCESS

***NOTE**: The demonstration and special-demonstration flight process follows the general outline of the five phase approval process*

7.1 Phase One

7.1.1 Phase one of the demonstrations and special-demonstration flight process begins when an applicant requests authorisation from the Authority to conduct an operation for which demonstration or special-demonstration is required. The term, "applicant," as used in this section, means either an operator applying for an air operator certificate or a certificate holder requesting additional operating authority.

7.1.2 When an applicant's request requires demonstration or a special demonstration, the following steps apply:

a) The Authority Demonstration Team. The person responsible for Safety Oversight shall organise the demonstration team:

(i) **Team Leader**. The team leader should be responsible for the conduct, co-ordination, and evaluation of the test. In addition, the team leader will be the spokesperson for the Authority on all matters pertaining to the test;

(ii) Enroute flights (representative en route) should closely simulate the routine line operations that the applicant proposes to conduct.

Inspection Team Composition. The onboard team of NCAA inspectors must include an operations inspector, qualified on the specific aircraft, who directly observes the flight crew and in–flight events and reports those observations. For those operations that include class II navigation or special use airspace, a navigation specialist or an experienced pilot-qualified inspector who is knowledgeable in class II operations and the specific special use airspace should be a member of the test team.
A qualified Ground Operations inspector should also be included to observe the operational control functions.

The majority of en route flights should also be observed by maintenance and Avionics inspectors on board the aircraft. In addition to the in-flight activities, operations and Airworthiness inspectors must also evaluate flight initiation, servicing and unscheduled maintenance, and flight termination activities. While representative en route flights are being conducted, other inspectors should observe the applicant's activities at appropriate ground facilities, such as operational or maintenance control centers.

NOTE: If traveling outside Nigeria, the CPM is responsible for ensuring all NCAA personnel involved have the required authorizations (e.g. passport, country visa etc.)

1) **Qualified Operations Inspector**

a) Proving flights. A qualified operations inspector who, in order of preferences, is:

- Aircraft type-rated and current,
- Aircraft type-rated and not current, or
- An aviation safety inspector (ASI)- Operations, type-rated in an aircraft within the same group (group I or II) being used in the proving flight and in possession of a "Best Qualified" letter of authorization (LOA).

b) Validation flights. A qualified operations inspector is an inspector who, in order of preference, is:

- Aircraft typed-rated and current,
- Aircraft type-rated and not current,
- Aircraft group qualified, or
- An ASI in possessions of a "Best Qualified" LOA (see A3) below).

NOTE: For validation testing (with the exception of NCAA navigation specialists conducting an international validation test), the qualified operations inspector must be familiar with the testing being conducted. For Extended Operations (ETOPS) validations flights, the qualified operations inspector should be type- rated (not necessarily current) in the specific aircraft, or type-rated in another multi-engine ETOPS-approved aircraft, and be thoroughly familiar with the ETOPS requirements.

(2) Ground Operations (Dispatch) - Qualified Inspectors

Proving flights. A Qualified Ground Operations inspector is an inspector who, in order of preference:

- Has completed the current approved ASI aircraft dispatch course and completed dispatchers ground training at the operator where proving flights are being conducted;
- Has completed the approved ASI course and has reviewed company material to include Dispatch Procedures Manual, Flight Operations Manual, Minimum Equipment List (MEL), Airplane Flight and Operations Manuals: or
- Has an NCAA Flight Dispatcher license, has previous dispatch experience, and has reviewed company materials to include Dispatch Procedures Manual, Flight Operations Manual, MEL, and Airplane Flight and Operations Manuals.

(3) Cabin Safety - Qualified Inspectors

For all in-flight scenarios conducted during proving flights, a qualified operations inspector must be present in the aircraft. A cabin safety Inspector (CSI) should serve as the focal point for all in-flight scenarios involving flight attendants. However, for flight involving repositioning of inspectors for proving or validation ground scenarios (i.e. flights that do not include in-flight scenarios), a qualified operations inspector does not need to be onboard the aircraft, provided the flight crew is type-rated, current, and has completed all training requirements, as applicable for the type of operation.

(iii) **Familiarisation**. All members of the Authority inspection team must become familiar with the pertinent procedures and policies from the applicant's operations Manual and maintenance control manual.

b) Preliminary Co-ordination. The demonstration team and the applicant must reach a common understanding of what the applicant must do, what role the Authority will play, and what reports and documents must be prepared during the testing process. Both the team and the applicant must research applicable regulatory and advisory material.

7.2 Phase Two

Phase two is initiated when the applicant submits the test plan to the Authority for evaluation. During this phase, the team leader must ensure that the plan is complete and in an acceptable format before a thorough review and analysis can be conducted.

7.3 **Phase Three**

7.3.1 Phase three is initiated when the team starts an in-depth review and analysis of the applicant's test plan for regulatory compliance, safe operating practices, logic of sequence, and other areas (such as training programmes, flight crew and flight operations officer qualifications, acceptable participants, and schedules). During this phase, the Authority must plan to co-ordinate its activities with the demonstrations that the applicant will conduct during phase four.

7.3.2 **Team Leader.** The team leader's responsibilities include the following:

a) Notifying the Authority of demonstration flight dates, times, and locations;
b) Assigning appropriate sections of the test plan to inspectors for review and comment;
c) Co-ordinating with aviation security (as necessary) to obtain security inspector assistance for evaluating specific areas, such as dangerous goods and passenger screening;
d) Ensuring that administrative requirements such as visas and diplomatic clearances are obtained in a timely manner e.g. travel arrangements, meals;
e) Facilitating the development of test scenarios for the demonstration flights.

7.3.3 **Team Members.** Team members are responsible for performing assigned tasks, keeping the team leader informed of all actions, and ensuring that the team leader concurs with all agreements made with the applicant. In addition, team members are responsible for recording each activity accurately and completely in their reports.

7.4 **Phase Four**

7.4.1 Phase four is the major phase of the test process. For demonstration flights, the applicant will conduct the en-route flight segment and the maintenance test portion of the demonstration plan. In the case of special-demonstration flights, the applicant will conduct specific operations to collect data for either special-demonstration or the Authority observation purposes.

7.4.2 Phase four is concluded when the demonstration team is satisfied that all test objectives have been achieved or that the applicant is unable to complete them satisfactorily.

7.5 **Phase Five**

Phase five is accomplished after the successful completion or termination of the demonstration or special-demonstration flights. In this phase, the Authority demonstration team recommends the granting of approval and issues the appropriate operation specifications, or recommend that a letter of disapproval be sent to the applicant. In either case, the team leader's final action is to complete the report.

8.0 DEMONSTRATION FLIGHT TEST REQUIREMENTS

8.1 **General**

8.1.1 Each applicant must demonstrate the ability to operate safely by conducting demonstration flights in accordance with the operating, maintenance, aircraft dispatch and monitoring or flight following requirements of Part 8 of the Nigeria Civil Aviation Regulations and Part 9 of the Nigeria Civil

Aviation Regulations. Demonstration flights must be conducted in a manner that closely simulates the regulatory conditions that will apply after approval has been granted.

8.1.2 **Types of Flights.** The only types of flights that can be credited towards demonstration flight requirements are described in the following subparagraphs:

a) **Representative En-route Flights**. Representative en-route flights are conducted in compliance with Part 8 and Part 9 of the Nigeria Civil Aviation Regulations including rules applicable to AOC security and dangerous goods requirements. Before an applicant may conduct these flights, the demonstration team must be satisfied that the phase three review of the applicant's plan has been completed;

b) **Ferry Flights.** Ferry flights conducted under Part 8 of the Nigeria Civil Aviation Regulations and approved by the Authority may be credited towards demonstration flight requirements. To obtain the approval, the applicant must show that no feature, characteristic, or condition of the aircraft would make it unsafe when operated in accordance with Part 8 of the Nigerian Civil Aviation Regulations;

c) **Training Flights.** Training flights may be credited towards demonstration flight requirements, provided that the Authority inspector observes each flight;

d) **Positioning Flights.** A positioning flight is a flight conducted to move an aeroplane over a non-representative route, such as from the aircraft factory to the applicant's main base.

8.1.3 **Additional Requirements.** To credit ferry hours, hours flown in provisionally certificated aircraft, or training flight hours towards demonstration flight requirements, the applicant's phase three review of the applicant's plan must have been completed. Flights must be conducted in accordance with the following:

a) Operations Manual under Part 9 of the Nigeria Civil Aviation Regulations;
b) Maintenance Control Manual (as applicable) under the Civil Aviation (Air Operator Certification and Administration) Regulations;
c) Inspection or Maintenance programmes under Part 9 of the Nigeria Civil Aviation Regulations;
d) Minimum Equipment List (MEL) and Configuration Deviation List (CDL) under Part 9 of the Nigeria Civil Aviation Regulations;
e) Operations control requirements, operations supervision and monitoring or flight under Part 8 and Part 9 of the Nigeria Civil Aviation Regulations;
f) Operations and maintenance record-keeping requirements under Part 8 and Part 9 of the Nigeria Civil Aviation Regulations.

8.2 Situations Requiring Demonstration Flights

8.2.1 Regulation 9.2.3.6 of the Nigeria Civil Aviation Regulations requires aircraft demonstration flights for the following situations:

a) During the air operator certification process of an applicant proposing to operate an aircraft type in commercial air transport operations under Part 9 of the Nigeria Civil Aviation

Regulations;

b) When an air operator proposes to operate an aircraft type that the applicant has not previously used;

c) When an air operator proposes to use an aircraft that has been materially altered in design;

d) When an operator applies for a kind of operation not currently authorised by the operator's operation specifications (For example, an operator may request to transition from charter passenger to scheduled passenger operations, or from charter cargo, to charter passengers and cargo operations).

8.3 AOC Applicant Demonstration Flight Requirements

8.3.1 Requirements for newly manufactured aircraft, aircraft new to the applicant, and materially altered aircraft are as follows:

a) **Aircraft New to the Applicant.** IS 9.9.2.3.6(g) of the Nigeria Civil Aviation Regulations requires that 50 hours of demonstration flights (unless the Authority determines that a satisfactory level of proficiency has been demonstrated in fewer hours) are conducted by an applicant proposing to use a type of aircraft for the first time;

b) **Materially Altered Aircraft.** IS 9.9.2.3.6(g) of the Nigeria Civil Aviation Regulations requires an applicant to conduct at least 50 hours of demonstration flights (unless the Authority determines that a satisfactory level of proficiency has been demonstrated in fewer hours) when the type of aircraft to be used has been materially altered in design. Examples of materially altering an aircraft design include the following:

(i) Installation of engines that are a different type from those originally installed on the aircraft for type certification (for example, reciprocating powered engines to turbine powered engines, or low bypass jet engines to high bypass jet engines;

(ii) Any design alterations that significantly affect flight characteristics.

c) **New Kind of Operation.** IS 9.2.3.6(g) of the Nigeria Civil Aviation Regulations requiresan operator using an aeroplane that it has not previously demonstrated in that kind of operation to conduct 50 hours of demonstration flights (unless the Authority determines that a satisfactory level of proficiency has been demonstrated in fewer hours). Kind of operation is defined as scheduled, charter, passengers, cargo, passengers and cargo operations;

d) **Night-time Requirements**. In situations where applicants are required by IS 9.2.3.6(g) of the Nigeria Civil Aviation Regulations to conduct 50 hours of aircraft demonstration flights (unless the Authority determines that a satisfactory level of proficiency has been demonstrated in fewer hours), at least 5 of those demonstration flight hours must be conducted at night.

8.4 Exemptions to Demonstration Flight Requirements

8.4.1 Regulation 1.4.1 of the Nigeria Civil Aviation Regulations provides for an air operator to apply to the Authority for exemption to Regulation 9.2.3.6 of the Nigeria Civil Aviation Regulations and the Authority agrees that full compliance with the regulation is unnecessary.

8.4.2 The applicant must comply with all other demonstration flight requirements.

8.5 Representative Number of Flights Into en Route Aerodromes

8.5.1 IS.9.2.3.6 (g) (4) of the Nigeria Civil Aviation Regulations requires an applicant to conduct a representative number of demonstration flights into en-route aerodromes. These are aerodromes that the applicant plans to use in scheduled operations or is likely to use in non-scheduled operations. Representative aerodromes must be within the applicant's proposed areas of en-route operations.

8.5.2 If an applicant plans to conduct overseas and/or international operations, the applicant must conduct demonstration flights into domestic, overseas, and/or international areas. The Authority demonstration team must make a determination of what constitutes a representative aerodrome or area of en-route operation (and the number of representative aerodromes and areas). This determination should include a consideration of factors pertinent to the proposed type of operation. Some of these factors are the same as those considered when approving a reduction to the demonstration flight hours.

8.6 Carriage of Passengers and Cargo

8.6.1 Carriage of revenue passengers on demonstration flights is prohibited by IS.9.2.3.6 (h) of the Nigeria Civil Aviation Regulations). The carriage of revenue cargo should be approved for any applicant that has an Air Transport Licence to carry revenue cargo.

8.6.2 It is Authority policy to encourage the carriage of cargo on representative en-route demonstration flights, when possible. The carriage of cargo allows for a more comprehensive test of the applicant's capabilities.

8.7 Crew Member Qualifications for Demonstration Flights

8.7.1 Training flights may be credited towards demonstration flight requirements, provided crew members are undergoing training according to the applicant's initially approved flight training curriculum.

8.7.2 Ferry flights may be credited towards demonstration flights, provided crew members and initial cadre check pilots have completed applicable proficiency, competency, and type rating checks.

8.7.3 Line checks and operating experience (OE) may be accomplished on demonstration flights.

9.0 PLANNING THE DEMONSTRATION FLIGHT

9.1 Applicant's Plan for Demonstration Flights

9.1.1 An applicant must submit a demonstration flight plan at least 10 days before the date of the intended demonstration flight (including training or ferry flights) that the applicant desires to have credited toward the demonstration flight test requirements. Any subsequent change to the plan must be co-ordinated with the demonstration team. The plan must contain at least the following

information:

a) Identification of the operator co-ordinator who will serve as the primary demonstration flight spokesperson;

b) A detailed schedule of all proposed flights, including dates, times, and aerodromes to be used. The schedule should clearly differentiate which flights will be conducted for training, ferry, or representative en-route flights;

NOTE: *The Authority requires 50 percent of the scheduled demonstration flight hours to consist of representative en-route flights over routes and into aerodromes which the applicant intends to serve.*

c) A list of names and positions of the crew members who will be participating on each flight;

d) A list of names, titles, and operator affiliations of non-crew member personnel whom the applicant intends to have on board each flight;

e) Any other information that the demonstration team determines is necessary to properly plan and conduct the demonstration flights.

9.2 **Applicant's Plan for Reduced Demonstration Flight Hours**

If the applicant requests an exemption to the number of demonstration flight test hours required by IS 9.9.2.3.6 (g) of the Nigeria Civil Aviation Regulations, the request must be made by letter. The letter must contain the applicant's plan, which is described in the previous paragraph, and it must include the justification information specified in Paragraph 12.0 of this Order.

9.3 **Authority Planning for Demonstration Flights**

9.3.1 **Early Planning.** Development and implementation of the Authority‘s plan for observation and evaluation is of crucial importance to any demonstration flight. The Authority demonstration team should begin planning in phase one of the demonstration flight process. The Authority planning should be completed as soon as possible after the demonstration team receives the applicant's plan.

9.3.2 **Initial Review.** The demonstration team must review the applicant's plan initially to determine if the appropriate documentation has been submitted. The plan must contain a realistic proposal that will permit the Authority to adequately observe and evaluate the applicant's overall abilities. This review should be accomplished within 5 working days after receipt of the applicant's plan. Based on the results of this initial review, one of the following actions must be taken:

a) **Accept the Plan**. If the applicant's plan is acceptable and satisfies regulatory requirements, the demonstration team leader should notify the applicant in writing. Any changes should be negotiated and mutually agreed upon at this time. If the applicant's plan includes a request for exemption from the required number of demonstration flight hours, formal acceptance by letter must follow. This letter must include a statement verifying that an exemption to the appropriate Civil Aviation Regulations is granted;

b) **Return the Plan with Explanation.** If the applicant's plan lacks appropriate documentation or does not satisfy regulatory requirements, it must be returned to the applicant as soon as possible. A letter that briefly describes the principal reasons for the plan's return should accompany the plan.

NOTE: *When the inspection team denies a request for exemption, the denial must be done by letter. This letter should contain any suggestions the team may have that would make the plan acceptable*.

9.4 **Other Demonstration Flight Participants**

9.4.1 IS 9.9.2.3.6 (h) of the Nigeria Civil Aviation Regulations limits the individuals who can participate in the in-flight portion of the demonstration flights to those who are required by the applicant to conduct the demonstration and to those "designated by the Authority."

9.4.2 **Government Participants.** During the demonstration phase, an applicant exercises all aspects of its operation, such as flight control, communications, flight planning, and line maintenance. It is essential that this phase be devoid of distractions created by non essential personnel. The demonstration team may authorise the participation of any government or contractor employee, including those from other agencies. These personnel should be limited to those having specific tasks to perform and to inspectors accomplishing on the job training.

9.4.3 The Applicant's Participants. Many situations occur during demonstration flights that require decisions by operator supervisory personnel to correct deficiencies observed during the flights. Therefore, the applicant's participants should include the following personnel:

a) Initial cadre Pilots and Check pilots;
b) Directors of operations and maintenance (if applicable);
c) Those supervisory personnel needed to act on behalf of the operator if actions are required to resolve discrepancies.

9.4.4 Other Personnel. Other personnel, such as representatives of engine and aircraft manufacturers, may be authorised to participate if their presence materially enhances the process.

9.5 **Co-ordination**

During the development of the Authority plan to conduct demonstration flights, the Authority demonstration flight team leader is responsible for co-ordinating all parts of the proposed tests. The applicant's representatives and crew members, and Authority participants, must understand and agree on which tasks must be accomplished to show compliance with regulatory requirements. The Authority demonstration test team leader should notify the Director responsible for Safety Oversight and Director General/Managing Director of Civil Aviation of demonstration flight dates, times, and locations.

9.6 **Pre-Demonstration Flight Test Meeting (Authority Demonstration Team)**

9.6.1 The demonstration team leader shall conduct as many pre-demonstration flight test meetings as necessary to accomplish the following: request for exemption from the required number of demonstration flight hours, formal acceptance by letter must follow. This letter must include a

statement verifying that an exemption to the appropriate Civil Aviation Regulations is granted;

a) **Provide Schedules and Assignments.** The demonstration team leader shall provide specific team members with schedules and assignments for the demonstration flights (including flight times, locations, inspections, and reporting requirements);

b) **Evaluate the Applicant's Capabilities.** The demonstration team leader shall establish in-flight and ground scenarios, simulated emergencies, and other means of testing the ability of crew members and the applicant to cope with actual operational contingencies independently and safely. The use of such scenarios is effective when evaluating the applicant's overall and specific abilities:

(i) **In-flight and Ground Scenarios.** Scenarios must be clearly understood by all team members in terms of individual roles and responsibilities. The demonstration flight team leader, however, must ensure that the applicant is not encumbered with so many simulated scenarios that a proper evaluation of its proposed routine operation is inhibited;

(aa) **Emergency Scenarios.** Since the primary purpose of demonstration flights is to ensure basic compliance with the regulations and safe operating practices during routine operations, the demonstration flight team leader shall not permit compound emergency scenarios to occur. When other agencies, such as air traffic control (ATC) and aerodrome authorities, need to be involved for safety reasons, the demonstration flight team leader must ensure that all scenarios are well co-ordinated. Should an actual emergency occur, all simulated scenarios shall be terminated;

(ii) **Examples of Typical Scenarios.** The following scenarios may be useful for evaluating the applicant's capabilities:

(aa) Diversion to alternate aerodromes for reasons such as weather or maintenance. This tests the operator's communications, maintenance, and other operational capabilities);

(bb) Minimum equipment list (MEL) or Configuration Deviation List (CDL) situations (This tests the crew members' understanding of specific operational limitations and the operator's operations and maintenance procedures. (For example, dispatching with a simulated inoperative generator tests the operator's ability to comply with the operational and maintenance provisions of the MEL);

(cc) Performance problems (This requires the flight crew and/or flight operations control personnel, to demonstrate competency and knowledge of items, such as aircraft performance, aerodrome analysis programmes, and alternative operator procedures. For example, simulating an inoperative antiskid or thrust reverser while operating on contaminated runways (ice, slush, or snow) tests the operator's ability to deal with performance issues);

(dd) Security and dangerous goods situations (This requires the flight and cabin crew members and other operator personnel to function in accordance

with established operator procedures and the Civil Aviation Regulations);

NOTE: *Hijack scenarios are prohibited during demonstration flights. Inspectors or security inspectors must examine flight and cabin crew members knowledge and operator procedures through other methods. The operator's anti-hijack programme shall not be exercised during demonstration flights.*

(ee) Situations that exercise dispatch and monitoring or flight following centres (This tests communications, weather information dissemination, and other flight information distribution abilities. An effective means for testing this capability is to position an inspector who has specialised dispatch knowledge in the flight control or flight locating facility and (at a prearranged time) to initiate a scenario such as adverse destination weather that would require a diversion. This action tests the communications and weather reporting capability of the facility and also the operator's procedural contingencies as demonstrated by the flight crew);

(ff) Maintenance scenarios (A maintenance problem simulated at any location that the operator operates into should be planned, however minor, to test the operator's ability to communicate and resolve problems that flight crews may experience. Maintenance scenarios should be flexible enough to accommodate any real maintenance problems that could arise during a demonstration flight. Examples of the many possible maintenance problems include the following: an indicator out, a minor fluid leak, or the need to determine tire wear);

(gg) Simulated aircraft emergencies, such as an engine failure (This tests the flight crew's knowledge and competency in handling emergency situations. It also tests operator communications, maintenance, and other operational capabilities. Under no circumstances shall an inspector require an actual engine shutdown. Typically, this situation would result in a diversion). Other aircraft simulated emergencies are:

(i) Simulated incapacitated passengers in need of immediate medical assistance;
(ii) Simulated lavatory fire;
(iii) Simulated loss of pressurisation;
(iv) Simulated landing gear extension or retraction problems.

10.0 DEMONSTRATION FLIGHTS: THE DEMONSTRATION PHASE

10.1 General

The demonstration phase consists of the observation and evaluation of the applicant by Authority inspectors during demonstration flights. Demonstration flights consist of en-route flights and other acceptable flights. These flights are described in more detail in the following paragraphs.

10.2 Conduct of En-Route Flights

10.2.1 En-route flights (representative en-route) closely simulate the routine line operations that the applicant proposes to conduct. All flights in the en-route segment must be observed and evaluated either in flight or at ground facilities. When an exemption for a reduced number of demonstration flight test hours decreases the required number of hours by 50 percent or more, all en-route flights must be observed and evaluated by the Authority inspectors on board the aircraft.

10.2.2 **Inspection Team Composition.** The on board team of Authority inspectors must include an operations inspector, qualified on the specific aircraft or as designated by the Authority, who directly observes the flight crew and in-flight events, and reports those observations. For those operations that include flight through designated special areas, a flight operations inspector who is knowledgeable in such operations should be a member of the demonstration team. A flight operations inspector should also observe flight operations officers, flight followers and operational control functions. Airworthiness inspectors on board the aircraft should also observe the majority of en-route flights. In addition to the in-flight activities, operations and airworthiness inspectors must also evaluate flight initiation, servicing and unscheduled maintenance, and flight termination activities. While representative en-route flights are being conducted, other inspectors should observe the applicant's activities at appropriate ground facilities, such as operational or maintenance control centres.

10.2.3 **Pre-demonstration Flight Test Briefing with Applicant**. The demonstration team leader shall conduct briefings with the applicant daily or as necessary to establish what the demonstration team expects the applicant to accomplish during each demonstration flight. Briefings shall include at least the following items:

a) The purpose of the demonstration flight test;
b) Status of the inspector in the jump seat;
c) Status of the on-board team of inspectors (They shall be treated as passengers);
d) Changing status of passenger to Authority inspector when an Authority credential is revealed;
e) How simulated scenarios will be initiated, and what action is expected from the applicant;
f) How to react to an actual emergency during the demonstration flight test;
g) Copies of flight plans, load manifests, and other documents that are expected and that should be provided;
h) How maintenance discrepancies will be treated or terminated;
i) Debriefing at the conclusion of each day unless major problems require it sooner (Major discrepancies must be resolved before the demonstration flight test may resume the following day).

10.2.4 **Determining Applicant Competency.** The Authority plan for inspecting and evaluating an applicant's competency during the en-route segment should include scenarios and other testing mechanisms designed to test the applicant's effectiveness in each of the following five general areas:

(a) Flight crew;
(b) Cabin crew members;
(c) Aerodrome/station facilities;
(d) Operational control;
(e) Operator procedures.

10.2.5 **Flight crew members.** The Authority Demonstration Team shall evaluate the competency and ability of the flight crew members throughout the en-route segment. Examples of areas to be inspected and evaluated are as follows:

a) Flight crew members qualification;
b) Aircraft performance (including flight characteristics);
c) Aircraft flight manual limitations;
d) Aircraft normal, abnormal, and emergency procedures;
e) Aircraft systems and equipment;
f) Aerodrome data (including knowledge of required runway lengths, field elevation, facilities, and gates or parking areas);
g) Flight management and cruise control;
h) Operator manuals and procedures;
i) Flight crew members discipline, situational awareness, and management;
j) Flight crew members vigilance and collision avoidance procedures;
k) Knowledge of en-route structure, long range navigation procedures (if applicable), and unique en-route and area of operation requirements;
l) Knowledge of Minimum Equipment List (MEL) and Configuration Deviation List (CDL) procedures;
m) Knowledge of, and competency in, departure and arrival procedures;
n) Air/ground communications with the operator and also with air traffic control (ATC);
o) Check pilot performance and effectiveness;
p) Adequacy of aircraft training programme as demonstrated by the flight members;
q) Cabin crew member and passenger briefings.

10.2.6 **Cabin Crew Members**. The Demonstration Team shall evaluate the cabin crew member competency and ability during the en-route segment. Examples of areas to be inspected and evaluated are as follows:

a) Competency in all normal procedures associated with their assigned positions;
b) Knowledge of emergency procedures (including evacuation, fire fighting, pressurization problems, passenger illness or injury, baggage in the cabin, and exit seating);
c) Knowledge of applicable manual procedures pertaining to duties and responsibilities;
d) Knowledge of procedures to follow when a crew member is incapacitated;
e) Knowledge of verbal and non-verbal communication procedures between the cabin and cockpit (such as the number of chimes indicating imminent takeoff or landing);
f) Training programme effectiveness;
g) Cockpit co-ordination.

10.2.7 **Aerodrome/Station Facilities**. The Demonstration Team shall determine whether the aerodromes and the applicant's station facilities are adequate to support the specific aircraft and type of operation proposed by evaluating the following:

a) Runways and taxiways;
b) Runway/taxiway lighting;
c) Approach lighting;
d) Navigational aids (NAVAID);
e) Gate/ramp/loading areas (such as markings, congestion, and lighting);

f) Station operations manuals, maintenance manuals, and facilities;
g) Ground personnel qualifications and training (if applicable);
h) Passenger enplaning and deplaning procedures;
i) Baggage and cargo loading;
j) Aircraft fuelling and servicing;
k) Gate arrival and departure procedures and equipment.

10.2.8 **Dispatch and Monitoring or Flight Following Centres**. Examples of items to be inspected and evaluated at applicable locations are as follows:
a) Flight planning;
b) Dispatch and flight release procedures;
c) Aerodrome and route information collection and dissemination;
d) Drift down and diversionary procedures;
e) Weather information collection and dissemination;
f) Dispatch and flight control personnel competency;
g) Communications capability with the operator, with the aircraft, and with other agencies;
h) Load control (for example, the accuracy of the passenger count and the ability to convey mass and balance changes to and from the aircraft before takeoff);
i) Scheduling;
j) Flight and cabin crew members flight and rest time;
k) Manuals;
l) High minimums Pilot in Command;
m) Maintenance control (procedures and records);
n) Flight and cabin crew members' briefings.

10.2.9 **Operator Procedures.** Examples of operator procedures and programmes to be inspected and evaluated are as follows:
a) Aircraft operations;
b) Ground operations/maintenance personnel;
c) Fuelling facilities and equipment;
d) Security (public protection and restricted articles);
e) Adequacy of training programmes;
f) MEL and CDL procedures;
g) Procedures for accomplishing unscheduled and scheduled maintenance;
h) Dangerous Goods;
i) Ability to conduct operations at unscheduled stops or alternate aerodromes.

10.3 **Conduct of Other Flights**

10.3.1 Other flights, such as training, positioning, or ferry flights may be counted toward demonstration flight hours. The Authority observation of these flights allows inspection of the applicant's training, maintenance, and other programmes.

NOTE: *All training flights that are to be credited toward the demonstration flight test requirements must be observed by a qualified flight operations inspector.*

10.3.2 **En-route Training.** During the en-route segment, the operator trains its initial cadre check pilot, instructors, and flight crew members. Flight crew members also gain operating experience (OE) so that commercial air transport operations may begin with minimum delay after certification. Since the Authority inspectors function as observers during this phase, it is not appropriate for them to require simulated in-flight scenarios that would either disrupt pilot training or delay these flights.

10.3.3 **Cabin Crew Member Training.** Cabin crew member training may be conducted on board flights when cockpit and cabin crew member training goals are compatible.

10.4 **Termination of the En-Route Segment**

10.4.1 The demonstration team may conclude the demonstration flight as follows:

a) **Completion as Planned.** Complete the planned demonstration flight schedule without significant change;

b) **Early Completion.** The tests may be concluded sooner than planned when all test objectives have been met and the applicant has demonstrated a repetitive ability to conduct line operations in compliance with regulations and safe operating practices. The team should be satisfied that the applicant would continue to function in a satisfactory manner. Before authorising an early completion of the demonstration flight(s), the team shall obtain the concurrence of the person responsible for safety oversight. The team must document the decision to terminate the en-route segment earlier than planned. This documentation shall become a part of the demonstration flight report;

c) **Extension.** The tests may be extended beyond the point of scheduled completion. This action should be taken when the applicant has not completely demonstrated the ability to conduct operations in compliance with regulations and safe operating practices, but shows the potential to do so in a reasonable number of additional hours;

d) **Unacceptable Performance.** The team may terminate testing when it is apparent that the applicant is not capable of correcting deficiencies. When a decision is made to terminate demonstration flights due to extensive deficiencies, the following must be accomplished:

(i) The team leader shall immediately inform the person responsible for safety oversight of the reasons for the decision and receive his concurrence before concluding testing;

(ii) The team leader shall then notify the applicant of the decision. A letter confirming the reasons for this decision shall be forwarded to the applicant. The letter should list deficient areas and specify corrective actions that must be taken before further en-route testing may continue. This letter should also specify that a new demonstration flight test plan will have to be developed by the applicant and submitted to the Authority before further en-route testing may resume (see figure 002).

[Date]

Mr. Kiti Ondure
Director of Operations
ABC Airways
P. O. Box xxx
Ikeja

Dear Mr. Ondure:

This letter is to inform you that effective 12 March 2007 ABC demonstration flights with the B737 aircraft are hereby terminated by the Authority due to deficiencies that prevent ABC from achieving the standards as specified in Regulation 2.3.6 of Part 9 of the Nigeria Civil Aviation Regulations. Specifically, ATC failed to demonstrate compliance in the following three areas:

1. Flight Release: During two flights conducted on 10 March 2007, ABC flight operations officers did not provide the PIC with all available current reports or information on aerodrome conditions at destination and alternate aerodromes [Regulation 2.1.8 of Part 8 of the Nigeria Civil Aviation Regulations].

2. Required Cabin Crew members: On 11 March 2007, ABC attempted to operate flight number XY 224 without the required complement of cabin crew members [Regulation 3.1.7 of Part 9 of the Nigeria Civil Aviation Regulations]
3. Maintenance: On 12 March 2007 ABC did not accomplish the pre-flight inspection of flight number KC 246 in accordance with procedures established in the operator‘s maintenance control manual [Regulation 3.2.4 of Part 9 of the Nigeria Civil Aviation Regulations].

The Authority has determined that, in view of the above discrepancies, the continuation of demonstration flights is unwarranted and would serve no useful purpose. Before ABC may commence any additional demonstration flights for Authority consideration and evaluation, ABC must show that it has corrected the above deficiencies to the satisfaction of the Authority and submit another demonstration flight test plan and proposed schedule.

Yours Sincerely,

For: Director General

FIGURE 002
EXAMPLE OF LETTER TO APPLICANT TERMINATING DEMONSTRATION FLIGHT TEST

11.0 REPORTING PROCEDURES

11.1 Report Construction

11.1.1 The demonstration team shall create a report of demonstration or special-demonstration flights.

11.1.2 **Opening a Master Record.** When a demonstration team is formed, the team leader shall ensure that a master record is opened. This record will remain open until the team completes its assignment:

a) When the master record is opened, the demonstration team leader shall ensure that a brief statement of the project's purpose is entered. The demonstration team shall ensure that appropriate explanatory or descriptive information is entered;

b) Each job function performed by a team member shall be reported;

c) As each of the five phases of the test process is completed, the team leader shall ensure that a comment showing the date the phase was completed is placed on the master record. This procedure will enable Director General/ to determine the status of the project.

11.1.3 **Closing the Master Record.** After the team has completed the project, the team leader shall ensure that a closing summary is prepared. The following are suggested items for the summary:

a) Total test hours planned and actually flown;

b) Major deficiencies that required significant corrective actions, and nature of the corrections;

c) Major delays encountered in completing the project and reasons for those delays.

12.0 REQUESTS FOR EXEMPTION OF DEMONSTRATION FLIGHT TEST HOURS

12.1 General

12.1.1 The Civil Aviation Regulations allow reduction of the demonstration flight hours specified in the Regulations. Improvements in technology, training methods, communications, and established safe operating practices may enable an applicant to demonstrate compliance with applicable regulatory requirements in less time than the hours specified.

12.1.2 As part of the plan, the applicant may request an exemption from the applicable regulatory requirements. The request must explain how the applicant intends to demonstrate regulatory compliance with a reduced hour programme. If the applicant's plan contains a request for reduction, it must include at least the following additional information:

a) **Total Hours of Operation.** The plan must include the total number of hours that the applicant proposes to fly in the reduced programme;

b) **Flight Experience Resume**. The plan must include a flight experience resume for each flight crew member that the applicant intends to use during the demonstration flight. This resume must include the following:

(i) Licences;

(ii) Total flight time;

(iii) Any previous experience in the aircraft being tested;
(iv) Years of experience with the applicant being tested and any other experience in a
(v) Other transport experience, such as military;

c) **Justification Statement.** The statement must contain, but is not limited to, the following:
(i) Operator experience with operations as an AOC;
(ii) Operator experience with aircraft of the same group or type;
(iii) Operator experience with the aerodromes and areas of en-route operation into which the proposed aircraft will operate;

d) **Other information.** The plan must include any other information requested by either the FOIs, demonstration team leader (DTL) or the certification project manager (CPM) or any information that the applicant believes will be useful in justifying the reduction. Other information could include night-time routes to be flown or special aerodromes to be observed.

12.2 **Evaluating the Applicant's Request**

12.2.1 **Evaluation Considerations** – The following are topics that the demonstration team should consider when evaluating the request:

a) If the aircraft has not been used previously in commercial air transportation by a Nigerian air operator, to what extent have foreign operators operated the aircraft?
b) For newly certificated aircraft, how familiar is the demonstration team with the aircraft?
c) For aircraft that are new to the applicant but that have been proven previously in operations under Part 8 of the Nigerian Civil Aviation Regulations, to what extent is the overall operation affected by the new aircraft?
d) To what extent is the new aircraft substantially different from aircraft previously flown by the applicant (such as changing from turboprop to turbojet, un-pressurised to pressurised or narrow body to wide body)?
e) To what extent is the applicant's route structure affected (for example, inauguration of international routes and use of special navigation equipment)?
f) What is the experience level of personnel involved in the operation (for example, flight and cabin crew members' previous experience in the operation of this type of aircraft)?
g) How does the applicant propose to conduct the demonstration flights (for example, a few long ranges versus several short range flights)?
h) What level of management experience exists in the operator with this type or similar type or make of aircraft?

12.2.2 **Flight Hour Reduction Guide.** Demonstration teams should use figure 003 as a guide to determine whether a reduced flight hour programme is suitable.

SITUATION	PERCENT REDUCTION
New aircraft not previously proven by another commercial air transport operator	0%
New operator having no management experience with aircraft category and class	0%
Existing operator having no management experience with aircraft category and class	10%
New operator having management experience with aircraft category and class	10%
Existing operator having management experience with same category and class	25%

FIGURE 003
FLIGHT HOUR REDUCTION GUIDE

12.3 **Co-Ordination Requirements and Approval Authority for Demonstration Flight Exemptions**

12.3.1 Any exemptions granted in response to an applicant's request for a reduction in the required demonstration flight hours shall first be co-ordinated with Director General.

12.3.2 **Letter of Approval/Denial of Exemption.** If the request for an exemption to the required number of demonstration flight hours is approved, the applicant shall be informed by letter that the exemption is approved. The letter approving the exemption must also indicate acceptance of the applicant's demonstration flight plan. If the request is denied, the applicant shall be informed of the decision by a letter that explains the reasons for denial.

12.3.3 **Conditions of Approval**. When an exemption is approved, the demonstration team must ensure that the applicant understands the following: that the exemption specifies the minimum number of demonstration flight hours that must be planned and that additional demonstration flights may be required, should the applicant fail to demonstrate the ability to comply with all applicable regulations. The applicant should also be advised that potential delays due to problems such as maintenance, additional crew member training requirements, and weather, may extend the demonstration flight schedule, which could affect the date the applicant intends to start revenue operations.

13.0 SPECIAL DEMONSTRATION REQUIREMENTS

13.1 **General**

13.1.1 This section contains guidance to be used by inspectors for conducting special-demonstration flights. This guidance supplements the general guidance of paragraph 3 and the reporting guidance of paragraph 7 of this Order.

13.1.2 **Regulatory Background.** Regulations, such as Regulation 8.8.1.21 of the Nigeria Civil Aviation Regulations require applicants proposing to operate in designated special areas or using specialised navigation systems to demonstrate to the satisfaction of the Authority, the operator‘s

ability to conduct such operations safely and in compliance with regulatory requirements. One process by which an applicant demonstrates this capability to the Authority has come to be known as special-demonstration flights:

(a) **Special Demonstration Flights.** The most common method used by the Authority to validate an applicant's capability is to observe the applicant conduct flight operations;

(b) **Special Demonstration Testing.** The Regulations do not require an applicant to conduct actual flights when flights are not necessary for safety, considering the availability of adequate facilities and of able personnel to conduct the operation. Special-demonstration flights are expensive for the Authority and for the applicant. Inspectors should, therefore, avoid requiring applicants to conduct flights when they are not required. This section contains guidelines for teams to use in making this determination. In the interest of standardised treatment, the Director General shall concur with team recommendations before teams deviate from the guidelines of this section;

(c) **Areas of Emphasis.** When the Authority conducts special-demonstration testing with or without an actual flight, an in-depth review is conducted of the applicable portions of the applicant's proposed procedures (especially flight following), training programmes, manuals, facilities, and maintenance programmes.

NOTE: *The term, "applicant," as used in this Section, means either a candidate applying for an air operator certificate or air operator certificate holder requesting additional operating authorisation.*

13.1.3 Combined Demonstration and Special-Demonstration Flights. Demonstration flights are conducted to show the applicant's capability to operate a specific type of aircraft. Special-demonstration flights are conducted so that an applicant can demonstrate its capability to operate over specific routes in designated special areas (MNPS, North Pacific Airspace - NOPAC, areas of known magnetic unreliability, etc.) while using specific navigational equipment, or to operate within specified limitations in critical areas. Though demonstration and special-demonstration flights satisfy different regulatory requirements, it is acceptable for applicants to conduct both tests simultaneously.

13.2 **Situations Requiring Special-Demonstration Flights or Tests**

13.2.1 This paragraph contains guidance for inspectors and demonstration team leaders concerning those situations where special-demonstration flights or tests are required for compliance with Regulation 2.3.6(b) of Part 9 of the Nigeria Civil Aviation Regulations.

13.2.2 **Definitions:**

Class I Navigation. Class I navigation is any en-route flight operation or portion of an operation that is conducted entirely within the designated operational service volumes [or International Civil Aviation Organisation (ICAO) equivalents] of ICAO standard airway navigation facilities (VOR, VOR/DME, NDB). Class I navigation also includes en route flight operations over routes designated with an —MEA GAP" (or ICAO equivalent).

Class II Navigation. Class II navigation is any en-route flight operation, which is not, defined as class I navigation. Class II navigation is any en-route flight operation or portion of an en-route flight operation (irrespective of the means of navigation) which takes place outside (beyond) the designated operational service volume (or ICAO equivalents) of ICAO standard airway navigation facilities (VOR, VOR/DME, NDB).

13.2.3 **Operations Outside Nigerian Airspace**. When an applicant plans to operate to a destination outside of this airspace, the test team must verify that the applicant has the required Air Transport Licence , knowledge of applicable operating rules, and has completed adequate planning for the proposed operation. Normally, special-demonstration testing for this purpose alone does not require a flight.

13.2.4 **Class II Navigation Authorisations.** There are four situations in which special-demonstration testing is required in association with approval of Class II navigation:

a) Initial approval;
b) Approval of the addition of a long range navigation system;
c) Operations into new areas;
d) The addition of special or unique navigation procedures.

13.2.5 **Special Performance Authorisations.** Special-demonstration flights are required when an applicant proposes to conduct operations that require confirmation of the applicant's ability to operate an aircraft type within specified performance limitations. These limitations are based on the following situations:

a) Character of the terrain (or extended over-water areas);
b) Type of operation;
c) Performance of the aircraft.

13.2.6 **Special Operational Authorisations.** Special-demonstration flights are required when an applicant proposes to conduct in-flight or ground manoeuvres that require special operational authorisations

13.3 **Class II Navigation Authorisations**

13.3.1 Before adding a geographic area to the operation specifications, in which Class II navigation is required, demonstration teams must validate the applicant's capability to safely conduct these operations.

13.3.2 **Initial Approval**. When an applicant has no prior authorisation to conduct Class II navigation, a special-demonstration flight is normally required before the team may issue operations specifications paragraphs or add appropriate geographic areas to the operation specifications. These areas include the following:

a) Remote and extensive land areas not served by reliable ICAO surface based navigational aids (NAVAID);
b) Extensive over water areas beyond the range of surface based navigation facilities.

13.3.3 Authorisation for Long Range Navigation Systems. Special-demonstration flights are required when an applicant that already has Class II navigation authorisation proposes to add authorization for a new long-range system/aircraft combination to the operator‘s operation specifications.

a) Long Range Systems;
   (i) Inertial navigation systems (INS) and inertial reference systems (IRS);
   (ii) Global Navigation Satellite System (GNSS), when approved;
   (iii) Any combination of these.

b) Special-Demonstration Testing in Lieu of Special-Demonstration Flights. When special-demonstration testing is conducted to add a new aircraft/navigation system combination to the applicant's operation specifications, a special-demonstration is normally conducted by means of a flight. Director General may approve special-demonstrations by means of testing. However, when the applicant can show that the combination of aircraft/navigation system and operation is not significantly different from those the applicant is currently authorised, or with which the applicant can show satisfactory current experience, the special-demonstration can be conducted without flight. When special-demonstration is conducted without a flight, the applicant must show training and qualification of flight crew members in accordance with Authority guidance material and acceptable equipment procedures. Demonstration teams can determine the current level of flight crew training and qualification by conducting oral tests of knowledge and procedures and by evaluating flight records.

c) The following examples are situations where special-demonstration testing may be authorised in lieu of special-demonstration flights:

   (i) An applicant with a satisfactory history of conducting Class II navigation by using an LR-55/Delco Carousel IV INS combination proposes to add the Delco IV INS to a B-737 that the applicant is already authorised to operate in Class I airspace.
   (ii) Additional Geographic Areas. Applicants requesting authority to operate in additional geographic areas (other than special areas) may normally be authorised to do so without the need to complete a special-demonstration flight. As a minimum for this situation, the demonstration team must verify that the applicant has the required Air Transport Licence, knowledge of applicable operating rules, and has completed adequate planning for the proposed operation. Demonstration teams may determine, however, that the specific circumstances require a flight.

13.3.4 **Special Areas of Operation**. Certain areas of Class II airspace are considered special operating airspace for purposes of validation:

a) Extensive Areas of Magnetic Unreliability. Due to the nature of the procedures involved, applicants are required to conduct special-demonstration flights through these areas before being issued operation specification authorisation. Director General may approve special demonstrations by means of testing in lieu of flights when an applicant that already holds operation specification authorisation, proposes to operate new combinations of

aircraft and navigation systems in these areas. The applicant must show that the required procedures are not significantly different from those currently authorised;

b) North Atlantic Minimum Navigation Performance Specifications (NAT/MNPS) Airspace and Canadian MNPS Airspace. Approvals for these two blocks of airspace are normally conducted concurrently. Due to the navigational tolerances and the procedures involved, applicants are required to conduct special-demonstration flights through these areas before being initially authorised to conduct revenue operations in these areas. In some cases (such as with the use of Omega systems), the applicant may be required to conduct flights and collect data outside MNPS airspace before conducting a final special-demonstration flight through the airspace. Initial special-demonstration flights, as described in subparagraph B1 of this paragraph, may be conducted in North Atlantic or Canadian MNPS airspace if the required navigational accuracy was demonstrated before the supplemental type certificate (STC) was issued. An applicant holding operation specification authorisation for flight in MNPS airspace, who seeks authorisation to operate new combinations of aircraft and navigation systems in MNPS airspace, may be required to conduct special-demonstration flights to have that combination added to operation specifications, but the applicant is not normally required to conduct those flights through MNPS airspace;

c) Central East Pacific (CEPAC) Composite Airspace and North Pacific (NOPAC) Airspace. During special-demonstrations for approval of CEPAC and NOPAC areas, demonstration teams should focus on flight planning, especially for engine out and loss of pressurisation contingencies. An applicant that already holds operation specifications for class II navigation and has a satisfactory operating history in extended Class II navigation is normally not required to conduct a special-demonstration flight to be issued CEPAC or NOPAC operating authorisation. An applicant for an authorisation to operate new combinations of aircraft and navigation systems may be required to conduct special-demonstration flights before that combination is added to operation specifications, but the applicant is not normally required to conduct those flights through CEPAC or NOPAC airspace;

d) Arctic Ocean and Antarctica Airspace. Applicants proposing to conduct terminal area operations within these areas are normally required to conduct special-demonstration flights. Applicants conducting over-flight, but not terminal area operations, are not required to conduct special-demonstration flights. During special-demonstrations for approval of over-flight of these areas, demonstration teams should focus on flight planning, especially for engine-out, loss of pressurisation contingencies, and emergency airfield procedures;

***NOTE**: Arctic and Antarctic operating approvals are separate and distinct from approval for areas of magnetic unreliability.*

e) Politically Sensitive Areas of Operation. When an inspector requires information concerning an operator's request to conduct operations into sensitive international areas, the inspector should contact Director General for the most current guidance;

f) Special or Unique Navigation Procedures. Special-demonstration flights are normally required when an applicant proposes to use navigation procedures that have not been previously demonstrated.

13.4 Special Performance Authorisations

13.4.1 The following are examples of operational situations that normally require special demonstration flights and special performance authorisations for each type of aircraft to be used by an applicant:

a) Terminal area operations in areas of mountainous terrain requiring drift down or specialised contingency procedures;
b) Part 8 of the Nigeria Civil Aviation Regulations, extended-range operations with two-engine aeroplanes (ETOPS) over routes containing a point further than 60 minutes flying time from an adequate aerodrome;
c) High Altitude aerodrome operations
d) Power back operations (reverse thrust taxi);
e) Unimproved runway operations;
f) Helicopter or seaplane operations in highly congested urban areas.

13.5 Special Operational Authorisations

13.5.1 Special-demonstration flights are normally required when proposed operational situations require special equipment and a special operational authorisation for each type of aircraft used. Some examples follow:

a) Category II instrument approach and landing systems;
b) Category III instrument approach and landing systems;
c) Use of automatic landing systems for landing operations;
d) Use of manually flown flight control guidance systems approved for landing operations (heads-up or heads-down flight control systems);
e) Use of airborne radar approach (ARA) systems;
f) Area navigation (RNAV) system;
g) Use of RNAV systems for approach and landing operations.

13.6 Planning the Special-Demonstration Flights

13.6.1 An applicant that is required to conduct a special-demonstration test must develop and submit a test plan. The plan and test objectives must be specifically tailored to the situation.

13.6.2 The Authority demonstration team and the applicant should follow the following guidelines in planning special-demonstration flights:

a) **Form and Content of the Test Plan.** The variety of operational situations and requirements that determine the makeup of special-demonstration flights makes it impossible to specify the form and content for each special-demonstration test plan. The Regulations, advisory circulars (AC) and specific instructions in this Order have been developed to assist the applicant and the Authority inspectors in determining the necessity

of special-demonstration testing and the planning of special-demonstration flights. In many situations, these documents contain specific procedures that must be followed or that provide acceptable methods that an applicant can use to acquire a special authorisation;

b) **Demonstration Team and Applicant Co-ordination.** The applicant and demonstration team must agree on the form and content of the test plan, and they must establish mutual understandings of test objectives, the degree of demonstration required, and the criteria to be met. During development of the plan, the applicant should be encouraged to co-ordinate with and confer frequently with the Authority demonstration team concerning the makeup of the special-demonstration flights and the methods to be used in conducting them;

c) **Operational Demonstrations.** Most special-demonstration flights will require some form of operational demonstration. When operational demonstrations are required, the special demonstration test plan must include a schedule for those demonstrations;

d) **Determining Number of Flight Hours**. A required number of hours for a special-demonstration flight is not specified by regulation and must be determined on a case by case basis. When the test objectives can be adequately met, the demonstration team may reduce flight hours to zero;

e) **Revisions to Applicant Documents and Training Programme.** Most special authorisations require revisions to the applicant's checklists, Minimum Equipment Lists (MEL), Configuration Deviation List (CDL), Operations Manual (OM), Maintenance Manual (MM), Maintenance Control Manual (MCM) and Training Programme. These revisions should be submitted with the special-demonstration test plan for Authority review and approval or acceptance, as appropriate;

f) **Amendment to operation specifications.** All special authorisations require an amendment to the operation specifications; the applicant should apply for the amendment at the same time the special-demonstration plan is submitted.

13.7 Areas Evaluated on Special-Demonstration Flights or Tests

13.7.1 The types of activities and items that need to be inspected and evaluated on special-demonstration flights or tests vary with the type of authorisation requested by the applicant.

13.7.2 The following list provides examples of activities and items requiring inspection and evaluation:

a) Flight crew training (and cabin crew member training, if applicable);
b) Operations manual information and flight and cabin crew member procedure;
c) Checklists, MELs and CDLs ;
d) Maintenance manual information and maintenance programme;
e) Equipment certifications and installation approvals;
f) Reliability and accuracy of applicable operational and maintenance records;
g) Operational flight control and operator communication capabilities;

h) Flight crew competency in use of equipment, procedures, and techniques;
i) Co-ordination procedures between the flight crew members, maintenance personnel, and other ground personnel.

13.8 **Carriage of Revenue Passengers on Special-Demonstration Flights**

13.8.1 The Regulations do not forbid the carriage of revenue passengers on special-demonstration flights. With the concurrence of the Director General/Managing Director, the demonstration team may authorise the applicant to carry revenue passengers aboard the special-demonstration flight when the proposed operation is similar to those in the applicant's previous experience. This paragraph contains guidelines for teams to use in making this determination.

13.8.2 Non-permissible Situations. The carriage of revenue passengers shall not normally be permitted during special-demonstration flights in the following situations:

a) When the applicant is seeking initial approval to conduct Class II navigation;
b) When the applicant is seeking approval to conduct Class II navigation by a long range navigation system when the applicant has not previously been approved for that means of navigation;
c) When the applicant is seeking approval to conduct Class II navigation by means of a long range navigation procedure that has not previously been approved for that applicant;
d) When the applicant has not previously operated a specific aircraft type in operations that require a special performance authorisation.

13.8.3 **Exceptions to Subparagraph 13.8.1.** In the preceding situations, demonstration teams may consider permitting the carriage of revenue passengers if the applicant meets the following conditions:

a) Use of a Previously Authorised System. For those applicants seeking approval to conduct Class II navigation by means of a new system of long range navigation or by means of a new procedure, the applicant may use a previously authorised navigation system as an independent means of verifying position;
b) Previous Demonstration of Competence. For operations requiring a special performance authorisation, the applicant must have already successfully demonstrated competence by safely conducting those operations, using the necessary special performance, in the specific aircraft. This may have been accomplished through an approved flight simulation test programme, or in an actual aircraft flight test programme (non revenue) in the specific aircraft.

13.8.4 **Special Operational Authorisation.** For operations requiring a special operational authorisation for approach and landing operations, the carriage of revenue passengers should normally be permitted, provided higher minima or visual flight rules (VFR) operations are specified during the special-demonstration flights.

13.8.5 Additional Considerations. The following factors should be considered in all cases:

a) The applicant's previous experience with the proposed operation, the specific aircraft, and equipment combinations;

b) The Authority‘s previous experience with the proposed operation, the specific aircraft, and equipment combinations;

c) The in service history and performance considerations of any new aeroplane, component, appliance, or other piece of equipment;

d) Degree of backup system redundancy and sole dependency of any particular system, appliance, or component.

CHAPTER 16

Operational Control

1.0 PURPOSE

1.1 This Chapter gives guidance to Flight operations inspectors on the evaluation of operations control. Inspectors should be thoroughly familiar with this information before reviewing those sections of an air operator's Operations Manual concerning operational control and before performing inspections of an air operator's operational control facilities or when conducting licensing of the flight operations officer or equivalently qualified persons.

1.2 Flight operations inspectors (FOI) should be thoroughly familiar with this material when preparing those portions of an air operator's operations specifications that relate to operational control.

2.0 REFERENCES

2.1 **Part 8 of the Nigeria Civil Aviation Regulations.**

2.2 **Part 9 of the Nigeria Civil Aviation Regulations.**

2.3 CHECKLIST: CL:O-OPS004

2.4 CHECKLIST: CL:O-OPS020B

3.0 BACKGROUND AND DEFINITIONS

3.1 The term ~~O~~perator", means a person, organization or enterprise engaged in or offering to engage in an aircraft operations and any person who causes or authorises the operation of aircraft in the capacity of the owner, lessee, or otherwise, whether with or without the control of the aircraft, who is deemed to be engaged in the operation of the aircraft within the meaning of this Order.

3.2 Regulation 8.12.1.2 of the Nigeria Civil Aviation Regulations requires that air operators exercise operational control of each flight in commercial air transport. Operational control means the exercise of authority over initiation, continuation, diversion or termination of a flight in the interest of the safety of the aircraft and the regularity and efficiency of the flight.

3.2.1 **Operational Control Functions** - General. Air operators conduct operational control by making those decisions and performing those actions on a daily basis that are necessary to operate flights safely and in compliance with the regulations. Operational control functions include crew and aircraft scheduling, accepting charter flights from the public, reviewing weather and notices to airmen (NOTAM), and flight planning. Air operators are responsible for collecting and disseminating information that is needed to plan and conduct flights safely, including information about en-route and terminal weather conditions, navigation, and aerodrome facilities. Flight operations officers should also have a knowledge of flight control policies and procedures for flight crew and other operations personnel to follow in the performance of their duties;

3.2.2 **Operational Control Systems** - General. Operational control systems vary with the kind of operation the operator is authorised to conduct, the complexity of the operations, the means of communication, and with the persons who are involved in preparing for and conducting flights under the air operator's system. Part 9 of the Nigeria Civil Aviation Regulations; provide for two general types of operational control systems applicable to passenger carrying flights conducted on a published schedule, and for all other flights. A Flight Supervision and Monitoring System is identified in Regulation 9.3.1.23 of the Nigeria Civil Aviation Regulations and a Flight Following System in Regulation IS 9.3.1.23 of the Nigeria Civil Aviation Regulations.

3.2.3 **Operator Oversight Responsibility**. The air operator's oversight responsibility includes ensuring that both its flight crew and operational control employees comply with published policies and procedures;

3.2.4 **Air operator's Operations Manual.** Regulation 9.3.1.2 of the Nigeria Civil Aviation Regulations require that air operators prepare and keep current a manual for the guidance of flight, ground and management personnel in the performance of their duties and responsibilities. Regulation 9.3.1.2 of the Nigeria Civil Aviation Regulations requires the air operator to include in his Operations Manual the duties and responsibilities of those persons to whom authority to exercise operational control has been delegated. Part 9 of the Nigeria Civil Aviation Regulations requires the air operator to provide the name of each manager responsible for flight operations (operational control) including a description of their duties and functions. The air operator's Operations Manual must contain guidance on the conditions that must be met before a flight may be initiated or continued, or under which a flight must be diverted or terminated.

3.2.5 **Specific Operational Functions.** Operational control includes, but is not limited to, the air operator's performance of the following functions:

a) Ensuring that only those operations authorised by the Operations Specifications are conducted;
b) Ensuring that only crew members trained and qualified in accordance with the applicable regulations are assigned to conduct a flight;
c) Ensuring that crew members are in compliance with flight and duty time and rest requirements when departing on a flight;
d) Designating a PIC for each flight;
e) Providing the PIC and other personnel who perform operational control functions with access to the necessary information for the safe conduct of the flight (such as weather, NOTAMs, and aerodrome analysis);
f) Specifying the conditions under which a flight may be released (weather minima, flight planning, airworthiness of aircraft, aircraft loading, and fuel requirements);
g) Ensuring that each flight has complied with the conditions specified for release before it is allowed to depart;
h) Ensuring that when the conditions specified for a flight's release cannot be met, the flight is cancelled, delayed, re-routed or diverted;
i) Monitoring the progress of each flight and initiating timely actions when the flight cannot be completed as planned, including diverting or terminating a flight.

3.2.6 **Specific Operational Control Systems.** The operator must include, in his Operations Manual, policies and procedures appropriate to the flight release system used:

NOTE: *The air operator's system for exercising operational control may be described in the air operator's operations specifications. Most operational control systems are too complex to be adequately described in a single paragraph. In such cases, the air operator's system may be described in its Operations Manual, and the Inspector may reference the Operations Manual location of the system description in the air operator's operations specifications.*

a) **Operational Control.** Regulation 8.12.1.2 of the Nigeria Civil Aviation Regulations requires that air operators conducting scheduled passenger carrying flights employ persons holding a Flight Operations Officer Licence issued in accordance with Part 2 of the Nigeria Civil Aviation Regulations or a person with equivalent qualification to exercise operational control of flights. Regulation 8.12.1.3 of the Nigeria Civil Aviation Regulations requires the person responsible for exercising operational control for an air operator to ensure the monitoring of the progress of the flight and provisions of information that may be necessary to safety;

b) **Flight Release.** Regulation 8.12.1.2 of the Nigeria Civil Aviation Regulations places a shared responsibility for the operational control of charter flights with a qualified person exercising operational control responsibilities and the PIC. For purposes of this Order, employees exercising operational control during charter flights or other non-scheduled flights without passengers are termed flight followers. Inspectors should be aware that air operators might apply different job titles to these employees. Except for planned re-release operations, air operators are not required to be able to establish direct radio contact with charter flights while they are en-route. The flight follower must, however, concur with the PIC that a flight can be conducted safely before the flight may be initiated. This requirement necessitates a suitable means of communication between the flight follower and the PIC at each point of departure.

3.2.7 **Organizational Structure**. An operational control function may be centralised in one individual or diversified throughout an air operator's organization. In practice, it is not feasible for an individual to exercise operational control without assistance in any but the simplest of flight operations. Most air operators create specialised departments for crew scheduling, load control, and other functions. These functions may or may not be placed under the management and supervision of the "flight control" department. When these functions are delegated to specialised sections of the air operator's organization, the operator is responsible for the following:

a) Establishing a means to ensure that all functions have been accomplished before a flightcan be authorised to depart;

b) Establish effective internal communications, operating procedures, and administrative controls to meet this obligation;

c) Ensuring that these procedures are published in the air operator's Operations Manual.

3.2.8 **Complex Operations.** Practical and economic considerations may motivate air operators to install operational control systems that are more sophisticated than those required by the applicable

regulation. Two air operators that conduct operations under the same regulation may require operational control systems of differing degrees of sophistication. For example, a charter operator carrying cargo may find a simple flight following system to be adequate. A scheduled cargo operator conducting 100 flights a day to and from major terminal areas may find that a more sophisticated system is necessary to effectively control operations. The Authority may require, based on the complexity of operations, that an operator establishes a sophisticated operational control system as a condition of obtaining authorisation to conduct operations.

a) **Authority Evaluation.** Inspectors must evaluate each air operator's operational control system to ensure that the air operator is in compliance with applicable regulations and that the system is effective and provides for an adequate level of safety in the operations actually being conducted;

b) **Inadequate** Operational Control. If any inspector finds that an air operator's operational control system does not provide an adequate level of control to ensure safety he should carefully document the facts and report them to the Authority. The Inspector shall evaluate the report and, if required, negotiate an acceptable solution with the air operator, ensuring that the changes are incorporated. Should the air operator be unwilling to negotiate, the Inspector may find it necessary to recommend an amendment to the AOC in accordance with Regulation 1.1.9 of Part 9 of the Nigeria Civil Aviation Regulations.

3.2.9 **Operational Control by Contractors.** Air operators may contract for equipment and facilities and, under some circumstances, the services of operational control personnel.

a) **Air Operators Conducting Scheduled Passenger Carrying Operations.** If an air operator conducting scheduled passenger carrying operations contracts for the service of a flight operations officer to exercise operational control, the air operator must maintain exclusive control over the duties, functions, and responsibilities of the contracted flight operations officer;

b) **Air Operators Conducting Charter Operations.** These air operators may contract for control functions. The air operator is responsible for ensuring that the training and qualification of contract personnel is adequate, that contractor personnel are performing their duties diligently, and that the provisions of the air operator's manual are being complied with. The air operator must also have an effective means of disciplining contractor personnel when set guidance and policy is not complied with;

c) **Operations Specifications Authorisation.** Any contract arrangements must be clearly and completely defined in the air operator's Operations Manual and authorised by the Authority in the air operator's Operations Specifications.

4.0 FLIGHT OPERATIONS OFFICER/FLIGHT DISPATCHER

4.1 A flight operations officer is a person who holds a flight operations officer licence issued by the Authority under Part 2 of the Nigeria Civil Aviation Regulations.

4.2 Air operators conducting scheduled passenger carrying operations must employ flight operations officers who are responsible for performing certain specified operational control functions.

5.0 FLIGHT INFORMATION

5.1 Air operators must supply or ensure that the information necessary to plan, conduct, and control operations is available to operational control and flight crew personnel. Most of this data can be obtained through subscriptions to a government service or to a commercial aeronautical information and charting service.

5.2 Air operators should be expected to supplement these services if necessary, and in all cases are responsible for ensuring that the information used is accurate and complete. Air operators must also supply other data, such as NOTAMs, track messages, and aerodrome obstruction data, when applicable.

5.3 The air operator's system to obtain and distribute aerodrome data must be described in the Operations Specifications. The air operator's system may also be described in a section of the Operations Manual and referenced in the air operator's Operations Specifications. The air operator's Operations Manual must contain the guidance and procedures by which flight crew and operational control personnel can acquire and apply this information.

5.4 Aerodrome and Facilities. This information is obtained from the aeronautical information publications (AIP) of the State from which the air operator conducts flight operations. Inspectors should ensure that air operators understand their requirement to make this information (for those aerodromes at which operations are conducted) available to their personnel.

5.5 **NOTAMs.** Air operators must provide NOTAMs to flight crew and operational control personnel for domestic and international operations in airspace covered by NOTAM systems:

5.5.1 **Inspector Responsibility.** Inspectors must ensure that the air operator's Operations Manual contains specific procedures for the acquisition and dissemination of local NOTAM information to flight crew and operational control personnel. Operational control personnel must be provided with a positive means to collect, analyse, and disseminate current NOTAM information to flight crew;

5.5.2 **Obtaining NOTAM Information.** An acceptable means for air operators to acquire this information is to task an authorised agent with collecting this information and reporting it to the air operator's operational control centre;

Note: *Inspectors must ensure that the air operator's Operations Manual contains specific procedures for the acquisition, dissemination and cancellation of NOTAM information to flight crew and flight operations officers. Air operators should clearly understand that a means must be devised to collect en-route, destination, and alternate aerodrome NOTAMs that may impact operations.*

5.5.3 **International NOTAMs.** International NOTAMs are transmitted electronically to those air operators that have arranged to receive them, and they are available, on a request/reply basis, for those offices with Aeronautical Fix Telecommunication (AFTN) circuits. International NOTAMs are also available from some commercial services;

5.5.4 **Operations Not Covered by NOTAMs.** Air operators may need to establish procedures or systems to develop or disseminate flight safety information concerning areas not covered by domestic or international NOTAMs, such as isolated aerodromes or offshore operations.

5.6 **Track Messages**. Messages containing the co-ordinates of routes to be followed on flexible track systems such as the North Atlantic organised track structure are transmitted approximately every 12 hours. Flight crew operating over these routes are required to have all current valid track coordinates available in the cockpit to verify flight plan co-ordinates, should an in-flight rerouting become necessary. Inspectors must ensure that an air operator‘s operational control personnel have this information for flight planning and flight monitoring purposes.

5.7 **Aircraft Performance and Aerodrome Obstacle Data.** Inspectors must ensure that operators of all types of aircraft comply with the performance requirements of Regulations 8.8.7 of the Nigeria Civil Aviation Regulations on Aircraft Operating And Performance Limitations before a flight departs. Air operators must obtain and use aerodrome obstacle data for takeoff performance calculations. Air operators of all categories of aircraft must comply with en-route obstacle clearance requirements, including contingency planning for engine failure.

6.0 WEATHER INFORMATION FOR CONTROL OF FLIGHT OPERATIONS

6.1 Inspectors must ensure that the system the operator uses to obtain and disseminate aeronautical weather data is either described in the air operator‘s Operations Specifications or that the system description, if in the air operator‘s Operations Manual instead, is referenced in the air operator's Operations Specifications.

6.2 **Weather for Flight Release.** The critical time period is the estimated time of arrival (ETA). Inspectors must ensure that air operators use all available weather reports and forecasts, as applicable, to cover this time period.

6.2.1 **Use of Forecasts for Long-Range Operations.** Clearly, current weather reports are of less value than forecasts for long range operations. A flight may be released to a destination that is currently below minima but that is forecast to be above minima at the ETA. The use of hourly reports to monitor trends is prudent and may be required;

6.2.2 **Release of Flights Based on Forecast Weather Information.** Air operators may be required to release flights with limited weather information. For example, a trans-Atlantic flight must depart several hours before the destination aerodrome opens and the first surface observations of the day are taken. An operator, flight operations officer, or a PIC who operates a flight under such conditions would be considered to be in compliance with the Regulations under the following conditions:

a) Those weather reports and forecasts, which are available, have been obtained and used;
b) Adequate contingency plans have been made to deal with the situation, should later reportsbe unfavourable.

6.2.3 **Use of Pilot Reports.** The term, "thoroughly familiar," includes being thoroughly familiar with all relevant pilot reports (PIREP).

6.3 **Conditional Phrases in Weather Forecasts.** Conditional phrases contained in the remarks section of a forecast (in addition to the information contained in the main body of the forecast) are controlling for purposes of a flight dispatch or flight release.

6.4 **Exemptions from Weather Requirements.** Many air operators have obtained exemptions to release flights to destinations at which the forecast remarks contain conditions below minima. Inspectors should be aware that these exemptions require those air operators to exercise a number of additional precautions. Typical precautions include the designation of a second alternate aerodrome and a requirement that the flight operations officer monitor and advise the flight crew of conditions while the flight is en-route. Inspectors of air operators using these exemptions should ensure that the air operator‘s Operations Manual contains adequate guidance.

7.0 FLIGHT PLANNING

7.1 Inspectors must ensure that air operators conduct pre-flight planning so that flights are conducted as follows: to the standards of navigational accuracy required in the airspace traversed, to meet regulatory fuel requirements, to satisfy ATC information and reporting requirements, and to ensure that flights are operated safely. The degree of sophistication and accuracy required in flight planning depends on the type of navigation conducted and the airspace traversed. Air operators may assign flight-planning duties to either flight crew or flight control personnel. It is a common and acceptable practice for air operators to contract for flight planning from specialised services. The operator, however, is responsible for the accuracy of any information the contractor uses and for the accuracy of the results.

7.2 **Flight Plans.** The term "flight plan" means a paper document or a file of electronic data prepared for purposes of flight planning, flight control, and navigation. Flight planning consists of selecting an appropriate aircraft cruise schedule and applying forecast wind, temperature, and aircraft performance data to a planned route to predict estimated time en-route (ETE) and estimated fuel consumption. The term "ATC flight plan" is used in this Order to mean the subset of information extracted from the flight plan, which is filed with ATC to obtain an ATC clearance.

7.3 **Computation and Verification.** A flight plan may be computed manually or with computer aids. In either case, inspectors must ensure that the air operator‘s Operations Manual contains the specified procedures, formats, and forms to be used. Inspectors shall ensure that air operators understand their responsibility for making sure that flight crew and operational control personnel verify the accuracy of planning. Since even computer generated flight plans are subject to input errors, use of a computer system that contains internal software to check for errors in flight plans is desirable. Inspectors shall also ensure that the air operator‘s Operations Manual contains adequate procedures for flight crew and operational control personnel to scrutinise all computer generated

and all manually generated flight plans for accuracy.

7.4 **Regulatory Requirements.** Air operators are required by Regulations 2.1.8 and 6.2.20 of Part 8 of the Nigeria Civil Aviation Regulations to carry a flight plan to destination on all flights. Air operators typically require that flight crew record the flight progress on the flight plan or on other documents.

Note: *In international operations, the Authority may require such procedures as a condition of authorising extended over water navigation. When the flight crew is required to record the flight progress, the annotated flight plan becomes a record of the flight.*

7.5 **Valid Track Co-ordinates.** Flight crew must carry the valid track co-ordinates in the cockpit during flights over flexible track systems.

7.6 **Navigation Methods and Flight Plans.** Inspectors should keep in mind that the primary concerns in choosing navigation methods and procedures are the degree of precision required for the separation of air traffic and obstacle avoidance. Class I station reference navigation is VFR or IFR navigation within the standard service volume of International Civil Aviation Organization (ICAO), ground based, electronic NAVAIDs. Courses and distances are published on standard IFR charts or may be determined by plotting courses on an IFR or VFR chart. To be acceptable for Class I navigation, a simple flight plan should include at least the following:

7.6.1 Fix or intersection identifiers, segment distances, ETEs for each segment, and an estimate of fuel consumption for each segment (a segment or zone is the distance between two check points);

7.6.2 A summation of distance, time, and fuel to show regulatory compliance;

7.6.3 Long Range, Class II Navigation. Long range, Class II navigation is navigation conducted beyondthe operational service volume of standard ICAO NAVAIDs. Long range, Class II navigation normally requires specialised long range navigation systems such as Loran, inertial navigation systems (INS)/inertial reference systems (IRS), GPS, or Doppler. In some cases, dead reckoning (DR), pilotage, or celestial navigation may be used;

7.6.4 Long Range, Class II Flight Plan. An acceptable flight plan for long range, Class II navigation should contain the following elements:

a) Waypoints (fixes for the portion of the route conducted by Class I navigation);
b) The waypoint co-ordinates identifier (located next to the waypoint or on the line below);
c) The course leaving the waypoint;
d) Forecast segment wind, drift, or drift correction;
e) Forecast temperature (or temperature deviation) and true air speed (TAS);
f) Segment distances, estimated ground speed, and segment ETE;
g) Estimate of fuel consumption for each segment;
h) Indication of equal time points (ETPs), if they are used for compliance with engine-out fuel or oxygen requirements;
i) A summation of distance, time, and fuel to indicate regulatory compliance;

j) A means of predicting clear air turbulence, such as the height of the tropopause, maximum wind level, temperature gradients, or shear index.

7.6.5 **Organised Track Systems.** When operations are conducted over an organised track system, the flight plan co-ordinates must be checked against the track message. The air operator's Operations Manual must specify the individual responsible for the check and the procedures to be used;

7.6.6 Loran Systems. When Loran is used, appropriate NOTAMs must be checked to ensure that adequate signal coverage is available.

7.7 **Map reading.** Map reading is navigation conducted solely by reference to visually distinguishable checkpoints against a map. Map reading may be either Class I or Class II navigation but may only be approved over areas where checkpoints are readily distinguishable and in airspace where such operations are authorised. VFR navigation by map reading may only be conducted by air operators as follows:

7.7.1 Air operators may conduct VFR navigation only when and where specifically authorised to do so by the Operations Specifications;

7.7.2 Flight Planning for VFR Pilotage. VFR pilotage requires the use of current VFR navigation charts. Inspectors must evaluate an air operator's flight plan to ensure that it includes, but is not limited to, the following elements as applicable to the operation:

a) Checkpoints, segment distances, ETEs for each segment, and an estimate of fuel consumption for each segment;

b) A summation of distance, time, and fuel planning to show regulatory compliance (departure point to destination, required reserve, and contingencies).

7.7.3 Flight Planning and Navigation for Class II, VFR Operations. Additional precautions may be necessary, depending on the area of operations. For example, in a polar or wilderness area, aircraft should always have adequate fuel to fly to the nearest fuelling point, along with a reserve of fuel. Helicopters operating offshore should at all times have at least enough fuel to reach land, and thereafter fly for an additional time as specified by the air operator's manual.

7.8 **Dead Reckoning (DR).** DR is navigation conducted solely by the pilot flying a calculated heading and estimated groundspeed without a means of obtaining a position. The pilot computes such headings by applying estimated wind information to the measured track. Navigation by DR is only acceptable under certain limited circumstances. For example, air operators may be approved by the Operations Specifications to conduct either IFR or VFR flights between the service volumes of two standard NAVAIDs on a direct course between the NAVAIDs. Such operations must be limited to periods of not more than 1 hour and to areas where ATC separation standards do not preclude such operations. Inspectors must evaluate other DR operations on a case by case basis.

8.0 SELECTION OF ALTERNATE AERODROMES

8.1 A critical element of pre-flight planning is the selection of alternate, takeoff, en-route, and destination aerodromes. PICs and operational control personnel have a range of latitude to accommodate individual circumstances. This latitude must be carefully exercised. Air operators must provide specific direction and guidance to PICs and flight operations officers for the selection of takeoff, en-route, and destination alternate aerodromes.

8.2 **Terrain.** Regulation 8.8.1.10 (a) of the Nigeria Civil Aviation Regulations requires the PIC to land at the "nearest suitable aerodrome" in case of an engine failure or shutdown.

8.3 **Option for Aircraft with Three or More Engines.** Regulation 8.8.1.10 (b) of the Nigeria Civil Aviation Regulations; however, does allow a PIC operating an aircraft of three or more engines, to proceed to an aerodrome other than the nearest suitable available aerodrome, when this course of action is as safe as landing at the nearest suitable aerodrome. While these rules apply specifically to PICs, operational control personnel should be aware of, and be guided by, these requirements when selecting alternate aerodromes. Inspectors shall ensure that air operators and PICs take particular care in the selection of alternate aerodromes in the mountainous areas. Inspectors should ensure that the operator would be in compliance with all Regulations (in normal and engine out configurations) while en-route to the alternate aerodrome.

8.4 **Weather NAVAIDs, and Aerodrome Conditions.** Flight operations officers, flight followers, and PICs must be aware of the distance to the alternate, the effect of weather, inoperative NAVAIDs, and aerodrome conditions when selecting alternate aerodromes.

9.0 LOAD CONTROL

9.1 When heavy payloads are carried aboard an aircraft, the fuel load may have to be limited. In addition, takeoff, en-route terrain clearance, and landing performance limitations limit the weight at which an aircraft can be released.

9.2 **Loading Assumptions.** Operational control personnel must have either actual loading information or they must make assumptions about aircraft loading before they can release a flight. For flights released using loading assumptions, inspectors must ensure that the operator has established a means for ensuring that flights actually do depart at, or below, the maximum weight used for planning.

9.3 **Operations Manual.** Inspectors must ensure that the air operator‘s Operations Manual contains information and procedures for the control of fuel load, payloads, takeoff weights, and centre of gravity (CG). The air operator‘s Operations Manual must clearly delineate the category of employee responsible for making these computations, adequate information and procedures for performing such calculations, and the procedures by which the flight crew and operational control personnel can ensure that these functions have been accomplished before the aircraft departs.

10.0 AIRWORTHINESS OF AIRCRAFT

10.1 Regulation 8.12.1.6 of the Nigeria Civil Aviation Regulations prohibits the dispatch or flight release of an aircraft unless it is airworthy and has all required equipment installed. Regulation 9.3.2.10 of the Nigeria Civil Aviation Regulations requires that before an aircraft can be operated it must have an airworthiness release (or appropriate logbook entry) and be prepared by a properly authorised person.

10.2 Compliance Minimun Equipment List (MEL) or Configuration Deviation List (CDL) Provisions. When an aircraft is released in accordance with MEL or CDL provisions, the airoperator's procedures, policies, instructions, and controls for the use of the MEL or CDL mustensure that -

10.2.1 There are no known conditions that would make the aircraft un-airworthy, and;

10.2.2 The aircraft is in condition for safe operation.

NOTE: *Use of the MEL or CDL does not require a new airworthiness release. Under certain circumstances, however, approved company procedures may require the issuance of a Certificate of Release to Service. In any event, inspectors shall ensure that air operators follow the approved procedures.*

10.3 **MEL or CDL Limitations in Flight Dispatch or Flight Releases. When MEL or CDL** restrictions impose aircraft performance or weight limitations, the flight operations officer or the person exercising operational control must be notified of these limitations before the flight is dispatched or released. It is not unusual for additional discrepancies to arise after a release has been prepared and transmitted. When a decision has been reached to operate the aircraft with an additional deferred discrepancy after the release has been prepared, the operator must have procedures for notifying the flight operations officer or the individual exercising operational control. If the flight cannot be operated as originally released, a new release must be prepared or the original release must be amended.

10.4 **Discrepancies after Departure.** A flight is considered to have departed when it moves under its own power (forward or backward) for purposes of flight. After this time, any discrepancy, which arises, must be handled according to the flight manual. If the flight manual has procedures for that particular discrepancy, which allow for the continuation of the flight, and the PIC determines that the flight can safely depart using those procedures then the flight may continue. If the flight manual does not permit continuation of the flight, or if the PIC determines that the flight cannot safely depart, the discrepancy must be entered in the technical log of the aircraft in accordance with Regulation 3.2.8 of Part 9 of the Nigeria Civil Aviation Regulations and maintenance action must be taken before the aircraft takes off. A new or amended flight release is required when the flight cannot be operated as originally planned. For example, the antiskid could fail during the taxi for takeoff. If the flight manual contains procedures for adjusting performance computations, which indicate that the flight can operate within the required limits at the departure point, destination, and alternate aerodrome, the flight could continue. Conversely, if the flight manual does not contain any such procedures, the flight must return for maintenance action.

11.0 CREW QUALIFICATION AND CREW FLIGHT TIME LIMITATIONS AND REST

REQUIREMENTS

11.1 The operator is responsible for assigning specific personnel to operate each flight, including the designation of a PIC. Crew members and the operator are jointly responsible for ensuring that crew members are qualified in accordance with the regulations (including special aerodrome qualifications) and are in compliance with crew flight time limitations and rest requirements before the flight departs.

11.2 Air operators may delegate these responsibilities to departments other than the operational controldepartment but must establish procedures by which operational control personnel can verify that these requirements have been accomplished.

12.0 CREW MEDICAL QUALIFICATION AND PROCEDURES DURING TEMPORARY MEDICAL DEFICIENCY

12.1 In order to maintain the highest level of safety required, flight crew members must not fly under conditions that would make them unable to meet the requirements for their current medical certificate. This decision should not be influenced by fear of company reprisals.

12.2 Inspector's should encourage their assigned air operators to have established sick leave policies and procedures, especially those concerning the release of flight crew members from duty when they develop sudden temporary illnesses, such as colds, flu, or fevers. These policies and procedures should not discourage flight crew members from taking sick leave when they are ill.

13.0 FLIGHT SUPERVISION AND MONITORING SYSTEMS (SCHEDULED AIR OPERATIONS)

13.1 **General**

13.1.1 Air operators conducting scheduled operations must have an adequate system approved by the Authority for proper dispatch and monitoring of the progress of scheduled flights. This system shall use qualified flight operations officer or equivalently qualified persons to directly control flight operations. A pilot in command (PIC) may not initiate or continue a flight unless both the PIC and the flight operations officer agree that the flight can be conducted safely as planned under the existing and forecast conditions. Once a flight is initiated, the flight operations officer must continually monitor the flight's progress and inform the PIC of conditions that could affect the safe operation of that flight.

13.1.2 Signature **on a Flight Release**. Regulations 8.6.2.20 and 8.12.1.4 (a) (3) of the Nigeria Civil Aviation Regulations require that both the flight operations officer and the PIC sign the dispatch copy of the flight release. The flight operations officer and PIC's signatures certify that, in the judgement of each, the flight can be made safely as planned. Some further guidance follows for inspectors to use regarding signatures on dispatch releases:

a) The conditions under which a flight is dispatched/ released may make it impractical for both the flight operations officer and the PIC to sign on the same form. For example, the operator may maintain a centralised dispatch centre and transmit dispatch releases to each point of departure rather than maintain individual dispatch facilities at each

aerodrome. Air operators may establish procedures that comply with the intent of the rule, but accommodate the necessities of contemporary operations. One acceptable practice is for a flight operations officer to sign a duty roster at the beginning of the flight operations officer shift, thus indicating the time the flight operations officer came on duty and the desk or geographic area the flight operations officer is working. The flight operations officer name and a date time group printed on each dispatch/flight release may be considered the flight operations officer signature in combination with the duty roster. Another acceptable practice is for the flight operations officer to sign and retain for the record a copy of each dispatch/flight release, which is transmitted;

b) Inspectors, air operators, and flight operations officers should be aware of the significance of an individual's signature under law, being that the individual who signs has consented to be bound by, and held responsible for, the act;

c) A flight operations officer may conduct an in-flight re-release by recording the re-release message on oral tape or in writing. A system of appending the flight operations officer signature, such as that described in previous subparagraph (a), may be used. The PIC may accept an in-flight re-release over the radio by reading back the dispatch release message, recording the message in writing (including the flight operations officer's name), noting the date and time, and signing the entry. The preferred procedure is for the message to be copied on a designated master flight plan. These same procedures may be used for releases delivered over the telephone. The signed dispatch releases, duty rosters, and the master flight plan are company records that must be retained.

13.1.3 **Flight Preparation.** Before dispatching any flight, a flight operations officer must be thoroughly familiar with the reported weather conditions and the forecast weather conditions (including adverse weather) and the status of communications, navigation, and aerodrome facilities. Regulation 8.12.1.4 of the Nigeria Civil Aviation Regulations require that the flight operations officer assist the PIC in flight preparation and provide the PIC with information on each of these items prior to release:

a) The flight preparation assistance provided to the PIC by the flight operations officer may be accomplished verbally or in writing. In the latter case, communications facilities must be available for the flight operations officer and the PIC to communicate directly by voice if direct communication is required or desired;

b) The intent of Regulation 8.12.1.4 of the Nigeria Civil Aviation Regulations is that the flight operations officer and the PIC have adequate and identical information for planning. The PIC and the flight operations officer must be thoroughly familiar with and consider all aspects of the situation. For example, inoperative navigation aids and shortened runways as well as weather conditions can affect the selection of alternate aerodromes. For this reason the briefing by the flight operations officer is not optional for either the flight operations officer or the PIC under these rules.

13.1.4 **Flight Monitoring.** A flight operations officer must monitor the progress of each flight under that

flight operations officer control until the flight has landed, passed beyond the flight operations officer area of control, or until the flight operations officer is properly relieved by another. Flight monitoring, as a minimum, must consist of the monitoring of each flight's fuel state, flight time remaining, destination and alternate aerodrome weather trends, en-route winds and weather (including pilot reports), and the status of aerodrome and navigational facilities.

a) Regulation 8.12.1.3, 8.12.1.7 and 8.12.1.9 of the Nigeria Civil Aviation Regulations require that the flight operations officer report to the PIC any additional information that could affect the safety of the flight. This information may be delivered by voice message, air ground passive communication systems such as aircraft communication addressing and reporting system (ACARS) or any other means.;

b) Regulation 8.12.1.2 of the Nigeria Civil Aviation Regulations requires that the flight operations officer ensure that flight locating and flight following procedures are followed.

13.1.5 **Operations Manual.** Inspectors must ensure that the air operator‘s Operations Manual contains policies and procedures for releasing flights and subsequent in-flight monitoring. Regulation 9.3.1.2 of the Nigeria Civil Aviation Regulations requires that the Operations Manual or applicable parts of it be issued to flight operations officer during the performance of their duties. Inspectors must ensure that the air operator‘s Operations Manual includes the information that follows.

a) The air operator‘s Operations Manual must contain flight crew reporting requirements and the actions that flight operations officer should take if reports from the flight crew are not received;

b) Once initiated, a flight must continue to destination as planned and within the conditions of the dispatch release. A PIC shares in the responsibility for operational control of the aircraft and has the situational authority to make decisions regarding operational control issues in-flight. According to regulation of Part 8 of the Nigeria Civil Aviation Regulations, where the decision of the PIC differs from that recommended by the flight operations officer, the flight operations officer shall make a record of the associated facts;

(c) ATC frequently delays, reroutes, or assigns an altitude to flights other than those planned by the operator. The ATC system requires this flexibility to reroute traffic flow around adverse weather and to function effectively. The air operator‘s policies and procedures for operational control should accommodate these demands while maintaining the duality of responsibility shared by the flight operations officer and the PIC. One acceptable means air operators may use to comply with the regulatory requirement is to publish notification requirements in the Operations Manual for flight crew to follow in these circumstances. For example, the operator might specify maximum amounts that the ETE, assigned altitude, estimated fuel remaining when overhead destination and distance from planned course may deviate, without reporting to the flight operations officer and obtaining an amended release. The operator may also place remarks on the dispatch release to alert the PIC to the fact that a routing has been chosen for a specific reason and give instructions to contact the flight operations officer if ATC needs to reroute the flight.

13.2 Facilities and Staffing

13.2.1 Regulation 9.3.1.23 of the Nigeria Civil Aviation Regulations requires that each scheduled operator provide enough dispatch centres and qualified flight operations officer to ensure adequate

13.2.2 **Facilities.** Regulation 9.3.1.23 of the Nigeria Civil Aviation Regulations also requires that each scheduled operator provide enough dispatch centres for adequate control of the operations conducted.

a) Air operators have wide latitude in meeting this requirement. With modern communications, many air operators exercise world-wide operational control from a single centre. Any number and placement of centres is acceptable, provided the operator can show that organizational and communications arrangements are effective;

b) Many air operators have chosen to automate some dispatch duties and routines. A few air operators have introduced a high degree of automation. Many functions, which were previously performed manually by human beings, are now handled automatically by machine. For example, flight routes are automatically generated and flight plans are filed by computer. While these systems may be labour saving, they introduce special problems and specific hazards. Inspectors must ensure that the operator has designed adequate safeguards into the system. For example, the operator must be able to ensure that a flight plan with a routing identical to the one filed with ATC is delivered to the PIC.

13.2.3 **Staffing.** Regulation 9.3.1.23 of the Nigeria Civil Aviation Regulations also requires that scheduled air operators provide enough qualified flight operations officers to ensure the adequate operational control of all flights as follows:

a) Regulation 8.12.1.2 of the Nigeria Civil Aviation Regulations requires that each flight operations officer is currently qualified with the air operator for the operation. His authorisation includes testing by the air operator to ensure that proficiency is maintained. This requirement applies to all flight operations officers the operator assigns to revenue flights (including the management personnel who occasionally work a position to relieve personnel), and to those flight operations officers who trade assignments for personalreasons. Inspectors must ensure that air operators have established a means of qualification to satisfy this rule;

b) The flight operations officers commonly dispatch and monitor flights simultaneously. Inspectors must ensure that air operators provide enough flight operations officers' personnel to fully accomplish both tasks. Inspectors should ensure that the air operator's flight operations officers are not neglecting flight monitoring duties due to the pressure of their duties for originating flights;

c) The time required for a flight operations officer to prepare a dispatch release or to monitor the progress of a flight varies according to the geographical area, the complexity of the operation, and the degree to which the process is automated. A flight operations officer

employed by a small operator may do all of these tasks manually without assistance and may take, several hours to dispatch a single flight. On the other hand, a flight operations officer for a major air carrier may be able to adequately dispatch a flight in a few minutes by using a computerised system;

d) With all air operators, workloads tend to be cyclical with peaks and troughs. Air operators should continually monitor flight operations officers' workloads at peak periods to ensure that the flight operations officer is not overloaded. Operators should avoid overloading the flight operations officer with assignments of unrelated tasks during peak activity periods;

e) The operator must have adequate contingency plans for dealing with foreseeable non-routine operations. For example, during periods of poor weather or in the hurricane season when major storms may be threatening the route, a flight operations officer workload can increase to several times the routine level. One acceptable means of dealing with this problem is for the operator to add more flight operations officers during periods of non-routine operations;

f) Air operators conducting "hub operations" have special problems. For example, if weather conditions unexpectedly restrict operations or close a hub while flights are inbound, the operator must demonstrate the capability to communicate with, and effectively control, a large number of flights in a short period of time;

g) Inspectors shall ensure that air operators using automated systems have published procedures for maintaining operational control after an unexpected loss of an automated system. These procedures should be published in the air operator's Operations Manual.

13.3 Flight Operations Officer/Flight Dispatcher Duty Time Limitations

13.3.1 Inspectors must ensure that air operators place limitations on flight operations officer's duty time, except in cases of circumstances or emergency conditions that are beyond the control of the operator.

13.3.2 The following standards should be sought:

a) A flight operations officer should not be scheduled for more than 10 consecutive hours of duty;

b) Each flight operations officer must be relieved of all duty for at least 24 consecutive hours during any 7 consecutive days;

c) A flight operations officer shift must be scheduled to begin at a time that allows the flight operations officer to become thoroughly familiar with existing and anticipated weather conditions along the route before dispatching any flight. The flight operations officer must remain on duty until each flight under the flight operations officer control has either landed, or gone beyond the flight operations officer jurisdiction, or until the flight operations officer is relieved by another qualified flight operations officer. Then requirements necessitate a change over procedure between the oncoming flight operations officer and the flight operations officer being relieved.

13.4 **Weather Requirements for Dispatch**

13.4.1 Inspectors must be informed about the weather requirements for the dispatch of flights under Part 8 of the Nigeria Civil Aviation Regulations.

13.4.2 **Dispatch and Flight Release under VFR.** Regulation 8.12.1.10 of the Nigeria Civil Aviation Regulations prohibit a flight operations officer from authorising a VFR flight unless the weather reports and forecasts indicate that the meteorological conditions along the route to be flown under VFR will, at the appropriate time, allow VFR, and the flight can reasonably be expected to be completed as specified in the release under VFR.

13.4.3 **Takeoff Alternate Aerodromes.** Regulation 8.6.2.9 of the Nigeria Civil Aviation Regulations prohibits a flight operations officer from authorising a flight under IFR without a suitable alternate specified in the flight release if it would not be possible to return to the aerodrome of departure. In addition, each alternate specified shall be located within one hour's flight time for two engine aircraft, unless the aircraft and crew are authorised for ETOPS, in which case the takeoff alternate specified shall be located within two hours or the approved ETOPS diversion time whichever is less. For three or four engine aircraft, the takeoff alternate shall be located within two hours flight time

13.4.4 **Destination Weather-IFR Operations.** Regulation 8.6.2.6 of the Nigeria Civil Aviation Regulations prohibits a flight operations officer from authorising a flight under IFR unless available weather information indicates that the weather conditions at the aerodrome of intended landing, and if required, at least one suitable alternate at the ETA, will be at or above the minimum ceiling and visibility values for the standard instrument approach procedure to be used, that would allow a VMC decent to the aerodrome.

Note: *For commercial air transport IFR flight planning, a partial exemption is granted to the effect that the weather at the destination does not have to be at or above the approach minima to release and commence flight, as long as the designated aerodrome meets the IFR weather selection criteria.*

13.4.5 **Alternate Weather**. Regulations 8.6.2.5 and 8.6.2.6 of the Nigeria Civil Aviation Regulations prohibits a flight operations officer from authorising a flight under IFR in an aircraft without at least one destination alternate aerodrome listed in the flight plan, unless there is a standard instrument approach procedure prescribed for the aerodrome of intended landing by the jurisdictional authorities.

13.4.6 **IFR Alternate Aerodrome Selection Criteria**. If alternate minima are published, Regulation 8.6.2.6 of the Nigeria Civil Aviation Regulations prohibits a flight operations officer from authorising an alternate aerodrome in an IFR flight plan unless the most available forecast indicates that the meteorological conditions at the alternate, at the ETA, will be at or above those published alternate minima. If alternate minima are not published and there is no prohibition against using the aerodrome as an IFR planning alternate, each flight operations officer shall ensure that the meteorological conditions at the alternate, at the ETA, will be at or above a ceiling of at least 600 feet and visibility of not less than 3 km. for a precision approach; or, for a non-precision approach procedure, a ceiling of at least 800 feet and visibility of not less than 3 km..

13.5 **Fuel Supply**

13.5.1 Inspectors need to be aware of the fuel requirements for dispatch under Part 8 of the Nigeria Civil Aviation Regulations. The fuel planning provisions of Part 8 of the Nigeria Civil Aviation Regulations apply to all flights - whether turbojet, turbo propeller, or reciprocating powered.

13.5.2 **Required Fuel Supply.** A flight operations officer shall not authorise a flight and a flight may not take off unless, considering winds and forecast weather conditions, the flight meets all the requirements of Regulation 8.6.2.13 of the Nigeria Civil Aviation Regulations for that particular flight. Thus:

a) (i) Minimum Fuel Supply for VFR Flights. Regulation 8.6.2.14 of the Nigeria Civil Aviation Regulations prohibits a flight operations officer from authorising a flight in an aeroplane under VFR unless, considering wind and forecast weather conditions, there is enough fuel to fly to the first point of intended landing and, assuming normal cruising speed for at least 30 minutes thereafter for flights during the day; and for flights at night, for at least 45 minutes thereafter, and for international flights, for at least an additional 15% of the total flight time calculated for cruise flight;

(ii) Minimum Fuel Supply for VFR Flights- Helicopters: To fly to the heliport to which the flight is planned, to fly thereafter for a period of 20 minutes at best-range speed plus 10 per cent of the planned flight time; and to have an additional amount of fuel, sufficient to provide for the increased consumption on the occurrence of potential contingencies

b) (i) Minimum Fuel Supply for IFR Flights. Regulation 8.6.2.15 of the Nigeria Civil Aviation Regulations prohibits a flight operations officer from authorising an IFR flight unless there is enough fuel supply, considering weather reports and forecasts to fly from the first point of intended landing, and from that aerodrome to the planned alternate aerodrome, if required, and to fly thereafter at normal cruising speed for 45 minutes if in a propeller driven aeroplane , and for 30 minutes if in a turbojet or turbofan aeroplane . The airoperator‘s Operations Manual should contain a clear statement of this point for pilots, flight operations officer, and load planners. An additional increment of fuel for start up, taxi, and pre-departure delays must be included in the fuel load on board the aircraft at engine start.

(ii) Minimum Fuel Supply for IFR Flights- Helicopters: To fly to the alternate specified in the flight plan; and then to fly for 30 minutes at holding speed at 450 m (1 500 ft) above the alternate under standard temperature conditions, and approach and land; and to have an additional amount of fuel sufficient to provide for the increased consumption on the occurrence of potential contingencies.

13.6 **Original Dispatch**

13.6.1 A scheduled flight should not depart from the point of origin unless a dispatch release contains specific authorisation for the flight between specified points. The dispatch release may be for a single flight or for a series of flights with intermediate stops.

13.6.2 **Flight Release Elements**. Inspectors must ensure that air operators require that the dispatch/flight release be recorded in writing and contain at least the following information as required by Regulation 8.12.1.5 of the Nigeria Civil Aviation Regulations:

a) Aircraft identification number;
b) Flight number;
c) Departure aerodrome, destination aerodromes, alternate aerodromes and route;
d) The type of operation (IFR or VFR);
e) Minimum fuel quantity required by regulation at the start of each takeoff (does not include taxi fuel).

13.6.3 **Flight Release Attachments.** Regulations 8.12.1.5 and 8.12.1.8 of the Nigeria Civil Aviation Regulations require that a dispatch/flight release contain or have attached: available weather reports, weather forecasts (or a combination thereof) for the destination aerodrome, and alternate aerodromes that are the latest available at the time the release is signed by the pilot.

a) The term "available" report includes pilot reports;

b) Any additional weather reports or forecasts that the PIC considers necessary or desirable must be included;

c) The operator must establish procedures to ensure, when a flight has been dispatched released but is unable to depart as scheduled, that the weather information is updated and is the latest available at the time of actual departure (takeoff). The operator may include procedures in the Operations Manual to have the flight operations officer forward to the flight crew any new weather information which may be operationally significant as soon as practical after the aircraft departs;

d) To ensure that the weather information is updated, the flight operations officer must prepare a new dispatch when a flight takes off and then returns to the point of departure.

13.6.4 **Flight Release** - Additional Information and Conditions. While a dispatch/flight release must contain the information specified in previous subparagraphs 13.6.2 and 13.6.3, it is not limited to that information. Additional information and conditions should be placed on or attached to the release. For example, when an in-flight re-release is planned, a statement to that effect should appear on the release. When a flight is planned under conditions that could limit the PIC's discretion, those conditions should be indicated. For example, when a flight can be safely conducted over the most direct route between two points but not over possible alternate routings that ATC might assign, that statement should be noted on the release. The operator‘s approved system under Regulation 9.3.1.21 of the Nigeria Civil Aviation Regulations for obtaining weather information should include the requirement under Regulation 8.12.1.8 of the Nigeria Civil Aviation

Regulations that the flight operations officer communicate to the PIC all information, including adverse weather phenomena, that may affect safety of flight on each route to be flown and aerodrome to be used.

13.6.5 **Flight Release Time Limits**. When an aircraft is released for a series of scheduled flights, the aircraft may only remain on the ground for 1 hour at the intermediate stop. If the ground time exceeds 1 hour, a new dispatch release is required regardless of the scheduled ground time.

13.6.6 **Destination.** A flight operations officer may designate any aerodrome that is listed in the Operations Specifications for the type of aircraft, as the destination for the purpose of the original dispatch.

13.6.7 **Aerodromes not listed in the Operations Specifications.** A flight operations officer may not release a flight from an aerodrome that is not listed in the Operations Specifications, unless the following criteria are met:

a) The aerodrome and related facilities are adequate for the operation of the aircraft ;
b) The operation is in compliance with the limitations of the flight manual and Operations Specifications;
c) The aircraft has been dispatched/released according to those rules applicable to dispatch from an approved aerodrome;
d) The weather conditions for takeoff are equal to or exceed that prescribed in regulations.Where minima are not prescribed for the aerodrome, one of the following is required: a ceiling of 800 feet and 3km visibility, a ceiling of 900 feet and 2km and 1km visibility, or a ceiling of 1,000 feet and 2km visibility.

13.7 **Amendment of a Dispatch/Flight Release**

13.7.1 In the absence of an emergency, a flight may only proceed to the destination to which it was originally dispatched/ released, and if the flight is unable to land at the original destination, it may only proceed to the designated alternate aerodrome. Regulation 8.12.1.13(a) of the Nigeria Civil Aviation Regulations allows, however, for a dispatch release to be amended while the flight is en-route. An amendment or re-release en route must be recorded. An amendment may become necessary or desirable because the conditions under which the flight was released have changed (unplanned re-release) or because it may have been planned before departure (a pre-planned, re-release).

13.7.2 **Destination Weather Requirements** While En-route. A commercial air transport flight is not prohibited from continuing toward a destination which has gone below landing minima or one which is forecast to be below landing minima at the ETA by a forecast issued after the flight has departed. For example, there may be enough fuel on board to hold overhead the destination until the weather is forecast to improve. Regulation 8.12.1.13(c) of the Nigeria Civil Aviation Regulations does, however, prohibit the PIC from continuing to the destination if the weather reports and forecasts indicate changes which would render that aerodrome unsuitable for the original flight release. Inspectors should ensure that the air operator‘s Operations Manual provides guidance to both PICs and flight operations officer for dealing with these circumstances.

13.7.3 **Alternate Weather Requirements** While En-route. In accordance with Regulation 8.6.2.7 of the Nigeria Civil Aviation Regulations an alternate aerodrome (not having published alternate minima) may be named which is below alternate minima at the time of release, but which is forecast to be at or above alternate minima at the ETA. Inspectors should ensure that the air operator's Operations Manual contains specific procedures, however, for notifying the PIC and monitoring the weather at the alternate aerodrome when the selected alternate aerodrome is below minima at departure. These procedures may require the designation of a second alternate aerodrome or that contingency fuel must be carried on the flight.

a) Conditions other than ceiling and visibility can affect minima, such as navigational aids, runway lighting, and snow removal operations. Flight operations officer must monitor these factors at designated alternate aerodromes as well as ceiling and visibility;

b) When weather conditions permit many air operators release flights without an alternate aerodrome. In some instances while the flight is en-route, the destination weather may deteriorate to below what was used to release the flight and to the point that an alternate aerodrome would have been required. The air operator's Operations Manual should contain direction and guidance to PICs and flight operations officers on how to manage such a situation;

c) The dispatch release may be amended while the aircraft is en-route to include anyaerodrome as an alternate that has the following:
   (i) Authorisation for that type of aircraft;
   (ii) Is within the fuel range of the aircraft;
   (iii) Alternate aerodrome landing weather minima.

13.7.4 **Requirements to Amend a Dispatch Release**. Before a destination aerodrome or an alternate aerodrome may be changed, the following requirements must be met:

a) The PIC and the flight operations officer must jointly approve the change;
b) The flight operations officer must be thoroughly familiar with reported and forecast weather conditions (including adverse weather) and the status of communications, navigation, and aerodrome facilities;
c) The flight operations officer must provide the information specified in previous subparagraph 13.7.2 to the PIC;
d) The destination and alternate aerodromes specified in the amended release must be forecast to be above the weather minima required in the air operator's Operations Specifications for the destination and alternate aerodromes, respectively, at the ETA;
e) The aircraft must have sufficient fuel on board at the time and point that the release was amended to complete the flight in compliance with the applicable fuel requirements (see Regulation 8.12.1.11 of the Nigeria Civil Aviation Regulations);
f) The transmission of the re-dispatch message must be recorded by the flight operations officer, and its receipt must be recorded by the PIC (see Regulation 8.12.1.13 of the Nigeria Civil Aviation Regulations).

13.7.5 **Planned Re-Release.** Planned re-release operations are conducted to conserve fuel to complete

flights at ranges which would otherwise be beyond the aircraft's fuel capacity, and to solve weather related operational problems. A scheduled operator may only conduct planned re-dispatch in extended over water operations when authorised by the air operator's Operations Specifications. Paragraph 14.0 of this Order contains a discussion of planned re-release procedures.

13.8 **Load Manifests**

13.8.1 Before each flight, a load manifest must be completed as follows:

(a) **Content of the Manifest.** A scheduled operator must prepare a load manifest in accordance with Regulation 8.6.2.16 (a) (2) of the Nigeria Civil Aviation Regulations. containing the following:
(i) Distribution of the load;
(ii) Centre of gravity;
(iii) Takeoff and landing weights;
(iv) Compliance with maximum operating weight limitations and performance analysis.

(b) **Disposition of Flight Records.** Regulation 8.6.2.16 (c) of the Nigeria Civil Aviation Regulations requires that the PIC carry the following flight records to the destination aerodrome:
(i) Load manifest;
(ii) Dispatch/Flight release (including required attachments);
(iii) Flight plan: The operator must retain these flight records for a period of time acceptable to the Authority. The Inspector must ensure that the air operator's storage methods and location provide reasonable access for inspections

13.9 **En-Route Terrain Clearance**

13.9.1 Part VII on Aircraft Operating And Performance Limitations of Part 8 of the Nigeria Civil Aviation Regulations contains limitations on weights at which aircraft may be dispatched/released due to terrain clearance requirements. Inspectors should be aware that to meet the limitations of this Part, air operators may be required to limit takeoff weights or list en-route alternate aerodromes on the dispatch release.

14.0 FLIGHT FOLLOWING SYSTEMS (CHARTER FLIGHT OPERATIONS)

14.1 **General**

14.1.1 This section contains information for inspectors about flight following/flight release systems and about the release of flights under the requirements applicable to charter flight operations.

14.1.2 **Flight Followers.** Under Regulation 8.12.1.3 of the Nigeria Civil Aviation Regulations a qualified person shall be designated by the air operator to exercise the functions and responsibilities for operational control of each flight in commercial air transport. For flights other than passenger flights conducted on a published schedule, the qualified person

exercising operational control responsibilities shall be available for consultation prior to, during and immediately following the flight operation.

(a) Part 9 of the Nigeria Civil Aviation Regulations requires that the name of each person responsible for ground operations (flight following) be listed in the air operator's Operations Manual;

(b) Charter air operators may contract with other air operators or organizations to provide certain elements of an operational control system, such as communications and flight following. In such a case, the name of each employee of the contracting organization authorised to provide such elements of operational control must be listed in the air operator's Operations Manual.

14.1.3 **Release Authority.** PICs are responsible for pre-flight planning and for the safe conduct of the flight and the flight follower have determined that the flight can be safely completed. The flight follower and the PIC share in the responsibility for operational control of each flight in commercial air transport. The flight follower is required to be available to the PIC for consultation during all phases of a flight. Where a decision of the PIC differs from that recommended by the qualified person exercising operational control authority (the flight follower) that person is required to make a record of the associated facts. Inspectors must ensure that the air operator's Operations Manual contains specific procedures to ensure that the operator, the PICs, and the flight followers are in compliance with this requirement. Unless the PIC decides it is unsafe to do so, the PIC must conduct the flight in accordance with the flight release.

14.1.4 **Flight Monitoring.** The air operator's director of operations is responsible for monitoring the progress of each flight from its point of origin to its arrival at the destination, including its arrival and departure from intermediate stops. Regulations 8.12.1.2(d) and 8.12.1.4 of the Nigeria Civil Aviation Regulations provide the PIC with authority to delay, divert, or cancel a flight when, in the opinion of the PIC, the flight cannot be operated safely as scheduled. The flight follower must actively review records of the conditions and recommendations surrounding each flight to comply with this requirement. In the case of an emergency arising during flight, known to a flight follower, the PIC must be contacted and advised of the situation. The PIC's decision on a course of action must be obtained and the PIC's decision recorded. If a flight follower cannot contact the PIC, the flight follower shall declare an emergency and take any action the flight follower considers to be necessary in the circumstances.

14.1.5 **Demonstration of Flight Follower Competence**. Regulation 9.3.1.23 of the Nigeria Civil Aviation Regulations requires that a charter operator show that each individual authorised to conduct operational control (i.e., a flight follower) is competent and able to perform the required duties. This rule applies to both employees of the operator and to contract personnel the operator authorises to perform required duties. The preferred means an operator may use to meet this requirement is to establish a flight follower training and qualification programme, which includes competency checks.

14.2 **Familiarity With Weather Conditions, Facilities and Services**

14.2.1 A PIC may not begin a flight unless the PIC is thoroughly familiar with reported and forecasted weather conditions on the route to be flown and until the PIC has obtained all available reports on aerodrome conditions and irregularities of navigation facilities that may affect the safety of the flight.

14.2.2 During the flight, the PIC must obtain any additional available information on meteorological conditions and facilities that may affect the safety of the flight. The operator is responsible for ensuring that the PIC has the means to obtain this information. The operator is not required to be able to establish in-flight radio communications with the flight to deliver this information. One acceptable means an operator may use to comply with this requirement is to contract with a commercial radio service to provide this information.

14.3 Flight Following System Facilities

14.3.1 Each charter operator must have a flight following system. The flight following system the operator uses must be described or referenced in the air operator‘s Operations Specifications. Most flight following systems are too complex to be described in a single paragraph; therefore, the preferred practice is for the system to be described in the air operator‘s Operations Manual, and referenced in the air operator‘s Operations Specifications.

14.3.2 The operator must provide one or more flight following facilities to control and monitor the progress of each flight. Each flight following facility must be equipped with communications for monitoring the departure of each flight from the point of origin to its arrival at destination (including intermediate stops, diversions, and delays). Communications may be made by means of private facilities (such as company radio) or commercial facilities (such as telephone, telex, or radio). Air operators conducting charter operations are not required to provide the capability to contact flights en-route by radio. Communications are normally considered adequate when the flight follower can transmit a message to a PIC who is on the ground at the departure, destination, or intermediate point and can then receive confirmation of receipt of that message within 15 minutes.

14.3.3 **Regulation 9.3.1.23** of the Nigeria Civil Aviation Regulations does not prohibit air operators conducting charter operations to contract with other organizations to provide operational control functions. The operator is responsible for ensuring the adequacy of all facilities, access to communications and information sources, the adequacy of policies and procedures, and the competency of flight followers (whether or not the operator or a contracting party provides them).

14.3.4 Inspectors must ensure that the air operator‘s Operations Manual contains adequate policy, guidance, and procedures for operational control personnel to perform their assigned duties, comply with regulatory requirements, and to ensure safe operations in normal, abnormal and emergency circumstances. Flight followers must be familiar with, and have access to, the air operator‘s Operations Manual when on duty.

14.4 Flight Release Form

14.4.1 Regulation 8.6.2.20 of the Nigeria Civil Aviation Regulations requires a flight plan be completed before each commercial air transport flight. Regulation 8.12.1.5 of the Nigeria Civil Aviation Regulations specifies that a flight release/operational flight plan must contain at least the following information:

a) Company or organization name;
b) Make, model, and registration number of the aircraft being used;
c) Flight or trip number;
d) Date of flight;
e) Name of each flight crew member, cabin crew member, and the pilot designated as PIC;
f) Departure aerodrome, destination aerodrome, and alternate aerodromes;
g) Route of flight;
h) Minimum fuel supply ;
i) Type of operation (such as IFR and VFR);
j) Weather reports, available weather forecasts (or a combination thereof) for the destination aerodrome and alternate aerodromes that are the latest available at the time the flight release is signed (these must be printed on, or attached to, the flight release).

14.5 Weather Requirements for Flight Release

14.5.1 Inspectors must ensure that air operators are aware of the weather requirements for the release of charter flights.

14.5.2 **Flight Release under VFR.** A charter flight shall not be released for VFR operations unless the weather reports and forecasts indicate that the flight can reasonably be expected to be completed as specified in the release. The ceiling and visibility en-route and at the destination aerodrome must be VFR and remain above applicable VFR minima until the aircraft arrives at the aerodrome or aerodromes specified in the flight release.

NOTE: *Charter flights shall not be released under VFR rules unless specifically authorised by the Operations Specifications.*

14.5.3 **IFR Takeoff Weather Minima.** Regulation 8.6.2.9 of the Nigeria Civil Aviation Regulations prohibits the release of a flight without a suitable takeoff alternate specified in the flight release if it would not be possible to return to the aerodrome of departure. When weather conditions are below the landing minima specified in the air operator‘s Operations Specifications at the departure aerodrome, the flight may not be released unless the following conditions exist:

a) For a two engine aeroplane, an alternate aerodrome is available which is not more than 1 hour from the departure aerodrome at normal cruising speed, in still air, and with one engine inoperative;

b) For an aeroplane with three or more engines, an alternate aerodrome is available which is not more than 2 hours from the departure aerodrome at normal cruising speed, in still air, and with one engine inoperative;

c) The takeoff alternate aerodrome is listed on the flight release;

d) The weather conditions at the designated takeoff alternate aerodrome meet the requirements of the air operator's Operations Specifications.

14.5.4 **Destination Weather - IFR Operations.** Regulation 8.6.2.7 of the Nigeria Civil Aviation Regulations prohibits an operator from releasing a charter flight under IFR unless the weather reports and forecasts indicate that the weather will be at or above minima required by the Operations Specifications at the destination aerodrome at the estimated time of arrival.

***Note**: A partial exemption may be granted for commercial air transport IFR flight planning, to the effect that the weather at the destination does not have to be at or above the approach minima to release and commence a flight, as long as the designated alternate aerodrome meets the IFR weather selection criteria*

14.5.5 **Alternate Weather. Regulations** 8.6.2.6 and 8.6.2.7 of the Nigeria Civil Aviation Regulations prohibits an operator from releasing a charter flight under IFR unless at least one alternate aerodrome is listed in the flight release for each destination aerodrome unless there is a standard instrument approach procedure prescribed for the destination aerodrome and available weather information indicates from two hours before to two hours after the ETA:

a) A cloud base of at least 1,000 ft above the minima associated with the instrument approach procedure; and;
b) Visibility of at least 5 km or more than the minimum associated with the procedure.

14.5.6 An air operator may apply to the Authority for a reduction to the ceiling and visibility requirements listed above where no suitable destination alternate exists.

4.6 **Fuel Supply**

14.6.1 Inspectors must be aware of the fuel planning provisions of Regulations 8.6.2.13 and 8.12.1.11 of the Nigerian Civil Aviation Regulations.

14.6.2 **Required Fuel Supply**. An operator may not release a flight for takeoff unless, considering winds and forecast weather conditions, the flight carries all of the following types of fuel:

a) **En-route Fuel**: That fuel necessary for a flight to reach the aerodrome to which it is released and then to conduct one instrument approach and a possible missed approach;

b) **Alternate Fuel:** That fuel necessary for a flight to fly from the point of completion of the missed approach at the destination aerodrome to the most distant alternate aerodrome, make an IFR approach (if the forecast indicates such conditions will exist), and then complete a landing;

c) **Reserve Fuel:** That fuel necessary for a flight to fly for 45 minutes at normal cruising fuelconsumption;

d) **Contingency Fuel:** That fuel necessary for a flight to compensate for any known traffic delays and to compensate for any other condition that may delay the landing of the flight.

Note: *The air operator's Operations Manual should contain specific policies and instructions to both flight followers and PICs for computing the amount of contingency fuel to be carried under the circumstances likely to be encountered in the air operator's specific operation.*

14.6.3 **Departure Fuel.** The fuel listed in previous subparagraph 14.6.2 must be on board the aircraft at takeoff. The flight release must include this amount. The air operator's Operations Manual should clearly state this point to pilots, flight followers, and load planners. An additional increment of fuel for start up, taxi, and predeparture delays must be included in the fuel load on board the aircraft at engine start.

14.7 **Amendment of a Flight Release**

14.7.1 In the absence of an emergency, a flight may only proceed to the destination to which it was originally released. If the flight is unable to land at the original destination, it may only proceed to the designated alternate aerodrome. Regulation 8.12.1.13 of the Nigeria Civil Aviation Regulations however, allows for an original flight release to be amended while the flight is en-route. An amendment may become necessary or desirable because the conditions under which the flight was released have changed (unplanned re-release) or because it may have been planned before departure.

14.7.2 **Destination Weather Requirements While En-route.** PICs should obtain any information on weather and facilities that may affect the safety of flight while flights are airborne. Part 8 of the Nigeria Civil Aviation Regulations does not prohibit a flight from continuing toward a destination which has gone below landing minima or one which is forecast to be below landing minima at the ETA by a forecast issued after the flight has departed. For example, there may be enough fuel on board to hold overhead the destination until the weather is forecast to improve. Regulation 8.5.1.1 of the Nigeria Civil Aviation Regulations does, however, prohibit the flight from continuing to the destination when, in the opinion of the PIC, it is unsafe to do so. Inspectors should ensure that the air operator's Operations Manual provides guidance to both PICs and flight followers for dealing with these circumstances.

14.7.3 **Alternate Weather Requirements While En-route.** In accordance with Regulation 8.6.2.7 of the Nigeria Civil Aviation Regulations, an alternate aerodrome (not having published alternate minima) may be named which is below alternate minima at the time of release, but which is forecast to be at or above alternate minima at the ETA. Inspectors should ensure that the air operator's Operations Manual contains specific procedures for notifying the PIC and for monitoring the weather at the alternate aerodrome when the selected alternate aerodrome is below minima at departure. These procedures may require the designation of a second alternate aerodrome or that contingency fuel must be carried on the flight.

a) Conditions other than ceiling and visibility can affect minima, such as navigational aids, runway lighting, and snow removal operations. PICs and flight followers must monitor

these factors as well as ceiling and visibility at designated alternate aerodromes;

b) When weather conditions permit, many air operators release flights without an alternate aerodrome. In some instances, while the flight is en-route, destination weather may deteriorate to below what was used to release the flight and to the point that an alternate aerodrome would have been required. The air operator's Operations Manual must contain direction and guidance to PICs and flight followers on how to manage such a situation;

c) The flight release may be amended while the aircraft is en-route to include any aerodrome as an alternate that has the following:
   (i) Authorisation for that type of aircraft;
   (ii) Is within the fuel range of the aircraft;
   (iii) Alternate aerodrome landing weather minima.

14.7.4 **Requirements to Amend a Flight Release.** Before a destination aerodrome or an alternate aerodrome may be changed, the following requirements must be met:

a) The PIC and the flight follower must jointly approve the change;

b) The PIC must be thoroughly familiar with reported and forecast weather conditions (including adverse weather) and the status of communications, navigation, and aerodrome facilities;

c) The destination and alternate aerodromes specified in the amended release must be forecast to be above the weather minima required in the air operator's Operations Specifications for the destination and alternate aerodromes, respectively, at the ETA;

d) The aircraft must have sufficient fuel on board at the time and point that the release was amended to complete the flight in compliance with the applicable fuel requirements;

e) Each person who amends a flight release must record that amendment.

14.7.5 **Pre-planned Amendment of a Flight Release.** A charter operator may only conduct planned re-release operations when authorised by the air operator's Operations Specifications.

Note: *This authorisation does not apply to the amendment of flight plans for domestic operations.*

14.8 **En-route Terrain Clearance**

14.8.1 Regulation 8.8.7 on Aircraft Operating and Performance Limitations of the Nigeria Civil Aviation Regulations contains the limitations on weights at which aircraft may be released due to terrain clearance requirements. While these limitations apply to all types of aircraft used in commercial air transport, they are particularly restrictive to two engine aircraft operated in mountainous terrain.

14.8.2 Inspectors should be aware that to meet the limitations in Part 8.7 on Aircraft Operating and Performance Limitations of Part 8 of the Nigeria Civil Aviation Regulations air operators may

be required to limit takeoff weights or to list en-route alternate aerodromes on the flight release.

15.0 OPERATIONAL CONTROL INSPECTIONS

15.1 General

15.1.1 An operational control inspection has two primary objectives. The first objective is for the inspector or team to ensure that the operator is in compliance with the minimum requirements specified in the Regulations and the operations specifications. The second objective is for the inspector or team to ensure that the operator's system of control provides positive assurance of public safety.

15.1.2 The operator must meet both objectives to obtain and retain an operating certificate under Regulation 9.1.1.4 of the Nigeria Civil Aviation Regulations. To make this determination, the inspector or team must evaluate the operator to ensure that the following criteria are met:

a) Responsibility for operational control is clearly defined;

b) An adequate number of operational control personnel are provided;

c) Applicable manuals contain adequate policy and guidance to allow operational control personnel and flight crew to carry out their duties efficiently, effectively, and with a high degree of safety;

d) Operational control personnel are adequately trained, knowledgeable, and competent in the performance of their duties;

e) Flight control personnel and flight crew have been provided with the necessary information for the safe planning, control, and conduct of all flights;

f) The operator provides adequate facilities;

g) The operator performs all operational control functions required by the regulations;

h) The operator performs all functions necessary to provide adequate operational control in the environment in which the operations are conducted;

i) Adequate emergency procedures and contingency plans have been formulated.

15.2 Practices and Procedures

15.2.1 Inspectors conduct operational control inspections through systematic manual reviews, records inspections, observations, and interviews.

15.2.2 **Inspector Preparation and Manual Review.** Before starting an operational control inspection, the inspector should become thoroughly familiar with the sections of this Order that are applicable to the operator. Inspectors must then become familiar with the operational control sections of the

operator s Operations Manual. This manual review is both the first step in the inspection process and preparation for subsequent steps. The checklists for the various aspects of the inspection contain the topics that should be included in the operator's manuals. Inspectors should use the checklists located at the end of this Part to determine if the necessary topics are covered.
In doing this the Inspector will need to utilize both checklist : CL:O-OPS 004 and CL:O-OPS 020B

15.2.3 Records Checks, Interviews, and Observations. The inspector should establish with the operator a mutually convenient time for conducting the records checks and interviews.

a) Inspectors must conduct interviews with both management and working level personnel to meet inspection objectives. Inspectors should plan these interviews so that the required information can be obtained without distracting personnel from their duties and responsibilities. To prevent intruding into actual operations, the inspector should, if possible, conduct these interviews privately and away from the operations premises;

b) **Inspectors must observe actual flight release operations.** Before beginning these observations, an inspector should request a tour of the operator's facility for orientation, during which the inspector should observe a number of different people at work. The inspector should ask questions; however, care must be taken not to distract or interfere with the individuals in the performance of their assigned duties. An effort should be made by the inspector to make observations during periods of peak activity, adverse weather, or during non-routine operations. Inspectors of large operators should arrange to have these observations conducted at random times throughout the year, preferably in periods of inclement weather;

c) Inspectors should observe competency checks being conducted to evaluate the knowledge level of the flight operations officer and the performance of the supervisor.

15.3 Policies and Procedures

15.3.1 The following general policies and procedures apply:

a) **Authorised Operations:**

(i) Are the operations that may and may not be conducted according to the Operations Specifications (including areas of operation) clearly specified?

(ii) Are there clear definitions of scheduled and charter operations? Are there clear definitions of the rules under which each of these operations are conducted?

(iii) Are the applicable Regulations identified and the operators policies applicable to each type of operation clearly stated?

b) **Manuals:**

(i) Is there a section of the Operations Manual in which the policy and guidance for operational control have been collected for the guidance of flight crew and Flight operations officers?

(ii) Are the topics listed on this checklist adequately covered?

(iii) Is the applicable section of the Operations Manual readily available to flight operations officers and flight crew while they perform their duties?

(iv) Is the copy of the operator's Operations Manual that is available to flight operations

officers or flight crew current?

c) **Original Release:**

(i) Are the conditions clearly stated under which a flight may and may not be dispatched/released?

(ii) Are the conditions stated under which a flight must be re-routed, delayed, or cancelled?

(iii) Does the flight release contain all the required elements?

(iv) Are limitations required in the remarks of the release?

(v) Is a written copy of weather reports and forecasts including Pilot Reports (PIREPs) and NOTAMs attached to the release and provided to the flight crew?

d) **Responsibility for Pre-departure Functions:**

(i) Are the responsibility and procedures for accomplishing the following functions clearly specified?

(a) Crew assignment;
(b) Load planning;
(c) Aircraft routing;
(d) Flight planning;
(e) Release of the aircraft from maintenance;
(f) Control of MEL and CDL limitations;
(g) Mass and balance.

(ii) Have adequate procedures for cross-checking and verifying these activities been established?

(iii) Is each of these procedures effective?

(iv) What means has the operator established for the PIC and flight operations officer to ensure that each of these functions has been satisfactorily accomplished before the aircraft departs?

e) **Flight Operations Officer Briefing:**

(i) How do the operator s procedures provide for briefing of the PIC by the flight operations officer?

(ii) Is the minimum content of the briefing specified and adequate?

f) **Dual Responsibility:**

(i) How are the signatures of both the PIC and the flight operations officer on the dispatch release accomplished?

(ii) Is the PICs obligation to operate the flight according to the release, or to obtain an amended release, clearly stated?

g) **Flight Following:**

(i) Are the flight operations officer, flight following requirements and procedures clearly stated?

(ii) Is policy and guidance provided to flight crew and flight operations officers for monitoring fuel en-route?

(iii) Are flight crew reporting requirements and procedures clearly stated?

(iv) Are there specified procedures for the flight operations officer to follow when a required report is not received?
(v) Is a record of communications made and retained?

h) **Inability to Proceed as Released:**
(i) Is a policy stated concerning the PICs latitude to deviate from a dispatch release without obtaining a new release?
(ii) Is there specific and adequate direction and guidance to PICs and flight operations officers for the actions to take when a flight cannot be completed as planned (such as destinations or alternates below minima, runways closed or restricted)?
(iii) Are procedures to follow specifically and clearly stated in case of diversion or holding?

i) **Weather:**
(i) Does the operator obtain weather reports from an approved source?
(ii) Are forecasts based on approved weather reports?
(iii) Does the operator have an adverse weather system?
(iv) Does the operator have adequate procedures for providing the latest available weather reports and forecasts to flight crew while the flight is en-route?
(v) Does the operator have adequate procedures for updating weather information when the aircraft is delayed on the ground?

j) **Weather Minima:**
(i) Is release under VFR authorised by the Operations Specifications?
(ii) If so, has the forecast and actual weather allowed VFR flight to destination on those flights so released?
(iii) Have turbojet aircraft been released under VFR?
(iv) What IFR departure minima are authorised by the Operations Specifications?
(v) When flights are released with the departure aerodrome below landing minima, are takeoff alternates named on the dispatch release?
(vi) What destination weather minima are authorised by the Operations Specifications?
(vii) What weather minima are authorised for captains under the Operations Specifications that do not meet the requirements of regulation of Part 8 of the Nigeria Civil Aviation Regulations.
(viii) When destination alternates are required, are they named on the dispatch release?
(ix) Is the weather at the named alternate aerodrome equal or better than that required by the Operations Specifications?
(x) Is orginal" defined for the designation of two alternates on the dispatch release?
(xi) Are two alternates designated when required?
(xii) How does the operator ensure that the flight operations officers are aware of these limitations before dispatching a flight?
(xiii) Do weather forecasts from the trip records show that these limits have been

complied with for dispatch?

(k) **Selection of Alternates:**

(i) Is policy, direction, and guidance provided for the selection of alternates?

(ii) Is terrain and engine-out performance considered in the alternate selection?

l) **NOTAMs:**

Is the required NOTAM information provided?

m) **Information:**

(i) What provisions does the operator make for supplying aerodrome and navigation information?

(ii) What means does the operator use to comply with the requirement for an aerodrome data system? Is it adequate?

(iii) Are flight crew provided with written flight plans for monitoring flight progress and fuel burn?

(iv) How does the operator provide data flight operations officer on takeoff and landing minima at each aerodrome?

(v) Does the flight operations officer have immediate access to such data?

(vi) Are provisions made for non-standard operations, such as inoperative centerline lighting?

n) **Fuel**

(i) Are all the required increments of fuel provided (start and taxi, takeoff to arrival at destination, approach and landing, missed approach, alternate fuel, 45 minutes of reserve, and contingency fuel)?

(ii) Are the operator s policies concerning contingency fuel adequate for the environment in which operations are conducted?

(iii) Are there minimum fuel procedures specified for both flight operations officers and PICs?

(iv) When aircraft are dispatched/released without an alternate, is adequate contingency fuel carried for un-forecasted winds, terminal area delays, runway closures, and contingencies?

o) **Emergency Procedures:**

Are emergency action procedures and checklists published and readily available for the following emergencies?

(i) In-flight Emergency;

(ii) Crash;

(iii) Overdue or missing aircraft;

(iv) Bomb threat;

(v) Hijacking.

p) **Changeover Procedures:**

Is an adequate overlap provided for the flight operations officer being released to brief the oncoming flight operations officer on the situation?

q) **Trip Records:**

i) Are the required trip records carried to destination?

(ii) Are trip records retained for the period specified by the Authority?

15.3.2 **Flight Operations Officer/Flight Dispatcher** - The following requirements apply:

a) **Qualification:**

(i) Are all flight operations officers authorised?

(ii) Have all flight operations officers successfully completed a competency check within the eligibility period?

(iii) Have all flight operations officers completed route familiarisation within the proceeding 12 calendar months?

(iv) How does the operator ensure that flight operations officers are currently familiar with the areas in which they work?

(v) How are meteorologists qualified?

b) **Knowledge of Weather:**

(i) Are flight operations officers knowledgeable about the following weather conditions?

(a) Surface (fronts, fog, low ceilings, etc.);

(b) Upper Air (tropopause, jet streams);

(c) Turbulence (pressure and temperature gradients);

(d) Severe (low level windshear, microburst, icing, thunderstorms).

(ii) Can the flight operations officer read an aerodrome report (METAR) forecast accurately and interpret the meanings?

(iii) Can the flight operations officer read various weather depiction charts and interpret the meanings?

(iv) Can the flight operations officer read upper air charts and interpret the meanings?

c) **Knowledge of the Area:**

(i) Does the flight operations officer immediately recognise the aerodrome identifiers for the aerodromes in the area in which they are working?

(ii) Are flight operations officers generally familiar with the aerodromes in the area in which they are working (number and length of runways, available approaches, general location, elevation, and surface temperature limitations)?

(iii) Are flight operations officers aware of which aerodromes, in the areas in which they are working, are special aerodromes, and why?

(iv) Are flight operations officers aware of the terrain surrounding the aerodromes in the areas in which they are working?

(v) Are flight operations officers aware of dominant weather patterns and seasonal variations of weather in the area?

(vi) Are flight operations officers aware of route segments limited by drift down?

d) **Knowledge of Aircraft and Flight Planning:**

(i) Are the flight operations officer aware of the general performance characteristics of each aircraft with which they are working (such as average hourly fuel burn, holding fuel, engine-out, drift down height, effect of an additional 50 knots of wind, effect of a 4,000 foot lower altitude, crosswind limits, maximum takeoff and landing weights, required runway lengths)?

(ii) Can the flight operations officer read and explain all the items on the operator's flight plan?

e) **Knowledge of Policy:**

(i) Are flight operations officers knowledgeable of the Operations Specifications, particularly such items as authorised minima?

(ii) Are flight operations officers aware of the policies and provisions of the operator s manual as discussed under policies and procedures?

f) **Knowledge of Responsibilities:**

(i) Are flight operations officers knowledgeable of their responsibilities under Part 8 of the Nigeria Civil Aviation Regulations (such as briefing PIC; cancelling, rescheduling, or diverting for safety; in-flight monitoring; in-flight notification of PIC)?

(ii) Are flight operations officers knowledgeable of their responsibilities under the operator's manual as discussed in paragraph II A?

(iii) Are flight operations officers aware of their obligation to declare emergencies?

g) **Proficiency:**

(i) Are flight operations officers competent in the performance of their assigned duties?

(ii) Are flight operations officers alert for potential hazards?

h) **Duty Time:**

Are duty time requirements being complied with?

15.3.3 **Supervisors -** The following requirements apply:

a) Qualification. Are supervisors qualified and current as the flight operations officer?

b) Conduct of Checks. Are competency checks appropriate, thorough, and rigorous?

15.3.4 **Facilities and Staff** - The following requirements apply:

a) **Physical:**

(i) Is enough space provided for the number of people working in the dispatch centre?

(ii) Are the temperature, lighting, and noise levels conducive to effective human performance?

(iii) Is the access to the facility controlled?

b) **Information:**

(i) Are flight operations officers supplied with all the information they require (such as

flight status, maintenance status, load, weather, facilities)?

(ii) Is the information effectively disseminated and displayed? Can information be quickly and accurately located without overloading the flight operations officer?

(iii) Are real time weather displays available for adverse weather avoidance?

c) **Communications:**

(i) Can a flight operations officer establish rapid and reliable radio communications (voice or ACARS) with a captain when a flight is parked at the gate?

(ii) How much time does it take to deliver a message to an en-route flight and get a response?

(iii) Are direct voice radio communications available at all locations? Are they reliable? If communications facilities are shared with other airlines, does traffic congestion preclude rapid contact with a flight?

(iv) If hub and spoke operations are conducted, are there adequate communication facilities available to contact and deliver a message to all arriving flights within a 15-minute period?

(v) Are backup communications links available in case of a failure of the primary links?

d) **Management:**

(i) Has overall responsibility for operations in progress been assigned to one individual who can co-ordinate the activities of the entire flight operations officer?

(ii) Have procedures been established for co-ordinating with central flow control?

(iii) Have adequate internal communications links been established?

e) **Workload:**

(i) What method does the operator use to show compliance with the requirement to assign enough flight operations officers during periods of normal operations and periods of non-routine operations?

(ii) Are the operator s methods adequate?

(iii) Does the flight operations officer have enough time to perform both dispatch and flight following duties in a reasonable manner?

PART 12.0 - FLIGHT RELEASE CHECKLIST

NOTE: This checklist applies to all charter operators

POLICIES AND PROCEDURES

1. The following general policies and procedures apply:

(a) Authorised Operations:

Are the operations that may and may not be conducted according to the Operations Specifications, including areas of operation, clearly specified?

(b) **Manuals:**

i) Is there a section of the Operations Manual in which the policy and guidance for operational control has been collected for the guidance of flight crew and flight followers?
(ii) Are the topics listed on this checklist adequately covered?
(iii) Is the applicable section of the Operations Manual readily available to flight followers and flight crew while they perform their duties?
(iv) Is the operator's Operations Manual current?

(c) **Original Release:**

(i) Are the conditions clearly stated under which a flight may and may not be released?
(ii) Are the conditions stated under which a flight must be re-routed, delayed, or cancelled?
(iii) Does the flight release contain all of the required elements?
(iv) Are limitations placed in the remarks?
(v) What provisions are made for PICs and flight followers to obtain weather reports and forecasts (including PIREPs and NOTAMs)?

(d) **Responsibility for Pre-departure Functions**:

(i) Are the responsibilities and procedures clearly specified for accomplishing the following functions?

aa) Crew assignment;
bb) Load planning;
cc) Aircraft routing;
dd) Flight planning;
ee) Release of the aircraft from maintenance;
ff) Control of MEL and CDL limitations;
gg) Weight and balance.

(ii) Have adequate procedures been established for cross-checking and verifying these activities?
(iii) Is each of these procedures effective?
(iv) What means has the operator established for the PIC and flight follower to ensure that each of these functions has been accomplished satisfactorily before the aircraft departs?

(e) **Dual Responsibility:**

(i) How the concurrence of the flight follower is obtained before the PIC signs the release?

(ii) Is the PICs obligation to operate the flight according to the release or to obtain concurrence of the flight follower for an amended release clearly stated?

(f) **Flight Following:**

(i) Are the flight follower s duties and procedures clearly stated?

(ii) Is policy and guidance provided to flight followers for monitoring flight movements?

(iii) Are flight following procedures effective?

(g) **Inability to Proceed as Released:**

(i) Is a policy stated concerning the PICs latitude to deviate from the flight release without obtaining a new release?

(ii) Is there specific and adequate direction and guidance to PICs and flight followers for the actions to take when a flight cannot be completed as planned (such as destinations or alternates below minima, runways closed or restricted)?

(iii) Are procedures to follow specifically and clearly stated in case of a diversion or holding?

(h) **Weather:**

(i) Does the operator obtain weather reports from an approved source?

(ii) Are forecasts based on approved weather reports?

(iii) Does the operator have an adverse weather system?

(iv) Does the operator have adequate procedures for the flight crew to obtain the latest available weather report while the flight is en-route?

(v) Does the operator have adequate procedures for updating weather information when the aircraft is delayed on the ground?

(i) **Weather Minima:**

(i) Is release under VFR authorised by the Operations Specifications?

(ii) If so, have the forecast and actual weather report allowed VFR flight to proceed to destination on those flights so released?

(iii) Have turbojet aircraft been released under VFR?

(iv) What IFR departure minima are authorised by the Operations Specifications?

(v) When flights are released with the departure aerodrome below landing minima, are takeoff alternates named on the flight release?

(vi) What destination weather minima are authorised by the Operations Specifications?

(vii) What weather minima are authorised for —high minima" captains in the Operations Specifications?

(viii) When destination alternates are required, are they named on the flight release?

(ix) Is the weather at the named alternate aerodrome equal to or better than that required by the Operations Specifications?

(x) Is —marginal" defined for the designation of two alternates on the dispatch release?

(xi) Are two alternates designated when required?

(xii) How does the operator ensure that flight followers are aware of these limitations before concurring with the release of a flight?

(xiii) Do weather forecasts from the trip records show that these limits have been complied with for dispatch?

(j) **Selection of Alternates:**

(i) Are policy, direction, and guidance provided for the selection of alternates?
(ii) Are terrain and engine-out performance considered in alternate selection?
(iii) Is an alternate aerodrome always designated?

(k) **NOTAMs:**
Is the required NOTAM information provided?

l) **Information**
(i) What provisions does the operator make for supplying aerodrome and navigation information?
(ii) What means does the operator use to comply with the requirement for an aerodrome data system? Is it adequate?
(iii) Are flight crew provided with written flight plans for monitoring flight progress and fuel burn?
(iv) How does the operator provide data to flight followers on takeoff and landing minima at each aerodrome?
(v) Do flight followers have immediate access to such data?
(vi) Are provisions made for non-standard operations such as inoperative centre line lighting?

m) **Fuel:**
(i) Are all of the required increments of fuel provided (such as start and taxi, takeoff to arrival at destination, approach and landing, missed approach, alternate fuel, 30 minutes of reserve, and contingency fuel)?
(ii) Are there minimum fuel procedures specified for both flight operations officers and PICs?
(iii) Are the operator‘s policies concerning contingency fuel adequate for the environment in which operations are conducted?

(n) **Emergency Procedures:**
Are emergency action procedures and checklists published and readily available?
(i) In-flight Emergency;
(ii) Crash;
(iii) Overdue or missing aircraft;
(iv) Bomb threat;
(v) Hijacking.

(o) **Changeover Procedures:**
Is an adequate overlap provided for the flight follower being released to brief the oncoming flight follower on the situation?

(p) **Trip Records:**
(i) Are the required trip records carried to destination?

(ii) Are trip records retained for 30 days?

FLIGHT FOLLOWERS

2. The following requirements apply:

(a) **Qualification:**

(i) What means does the operator use to comply with the requirement that flight followers are competent? Is the operator s method effective?

(ii) How does the operator ensure that flight followers are currently familiar with the areas in which they work?

(iii) How are meteorologists qualified?

(b) **Knowledge of Weather:**

(i) Are flight followers knowledgeable of the following weather conditions?

aa) Surface (fronts, fog, low ceilings);

bb) Upper Air (tropopause, jet streams);

cc) Turbulence (pressure and temperature gradients);

dd) Severe (low level windshear, microburst, icing, thunderstorms).

(ii) Can flight followers read a terminal report, forecast accurately, and interpret the meanings?

(iii) Can flight followers read various weather depiction charts and interpret the meanings?

(iv) Can flight followers read upper air charts and interpret the meanings?

(c) **Knowledge of the Area:**

(i) Do flight followers immediately recognise the aerodrome identifiers for the aerodromes in the area in which they are working?

(ii) Are flight followers generally familiar with the aerodromes in the area in which they are working (number and length of runways, available approaches, general location, elevation, and surface temperature limitations)?

(iii) Are flight followers aware of which aerodromes, in the areas in which they are working, are special aerodromes and why?

(iv) Are flight followers aware of the terrain surrounding the aerodromes in the areas in which they are working?

(v) Are flight followers aware of dominant weather patterns and seasonal variations of weather in the area?

(vi) Are flight followers aware of route segments limited by drift down?

(d) Knowledge of Aircraft and Flight Planning:

(i) Are flight followers aware of the general performance characteristics of each aircraft with which they are working (such as average hourly fuel burn, holding fuel, engine-out drift down height, effect of an additional 50 knots of wind, effect of a 4,000 foot lower altitude, crosswind limits, maximum takeoff and landing weights, required runway lengths)?

(ii) Can flight followers read and explain all the items on the operator‘s flight plan?

(e) **Knowledge of Policy:**

(i) Are flight followers knowledgeable of the Operations Specifications, particularly authorised minima?
(ii) Are flight followers aware of the policies and provisions of the operator s manual as discussed under policies and procedures?
(f) Knowledge of Responsibilities:

(i) Are flight followers knowledgeable of their responsibilities under the Regulations?
(ii) Are flight followers knowledgeable of their responsibilities under the operator's manual as discussed in paragraph II A?

(g) **Proficiency:**
(i) Are flight followers competent in the performance of their assigned duties?
(ii) Are flight followers alert for potential hazards?

FACILITIES AND STAFF

3. The following apply:
(a) Physical:

(i) Is enough space provided for the number of people working in the flight following centre?
(ii) Are the temperature, lighting, and noise levels conducive to effective human performance?
(iii) Is access to the facilities controlled?

(b) Information:
(i) Are flight followers supplied with all the information they require (flight status, maintenance status, load, weather, facilities)?
(ii) Is information effectively disseminated and displayed? Can information be quickly and accurately located without overloading the flight follower?
(iii) Are real time weather displays available for adverse weather avoidance?

(c) Communications. Can a flight follower establish reliable communications with a PIC before release?

(d) Management:

(i) Has overall responsibility for operations in progress been assigned to one individual who can co-ordinate the activities of all flight followers?
(ii) Have procedures been established for co-ordinating with central flow control?
(iii) Have adequate internal communications links been established?

(e) Workload.

(i) What methods does the operator use to show compliance with the requirement to assign enough flight followers during periods of normal operations and periods of

nonroutine operations? Are the operator s methods adequate?

(ii) Do flight followers have enough time to perform both release and flight following duties in a reasonable manner?

FLIGHT FOLLOWERS

4. The following requirements apply:

(a) **Qualification:**

How does the operator ensure that flight followers are currently familiar with the areas in which they work? Are flight followers given en-route familiarisation in extended overwater operations?

(b) **Knowledge of Extended Range Operations:**

Are flight followers knowledgeable in the performance characteristics of each aircraft with respect to overwater considerations (such as average hourly fuel burn, engine-out, drift down height, engine-out cruise performance, effect of an additional 50 knots of wind on Equal Tim Point (ETPs), effect of a 4,000 foot lower altitude, relationship of single engine and 2 engine ETPs)?

(c) **Knowledge of the Area:**

(i) Do flight followers immediately recognise the aerodrome identifiers for the aerodromes in the area in which they are working?

(ii) Are flight followers generally familiar with the aerodromes in the area in which they are working (number and length of runways, available approaches, general location, elevation, and surface temperature limitations)?

(iii) Are flight followers aware of which aerodromes are special aerodromes in the areas in which they are working, and why?

(iv) Are flight followers aware of dominant weather patterns and seasonal variations of weather in the area (such as monsoons and jet streams)?

(v) Are flight followers aware of route segments limited by drift down, engine-out performance, or depressurisation considerations?

(vi) Are flight followers aware of the available en-route alternates and the characteristics of these aerodromes?

(d) Knowledge of Special Fuel Reserves and Planned Re-release: When special fuel reserves or planned re-releases are authorised, are flight followers thoroughly versed in these procedures and requirements?

CHAPTER 17

Issuance of the Air Operator Certificate, Operations Specifications and Completion of the Certification Report

1.0 PURPOSE

This Chapter provides direction and guidance to be used by the Authority inspectors for processing, issuing the air operator certificate, operations specifications and completing the certification report.

2.0 REFERENCES

2.1 Regulations 9.1.1.6 and 9.1.1.7 of the Nigeria Civil Aviation Regulations.

2.2 FORM: O-OPS001A

3.0 CERTIFICATION PHASE

3.1 The certificate and approved Operations Specifications (OpSpecs) are issued to the applicant after all regulatory requirements have been met. This action completes the certification process. The applicant shall not be certified under any circumstance until the Certification Project Manager (CPM) has determined that the applicant is fully capable of fulfilling his responsibilities and that the applicant will comply with the Nigeria Civil Aviation Regulations in an appropriate manner.

3.2 **After certification:**

3.2.1 The air operator is responsible for continued compliance with Regulations, authorisations, limitations, and provisions of his Certificate and OpSpecs;

3.2.2 The Authority is responsible for conducting periodic inspections of the air operator‘s operations to ensure the air operator continue to comply with the Regulations, authorisations, limitations and provisions of his certificate and OpSpecs.

4.0 PREPARATION OF A CERTIFICATE

4.1 The following information must be printed or typed on the certificate:

4.1.1 The Air Operator‘s Name: The air operator‘s full and official name shall be entered directly below the words This certifies that”.

4.1.2 The Air Operator‘s Business Address: The physical location and mailing address of the air operator‘s principal base of operations shall be entered directly below the operator‘s name.

4.1.3 The Certificate Statement of Authority: The pre-printed certification statement of authority on the Air Operator Certificate shall not be modified;

4.1.4 The Certificate Number: The certificate will bear a certificate number and will be printed in the space provided on the form.

4.1.5 The date of issue: The date to be entered in the space provided shall be the date the certificate is signed.

4.1.6 The Effective date: The date to be entered in the space provided is the date of the start of operations in case of initial issue and the day after expiry date of the previous certificate in case of renewal.

4.1.7 The Expiry date: The period of validity of an Air Operator Certificate will not exceed calendar months. Therefore, the expiry date to be entered in the space provided is the date representing the applicable number of calendar months from the initial issue date. For example, if the initial issue date was 15 April 2004, and the effective period is twelve months, the expiry date to be entered is 14 April 2005.

4.1.8 The Name: The name and title of the person signing the certificate shall be entered in the space provided. The person signing the certificate shall be a person authorized to sign as the Authority or on behalf of the Authority.

4.1.9 The Signature: The full signature of the authorized person signing the certificate as the Authority or on behalf of the Authority and whose name is printed in the certificate.

5.0 ISSUE OF OPSPECS AND CERTIFICATE

5.1 When it is determined that the applicant has met all regulatory requirements, the appropriate certificate and OpSpecs will be presented to the applicant. The OpSpecs will be prepared in accordance with the procedures in NCAA-O-OPS002.

5.2 An applicant for an air operator certificate will not, for any reason, be issued OpSpecs or a certificate until the applicant has presented a copy of Air Transport Licence (ATL) to the CPM. Before issue, the OpSpecs will be signed by the applicant and the appropriate Authority inspectors. The original certificate and OpSpecs will then be given to the Air Operator and copies retained in the Authority operator‘s file.

6.0 CERTIFICATION REPORT

6.1 When the operator is certified, the CPM is responsible for assembling a certification report. This report must be signed by the CPM and will include the name and title of each team member who assisted in the certification project.

6.2 The report will be maintained in the permanent file relating to the air operator during the business life of the operator. The report shall consist of 10 sections, 1 through 10, as follows:

6.2.1 Section 1 - A copy of the AOC and Operations Specifications;

6.2.2 Section 2 - Formal Application Letter;

6.2.3 Section 3 - A copy of the operations certification report;

6.2.4 Section 4 - A copy of all operations approvals issued;

6.2.5 Section 5 - A copy of the airworthiness certification report;

6.2.6 Section 6 - A copy of all airworthiness approvals issued;

6.2.7 Section 7 - A copy of the final compliance report;

6.2.8 Section 8 - Copies of the operations inspection and demonstration reports;

6.2.9 Section 9 - Copies of the airworthiness inspection and demonstration reports;

6.2.10 Section 10 - A summary of major difficulties experienced during the certification process and/or any recommendations that may enhance the process must be noted by phase and speciality. For standardisation, the format for summaries of major difficulties and/or recommendations will be arranged as follows:

a) Pre-application Phase: Include summaries of difficulties or recommendations made by operations and airworthiness inspectors;
b) Formal Application Phase: Include summaries of difficulties or recommendations made by operations and airworthiness inspectors;
c) Document Compliance Phase: Include summaries of difficulties or recommendations made by operations and airworthiness inspectors;
d) Demonstration and Inspection Phase: Include summaries of difficulties or recommendations made by operations and airworthiness inspectors.

7.0 RETENTION OF THE CERTIFICATION REPORT

7.1 The certification report shall be forwarded to the Director General/ Managing Director through the Director responsible for safety oversight for review and action, if appropriate. The review process shall include an analysis of the major difficulties experienced during the certification process.

7.2 The Authority shall retain the certification report as long as the certificate holder remains active.

CHAPTER 18

Review of Manual Containing Simulator/Training Device Process

1.0 PURPOSE

This Chapter is guidance to Flight Operations Inspectors on how to review the manual containing simulator training device process.

2.0 REFERENCES

2.1 Regulation 9.3.1.3 of the Nigeria Civil Aviation Regulations.

2.2 Regulation 8.10.1.14 of the Nigeria Civil Aviation Regulations.

2.3 CHECKLIST: CL: O-OPS020

3.0 GUIDANCE AND PROCEDURES

The simulator training device process should include policies, procedures, instructions and information necessary to ensure that aircraft simulators, training devices and training aids meet the requirements for the approved training programme.

CHAPTER 19

Approval and Observation of Check Pilot/Flight Engineer

1.0 PURPOSE

This Chapter addresses guidance and procedures for approval and surveillance of a check pilot/flight engineer as described under Regulations 8.10.1.38 and 8.10.1.39 of the Nigeria Civil Aviation Regulations. All check Pilots must be approved by the Authority.

2.0 REFERENCES

2.1 Regulations 8.10.1.38, 8.10.1.39, 8.10.1.40 and IS 8.10.1.40 of the Nigeria Civil Aviation Regulations.

2.2 Nigerian Civil Aviation Authority Order No. NCAA- O-GEN003.

2.3 CHECKLIST: CL:O-OPS021

3.0 GENERAL

3.1 Approval is based on a pilot/Flight Engineer having a valid licence and ratings, being qualified in accordance with the operator's approved initial, transition, or upgrade training programme; having completed the operator's approved check pilot training programme for the appropriate check pilot functions and having demonstrated the ability to conduct flight checks and to evaluate the performance of Pilots to the satisfaction of the Authority.

3.2 The check pilot approval process follows the five phases of the general process described in NCAA-O-GEN003.

4.0 OPERATOR FAMILIARIZATION WITH CHECK PILOT REQUIREMENTS AND LETTER OF REQUEST

4.1 The first phase of the check pilot approval process involves a discussion between the operator and the Inspector assigned to conduct the evaluation. The Inspector should ensure that the operator understands the check pilot training requirements and that a check pilot candidate must satisfactorily demonstrate the ability to perform check pilot functions to an Inspector before approval.

4.2 The Inspector should also ensure that the operator has knowledge of the necessary documentation for initiating the approval process, which is as follows:

4.2.1 The Letter of Request constitutes the operator's nomination. It originates from the operator, not an ATO candidate or some other party. It includes-

a) The pilot's full name;

b) Mailing address;
c) Applicable pilot's licence number;
d) Current crew member position;
e) Requested check pilot/flight engineer classification; and
f) Aircraft type;

4.2.2 Brief resume of the pilot's aviation background and experience;

4.2.3 Copies of the pilot's appropriate licence and medical certificates; and

4.2.4 Copy of the pilot's medical certificate.

5.0 SUBMISSION OF DOCUMENTATION

Phase two begins when the operator submits the requested documentation to the Authority for evaluation. This submission may be transmitted by conventional or electronic mail or by fax. The Inspector shall initially review the information to determine if the check pilot/flight engineer candidate meets the basic qualification requirements for the type of check pilot/flight engineer approval sought. If the operator's submission is unacceptable, the Inspector should return the submitted documentation with a statement of the reason for non acceptance. If the operator's submission is acceptable, the Inspector should initiate phase three.

6.0 REVIEW OF DOCUMENTATION

6.1 Where the check pilot/flight engineer candidates record is not already on file. The Inspector shall then verify candidate‘s qualifications and background and create a file for the individual under a folder labeled ~~C~~heck Pilots”/ ~~F~~light Engineer”.

6.2 Before the Inspector can evaluate a pilot for approval as a check pilot/flight engineer, all required training must be completed. The pilot's training records must show satisfactory completion of initial, transition, or upgrade training and all training required under the operator's approved check pilot/flight engineer training programme for the specified classification.

6.3 The approved training programme must contain all training required by Regulation 10.1.40 of Part 8 of the Nigeria Civil Aviation Regulations applicable to the approval being sought. When the pilot's records show that the pilot has previously completed a required curriculum segment, the segment does not have to be repeated.

6.4 If, after reviewing the documentation, the Inspector determines that the candidate does not qualify as a check pilot/flight engineer, the Inspector shall brief the Director responsible for safety oversight and provide the operator with a statement of the reason for non acceptance.

7.0 CHECK PILOT/FLIGHT ENGINEER EVALUATION

7.1 In order to evaluate a check pilot/flight engineer candidate effectively, inspectors must become

thoroughly familiar with the operator's procedures. Inspectors must also become familiar with any special regulatory requirements affecting the operator, such as special conditions contained in the operations specifications and exemptions.

7.2 **Check Pilot/Flight Engineer Evaluation:** The inspector conducting an evaluation for an initial check pilot/flight engineer approval shall observe the check pilot/flight engineer candidate conducting an actual check. The purpose of the check pilot/flight engineer evaluation is to ensure that the candidate has achieved the required skills for briefing, evaluating, and debriefing a pilot. The pilot receiving the check should be a line crew member who is due for an evaluation. The pilot shall not be an instructor or check pilot/flight engineer unless previous approval has been received from the Authority. Such approval would only be granted in unusual circumstances;

7.3 **Check pilot/flight engineer Candidate's Flying Skills.** Except for the initial approval of a cadre of operator check pilot/flight engineer, a designated check pilot/flight engineer evaluation does not entail an evaluation of the candidate's flying skills in a crew position. An operator should not request approval of an individual as a designated check pilot/flight engineer when there is any question about the pilots flying skills in a crew position. Should the Authority have reason to question a candidate‘s proficiency, the check pilot/flight engineer evaluation shall not be conducted until the candidate's proficiency is verified. An acceptable way to verify the pilot's proficiency is to check the check pilot/flight engineer candidate. An inspector may conduct a proficiency check, a competency check, or a line check of the check pilot/flight engineer candidate, scheduled at some time before the official designated check pilot/flight engineer evaluation. (Note, however, that such checks are not routinely required);

7.4 **Satisfactory Evaluation.** If the inspector determines that a check pilot/flight engineer candidate meets the criteria for the requested designated check pilot/flight engineer approval, the inspector shall inform the candidate that a recommendation of approval will be reported to the Director responsible for Safety Oversight. In this case, the check pilot/flight engineer candidate shall certify the proficiency of the pilot receiving the check and complete the necessary record keeping tasks. Subject to the approval of the Director responsible for Safety Oversight, the Inspector may permit the new designated check pilot/flight engineer to be scheduled immediately as a check pilot/flight engineer, even though processing of the Letter of Approval has not been completed;

7.5 **Unsatisfactory Evaluation.** If the inspector determines that a candidate does not qualify for the requested designated check pilot/flight engineer approval, the inspector shall inform the candidate that the approval is withheld. In such a case, the inspector must determine whether the pilot receiving the check performed satisfactorily, and must certify the pilot's proficiency and complete the necessary records;

7.6 **Content of Check pilot/flight engineer Evaluation.** The following guidance applies to an inspector's evaluation in respect of each of the following six functions of Check pilot/flight engineers:

7.6.1 **Proficiency Check pilot/flight engineer-** Aircraft. An inspector shall evaluate this candidate while the candidate conducts a proficiency check or competency check in an aircraft in flight.

The inspector should observe the candidate conducting the entire check in the aircraft. The candidate should be evaluated on his/her ability to evaluate an individual while, at the same time, performing the crew member activities normally associated with the seat the check pilot/flight engineer candidate occupies. With the approval of the Director responsible for Safety Oversight, the inspector may observe part of the check in the aircraft and the remainder in a simulator or an approved flight training device;

7.6.2 **Proficiency Check pilot/flight engineer** - Flight Simulator. An inspector shall evaluate this candidate while the candidate conducts the flight simulator segment of an actual proficiency check, or competency check, as applicable. The candidate should be evaluated on his ability to evaluate an individual while, at the same time, demonstrating proficiency in operating the flight simulator. Time management and the ability to adapt to events that might disrupt a planned sequence of events should also be considered. If the entire proficiency check or competency check can be accomplished in a flight simulator, the candidate must be observed conducting the entire check;

7.6.3 **Line Check Pilot** - All Seats. An inspector shall evaluate this candidate while the candidate conducts an actual line check from either pilot seat. Satisfactory performance will also permit the candidate to conduct a line check from the forward observer's seat during line-oriented flight training (LOFT), during revenue service or during non-revenue service. A candidate for line check pilot - in this function must be qualified to be the pilot-in-command (PIC) for that operator and hold a class I medical certificate.

Note: *The operator must have procedures, published in his operations manual that shall be followed in the event that a line check pilot determines that a pilot's performance does not meet standards that would allow the individual to continue to operate the aircraft. The crewmember shall not be allowed to continue the flight series or trip. If the line check pilot does not possess the appropriate class of medical certificate to substitute for the crewmember, specific alternative procedures shall be followed.*

Line Check Pilot - Observer's Seat Only. An inspector shall evaluate this candidate while the candidate conducts an actual line check from the forward observer's seat, during revenue or during ferry service. When the evaluation is conducted during revenue service, in an aircraft with only one observer's seat, a candidate who holds a Class II medical certificate, who has not yet reached 65 years of age and is otherwise qualified for commercial air transport operations under The Civil Aviation (Operation of Aircraft) Regulations 2007, may be evaluated while conducting a line check from the right pilot seat. In this case, the PIC must be fully qualified and line current. When the evaluation is conducted during non-revenue operations in an aircraft with only one observer's seat, a candidate who holds at least a Class 2 medical certificate and who is over 60 years of age and is otherwise qualified for commercial air transport operations of large aircraft under The Civil Aviation (Operation of Aircraft) Regulations 2007, may be evaluated while conducting a line check from the right pilot seat. A check pilot who is approved to conduct line checks from the observer's seat and who does not maintain decency required, must be observed by an inspector at least once every twelve calendar months. If an evaluation within this time period is not given, the check pilot is not authorized to conduct line checks;

Note: *The operator must have procedures, published in its operations manual that shall be followed in the*

event that a line check pilot determines that a pilot's performance does not meet standards that would allow the individual to continue to operate the aircraft. The crewmember shall not be allowed to continue the flight series or trip. If the line check pilot is not qualified (including appropriate medical certificate) to substitute for the crewmember, specific alternative procedures shall be followed.

7.6.4 **Check pilot/flight engineer - All Checks**. An inspector shall evaluate this candidate in accordance with preceding paragraphs. The evaluations for this approval may be treated cumulatively; and

Note: A pilot/flight engineer may have been a proficiency check pilot/flight engineer -aircraft for a number of years and then qualify as a line check pilot/flight engineer - all seats. If the operator does not use simulators in the training programme, then upon satisfactory completion of the line check evaluation, the check pilot/flight engineer could be approved to conduct all of the forgoing checks.

7.6.5 **Check Flight Engineer (Flight Engineer Check).** An inspector shall evaluate this candidate while the candidate conducts a flight engineer proficiency check in a flight simulator or approved Synthetic Flight Trainer (SFT). If normal, abnormal and emergency procedures segments of the check are normally accomplished in a simulator or approved SFT. In those instances when a check flight engineer (Flight Engineer Check) candidate is to conduct any portion of a check in an aeroplane in flight, the check Flight Engineer candidate must be a qualified and current Flight Engineer and must be evaluated during an actual flight.

7.7 **Conducting a Check pilot/flight engineer Evaluation**

7.7.1 **Pre-Evaluation Briefing**. An inspector conducting a check pilot/flight engineer evaluation shall arrange to meet with the candidate in sufficient time for a pre-evaluation briefing. The inspector shall explain the purpose of the evaluation and some ground rules, including:

a) That the check should be conducted as if the candidate was fully qualified in the role of check pilot/flight engineer;
b) That during the briefing, the inspector would ask questions of the check pilot/flight engineer candidate as part of the evaluation; and
c) That the inspector would not ask questions while the check is in progress.

7.7.2 **Observing and Debriefing the Candidate.** While the check is in progress, the inspector shall observe, but should not interrupt or otherwise interfere with the check pilot/flight engineer candidate's management of the check. The inspector shall determine that all required events and manoeuvres were conducted properly; that the check pilot/flight engineer candidate's evaluation of the pilot's performance was objective and accurate; and that the check pilot/flight engineer candidate's debriefing of the pilot was thorough and constructive.

8.0 CHECK PILOT/FLIGHT ENGINEER APPROVAL

8.1 All check pilot/flight engineers conducting commercial air transport operations under Part 8 and Part 9 of the Nigeria Civil Aviation Regulations must be approved by the Authority.

8.2 **Letter of Approval.** Authorization of an approved check pilot/flight engineer shall be in the form of

a Letter of Authorization addressed to a responsible official of the operator and signed by the Inspector, or a representative approved by the Inspector. This Letter of Approval may be transmitted to the operator by conventional or electronic mail, by fax, or by other means acceptable to the operator and the Authority, on receipt of the prescribed fees. The letter shall contain the following:

8.2.1 Check pilot/flight engineer's name and applicable licence number;

8.2.2 Approved check pilot/flight engineer function;

8.2.3 Type of aircraft;

8.2.4 Authorizations and limitations;

8.2.5 Effective date of each approval (since different approvals may occur at different times, this information simplifies record checks. The date on which the check pilot/flight engineer was recommended for approval by an inspector shall be the effective date of approval.)

NOTE: *A check pilot/flight engineer Authorization is valid for one year and may be renewed at the discretion of the Authority. A check pilot/flight engineer Authorization may be limited, or withdrawn at the discretion of the Authority.*

8.3 **One Letter of Approval.** A check pilot/flight engineer shall be approved only in the functions covered earlier. The Authority shall issue only one Letter of Approval for a check pilot/flight engineer, listing the operator(s) and function(s).

8.4 **Letter of Approval - Other Copies.**

8.4.1 The original copy of the Letter of Approval shall be retained in the individual check pilot/flight engineer's training record file; and

8.4.2 When the individual is an ATO instructor approved to evaluate an operator's personnel, a copy of the Letter of Approval shall be provided to the ATO for inclusion in its records. A copy shall be maintained in the Authority files, after the approval is withdrawn or superseded.

8.5 **Authority Pilot databases.** A record of the approval is entered in the Authority Pilot database. Each time a check pilot/flight engineer approval is given or withdrawn, the Inspector shall coordinate with the personnel licensing section to ensure that the Pilot database file accurately reflects:

8.5.1 The current number of active check pilot/flight engineer approved for the operator, and

8.5.2 The correct status of the individual.

9.0 APPROVAL OF INITIAL CADRE CHECK PILOT/FLIGHT ENGINEERS

9.1 During the early phases of establishing a check pilot/flight engineer programme, initial cadres check pilot/flight engineers are required. Initial check pilot/flight engineers candidates must first become fully qualified as flight crew members and then be trained, evaluated, and approved as check pilot/flight engineers. Since Part 8 and Part 9 of the Nigeria Civil Aviation Regulations do not address a training process for initial cadre check pilot/flight engineer, the following guidance is provided:

9.2 This process described below will serve as a valuable guide for start-up operations for at least two reasons:

9.2.1 It is a practical way to bootstrap a check pilot/flight engineer programme into existence;

9.2.2 It takes advantage of proving flights, when the operator/applicant is under close Authority scrutiny - with desirable effects on the check pilot/flight engineer programme;

9.2.3 **Letter of Request from Operator.** The overseeing inspector shall arrange with the operator or applicant to approve one or more likely check pilot/flight engineer candidates to form an initial cadre of temporary check pilot/flight engineer. The operator or applicant shall submit a letter of request, as described earlier in this section. This letter comprises the request for initial cadre check pilot/flight engineer and a description of the training that they will undergo; and

9.2.4 **Letter of Approval.** The Inspector shall approve the candidates using procedures describe deadlier in this section. Usually initial cadre check pilot/flight engineers are approved to function as check pilot/flight engineer - all checks, so that they may conduct all types of checks and supervision during the period that the start-up operation is beginning. The initial cadre check pilot/flight engineer Letter of Approval is a temporary approval, to be replaced with a permanent Letter of Approval after the check pilot/flight engineer is fully qualified. The initial cadre check pilot/flight engineer letter shall contain a statement similar to the following:
—(Name) is approved as an initial cadre check pilot/flight engineer to function as a check pilot/flight engineer - all checks or as a check flight engineer for the purpose of initiating operations with the (type of aircraft) for (name or operator). This approval expires on (expiration date).”

10.0 TRAINING, CERTIFICATION, AND QUALIFICATION - START-UP

10.1 The operator shall provide a full qualification process for its initial cadre check pilot/flight engineer.

10.1.1 **Initial Training and Certification.** The operator must first arrange to have initial cadre check pilot/flight engineer trained and appropriately certificated for their cockpit duty positions. The operator may provide the training by contracting with a manufacturer, with another operator, or with properly qualified individuals. An inspector or a designated examiner may certificate the initial cadre Pilots, provided that the examiner is employed by an approved training organization, or an air operator;

10.1.2 **Gaining Proficiency as Instructors.** After the initial training and certification, initial cadre check pilot/flight engineer shall become proficient in the operator's proposed training programme by instructing each other, or in the case of a single initial cadre check pilot/flight engineer, by self training. During this training an operator may arrange for a pilot from the manufacturer, from

another operator, or from another source to act as the safety pilot or instructor pilot;

10.1.3 **Proficiency and Competency Checks**. After the first initial cadre check pilot/flight engineers have become proficient as instructors, they may then begin the training and checking of other initial cadre check pilot/flight engineer in accordance with the operator's initially-approved flight training and qualification curriculum segments:

a) Each check shall be observed by an Authority inspector who holds the appropriate pilot's certificate, and the appropriate type rating, when applicable;
b) If the inspector determines that the performance of an initial cadre check pilot/flight engineer conducting a certain check is satisfactory, the inspector shall approve the pilot as a check pilot/flight engineer for that type of check;
c) One initial cadre check pilot/flight engineer may check another, with the process repeated until each candidate has been approved as a check pilot/flight engineer or has been terminated from the programme;
d) If only one person is being considered to be the initial cadre check pilot/flight engineer, an inspector shall observe that person conducting a check of another pilot; and
e) If the candidate's performance is satisfactory, the inspector shall approve the candidate for fulltime check pilot/flight engineer duties with the operator.

10.1.4 An initial cadre check pilot/flight engineer shall receive a line check and conduct a line check during an en route demonstration or a ferry flight. The same process (above) shall apply: one initial cadre check pilot/flight engineer line checks another while being observed by an Authority inspector;

10.1.5 If the pilot's performance is satisfactory, the inspector may approve the pilot for full-time duties as a check pilot/flight engineer for the operator; and

10.1.6 If there is only one initial cadre check pilot/flight engineer, then an Authority inspector shall conduct the line check.

11.0 APPROVAL OF A CHECK PILOT/FLIGHT ENGINEER FOR MULTIPLE AIRCRAFT

11.1 Before a pilot may be approved as a check pilot/flight engineer on more than one type of aircraft, the operator must show that there is a need. The pilot must be fully qualified and current in each of the aircraft types. Overseeing inspectors shall be judicious in approving check pilot/flight engineers and vigilant in overseeing their performance.

11.2 There are various acceptable combinations of check pilot/flight engineer approvals.

11.2.1 A check pilot/flight engineer may be approved to serve in all single-engine aeroplanes that an operator operates;

11.2.2 A check pilot/flight engineer may be approved to serve in two different types of helicopters;

11.2.3 A check pilot/flight engineer may be approved to serve in a combination of two of the following

aircraft families:

a) One series of multiengine aeroplanes;
b) Single engine aeroplanes; and
c) Helicopters.

11.2.4 Before a candidate may be approved as a check pilot/flight engineer in 10.2.3 above, overseeing inspectors shall ensure that the following conditions are met:

a) For proficiency check pilot/flight engineer-aircraft or simulator the candidate must have logged at least 500 hours as PIC in each type;
b) For line check pilot/flight engineer the candidate must have logged at least 100hours as PIC in each type and at least 1,000 as PIC in transport category aeroplanes; and
c) For check flight engineer the candidate must have logged at least 500 hours as a flight engineer in each type.

12.0 APPROVAL OF A CHECK PILOT/FLIGHT ENGINEER FOR MULTIPLE OPERATORS

12.1 This paragraph provides a standard method for approving a check pilot/flight engineer to serve multiple operators. The approval of a check pilot/flight engineer to serve more than one operator is limited to those cases in which the operator's aircraft, aircraft operating manuals, procedures, and checklists are compatible in the judgment of the overseeing inspector(s).

12.2 Provision for multiple check pilot/flight engineer approvals is made for single-pilot operators and for other air operators who contract with Authority-approved or authorized ATOs for training under programmes that are compatible, in the judgment of the overseeing inspector(s).

12.3 Overseeing inspectors may also approve a check pilot/flight engineer to serve more than one operator at the discretion of the Authority on a temporary basis, when a start-up operation is initiated or when new equipment is being introduced.

13.0 CHECK PILOT/FLIGHT ENGINEER EMPLOYED BY AN ATO

13.1 ATOs have made simulator training and checking available to a broad range of aviation users, including air carriers with smaller fleets and smaller aircraft. Check pilot/flight engineer (including check instructors of an ATO) may serve one or more air carrier operators in their training at an ATO.

13.2 **Inspector Approves the Check pilot/flight engineer Candidate**. Only an Inspector of the Authority may approve a check instructor qualified by an ATO for use in an operator training programme. Normal procedures apply, including a Letter of Request from the operator, and a Letter of Approval from the Inspector assigned to the operator.
Note: *check pilot/flight engineer may currently be approved for ATOs at the discretion of the Inspectorate. The guidance contained in this section may be applied to check pilot/flight engineer employed by ATOs as long as it does not conflict with the provisions of any applicable Schedule or exemption.*

13.3 **Scheduling Multiple-Use Check pilot/flight engineer and Maintaining Check**

pilot/flight engineer Status. Before a multiple approval is made, the overseeing inspector shall ensure that the operators understand that the scheduling and use of the check pilot/flight engineer is their responsibility. An operator entering into a multiple-use arrangement may employ a check pilot/flight engineer on a part-time basis, may contract with another operator or ATO to provide a check pilot/flight engineer, or may contract directly with the check pilot/flight engineer.

Note: *Each operator shall be responsible for ensuring that the check pilot/flight engineer maintains currency as specified in section 1 of this chapter and performs adequately when serving the operator.*

13.4 **Adding an Operator to a Check pilot/flight engineer's Letter of Approval**. An operator seeking check pilot/flight engineer approval for an individual, who is serving as a check pilot/flight engineer for another operator, shall provide the necessary information to its Inspector.

13.4.1 The operator's Inspector shall consider the means the operator will use to train, to qualify, and to maintain qualification of the check pilot/flight engineer candidate and the documentation that will be required;

13.4.2 The check pilot/flight engineer may be able to meet recurrent training requirements for more than one operator simultaneously;

13.4.3 When the operator and the Inspector have agreed on the training and qualification necessary for the check pilot/flight engineer, the operator shall submit a written Letter of Request to the Inspector, as described earlier in this chapter;

13.4.4 A copy of the candidate's current check pilot/flight engineer Letter of Approval shall be attached to the Letter of Request; and

13.4.5 When the Inspector approves the individual as a check pilot/flight engineer for his/her operator, a copy of the approval letter will be provided to the Inspector(s) of all other operators for which the individual has been approved as a check pilot/flight engineer.

13.5 **Primary Oversight Responsibility.** Each overseeing inspector must agree on the following: (1) the means by which the check pilot/flight engineer will maintain qualification; and (2) which inspector will have primary responsibility for oversight of the check pilot/flight engineer. The overseeing inspector who first approves the check pilot/flight engineer usually retains this responsibility. When the check pilot/flight engineer is employed by an ATO, the Authority assumes this responsibility or validates the person based on another civil aviation authority‘s designation.

13.6 **One Letter of Approval - Revision Procedures**. A check pilot/flight engineer may hold only one Letter of Approval as a check pilot/flight engineer for the Authority.

13.6.1 When approved as a check pilot/flight engineer for an additional operator, the Authority shall issue a revised Letter of Approval showing the additional operator, the additional type of equipment, and the additional types of checks, as appropriate.

13.6.2 The Authority shall send a copy of the revised Letter of Approval to each operator; and

13.6.3 Conversely, should any Inspector need to withdraw a check pilot/flight engineer's approval, that Inspector shall brief the Director responsible for Safety Oversight through and shall prepare the revised Letter of Approval for the Director responsible for Safety Oversight's signature and have it mailed to each operator.

13.7 **Recordkeeping.**

13.7.1 Each operator is required to maintain training and qualification records for his check pilot/flight engineer;

13.7.2 By agreement, one operator or ATO may keep a check pilot/flight engineer's training and qualification records for all operators for which the check pilot/flight engineer serves. This agreement must be acceptable to each overseeing inspector affected;

13.7.3 Each overseeing inspector shall retain a document showing agreement in the operator's file; a copy of that document should also be provided for use by the operator;

13.7.4 Each operator is required to ensure that each check pilot/flight engineer report on a pilot in his organization is entered in the pilot's record at the organization and a copy routed to the Authority for entry in the pilots file.

14.0 CREW MEMBER FAILURE RATES

14.1 The repetitive failure of a single crew member, or the failure of several crew members during proficiency or competency checks, may indicate a training programme deficiency. Overseeing inspectors must establish procedures with their certificate holders that provide for the Authority notification when unsatisfactory performance occurs. Any failure of a check conducted by a check pilot/flight engineer must be reported to the Authority immediately.

14.2 Identified deficiencies should be promptly investigated and corrective action taken. A comparison of failure rates between checks conducted by inspectors and those conducted by check pilot/flight engineer should also be made. If a significant difference in failure rates exists, additional observations and counselling should be conducted.

14.3 The overseeing inspector shall discuss the matter with the appropriate official responsible for the certificate holder's training and checking activities.

14.4 Should these discussions not lead to an improvement in the quality of training and evaluations, consideration should be given to withdrawing approval of any check pilot/flight engineer involved or, if appropriate, withdrawing approval for a specific part or for the entire training programme.

15.0 SURVEILLANCE OF CHECK PILOT/FLIGHT ENGINEER

15.1 Overseeing inspectors shall establish a surveillance programme for each check pilot/flight engineer at the time of approval.

15.2 **Check pilot/flight engineer Observation.** The period of validity of a check pilot/flight engineer authorization is 12 months in addition to the remainder of the month in which the authorization expires. A check pilot/flight engineer must be checked at least once per year. A renewal of a check pilot/flight engineer's authorization will be conducted in the same manner as an initial authorization. In addition an Inspector may conduct random check inspections on a —on notice basis" on all or any check pilot/flight engineer at anytime in the 12 month period:

15.2.1 Check pilot/flight engineer inspections should be conducted while the check pilot/flight engineer is conducting an approved checking activity. For example, a check pilot/flight engineer approved to conduct proficiency checks and line checks should be observed conducting a proficiency check in the aircraft or simulator, or conducting a line check, or overseeing initial operating experience;

15.2.2 **Constraints of Aircraft with Two Pilot Seats**. An Inspector may encounter difficulties in conducting the surveillance of check pilot whose activities are restricted to two-place aeroplanes or helicopters. In such cases, it may not be possible for an Inspector to observe the check pilot conducting actual checks. In lieu of these observations, the Inspector may review the check pilot's activities and administer the check pilot's competency and line checks;

15.3 **Periodic Report by the Operator.** The Authority should arrange to have the operator provide a periodic report of each check pilot/flight engineer's checking activities, including a pass/fail rate, to coincide with the Authority periodic review (annual, semi-annual, or other). Inspectors may arrange for these reports to arrive at a time that meets the Authority needs. A check pilot/flight engineer should be active enough to retain the required knowledge and skills. This activity level may vary depending on the check pilot/flight engineer function, the size of the operator, and the number of approved check pilot/flight engineer. A check pilot/flight engineer should conduct at least eight authorized check pilot/flight engineer activities during a 12 month period (including supervision of a candidate obtaining operational experience). Where records indicate low activity levels, the Inspector should specifically re-assess the operations need for those check pilot/flight engineers;

15.4 **Withdrawing Check pilot/flight engineer Approval.** The Authority reasons for withdrawing the approval of a check pilot/flight engineer may include a lack of check pilot/flight engineer activity, a request by the operator, or an unsatisfactory performance on the part of the check pilot/flight engineer. To withdraw approval of a check pilot/flight engineer, the Authority must notify the operator by letter that approval is withdrawn. The letter should include the name of the check pilot/flight engineer, the effective date of withdrawal, and the reason approval is being withdrawn. If the approval of a check pilot/flight engineer is withdrawn because of unsatisfactory performance, the letter of withdrawal must be sent to the operator with acknowledgement of receipt requested; and

15.5 A check pilot/flight engineer's approval may be given, limited, or withdrawn, in the discretion of

the Authority.

16.0 CONDUCTING A CHECK PILOT/FLIGHT ENGINEER OBSERVATION

16.1 Brief the check pilot/flight engineer candidate not to advise the pilot being checked of the result of the check until after discussion with you.

16.2 Arrive at the facility in time to observe the pre-exercise briefing.

16.3 Carry out the inspection on a non-interference basis, using the appropriate checklist(s).

16.4 Observe the check pilot/flight engineer as he briefs and debriefs the person undergoing the check and completes relevant documentation, while occupying a crew seat relevant to the check.

16.5 Ensure that the check pilot/flight engineer makes a correct assessment of the person undergoing the check, or conducts appropriate remedial teaching, if carrying out a training exercise.

16.6 If the check is conducted in a simulator, ensure that the check pilot/flight engineer demonstrates proficiency in operating the simulator, including:

16.6.1 Setting to a specified locality and runway;

16.6.2 Setting to a specified in-flight position; and

16.6.3 Inserting specific operation parameters — for example, mass, fuel, environment, etc.

16.7 If the check is conducted in an aircraft, and if appropriate, ensure that the check pilot/flight engineer records indicate that he has demonstrated critical manoeuvres from the co-pilotseat, including:

16.7.1 Simulated engine failure at V_1;

16.7.2 A landing with one engine simulated inoperative; and

16.7.3 During this demonstration, the pilot in command seat must be occupied by a suitably qualified check pilot/flight engineer or the Inspector.

16.8 At the completion of the exercise, observe the check pilot/flight engineer as he discusses theresults of the check with the pilot/crew.

17.0 REMEDIAL ACTIONS AND PROCEDURES FOR DEFICIENCIES FOR CHECK PERSONNEL

17.1 If deficiencies are found during inspection or renewal of a Check Personnel Authorisation as per CL: O-OPS 021 and Section 14.0 of this chapter, the Check Personnel shall be debriefed and operator notified in writing of the deficiencies observed and recommendations for remedial actions.

Depending on the level of deficiencies, the Check Personnel may be given a second opportunity to retake the check. Significant deficiencies will require remedial actions as stated below.

17.2 Remedial Actions:

17.2.1 Undergo remedial training which will be conducted on the subject that has been identified.

17.2.2 Remedial training will be conducted by the Authorized personnel.

17.2.3 On successful completion of the remedial training, an assessment will be conducted by Authorized personnel before another check.

17.2.4 If the check is successful, the Check Personnel will be released.

17.2.5 However, if the check is not successful, the Check Personnel will be given another evaluation within 90 days from the date of initial check. If the evaluation is found to be unsatisfactory, the Check Personnel Authorization will be withdrawn by the Authority.

CHECK PILOT/FLIGHT ENGINEE LETTER OF APPROVAL FOR MULTIPLE OPERATORS SAMPLE A

Captain Jean Boraafya, ABC Airlines Limited,
P. O. Box 211903,
Ikeja
FAX: 024 29233670
Dear Sir,

RE: PROFICIENCY TEST, ROUTE CHECK AND TYPE RATING EXAMINER: F28-4000 AUTHORISED EXAMINER.

Following your witnessing on 18th November 2006 in the conduct of training, you are hereby authorized to conduct and certify:

(1) Practical training on the aircraft type.
(2) Initial type rating flying tests for the inclusion of aircraft rating in the Tanzania Pilot's Licenses; and

(3) Bi-annual proficiency and annual route checks on aircraft type for pilots of **ABC Airlines Limited** with effect from the date of witnessing. These checks must be carried out in simulator/aircraft in flight. The checklist of the areas to be tested is included in the relevant form in the operators approved training manual.

The specifications and procedures for the conduct of these checks and tests are contained in Flight Operations Inspector's Manual - Chapter 4 - Training and Testing. You are asked to purchase and familiarize with the relevant areas of this manual.

Your appointment is subject to the following conditions:

(a) You shall maintain records of all training and tests in appropriate operators forms. These records shall be maintained in the pilot's file, which shall be available for this Authority's inspection in the operator's operations room.
(b) You shall notify this Authority at least 7 days prior to conduct of tests to plan for witnessing of such tests.
(c) After conduct of the checks, copy of the assessment of checks i.e. proficiency and route checks should be sent to this Authority.
(d) You shall maintain recency on the aircraft i.e. 3 landings and three take-offs in the last three months.
(e) You shall also be subjected to a proficiency check on this type of aircraft before you conduct another proficiency check. The date of this check shall be communicated to this Authority at least 7 days prior to the check ride for purpose of observation.
(f) On successful completion of an initial type rating flying tests for the inclusion of aircraft rating in the Pilot's Licenses you shall complete the prescribed form- Aircraft above 5,700 kg - Application for the inclusion of an aircraft type in the aircraft rating of a pilot's licence and forward it to this Authority without delay. If the candidate fails the test you shall inform the candidate that he has failed the test and that he should not exercise the privileges of the aircraft rating until he passes

the flying test.

This authorization is based on powers conferred by Regulation 10.1.38 of Part 8 of the Nigeria Civil Aviation Regulations, and has effect only in respect of flying tests carried out and certified in accordance with the Regulations.

This Authority is valid until 17th November 2008 or until varied, surrendered or revoked.

Yours faithfully,

Director General

CC: General Manager,
ABC Airlines Limited,
P. O. Box 211903,
Ikeja

CHECK PILOT/FLIGHT ENGINEER LETTER OF APPROVAL - SAMPLE B

24 June 2006
Mr. Brian Gitobu Chief Pilot
XYZAirlines.
Old Airport Road Ikeja

Dear Mr. Gitobu:

David M. Imani, Pilot licence number **TA-203048,** is approved as a check pilot/flight engineer. This check pilot/flight engineer is approved to conduct checks in multiengine Cessna, reciprocating-series aeroplanes and in all single-engine aeroplanes to pilots that are employed by Savannah Airlines. This approval is applicable for the following checking functions:

Proficiency check pilot/flight engineer - Aircraft [ ] Effective: NA
Proficiency check pilot/flight engineer - Simulator [ ] Effective: NA
Line check pilot/flight engineer - All Seats [ ] Effective: NA
Line check pilot/flight engineer - Observer's Seat Only [ ] Effective: NA
check pilot/flight engineer - All Checks [X] Effective: 02/07/06
Check Flight Engineer [ ] Effective: NA

Please retain a copy of this letter in Mr. Imani's individual flight training records.

Sincerely,

Director General

CHECK PILOT/FLIGHT ENGINEER LETTER OF APPROVAL FOR MULTIPLE OPERATORS - SAMPLE A

24 June 2006
Mr. Brian Gitobu Chief Pilot XYZ Airlines.
Old Airport Road Ikeja

Dear Mr. Gitobu:

Aaron W. Omar, Pilot licence number **TA/YK/HP-203078,** is approved as a check pilot/flight engineer. This check pilot/flight engineer is approved to conduct checks in multiengine Cessna, reciprocating series aeroplanes and all single engine aeroplanes to pilots that are employed by:

Trans Regional Airlines, Inc. Effective 02/07/06
Transylvania Charter Services Effective 22/05/06

This approval is applicable for the following designated functions:
Proficiency check pilot/flight engineer - Aircraft [X] Effective: 22/05/06
Proficiency check pilot/flight engineer - Simulator [ ] Effective: NA
Line check pilot/flight engineer - All Seats [X] Effective: 02/07/06
Line check pilot/flight engineer - Observer's Seat Only [ ] Effective: NA
check pilot/flight engineer - All Checks [X] Effective: 02/07/06

Please retain a copy of this letter in Mr. Omar's individual flight training records.

Sincerely,

Director General

CHAPTER 20

Evaluation of the Operations Manual

1.0 PURPOSE

This Chapter contains discussions of selected topics that FOIs should look for when evaluating anoperator's OM, and which may be required by the operator's initial and final compliance reports.

2.0 REFERENCES

2.1 **Regulation 9.3.1.2 of the Nigeria Civil Aviation Regulations**.

2.2 CHECKLIST: CL: O-OPS020B

3.0 CONTENTS OF OPERATIONS MANUALS

3.1 Regulation 9.3.1.2 of the Nigeria Civil Aviation Regulations specifies topics that must be addressed in an operator's Operations Manual (OM). The operator's OM must contain the duties and responsibilities for each category of employee.

3.2 This manual must also provide sufficient policy, direction, and guidance to its employees for the safe and efficient performance of their duties.

3.3 In addition, an operator's OM must address the policies, systems, and procedures necessary to comply with the operations specifications (OpSpecs) provisions and safe operating practices.

4.0 OPERATOR MANAGEMENT STRUCTURE

4.1 When evaluating an operator's OM, Flight Operations Inspectors (FOI) must ensure that the operator's management structure is included in the OM, and that it meets the following guidelines:

4.1.1 **Management Structure.** The OM must contain a description of the operator's management structure as it pertains to flight operation activities. Organizational entities, areas of responsibility, and titles of key management positions must all be identified in the management structure. This description should contain information on how the flight operation management structure interfaces with the airworthiness management structure and the responsibilities of both. Organizational charts and diagrams may also be useful in showing the relationship between operational units within the company;

4.1.2 **Names of Management Personnel**. The names of the individuals filling required management positions must be listed in the OM. An acceptable way for the operator to meet this requirement is to include a copy of his OpSpecs in the manual. The Authority may approve management structures and titles different from those specified in Regulation 2.2.2 of Part 9 of the Nigeria Civil Aviation Regulations.

5.0 AUTHORIZED OPERATIONS

5.1 When evaluating an operator's OM, FOIs must ensure that the operator's authorized operations are included in the operator's OM, and that they meet the following guidelines:

5.1.1 **Clear Descriptions of Authorized Operations**

a) The OM must contain clear descriptions of the types and kinds of operations that the operator is authorized to conduct;

b) The OM must prohibit those operations which a flight crew could possibly conduct but which the operator is specifically prohibited from conducting by the OpSpecs;

c) The OM must contain information on the authorized areas of en-route operation in which flights may be conducted, including the types of aircraft authorized, crewmember complements, and any special en-route and instrument approach procedure authorizations or requirements. One way an operator may describe the types and kinds of authorized and prohibited operations is to include a copy of theoperator's OpSpecs in the OM. Since the OpSpecs is designed to address a variety of situations and is not easily understandable as it applies to specific operational circumstances, FOIs should encourage operators to extract the applicable information and incorporate it in the OM;

d) Clearly written direction and guidance on how to comply with authorizations and limitations should also be included;

e) It is acceptable for operators to contract a charting and publishing service (such as Jeppesen/Sanderson) to prepare manual material concerning these authorizations and limitations. In these cases, the charting and publishing service's product is considered to be a part of the operator's OM. FOIs must review this portion of the operator's OM as well as all other portions;

5.1.2 Flight Operations Policies, Methods, and Procedures

a) Flight operations policies, methods, and procedures may be located in either the OM, or in a section of the OM such as a aircraft operating information ;or company aircraft operating information manual (AOIM).

b) When an operator operates a variety of aircraft, it may be preferable for the flight operations policies, methods, and procedures that is common to all aircraft to be published in the OM instead of each AOM;

c) Crew members are required to comply with the flight operations policies, methods, and procedures, regardless of whether they are published in the OM or the AOIM. Therefore flight operations policies, methods, and procedures should be written in directive language, and provide specific operational criteria;

d) An example of a flight operations policy statement that does not provide a clear directive or specific operational criteria is as follows: "Use caution when arriving or departing a terminal area when thunderstorms are present;" An example of a flight operations policy statement that is clearly directive and that

e) provides specific operational criteria is as follows: "Takeoffs and landings shall not be attempted when thunderstorms are within 3 miles of the airport or the takeoff or arrival path."

6.0 MASS AND BALANCE PROCEDURES

6.1 When evaluating an operator's OM, FOIs shall ensure that an operator's mass and balance procedures are included in the operator's OM, and that they meet the following guidelines:

6.1.1 Placement of Mass and Balance Procedures.

a) Each type of aircraft used by the operator may require a separate mass and balance procedure;

b) In such cases, it may be appropriate for the operator to place the mass and balance procedure to be used by flight crew in the AOIM and the procedures to be used by other flight operations personnel in sections of the OM;

c) If the operator develops a single mass and balance procedure for all aircraft operated, it may be appropriate for the operator to place the procedure to be used by flight crew and other flight operations personnel in the OM;

d) An operators may develop his own mass and balance procedures or use the procedures furnished by aircraft manufacturers;

e) FOIs should confirm that operators have a copy of Advisory Circular NCAA-AC-OPS006.

6.1.2 The approval of mass and balance procedures is granted in Part E of the OpSpecs.

a) Reference to the OpSpecs may be made in the OM, however the reference shall not be used instead of a detailed description of the procedures to be used by flight operations, ground handling, and flight crew personnel;

b) FOIs must ensure that the information and guidance in the operator's OM is consistent with that in the MCM;

c) The mass and balance procedures described in the operator's manuals should normally address the following topics:

(i) Procedures for complying with mass and balance limitations for each type of aircraft;

(ii) For air operators procedures for ensuring that the empty mass and centre of gravity of each aircraft is determined by actually weighing the aircraft as per Part 5 of the Nigeria Civil Aviation Regulations;

(iii) Procedures for determining the mass of passengers, crew, cargo, and baggage;

(iv) Procedures for making the centre of gravity calculations including loading schedules or other approved methods, if applicable;

(v) Procedures for the completion and disposition of load manifests and mass and balance records;

(vi) Procedures for loading the aircraft.

7.0 OPERATIONAL CONTROL

7.1 When evaluating an operator's OM, FOIs must ensure that an operator's operational control procedures are included. The procedures, duties, and responsibilities of flight crew, operational control and management personnel must also be described. Furthermore, the OM must contain

staffing requirements for operational control personnel during periods of time that flights are operational. When training and operational control requirements for operational control personnel are not contained in a training and qualification document, they must be listed in the OM.

7.2 The FOI must ensure that the following requirements are met:

7.2.1 **Flight Monitoring Systems - Large Aircraft.** The description of the operational control system used by air operators conducting schedule flights of more than two hours duration, ETOPS, MNPS, RVSM or RNP Type operations must be comprehensive.

a) The OM must contain flight dispatch procedures as well as flight monitoring procedures;
b) The interrelation of flight dispatch, crew scheduling, and airworthiness control must be outlined in detail;
c) The communication facilities to be used for operational control purposes, procedures to be used with ATC, and methods for handling delayed flights, must all be addressed;
d) Procedures to be used during adverse weather conditions and for discontinuing flight in unsafe conditions must also be covered in the OM;
e) The procedures to be used to operate unscheduled or charter must be outlined if the operator conducts these kinds of flights.

7.2.2 **Flight Following Systems.** The description of the operational control system used by for air operators for scheduled or unscheduled flights of less than two hours duration must contain the flight release and flight monitoring procedures to be used by flight crew, operational control and management personnel:

a) The interrelation of flight crews, persons authorized to release flights, and airworthiness control personnel must be outlined;
b) The communication facilities to be used and the procedures for using these facilities must also be covered in the OM;
c) OMs must contain procedures to be used during adverse weather conditions and for discontinuing flight in unsafe conditions;
d) The OpSpecs are required to specify the flight following system and the location of the flight following centres.

7.2.3 **Small Operation**. The description of the operational control system used by small operators must, as a minimum, contain a list of the names and titles of the personnel who are authorized by the operator to exercise operational control:

a) If the operator does not establish a flight monitoring system, the OM must contain directions to flight crews for filing ATC flight plan for each flight conducted;
b) If a flight monitoring system is established, the OM must contain an outline of the procedures which provide the operator with at least the information included in a VFR flight plan for each flight operated;
c) The OM must also contain an outline of the procedures which provide the operator with information on the location, date, and estimated time for re-establishing radio or telephone contact if flights are conducted in areas where such communications cannot be maintained with the operator;

d) The flight locating system must also be provided for timely notification to an ATC facility or a search and rescue facility when an aircraft is overdue or missing;

e) The OM shall also contain a description of the procedures for retaining flight location information until a flight has been completed;

f) If an operator uses a flight control system more sophisticated than the basic requirements of the regulation, the OM shall contain a description of the system and procedures actually used.

8.0 FLIGHT PLANNING

8.1 When evaluating an operator's OM, FOIs shall ensure that an operator's flight planning procedures are included.

8.2 The direction and guidance for flight planning must be comprehensive and address the responsibilities of both flight control and flight crew personnel.

8.3 The OM must contain a discussion of weather minima, special airports, and other special requirements such as drift-down, re-release, and diversion contingencies.

8.4 Some operators may elect to place the flight planning procedures in the AOM and the operational control procedures in a dispatch or flight control user manual.

Notices to Airmen (NOTAM) and Pilot Reports (PIREPs)

8.5 When evaluating an operator's OM, FOIs shall ensure that procedures for the acquisition of NOTAMs and PIREPs and for the distribution of these NOTAMs and PIREPs to applicable personnel are included. The OM should also contain a description of the procedures for obtaining applicable NOTAMs that are only distributed to a local area.

9.0 RESTRICTED OR SUSPENDED OPERATIONS

The regulations require operators who know of conditions that preclude safe operations (including hazardous airport and runway conditions), to restrict or suspend operations until those conditions change. FOIs must evaluate an operator's OM to ensure that it contains a description of the procedures for employees to follow should they become aware of such conditions.

10.0 INTERNATIONAL OPERATIONS

10.1 For an operator that conducts international operations, FOIs must evaluate the operator's OM to ensure that it includes pertinent and necessary flight control information.

10.2 In the OM, particular emphasis should be placed on fuel and performance requirements, communications, weather reports and forecasts, flight planning, and any specialized means of navigation.

11.0 OBSERVER'S SEATS

11.1 FOIs should ensure that the operator's OM includes the requirement that the operator must provide an observer's seat (jump-seat or passenger seat) to the Authority inspectors and other specified personnel.

11.2 Usually operators assign the authority to control the use of these forward observer's seats to a flight control department.

11.3 Gate agents and passenger handling personnel must also be aware of these requirements.

11.4 Crew members must also be aware of the procedures to be used for observer seat assignments.

11.5 Information to comply with Regulations 9.1.1.10 and 9.1.1.11 of the Nigeria Civil Aviation Regulations and Regulation 8.5.1.14 of the Nigeria Civil Aviation Regulations inspection and surveillance requirements must be included in the OM, such as the following:

11.5.1 Priorities of inspectors, crew members, manufacturer's technical representatives, and other personnel;

11.5.2 Methods for ensuring that no more than one person is assigned to a forward observers position at any particular time;

11.5.3 Procedures for disseminating forward observer position assignments to other stations.

12.0 LINE STATION OPERATIONS

12.1 Line station operations are those activities performed by the operator's personnel (or by other personnel for the operator) to originate, turn around, or terminate flights conducted by the operator.

12.2 For an operator that conducts line station operations, FOIs must evaluate the operator's OM to ensure that it includes the necessary information on the various topics that follow.

12.2.1 Line station operations should include the use of the following types of facilities and equipment:

a) Ramp areas including markings, signs, signalling devices, lighting, and blast fences;
b) Ramp facilities and equipment, such as passenger and cargo deplaning and enplaning equipment (towing, refuelling, catering, and ground power equipment);
c) Crewmember meeting areas, facilities for crewmember flight planning (preparation for flight), and postflight activities;
d) Ground station personnel work areas and facilities, communications equipment, and administrative support.

12.2.2 Inspectors must ensure that an operator's OM contains the policies, procedures, and guidance to be used by the personnel who support the operator's flight operations at line stations:

a) This manual material must include those situations in which the operator maintains line stations

as well as situations in which the operator contracts or purchases line station support;

b) This type of material is usually located throughout various user manuals, such as ground station operations and maintenance manuals, passenger service manuals, facilities and equipment manuals, fuelling manuals, and other special types of manuals;

c) An operator may format and organize this type of manual material in a manner which is most consistent and usable for the operator's kind and type of operation;

d) Regardless of the format and organization, however, this type of manual informationis considered to be OM material;

12.2.3 The following are examples of the types of information that should be addressed in manual material concerning line stations operations;

a) **Duties and Responsibilities**. The OM or MCM, as appropriate, must contain an outline of the duties and responsibilities of line station supervisory personnel:

(i) The types of positions that should be addressed include: ground station operations personnel, passenger handling agents, cargo and baggage handling personnel, and aircraft servicing personnel (when not addressed in theMCM);

(ii) When an operator contracts for, or purchases, line station support, the OM or MCM, as appropriate, must contain outlines of the procedures to be used by the personnel providing the support.

b) **Passenger Handling and Protection.** The OM must contain procedures and guidance for ensuring the safety of passengers during line station operations. The following are examples of passenger handling and protection subjects that must be addressed in the OM:

(i) Passenger enplaning and deplaning procedures;

(ii) Procedures for use of jet ways, passenger boarding stairs, air stairs and other types of passenger boarding equipment;

(iii) Procedures to ensure the safety of passengers on the ramp including restricting of ground equipment and vehicle operation on ramps; and directing passengers to and from aircraft, around equipment, and to painted pathway lines on the ramp;

(iv) Procedures and guidance for protecting passengers from jet intake and blast, rotating and static propellers and rotors, ice on the ramp and boarding equipment, and tripping hazards;

(v) Procedures for prohibiting smoking in no smoking areas;

(vi) Procedures for assisting and ensuring safety of handicapped persons;

(vii) Procedures for handling intoxicated, hostile, or unruly persons;

(viii) Procedures for handling and controlling carry-on baggage;

(ix) Procedures for exit seating;

(x) Procedures for identifying and handling hazardous materials.

c) **Aircraft Servicing and Ramp Operations**. The OM and MCM must contain detailed procedures and guidance on servicing and maintaining aircraft during line station operations. These manuals should also contain instructions on the maintenance and

use of ramp areas. The following are examples of procedures for aircraft servicing and ramp operations that should be addressed in the OM:

(i) Procedures for the safety and protection of personnel working on the ramp;
(ii) Procedures and/or guidance for the maintenance and catering of aircraft, with or without passengers on board;
(iii) Procedures for fuelling aircraft with or without passengers on board, including any requirements for crewmembers to be on board during fuelling or prohibitions against positioning fuel trucks next to open exits with passengers on board;
(iv) Procedures for operating ground equipment including the capabilities and limitations of the equipment and the training and qualification of persons before using the equipment;
(v) Procedures and guidance for properly locating and stowing ground equipment;
(vi) Procedures for the operation of aircraft cargo doors, baggage and cargo loading, closing and checking the security of doors;
(vii) Procedures for foreign object damage (FOD) control and periodically inspecting ramp areas;
(viii) Procedures to be used during adverse weather conditions such as thunderstorms, high winds, low visibility;
(ix) Procedures for the inspection an removal of frost, ice, snow, or standing water.

d) **Hot and Cold Weather Operations.** FOIs should evaluate an operator's OM to ensure that it (as well as the MCM) contains detailed procedures and guidance on hot and cold weather operations, including:

(i) Procedures for the inspection of ramps for accumulation of frost, ice, snow, or standing water;
(ii) Precautions for the operation of vehicles and equipment;
(iii) Restrictions and cautions on aircraft movements;
(iv) Restrictions and cautions for the protection of passengers and ramp personnel.

e) **De-icing Procedures.** Aircraft ground de-icing procedures should be clearly delineated by the operator. While such procedures are usually in the MCM, the operator's OM must contain the following types of information concerning de-icing for crewmembers, ground operations, and management personnel:

(i) Assignment of responsibility for ensuring that aircraft is clear of frost, ice, and snow accumulation;
(ii) Conditions that require aircraft ground de-icing;
(iii) Procedures to ensure the effectiveness of de-icing, including the frequency of applications, proper fluid mixtures, and tactile or close visual checks of selected portions of critical surfaces;
(iv) Parts of the aircraft to deice, including a description of the critical surfaces of the aircraft used by the operator;
(v) Locations on the ramps or airports where de-icing will be conducted;
(vi) Engine auxiliary power unit (APU) and ground equipment operation during de-icing;
(vii) Passenger and ramp personnel protection during de-icing;
(viii) Procedures to be used by contract personnel when the operator contracts for de-

icing services;

(ix) If applicable, a complete description of the elements of the operator's ground de-icing/anti-icing programme and the procedures required to operate under that programme;

(x) If applicable, a complete description of the ground de-icing/anti-icing operational procedures that the operator uses to comply with Part 8 and Part 9 of the Nigeria Civil Aviation Regulations.

f) **Aircraft Movement in the Ramp Area.** FOIs must ensure that the operator's procedures and guidance for the movement of aircraft in the ramp area is carefully coordinated between the operator's OM and MCM (or appropriate user manuals):

(i) The definitions of signalling devices, signs, and ramp markings (such as taxi lines, stop lines, boundary and clearance lines) must be the same and be mutually understood by both crewmembers and ground handling personnel;

(ii) Specific procedures for engine start, pre-taxi pushback, power back (if approved), taxi out, taxi in, and parking while in the ramp area must be provided in the OM (or in an applicable user manual);

(iii) Communication procedures for ground handling personnel and crewmembers must be thoroughly coordinated;

(iv) FOIs must ensure that the interphone terminology and hand signals used by ground handling personnel and crew members have the same meaning. The need for common terminology and hand signals is also important for crew members and passenger handling agents. Illustrations of standard hand signals and their meanings should be provided in the OM and MCM (or appropriate user manuals);

(v) The training and qualification requirements of personnel authorized to move aircraft on the ramp or on the airport must be described in the appropriate manuals. For example, when an operator is approved to power back, the OM must contain specific procedures for those operations for each airport and gate where authorized. Power back communications and hand signals must be thoroughly coordinated between crewmembers and ground handling personnel.

g) **Line Station Emergency Procedures.** FOIs must ensure that the operator's OM and MCM contain procedures to be used by crew members or ground personnel in case of emergency situations during line station operations:

(i) Line station emergency procedures must contain the specific duties and actions of appropriate personnel. This type of manual material must also include notification procedures and requirements;

(ii) The notification procedures and requirements should contain specifications on who will be notified, who will make the notification, how the notification should be made, and when it will be made for the various types of emergency situations that could occur at line stations;

(iii) Usually this type of manual material should also include a quick reference telephone listing for obtaining fire fighting and medical assistance, and for notifying appropriate company management, law enforcement officials, and other

government investigation officials;

(iv) Line station emergency procedures should be published in a distinct section of the OM or MCM so that they are easily accessible;

(v) For large, complex operators, line station emergency procedures are usually published as a manual under separate cover to assure rapid accessibility.

h) Operators may publish line station emergency procedures manual for each station because of the uniqueness of each line station. FOIs should encourage this as a preferred practice. The types of situations that should be covered in line station emergency procedures include the following:

(i) Aircraft accidents and incidents: (FOIs) should encourage operators to develop guidance for ground personnel providing passenger lists to aid in handling passengers and accounting for all passengers immediately after a survivable type accident. Handling passengers includes actions such as providing suitable transportation for injured passengers to locations where medical assistance can be obtained);

(ii) Bomb threats, hijack procedures, and other types of security incidents;

(iii) Fuel spills and hazardous materials mishaps;

(iv) Procedures for post flight handling of passenger injury, illness, or incidents involving passenger altercations and interference with crew members;

(v) Employee/passenger accidents and injuries;

(vi) Adverse weather conditions such as hurricanes, tornadoes or other adverse conditions such as earthquakes (if such conditions are likely to occur at the operator's line stations);

(vii) Emergency evacuation of aircraft while parked (This should include procedures for both the flight crew and cabin crew members to activate the aircraft emergency lighting systems during an emergency evacuation, regardless of the perceived ease with which an evacuation can be accomplished; and passenger egress procedures for crew members and other operations personnel. These procedures should include the requirement that whenever passengers are on board the aircraft prior to airplane movement on the surface, that at least one floor-level exit must be usable for the egress of passengers through normal or emergency means);

(viii) Aircraft rescue and fire fighting (ARFF) emergency notification procedures while parked: (FOIs) shall encourage their assigned operators to develop explicit ARFF emergency notification procedures for crew members and other operations personnel to employ in the event of an emergency occurrence on their aircraft while they are parked);

***NOTE**: ARFF notification procedures apply to situations where ARFF equipment is located both on and off airports. These procedures should include information concerning: (1) whom to notify (such as airport fire department, airport control tower, alternate facility if control tower is closed (2) The means of notification to be used (such as jet-way telephone, including ARFF telephone numbers; and aircraft radio communication system, including ARFF radio frequencies); and (3) The persons by job title whom the operator determines shall implement notification proceduresin the event of an emergency occurrence on the operator's aircraft*

(ix) For passenger-carrying operations, if the operator's ARFF procedures require its crewmembers to implement these procedures, then the following guidance should be included in the event of an aircraft fire or other emergency scenario involving aircraft evacuation, the first actions of crewmembers and/or other personnel qualified in accordance with Part 8 and Part 9 of the Nigeria Civil Aviation Regulations should be to initiate the evacuation of the aircraft occupants. Once the crew has determined that all aircraft occupants have been evacuated, then the crewmember(s) designated by the operator should initiate the ARFF emergency notification procedures.

i) **Contract Services.** FOIs must ensure that the OM and MCM, as appropriate, contain policy and guidance concerning the interrelationship between the operator's personnel and the personnel of organizations who provide contract services at line stations:

(i) Contractor personnel are required to be trained on operator specific procedures;

(ii) The appropriate manual must contain the specifications for: the types oftraining to be given to contractor personnel; who is responsible for providing the training; and who is responsible for keeping records of the training;

(iii) Although the contractor may be delegated this responsibility, the operator has final responsibility.

j) **Flight Preparation (Journey) Records.** FOIs must ensure that the operator's OM contains policies, procedures, and guidance concerning the preparation and disposition of journey records at line stations:

(i) Journey records include documents such as dispatch and flight releases, flight plans, weather NOTAMs, oceanic plotting charts, load manifests, and mass and balance documents;

(ii) The manual material must specify who is responsible for preparing the journey records, the coordination activities that must be accomplished during the journey record preparation process, and the intermediate and final disposition of the journey records;

(iii) The FOI must ensure that the policies, procedures, and guidance in this manual material consistently contain accurate information for crew members and flight operational control personnel.

k) Local Conditions at Line Stations. Personnel at line stations have immediate access to and knowledge of various conditions and activities that could affect flight operations at those line stations:

(i) Examples of local conditions and activities include the following: weather conditions, runway and taxiway conditions, airport construction activities, and new obstacles observed in the airport takeoff flight paths;

(ii) As such, inspectors must ensure that an operator's OM contains instructions and procedures so that line station personnel can provide the operator with local condition reports;

(iii) This manual material must contain clear instructions about the circumstances in

which line station personnel are authorized to suspend or delay flight operations.

13.0 PASSENGER BRIEFING PROCEDURES

13.1 FOIs must ensure that the operator's OM or flight manual, as appropriate, specifies the procedures to be used for pre takeoff, en-route, and post landing briefings of passengers.

13.2 Operators who use Cabin Crew Members may publish Cabin Crew user manuals as sections in their OMs. The OM or Cabin Crew user manual must contain the briefings to be given.

13.3 Passenger briefing cards must be used to supplement the oral briefings. These passenger briefing cards must depict the required items that are addressed during the oral briefings.

14.0 EXIT SEATING PROGRAM

14.1 Regulation 8.9.2.11 of the Nigeria Civil Aviation Regulations requirements regulates exit seating in aircraft operated by air operators. These Regulations prescribe requirements relating to the seating of airline passengers near emergency exits.

14.2 FOIs must ensure that air operators' manuals, as appropriate, contain the applicable portionsof the operators' approved exit seating program.

15.0 USE OF PORTABLE ELECTRONIC DEVICES

15.1 FOIs shall review the provisions contained Advisory Circular NCAA-AC-005, "Use of Portable Electronic Devices aboard Aircraft," with assigned operators.

15.2 FOIs shall ensure that operators have adequate procedures in place to determine whether or not portable electronic devices are acceptable for passenger use on board their aircraft.

15.3 FOIs shall ensure that their operators specify in their operations manuals those portable electronic devices that may not be operated on board their aircraft.

15.4 FOIs should encourage their assigned operators to include information regarding the operation of portable electronic devices in their operators' pre takeoff passenger safety briefings. These briefings should include any specific restrictions that apply to passenger use of portable electronic devices. An example briefing might be the following: "Some portable electronic devices may interfere with the aircraft's communications and navigation systems. Please refrain from using any electronic device other than portable voice recorders, hearing aids, and [the operator should add to this list of portable electronic devices, the generic identification of any device that it determines will not cause interference]. For your safety and the safety of others, please stow all carry-on portable electronic devices during taxi, takeoff, and landing."

16.0 ACAS – Equipped Aircraft

16.1 The objective of ACAS is to provide advice to pilots for the purpose of avoiding potential collisions. This is achieved through resolution advisories (RAs), which recommend actions (including manoeuvres), and through traffic advisories (TAs), which are intended to prompt visual acquisition and to act as a precursor to RAs.

16.2 ACAS has been designed to provide a back-up collision avoidance service for the existing conventional air traffic control system while minimizing unwanted alarms in encounters for which the collision risk does not warrant escape manoeuvres. The operation of ACAS is not dependent upon any ground-based systems.

16.3 ACAS equipment in the aircraft interrogates mode A/C and Mode S transponders on aircraft in its vicinity and listens for their replies. By processing these replies, ACAS determines which aircraft represent potential collision threats and provides appropriate display indications (or advisories) to the flight crew to avoid collision.

16.4 The Nigerian Civil Aviation Authority has the responsibility of publishing regulations and ensures compliance therewith. This has been done through Nig. CARs 7.7.1.7. The following regulations also apply: 8.5.1.1(d), 8.8.1.13(a)(3), 8.14.9.4(b).

16.5 The operator shall document in its Operations Manual its own responsibilities which include:

1. Compliance with all appropriate ACAS legislation;
2. Ensure aircraft are properly equipped with ACAS and that the equipment is properly maintained;
3. Ensure approved pilot and maintenance training programmes are implemented for initial and recurrent training;
4. Ensure procedures are in place for pilots and maintenance personnel to report problems with ACAS performance; and
5. Ensure procedures are in place to analyse any reported problems and then provide feedback to the Authority and other involved parties.

16.6 ACAS OR ACAS II Training

16.6.1 An ACAS training programme shall ensure that the pilot is able to demonstrate proficiency in the following;'

a) knowledge of ACAS II concepts, systems and procedures; and
b) cognitive, procedural and motor skills necessary to properly respond to ACAS advisories.

16.6.2 There are no formal ACAS evaluation requirements for flight testing and examination. An ACAS instructor shall accomplish evaluation of ACAS objectives during training.

16.6.3 A pilot shall complete ACAS initial training in respect of each aircraft type for which he or she is rated in which ACAS equipment is carried.

16.6.4 ACAS initial training may be provided as a stand-alone module of ground and flight training or may be integrated with other initial, difference or upgrade ground and flight training programmes.

16.6.5 An operator shall certify in the pilot's file that the ACAS training and checking has been accomplished to a satisfactory standard.

16.6.6 ACAS renewal training shall be integrated with recurrent flight training during proficiency training or line-oriented flight training. Ground training shall be provided as a stand-alone module and should address any significant issues identified by line operating experience, system changes, procedural changes or unique characteristics such as the introduction of new display systems or operations in airspace where high numbers of traffic advisories (TA) and resolution advisories (RA) have been reported.

16.6.7 ACAS Training Programme Requirements

(a) Each ACAS curriculum shall ensure the equipment manufacturer's recommended training and testing requirements are carried out in the manner prescribed by such manufacturer.
(b) In any case a pilot's ability to demonstrate system and procedural concepts shall be included in the initial, recurrent and where applicable, the regaining competency testing.

17.0 CONTROLLED FLIGHT INTO TERRAIN (CFIT)

17.1 This is a subject that mostly affect General Aviation (GA) operations in single pilot aircraft. In multi crewed cockpits, the second pilot may make the difference between a safe flight and a CFIT accident. Conversely, a second pilot can also be a distraction in certain circumstances unless the crew has been trained to work well together and is following good Crew Resource Management (CRM) techniques. As a general rule of thumb, whether an air carrier type aircraft or a GA aircraft, the multi crewed aircraft is generally better equipped with more safety equipment, such as an autopilot, radar altimeter, or Ground Proximity Warning System (GPWS) aboard, than a typical single-pilot General Aviation (GA) aircraft.

17.2 Definition

17.2.1 Controlled Flight Into Terrain (CPIT) occurs when an airworthy aircraft is flown, under the control of a qualified pilot, into terrain (water or obstacles) with inadequate awareness on the part of the pilot of the impending collision.

17.3 Operator's Responsibility

17.3.1 The operator shall document in its operations manual, steps taken to find a solution. The first part in finding a solution to CFIT accident prevention seems to be a comprehensive plan of proper aircrew training in the following:

1. The use and coordination of avionics systems that help prevent CFIT accidents.
2. Integrating CFIT scenarios into CRM in the initial and recurrent training of aircrew.
3. Encourage open communication between flight crew when pilots check each other in critical phases flight such as approach and landing.

4. Perform approach briefings to increase situational awareness in the cockpit.

17.3.2 Proper use of altitude warning systems is the key to accident prevention.

17.4 ATC Clearances

The operator shall document in its operations manual, instructions on the clarification and acceptance of Air Traffic Control (ATC) clearances, particularly where terrain clearance is involved.

17.5 GPWS Policy

17.5.1 The operator shall develop and document a policy in accordance with Nig. CARs 9.3.2(e) on the use of Ground Proximity Warning System (GPWS).

17.5.2 GPWS is mandatory equipment on large transport aircraft (Nig. CARs 7.7.1.5), and have been instrumental in preventing some CFIT accidents.

17.5.3 GPWS use radar altimeter to assist in calculating terrain closure rates. The system is further improved with the addition of a Global Positioning System (GPS) terrain database which is now known as an Enhanced Ground Proximity Warning System (EGPWS).

18.0 PILOT QUALIFICATION TO OPERATE IN EITHER PILOT'S SEAT

18.1 Flight crew members who may be assigned to operate in either pilot's seat shall complete appropriate training and checking as specified in the operations manual. This training is applicable to PIC only. The additional training shall be accomplished from the SIC crew position and include at least two landings during completion of the following:

- an engine failure during take-off;
- one engine inoperative approach and go-around;
- one engine inoperative landing;
- category II or category III operations, if applicable; and
- operation of the normal and emergency checklist as pilot-not-flying.

18.2 The training required above shall be completed upon initial assignment and every 12 months thereafter.

18.3 The check may be accomplished during a normal pilot proficiency check.

18.4 A record of the training completed and/or operational means of qualifying to act from either flight crew station shall be maintained in the pilot's training file.

CHAPTER 21

Carriage of Dangerous Goods

1.0 PURPOSE

1.1 This chapter provides information, direction and guidance used by Dangerous Goods Inspectors concerning oversight of Dangerous Goods, the review, acceptance and approval of all Dangerous Goods Manuals, including the Approval of Dangerous Goods Training.

1.2 The Terms – Dangerous Goods and Hazards Materials (HAZMAT) are synonymous. All Operators are required as a minimum to provide training on the identification of Dangerous Goods to their personnel.

1.3 Those Operators who transport Dangerous Goods must include procedures for handling these materials in their Operations Manual (OM). These Operators must also train their personnel to be able to implement these procedures.

Notes: Operators that choose not to carry Dangerous Goods must have a Dangerous Goods Recognition or Awareness Program that should be submitted to the Authority for review and

2.0 REFERENCE

Nig. CARs 8.5.1.27, 8.10.1.10 and 9.6
Nig. CARs Part 15
Checklist: CL: O-OPS023, CL: O-OPS 041
Technical Instructions (TI) Doc 9284

3.0 RESPONSIBILITY FOR ACCEPTANCE/APPROVAL, SURVEILLANCE, AND ENFORCEMENT OF DANGEROUS GOODS PROGRAMMES

3.1 The Authority's DG Inspectorate has oversight responsibility for an Air Operator's Dangerous Goods Programmes. Dangerous Goods Inspectors (DGIs) specifically trained for Dangerous Goods are responsible for Dangerous Goods oversight activities and must evaluate all Dangerous Goods programmes. An Operator's Dangerous Goods Programme is contained in her Dangerous Goods Manual and includes Dangerous Goods Training. The Operators shall use the Current International Civil Aviation Organization (ICAO) Technical Instructions when developing their Dangerous Goods Programmes.

4.0 PROCEDURES FOR APPROVAL OF DANGEROUS GOODS TRAINING PROGRAMMES:

4.1 When the Dangerous Goods Coordinator (DGC) receives a proposed or updated Dangerous Goods Training Programme from an Operator, he shall forward it to any of the Dangerous Goods Inspectors (DGIs). The DGI will then evaluate the contents of the training and consult with other DGIs when necessary.

4.2 Once the DGI is satisfied with the training programme, he then recommends approval of the training programme as required by Regulation.

4.3 Training Programmes of Part 9, 5.1.14 and Part 8, 10.1.10 of the Nigeria Civil Aviation Regulations on Carriage of Dangerous Goods and Initial Dangerous Goods Training respectively, describes Dangerous Goods Training to be included in the Air Operator's Dangerous Goods Manual. The Initial Approval of the training is usually done at the same time as the Review and Acceptance of the Dangerous Goods Manual.

5.0 PROCEDURES FOR APPROVAL DANGEROUS GOODS MANUALS

5.1 When a DGPC receives a Dangerous Goods Manual for review from an Air Operator, he should forward it to a DGI. The DGI will review the contents of the manual and consult with other FOIs when necessary. Once the DGI is satisfied with the manual, he shall recommend to the Director, through the DGPC, or in his absence, the Deputy DGPC in writing for acceptance/approval.

6.0 DANGEROUS GOODS INFORMATION REQUIREMENT FOR OPERATORS NOT ACCEPTING DANGEROUS GOODS:

6.1 Operators who do not accept or handle, or store Dangerous Goods must provide Procedures and Instructions in the Operator's Manual as follows:

6.1.1 Procedures and Instructions so that all personnel responsible for accepting and handling any Cargo or Packaged Materials receive training on the recognition of items classified as Dangerous Goods (Adequate is defined in an Operational Sense to mean the demonstrated ability of required personnel to identify such items).

6.1.2 Procedures and Instructions so that no Package are accepted by the operator that contain Dangerous Goods.

6.1.3 Procedures and Instructions for reporting that damaged packages found to contain, or that are suspected of containing Dangerous Goods are reported in compliance with the ICAO Technical Instructions and the Nig. CARs 2012, regulation 15.26.

6.1.4 Procedures and Instructions to see that all Company Material (COMAT) containing Dangerous Goods will be offered to a different mode of transportation (e.g. ground) and/or in Air Operator that is authorized to transport Dangerous Goods.

6.1.5 Procedures and Instructions to see that any employee, agent, or contract employee of the Air Operator who prepares and/or offers COMAT containing Dangerous Goods for shipment via any mode is fully trained as a Dangerous Goods shipper.

7.0 DANGEROUS GOODS INFORMATION REQUIREMENT FOR OPERATORS ACCEPTING DANGEROUS GOODS

7.1 Operators who transport Dangerous Goods must provide Instruction and Procedures on the following basic subjects. What are they? The following information is provided a as background material for the DG inspector and is not intended to supplant nor provide guidance for an Operator's Dangerous Goods Programmes. FOIs may share this information when requested but must see that the operator understands that DGI is the Authority. That operator must work with when developing, implementing or changing a Dangerous Goods.

8.0 PROCEDURES AND INSTRUCTIONS ON ACCEPTANCE OF DANGEROUS GOODS FOR AIR SHIPMENT

8.1 The Operator's Instructions should contain the following information:

8.1.1 **Packaging:** Nig. CARs 9.6.1.6 or 15.11 requires an operator to take all reasonable measures to ensure that Dangerous Goods are packaged as specified in the ICAO Technical Instructions. The material must be properly packaged in accordance with the packaging rules and it must be properly marked, labeled and documented. The total quantity must be within the quantity limitations and the shipment must be accompanied by the proper shipping papers, Authority exemptions or competent Authority Certificates as determined by the Inspection requirements for accepting shipments in the ICAO Technical

8.1.2 **Damage-Free:** The package shall not leak or be damaged and must be an authorized package in accordance with the applicable regulations.

8.1.3 **Authorization of Carriage:** The package must either be authorized for carriage in passenger carrying aircraft or labeled for cargo only aircraft if it is not acceptable for passenger carrying aircraft.

8.1.4 **Identification:** The material must be identified by proper shipping name, hazard class or division, identification number and packaging group, when required, in accordance with ICAO Technical Instructions.

8.1.5 **Marking and Labeling:** The package must be properly marked and labeled in accordance with the ICAO Technical Instructions and Nig. CARs 15.13.

8.1.6 **Shipping Papers:** Shipping Papers must be reviewed to ensure that all necessary information is entered including any information that may be required because of the commodity shipped or because the method of transportation is related to Air Transportation.

8.2 STORAGE OF DANGEROUS GOODS

Operators should provide specific guidance on the storage of Dangerous Goods in accordance with the ICAO Technical Instructions. This guidance should include instructions for class 8 (Corrosive), class 7 (Radioactive) and class 6, Division 6.1 (Poisonous) materials as discussed below:

8. 2.1 **Corrosive Materials (Class 8):** The storage of Class 8 (Corrosive) materials next to or in contact with, Class 4, Division 4.2 or 4.3 (Flammable) solids or class 5, Division 5.1 (Oxidized) materials must be prevented. The segregation prescribed in the Technical Instructions must be maintained for all packages containing Dangerous Goods that might react dangerously when stored in a position that causes or contributes to leakage.

8.2.2 **Radioactive Materials (Class 7):** The storage of Class 7 (radioactive) materials labeled yellow II and/or yellow III will not exceed a transport index of 50 in a single storage location. These materials are in an area that is isolated from people and does not permit pedestrian traffic or loitering. The minimum separation distances prescribed in the ICAO Technical Instructions should be maintained between radioactive materials labeled yellow II and yellow III and packages of undeveloped film.

8.2.3 **Poisonous Materials (Class 6, Division 6.1):** Packages bearing a Class 6, Division 6.1 poison label will not be stored in the same located as foodstuffs, feeds or any edible materials intended for consumption by either humans or animals.

8.3 LOADING OF DANGEROUS GOODS

The Operator shall specify guidance for loading Dangerous Goods. This guidance shall include:

8.3.1 Loading of Dangerous Goods in aircraft in accordance with Nig. CARs 15.18, 15.19, 15.20, 15.21, 15.22 and the ICAO Technical Instructions.

8.3.2 Loading and Carriage of Dangerous Goods in Cargo-Only Aircraft, when other means of transportation are not available or impracticable, in accordance with the ICAO Technical Instructions.

8.3.3 Loading of and carriage of radioactive materials in aircraft, in accordance with the ICAO Technical Instructions.

8.3.4 Loading of Dangerous Goods in Cargo Compartment or Freight Containers within Cargo Compartments in accordance with the ICAO Technical Instructions.

8.3.5 A prohibition against loading packages bearing a poison label in the same compartment that holds foodstuffs, feeds or any edible materials intended for consumption by humans or animals unless both commodities are separated, Closed-Unit Load Devices known as Freight Containers.

8.4 **WRITTEN NOTIFICATION TO PILOT IN COMMAND (PIC) (NOTOC):** Operators must establish procedures for notifying the PIC when Dangerous Goods are carried on board the aircraft in accordance with Nig. CARs 8.5.1.27, 9.6.1.13(f) and 15.16.

8.5 **REPORTING DANGEROUS GOODS INCIDENTS:** The Dangerous Goods information must include Company Procedures for reporting Dangerous Goods incidents in compliance with Nig. CARs 9.6.1.15 and 15.26. This includes the procedures for reporting discrepancies, in accordance with the ICAO Technical Instructions.

8.6 DAMAGE TO DANGEROUS GOODS PACKAGES: The Operator must develop procedures for handling damaged packages in accordance with Nig. CARs 9.6.1.10 and 9.6.1.11. Radioactive Contamination and Substances in Class 6, Division 6.2 (Infectious Substances), as found in the ICAO Technical Instructions. The information should include a list of telephone number and addresses of Organizations that can provide Technical Advice on clean-up techniques and precautions to minimize the possibility of injury to employees and the General Public.

9.0 COORDINATION

9.1 The DGI assigned to the Operator may be required to act as a coordinator between the operator and the Authority with respect to queries on Dangerous Goods.

10.0 EXEMPTIONS

10.1 When an Air Operator applies for either an Initial Exemption for the carriage of certain Dangerous Goods on Commercial Air Transport, the DGI may need review the compliance history of the Operator.

10.2 There are Two Types of Exemptions: An Exemption which is obtained through the standard Exemption Process and an Emergency Exemption (also applied through the normal process as provided in the Regulations) that is issued to the shipper who hires and provides the name of the Operator in the exemption. The emergency exemption will normally be issued exclusively for on-time –only shipment.

11.0 VIOLATIONS AND INVESTIGATIONS

11.1 When an Inspector becomes aware of a suspended Dangerous Goods Violation, the Inspector shall notify the DGI assigned to the Operator. The DGI will conduct Inspections, Surveillance and Investigations of the Dangerous Goods in Commercial Air Transport Operations.

12.0 SOURCES OF INFORMATION

12.1 ICAO Technical Instructions for the safe transport of Dangerous Goods by Air (DOC 9284) – These Technical Instructions amplify the basic provisions of Annex 18 to the convention on the International Civil Aviation and contain detailed instructions necessary for the safe International Transport of Dangerous Goods by Air.

12.2 The provisions of the Nigerian Civil Aviation Regulations for the safe transport of dangerous Goods by Air - Nig. CARs Part 9 and 15 contain regulations necessary for the safe transport of Dangerous Goods by Air in Nigeria.

13.0 EVALUATION OF DANGEROUS GOODS PROGRAMMES

13.1 The Air Operator certificate (AOC) Holder is responsible for ensuring safety in Air Transportation when accepting, loading and transporting Dangerous Goods through adherence to the approved Dangerous Goods Programmes.

13.2 The Civil Aviation Act requires the Authority to monitor and enforce compliance with the provisions of Annex 18 of the Chicago Convention and the ICAO Technical Instructions for the Safe Transport of Dangerous Goods by Air. Nig. CARs 8.5.1.27, 8.10.1.10, Part 9.6 and Part 15 are the Regulatory Requirements Implementing the Civil Aviation Act and they make reference to the requirements of the ICAO Technical Instructions.

14.0 EVALUATION

14.1 The Authority has the oversight responsibility to determine if the AOC Holder's Dangerous Goods Programmes meets all applicable requirements of the Regulations and ICAO Technical Instructions and to identify any shortfall in the Certificate Holder's Dangerous Goods Programmes.

14.2 The following checklist provides information, direction and guidance to be used by Dangerous Goods Inspectors concerning inspections of Dangerous Goods, the acceptance of Dangerous Goods or Dangerous Goods Manuals to ensure that they are consistent with the requirements of the Regulations.

15.0 AUTHORISATION PROCESS

15.1 General Information

15.2 The following Authorization and Approval Process provides for a continuous interaction from the applicant's initial enquiry to the issue or denial of the requested Authorization /Approval by the Nigerian Civil Aviation Authority. It ensures that the Applicant's Proposal Programmes, Systems, Arrangements, Facilities, Documentation, Personnel and Methods of Compliance are thoroughly Reviewed, Evaluated and Tested by use of the Four Phase Process.

15.3 The Authorization Process for Dangerous Goods approval is in Four Phases. The four phases are:

(a) Formal Application
(b) Document Evaluation
(c) Inspection
(d) Approval or Authorization Issue/Grant or Denial (Authorization)

15.4 The Authority will appoint a Team of Dangerous Goods Inspectors (DGI's) and Authorization Project Manager (APM) will be selected among them. The assigned Authorization APM will be the designated principal spokesperson for the Authority in the whole process of Authorization.

15.5 The Designated Authorization Team will process the application as follows:

(a) Provide a working Authorization Number for the applicant.

(b) Check the –"Information Only" Cursory Review of the application and enter the date the document was received by the Authority.

(c) Enter – Proceeding with Formal Authorization in the Remarks Section and show the Authorization Number

(d) The assigned APM will contact the applicant to arrange a Formal Application Meeting.

15.6 Formal Application Meeting

15.6.1 Meet with the applicant to discuss questions, if any, concerning the Authorization Process, Regulatory Requirements, the Formal Application and attachments and any other related issues.

15.6.2 Accomplish the following during the meeting(s)

(a) Discuss the regulations applicable to the proposed authorization sought.

(b) Provide the applicant with a copy of the requirements.

15.6.3 The Formal Application meeting will include the following:

(a) A completed Application Letter.

(b) Copies of the required documents and manuals e.g. DGR Manual and Loading/ Ramp Manual.

(c) A letter indicating when the applicant will be ready for inspections of their facilities.

(d) Receive the Formal Application: Ensure that all documents have been submitted and are complete.

(e) Evaluate the Application Package: Based on the initial survey of the Application Package a decision must be made on whether or not to continue with the Authorization Process.

(f) Conduct an Application Meeting: Any unresolved issues concerning the package must be answered before proceeding to the next phase. This should be done in the most effective way possible, e.g. meetings or correspondence.

15.7 Document Compliance Phase

15.7.1 Review the Application Package by carrying out an in-dept review of the contents of each submitted document for Regulatory Compliance shall be carried out. The documents to be reviewed include:

(a) The Operator's Application Letter

(b) All Manuals and Documents

(c) The list of all relevant attachments.

15.7.2 Discrepancies – Record discrepancies found in any document and determine in discussion with the applicant options for their resolution. Inform the applicant that the Authorization Process will not continue until all discrepancies are resolved. If the discrepancies cannot be resolved or the Authorization Process is stopped, the applicant will be informed in writing with all the discrepancies observed.

15.8 Inspection Phase

15.8.1 Housing and Facility- Are inspected during the Inspection Phase to ensure that they comply with Regulatory Requirements and are in accordance with procedures stipulated in the associated manuals and documents evaluated.

15.8.2 The Inspection System to ensure the following:

(a) Employees are familiar with the safe transportation of DGR procedures are competent of performing their assigned duties
(b) Facilities can support the operation requested
(c) Procedures are followed strictly.
(d) Personnel are adequately trained and training records well maintained.
(e) Personnel are competent in Ramp Cargo Operations.
(f) Record keeping system to ensure that the requirements and Nigeria civil Aviation Regulations are met.

15.8.3 Ensure that the number of personnel is sufficient to satisfy the volume and type of work to be performed.

15.8.4 Analysing Discrepancies – If discrepancies are noted, meet with the applicant to review discrepancies in detail. Corrective action must be taken and the assigned APM should notify the applicant in writing, in order that the Authorization Process may continue.

Each discrepancies and corrective action must be fully documented and recorded in the Authorization File.

15.9 Authorization Phase

15.9.1 When the applicant has met all regulatory requirements, the assigned APM will accomplish the following:

(a) Document the following information
  (i) Findings and recommendations
  (ii) Discrepancies noted and comments
  (iii) Date of Inspection
  (iv) The assigned APM and Authorization Team Members, office disgnator and signature
(b) Prepare the Authorisation Letter which will be signed by the Authority
(c) Prepare the Specific Operating Provisions (SOPs) or Operations Specifications (Ops Specs) as appropriate showing the approvals and imitations which will be signed by the Authority.

(d) Ensure that the Authorization Report contains at least the following:
(i) Operator's Application Letter
(ii) A completed copy of the Inspection Form
(iii) A copy of the Authorization Letter
(iv) A copy of the SOPs or Ops Specs issued.

15.10 Results

15.10.1 Successful completion of this task will result into the following:
(a) Issue of an Approval Letter and SOPs or Ops Specs
(b) Notifying the applicant in writing

15.10.2 If the Authorization is unsuccessful, due to either applicant termination or the failure of an inspection the person responsible for Safety Oversight will be briefed and letters will be written to the applicant describing the reasons.

15.10.3 The Original Authorization Report will be retained at the Authority office.

CHAPTER 22

Flight Crew and Flight Operations Officers Basic Indoctrination Curriculum Segments

1.0 PURPOSE

1.1 This Chapter specifies the objectives and content of basic indoctrination curriculum segments. This training is required for all flight crew members and flight operations officers that are enrolled on an initial training programme as newly hired flight crew members.

1.2 Basic indoctrination is normally the first curriculum segment of instruction conducted for newly-hired flight crew members and flight operations officers. It serves as the initial introduction for the newly hired employee to the operator and, in many cases, to the operational requirements of the Nigeria Civil Aviation Regulations.

2.0 REFERENCE

2.1 **Regulation 8.10.1.9 of the Nigeria Civil Aviation Regulations.**

2.2 CHECKLIST: CL: O-OPS024

3.0 OBJECTIVE OF BASIC INDOCTRINATION

3.1 The objective of basic indoctrination training is to introduce the newly hired flight crewmembers and flight operations officers to the operator and the manner of conducting operations in air transportation. It specifically acquaints the student with the operator's policies, procedures, forms, organizational and administrative practices, and ensures that the new employee has acquired basic aviation knowledge.

3.2 The flight crew member basic indoctrination curriculum segment consists of training modules which contain information applicable to the new employee's specific duty position. Two general subject areas are required during basic indoctrination training. These subject areas are "operator-specific" and "Licensed-personnel-specific" training.

3.3 These two areas serve to acquaint the new employee with the operator's means of regulatory compliance and to ensure that basic knowledge has been acquired by the new employee before entering aircraft ground and flight training. These two areas are not always mutually exclusive and in many cases may be covered in the same training module.

4.0 OPERATOR-SPECIFIC INDOCTRINATION TRAINING

4.1 The first subject area, "operator-specific," must include training modules in at least the following:

4.1.1 Duties and responsibilities of flight crewmembers and flight operations officers;

4.1.2 Appropriate provisions of the Regulations;

4.1.3 Contents of the air operator‘s operating certificate (AOC) and operations specifications (OpSpecs).

4.2 Operator-specific training modules should also include information about the operator which the new employee needs in order to properly perform his duties as an employee of the operator. This information may include such items as the operator's history, organization, policies, scope of operation, administrative procedures, employees‘ rules of conduct, compensation, benefits and contracts.

5.0 LICENSED-PERSONNEL-SPECIFIC INDOCTRINATION TRAINING

5.1 The second subject area, **"LICENSED-PERSONNEL-SPECIFIC,"** must addressappropriate portions of the air operator's operating manual. Licensed-personnel-specific training should also include other pertinent information to ensure that the new employee will be prepared for aircraft ground and flight training. Licensed-personnel-specific indoctrination training should include elements which show that training applicable to the duty position will be given on the general principles and concepts of the following:

5.1.1 Flight supervision and control (this includes dispatch or flight release for operations under Part 8 and Part 9 of the Nigeria Civil Aviation Regulations);

5.1.2 Mass and balance;

5.1.3 Aircraft performance and airport analysis;

5.1.4 Meteorology;

5.1.5 Navigation;

5.1.6 Airspace and ATC procedures;

5.1.7 Enroute and terminal area charting and flight planning; and

5.1.8 Instrument procedures.

5.2 Licensed-personnel-specific indoctrination training should address the kind of operation and the

general capabilities of the operator's aircraft. For example, an operator using turbojet aircraft for commercial operations should include high altitude meteorological information (for example, the Jet stream) in the meteorology training module. An operator of a single-engine reciprocating powered aircraft, who is not operating at high altitudes, would not normally need to address high altitude meteorology in this module. It is important to note that Licensed-personnel-specific training is not "aircraft-specific" and is

6.0 FLIGHT CREW BASIC INDOCTRINATION TRAINING MODULES

6.1 The flight crew member basic indoctrination curriculum segments must include as many training modules as necessary to ensure appropriate training. An example curriculum segment is shown at appendix 1. Each module outline must provide at least the following:

6.1.1 A descriptive title of the training module;

6.1.2 A list of the related module elements to be presented during instruction on that module.

6.2 The training module outlines must contain sufficient elements to ensure that a new employee will receive training in both operator-specific and Licensed-personnel-specific subject areas to provide a suitable foundation for subsequent aircraft-specific" curriculum segments. An operator has a certain amount of flexibility in the construction of these training modules. For example, the Licensed-personnel-specific training modules for new employees with significant experience in operations may be less comprehensive than the training modules for new employees without such experience. In a case where an operator needs short term additional flight crew, he would normally hire only highly qualified personnel with experience in the type of operations envisaged.

6.3 The following example illustrates one of the many acceptable methods in which a basic indoctrination training module could be presented:

AIR OPERATOR CERTIFICATE AND OPERATIONS SPECIFICATIONS

(a) Definitions, descriptions and organization
(b) Elements
(b) Regulatory basis in the Regulations Within a
(c) Content of Air Operator Certificate and Operations Specifications Training
(d) Applicable Limitations and Authorizations Module

6.4 It is not necessary or desirable to include detailed descriptions of each element within a training module outline. Such detailed descriptions are more appropriate when included in the operator's courseware such as lesson plans. During the approval process, the FOI should review lesson plans as necessary to ensure that the scope and depth of the courseware is adequate. The following example illustrates the interrelationship of training modules in the flight crew member basic indoctrination curriculum segment:

7.0 TRAINING HOURS

7.1 Regulation 8.10.1.9 of the Nigeria Civil Aviation Regulations specifies a minimum of 40 programmed hours of instruction for basic indoctrination training. Normally, 40 hours should be the minimum number training hours for basic indoctrination for air operators who employ personnel with little or no previous experience. Reductions to the programmed hours in certain situations, however, may be appropriate for several reasons. One example would be a merger or acquisition situation where flight crew members new to the surviving air operator may only require "operator-specific" training modules. Another example would be the operator's enrolment prerequisites requiring a high level of operations experience under Part 8 of the Nigeria Civil Aviation Regulations.

7.2 The 40 programmed hours for the indoctrination training programme apply to airoperators. Table 1 provides direction and guidance to FOIs on training hours when approving basic indoctrination curriculum segments for other operators. This table provides national norms. When approving these curriculum segments, FOIs must consider the complexity of the operation and aircraft. For example, training hours for a complex type of operation may need to exceed the national norm while training hours below the national norm for a less complex type of operation may be acceptable.

8.0 COURSE COMPLETION REQUIREMENTS

Completion of this curriculum segment must be documented by a certificate from an instructor or supervisor certifying that a new employee has successfully completed the course. This certification is usually based on the results of a written examination given at the end of the course. With some training methods, the certification may be based on new employee progress checks administered during the course.

9.0 CONTENT OF FLIGHT CREW BASIC INDOCTRINATION CURRICULUM SEGMENTS

A basic indoctrination curriculum segment should show that training will be given in at least two general subject areas appropriate to the operator's type of operation. These subject areas of training are "operator-specific" (see Paragraph 10.0) and ~~i~~censed-personnel-specific" (see Paragraph 11.0).

10.0 OPERATOR-SPECIFIC TRAINING MODULES

10.1 The subject area of a basic indoctrination training curriculum segment referred to as "operator-specific" includes training modules that pertain to the operator's methods of compliance with the regulations and safe operating practices.

10.2 Examples of recommended training modules for the operator-specific subject urea follow:

10.2.1 **Duties and Responsibilities**.

a) Operator history, organization, and management structure;
b) Operational concepts, policies, and kind of operation;
c) Operator forms, records, and administrative procedures;
d) Employee standards and rules of conduct;
e) Employee compensation, benefits, and contracts;
f) Authority and responsibilities of duty position;
g) Operator-required equipment;
h) Operator manual organization, revisions, and employee responsibilities concerning manuals.

10.2.2 **Appropriate Provisions of the Nigeria Civil Aviation Regulations**

a) Flight crew members and flight operations officers certification, training, and qualification requirements;
b) Medical certificates, physical examination, and fitness for duty requirements;
c) Flight control requirements (dispatch, flight release, or flight-locating);
d) Flight duty and rest requirements;
e) Recordkeeping requirements;
f) Operational rules in Part 8 and Part 9 of the Nigeria Civil Aviation Regulations, (where applicable) and any other applicable regulations;
g) Regulatory requirements for operator manuals;
h) Other appropriate regulations such as flight crew emergency authority, interference with crew members, and reporting requirements.

10.2.3 **Contents of Air Operator Certificate and Operations Specifications.**

a) Regulatory basis under Part 9 of the Nigeria Civil Aviation Regulations;
b) Definitions, description, and organization of operations specifications;
c) Limitations and authorizations of operations specifications;
d) Description of certificate;
e) Description of the Nigeria Civil Aviation Authority and responsibilities of a Flight Operations Inspector.

11.0 LICENSED-PERSONNEL-SPECIFIC TRAINING MODULES

11.1 The "Licensed-personnel-specific" training modules of the basic indoctrination curriculum segment contain training to ensure a new employee will be able to enter subsequent ground and flight training curriculum segments.

11.2 These modules address the appropriate portions of the operator's manual and standard practices of airmanship and flight procedures. The emphasis in Licensed-personnel-specific training is not aircraft-specific. It should relate to the operator's kind of operation and the family or families of aircraft used by the operator.

11.3 The objective of Licensed-personnel-specific training is to ensure that the new employee has acquired the basic knowledge necessary for operations under the applicable Regulations.

11.4 Examples of recommended training modules for the Licensed-personnel-specific subject area follow:

11.4.1 **Operator Operations Control**.

a) Dispatch, flight release, or flight locating systems and procedures (as applicable);
b) Organization, duties, and responsibilities;
c) Weather and NOTAM information; and
d) Operator communications.

11.4.2 **Mass and Balance.**

a) Definitions (such as zero-fuel mass, moments, and inches of datum);
b) General loading procedures and centre of gravity computations;
c) Effects of fuel burn and load shifts in flight;
d) Mass and balance forms, load manifests, fuel slips, and other applicable documents.

11.4.3 **Aircraft Performance and Airport Analysis.**

a) Definitions (such as balanced field, Visual Meteorological Conditions, obstruction planes, and maximum endurance);
b) Effects of temperature and pressure altitude;
c) General criteria (obstacle clearance standards);
d) Airport analysis system as appropriate to the type of operation and family or families of aircraft;
e) Effects of contaminated runways.

11.4.4 **Meteorology**.

a) Basic weather definitions (such as forecasts, reports, and symbols);
b) Temperature, pressure, and winds;
c) Atmosphere moisture and clouds;
d) Air masses and fronts;
e) Thunderstorms, icing, and wind shear.

11.4.5 **Navigation**.

a) Definitions ;
b) Basic navigational instruments;
c) Dead reckoning, map reading and pilotage concepts and procedures;
d) Navigational aids;
e) VHF, VLF, GPS and self-contained systems (as applicable).

11.4.6 **Airspace and ATC Procedures.**

a) Definitions (such as precision approaches, airways, and ATIS);
b) Description of airspace;
c) Navigation performance and separation standards;
d) Controller and pilot responsibilities;
e) ATC communications;
f) Air traffic flow control;
g) Wake turbulence recognition and avoidance.

Note: *There have been several accidents and incidents related to Boeing 757 (B-757) wake turbulence. Although the B-757 does not fit into the "heavy" classification of aircraft, it is being treated as such until a new classification determination is made. Each of these events occurred when the trailing aircraft was not being provided IFR traffic separation. To reduce the possibility of such occurrences, ATC should issue "Wake Turbulence Cautionary Advisories" to VFR aircraft following B-757 aircraft. Studies of wake turbulence have expanded to include pilot awareness, avoidance, and aircraft-specific procedures for a wake turbulence encounter. .Pilots should be encouraged to maintain the prescribed wake turbulence separation distances. Since wake turbulence is not unique to the B-757, all pilots should exercise caution when operating behind and/or below all heavier aircraft.*

11.4.7 **En Route and Terminal Area Charting and Flight Planning.**

a) Terminology of charting services (such as Jeppesen);
b) Takeoff minimums, landing minimums, and alternate requirements;
c) General operator flight planning procedures;
d) Flight service and international procedures (as applicable);
e) Airport diagrams.

11.4.8 **Concepts of Instrument Procedures.**

a) Definitions (such as MDA, DH, CAT II ILS);
b) Holding patterns, procedure turns;
c) Precision approaches (such as CAT I, CAT II, and CAT III);
d) Non-precision approaches;
e) Circling, visual, and contact approaches (as applicable).

12.0 EVALUATION OF FLIGHTCREW BASIC INDOCTRINATION CURRICULUM SEGMENT FOR INITIAL APPROVAL

12.1 When evaluating a basic indoctrination curriculum segment, inspectors must determine that the operator-specific and Licensed-personnel-specific subject areas are properly addressed. Operator-specific and Licensed-personnel-specific elements may be outlined in the same training module.

12.2 Inspectors must determine that basic indoctrination curriculum segments meet the following two requirements:

12.2.1 The operator-specific training must contain information of sufficient quality, scope, and depth to ensure that the crew member fully understands the duties and responsibilities applicable to the duty position. Training modules must also provide enough information to acquaint the new employee with the operator's policies, procedures, and practices.

12.2.2 Licensed-personnel-specific modules must address appropriate portions of the air operator's operating manual and other pertinent information. These modules should contain elements that address the operator's type of operation and certain generalized areas, such as meteorology and the principles of mass and balance. It is essential that inspectors and operators understand that Licensed-personnel-specific training is not aircraft-specific training. Licensed-personnel-specific training is intended to ensure that new employees have acquired fundamental aviation concepts before progressing into ground and flight training for a specific aircraft.

13.0 FLIGHT CREW MEMBER BASIC INDOCTRINATION CURRICULUM SEGMENT CHECKLIST

13.1 The basic indoctrination curriculum segment checklist (table 2) is provided to assist the inspector when evaluating this curriculum segment outline. This checklist is provided for guidance only and must not be construed as containing mandatory or regulatory requirements. This checklist focuses on the two subject areas of this curriculum segment (operator-specific and Licensed-personnel-specific training). It serves as an aid for inspectors when evaluating individual training modules.

13.2 When using the checklist, inspectors should make a side-by-side comparison of the operator's proposal to make the following determinations:

13.2.1 The proposal provides for operator-specific and Licensed-personnel-specific instruction;

13.2.2 The proposal is generalized in nature, and serves to acquaint the new employee with the operator's procedures, policies, and practices;

13.2.3 Normally, training modules should not contain elements which are "aircraft-specific;"

13.2.4 Sufficient training module elements should be listed to ensure the appropriate depth and scope of the material will be presented.

13.3 The checklist is organized with training subjects listed in the left column and evaluation criteria or remarks listed horizontally across the top. Inspectors may use the spaces within the matrix for items such as notes, comments, dates, or checkmarks. There are also blank columns and rows in each checklist that permit inspectors to include additional training modules or evaluation criteria.

APPENDIX 2 - FLIGHT CREW GENERAL EMERGENCY TRAINING CURRICULUM SEGMENTS

GENERAL

There are two types of emergency training that Part 8 of the Nigeria Civil Aviation Regulations operators must provide to flight crew members. One type is "aircraft-specific." This type of emergency training includes instruction and practice in emergency and abnormal procedures associated with aircraft systems, structural design, and operational characteristics. This training provides pilots and flight engineers with the knowledge and skills necessary to perform the emergency or abnormal procedures specified in the approved airplane flight manual (AFM) or those AFM procedures incorporated in the operator's aircraft operating manual. Examples of such procedures are those used when engine, landing gear, flight control, and/or pressurization problems occur. "Aircraft-specific" also includes training on the location of specific items of emergency equipment on the aircraft, such as fire extinguishers, oxygen bottles, life rafts, life vests and first aid kits. Aircraft-specific training must be included in the aircraft ground and flight training curriculum segments. The other type of emergency training is referred to as "general emergency training." General emergency training is required for crew members on each item specified in Part 8 of the Nigeria Civil Aviation Regulations. This section provides direction and guidance on the content, methods of presentation, evaluation, and approval of flight crew member general emergency training. Two distinct subject areas of training are required in the conduct of general emergency training. These areas of training are "emergency drill" training and "emergency situation" training. The general emergency training curriculum segment must contain training modules that provide for training in both subject areas;

NOTE: *"Emergency drill" training provides instruction and practice in the actual use of certain items of emergency equipment, such as the extinguishers, life vests, oxygen bottles, and first aid equipment.*

NOTE: *The discharge of Halon extinguishing agents during fire fighting drills is not appropriate unless a training facility is used that is specifically designed to prevent harm to the environment from the discharged Halon. When such facilities are not used, other fire extinguishing agents that are not damaging to the environment should be used during the drills.*

"Emergency situation" training consists of instruction on the factors involved, as well as the procedures to be followed, when emergency situations occur. Examples include passenger evacuations, ditching, rapid decompressions, aircraft fires, and persons needing first aid. The training modules for general emergency training must address the type of operation performed by an operator. For example, if a operator operates aircraft above 25,000 feet, crew members must receive instruction in subjects such as respiration, hypoxia, decompression sickness, and any related procedures. As another example, a operator which does not conduct extended-over-water operations does not need to conduct training in the use of life rafts.

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Nigerian Civil Aviation Authority

CHAPTER 23

Crew Resource Management Training

1.0 PURPOSE

1.1 This Chapter presents guidelines for developing, implementing, reinforcing and assessing Crew Resource Management (CRM) training programmes for flight crew members and other personnel essential to flight safety.

1.2 These programmes are designed to become an integral part of training and operations. Guidelines are primarily for those operators subject to Part 8 and Part 9 of the Nigeria Civil Aviation Regulations.

1.3 All operators under Part 8 of the Nigeria Civil Aviation Regulations are required by regulations to provide CRM training for pilots, cabin crew and flight operations officers. These guidelines are also for use by other Nigeria aircraft operators electing to train in accordance with Part 9 of the Nigeria Civil Aviation Regulations requirements.

1.4 This ORDER presents one way, but not necessarily the only way, that CRM training may be addressed. CRM training focuses on situation awareness, communication skills, teamwork, task allocation, and decision making within a comprehensive framework of standard operating procedures (SOPs).

2.0 REFERENCES

2.1 **Regulation 8.10.1.12 of the Nigeria Civil Aviation Regulations.**

2.2 CHECKLISTS: CL: O-OPS007; CL: O-OPS020B; OPS Manual Part D

3.0 DEFINITIONS

3.1 The human factors safety challenge and the CRM training response may be defined as follows:

3.1.1 **Human Factors**. Human factors are a multidisciplinary field devoted to optimizing human performance and reducing human error. It incorporates the methods and principles of the behavioural and social sciences, engineering, and physiology. Human factors are the applied science that studies people working together in concert with machines. Human factors embrace variables that influence individual performance and variables that influence team or crew performance. It is recognized that inadequate system design or inadequate operator training can contribute to individual human error that leads to system performance degradation. Further, it is recognized that inadequate design and management of crew tasks can contribute to group errors that lead to system performance degradation;

3.1.2 **Crew Resource Management (CRM) Training.** The application of team management concepts in the cockpit environment was initially known as Cockpit Resource Management. As CRM training programmes evolved to include cabin crew, maintenance personnel and others, the phrase Crew Resource Management has been adopted and refers to the effective use of all available human resources, hardware and information. Other groups routinely working with the cockpit crew, who are involved in decisions required to operate a flight safely, are also essential participants in an effective CRM process. These groups include but are not limited to:

a) Flight Operations Officers;
b) Cabin Crew Member;
c) Maintenance personnel;
d) Air traffic controllers.

3.2 CRM training is one way of addressing the challenge of optimizing the human/machine interface and accompanying interpersonal activities. These activities include teambuilding and maintenance, information transfer, problem solving, decision making,maintaining situation awareness, and dealing with automated systems.

3.3 CRM training is comprised of three components: initial indoctrination/awareness, recurrent practice and feedback, and continual reinforcement.

4.0 BACKGROUND

4.1 Investigations into the causes of air operator accidents have shown that human error is a contributing factor in 60 to 80 percent of all air operator incidents and accidents. Research has demonstrated that these events share common characteristics. Many problems encountered by flight crew members have very little to do with the technical aspects of operating in a multi-person cockpit. Instead, problems are associated with poor group decision making, ineffective communication, inadequate leadership, and poor task or resource management. Pilot training programmes historically focused almost exclusively on the technical aspects of flying and on an individual pilot's performance; they did not effectively address crew management issues that are also fundamental to safe Investigative researchers have identified SOPs as a persistent element in these problems, which sometimes have led to accidents. SOPs define the shared mental model upon which good crew performance depends. Too often well-established SOPs have been unconsciously ignored by pilots and others; in other cases they have been consciously ignored. In still other cases SOPs have been inadequately developed by the operator for use by his pilots, cabin crews, or flight operations officers, or a significant SOP has been omitted altogether from an operator's training programme,

4.3 Industry and government have come to consensus that training programmes should place emphasis on the factors that influence crew coordination and the management of crew resources. The need for additional training in communication between cockpit crew members and cabin crews has been specifically identified.

4.4 Coordinated efforts by representatives from the aviation community have produced valuable recommendations for CRM training programmes.

4.5 Measurements of the impact of CRM training by research centres show that after initial indoctrination, significant improvement in attitudes occur regarding crew coordination and cockpit management. In programmes that also provide recurrent training and practice in CRM concepts, significant changes have been recorded in flight crew member performanceduring Line OrientedFlight Training (LOFT) and during actual flight. CRM-trained crews operate more effectively as teams and cope more effectively with non-routine situations.

4.6 Research also shows that when there is no effective reinforcement of CRM concepts by way of recurrent training, improvements in attitudes observed after initial indoctrination tends to disappear, and individuals' attitudes tend to revert to former levels.

5.0 THE OBJECTIVE OF CRM TRAINING

CRM training has been conceived to prevent aviation accidents by improving crew performance through better crew coordination.

6.0 BASIC CONCEPTS OF CRM

6.1 CRM training is based on awareness that a high degree of technical proficiency is essential for safe and efficient operations. Demonstrated mastery of CRM concepts cannot overcome a lack of proficiency. Similarly, high technical proficiency cannot guarantee safe operations in the absence of effective crew coordination.

6.2 Experience has shown that lasting behaviour changes in any environment cannot be achieved in a short time, even if the training is very well designed. Trainees need awareness, practice and feedback, and continuing reinforcement: in brief, time to learn attitudes and behaviours that will endure. In order to be effective, CRM concepts must be permanently integrated into all aspects of training and operations.

6.3 While there are various useful methods in use in CRM training today, the following *essentials are universal:*

6.3.1 CRM training is most effective within a training programme centred on clear, comprehensive standard operating procedures;

6.3.2 CRM training should focus on the functioning of crew members as teams, not as a collection of technically competent individuals;

6.3.3 CRM training should instruct crew members how to behave in ways that foster crew effectiveness;

6.3.4 CRM training should provide opportunities for crew members to practice the skills necessary to be effective team leaders and team members;

6.3.5 CRM training exercises should include all crew members functioning in the same roles (e.g., pilot in command, Co-pilot, and/or flight engineer, cabin crews) that they normally perform in flight; and

6.3.6 CRM training should include effective team behaviours during normal, routine operations.

6.4 Good training for routine operations can have a strong positive effect on how well individuals function during times of high workload or high stress. During emergency situations, it is highly unlikely (and probably undesirable) that any crew member would take the time to reflect upon his or her CRM training in order to choose the appropriate behaviour. But practice of desirable behaviours during times of low stress increases the likelihood that emergencies will be handled effectively.

6.5 Effective CRM has the following characteristics:

6.5.1 CRM is a comprehensive system of applying human factors concepts to improve crew performance;

6.5.2 CRM embraces all operational personnel;

6.5.3 CRM can be blended into all forms of aircrew training;

6.5.4 CRM concentrates on crew members' attitudes and behaviours and their impact on safety;

6.5.5 CRM uses the crew as the unit of training;

6.5.6 CRM is training that requires the active participation of all crew members. It provides an opportunity for individuals and crews to examine their own behaviour, and to makedecisions on how to improve cockpit teamwork.

6.6 LOFT sessions provide an extremely effective means of practicing CRM skills and receiving reinforcement.

6.7 Audiovisual (taped) feedback during debriefing of LOFT and other training are excellent ways for flight crew members to assess their skills as individuals and as team members. Bulk erasure of taped sessions is suggested to encourage candour among participants while assuring their privacy.

6.8 In cases where simulators are not available, crew members can participate in group problem-solving activities designed to exercise CRM skills. Through taped feedback during debriefing, they can then assess the positive and negative behaviours of all crew members.

6.9 Crew members may also participate in role-playing exercises. Such exercises permit practice in developing strategies for dealing with events or event sets, and enable analysis of behaviours shown while dealing with them. Again, taping the role-playing exercises is useful for assessment and feedback during debriefing. Crew members' abilities can be clearly observed in such areas as adherence to SOPs, decision making, teamwork, and leadership.

6.10 Attitude and/or personality measures can also be used to provide feedback to participants, allowing them to assess their own strengths and weaknesses.

6.11 Success of a CRM training programme depends upon check airmen, instructors, and supervisors who are highly qualified in the operator's SOPs and specially trained in CRM

7.0 FUNDAMENTALS OF CRM TRAINING IMPLEMENTATION

7.1 Research programmes and airline operational experience suggest that the greatest benefits are achieved by adhering to the following practices:

7.1.1 **Assess the Status of the Organization Before Implementation.** It is important to know how widely CRM concepts are understood and practiced before designing specific training. Surveys of crew members, management, training, and standards personnel, observation of crews in line observations, and analysis of incident/accident reports can provide essential data for programme designers;

7.1.2 **Get Commitment from All Managers, Starting with Senior Managers.** CRM programmes are received much more positively by operations personnel when senior managers, flight operations managers, and flight standards officers conspicuously support CRM concepts and provide the necessary resources for training. Flight operations manuals and training manuals should embrace CRM concepts by providing crews with necessary policy and procedures guidance centred on clear, comprehensive SOPs. A central CRM concept is communication. It is essential that every level of management support a safety culture in which communication is promoted by encouraging appropriate questioning. It should be made perfectly clear in pilots' manuals, and in every phase of pilot training, that appropriate questioning is encouraged and that there will be no negative repercussions for appropriate questioning of one pilot's decision or action by another pilot;

7.1.3 **Customize the Training to Reflect the Nature and Needs of the Organization.** Using knowledge of the state of the organization, priorities should be established for topics to be covered including special issues, such as the effects of mergers or the introduction of advanced technology aircraft. Other special issues might include topics specific to the particular type of operation, such as the specific characteristics that exist in commuter operations, in long-haul international operations or night operations. This approach increases the relevance of training for crew members;

7.1.4 **Define the Scope of the Programme and an Implementation Plan**. Institute special CRM training for key personnel including check airmen, supervisors, and instructors. It is highly beneficial to provide training for these groups before beginning training for crew members. CRM training may be expanded to combine pilots, cabin crews, and aircraft dispatchers. It may also be expanded to include maintenance personnel and other company team members as appropriate. It is also helpful to develop a long term strategy for programme implementation;

7.1.5 **Communicate the Nature and Scope of the Programme Before Start-up.** Training departments should provide crews, managers, training, and standards personnel with a preview of what the training will involve together with plans for initial and continuing training. These steps can prevent misunderstandings about the focus of the training or any aspect of its implementation;

7.1.6 **Institute Quality Control Procedures.** It has proved helpful to monitor the delivery of training and to determine areas where training can be strengthened. Monitoring can be initiated by providing special training to programme instructors (often called facilitators) in using surveys to collect systematic feedback from participants in the training.

8.0 COMPONENTS OF CRM TRAINING

8.1 **General**

The topics outlined below have been identified as critical components of effective CRM training.They do not represent a fixed sequence of phases, each with a beginning and an end. Ideally, each component is continually renewed at every stage of training.

8.2 **Initial Indoctrination/Awareness**

8.2.1 Indoctrination/awareness typically consists of classroom presentations and focuses on communications and decision making, interpersonal relations, crew coordination, leadership, and adherence to SOPs, among others. In this component of CRM training, the concepts are developed, defined, and related to the safety of line operations. This component also provides a common conceptual framework and a common vocabulary for identifying crew coordination problems.

8.2.2 Indoctrination/awareness can be accomplished by a combination of training methods. Lectures, audiovisual presentations, discussion groups, role-playing exercises, computerbased instruction, and videotaped examples of good and poor team behaviour are commonly used methods.

8.2.3 Initiating indoctrination/awareness training requires the development of a curriculum that addresses CRM skills that have been demonstrated to influence crew performance. To be most effective, the curriculum should define the concepts involved and relate them directly to operational issues that crews encounter. Many organizations have found it useful to survey crew members. Survey data have helped identify embedded attitudes regarding crew coordination and cockpit management. The data have also helped to identify operational problems and to prioritize training issues.

8.2.4 Effective indoctrination/awareness training increases understanding of CRM concepts. That understanding, in turn, often influences individual attitudes favourably regarding human factors issues. Often the training also suggests more effective communication practices.

8.2.5 It is important to recognize that classroom instruction alone does not fundamentally alter crew member attitudes over the long term. The indoctrination/awareness training should be regarded as a necessary first step towards effective crew performance training.

8.3 **Recurrent Practice and Feedback**

8.3.1 CRM training must be included as a regular part of the recurrent training requirement. Recurrent CRM training should include classroom or briefing room refresher training to review and amplify CRM components, followed by practice and feedback exercises such as LOFT, preferably with taped feedback; or a suitable substitute such as role-playing in a flight training device and taped feedback. It is recommended that these recurrent CRM exercises take place with a full crew, each member operating in his or her normal crew position. A complete crew should always be scheduled, and every attempt should be made to maintain crew integrity. Recurrent training LOFT which includes CRM should be conducted with current line crews, and preferably not with instructors or

check pilots as stand-ins.

8.3.2 Recurrent training with performance feedback allows participants to practice newly improved CRM skills and to receive feedback on their effectiveness. Feedback has its greatest impact when it comes from self-critique and from peers, together with guidance from a facilitator with special training in assessment and debriefing techniques.

8.3.3 the most effective feedback refers to the coordination concep identified in Indoctrination/Awareness training or in recurrent training. Effective feedback relates to specific behaviours. Practice and feedback are best accomplished through the use of simulators or training devices and videotape. Taped feedback, with the guidance of a facilitator, is particularly effective because it allows participants to view themselves from a third person perspective. This view is especially compelling in that strengths and weaknesses are captured on tape and vividly displayed. Stop action, replay, and slow motion are some of the playback features available during debriefing. Behavioural patterns and individual work styles are easily seen, and appropriate adjustments are often self-evident.

8.4 **Continuing Reinforcement**

8.4.1 No matter how effective each curriculum segment is (the classroom, the role-playing exercises, the LOFT, or the feedback), one-time exposures are simply not sufficient. The attitudes and norms that contribute to ineffective crew coordination may have developed over a crew member's lifetime. It is unrealistic to expect a short training programme to reverse years of habits. To be maximally effective, CRM should be embedded in every stage of training, and CRM concepts should be stressed in line operations as well.

8.4.2 CRM should become an inseparable part of the organization's culture.

8.4.3 There is a common tendency to think of CRM as training only for pilot in commands.
This notion misses the essence of the CRM training mission: the prevention of crew-related accidents. CRM training works best in the context of the entire crew. Training exercises are most effective if all crew members work together and learn together. In the past, much of the flight crew member training has been segmented by crew position. This segmentation has been effective for meeting certain training needs such as seat dependent technical training and upgrade training, but segmentation is not appropriate for most CRM training.

8.4.4 Reinforcement can be accomplished in many areas. Training such as joint cabin and cockpit crew training in security can deal with many human factors issues. Joint training with aircraft dispatchers, maintenance personnel, and gate agents can also reinforce CRM concepts and is recommended.

9.0 SUGGESTED CURRICULUM TOPICS

The topics outlined below have been included in many current CRM programmes. Specific content of training and organization of topics should reflect an organization's unique culture and specific needs. Appendix 1 offers a set of behavioural markers fitting subtopics within each topic cluster. Sometimes overlapping, these markers may be helpful in curriculum development and in LOFT design. Appendix 3 gives additional CRM training topics.

10.0 COMMUNICATIONS PROCESSES AND DECISION BEHAVIOR

10.1 This topic includes internal and external influences on interpersonal communications. External factors include communication barriers such as rank, age, gender, and organizational culture, including the identification of inadequate SOPs.

10.2 Internal factors include speaking skills, listening skills and decision making skills, conflict resolution techniques, and the use of appropriate assertiveness and advocacy. The importance of clear and unambiguous communication must be stressed in all training activities involving pilots, cabin crews, and aircraft dispatchers. The greater one's concern in flight-related matters, the greater is the need for clear communication.

10.3 **More specific subtopics include the following:**

10.3.1 **Briefings.** Training in addressing both operational and interpersonal issues, and training in establishing and maintaining open communications. Briefings should reaffirm established SOPs, and should address the most threatening safety and security situations as follows:

a) **Safety.** A pilot in command's briefing should address emergencies that might require an airplane evacuation (e.g., cabin fire or engine fire) and should highlight the functions of flight crewmember and cabin crew members during an evacuation. A pilot in command's briefing should stress to cabin crew member the importance of identifying able-bodied passengers and briefing them, in turn. Passengers in exit rows are particularly resources, and cabin crew member should brief them on what to do during an evacuation;

b) **Security.** A pilot in command's briefing should address general security topics, especially hijack, and any known or suspected specific threat pertaining to the flight. Cabin crew members should identify able-bodied passengers, including exit row seat occupants, and may enrol them as resources that might be called upon to help contain a disruption caused by a passenger(s);

10.3.2 **Inquiry/Advocacy/Assertion**. Training in the potential benefits of crew members advocating the course of action that they feel is best, even though it may involve conflict with others;

10.3.3 **Crew Self-Critique (Decisions and Actions).** Illustrating the value of review, feedback, and critique focusing on the process and the people involved. One of the best techniques for reinforcing effective human factors practices is careful debriefing of activities, highlighting the processes that were followed. Additionally, it is essential that each crew member be able to recognize good and bad communications, and effective and ineffective team behaviour;

10.3.4 **Conflict Resolution.**Demonstrating effective techniques of resolving disagreements among crew members in interpreting information or in proposing courses of action. Demonstrating effective techniques for maintaining open communication while dealing with conflict;

10.3.5 **Communications and Decision making.** Demonstrating effective techniques of seeking and evaluating information. Showing the influence of biases and other cognitive factors on decision quality. There are benefits in providing crews with operational models of this group decision

process. Crew members may refer to these models to make good choices in situations when information is incomplete or contradictory.

11.0 TEAM BUILDING AND MAINTENANCE

11.1 This topic includes interpersonal relationships and practices. Effective leadership/followership and interpersonal relationships are key concepts to be stressed. Curricula can also include recognizing and dealing with diverse personalities and operating styles.

11.2 Subtopics include:

11.2.1 **Leadership/Followership/Concern for Task.** Showing the benefits of the practice of effective leadership through coordinating activities and maintaining proper balance between respecting authority and practicing assertiveness. Staying centred on the goals of safe and efficient operations;

11.2.2 **Interpersonal Relationships/Group Climate.** Demonstrating the usefulness of showing sensitivity to other crew members' personalities and styles. Emphasizing the value of maintaining a friendly, relaxed, and supportive yet task oriented tone in the cockpit and aircraft cabin. The importance of recognizing symptoms of fatigue and stress, and taking appropriate action;

11.2.3 **Workload Management and Situation Awareness.** Stressing the importance of maintaining awareness of the operational environment and anticipating contingencies. Instruction may address practices (for example, vigilance, planning and time management, prioritizing tasks, and avoiding distractions) that result in higher levels of situation awareness. The following operational practices may be included:

a) **Preparation/Planning/Vigilance.** Issues include methods to improve monitoring and accomplishing required tasks, asking for and responding to new information, and preparing in advance for required activities;

b) **Workload Distribution/Distraction Avoidance**. Issues involve proper allocation of tasks to individuals, avoidance of work overloads in self and in others, prioritization of tasks during periods of high workload, and preventing nonessential factors from distracting attention from adherence to SOPs, particularly those relating to critical tasks.

11.2.4 **Individual Factors/Stress Reduction.** Training in this area may include describing and demonstrating individual characteristics that can influence crew effectiveness. Research has shown that many crew members are unfamiliar with the negative effects of stress and fatigue on individual cognitive functions and team performance. Training may include a review of scientific evidence on fatigue and stress and their effects on performance. The content may include specific effects of fatigue and stress in potential emergency situations. The effects of personal and interpersonal problems and the increased importance of effective interpersonal communications under stressful conditions may also be addressed. Training may also include familiarization with various countermeasures for coping with stressors. Additional curriculum topics may include examination of personality and motivation characteristics, self-assessment of personal style, and identifying cognitive factors that influence perception and decision making.

12.0 SPECIALIZED TRAINING IN CRM CONCEPTS

12.1 As CRM programmes have matured, some organizations have found it beneficial todevelop and implement additional courses dealing with issues specific to their operations.

12.2 After all current crew members have completed the Initial Indoctrination /Awareness component of CRM training, arrangements are needed to provide newly hired crew members with the same material. A number of organizations have modified their CRM initial courses for inclusion as part of the initial training and qualification for newly hired crew members.

12.3 Training for upgrading to pilot in command provides an opportunity for specialized training that deals with the human factors aspects of command. Such training can be incorporated in the upgrade process.

12.4 Training involving communications and the use of automation can be developed for crewmembers operating aircraft with advanced technology cockpits, or for crews transitioninto them.

13.0 ASSESSMENT OF CRM TRAINING PROGRAMMES

13.1 It is vital that each programme be assessed to determine if it is achieving its goals. Each organization should have a systematic assessment programme. Assessment should track the effects of the training programme so that critical topics for recurrent training may be identified and continuous improvements may be made in all other respects. Assessment of the training programme should include observation of the training process by programme administrators and self-reports by participants using standard survey methods.

13.2 The emphasis in this assessment process should be on crew performance. The essential areas of CRM-related assessment include communications processes, decision making, team building and maintenance, workload management, and situation awareness, always in balance with traditional technical proficiency. An additional function of such assessment is to determine the impact of CRM training and organization-wide trends in crew performance.

13.3 For optimal assessment, data on crew members' attitudes and behaviour should be collected before CRM indoctrination and again at intervals after the last component of CRM training, to determine both initial and enduring effects of the programme. The goal should be to obtain an accurate picture of the organization's significant corporate personality traits before formal adoption of CRM training, and to continue to monitor those traits after implementation.

13.4 Reinforcement and feedback are essential to effective CRM training programmes. Crew members must receive continual reinforcement to sustain CRM concepts. Effective reinforcement depends upon usable feedback to crew members on their CRM practices and on their technical performance.

13.5 Usable feedback requires consistent assessment. Crew members and those involved in training and evaluation should be able to recognize effective and ineffective CRM behaviours. CRM concepts should be critiqued during briefing/debriefing phases of all training and checking events.

13.6 To summarize, the assessment programme should-

13.6.1 Measure and track the organization's corporate culture as it is reflected in attitudes andnorms;

13.6.2 Identify topics needing emphasis within the CRM programme;

13.6.3 Ensure that all check airmen, supervisors, and instructors are well prepared and standardized.

14.0 THE CRITICAL ROLE OF CHECK PILOTS AND INSTRUCTORS

14.1 The success of any CRM training programme ultimately depends on the skills of the people who administer the training and measure its effects. CRM instructors, check pilots, supervisors and course designers must be skilled in all areas related to the practice and assessment of CRM. These skills comprise an additional level to those associated with traditional flight instruction and checking.

14.2 Gaining proficiency and confidence in CRM instruction, observation, and measurement requires special training for instructors, supervisors, and check pilots in many CRM training processes. Among those processes are role-playing simulations, systematic crew-centred observation, administering LOFT programmes, and providing usable feedback to crews.

14.3 Instructors, supervisors, and check pilots also require special training in order to calibrate and standardize their own skills.

14.4 Instructors, supervisors, and check airmen should use every available opportunity to emphasize the importance of crew coordination skills. The best results occur when the crews examine their own behaviour with the assistance of a trained instructor who can point out both positive and negative CRM performance. Whenever highly effective examples of crew coordination are observed, it is vital that these positive behaviours be discussed and reinforced. Debriefing and critiquing skills are important tools for instructors, supervisors, and check pilots. (Behavioural markers of effective LOFT debriefings are shown in Appendix 2.)

14.5 Feedback from instructors, supervisors, and check airmen is most effective when it refer to the concepts that are covered in the initial indoctrination/awareness training. The best feedback refers to instances of specific behaviour, rather than behaviour in general.

15.0 EVOLVING CONCEPTS OF CRM

15.1 Crew Monitoring and Cross-Checking. Several studies of crew performance, incidents, and accidents have identified inadequate flight crew members monitoring and cross-checking as a problem for aviation security. Therefore, to ensure the highest level of safety, each flight crew member must carefully monitor the aircraft‘s flight path and systems and actively cross-check the actions of other crew members. Effective monitoring and cross-checking can be the last line of defence that prevents an accident because detecting an error or unsafe situation may break the chain of events leading to an accident. This monitoring function is always essential, and particularly so during approach and landing when controlled flight into terrain (CFIT) accidents are most common.

15.2 Joint CRM Training. More and more operators are discovering the value of expanding CRM training to reach various employee groups beyond the flight crew and cabin crew members. Such groups are being brought together in CRM training and other activities. The objective is to improve the effectiveness and safety of the entire operations team as a working system.

15.2.1 The attacks of September 11, 2001, have caused many restrictions on cockpit access. Pilots may observe operations in air traffic facilities under certain conditions, and are encouraged to do so. Using real air traffic controllers during LOFT sessions has also proven beneficial to pilots and participating controllers;

15.2.2 Aircraft dispatchers and flight operations officers have functioned jointly with flight captains for years. They have been required to observe cockpit operations from the cockpit jumpseat as part of their initial and recurrent qualification. Some operators have included day trips to their aircraft dispatchers' offices to provide the pilot insight into the other side of the joint function scheme. Those trips have commonly been part of the special training offered to first-time captains. Now, real-life aircraft dispatchers and flight operations officers are increasingly being used in LOFT sessions. The training experience gained by the pilot and the dispatcher during LOFT is considered the logical extension of earlier training methods, providing interactivity where CRM principles are applied and discussed;

15.2.3 Maintenance personnel have also had access to the cockpit jumpseat in air operator‘s operations. Training of first-time pilots in command has often included day trips to an operator's operations control or maintenance control centre where a pilot and a maintenance supervisor can meet face to face and discuss issues of mutual interest. Some operators have included maintenance personnel in LOFT sessions;

15.2.4 Cabin crew members are probably the most obvious of the groups other than pilots who may profit from CRM training. Joint CRM training for pilots and cabin crews has been practiced for years. One fruitful activity in joint training has been that each group learns of the other group's training in shared issues. The joint training has revealed inconsistencies between training for one group and training on the same topic for another group. Examples of shared issues include delays, the use of personal electronic devices in the cabin, and evacuation and ditching. When inconsistencies are identified between the contents of pilots' manuals and cabin crews' manuals, for instance, or between widely held ideas or attitudes in those two groups, those inconsistencies are brought out into the open and often resolved. Other specific topics for joint training include:

a) Pre-flight briefings;
b) Post incident/accident procedures;
c) Sterile cockpit procedures;
d) Notification procedures pre-takeoff and pre-landing;
e) Procedures for turbulence and other weather;
f) Security procedures;
g) Passenger-handling procedures;
h) In-flight medical problems;
i) Smoke/fire procedures;

j) Passenger-related regulations such as those relating to smoking [Regulation 9.1.1of Part 8 of the Nigeria Civil Aviation Regulations], exit row seating [Regulation 9.2.11 of Part 8 of the Nigeria Civil Aviation Regulations] and carry-on baggage [Regulation 9.2.14 of Part 8 of the Nigeria Civil Aviation Regulations];
k) Authority of the pilot in command.

15.2.5 CRM principles are made more relevant for pilots, cabin crews, and other groups by treating those principles in a familiar job-related context. Furthermore, each group should benefit from concurrent training in CRM that is complemented by usable knowledge of the other's job;

15.2.6 Communication and coordination problems between cockpit crew members and cabin crews continue to challenge air operators and Regulatory Agencies. Other measures with positive CRM training value for flight crew members are being considered, such as:

a) Including cabin crew as participants during LOFT;
b) Scheduling month-long pairings of pilots and cabin crew; and
c) Providing experienced flight crew members to teach newly-hired cabin crew orientation classes.

15.2.7 Error Management. It is now understood that pilot errors cannot be entirely eliminated. It is important, therefore, that pilots develop appropriate error management skills and procedures. It is certainly desirable to prevent as many errors as possible, but since they cannot all be prevented, detection and recovery from errors should be addressed in training. Evaluation of pilots should also consider error management (error prevention, detection, and recovery). Evaluation should recognize that since not all errors can be prevented, it is important that errors be managed properly.

15.2.8 Culture Issues. While individuals and even teams of individuals may perform well under many conditions, they are subject to the influence of at least three cultures--the professional cultures of the individuals themselves, the cultures of their organizations, and the national cultures surrounding the individuals and their organizations. If not recognized and addressed, factors related to culture may degrade crew performance. Hence, effective CRM training must address culture issues as appropriate in each training group.

16.0 SUMMARY

Effective Crew Resource Management begins in initial training; it is strengthened by recurrent practice and feedback, and it is sustained by continuing reinforcement that is part of the corporate culture and embedded in every stage of training.

APPENDIX 1

CREW PERFORMANCE MARKER CLUSTERS

1. Italicized Markers apply to Advanced Technology Cockpit. These behavioural markers are provided to assist organizations in programme and curriculum development and to serve as guidelines for feedback. They are not presented as a checklist for evaluating individual crew members.

COMMUNICATIONS PROCESSES AND DECISION BEHAVIOR CLUSTE

2. Briefings

(1) An effective briefing is interesting and thorough. It addresses coordination, planning, and problems. Although briefings are primarily a pilot in command's responsibility, other crew members may add significantly to planning and should be encouraged to do so.

(2) Behavioural Markers. The following are characteristics of behavioural markers in briefings:

(a) The briefing establishes an environment for open/interactive communications (for example, the pilot in command calls for questions or comments, answers question directly, listens with patience, does not interrupt or "talk over," does not rush through the briefing, and makes eye contact as appropriate);
(b) The briefing is interactive and emphasizes the importance of questions, critique and the offering of information;
(c) The briefing establishes a "team concept" (for example, the pilot in command uses "we" language, encourages all to participate and to help with the flight);
(d) The briefing covers pertinent safety and operational issues;
(e) The briefing identifies potential problems such as weather, delays, and abnormal system operations;
(f) The briefing provides guidelines for crew actions centred on SOPs; division of labour and crew workload is addressed;
(g) The briefing includes the cabin crew as part of the team;
(h) The briefing sets expectations for handling deviations from SOPs;
(i) The briefing establishes guidelines for the operation of automated systems (forexample, when systems will be disabled; which programming actions must be verbalized and acknowledged);
(j) The briefing specifies duties and responsibilities with regard to automated systems for the pilot flying and pilot monitoring.

Inquiry/Advocacy/Assertion

3. (1) These behaviours relate to crew members' promoting the course of action that they feel is best, even when it involves conflict with others.
(2) Behavioural Markers. The following are characteristics of behavioural markers for Inquiry/Advocacy/Assertion;

(a) Crew members speak up and state their information with appropriate persistence until there is some clear resolution;
(b) Challenge and response" environment is developed;
(c) Questions are encouraged and are answered openly and non-defensively;
(d) Crew members are encouraged to question the actions and decisions of others;
(e) Crew members seek help from others when necessary;
(f) Crew members question status and programming of automated systems to confirm situation awareness.

Crew Self-Critique Regarding Decisions and Actions

4. (1) These behaviours relate to the effectiveness of a group and/or an individual crew member in critique and debriefing. Areas covered should include the product, the process, and the people involved. Critique may occur during an activity, and/or after completing it.

(2) Behavioural Marker. The following are characteristics of behavioural markers for Crew Self Critique Regarding Decisions and Actions

(a) Critique occurs at appropriate times, which may be times of low or high workload;
(b) Critique deals with positive as well as negative aspects of crew performance;
(c) Critique involves the whole crew interactively;
(d) Critique makes a positive learning experience. Feedback is specific, objective, usable, and constructively given;
(e) Critique is accepted objectively and non-defensively.

Communications/Decisions

5. (1) These behaviours relate to free and open communication. They reflect the extent to which crew members provide necessary information at the appropriate time (for example, initiating checklists and alerting others to developing problems). Active participation in the decision making process is encouraged. Decisions are clearly communicated and acknowledged. Questioning of actions and decisions is considered routine.

(2) Behavioural Markers. The following are characteristics of behavioural markers for Communications/Decisions:

(a) Operational decisions are clearly stated to other crew members;
(b) Crew members acknowledge their understanding of decisions;
(c) Bottom lines" for safety are established and communicated;
(d) The "big picture" and the game plan are shared within the team, including cabin crew and others as appropriate;
(e) Crew members are encouraged to state their own ideas, opinions, recommendations.
(f) Efforts are made to provide an atmosphere that invites open and free communications;
(g) Initial entries and changed entries to automated systems are verbalized and

acknowledged.

TEAM BUILDING AND MAINTENANCE CLUSTER

Leadership Followership/Concern for Tasks

6 (1) These behaviours relate to appropriate leadership and followership. They reflect the extent to which the crew is concerned with the effective accomplishment of tasks.

(2) Behavioural Markers. The following are characteristics of behavioural markers for Leadership Followership/Concern for Tasks:

(a) All available resources are used to accomplish the job at hand;
(b) Cockpit activities are coordinated to establish an acceptable balance between respect for authority and the appropriate practice of assertiveness;
(c) Actions are decisive when the situation requires;
(d) A desire to achieve the most effective operation possible is clearly demonstrated;
(e) The need to adhere to standard operating practices is recognized;
(f) Group climate appropriate to the operational situation is continually monitored and adjusted (for example, social conversation may occur during low workload, but not high);
(g) Effects of stress and fatigue on performance are recognized;
(h) Time available for the task is well managed;
(i) Demands on resources posed by operation of automated systems are recognized and managed;
(j) When programming demands could reduce situation awareness or create work overloads, levels of automation are reduced appropriately.

Interpersonal Relationships/Group Climate

7. (1) These behaviours relate to the quality of interpersonal relationships and the pervasive climate of the cockpit.

(2) Behavioural Markers. The following are characteristics of behavioural markers for Interpersonal Relationships/Group Climate

(a) Crew members remain calm under stressful conditions;
(b) Crew members show sensitivity and ability to adapt to the personalities of others;
(c) Crew members recognize symptoms of psychological stress and fatigue in self and in others (for example, recognizes when he/she is experiencing "tunnel vision" and seeks help from the team; or notes when a crew member is not communicating and draws him/her back into the team);
(d) "Tone" in the cockpit is friendly, relaxed, and supportive;
(e) During times of low communication, crew members check in with others to see how they are doing.

WORKLOAD MANAGEMENT AND SITUATION AWARENESS CLUSTER

Preparation/Planning/Vigilance

8. (1) These behaviours relate to crews' anticipating contingencies and the various actions that may be required. Excellent crews are always "ahead of the curve" and generally seem relaxed. They devote appropriate attention to required tasks and respond without undue delay to new developments. (They may engage in casual social conversation during periods of low workload and not necessarily diminish their vigilance.)

(2) Behavioural Markers. The following are characteristics of behavioural markers for Preparation/Planning/Vigilance:

(a) Demonstrating and expressing situation awareness; (for example, the "model" of what is happening is shared within the crew);
(b) Active monitoring of all instruments and communications and sharing relevant information with the rest of the crew;
(c) Monitoring weather and traffic and sharing relevant information with the rest of the crew;
(d) Avoiding "tunnel vision" caused by stress; (for example, stating or asking for the"big picture);"
(e) Being aware of factors such as stress that can degrade vigilance and watching for performance degradation in other crew members;
(f) Staying "ahead of the curve" in preparing for planned situations or contingencies, so that situation awareness and adherence to SOPs are assured;
(g) Ensuring that cockpit and cabin crew members are aware of plans;
(h) Including all appropriate crew members in the planning process;
(i) Allowing enough time before manoeuvres for programming of the flight management computer;
(j) Ensuring that all crew members are aware of initial entries and changed entries in the flight management system.

Workload Distributed/Distractions Avoided

9. (1) These behaviours relate to time and workload management. They reflect how well the crew manages to prioritize tasks, share the workload, and avoid being distracted from essential activities.

(2) Behavioural Markers. The following are characteristics of behavioural markers for Workload Distributed /Distractions Avoided

(a) Crew members speak up when they recognize work overloads in themselves or in others;

(b) Tasks are distributed in ways that maximize efficiency;

(c) Workload distribution is clearly communicated and acknowledged;

(d) Non-operational factors such as social interaction are not allowed to interfere with duties;

(e) Task priorities are clearly communicated;

(f) Secondary operational tasks (for example, dealing with passenger needs and communications with the company) are prioritized so as to allow sufficient resources for primary flight duties;

(g) Potential distractions posed by automated systems are anticipated, and appropriate preventive action is taken, including reducing or disengaging automated features as appropriate.

APPENDIX 2

LOFT DEBRIEFING PERFORMANCE INDICATORS

1. (1) The effective Line-Oriented Flight Training (LOFT) facilitator leads the flight crew member through a self-critique of their own behaviour and of their crew performance during the simulation. The debriefing and crew analysis include both technical and CRM discussion topics. Positive points of crew performance are discussed, as well as those needing improvement. At the conclusion of the session, key learning points are summarized covering all participants, including the instructor. A strong sense of training accomplishment and learning is taken away from the session.

(2) The following performance markers may be used to evaluate the LOFT facilitator's performance in the debrief/critique phase of LOFT.

(a) Actively states the debriefing and critique agenda and solicits topics from the crew on items that they would like to cover; sets time limits;
(b) Asks the crew for their appraisal of the mission overall;
(c) States his/her own perceptions of the LOFT while guarding against making the crew defensive. Comments are as objective as possible and focus on performance;
(d) Shows appropriate incidents using videotape of the LOFT session, including examples of technical and CRM performance, and selects tape segments for discussion illustrating behaviours that feature the crew performance markers;
(e) Effectively blends technical and CRM feedback in the debriefing; does not reach to the crew, but does not omit items worthy of crew discussion;
(f) Is patient, and is constructive in probing into key areas where improvement is needed;
(g) Ensures that all crew members participate in the discussion, and effectively draws out quiet or hostile crew members;
(h) Provides a clear summary of key learning points;
(i) Asks the crew for specific feedback on his/her performance;
(j) Is effective in both technical and CRM debriefing.

APPENDIX 3

APPROPRIATE CRM TRAINING TOPICS

1. BACKGROUND INFORMATION.

(a) Findings coming from accident investigations have consistently pointed to the fact that human errors contribute to most aviation accidents;

(b) Research findings suggest that CRM training can result in significant improvements in flight crew member performance. CRM training is seen as an effective approach to reducing human errors and increasing aviation safety;

(c) Aviation safety information is readily available through the World Wide Web. Many websites contain valuable source materials and reference materials that may be helpful in developing CRM training. Websites commonly link to other websites containing related material. Aviation related websites maintained by U. S. Government agencies include the following:

(i) National Aeronautics and Space Administration (NASA), http://www.nasa.gov.;

(ii) National Transportation Safety Board (NTSB), http://www.ntsb.gov.;

(iii Federal Aviation Administration (FAA), http://www.faa.gov.;

2. TRAINING TOPICS, PRINCIPLES, AND TECHNIQUES.

It is recommended that CRM training include the curriculum topics described in paragraph 11 of this ORDER and the following topics, principles, and techniques:

(a) Theory and practice in using communication, decision making, and team building techniques and skills;

(b) Theory and practice in using proper supervision techniques, i.e., captains working with first officers;

(c) Theory and practice in selecting and using interventions needed to correct flying errors made by either pilot, especially during critical phases of flight. These interventions may include, but not be limited to, communication, assertion, decision making, risk assessment, and situation awareness skills;

(d) During Line Operational Simulation training, information, and practice of non-flying pilot functions, i.e., monitoring and challenging pilot functions, and monitoring and challenging errors made by other crew members for flight engineers, first officers, and captains. Training will alert flight crew members of hazards caused by tactical decision errors which are actually errors of omission. Practice in monitoring, challenging, and mitigating errors, especially during taxi operations, should be included. These skills are important to minimize procedural errors that may occur as a result of inadequately performed checklists;

(e) Training for check airmen in methods which can be used to enhance the monitoring and challenging functions of both captains and first officers. The check airmen training should

include the message that appropriate questioning among pilots is a desirable CRM behaviour and part of the corporate safety culture; further, that such questioning is encouraged, and that there will be no negative repercussions for appropriate questioning of one pilot's decision or action by another pilot;

(f) Training for new first officers in performing the non-flying pilot role to establish a positive attitude toward monitoring and challenging errors made by the flying pilot. Training should stress that appropriate questioning is encouraged as a desirable CRM behaviour, and that there will be no negative repercussions for appropriate questioning of one pilot's decision or action by another pilot;

(g) Training for captains in giving and receiving challenges of errors. Training should stress that appropriate questioning is encouraged as a desirable CRM behaviour, and that there will be no negative repercussions for appropriate questioning of one pilot's decision or action by another pilot;

(h) Factual information about the detrimental effects of fatigue and strategies for avoiding and countering its effects;

(i) Training for crew members which identify conditions in which additional vigilance is required, such as holding in icing or near convective activity. Training should emphasize the need for maximum situation awareness and the appropriateness of sterile cockpit discipline, regardless of altitude;

(j) Training that identifies appropriate levels of automation to promote situation awareness and effective management of workload;

(k) Use of autopilot in in-flight icing. All flight crew member members should clearly understand their aircraft's susceptibility to in-flight icing and should monitor in-flight ice accretion by all means available. One effective means of monitoring ice accretion might be to disconnect the autopilot at intervals, if doing so is consistent with the approved procedures contained in the airplane flight manual;

(l) Training for crew members in appropriate responses when passengers intimidate, abuse, or interfere with crew member performance of safety duties. Training should address crew coordination and actions, which might defuse the situation. Training should include specific communication topics, such as conflict resolution, with particular attention to the most serious passenger interference - attempted hijack;

(m) Line-oriented flight training (LOFT) or special purpose operational training (SPOT) for cockpit crew members, which addresses appropriate responses to the effects of pitot-static system anomalies, such as a blocked pitot tube. Emphasis should be on situation awareness, inquiry/advocacy/assertion, and crew coordination, when flight instruments act abnormally;

(n) LOFT or SPOT for cockpit crew members that contain a controlled flight into terrain

scenario. Emphasis should be on prevention through effective communication and decision behaviour. The importance of immediate, decisive, and correct response to a ground proximity warning should also be addressed;

(o) Training for pilots in recognizing cues that indicate lack or loss of situation awareness in themselves and in others, and training in countermeasures to restore that awareness. Training should emphasize the importance of recognizing each pilot's relative experience level, experience in specific duty positions, preparation level, planning level, normal communication style and level, overload state, and fatigue state. Pilots should assess these characteristics actively and continuously, in their fellow crew members and in themselves. Training should also emphasize the importance that improper procedures, adverse weather, and abnormal or malfunctioning equipment may have in reducing situation awareness. "Guidelines for Situation Awareness Training" contains expanded guidance on cues and countermeasures, and may by viewed or downloaded from the FAA web page at http://www.faa.gov/avr/afs/train.htm.;

(p) Training in communication of time management information among flight crew member and cabin crew members during an emergency. Training should stress that the senior or lead cabin crew member can effectively brief other cabin crew and passengers and prepare the cabin only if the time available in the emergency is clearly communicated by the flight crew member. Other information elements that are vital in effective time management are the nature of the emergency and any special instructions relating to the planned course of action.

3. APPROPRIATE TRAINING INTERVENTIONS

(1) The most effective CRM training involves active participation of all crew members. LOFT sessions give each crew member opportunities to practice CRM skills through interactions with other crew members. If the training is videotaped, feedback based on crew members' actual behaviour, during the LOFT, provides valuable documentation for the LOFT debrief.

(2) CRM training can be presented using a combination of the following training interventions:

(a) Operator in-house courses;
(b) Training centre courses;
(c) Special Purpose Operational Training;
(d) LOFT sessions;
(e) Computer Based Training courses.

RELATED READING MATERIAL

a. International Civil Aviation Organization (ICAO) Annex 13 on Human Factors. This document may be obtained from ICAO Document Sales Unit, Montreal, Quebec, Canada, 514-954-8022;

b. For detailed information on the recommendations made in this TAC, the reader is encouraged to review Crew Resource Management: An Introductory Handbook published by FAA (Document No. DOT/FAA/RD-92/26). Additional background material can be found in Cockpit Resource Management Training: Proceedings of a NASA/MAC Workshop, 1987. The National Aeronautics and Space Administration (NASA) Conference Proceedings (CP) number is 2455. The National Plan for Aviation Human Factors defines research issues related to crew coordination and training. Copies of the preceding publications may be purchased from the National Technical Information Service, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161. The telephone numbers for National Technical Information Service are voice - (800) 553-NTIS[6847], and (703) 605-6000; fax (703) 605-6900;

c. Guidelines for Situation Awareness Training, NAWCTSD/FAA/UCF Partnership for Aviation Team Training. this document may be viewed, downloaded, or printed at the following website: http://www.faa.gov/avr/afs/train.htm.;

d. Controlled Flight into Terrain Education and Training Aid, Flight Safety Foundation, International Civil Aviation Organization (ICAO), and the Federal Aviation Administration (FAA). This document may be viewed, downloaded, or printed at the following website: http://www.faa.gov/avr/afs/train.htm;

e. Descriptions of relevant research findings, methodological issues, and organizational experience can be found in Helmreich, R.L., and Wilhelm, J.A., (1991) "Outcomes of CRM Training," International Journal of Aviation Psychology, 1, 287-300; in Helmreich, R.L., and Foushee, H.C., "Why Crew Resource Management: Empirical and Theoretical Bases of Human Factors Training in Aviation"; in Orasanu, J., "Decision making in the Cockpit"; and in Gregorich, S.E., and Wilhelm, J.A., "Crew Resource Management Training Assessment." Each of the preceding appears as a chapter in E.L. Wiener, B.G. Kanki, and R.L. Helmreich (Eds.), (1993), "Cockpit Resource Management," Academic Press, Orlando, FL. For more detail on certain evolving concepts of CRM:

(1) Error management, see: "Human Error," J.T. Reason. New York: Cambridge University Press, 1990. Also, "Managing the Risks of Organizational Accidents," J.T. Reason, Brookfield, VT, Ashgate Publishing, 1997;

(2) Advanced crew resource management, see: "Developing Advanced Crew Resource Management (ACRM) Training: A Training Manual," Seamster, Boehm-Davis, Holt, Schultz, 8-1-98. http://www.hf.faa.gov/products/dacrmt/dacrmt.html;

(3) Culture issues, see: "Culture, Error, and Crew Resource Management," book chapter from "Applying Resource Management in Organizations: A Guide for Professionals," in press. (Helmreich, Wilhelm, Klinect, and Merritt)
http://www.psy.utexas.edu/psy/helmreich/nasaut.htm;

(4) Situation awareness, see: "Cockpit Distractions and Interruptions," Dismukes, Young, Sumwalt, December, 1998.
http://asrs.arc.nasa.gov/directline_issues/dl10_distract.htm;

CHAPTER 24

Management Personnel Evaluation

1.0 PURPOSE

1.1 This Chapter provides guidance and procedures to Inspectors on evaluation of AOC, ATO and AMO. Management personnel.

2.0 REFERENCES

2.1 **Part 9 of the Nigeria Civil Aviation Regulations.**

2.2 **Part 6 of the Nigeria Civil Aviation Regulations.**

2.3 **Part 3 of the Nigeria Civil Aviation Regulations.**

2.4 CHECKLIST: CL:O-OPS026

3.0 GUIDANCE AND PROCEDURES

Inspectors shall conduct a review of the resumes and interview each of the applicant‘s management personnel to validate their qualifications to ensure that they meet the requirements of the applicable Regulations. The process will include questioning the nominees so that they can demonstrate knowledge with respect to the Regulations and standards necessary to carry out the duties and responsibilities to ensure safety and the maintenance of the AOC, ATO and AMO.

4.0 RESPONSIBILITIES

4.1 During the Certification the Certification Project Manager (CPM) is responsible for the quality of this process. On receipt of the applicants‘ nominations with resumes, and after their initial review by assigned team members, the CPM is responsible for scheduling the meeting to conduct the task.

4.2 The Applicant is responsible for the attendance of nominated management personnel.

5.0 PROCEDURE

5.1 The following is a summary of the procedures:

5.1.1 The Authority certification team will design questions, which will test the nominee‘s familiarity with the applicant‘s Manuals;

5.1.1.1 The effectiveness of the Manual organization and content will also be evaluated using the questions;

5.1.2 The questions should be multi-disciplinary in nature, i.e. involve Operations, Airworthiness, Cabin Safety, and/or Stations issues, or any combination thereof;

5.1.3 The CPM will document the questions to be used including any assignments;

5.1.4 The CPM may utilize any or all team members to assist in the evaluation process;

5.1.5 Review resumes for each of the applicant‘s management personnel;

5.1.6 Conduct an interrogation on each of the applicant‘s management personnel for previous violation history;

5.1.7 Conduct an interview on each of the applicant‘s management personnel to verify dates of original issue and added ratings for their certificates or licences;

5.1.8 Evaluate the qualifications for each of the applicant‘s management personnel;

5.1.9 Conduct a verbal evaluation of the nominee‘s knowledge of the applicant‘s manuals by asking questions from the prepared list;

5.1.10 After answering a question, the nominee will be required to show where in the Manual the information is located;

5.1.11 The nominee and the certification team will jointly discuss the results (self-evaluation) and appropriate follow up action;

5.1.12 Individual inspectors of the Certification Team involved in the assessment will record the results for each of the applicant‘s management personnel in the applicable Appendix attachment to this Order;

5.1.13 The inspectors will brief the CPM on any areas of concern;

5.1.14 The CPM will coordinate the team‘s findings with the person responsible for safety oversight.

5.1.15 The CPM will notify the applicant, in writing, of the results of the evaluation process;

5.1.16 Any requests for deviations must be forwarded to the Authority with the formal application letter. The deviation request must be in the form of a letter and show a side-by-side comparison of assigned duties and responsibilities for that position;

5.1.17 If there are any changes to required management personnel, this process must be repeated accordingly.

5.2 The inspectors involved in the assessment shall complete the applicable Assessment form from the applicable Appendix attached to this Order as follows:

5.2.1 Director of Operations - Appendix 1

5.2.2 Chief Pilot - Appendix 2

5.2.3 Director of Safety - Appendix 3

5.2.4 Director of Maintenance - Appendix 4

5.2.5 Quality Manager - Appendix 5

5.2.6 Base Maintenance Manager - Appendix 6

5.2.7 Workshop Manager - Appendix 7

5.2.8 Line Maintenance Manager - Appendix 8

5.2.9 Head of Training - Appendix 9

SAMPLE QUESTIONS - TYPICAL

1. Are your areas of responsibility clearly defined in the Manual?
2. Which Manual defines your requirements?
3. Can you summarize your areas of responsibility?
4. What is the smoking policy on board an aircraft?
5. Explain your system for reacting to warning signs.
6. Where in your Manual is the formal Internal Evaluation Programme described?
7. Can you give a brief description of this programme?
8. Describe the programme for employees to report safety concerns and/or procedural problems.
9. What is the process for identifying and correcting root causes of potential safety or procedural problems?
10. Ask the appropriate person if the applicant has a Suspected Unapproved Parts (SUP) programme.
11. How would maintenance be performed at a line station?
12. What are the training requirements for AOC Maintenance personnel?
13. What is the Standard for the transportation of Dangerous Goods?
14. Describe some of the elements of an aircraft operator security programme
15. Who is responsible for ensuring the security of catering?
16. Who in the organization is concerned about safety?
17. What are the procedures for deferred defects?
18. Summarize the process for a major modification?
19. What is the maximum number of hours that a flight crew can be scheduled?
20. Under what circumstances can the maximum duty time be exceeded?
21. What is the maximum extension of duty under these circumstances?

22. Does the pilot in command have the option to refuse to dispatch on the MEL?
23. Under what circumstances would a pilot in command refuse to exceed the maximum flight time and flight duty time?
24. Who has the responsibility for flight supervision?
25. What are the elements of an accident prevention and flight safety system?
26. Under what condition an inspector of the Authority would be denied access to the operator's facility?
27. Under what condition would he be denied access to the cockpit?
28. What is an equivalent system of maintenance?
29 What is the minimum of cabin crew required for dispatch?

APPENDIX 1

CERTIFICATION MANAGEMENT PERSONNEL REVIEW

Regulation 2.2.2 and IS 2.2.2 of part 9 of the Nigeria the Civil Aviation Regulations

DIRECTOR OF OPERATIONS

I have reviewed the credentials of the nominee against IS 2.2.2 of Part 9 of the Nigeria Civil Aviation Regulations.

The nominee for **Director of Operations (Name):**_____ for (enter name of prospective air operator) _____ **does/does not meet** the minimum qualifications of the Regulations for the Director of Operations for the reasons shown below-

(1) Under Regulation 2.2.2(b) of Part 9 of the Nigeria Civil Aviation Regulations, when conducting commercial air transport operations, a national air operator shall have qualified personnel, with proven competency in civil aviation, available and serving in the required management personnel positions or their equivalent.
Is nominee available to serve in the position?……(No) (Yes)
Is nominee available to handle AOC management situations?…… (No) (Yes)
Is the employment contract full time?……..(No) (Yes)

(2) Under IS 2.2.2(d) of Part 9 of the Nigeria Civil Aviation Regulations, the minimum initial qualifications for a Director of Operations shall be-
(i) Holds or has held the appropriate licence and ratings for which a pilot in command is required to hold for one of the aeroplanes operated; or
(ii) Has acquired not less than three years related management experience with a commercial air operator whose flight operations are similar in size and scope; and
(iii) Demonstrates knowledge to the Authority with respect to the content of the Operations Manual, the Air Operator Certificate, operations specifications, regulations and standards necessary to carry out the duties and responsibilities to ensure safety, and the maintenance of the Air Operator Certificate.
Does nominee meet the above qualification requirements?……(No) (Yes)
Does nominee demonstrate adequate knowledge about the
Manuals and AOC Management situations?……(No) (Yes)

(3) Under Regulation 1.1.16(c) of Part 9 of the Nigeria Civil Aviation Regulations, the Director General shall not issue an Air Operator Certificate where the applicant employs or proposes to employ a person in a management position or supervisory capacity who -
(i) Held a certificate or licence issued by the Authority which was revoked or suspended within the previous five years by reason of criminal, fraudulent, improper action or insanity on the part of such person; or
(ii) Contributed materially to the revocation or suspension of an aviation document issued by the Authority.
Is it confirmed that the nominee does NOT match any of the above criteria? (No) (Yes)

Name of Operator	Management Position	NAME OF NOMINEE

Comments:	Acceptable	Not Acceptable	Follow-up Required
Recommended Follow-up Action Required by Applicant:			
INSPECTOR NAME_____ SIGNATURE_____ DATE			

APPENDIX 2

CERTIFICATION MANAGEMENT PERSONNEL REVIEW

Regulations 2.2.2 and IS 2.2.2 of Part 9 of the Nigeria Civil Aviation Regulations.

CHIEF PILOT

I have reviewed the credentials of the nominee against IS 2.2.2(e) of Part 9 of the Nigeria Civil Aviation Regulations and find that:

The nominee for **Chief Pilot (Name)**:_____ for (enter name of prospective air operator)_____ **does/does not meet** the minimum qualifications of the Regulations for the Chief Pilot for the reasons shown below-

(1) Under Regulation 2.2.2 of Part 9 of the Nigeria Civil Aviation Regulations, when conducting commercial air transport operations, a national air operator shall have qualified personnel, with proven competency in civil aviation, available and serving in the required management personnel positions or their equivalent.

Is nominee available to serve in the position?……..(No) (Yes)
Is nominee available to handle AOC management situations?……...(No) (Yes)
Is the employment contract full time?…….. (No) (Yes)

(2) Under IS 2.2.2 of Part 9 of the Nigeria Civil Aviation Regulations, the minimum initial qualifications for a Chief Pilot shall be-

(i) An Airline Transport Pilot Licence with the appropriate ratings for at least one of the aircraft used in the operations of the air operator; and

(ii) Three years experience as pilot in command in commercial air transport operations;

Does nominee meet the above qualification requirements?……..(No) (Yes)
Does nominee demonstrate adequate knowledge about the Manuals and AOC Management situations?……..(No) (Yes)

(3) Under Regulation 1.1.16(c) of Part 9 of the Nigeria Civil Aviation Regulations, the Director General shall not issue an Air Operator Certificate where the applicant employs or proposes to employ a person in a management position or supervisory capacity who:

(i) Held a certificate or licence issued by the Authority which was revoked or suspended within the previous five years by reason of criminal, fraudulent, improper action or insanity on the part of such person; or

(ii) Contributed materially to the revocation or suspension of an aviation document issued by the Authority.

Is it confirmed that the nominee does NOT match any of the above criteria? (No) (Yes)

Name of Operator	Management Position	NAME OF NOMINEE

Comments:	Acceptable	Not Acceptable	Follow-up Required
Recommended Follow-up Action Required by Applicant:			
INSPECTOR NAME_____ SIGNATURE_____ DATE			

APPENDIX 3

CERTIFICATION MANAGEMENT PERSONNEL REVIEW

Regulations 2.2.2 and IS 2.2.2 of Part 9 of the Nigeria Civil Aviation Regulations.

DIRECTOR OF SAFETY

I have reviewed the credentials of the nominee against IS 2.2.2 of Part 9 of the Nigeria Civil Aviation Regulations and find that:
The nominee for **Director of Safety (Name)**:_____ for (enter name of prospective air operator)_____ **does/does not meet** the minimum qualifications of the Regulations for the Director of Safety for the reasons shown below-

(1) Under Regulation 2.2.2 of Part 9 of the Nigeria Civil Aviation Regulations, when conducting commercial air transport operations, a national air operator shall have qualified personnel, with proven competency in civil aviation, available and serving in the required management personnel positions or their equivalent.

Is nominee available to serve in the position?……..(No) (Yes
Is nominee available to handle AOC management situations?……(No) (Yes)
Is the employment contract full time?…….. (No) (Yes)

(2) Under IS 2.2.2 of Part 9 of the Nigeria Civil Aviation Regulations, the minimum initial qualifications for a Director of Safety shall be-

(i) Extensive operational experience normally achieved as a fight crew member or equivalent experience in technical aviation management; and
(ii) Successfully completed a recognized Air Safety training course acceptable to the Director General.
(iii) Meet the requirements of Appendix A to the Advisory Circular NCAA-AC-OPS031

Does nominee meet the above qualification requirements?……..(No) (Yes)
Does nominee demonstrate adequate knowledge about the Manuals and AOC Management situations?……..(No) (Yes)

(3) Under Regulation 1.1.16(c) of Part 9 of the Nigeria Civil Aviation Regulations, the Director General shall not issue an Air Operator Certificate where the applicant employs or proposes to employ a person in a management position or supervisory capacity who:

(i) Held a certificate or licence issued by the Authority which was revoked or suspended within the previous five years by reason of criminal, fraudulent, improper action or insanity on the part of such person; or
(ii) Contributed materially to the revocation or suspension of an aviation document issued by the Authority.

Is it confirmed that the nominee does NOT match any of the above criteria? (No) (Yes)

Name of Operator	Management Position	NAME OF NOMINEE

Comments:	Acceptable	Not Acceptable	Follow-up Required
Recommended Follow-up Action Required by Applicant:			
INSPECTOR NAME_____ SIGNATURE_____ DATE			

APPENDIX 4

CERTIFICATION MANAGEMENT PERSONNEL REVIEW

Regulations 2.2.2 and IS 2.2.2 of Part 9 of the Nigeria Civil Aviation Regulations

DIRECTOR OF MAINTENANCE

I have reviewed the credentials of the nominee against IS 2.2.2 of Part 9 of the Nigeria Civil Aviation Regulations and find that:

The nominee for **Director of Maintenance (Name)**:_____ for (enter name of prospective air operator)_____ **does/does not meet** the minimum qualifications of the Regulations for the Director of Maintenance for the reasons shown below-

(1) Under Regulation 2.2.2 of Part 9 of the Nigeria Civil Aviation Regulations, when conducting commercial air transport operations, a national air operator shall have qualified personnel, with proven competency in civil aviation, available and serving in the required management personnel positions or their equivalent.

Is nominee available to serve in the position?……..(No) (Yes)
Is nominee available to handle AOC management situations?……...(No) (Yes)
Is the employment contract full time?…….. (No) (Yes)

(2) Under IS 2.2.2(f) of Part 9 of the Nigeria Civil Aviation Regulations, the minimum initial qualifications for a Director of Maintenance shall be-

(i) Possession of an Aircraft Maintenance Engineer licence; and
(ii) Three years experience in maintaining the same aircraft category and aircraft class used by the national air operator including one year in the capacity of returning aircraft to service.

Does nominee meet the above qualification requirements?……..(No) (Yes)
Does nominee demonstrate adequate knowledge about the Manuals and AOC Management situations?…….(No) (Yes)

(3) Under Regulation 1.1.16(c) of Part 9 of the Nigeria Civil Aviation Regulations, the Director General shall not issue an Air Operator Certificate where the applicant employs or proposes to employ a person in a management position or supervisory capacity who:

(i) Held a certificate or licence issued by the Authority which was revoked or suspended within the previous five years by reason of criminal, fraudulent, improper action or insanity on the part of such person; or
(ii) Contributed materially to the revocation or suspension of an aviation document issued by the Authority.

Is it confirmed that the nominee does NOT match any of the above criteria? (No) (Yes)

Name of Operator	Management Position	NAME OF NOMINEE

Comments:	Acceptable	Not Acceptable	Follow-up Required
Recommended Follow-up Action Required by Applicant:			
INSPECTOR NAME_____ SIGNATURE_____ DATE			

APPENDIX 5

CERTIFICATION MANAGEMENT PERSONNEL REVIEW

Regulations 2.2.2 and IS 2.2.2 of Part 9 of the Nigeria Civil Aviation Regulations
Regulations 4.1.1 and IS 4.1.1 of Part 6 of the Nigeria Civil Aviation Regulations
Regulations 3.3 and IS 3.3 of Part 3 of the Nigeria Civil Aviation Regulations

QUALITY MANAGER

I have reviewed the credentials of the nominee against the Nigeria Civil Aviation Regulations and found that:
The nominee for **Quality Manager (Name)**:_____ for (enter name of prospective air operator) _____ **does/does not meet** the minimum qualifications of the Regulations for the Quality Manager for the reasons shown below-

(1) Under Regulation 2.2.2 of Part 9 of the Nigeria Civil Aviation Regulations, when conducting commercial air transport operations, a national air operator shall have qualified personnel, with proven competency in civil aviation, available and serving in the required management personnel positions or their equivalent.

Is nominee available to serve in the position?……..(No) (Yes)
Is nominee available to handle AOC management situations?…….. (No) (Yes)
Is the employment contract full time?……..(No) (Yes)

(2) (a) Under IS 2.2.2 of Part 9 of the Nigeria Civil Aviation Regulations, the minimum initial qualifications for a Quality Manager shall be-

(i) Possession of an Aircraft Maintenance Engineer licence; and
(ii) Three years experience in maintaining the same aircraft category and aircraft class used by the national air operator including one year in the capacity of returning aircraft to service.
(iii) Be a holder of Aircraft Maintenance Engineers' Licence in the following ratings: Airframes and Powerplant or Avionics, (ratings on aircraft type not essential) with five (5) years working experience in line/base maintenance, maintenance planning or technical services; or
(iv) Be a person qualified by holding an academic degree in an aeronautical, mechanical or electrical electronic engineering discipline from a recognized university or other higher educational institution; or
(v) Be a holder of Commercial Pilot Licence (CPL) (For AOC holders only).

(b) Under IS 3.3 of Part 3 of the Nigeria Civil Aviation Regulations, the minimum initial qualifications for a Quality Manager shall be:

(i) A technically qualified person in at one field of training to be conducted;
(ii) At least three years experience in the training to be conducted;
(iii) Must have successfully completed a training in quality management recognized by the Authority

Training Requirement:

Must have received two (2) professional training/courses in any of the following:

i. Quality Auditor or Audit Techniques/ISO 9000 Quality Management System .
ii. Airworthiness Training
III. Air Operators Certification Training
iv. Human Factors in Aircraft Maintenance/Aircraft Operations
v. Other relevant trainings/course as required by the Authority

(c) Under IS 4.1.1 of Part 6 of the Nigeria Civil Aviation Regulations, the minimum initial qualifications for a
Quality Manager shall be-

(i) A licensed maintenance engineer with appropriate airframe and engine or avionics ratings; and
(ii) At least five years experience in the field of aircraft maintenance. and
(iii) Must have successfully completed training in quality management course recognized by the Authority.

Experience Requirement

i. A minimum of five (5) years working experience in the quality system of an Approved Maintenance Organization or Airline in supervisory role.
ii. A person with proven satisfactory audit experience acceptable to the Authority preferably in aviation.
iii. Must have in-depth knowledge of Nigeria Civil Aviation Regulations and Standard Maintenance Practices.
iv. Broad knowledge of the aviation and the organizations activities and procedures.
v. Good understanding of quality management principles.
vi. Oral and'written communication skills

Does nominee meet the above qualification requirements?…….(No) (Yes)
Does nominee demonstrate adequate knowledge about the Manuals and AOC Management situations?……..(No) (Yes)

(3) Under Regulation 1.1.16(c) of Part 9 of the Nigeria Civil Aviation Regulations, the Director General shall not issue an Air Operator Certificate where the applicant employs or proposes to employ a person in a management position or supervisory capacity who:

(i) Held a certificate or licence issued by the Authority which was revoked or suspended within the previous five years by reason of criminal, fraudulent, improper action or insanity on the part of such person; or
(ii) Contributed materially to the revocation or suspension of an aviation document issued by the Authority.

Is it confirmed that the nominee does NOT match any of the above criteria? (No) (Yes)

Name of Operator	Management Position	NAME OF NOMINEE

Comments:	Acceptable	Not Acceptable	Follow-up Required

Recommended Follow-up Action Required by Applicant:

INSPECTOR NAME_____ SIGNATURE_____ DATE

CHAPTER 25

Organisation Structure, Staffing and Administrative Facilities

1.0 PURPOSE

This Chapter provides guidance in the form of a checklist to assist the process for evaluation of organisation structure, staffing and administrative facilities to meet the requirements of part 9 of the Nigeria Civil Aviation Regulations.

2.0 ORGANISATION STRUCTURE, STAFFING AND ADMINISTRATIVE FACILITIES:

2.1 CHECKLIST: CL: O-OPS028

NIGERIAN CIVIL AVIATION AUTHORITY

AVIATION HOUSE

P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS 028 ORGANIZATION STRUCTURE, STAFFING AND ADMINISTRATIVE FACILITIES CHECKLIST

Instructions for Use:

1. Check `**S**' column if you reviewed the record, procedure or event and it is `**Satisfactory'**.
2. Check `**U**' column if you reviewed the record, procedure or event and it is `**Unsatisfactory'**.
3. Check **NS** (**not seen**) column if you did not review the record, procedure or event or you do not have adequate information to make a valid comment.
4. Check **NA** (**not applicable**) column, if the line item is not required in this particular situation.
5. 'Enter any notes on reverse side regarding a 'U' answer for transfer to the Safety Issues Resolution Report.
6. For later reference, precede any notes with the appropriate question number.

ORDER/CL No.	Inspector	Operator	
Base	AOC NO.	Date of inspection	Reference No.
Document:		Operator's Representative:	

Requirement	Assessment			
	S	**U**	**NS**	**N/A**
Organization Structure				
1. Is the organization structure suitable for the size and scope of the proposed operation?				
2. Is the chain of command appropriate to satisfy safety of operations with respect to -				
(a) Numbers of Management positions not excessive?				
(b) Flying/Admin tasks balanced for Flight Crew Managers?				
Qualified and Competent Employees	**S**	**U**	**NS**	**N/A**
3. Does the Organization have sufficient number of suitably qualified and competent employees in the following areas:				
(a) Flight crew?				
(b) Cabin crew?				
(c) Crew training and checking?				
(d) Other technical trainers?				
(e) Operations planning?				
(f) Operations control?				
(g) Crew scheduling?				
(h) Load control?				
(i) Passenger handling?				
(j) Administrative support?				
Note: *Maintenance staff numbers to be assessed by the Airworthiness team.*	**S**	**U**	**NS**	**N/A**
Administrative Facilities - Office				
4. Are offices accommodation size adequate?				
5. Is the support equipment adequate?				
6. Is the support staff adequate?				

Administrative Facilities – Communications	S	U	NS	N/A
7. Is the communication/information system adequate to allow efficient and rapid communications with all crew, operational support staff and their managers?				
8. Are printing and distribution facilities adequate?				
OTHER	**S**	**U**	**NS**	**N/A**

ORDER/CL No:		Tracking No.:

Notes:
1. *A "NO" or "N/C" response on a checklist must be accompanied by reason or comments.*
2. *A "NO" response to a safety issue finding in an inspection of an organization must be transferred to a CF report for corrective action where applicable.*
3. *Preceed all comments with the applicable checklist item number or discrepancy number.*

Discrepancy Label: *(Circle the applicable numeric labels that best describe the discrepancies)*

Policy, Procedures, Instructions, Information, Documentation, Controls:					**Document Quality**
1.Not Specified	**2.**Unclear	Do not comply with:		**7.**Do not Identify: Who, What, When, Where, How	**8.**Unreadable
3.Incomplete	**4.**Inconsistent	**5.**NCAR	**6.**Guidance		**9.**Illegible

10. Resource requirements incomplete (personnel, facilities, equipment, technical data)

1	2	3	4	5	6	7	8	9	10

Comments:

Recommendations

Name of Inspector_____ Signature_____ Date_____

CHAPTER 26

Air Operator Certificate Certification Project Manager's Completion Checklist

REFERENCE

1.0 CHECKLIST: CL: O-OPS029

Item	Signature
1. Completion checklists received:	
(a) Flight Operations Team	
(b) Airworthiness Inspection Team	
(c) Dangerous Goods Inspector	
(d) Security Programme	
2. Air Operator Certificate preparation:	
(a) Approved aircraft types	
(b) Approved terminals	
(c) Approved routes	
(d) Operations Specifications included	
3. Civil Aviation Regulations Requirements	
4. Applicant's financial position considered.	
5. Final invoice action initiated (where applicable)	
6. Certification report completed	

I certify that the process for the issue of an Air Operator Certificate (AOC), has been completed and recommend that the attached Air Operator's Certificate with accompanying Operations Specifications be issued to: .....……..

Certification Project Manager..... Signature..... Date.....
(BLOCK)

CHAPTER 27

EXTENDED DIVERSION TIME OPERATIONS CERTIFICATION (EDTO)

1.0 PURPOSE

The purpose of this chapter on EDTO is to provide guidance and interpretative material of the EDTO elements introduced through Amendment 36 in Annex 6 Part 1 §4.7 and Attachment D to Annex 6 Part 1.

Note concerning the use of the terms EDTO vs. ETOPS:

It was ICAO decision, through Amendment 36, to replace the previously used term of ETOPS (for extended range operations by twin-engined aeroplanes) with the new term EDTO (for Extended Diversion Time Operations). The main reason of this change in the terminology was to better reflect the scope and applicability of these new standards.

Nevertheless, this name change is not intended to mandate a similar name change in the concerned State regulations or aircraft documentation. This is in line with the note introduced in EDTO standards of Annex 6, which clarifies that the term "ETOPS" may still be used instead of "EDTO" as long as the concepts are correctly embodied in the concerned regulation or documentation.

1.1 APPLICABILITY

This chapter applies to transport category aeroplanes with two or more turbine engines where the diversion time to an en-route alternate aerodrome is greater than 60 minutes and/or than the threshold time established by the State of the Operator operated by an air operator in an international air transport service.

1.2 REFERENCE REGULATIONS

This document is enabled by Annex 6 Part 1 §4.7 and Attachment D to Annex 6 Part 1. This document can also be used in conjunction with other guidance materials such as the FPFMM (Flight Planning & Fuel Management Manual), the Airworthiness Manual (Doc 9760), ICAO Doc 8335 (Manual of Procedures for Operations Inspections, Certification and Continued Surveillance).

Nig. CARs 8.6.2.10, 8.6.2.11, 8.6.2.12.

1.3 APPROVAL PROCEDURES

1.3.1 APPLICATION FOR EDTO OPERATIONAL APPROVAL

Requests for approval of EDTO operations with aeroplanes having two or more engines should be submitted by the EDTO candidate operator, with the necessary elements to the applicable NCAA office. These elements are those necessary for the NCAA to determine the applicable approval process (i.e. "In-service" or "Accelerated" EDTO operational approval – Refer to Subparagraph 1.3.2) and launch the assessment of the operator's readiness for EDTO.

These necessary elements are typically:

- The targeted date of start of EDTO
- The contemplated Maximum Diversion Time authority
- The concerned airplane model and fleet (MSNs)
- The intended EDTO route(s)

Other elements may be provided if deemed relevant by the EDTO candidate operator to support its application.

The request for approval of EDTO operations should be submitted as an advance notice, so that the Authority can plan and launch the necessary oversight actions.

The required duration of this advance notice prior to the proposed start of EDTO operations is:

90 days for In-Service EDTO operational approval; and
180 days for Accelerated EDTO operation approval.

1.3.2 EDTO operation approval requirements – Aeroplanes with 2 turbine engines

For operations with transport category aeroplanes with 2 turbine engines, the EDTO operational approval requires:

- Validation or acceptance by the NCAA of the EDTO certification (also called EDTO Type Design and Reliability Approval) of the aeroplane granted by the Primary Certification Authority of the aircraft manufacturer. The Aeroplane type design should meet the requirements for EDTO design features and criteria specified in the Regulations unless another Standard is available.

- Conformity of the "candidate" aircraft (MSN), including APU and engines, to the applicable EDTO configuration requirements (listed in the EDTO CMP document). CMP refers to Configuration, Maintenance and Procedures

- To have a system to maintain and dispatch an EDTO aeroplane in accordance with an approved maintenance, reliability and training program that includes EDTO requirements specified in TGM Vol. 4 (EDTO Maintenance and Reliability Requirements);

- Demonstration that the maintenance checks, servicing, and programs called for in TGM Vol. 4 (EDTO Maintenance and Reliability Requirements) are properly conducted;

- Demonstration that the operational limitations, flight preparation and in-flight procedures called for in paragraph 3 - EDTO Flight Operations Requirements are properly conducted;

- Approval of the operator based on his application package: routes, desired diversion time, fleet, area of operations, planned date for the start of EDTO flights, experience records, manuals, training, etc...

The airframe-engine combination and the general scope of the operation will be reviewed by the Flight Operations Inspector (FOI) and the Airworthiness Inspector (AWI) to determine if there are any factors that could affect the safe conduct of operations before an Operations Specification (Ops Spec) is issued. [Coordination with Airworthiness]

To sum up, an operator who wants to operate EDTO flights with transport category aeroplanes with 2 turbine engines has to demonstrate that its aircraft is configured for EDTO and that its organization, means and processes comply with applicable EDTO regulation and, for transport category aeroplanes with two turbine engines only, the EDTO CMP requirements.

The complexity of this demonstration is basically linked to:
- The airline's experience with EDTO, with long-range operations, with the area of operation, with the aircraft, with the engines...
- The contemplated degree of direct in-service experience reduction;

- The type of contemplated EDTO operations (area of operations, frequency of EDTO flights, diversion time requested)

There are two types of EDTO operational approval (i.e. approval of the operator): it can be either an "in-service" EDTO approval or an "accelerated" EDTO approval. These approval methods are described hereafter, and related compliance demonstrations are detailed in this chapter.

The specificity of an "accelerated" EDTO approval is that the operator has to build a program of process validation for the lack of direct experience (with EDTO and/or with the candidate aircraft).

This process validation may involve transfer of experience and use of proven processes, simulated EDTO flights, assistance from an operator with EDTO experience, assistance from the manufacturer, etc... The main objective of this program is the transfer of EDTO experience into the candidate operator's organization and operations. The required amount of process validation is directly linked to the airline's background and EDTO objectives.

1.3.2.1 "In-service" EDTO approval for operations with transport category aeroplanes with two turbine engines

An "in-service" EDTO approval is when the operator has accumulated over one year of direct in-service experience with the aircraft (in that case, the operator may apply for a diversion time of 120 min maximum), or when the operator has accumulated over one year of EDTO experience (at up to 120 minute Maximum Diversion Time) with the aircraft (in that case, the operator may apply for a diversion time of 180 min maximum).

The required amount of prior in-service experience listed above may be reduced (or increased) at the discretion of the NCAA.

Note: approval for EDTO operations beyond 180-min diversion time requires prior approval for 180-min EDTO operations. Approval for EDTO operations beyond 240-min diversion time requires a minimum of 2 years of experience with 180-min or higher EDTO operations.

1.3.2.2 "Accelerated" EDTO approval for operations with transport category aeroplanes with two turbine engines

An "accelerated" EDTO approval is either when the operator plan to start EDTO with less than one year of direct in-service experience with the aircraft, or when the operator has accumulated direct in-service experience with the aircraft but plan to conduct EDTO beyond 120 minutes with less than one year of 120-min Diversion Time EDTO experience with the aircraft. The operator may apply for any diversion time up to 180 min, and may start EDTO at entry into service.

Note: approval for EDTO operations beyond 180 min diversion time requires prior experience with 180 min EDTO operations.

1.3.3 EDTO Operation Approval Requirements – Aeroplanes with more than 2 turbine engines

For operations with transport category aeroplanes with more than 2 turbine engines, the EDTO operational approval requires:

The EDTO certification is not required for aeroplane with more than two engines. However, a review of the time capabilities of the relevant time limited systems should be performed, in order to adequately consider them during EDTO operations. On most airplanes with more than 2 engines, the only relevant time limited system is the cargo fire protection system.

Approval of the operator based on his application package: routes, desired diversion time, fleet, area of operations, planned date for the start of EDTO flights, experience records, manuals, training, etc...

The airframe-engine combination and the general scope of the operation will be reviewed by the Flight Operations Inspector (FOI) and the Airworthiness Inspector (AWI) to determine if there are any factors that could affect the safe conduct of operations before an Operations Specification (Ops Spec) is issued.

To sum up, an operator who wants to operate EDTO flights with transport category aeroplane with more than two turbine engines has to demonstrate that its organization, means and processes comply with applicable EDTO regulation and, for transport category aeroplanes with two turbine engines only, the EDTO CMP requirements.

The complexity of this demonstration is basically linked to:

- The airline's experience with EDTO, with long-range operations, with the area of operation, with the aircraft, with the engines...
- The contemplated degree of direct in-service experience reduction;
- The type of contemplated EDTO operations (area of operations, frequency of EDTO flights, diversion time requested)

There are no specific categories for EDTO approval for operations with transport category aeroplanes with more than two turbine engines, i.e. there are no specific diversion time categories nor specific methods of approval.

1.3.4 In addition, the following criteria should be met prior to conducting EDTO operations:

a) Satisfy the operational approval considerations (Operational Approval Criteria) specified in (EDTO Flight Operations Requirements) of this chapter; and

b) Demonstrate that EDTO flight release practices, policies, and procedures are established; and

c) Conduct operational validation flight(s). Such validation flight(s) should be performed on proposed route(s) that the operator intends to operate, as detailed in its EDTO approval request. The intent of the validation flight is to ensure that the required EDTO flight operations and maintenance (as applicable) processes and procedures are capable of supporting those operations.

Note: depending on the scope of EDTO operational approval (i.e. operator experience with the area of operations and aircraft model, contemplated diversion time, …) the validation flight in the aeroplane may be replaced by a flight on an approved simulator.

When the foregoing has been reviewed and found acceptable, a recommendation from the Flight Operations Inspector (FOI) and the Airworthiness Inspector (AWI) will be forwarded to the to the Project Manager, for approval and the applicant will be issued an Operations Specification to conduct EDTO operations within specified limitations. [Coordination with Airworthiness]

1.4 CONTINUITY OF EDTO CERTIFICATION - Aeroplanes with two turbine engines

1.4.1 The EDTO certification is not granted forever: it is submitted to a continued surveillance by the Primary Certification Authority of the in-service reliability of the worldwide fleet of the concerned aircraft model/type.

1.4.2 The certified EDTO capability of the aircraft may therefore be reduced, suspended or even revoked if no solution exists to a major problem. This revisited EDTO capability should be reflected as applicable in relevant aircraft documentation.

1.4.3 **Existing** ETOPS certifications granted prior to the implementation of the new EDTO standards in the State regulations remain valid and do not require re-certification for EDTO. Refer to TGM Vol. 4 (Airworthiness Consideration for aeroplanes with two turbine engines) for further information and guidelines on EDTO certification of aeroplanes with two turbine engines.

1.5 CONTINUITY OF EDTO OPERATIONAL APPROVAL

1.5.1 The EDTO Operational Approval is not granted forever: it is submitted to a continued surveillance by the CAA of the operator of its in-service reliability (concerned EDTO fleet of aircraft).

1.5.2 The Operator's Procedures and training for EDTO are required to be maintained once EDTO approval is issued.

1.5.3 Subject to the Subsection 1.5.4, where an air operator ceases actual EDTO operations for a period exceeding a time determined by the NCAA (e.g. 13 months), application for re-instatement should be submitted in accordance with paragraph 1.3.

1.5.4 Where an air operator cease actual EDTO operation for a period exceeding the time defined in Subparagraph 1.5.3 but maintains simulated EDTO processes, procedures and training as prescribed in this manual, the EDTO approval may be maintained until actual EDTO operation is resumed.

However, when actual EDTO operation resumes following a period of actual EDTO inactivity that exceeds the time defined in Subparagraph 1.5.3, recurrent training should be completed by each flight crew member as per the requirements stipulated by the NCAA and an EDTO recurrent training should be completed by each flight dispatcher and relevant Maintenance and Engineering staff as per those requirements.

1.5.5 Existing ETOPS operational approvals granted prior to the implementation of the new EDTO standards in the State regulations remain valid and do not require re-approval for EDTO.

1.5.6 For minor revisions to EDTO/ETOPS approvals, the approval exercise should be focused on the requested changes to the program. The intent is not to re-evaluate the entire approved program unless warranted by reliability or operational concerns.

2.0 EDTO FLIGHT OPERATIONS REQUIREMENTS

2.1 As explained in paragraph 1.3 (Approval Procedures), in considering an application from an air operator to conduct EDTO operations, an assessment should be made of the air operator's overall safety record, past performance, flight crew training, flight dispatcher training, maintenance training and maintenance reliability programs. The data provided with the request should substantiate the air operator's ability to safely conduct and support these operations and should include the means used to satisfy the criteria outlined in this paragraph and in the EDTO Maintenance and Reliability Requirements.

It is required that the operator conducts a specific safety risk assessment which demonstrates how an equivalent level of safety will be maintained, taking into account the following:

- capabilities of the operator;
- overall reliability of the aeroplane;
- reliability of each time limited system;
- relevant information from the aeroplane manufacturer; and

- specific mitigation measures.

2.2 ELIGIBILTY

1. For 90 minute approval

i) A minimum of 3 months of domestic operating experience with the aeroplane-engine combination for which approval is requested;

ii) An EDTO type design approved for a minimum 120 minutes EDTO criteria;

iii) An approved CMP; and

iv) A Minimum Equipment List requirement for 120 minutes "ER".

2. For 120 minute approval

i) A minimum of 6 months of EDTO operating experience with the aeroplane-engine combination for which approval is requested;

ii) An EDTO type design approved for a minimum 120 minutes EDTO criteria;

iii) An approved CMP; and

iv) A Minimum Equipment List requirement for 120 minutes "ER".

3. For 138 minute approval

a) Extension of EDTO 120 minute approval;
   i) A minimum of 3 months of 120 minute EDTO operating experience with the aeroplane-engine combination for which approval is requested;
   ii) Approved on a case by case basis;
   iii) An EDTO type design approved for a minimum 120 minute EDTO criteria;
   iv) An approved CMP;
   v) An aeroplane time limited system capability not be less than the authorized 138 minute diversion time in still air conditions at the approved one engine inoperative cruise speed plus 15 minutes to allow for a hold, an approach and a landing;
   vi) A Minimum Equipment List requirement modified to satisfy the MMEL policy for system component/relief for EDTO operation beyond 120 minutes; and
   vii) Flight crew, flight dispatcher and maintenance personnel training provided to address the differences between 120 minute and 138 minute approval.

b) Use of 180 minutes EDTO approval;
   i) A minimum of 3 months of 120 minute EDTO operating experience with the aeroplane-engine combination for which approval is requested;
   ii) Exercised on an unlimited basis;
   iii) An EDTO type design approved for a minimum 180 minutes EDTO criteria;
   iv) An approved CMP;
   v) A Minimum Equipment List requirement beyond 120 minutes "ER"; and
   vi) Flight crew, flight dispatcher and maintenance personnel training provided to address the differences between 138 minute and the 180 minute approval.

4. For 180 minute approval

i) A minimum of 12 months of 120 minute EDTO operating experience with the aeroplane-engine combination for which approval is requested;
ii) An EDTO type design approved for a minimum 180 minute EDTO criteria;
iii) An approved CMP; and
iv) A Minimum Equipment List requirement beyond 120 minutes "ER".

5. For greater than 180 minutes approval

i) Hold a current 180 minutes EDTO approval with the aeroplane-engine combination for which approval is requested;

ii) During flight planning, attempt to minimize the potential diversion time along the preferred track and plan the EDTO flight at a maximum diversion distance of 180 minutes of less;

iii) If conditions prevent the use of adequate aerodromes within 180 minutes, as EDTO alternates, the route may be flown beyond 180 minutes subject the requirements of the applicable specific area of operation specified in this Section;

iv) The airframe-engine combination reviewed as per Chapter 2 of this manual to determine if they are any factors which would affect the safe conduct of the flight to be operated; and

v) A Minimum Equipment List requirement for 180 minutes, including the following systems operational for dispatch;
   A) Fuel Quantity Indicating System (FQIS);
   B) APU Including electrical and pneumatic supply to its design capability;
   C) Auto throttle system;
   D) The communication system required by Subsection 3.4. of this chapter; and
   E) One engine inoperative auto land capability (if flight planning is predicted on its use

For specific area of operations beyond 180 minute approval

For flights operating in the North Pacific area, which for the purpose of this chapter, is defined as the area covering the Pacific Ocean areas north of 40ºN latitudes including NOPAC ATS routes and published PACOT track system between Japan and North America;

i) To be operated only a case by case basis based on criteria set in the air operator's company operation manual when an EDTO alternate aerodrome is not available within 180 minutes in the North Pacific Area of operation;

ii) The nearest available EDTO alternate aerodrome should be specified within 207 minutes maximum diversion time;

iii) Air Traffic Services preferred tracking, if available, should be given first consideration;

iv) Application of this approval should be limited to circumstances such as political or military concern, volcanic activity, aerodrome weather below dispatch requirements, temporary aerodrome condition and other weather related events;

v) EDTO type design should be approved for a minimum 180 minutes EDTO criteria;

vi) Approved CMP; and

vii) The time required to fly the distance to the planned EDTO alternate or the alternate, at the approved one engine inoperative cruise speed, in still air and standard day temperature, should not exceed the time specified in the Airplane Flight Manual for the airplane's most time limiting system time minus 15 minutes.

6. For 240 minutes approval

i) EDTO type design should be approved for minimum 240 minutes EDTO criteria;

ii) Approved CMP;

iii) Applicable to EDTO operation with a maximum diversion time of 240 minutes on routes in the Pacific oceanic areas between the Canadian and United States west coast and Australia, New Zealand and Polynesia; South Atlantic oceanic areas; Indian Oceanic areas; oceanic areas between Australia and South America; and

iv) Nearest available EDTO alternates aerodromes along the planned route of flight should be designated.

7. For greater than 240 minutes approval

i) Minimum of 24 consecutive months of 180 minute EDTO operating experience of which at least 12 consecutive month has been operated at 240 minutes on the airframe-engine combination for which the approval is requested;

ii) Specific to operation between specific city pairs on routes in the Pacific Oceanic areas between the west coast of North America, Australia, New Zealand and Polynesia; South Atlantic oceanic areas; Indian Oceanic areas; oceanic areas between Australia and South America and South Pole areas;

iii) Nearest available EDTO alternates aerodromes along the planned route of flight should be designated;

iv) EDTO type design should be approved for beyond 240 minutes EDTO criteria; and

v) Approved CMP

3.0 FLIGHT PREPARATION AND IN-FLIGHT CONSIDERATIONS

3.1 GENERAL

The flight dispatch criteria specified herein are in addition to, or to amplify, the requirements contained in applicable operational rules and specifically apply to EDTO operations. Although many of the criteria in this document are currently incorporated into approved programs for other aeroplanes or route structures, the nature of EDTO necessitates that compliance with these criteria be re-examined in view of the operations to ensure that the approved programs are adequate for this purpose.

3.1.1 TIME LIMITED SYSTEM PLANNING

a) For an EDTO flight operating up to and including 180 minutes, the time required to fly the distance to the planned EDTO alternate or alternates, at the approved one engine inoperative cruise speed in still air and standard day temperature, should not exceed the time specified in the Aircraft Flight Manual for the airplanes most time limited system time minus 15 minutes;

b) Except for the condition set out in Subparagraph 3.1.1.c), for an EDTO flight operating beyond 180 minutes, the time required to fly the distance to the planned EDTO alternate or alternates, at all engine operating cruise speed correcting for wind and temperature, should not exceed the time specified in the Aircraft Flight Manual for the airplane's cargo fire suppression system minus 15 minutes; or

c) Except for the condition set out in Subparagraph 3.1.1.b), for an EDTO flight operating beyond 180 minutes, the time required to fly the distance to the planned EDTO alternate or alternates, at the approved one engine inoperative cruise speed correcting for wind and temperature, should not exceed the time specified in the Aircraft Flight Manual for the airplanes most time limited system time (except for cargo fire suppression) minus 15 minutes;

3.2 MINIMUM EQUIPMENT LIST (MEL)

a) The specific EDTO MEL criteria need not be applied for EDTO operational approval in Benign Area of Operation (75 min.). For all EDTO operations, the MEL should be based on the information contained within the aeroplane MMEL, the Type Certificate (TC) Supplement and the CMP document;

b) System redundancy levels appropriate to the intended EDTO Operations should be reflected in the Master Minimum Equipment List (MMEL) and/or TC Supplement. An air operator's MEL may be more restrictive than the MMEL considering the kind of EDTO Operation being considered, and equipment and service problems unique to the air operator. For aeroplanes already in operational service, the existing MEL should be re-evaluated and adjusted to reflect system redundancy level requirements for EDTO; and

c) For the purpose of EDTO, a flight is deemed to be "Dispatched" from the moment the airplane starts its takeoff roll. It is only from this point that the Minimum Equipment List requirements do not apply.

3.3 EDTO SIGNIFICANT EVENT DURING FLIGHT

a) A list of systems that are considered EDTO significant systems to the type and/or area of operation may be developed. If developed, it should be published in an appropriate document readily accessible to the flight crew, flight dispatchers and maintenance personnel. This list should contain applicable CMP standards, limitations and procedures in addition to information stating requirements and also reflect the type certificate holder's recommendations for any segments of the flight;

b) This document should, based on available options at the time of the failure, give specific direction, for action required during any phases of flight. It is not intended to mandate MEL requirements for in-flight system failures, but to enhance the guidance to be provided to the flight crew after the completion of the applicable check list(s) (i.e. QRH, ECAM, ICAS, etc…) This list should consider all ATA Chapters. For items fully addressed by the check list (i.e. QRH, ECAM, ICAS, etc…) the list should contain a statement to that effect;

c) In the occurrence of any EDTO significant event in-flight prior to the EDTO entry point, all available means of communication should be used by the flight crew to ensure assistance from the flight dispatcher to update and/or revise, if applicable, the flight plan as a result of re-evaluating the aeroplane's system capability to ensure that the flight can safely continue into the EDTO area of operation; and

d) A statement should be included to ensure that the Pilot in Command has the final authority in all phases of flight.

3.4 COMMUNICATION AND NAVIGATION FACILITIES

An aeroplane should not be dispatched on an EDTO flight unless the requirements of the applicable regulations of the appropriate Subpart of the CARs have been met, and:

1) For all EDTO operations where voice communication facilities are available, voice communication should be provided. While planning an EDTO flight, an air operator should consider potential route and altitudes necessary for diversion to EDTO alternate aerodromes in determining whether voice communications facilities are available. Where voice communication facilities are not available or is of poor quality and voice communication is not possible, communications using alternative system should be substituted;

2) For EDTO operation beyond 180 minutes, the aeroplane should be equipped with an additional communication system that is capable of providing immediate satellite based voice communication (SATCOM). The system should provide communication capability between the flight crew and air

traffic control and the flight crew and the air operator's operational control center. While planning an EDTO flight beyond 180 minutes, an air operator should consider potential route and altitudes necessary for diversion to EDTO alternate aerodromes in determining whether immediate, satellite based voice communications are available. Where immediate, satellite based voice communications are not available or are of poor quality, communications using alternative system should be substituted;

3) Communication facilities are available to provide, under normal conditions of propagation at the normal one engine inoperative cruise altitudes, reliable two-way communications between the aeroplane and the appropriate ground communication facility over the planned route of flight and the routes to any EDTO alternate aerodrome to be used in the event of diversion. It should be shown that current weather information, adequate status monitoring information and crew procedures for all aeroplane and ground facilities' critical systems are available to enable the flight crew to make go/no-go and diversion decisions;

4) Non-visual ground aids are available and located so as to provide, taking account of the navigation equipment installed in the aeroplane, the navigation accuracy required over the planned route and altitude of flight, and the routes to any alternate and altitudes to be used in the event of an engine shutdown;

5) Visual and non-visual aids are available at the specified EDTO alternate aerodromes as required for the authorized types of approaches and operating minima; and

6) Flights that are planned to be operated in an area of known or expected area of solar flare activity, cosmic radiation or radio blackout that may affect the operation of the aeroplane should be planned to avoid these areas based on criteria established in the air operator's company operation manual.

3.5 FUEL AND OIL SUPPLY

a) General

1) Unlike the area of operation, which is determined under standard conditions in still air, the fuel planning should consider the expected meteorological conditions along the planned route. Prior to dispatching an aeroplane on an EDTO flight, both a standard and EDTO fuel requirement, for the planned route, should be determined. The fuel quantity required for dispatch is the greater of the two resulting fuel requirements.

2) An aeroplane should not be dispatched on an EDTO flight unless it carries sufficient fuel and oil to meet regulatory requirements of Nig.CARs 8.6.2.11 and 8.6.2.15, including additional contingency fuel reserves that may be determined in accordance with Paragraph 3.5 b) (Critical fuel reserves). In computing fuel and oil requirements, at least the following should be considered:

i) Current forecast winds and meteorological conditions along the expected flight path at one engine inoperative cruising altitude and throughout the approach and landing;

ii) Any requirement for operation of ice protection systems and performance loss due to ice accretion on the unprotected surfaces of the aeroplane;

iii) Icing encounters should be conservatively factored to account for the likelihood of an encounter, threat severity, encounter duration and anticipated flight crew action;

iv) Any required operation of auxiliary power unit (APU);

v) Loss of aeroplane pressurization and air conditioning, with consideration should be given to flying at an altitude meeting oxygen requirements in the event of loss of pressurization;

vi) Upon reaching any of the EDTO alternate aerodromes, holding at 1500 feet above field elevation for 15 minutes and then initiating an instrument approach and landing;

vii) Navigational accuracy required;

viii) Any known Air Traffic Control (ATC) constraints; and

ix) APU oil consumption and servicing should be considered in accordance with CMP document requirements.

b) Critical fuel reserves

In establishing the critical fuel reserves, the fuel necessary to fly from the most critical point to an EDTO alternate aerodrome under the conditions outlined in Paragraph 3.5 c), (Critical fuel scenario) should be determined. These critical fuel reserves should be compared to the fuel that will be on board at the most critical point based on a departure with the normal fuel required by regulations for the proposed trip. If it is determined by this comparison that the fuel that will be on board at the most critical point* is less than the critical fuel reserves, then additional fuel should be loaded to ensure that the fuel on board at the most critical point is equal to or greater than the critical fuel reserves.

** Note: In some rare cases, the minimum fuel to go from the second to last Equal Time Point (ETP) to the applicable EDTO alternate aerodrome is the same as the minimum fuel to go from the last ETP to the another EDTO alternate aerodrome. In those case each ETP constitute a critical point. The first critical point is the most critical until such time that the aeroplane has past the first critical point enroute to the second critical point, at which time the second critical point becomes the most critical point.*

In consideration of the items listed in Paragraph 3.5 a), for an air operator with an approved fuel consumption monitoring program, the critical fuel scenario should allow for:

1) A contingency figure of 5 percent added to the calculated fuel burn from the critical point to a EDTO alternate, to allow for errors in wind forecasts and fuel mileage, except when the air operator can demonstrate and justify with an assessment tool and supporting data specific for that route of flight, that each element which has an impact on safety has been identified and appropriate mitigating factors have been applied, use a contingency figure of 5 percent wind speed factor based on the actual forecast wind used to calculate fuel for the most critical fuel scenario in order to account for any potential errors in wind forecasting;

2) Any Configuration Deviation List (CDL) and/or Minimum Equipment List (MEL) items;

3) Fuel for engine anti-icing, and if applicable wing anti-ice, for the entire time during which icing is forecasted except when the air operator can demonstrate and justify with an assessment tool and supporting data specific to the aeroplane type for that route of flight, that each element which has an impact on safety has been identified and appropriate mitigating factors have been applied, fuel for the effect of 10 percent of the time during which icing is forecast including the fuel used by engine and wing anti-ice during this period;

4) Ice accretion on unprotected surfaces if icing conditions are likely to be encountered during the diversion except when the air operator can demonstrate and justify with an assessment tool and supporting data specific to the aeroplane type for that route of flight, that each element which has an impact on safety has been identified and appropriate mitigating factors have been applied, fuel for the effect of 10 percent of the time during which icing is forecast including the fuel used by engine and wing anti-ice during this period; and

5) Any required operation of an auxiliary power unit and/or Ram Air Turbine (RAT).

For an air operator that does not have an approved fuel consumption monitoring program to monitor the aeroplane in-service deterioration of cruise fuel burn performances and includes

fuel supply calculations sufficient to compensate for such deterioration, increase the fuel supply by 5 percent.

c) Critical fuel scenario

1) Calculation of the critical fuel reserve requires the determination of the failure scenario that is the most operationally critical, considering time and aeroplane configuration. Any failure or combination of failures not shown to be extremely improbable should be considered. The critical fuel reserve is the fuel required taking into account the items listed in paragraph 3.5 b) and:

   i) To proceed from the most critical point to an EDTO alternate aerodrome following the occurrence of the most operationally critical event(s); and

   ii) Upon reaching the EDTO alternate aerodrome, to descend to 1,500 feet above the aerodrome, hold for 15 minutes, initiate an instrument approach and land.

2) For example, if the critical scenario was determined to be the simultaneous failure of one propulsion system and the pressurization system, then the critical fuel reserves would be the fuel required to:

   i) At the most critical point, cruise at 10,000 feet at the approved one-engine-inoperative cruise speed (fuel consumption may be based on continued cruise above 10,000 feet if the aeroplane has sufficient supplemental oxygen in accordance with applicable regulations); and

   ii) Upon reaching the EDTO alternate aerodrome, to descend to 1,500 feet above destination, hold for 15 minutes, initiate an instrument approach and land.

3.6 EDTO ALTERNATE AERODROMES

a) EDTO alternate aerodrome should be chosen in order to make it possible for the aeroplane to reach the EDTO alternate aerodrome, especially with regard to performance (flight over obstacles) and/or oxygen requirements. A list of EDTO alternate aerodromes and the EDTO alternate aerodrome pre and post-dispatch weather limits should be published in the air operator's Operations Manual.

An aeroplane should not be released on an EDTO flight unless the required take off, destination and alternate aerodromes, including EDTO alternate aerodromes to be used in the event of a system failure which requires a diversion, are listed in the operational flight plan, (e.g. on board copy of computer flight plan).

All adequate aerodromes that are located within the authorized diversion limits, should be considered when determining the EDTO alternate aerodromes and the choice and number of EDTO alternate aerodromes should be made so as to minimize the duration of the diversion;

b) EDTO alternates aerodromes are required to be identified, listed and provided to the flight crew with the most up to date information (e.g. aerodrome data, facilities, weather, etc.) as part of the dispatch release for all cases where the planned route of flight contains a point more than 60 minutes flying time at the approved one-engine-inoperative cruise speed from an adequate aerodrome. Since these EDTO alternates aerodrome serve a different purpose than the destination aerodrome and would normally be used only in the event of an engine failure or the failure of a EDTO significant system, an aerodrome should not, prior to dispatch, be designated as an EDTO alternate aerodrome unless the following conditions are met:

1) The landing distances required as specified in the Aircraft Flight Manual for the altitude of the aerodrome, for the runway expected to be used, taking into account wind conditions, runway surface conditions, and aeroplane handling characteristics, permit the aeroplane to be stopped within the landing distance available as declared by the aerodrome authorities

and computed in accordance with the applicable regulations;

2) The aerodrome services and facilities are available and adequate for the air operator's approved instrument approach procedure(s) and operating minima for the runway expected to be used;

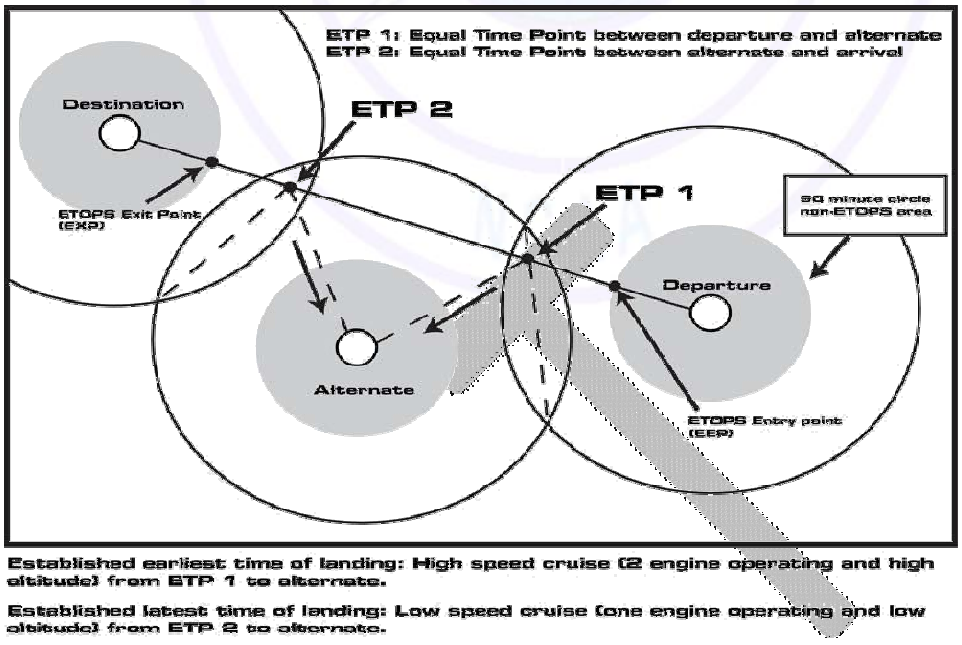
3) The latest available forecast weather conditions for a period commencing one hour before the established earliest time of landing and ending one hour after the established latest time of landing at that aerodrome, (Figure 1) are equal to or exceed the authorized weather minima for EDTO alternate aerodromes as specified in Appendix A and that the periods between which the forecast should be equal to or exceed the authorized weather minima are identified on the operational flight plan;

4) For the same period, the forecast cross wind component for the intended landing runway, including gusts, is less than the maximum permitted cross wind for a single engine landing. Where no single engine demonstrated cross wind value exists, 80% of the all engine demonstrated value is used;

5) i) Subject to Clause 3.6.a) 5) ii), for EDTO operation up to 180 minutes, each designated EDTO alternate aerodrome should meet a minimum Aircraft Rescue and Fire Fighting (ARFF) capability equivalent to that specified by ICAO category 4, or higher and for EDTO operation beyond 180 minutes, each designated EDTO alternate aerodrome should meet a minimum Aircraft Rescue and Fire Fighting (ARFF) capability equivalent to that specified by ICAO category 4, or higher provided that the aeroplane remains within the EDTO authorized diversion time from an adequate aerodrome that meets the minimum capability equivalent to that specified by ICAO category 7, or higher;

ii) If the equipment and personnel are not immediately available at the aerodrome, the aerodrome may still be listed on the operational flight plan, provided that the ARFF capability is available upon the arrival of the diverting aeroplane and remains at the aerodrome as long as the diverting aeroplane requires their services. A 30-minute response time is adequate provided that the initial notification to respond can be initiated while the diverting aeroplane is enroute and the above conditions are met;

FIGURE 1



iii) Once the flight is dispatched, the flight crew and the flight dispatcher should remain informed of any significant changes at the EDTO alternates aerodromes and should be updated with the latest weather and aerodrome information of potential adequate aerodrome along the route of flight, that are not listed on the operational flight plan but could be used in case a diversion was initiated; and

A) Prior to proceeding beyond the EDTO Entry Point, the pilot in command and the flight dispatcher should complete a review of the forecast weather of all the EDTO alternate aerodromes identified on the operational flight plan and should ensure that the forecasted weather is equal to or exceeds the published landing minima for the time period established in subparagraph 3.6 b) 3 for the runway and type of instrument approach expected in order to ensure a safe landing at the expected time of use. If the weather forecast does not meet the landing minima, the pilot in command and the flight dispatcher are advised and the flight plan should be amended to add any other EDTO alternate aerodrome located within the maximum authorized diversion time, that meet the landing minima in order to allow the flight to proceed into the EDTO area of operation. If unable, the flight should not enter the EDTO area of operation; and

B) Prior to proceeding beyond the EDTO Entry Point, the pilot in command and the flight dispatcher should complete a review of the conditions established in Paragraph 3.6 b) (excluding Subparagraph 3.6 b) 3) of the EDTO alternate aerodrome and ensure that no changes have occurred since the flight has been dispatched. If any conditions are identified which would preclude safe approach and landing, then the pilot in command should be notified and an acceptable EDTO alternate(s) aerodrome selected where safe approach and landing can be made. If any of the EDTO alternate aerodromes identified on the operational flight plan is not considered to be adequate at the expected time of use, the operational flight plan should be amended to add another EDTO alternate aerodrome located within the maximum authorized diversion time, in order to allow the flight to proceed into the EDTO area of operation. If unable, the flight should not enter the EDTO area of operation.

iv) Once the flight has entered the EDTO area of operation, if the forecast for the EDTO alternate aerodrome is revised to below the landing limits, or that the EDTO alternate aerodrome becomes inadequate, the flight may continue at the Pilot in Command's discretion.

6. Flight dispatchers and flight crews should take into consideration the effects of solar flare, cosmic radiation and radio blackout activity that may affect the performance of the flight, when planning or approving the choice of EDTO alternates aerodromes

FIGURE 2

EDTO alternate Airport	**Prior to dispatch**	**After dispatch and prior to EDTO entry point**	**Once enter the EDTO area of operation**
WX	Appendix A	Landing Minima	PIC's discretion
MEL	Applicable	Not applicable	Not applicable
Airport Adequacy	Applicable	Applicable	PIC's discretion

Approval of EDTO alternate aerodromes will be based on the results of a specific safety risk assessment demonstrated by the operator, which contains the following:

- capabilities of the operator;
- overall capability of the aeroplane and its systems;
- available aerodrome technologies, capabilities and infrastructure;
- quality and reliability of meteorological information;
- identified hazards and safety risks associated with each alternate aerodrome variation; and
- specific mitigation measures.

3.7 AEROPLANE PERFORMANCE DATA

An aeroplane should not be released on an EDTO flight unless the air operator's Operations Manual contains sufficient performance data to support all phases of any applicable EDTO operation. The following data should be based on information provided or referenced in the approved Aircraft Flight Manual (AFM):

1) Detailed single engine performance data including fuel flow for standard and non-standard atmospheric conditions and as a function of airspeed and power setting, where appropriate, covering:
   i) Drift down (includes net performance);
   ii) Cruise altitude coverage including 10,000 feet;
   iii) Holding;
   iv) Altitude capability (includes net performance); and
   v) Missed approach.
2) Detailed all-engine operating performance data, including nominal fuel flow data, for standard and non-standard atmospheric conditions and as a function of airspeed and power setting, where appropriate, covering:
   i) Cruise (altitude coverage including 10,000 feet); and
   ii) Holding.
3) Details of any other conditions relevant to EDTO operations which can cause significant deterioration of performance, such as ice accretion on the unprotected surfaces of the aeroplanes, Ram Air Turbine, thrust reverser deployment, etc.; and
4) The altitudes, airspeeds, thrust settings, and fuel flow used in establishing the EDTO area of operations for each airframe-engine combination should be used in showing the corresponding terrain and obstruction clearances in accordance with applicable regulations.

3.8 NAVIGATION DOCUMENTATION

The necessary navigation documentation including a mean to determine the location of each Equal Time Point and the Critical Point should be provided to the flight crew.

4.0 TRAINING AND EVALUATION PROGRAM

Flight crew member's initial and recurrent EDTO training requirements shall be completed. See example in Appendix B.
Flight dispatcher's initial and recurrent EDTO requirements shall be completed. See Appendix B.5
Maintenance personnel's initial, update and additional EDTO training requirements shall be completed. See TGM Vol. 4

5.0 OPERATIONAL LIMITATIONS

5.1 AREAS OF OPERATION

Following satisfactory compliance with these criteria, an air operator may be authorized to conduct EDTO with a particular airframe engine combination within a particular area of operation. The area of operation is limited by the maximum approved diversion time to an adequate aerodrome at the approved one□engine□inoperative cruise speed (under standard conditions in still air) from any point along the proposed route of flight. The area of operation approved should be specified in an Operations Specification.

5.2 FLIGHT DISPATCH LIMITATION

Flight dispatch limitation should specify the maximum diversion time from an EDTO alternate aerodrome for which an air operator can conduct a particular EDTO operation. The maximum diversion time at the approved one□engine□inoperative cruise speed should not be any greater than the value specified in the Operations Specification.

5.3 USE OF STANDARD MAXIMUM DIVERSION TIME

The procedures established should ensure that EDTO operation is limited to flight plan routes where the approved maximum diversion time to EDTO alternate aerodromes can be met under standard conditions in still air. Air operators should ensure that:

1) A procedure should be established that upon occurrence of an in□flight shutdown (IFSD) of an engine, the pilot in command should, subject to the PIC's authority, promptly initiate a diversion and fly to and land the aeroplane at the nearest suitable* aerodrome, at which a safe landing can be made; and,

2) A procedure should be established such that in the event of a single or multiple EDTO significant system failure, the pilot in command should, subject to the PIC's authority, promptly initiate a diversion procedure and fly to and land at the nearest suitable* aerodrome, at which a safe landing can be made, unless it can be established that no substantial degradation of safety results from continuation of the planned flight.

* *Suitable means right or appropriate for the particular situation*

5.4 PILOT-IN-COMMAND AUTHORITY

Contingency procedures or plans should not be interpreted in any way which prejudice the final authority and responsibility of the Pilot In Command for safe operation of the aeroplane.

6.0 OPERATIONS MANUAL

6.1 The Company Operations Manual should outline the standard operating procedures applicable to EDTO operations including, but not limited to, the following:

a) Minimum altitudes to be flown along planned and diversionary routes as applicable;

b) Aerodromes authorized for use, including alternates and associated instrument approaches and operating minima;

c) The information used in determining the critical fuel scenario; and

d) The minimum equipment list (MEL)

7.0 OPERATIONS SPECIFICATIONS

7.1 Aeroplanes should not be operated on EDTO Operations unless the air operator has complied with all the provisions of this chapter and the flight is authorized by an Operations Specification.

7.2 An Operations Specification for EDTO Operations should specifically include provisions covering at least the following:

a) Approved area of operation; and

Note: Flights may be planned to operate through sectors outside of the delimiting arcs, provided the sector crossing is less than 30 track miles;

b) For each EDTO approved airframe□engine combination, the maximum diversion time, at the approved one□engine□inoperative cruise speed, that any point on the route may be from an EDTO alternate aerodrome.

APPENDIX A – EDTO ALTERNATE AERODROME

A.1 GENERAL

One of the distinguishing features of EDTO is the concept of an EDTO alternate aerodrome being available to which an aeroplane can divert after a single or combination of failures which require a diversion. Whereas most two□engine aeroplanes operate in an environment where there is usually a choice of diversion aerodromes available, the EDTO aeroplane may have only one alternate within a range dictated by the endurance of a particular airframe system (e.g. cargo fire suppressant), or by the approved maximum diversion time for that route.

It is, therefore, important that any aerodromes designated as an EDTO alternate aerodrome have the capabilities, services and facilities to safely support that particular aeroplane and that the weather conditions at the time of arrival provide a high assurance that adequate visual references are available upon arrival at decision height (DH) or minimum descent altitude (MDA) and that the surface conditions are within acceptable limits to permit the approach and landing to be safely completed with an engine and\or systems inoperative.

A.2 ADEQUATE AERODROME

As with all other operations, an air operator desiring any route approval is required to show that it is able to satisfactorily conduct operations between each required aerodrome over that route or route segment. Air operators are required to show that the facilities and services specified are available for their use and adequate for the proposed operation. For the purpose of this manual, in addition to meeting these criteria, those aerodromes, which meet the CAA standards or ICAO Annex 14 and are determined to be useable by that particular aeroplane, are to be accepted as adequate aerodromes.

A.3 EDTO ALTERNATE AERODROME

For the purposes of this document in order for an aerodrome to be considered as an EDTO alternate aerodrome, it should have the capabilities, services and facilities necessary to be designated as an adequate aerodrome and have weather conditions and field conditions at the time of the particular operation which provide a high assurance that an approach and landing can be safely completed with an engine and/or systems inoperative, in the event that a diversion to an EDTO alternate aerodrome becomes necessary. For planning purposes only, the EDTO alternate aerodrome weather minima are higher than the weather minima required to initiate an instrument approach.

A.4 EDTO ALTERNATE AERODROME WEATHER MINIMA

The following are established for flight planning and dispatch purposes in EDTO operations:

FACILITIES AVAILABLE AT EDTO ALTERNATE AIRPORT	CEILING	VISIBILITY
2 or more **useable** precision approaches each providing straight-in minima to separate Suitable runways.(Two separate landing surfaces)	400 feet, or 200 feet above the lowest useable HAT, whichever is higher.	1 s.m., or 1/2 s.m. more than the lowest useable visibility limit, whichever is greater.
1 **useable** precision approach.	600 feet, or 300 feet above the lowest authorized HAT/HAA, whichever is higher.	2 s.m., or 1 s.m more than the lowest published landing visibility, whichever is greater.
1 **useable** non-precision approach.	800 feet, or 300 feet above the lowest authorized HAT/HAA, whichever is higher.	2 s.m., or 1 s.m more than the lowest published landing visibility, whichever is greater.

A particular aerodrome may be considered an EDTO alternate aerodrome for flight planning and dispatch purposes for EDTO operations if it meets the criteria of paragraph B.3 of this Appendix and has one of the following combinations of instrument approach capabilities and EDTO alternate aerodrome weather minima at the time of the particular operation:

Note: Weather forecasts that contain the term BECMG, TEMPO or PROB may be used to determine the weather suitability of an aerodrome as an EDTO alternate provided that.

a) Where the conditions are forecast to improve, the forecast BECMG condition should be considered to be applicable as of the end of the BECMG time period, and these conditions should not be below the published alternate minima requirements for that aerodrome;

b) Where the conditions are forecast to deteriorate, the forecast BECMG condition should be considered to be applicable as of the start of the BECMG time period, and these conditions should not be below the published alternate minima requirements for that aerodrome;

c) The forecast TEMPO condition should not be below the published alternate minima requirements for that aerodrome; and

d) The forecast PROB condition should not be below the appropriate landing minima for that

aerodrome. Where a condition is forecast as “PROB”, provided the probability per cent factor is less than 40 per cent, it is not limiting. However the Pilot In Command and flight dispatcher are to exercise good aviation judgment in assessing the overall “PROB” conditions.

For the purpose of EDTO, a flight is deemed to be commenced/dispatched after brake release for take off. Thus, during the planning stage and prior to the aeroplane being dispatched, the EDTO alternate aerodrome should meet the criteria of Section B.4 of this Appendix. Once the flight is dispatched, and prior to the EDTO entry point, the EDTO alternate aerodrome should meet the published landing minimum for the intended runway and instrument approach to be used in the event of a diversion. Once the flight has entered the EDTO area of operation, if the forecast for the EDTO alternate aerodrome is revised to below the landing limits, or that the EDTO alternate aerodrome becomes inadequate, the flight may continue at the Pilot in Command’s discretion.

APPENDIX B: EDTO TRAINING

The following is an example of a generic EDTO training syllabus. The syllabus should provide for initial and recurrent training for flight crew and be tailored to the operator's particular operations.

1. Introduction to EDTO regulations

- Brief overview of the history of EDTO
- EDTO regulations
- Definitions
- Approved one engine inoperative cruise speed
- Approved all engine operating cruise speed is applicable
- EDTO type design approval - a brief synopsis
- Maximum approved diversion times and time limited system capability
- Cargo fire suppression system capabilities and time limit if applicable
- Routes and aerodrome intended to be used in the EDTO area of operations
- EDTO operations approval
- EDTO area of operations
- EDTO en-route alternate aerodromes including all available approach aids
- Navigation systems accuracy, limitations and operating procedures
- Meteorological facilities and available information
- In-flight monitoring procedures
- Computerised flight plan
- Orientation charts (including low level planning charts and flight progress charts usage including position plotting)
- Equal time point
- Critical fuel scenario.

2. Normal operations

Flight planning and dispatch:

- EDTO fuel requirements
- Route alternate selection - weather minima
- MEL - EDTO specific
- EDTO service check and tech log
- Pre-flight flight management system set up.

Flight performance progress monitoring:

- Flight management, navigation and communication systems
- Aeroplane system monitoring
- Weather monitoring
- In-flight fuel management (to include independent pilot cross checking of fuel quantity).

3. Abnormal and contingency procedures

Diversion procedures and diversion "decision making":

- Initial and recurrent training to prepare flight crew to evaluate potential significant system failures. The goal of this training should be to establish crew competency in dealing with the most probable contingencies. The decision should include the factors that may require medical, passenger related or non-technical diversions.

Navigation and communication systems (including appropriate flight management devises in degraded modes).
Fuel management with degraded systems.

Initial and recurrent training which emphasises abnormal and emergency procedure to be followed in the event of foreseeable failure for each area of operation, including:

- procedures for single and multiple failures in flight affecting EDTO entry and diversion decisions. If standby sources of electrical power significantly degrade the cockpit instrumentation to the pilots, then training for approaches with the standby generator as the sole power source should be conducted during initial and recurrent training
- operational restrictions associated with these system failures (including any applicable MEL considerations).

4. EDTO line flying under supervision

During the introduction into service of a new EDTO type, or conversion of flight crew not previously EDTO qualified, a minimum of two EDTO sectors should be completed including a line check.

EDTO subjects should also be included in annual refresher training.

5. Flight operations personnel other than flight crew

The operator's training program in respect of EDTO should provide training (where applicable) for operations personnel other than flight crew (e.g. dispatchers) in addition to recurrent training in the following areas:

- EDTO regulations/operations approvals
- aeroplane performance/diversion procedures
- area of operation
- fuel requirements
- dispatch considerations MEL, configuration deviation list, weather minima, and alternate airports
- documentation.

APPENDIX C – SIMULATED EDTO PROGRAM

C.1 GENERAL

This Appendix provides the guidance for an air operator to substitute the actual in-service experience at 120 minutes EDTO operation required to obtain 180 minutes EDTO approval. It establishes the conditions under which NCAA may authorize an air operator to gain in-service experience through a simulation/demonstration program as a pre-requisite for applying for 180 minutes EDTO authority. The intent is to permit an air operator who does not have the capability to demonstrate EDTO operation due to route structure to develop and validate an EDTO program leading to 180-minutes approval.

The objective of the EDTO simulation/demonstration is to provide the air operator with an acceptable level of experience to demonstrate its capability to safely operate with a maximum diversion time of 180 minutes.

C.2 IN SERVICE EXPERIENCE REQUIREMENTS

An air operator who wishes to obtain 180 minutes authority through a simulation/demonstration program is to have at least 12 consecutive months of operational in-service experience with the specified airframe-engine combination before the start of a simulated EDTO flight.

C.3 APPLICATION

A request to the NCAA should be submitted for approval to conduct a simulated and demonstrated EDTO program, at least 60 days prior to the intended start of the simulated EDTO flights. The request should address the criteria contained in this chapter for 180 minutes EDTO programs. The application should also contain information on the proposed simulated operation, the proposed demonstration flights and the proposed actual operation. There may be certain items related to 180 minutes and actual operations, which the air operator will not be prepared to address initially. If applicable, these items should be identified to the FOI and AWI and addressed during the final application for 180 minutes authority. The application to conduct simulated or demonstrated EDTO should include:

a) The proposed simulation and demonstration periods (start and end dates);

b) A list of aeroplanes to be used in the simulation and demonstration, including aeroplane registration, manufacturer and serial number and model of the airframes and engines;

c) A description of the areas of operation proposed for simulated, demonstrated and actual operations;

d) A list of designated EDTO simulation routes, of sufficient duration to provide adequate simulation and usually the air operator's longest routes, and demonstration routes required to be the proposed routes;

e) A description of the air operator's relevant EDTO in-service experience with other airframe-engine combinations and/or relevant non EDTO in-service experience with the airframe-engine combination to be used in the simulation, including records of in-flight shutdowns, unscheduled engine removals, and any events that could be considered as EDTO significant events;

f) A description of aeroplane configuration with respect to the applicable CMP document at the start of simulation, including a schedule of compliance for items not yet incorporated or a statement of the date that full compliance is expected;

Note: items requiring incorporation are discussed in Subsection C.7. c)

g) A minimum number of EDTO simulation and demonstration segments performed;

h) A supplemental EDTO maintenance and reliability requirements of TGM Vol. 4;

i) A plan to ensure that maintenance personnel, at proposed departure and destination aerodromes in the actual area of operation, are qualified in accordance with TGM Vol. 4 and the Nig. CARs;

j) Policy guidance to personnel involved in the program in regards to flight safety as stated in Section C.5 of this appendix;

k) Operations requirements that meet the criteria of this chapter and the appendices;

l) A Gate and Milestone tracking plan to allow for the orderly tracking and documentation of specific requirements of the EDTO; and

m) Any other items relevant to the applicant's EDTO program requested by the FOI and/or AWI;

C.4 AUTHORITY

Authority to conduct 180 minutes EDTO though a simulated program is granted via an Operation Specification and is initially limited to the areas of operation in which the air operator has already demonstrated capability. New areas of operation are authorized once the air operator's 180 minutes EDTO and overall in□service experience record is proven.

C.5 FLIGHT SAFETY

While operating in a simulated EDTO program, it should be clearly demonstrated that the impact of such a program, on flight safety in actual operation, has been considered. When applying to conduct a simulated EDTO program, it should be clearly stated that the EDTO simulation should be terminated immediately during any abnormal or emergency situation.

C.6 SIMULATION/DEMONSTRATION PROGRAM REQUIREMENTS

The following is a list of basic elements which should be considered for a simulation/demonstration program. These elements should be addressed both in the initial request and during operations conducted under the program. The elements are:

a) A fully developed and approved Maintenance Control System;

b) An approved airframe, system and engine reliability monitoring and reporting systems;

c) An approved flight planning and dispatch program;

d) An approved initial and recurrent training and checking program for flight crew and flight dispatchers;

e) An approved initial training, qualifications and authorization program for EDTO maintenance personnel;

f) A simulation scenario of sufficient frequency and operational exposure to demonstrate the application and response of maintenance and operational support systems;

g) A means to monitor and report ongoing EDTO performance results during the period of the simulation to provide validation or, as necessary, recommended changes to EDTO maintenance and operational support systems; and

h) Resource allocation and decision making process which demonstrates commitment by management and all personnel involved in EDTO maintenance and operational systems support.

C.7 CONCEPT FOR SIMULATION

The simulation is intended to provide for accumulation of in□service experience, which is equivalent to the actual conduct of EDTO operation. The following should be addressed:

a) Identification of simulated areas of operation and alternates that are proposed to be used to meet the dispatch limitations for an EDTO alternate aerodrome;

b) A plan to conduct simulated EDTO with the specified airframe engine for at least 12 consecutive months. The sample size should consist of approximately 1000 separate flights. These operations should be conducted on flights, which contain approximately 3 hours of cruise flight. The number of operations and months of in□service experience may be increased or decreased following a review by the FOI on a case by case basis considering:

   1) Experience with similar technology airframe□engine combinations in conducting EDTO; (i.e., 757/767, A 310 or A330);

   2) Experience with the specified airframe engine combination;

   3) Experience with non□EDTO aeroplane in international over water operations;

   4) The record of the airframe engine combination in EDTO with other air operators; and

   5) Other scenarios.

c) Airframe Engine Combination Build Standards.

   1) Engine/APU Items. This statement applies equally to Engine manufacturer items, Engine Build Up Systems and Auxiliary Power Units on aeroplanes proposed to be used to conduct simulated EDTO flights. Normally, the configuration, maintenance, and operating items identified in the current approved Configuration, Maintenance, and Procedures (CMP) document are implemented prior to the start of simulated EDTO flights. However, items identified in the CMP document by an asterisk may be accomplished per the manufacturer's recommended schedule.

   2) Airframe Items. It is recommended that aeroplane proposed to be used in the simulated EDTO program be configured to the CMP Build Standard for airframe items at the start of simulated EDTO flights. Further, if certain equipment significantly impacts maintenance and/or operational procedures then the CAA may require that it may be installed early in the simulation period. Airframe items which the applicant intends to incorporate at a later date are to be identified in the application along with a schedule for compliance. During the final three months of the simulation period, all aeroplanes used to conduct simulated EDTO flights are to fully comply with the CMP document.

   3) Equipment Required by the Regulations for extended overwater flight. Any equipment required by the CARs for extended overwater flight, which is not installed at the start of simulated EDTO operations, should be identified. They should present the AWI with a schedule for the installation of such equipment. If certain equipment significantly impacts maintenance and/or operational procedures then the FOI and/or AWI, may require that equipment be installed early in the simulation period.

d) Maintenance Control Systems. The simulation program should be designed to aid air operators in the development of decision□making processes through implementation of supplemental EDTO maintenance and reliability requirements as specified in TGM Vol. 4b. It is not within the scope of this Appendix to restate each required program element, but to

outline the extent of their application in simuiated programs. These are:

1) Dispatch Considerations. All dispatch actions real or simulated including documentation of discrepancies should be completed prior to actual dispatch of the aeroplane. Air operators conducting EDTO simulations have the same dispatch options as would be exercised in actual EDTO operations. These considerations are:

   i) Minimum Equipment List (MEL). In instances in which the aeroplane does not meet the operator's EDTO MEL requirements (but does meet non EDTO requirements), dispatch options are to include:

      A) Taking appropriate action to clear MEL and operate as an EDTO segment;

      B) Substitute an EDTO capable aeroplane and operate as an EDTO segment; or

      C) Operate the flight as a non EDTO segment; and

   ii) Domestic Verification Flights. Instances in which the air operator's program prescribes a domestic verification flight prior to EDTO, dispatch options could include:

      A) Substitute an EDTO capable aeroplane and operate as an EDTO segment.

      B) Operate the flight as a non EDTO segment; or.

      C) Perform the verification flight in accordance with the approved NCAA procedure and operate as an EDTO segment.

2) EDTO Destination Reliability Requirements. The excessive use of the option to operate as a non EDTO segment is not desirable in that it indicates a lack of commitment to the EDTO program. Therefore, during the period of simulation, it is recommended that EDTO destination reliability remain at 98% or higher. The following details the ground rules for destination reliability requirements.

   i) An EDTO flight is considered reliable if it arrives at its planned destination within 6 hours of its planned arrival time;

   ii) If an EDTO flight does not arrive at its intended destination within 6 hours of planned due to factors unrelated to the air operators maintenance or operations programs, then the flight may be counted as reliable. Passenger medical emergencies, air traffic flow control and flights rescheduled for passenger load considerations are examples of flights that would not be counted against the EDTO destination reliability requirements;

   iii) Flights which are conducted under the non EDTO MEL are not considered as reliable for the destination reliability calculation;

   iv) Any EDTO designated flight which is unreliable under the criteria specified above should be reported to the AWI within 72 hours of the event. The report should include:

      A) If maintenance related, a description of the discrepancy or malfunction that caused the flight to be unreliable including operating under a non EDTO MEL;

      B) If operations related, a description of the operational problem which

caused the flight to be unreliable;

C) Chronology of the problem beginning with the first notification to maintenance or operations personnel up to the time of flight termination or cancellation;

D) The actions which followed initial notification of the problem;

E) Logistical aspects surrounding the availability of repair parts and/or required maintenance equipment at the station where the problem occurred; and

F) Any other information that may be deemed pertinent to the factors, which caused the flight to be unreliable; and

v) Destination reliability data should be compiled and reported to the AWI each month starting from commencement of EDTO simulation. This report should include:

A) The number of flights scheduled during the period and total number scheduled since start of EDTO simulation;

B) The number of flights considered reliable and unreliable during the period and since start of EDTO simulation;

C) The percentage of flights considered reliable during the period and since the start of EDTO simulation; and

D) In□service experience data to include in-flight shutdown (IFSD) rates, (3 month, 6 month, 12 month rolling average, as agreed with the AWI), unscheduled engine removals and rates, delays and cancellations, airframe□engine hours and cycles, record of APU start and run reliability, and any other significant operator events required to be reported under the maintenance reliability program identified in TGM Vol. 4. Data such as IFSD rates and events for portions of the applicant's airplane engine combination fleet which are not intended to be utilized in the EDTO simulation also be reported.

e) Operations Programs.

1) Training. Flight crew and dispatchers who participate in the simulation should have received EDTO training prior to participation in the simulation; and

2) Operations. Flights should be planned, dispatched and flown in accordance with this manual. All dispatch actions real or simulated including documentation of discrepancies should be completed prior to actual dispatch of the aeroplane. The following elements should be evaluated:

i) Critical fuel reserves and critical fuel requirements during EDTO simulated flights;

ii) EDTO alternate aerodromes;

iii) Operational flight plans including diversion data such as Equal Time Points, critical fuel requirements, heading information;

iv) Minimum Equipment List (MEL) items;

v) Plotting charts, annotated during flight planning as they would for an actual flight.

vi) Communications capabilities in order to familiarize themselves with operational characteristics of HF communication and SATCOM; and

vii) Technical assistance, where exercises are conducted on selected flights to evaluate the availability and quality of assistance from maintenance technical centers.

f) Number of operations are to be observed by the CAA maintenance and operations inspectors. Simulated malfunctions and contingencies should be given to determine the capability to respond correctly and expeditiously.

C.8 CONCEPT FOR DEMONSTRATION

The purpose of the demonstration phase is to gain experience and to validate effectiveness consistent with the highest level of safety over actual 180 minute routes. Flights conducted during the demonstration phase should be conducted utilizing applicable Regulations and this manual's criteria for airframe engine configuration, maintenance, dispatch, and flight crew programs. The following should be addressed:

a) Area of operation: The demonstration flights should be conducted over intended routes. Exact tracks, points of entry, diversion aerodromes, and support facilities at origins and destinations should be established as if 180 minute authority were actually being exercised in regularly scheduled service;

b) Sample size and timing: A minimum of twelve (one way) demonstration flights should be flown in the planned actual area of operations. The number of demonstration flights may be increased or decreased by the FOI, on a case□by□case basis based on the factors identified in Paragraphs D.7 (b) (1) through (4). The initial flight should be flown approximately 90 days prior to the date of anticipated 180 minute approval. The purpose of these flights is to demonstrate proof of concept in the exercise of all operational and maintenance factors. Results of these flights are used to modify the EDTO program elements to assure that subsequent flights fully conform to desired profiles. so that the experience base built, repeatable, operations;

c) EDTO Maintenance and reliability requirements: The maintenance control system for the EDTO demonstration flights should be fully developed and conform to the requirements of Chapter 4 of this Manual;

d) Configuration compliance: All aeroplanes flying in the demonstration flights should comply with configuration requirements as established in the CMP Document and applicable CARs. Similarly, all training, dispatch, maintenance, and maintainability/reliability standards criteria should be in full conformance with this manual;

e) Configuration delays. Should a delay occur in the configuration of the aeroplane (for example, due to part availability) the simulation program should be continued until ready to conduct demonstration flights;

f) Flight profiles: Demonstration flight segments should be integrated into the operational schedule and submitted in advance to the FOI. All flights should conform to the operations specifications and 180 minute EDTO criteria;

g) Diversion exercises. During the course of the demonstration flights, EDTO diversion exercises should be conducted in accordance with the established ground rules, at a frequency and extent to be determined by TC. The demonstration diversions should be

consistent with the guidelines established by TC for 180 minute EDTO validation flights. Diversion exercises should not impact the applicant's destination reliability record or required number of simulation/demonstration flights; and

h) Validation flight credit. At the discretion of the CAA, the final flight or flights conducted during the demonstration phase may be planned and conducted as the CAA required EDTO validation flight(s). This flight or flights should be coordinated between the CAA and the air operator well in advance. This provision does not alter the requirement to conduct simulation/demonstration for 12 consecutive months and approximately 1,000 flights.

C.9 CONCEPTS FOR PAPER AIRLINE EVALUATION

To validate the accuracy and repeatability of data sources, flight planning methodology and algorithms, and operational decision processes, a "paper airline" data assimilation and analysis should be conducted in parallel to both the simulation and demonstration phases and should address the following:

a) Area of operation: The "paper airline" should be "flown" over the exact route(s) intended for the regularly scheduled EDTO flights.

b) Sample size and timing: A minimum of one flight per business day, per intended segment, should be planned. "Business day" is described as the period in which normal duties permit data retrieval and analysis. Where the frequency is less than daily, the "paper" scenario should still maintain a minimum analysis volume of at least 5 flights per week.

c) Maintenance program. Although maintenance activity simulation cannot be accommodated in a quantitative analysis scenario of this type, it is recommended that maintenance alert and MEL notification mechanisms be regularly exercised and displayed in conjunction with flight planning releases.

d) Configuration compliance. Not applicable, but it should be assumed that the "paper" airplane in the planning data base for the daily analyses is fully conformed to CMP and EDTO MEL requirements.

e) Paper flight analysis. For each paper flight, planned versus actual weather and facility status should be analyzed. Items to be analyzed include:

1) Actual versus forecast enroute EDTO alternate, destination, and terminal alternate weather (ceiling, visibility, crosswind component, icing, runway);

2) Actual versus forecast enroute weather;

3) Actual versus forecast condition of navigation, communication and aerodrome facilities for enroute, alternate, and terminal phase of flight; and

4) Analysis of planned versus actual enroute wind and the resultant variation in planned fuel burnoff to determine impact on the critical fuel scenario.

f) Presentation of data.: During the course of the domestic simulation phase, results from the ongoing daily "paper airline" analyses should be made available for the FOI and AWI to review and comment.

C.10 EDTO VALIDATION FLIGHT

EDTO validation flight or flights should be conducted under the supervision of a CAA Inspector in

accordance with the requirements Paragraph 1.4.3 e) of this manual. The flight(s) may be scheduled approval of the air operator's 180 minute EDTO application (see Subsection D.8 g) for guidance on conducting validation flight or flights during the demonstration phase.

CHAPTER 28

Conducting Base Inspections

1. GENERAL

1.1. This Chapter contains direction and guidance to be used by Authority operations inspectors for conducting base inspections.

1.1.1 REFERENCE: Regulations 9.1.1.10, 9.1.1.11, CHECKLIST: CL: O-OPS022

2. DEFINITION

2.1. A base inspection is an important function that provides the Authority with a comprehensive review of all of an operator's activities.

3. LOCATION OF INSPECTION

3.1. A base inspection is usually conducted at the operator's main base of operations or place of business. In some cases, operators may elect to retain selected records at different locations, such as at an office located in a residence, at an office building, or in portable files. The locations may differ as widely as the operators' activities differ.

4. INSPECTION PREPARATION

4.1 Prior to conducting a base inspection, the inspector should review and become familiar with:

4.1.1 General correspondence with the operator.

4.1.2 Any applicable manuals.

5. NOTIFICATION OF INSPECTION.

5.1. The inspector should notify the operator to arrange a time when the appropriate personnel and aircraft will be available for the inspection.

6. CONDUCT OF INSPECTION

6.1. The strategy used by an inspector for accomplishing a base inspection depends on the size and complexity of the operator. Because operators conduct business in a variety of ways, it is not necessary to identify each item that must be examined during a base inspection. The Checklist (APPENDIX A) will aid the inspector in accomplishing a base inspection and can be used to record the results. During initial certification, evaluation s of some items cannot be conducted until

the demonstration flights. To complete a base inspection, inspectors should examine, as a minimum, the items that follow.

6.1.1. **Draft OpSpecs.**

6.1.1.1. The inspector should review the operator's draft OpSpecs to ensure the type of operation proposed is reflected in the base inspection.

6.1.2. **Operations Manual.**

6.1.2.1. If the operator has either partial or full manuals that provide guidance for flight or ground personnel, the inspector should complete an inspection of the manuals, as applicable.

6.1.2.2. The inspector should determine whether or not manual procedures are being followed by interviewing operator personnel or by observing employees in the performance of their duties.

6.1.3. **Records.**

6.1.3.1. The inspector should conduct the following records inspections (To ensure operator has an adequate system for tracking and storing):

(a) Trip records
(b) Flight and duty time records
(c) Training records
(d) Operations records

6.1.4. **Aircraft.**

6.1.4.1. If practical, the inspector should examine, during a base inspection, the aircraft used by the operator. In addition to inspecting the aircraft to determine whether or not it is in airworthy condition, the inspector should examine the following items for compliance:

(a) Airworthiness certificate and registration
(b) Aeroplane limitations and required placards
(c) Approved aircraft flight manual (AFM) or AOM carried on board
(d) Empty weight and centre of gravity (CG) calculations
(e) Instruments and equipment
(f) The approved minimum equipment list (MEL) and its use as authorised by the OpSpecs.(if applicable)
(g) Aircraft records available for inspection

6.1.5. **Operational Information.**

6.1.5.1. The inspector should inspect the operator's proposed method of control of the aircraft flight operations (if for initial certification).

6.1.6. **Facilities.**

6.1.6.1 The inspector should inspect the various physical elements to ensure the facilities will support the proposed flight operations (if for initial certification).

NOTE: *Some operators may elect to retain aircraft maintenance records at the location where maintenance is performed; this location may differ from the operator's main base of operations.*

7. DEBRIEFING

7.1. The inspector should plan to debrief the operator as part of the base inspection. Quite often the operator may have participated directly in the inspection and may have the capability to make corrections quickly. The following debriefing points apply:

(a) The debriefing should include both acceptable and unacceptable areas.
(b) The inspector must be clear when indicating any areas that the operator must correct before further operations can be conducted.
(c) The inspector should advise the operator that a formal letter containing a listing of the discrepancies (if any) will be sent to the operator and made part of the permanent file.
(d) The inspector should schedule any required follow-up inspections.

8. NOTIFICATION OF DISCREPANCIES

8.1. When discrepancies are discovered, inspectors should:

(a) Inform the operator in writing of the discrepancies.
(b) Cite the unacceptable procedure, policy, instruction or method and explain how it is inconsistent with the appropriate regulation.
(c) During the AOC certification process, inform the operator that certification approval cannot be granted until the discrepancy is resolved.
(d) During the AOC certification process, notify the PM.
(e) Schedule a follow-up inspection
(f) At the conclusion of the follow-up inspection, debrief the operator.

CHAPTER 29

Conducting Station Facilities Inspections

1. GENERAL

1.1. This Chapter contains direction and guidance to be used by operations inspectors for performing station facilities inspections. Station facilities operations are defined as those support activities required to originate, turn around, or terminate a flight. Station facilities inspections are conducted on certificated air operators performing scheduled passenger and cargo operations under Parts 8 and 9 of the Nigeria CARs.

1.1.0 REFERENCE: Regulations 9.1.1.10, and 9.1.1.11, of the Nigeria Civil Aviation Regulations:
CHECKLIST: CL: O-OPS019

1.1.1 Location.

1.1.1.1 A station facilities inspection is conducted at every location at which a scheduled certificated air operator initiates and recovers flights. A station facilities inspection encompasses both operations and facilities.

1.1.2. Inspection Areas.

1.1.2.1. Eight inspection areas have been identified as areas for inspectors to observe and evaluate during a station facilities inspection. These inspection areas are defined as follows:

(a) **Personnel.** This area refers to the personnel employed at the facility. Inspectors must evaluate the adequacy of staffing levels and the competency of assigned personnel in the performance of their duties.

(b) **Manuals.** This area refers to the availability, currency, and content of the written guidance required by employees in the performance of their assigned duties.

(c) **Records.** This area refers to those records that the operator is required to maintain relative to station activities. For example, operators are required to record dangerous goods training for operations personnel. This area does not include those records inspected during a "records inspection."

(d) **Training Records.** This area refers to the adequacy of the training given to assigned personnel as demonstrated by their knowledge of their duties. This area does not include crew and dispatcher training.

(e) **Facility/Equipment/Surface.** This area refers to the various physical elements required to support flight operations, such as apron areas, blast fences, signs, signalling devices, lighting, passenger and cargo loading equipment, aircraft servicing, and towing equipment.

(f) **Conformance.** This area refers to the operator's employees' compliance with the operator's procedures and the Nig CARs.

(g) **Flight Control.** This area refers to the control and support of aircraft flight operations.

(h) **Servicing.** This area refers to the operator's procedures and standards required for the safe servicing and handling of its aircraft.

(i) **Management.** This area refers to the effectiveness of the operator's management and supervisory personnel.

2. GENERAL INSPECTION PRACTISES AND PROCEDURES:

2.1.1. Inspectors who conduct station facilities inspections encounter a wide range of situations and operational conditions. Station facilities range from large physical plants (that have a permanently assigned station manager, numerous employees, and various departments) to a single counter manned by a single employee. A station facilities inspection may be conducted to provide an overall view of operations. Inspectors should use the direction, guidance, and procedures that follow when conducting a station facilities inspection.

NOTE: *The direction and guidance of this and the following paragraphs is general in nature. Not all of it may be appropriate in any given situation.*

2.1.2. Planning for the Inspection:

2.1.2.1 The inspector should carefully plan a station facilities inspection before conducting it. The inspector should co-ordinate with the station manager ahead of time to establish a date and time for conducting the inspection.

2.1.3. Briefing for the Inspection:

2.1.3.1. Before beginning the inspection, the inspector should request that the station manager provide a briefing on the facility operation, including its assigned personnel and operational procedures. In turn, the inspector should brief the station manager and the staff on the purpose and scope of the inspection. This discussion should include the following points:

(a) Purpose of the facility inspection
(b) Introduction of inspectors
(c) Areas to be evaluated
(d) Inspection authority (Regulation: **9.1.1.10**)
(e) The proposed time and place of the exit briefing

2.1.3.2. Preliminary Tour:

2.1.3 The actual inspection should begin with a tour of the facility. The tour should provide the inspector with an overview of the operation and the location of individual sections. Inspectors should introduce themselves to section supervisors and other employees during the facility tour to

become familiar with each section. The tour should include those areas of the facility that are utilised by the flight and cabin crews for dispatch, briefing, and flight planning, and those areas that are utilised for passenger loading, cargo loading, weight and balance preparation, and apron areas.

3. SPECIFIC INSPECTION PRACTICES AND PROCEDURES:

3.1.1. Inspectors should use the Station Facilities Inspection Checklist (Appendix A) during the inspection. This job aid provides inspectors with "reminder" items to check when they evaluate specific areas. There may be areas inspected, which are not included in the job aid. Areas such as these should be recorded as an "other" item in the respective subject area. There also may be items on the job aid, which are not observed and should, therefore, be left blank. The job aid is designed solely as a reminder and as a means of standardisation to ensure that station facilities inspections are conducted in the same general manner. Inspectors should conduct station facilities inspections by using the procedures that follow.

3.1.2. Personnel:

3.1.2.1 The inspector should review the staffing of the facility. During this review, the inspector should attempt to determine whether or not the station is adequately staffed and whether or not assigned personnel are competent in their duties. The inspector may accomplish this by observing individuals as they perform their assigned job tasks. For example, the inspector may review recently completed forms for accuracy and may interview personnel, while being careful to avoid interfering with their duties.

3.1.3. Manuals:

3.1.3.1. The inspector should review the operator's manual or system of manuals for the operation of the facility to determine whether or not the manuals are on hand, current, readily available to personnel, and adequate in content.

3.1.3.1.1.**On Hand Requirements:** Inspectors should determine what manuals the operator requires its station personnel to maintain and then determine whether or not these manuals are on hand. As a result of the inspection, the inspector should be able to conclude that either of these manuals are sufficient for the purposes of the station, or that station personnel require additional information which was not available.

3.1.3.1.2.**Currency Requirements:** The inspector should also ensure that the operator's manuals are current and that any required revisions are accurately posted.

3.1.3.1.3.**Content Requirements:** Each manual or publication should be checked by the inspector to ensure that it includes that information and guidance necessary to allow personnel to perform their duties and responsibilities effectively and safely. Depending on the scope of operations conducted at the station, direction and guidance may be required in the following operational areas:

(a) Refuelling procedures.

(b) Aircraft towing or movement requirements/procedures.
(c) Mass and balance manual/procedures.
(d) Operation of ground service equipment/procedures.
(e) Aircraft Flight Manual (AFM) for types of regularly scheduled aircraft.
(f) Personnel training manual.
(g) Current emergency telephone listing.
(h) Accident/incident telephone listing.
(i) Security training and procedures.
(j) Severe weather notification procedures.
(k) Carry-on baggage procedures.
(l) Identification or handling of dangerous goods/procedures.
(m) Instructions and procedures for notification of the Pilot In Command (PIC) when there are dangerous goods aboard.
(n) Procedures for passenger operation of electronic devices.
(o) Contract service (if applicable).
(p) Trip records disposition.

3.1.4. Records

3.1.4.1. Available records relative to station operations should be inspected, such as communications records and station personnel training records. In a small facility, a records inspection and a facility inspection could be conducted on the same day. In most facilities, however, records inspections and facilities inspections should be planned and conducted separately.

3.1.4.1.1. **Training Records.** The inspector should review the training conducted for the various classifications of station personnel. The regulations do not specify training requirements either by subject or frequency for station personnel, yet these personnel should receive both initial and recurrent training in assigned job functions. This training may be either formal classroom training or on the job training. Specific areas of training include the following:
(a) Duties and responsibilities
(b) Hazardous materials
(c) Passenger handling and protection
(d) Load planning and weight and balance procedures
(e) Communications procedures
(f) Manual backup procedures in case of computer or communications equipment failures
(g) Aircraft servicing and apron operations
(h) First aid and emergency actions

3.1.5. Facility/Equipment/Surface:

3.1.5.1. The operator's facilities must be adequate to provide safe operating conditions for both aircraft and personnel. The inspector should conduct an evaluation to ensure that the following conditions are met:

3.1.5.1.1. **Apron Maintenance.** Apron areas should be clean and clear of foreign objects. The operator should have a regular programme for inspecting, cleaning, and repainting apron surfaces.

Adequate equipment must be available for snow removal.

3.1.5.1.2.**Passenger Safety.** The inspector should observe that employees and passengers are be protected from jet or prop blast. If a jetway is unavailable or not used, inspectors should evaluate passenger handling procedures and facilities and give particular attention to the movement of passengers across aprons. The operator must have established procedures for assisting handicapped passengers, especially when boarding aprons are not used.

3.1.5.1.3.**Night Operations.** To ensure that adequate lighting is available and is being used for safe ground operations, inspectors should conduct observations during night operations, if feasible.

3.1.5.1.4.**Station Manager Responsibilities.** The operator's management usually assigns station managers with the responsibility for maintaining surveillance of the aerodrome and for reporting aerodrome hazards and any new obstructions. Inspectors should determine what responsibilities have been assigned to the station manager and how those responsibilities are being discharged.

3.1.5.1.5.**Aerodrome Deficiencies.** Inspectors are not tasked with conducting a physical inspection of the aerodrome during a station facilities inspection; however, any aerodrome deficiencies observed during a station facilities inspection must be noted by inspectors and must be recorded for transmittal to the regional aerodromes division.

3.1.6. Conformance

3.1.6.1. In each area to be inspected, inspectors should evaluate the operator's procedures for compliance with provisions of the applicable MCARs. In addition, the operator's employees must comply with the operator's directives as provided for in the operator's manuals.

3.1.7. Flight Control

3.1.7.1. The inspection of a station's flight control function should be conducted while actual arrival or departure operations are in progress. This allows the inspector to get an overall view of the effectiveness of the operation and its assigned personnel. For initial certification, this may be conducted during the demonstration flight.

3.1.7.1.1.**Operational Control Inspection.** When a dispatch or flight following centre is located within the station, an operational control inspection should be conducted in conjunction with the station facilities inspection. Unless the station is small, these two inspections should be planned and conducted as separate events.

3.1.7.1.2.**Line Station Functions.** Operators often exercise operational control from a central location and assign the line stations with related support functions, such as delivering dispatch releases and flight plans to the flightcrew. In this situation, inspectors should determine which functions are the responsibilities of the station. Inspectors should evaluate station personnel in the performance of these functions. Inspectors should also evaluate the effectiveness of the division of responsibility between the central operational control centre and the line station.

3.1.7.1.3.**Load Planning.** Inspectors should determine who is assigned responsibility for load planning and mass and balance control. Passenger and cargo weights must be accurate and reliably obtained, collected, and transmitted. Personnel must be adequately trained. Procedures should be simple and effective. When computerised systems are used, there must be adequate backup provisions for computer failure. When station personnel are required to perform manual calculations in case of computer failure, the operator must ensure continued proficiency of personnel in making these calculations. Inspectors should ask these individuals to perform a manual calculation and compare the individual's solution to the computer solution.

3.1.7.1.4.**Weather Information.** Inspectors should determine the approved source of weather for the station.

3.1.8. Servicing

3.1.8.1. The servicing area of a station facilities inspection covers routine loading and servicing as opposed to aircraft maintenance activities. While operations inspectors should record and report observations they believe to be maintenance discrepancies, they are not assigned to inspect the maintenance activities. The preferred procedure is for station facilities inspections to be conducted by a joint operations/airworthiness team. Inspectors should evaluate areas of concern to operations personnel, such as the manner in which logbooks are handled and how MEL/CDL provisions are complied with. The inspector should observe and verify safe practices in the operator's service operations and that adequate personnel are available for the required aircraft servicing. Operations to be observed should include, but are not limited to, the following:

(a) Fuelling (ensuring that proper procedures are being followed).
(b) De-icing (ensuring that the correct ratio and temperature of the glycol/water mix is being used and that all snow and ice is removed).
(c) Marshalling (ensuring safe operation and correct procedures).
(d) Chocks/Mooring (ensuring chocks are in place, the parking apron is relatively level, and brakes are set or released).

3.1.9. Management

3.1.9.1. Throughout the inspection, inspectors should observe managers and supervisors and evaluate the organisational structure, particularly the effectiveness of vertical and horizontal communications. Managers and supervisors should be thoroughly aware of their duties and responsibilities and those of the personnel they supervise. Areas that inspectors must observe and evaluate include the following:

3.1.9.1.1.**Outside Contractors:** If the operator contracts with other companies for station services, the station manager should have established adequate controls over their performance. The manager must assure that adequate training is provided to contractor personnel.

3.1.9.1.2.**Contingency Plans:** The station management should be prepared for contingencies. Action plans should be available for use in case of such events as accidents, injury, illness, fuel spills, bomb threats, hijacking, severe weather, and dangerous goods spills. Station personnel should

know the location of these plans. Plans should contain emergency notification checklists and procedures for suspending or cancelling operations. Emergency telephone listings should be posted in obvious locations and be clearly legible.

4. STATION FACILITIES INSPECTION REPORT:

4.1.1. Discrepancies observed during the inspection should be documented along with any on the spot corrective action taken by the operator. Any recommended corrective actions should also be noted on the report so that the OI will have the inspector's views concerning the most effective means of resolving the discrepancies. When applicable, the inspector should indicate an outstanding or above average station facility on the report to provide an accurate picture of the operator's operations at that particular facility.

CHAPTER 30

CONTINUING SURVEILLIANCE

1.0 Continuing Surveillance

1.1 Continuous Inspection and Demonstration Phase

This section contains the surveillance methodology and the minimum events by which the NCAA will continuously monitor operations conducted by the AOC holders.

The NCAA has an annual plan of inspections and observations of each AOC holder to ensure that they continue to meet the basis for issuance of the approvals given during the original certification. This can be described as a 12-month “inspection and demonstration” phase.

If the NCAA determines that there are safety issues, the AOC holder will be requested to take the necessary action to achieve a mutual resolution.

Correction of some of these issues may require “document evaluation,” “satisfactory demonstration,” and “acceptance or approval.” It should be noted that, even when there are no AOC requests for certification actions, the AOC holder is being “recertificated” on an annual basis through this continuity surveillance process.

1.2 AOC Holders Responsibility

The AOC holder is responsible for conducting all operations in full compliance with applicable:

- ICAO Standards
- Nigeria Civil Aviation Regulations

If at any time, the AOC holder and its operations are found not to be equal to or exceeding these standards, this could be the basis for suspension and/or revocation of the Air Operator Certificate.

1.2.1 Post AOC issuance Inspections

Following the AOC issuance, the NCAA will continue to do a heightened level of surveillance to ensure that the AOC holder transitions smoothly into a mature status. This is not considered a part of the original Inspection and Demonstration Phase, but is in fact an extension of the concept of early validation of new activities, routes and destinations that the AOC holder undertakes. Some of the more critical are:

- Validation flights. It is the policy of the NCAA to conduct flight deck and/or cabin inspections on the first flights in commercial air transport service.

- Inspections of new stations. When scheduled flight operations are proposed to a new station, the NCAA must be satisfied that these stations are ready to support the scheduled operations.

- Routes check pilot observations and designations. All route check pilot nominees of the AOC holder will be observed in the conduct of these activities before official NCAA designation will be granted.

1.3 Surveillance and Inspection Programme

The surveillance and inspection Programme for each air operator will contain both planned and random events. An annual Programme of required minimum inspections for each operator will be developed in November for the coming calendar year. These individual inspections will be assigned to specific quarters of the year and to specific inspectors assigned to an AOC holder for accomplishment no later than December 15. Other, more random, inspections will be scheduled on a weekly basis to sample the on-going operations of AOC holders.

1.3.1 Issuance of Quarterly Inspection Requirements and Review

1.3.1.1 The Operations and Airworthiness Supervisors will ensure that quarterly inspection requirements have been issued based on the following guidelines for planning of minimum required annual inspections. The validity periods for these inspection requirements will be from January through March, April through June, July through September, and October through December. These requirements will be submitted for review and signature of the Director General no later than 15 days prior to the beginning of the next applicable period.

1.3.1.2 Each authorization will be specific to the AOC holder, listing the minimum required inspections for that quarter and the inspectors who are assigned to the inspections. It will be the responsibility of the inspectors assigned to schedule and complete the inspections listed in these authorizations within the time period specified.

1.3.1.3 There shall be quarterly review of surveillance activities, inspections and incidents reports by the FSG.

Quarterly reviews will include inspections, incidents, findings from Operations, Airworthiness and Personnel licensing/ Medicals. Items reviewed will include follow up actions / enforcement actions, trends affecting safety and need to increase or refocus future Operators Inspections.

Risk analyis and Safety Management system (SMS) concepts will be used in the quarterly reviews.

1.3.2 Foreign Aircraft Safety Assessment Programme (FASAP) Inspection

Nigerian Civil Aviation Authority as a member of International Civil Aviation Organization (ICAO) reinforces inspection of all commercial Airlines with scheduled flight operations flying into any of our airport for for non-Compliance with International Safety Standard.

As part of the Authority safety programme, the safety programme setup to implement and standardize the way and procedure for conducting the surveillance is called **Foreign Aircraft Safety Assessment Programme (FASAP).**

FASAP inspection also applies to non-commercial Operation Aircraft that is above 5700kg and international Helicopter operations. It is not applicable to state Aircraft (*military, police, custom, Air force & related).* At discretion of Authority, it may apply to non-commercial Aircraft that is less than 5700kg.

The following references further authorize the FASAP ramp surveillance;

- ✓ Nig. CARs Part 10 & ection 10.1.1.5
- ✓ Nig. Act 2006 *(Section 30.4a)*
- ✓ ICAO convention –article 16
  - Annex 6 (Operation of Aircraft)
  - Annex 8 (Airworthiness of aircraft)
  - Annex 9 (Facilitation)

1.3.2.1 Areas of Inspection On Aircraft

Major areas of inspection on the Aircraft are **Flight Deck, Cabin areas, General Exterior & Cargo compartments** as well as all the relevant Documents & Kits.

The Inspection Tools/Kits:

- **Flashlights**
- **Digital Camera**
- **Mobiles**
  and the Proof of Inspection form (POI) i.e. the Checklist

1.3.2.2 FASAP Inspectors

FASAP inspectors comprise of;

- Flight Operation Inspector (FOI -DOT)
- Air Safety Inspector (ASI -DAWS)
- Cabin Safety Inspector (CSI -DOT)
- Ground Operation Inspector (GOI -DOT)

(The inspectors have to undergo FASAP training -which does not qualify you as an inspector, but to enhance your knowledge and align you to FASAP guidelines and procedures as an inspector. However, an inspector, during the FASAP ramp, that is not yet trained on FASAP cannot serve as lead inspector on any of the 4 areas of the inspection).

The categories of inspectors above cover 4 major areas of Aircraft to inspect (*Flight Deck area, General Exterior area, Cabin areas & Cargo holds as well as relevant documents & Kits).*It also shows how items in POI form (C*hecklist*) are arranged.

Guidance: ***Detailed guidance on FASAP is as contained in the NCAA FASAP Ramp Inspection Procedures Manual.***

1.3.3 Minimum Required Annual Inspections

Inspections are to be carried out at the following intervals, the frequency of which may be increased at the discretion of the DOT.

- **Inspect check pilot.** One inspection each calendar year for each proficiency check pilot. CL: O-OPS 021
- **Inspect Proficiency check pilot.** One inspection each calendar year**.** CL: O-OPS 021
- **Inspect: Training-in-progress inspections.** One aircraft ground, simulator or flight training inspection per AOC holder for each aircraft configured for more than 19 passengers, if the operator does flight crew training during that period.CL: O-OPS 017
- **Flight simulator AOC inspections.** One inspection per simulator used by AOC holder each calendar year (regardless of the number of AOC holders using it). CL: O-OPS 033
- **Flight deck enroute inspections.** One inspection each month period for each aircraft type (configured for more than 9 passengers) operated in scheduled passenger service by the AOC holder. Other AOC holders will receive at least one enroute inspection or line check observation per calendar year. CL: O-OPS 003
- **Cabin enroute inspections.** One inspection each month period for each AOC holder in scheduled passenger service with aircraft configured for more than 9 passengers. Other AOC holders with aircraft that has cabin attendants will receive a cabin enroute inspection each year. If that is not feasible a cabin interior ramp inspection or competency check observation may be substituted for this requirement. CL: O-OPS 002
- **Operational ramp inspections.** One complete exterior and/or flight deck ramp inspection each quarter for each AOC holder operating in scheduled passenger service per aircraft type. Other AOC holders will receive at least one ramp inspection per calendar year. CL: O-OPS 001 and CL: O-OPS 001A
- **Manual inspections.** One inspection review each year of the Operations Manuals relating to general flight operations procedures, normal, abnormal, and emergency procedures, details of the aircraft systems, performance, mass and balance, aircraft servicing and loading, training maneuvers and syllabi. CL: O-OPS 020B
- **Station inspections.** One inspection each 12 months period for each AOC holder conducting scheduled passenger service. CL: O-OPS 019
- **Flight crew qualification records inspection.** Surveillance support in one special emphasis inspection of each AOC holder each calendar year. CL: O-OPS 021
- **Inspect Flight Supervision and Operational Control.** Surveillance support in one special emphasis inspection of each AOC holder each calendar year.CL: O-OPS 004
- **Inspection: Training-in-progress.** One inspection per 12 calendar months per each AOC holder in a simulator device (to verify AOC holder's SOP per aircraft type) CL: O-OPS 017
- **Inspection: Operations Management and Support.** One inspection of each AOC holder each 12 calendar months. CL: O-OPS 022A
- **Inspection: Flight Preparation Records.** One inspection of each AOC holder each 12 calendar months. CL: O-OPS 018C
- **Inspection: Crew Scheduling.** One inspection of each AOC holder each 12 calendar months. CL: O-OPS 022

- **Inspection: Crew Flight Time Records.** One inspection of each AOC holder each 12 calendar months. CL: O-OPS 018
- **Inspection: Primary Load Control.** One inspection of each AOC holder each 12 calendar months.
- **Inspection: Flight crew qualification records.** One inspection of each AOC holder each 12 calendar months. CL: O-OPS 018A
- **Inspection: Cabin crew qualification records.** One inspection of each AOC holder each 12 calendar months. CL: O-OPS 018B
- **Inspection: Operational Control Qualification Records.** One inspection of each AOC holder each 12 calendar months. CL: O-OPS 022
- **Inspection: Load Controller Qualification Records.** One inspection of each AOC holder each 12 calendar months. CL: O-OPS 022

1.3.4 Deficiencies

If a deficiency is observed during the inspection, the inspector shall record the deficiency in the **SAFETY ISSUES RESOLUTION FORM No.O-OPS003** or the **NON-CONFORMANCE FINDING FORM No.CL: O-AWS029**. The operator and the inspector must agree on the corrective action plan and the target date. For deficiency that is a violation of the regulations, the inspector should follow the procedures detailed in the **Compliance and Enforcement Handbook**.
For ramp inspection, **AIRCRAFT RAMP INSPECTION NOTICE FORM NO. CL:O-AWS001B** should be issued and the operator representative must be made to enter it in to the technical logbook.

For AMO audit, the **NON-CONFORMANCE FINDING FORM No. CL: O-AWS029** must be used by the inspector.

For AOC audit, the **SAFETY ISSUES RESOLUTION FORM No. O-OPS003** must be used by the inspector

1.3.5 Surveillance based on risk management system

Selection of a particular aircraft to inspect will normally be done at random in a non discriminatory manner. The Authority will apply the principle of risk management: to indentify Operations perceived to present a higher safety risk and as a result, will conduct additional inspection activities aimed at those Operations that can be linked to specific:

a) State of the Operator or State of Registry;

b) Aircraft type;

c) Nature of Operations (scheduled, non-scheduled, cargo, air taxi etc)

d) Foreign Operator; or

e) Individual Aircraft

The Flight Standards Group (FSG) will meet monthly to identify operations perceived to present a higher safety risk by discussing the Occurence database analysis carried out by safety Deficiencies and Incident Analysis (SDIA) unit, audit reports and Ramp Inspection reports based on which the minimum required inspection is increased by a factor determined at the meeting.

CHAPTER 31

RESOLUTION OF SAFETY ISSUES

1.0 Resolution of Safety Issues

1.1 General

This section specifies the methodology by which the NCAA will address the safety issues identified during the continuous surveillance of an AOC holder.

The process outlined in this section is the primary method that will be used by the NCAA in the resolution of safety issues after the issuance of the AOC or the authority for specific operations. This does not preclude parallel enforcement or certificate action against the AOC holder or its personnel by the NCAA depending on mitigating circumstances that caused the safety issue to exist.

1.1.1 REFERENCE: FORM : O-OPS003

1.2 Categorization of the Safety Issues

The level of the safety issue will indicate the priority of action required by the AOC holder.

Level 0 [Prevent Flying] The AOC holder must make the necessary corrective action prior to operation of the aircraft.

Level 1 [Correction within 1 to 3 days]: The inspector will recommend a corrective time between one and three days depending on the nature of the situation. The AOC holder must complete the correction within the allotted period and advise the NCAA in writing of the correction made.

Level 2 [Correction within 10 days to 3 months] The inspector will recommend a corrective time between 10 days and 3 months depending on the nature of the situation. The AOC holder must complete the correction within the allotted period and advise the NCAA in writing of the correction made.

Level 3 [Observation]: The AOC holder should consider this issue and advise the NCAA in writing of its thoughts and intentions with respect to corrective action within 30 days.

1.2.1 Safety issues will also be categorized by the basis for making the finding:

The inspector's basis for making the finding will be categorized for further trend analysis into the following groupings:

A = Non-Compliance with Nigeria Civil Aviation Regulations (Nig CARs).

B = Non-Compliance with Nigeria Civil Aviation Regulations

C = Non-adherence with NCAA Directives

D = Non-adherence with relevant safety practice

E = Reexamination necessary - less than minimum certification standards

1.3 Identification of a Safety Issue during Surveillance

When the inspector believes that he has found one or more safety issues during an inspection, he will debrief the available AOC holder personnel of his finding(s) and the level and type that may be assigned.

After return to the NCAA offices, the inspector will complete the Activity Report and complete a Safety Issues Resolution Report for each safety issue found during the activity. If any Level 0 safety issues are initiated, the inspector will forward a copy of that Report to the DG NCAA.

1.4 Safety Issue Resolution

As an NCAA inspector identifies safety issues, these will be discussed with the AOC holder verbally at the time of finding. After further NCAA consideration, the safety issues will be provided to the AOC holder in writing with the aid of form O-OPS003.

The AOC holder is expected to consider the inspector's debriefing and take practical corrective action. Upon receipt of the NCAA safety issue notification, the AOC holder is expected to comply with the corrective timeline applicable to level assigned by the NCAA to the safety issue. The AOC holder will advise the NCAA in writing of the action taken.

The NCAA shall then schedule a follow-up review to determine that the correction action taken satisfactorily addresses the safety issue found by the assigned inspector/s. The assigned inspector/s, when satisfied with the corrective action, will indicate in the NCAA records the date and a description of the resolution of the safety issue.

1.4.1 Appeal of Safety Issue Assignment

The AOC holder may appeal the NCAA's official notification of safety issue to the DG NCAA. This appeal must include the AOC holder's rationale for not promptly correcting the safety issue. Such action will have the effect of putting the required corrective action on hold until the DG NCAA issues his decision in writing.

1.5 Emergency Action Necessary to Resolve Safety Issue

There may come a time when an NCAA inspector will find a safety issue or irregularity that will require immediate action to resolve a potentially unsafe situation. It is important that the inspector understand that the necessity to handle this in a measured "identification of facts" approach.

1.5.1 Inform the Appropriate Officials

If the inspector identifies a “safety of flight” issue. This is defined as an issue that could result in an accident or incident on the next flight or flights of the aircraft:

That issue will immediately be brought to the attention of the appropriate AOC officials on the spot. Those persons include the pilot-in-command, station manager and operational control person on duty. (Remember to make a note of the date, time, and names.)

1.5.2 Prevent Flying

After consideration of these persons input, advise them of your determination. If your determination is that the flight should not be operated due to “safety of flight” issues and the AOC holder’s personnel still intend to operate the flight, it will be necessary to issue the “Prevent Flying” form.

Present the document to the AOC’s holder’s personnel and get their signature for receipt. If they refuse to sign, print their name in the signature line and have a witness sign and date that entry.

1.5.3 Subsequent Actions

Place a phone call to the DG NCAA or the Director of Operations and Training as soon as practical to advise him of the unfolding situation. (It will be the responsibility of the DG or the Director to coordinate with the AOC holder’s management.)

The inspector is to stay at the location until the situation is resolved or you have been advised by the DG or the Director that the situation is now resolved with the AOC holder’s management. (Continue to take notes of the times, contacts, and events until a resolution occurs.)

1.6 Suspension of AOC

There are a number of situations that could result in the suspension of an AOC. The primary reason is a pattern of safety issues, which illustrate that the AOC holder is not ensuring that its operations are continuously conducted in accordance with the certification standards.

To undertake the suspension of an AOC, the DG NCAA will forward an Order of Suspension to the Legal Department for processing. This Order will outline the NCAA’s basis for suspension. Once signed, it will be presented to the AOC holder. Under normal circumstances, there will be a period of due process. However the DG NCAA may delegate this process to the Director of Operations and Training or the Director of Airworthiness Standards.

1.7 Emergency Suspension of AOC

There are times when it is necessary to public safety that an AOC holder be required to terminate operations immediately pending further review of the situation. This type of suspension could be oriented toward specific aircraft or personnel, such as an aircraft that is not in compliance with Airworthiness Directives or a pilot that is under the influence of drugs. It could also be directed at the entire scope of the AOC holder's operations, such as in situations where the NCAA has basis to question the airworthiness of significant portion of the fleet or the proficiency checks of the pilots.

If the DG NCAA believes that there is an immediate potential for adverse effect on public safety, he may include in the Suspension Order the direction that the suspension takes effect upon receipt. In such a situation, the AOC holder is compelled to cease commercial air transport operations until the situation is resolved.

1.8 Revocation of AOC

The evidence may be such that, after a period of suspension and review, the NCAA may find that the evidence and mitigating circumstances will require revocation of the AOC in the interest of public safety. In this situation, the DG NCAA will prepare a Revocation Order.

1.9 Re-Examination Necessary

Re-examination may be necessary in situations where the inspector determines that:

- An airman no longer meets the minimum knowledge or competency required for the issuance of the certificate privileges in use.
- An aircraft no longer meets the minimum airworthiness standards required for the issuance of the certificate privileges in use.

1.9.1 Issue Letter of Request

A letter will be issued to the airman or aircraft operator outlining the re-examination request and the basis for it. This letter will specifically request, in the case of the airman competency, that the airman not exercise the privileges in question until after a successful re-examination. In the case of aircraft airworthiness standards, the letter will request that the aircraft not be operated under the privileges in question until a satisfactory re-examination has been conducted.

1.9.2 Conduct Re-examination

The re-examination may be conducted by the NCAA staff or by a qualified person designated to act on behalf of the NCAA. The location where the re-examination will take place will be at the option of the NCAA.

1.9.3 Forward Unsuccessful Documentation to NCAA Legal Department

Should the re-examination be unsatisfactory and the airman or aircraft still do not meet the standards for issuance of the certificate privileges, the Authority will forward their recommendations to the Legal Department for action.

Should the airman or aircraft not be presented for re-examination after the period specified in the letter of request, the Authority will forward a request for suspension or revocation to the Legal Department for action.

CHAPTER 32

Cabin Safety – Qualification Training and Duties

1.0 PURPOSE

1.1 The main purpose of Cabin Safety Inspections (CSIs) is to perform inspections, certification, and investigative activities. CSIs isolate systemic faults and as such incorporate a systems approach when evaluating an operator.

1.1.1 CSIs also ensure that an Air Operator Certificate (AOC) holder demonstrates the ability to:

a) maintain an adequate organizational structure in the cabin services department , which is adequately staffed, experienced and properly trained;

b) maintain an operational control over staff, manual systems and training programmes;

c) meet the training requirements outlined in the Nig. CARs and approved AOC training programme;

d) maintain aircraft cabin and emergency equipment, as outlined in the Nig. CARs and approved AOC manuals and programmes; comply with the maintenance requirements for cabin safety equipment;

e) meet the Commercial Air Service standards for the operation and conducts the operation successfully;

f) Comply with the Nig. CARs.

1.2.2 During the certification, routine surveillance; and (when necessary) investigations of operators, the CSIs review and evaluate an operator's routine and emergency procedures, as outlined in flight operations manuals, to ensure that all of the cabin and flight deck crew member procedures are consistent with one another and are appropriate for the type of aircraft emergency and cabin equipment configuration. The CSIs must also ensure that the cabin safety and emergency equipment found in an operator's fleet are consistent with the requirements of the Nig. CARs, properly maintained by the operator(in accordance with his approved maintenance programme). The CSI should ensure that the company operations manuals accurately reflect the aircraft equipment's location, function, operation and number on board. The CSI evaluates the operator's MEL to ensure that deferral procedures provide an equivalent level of cabin safety and non essential equipment are properly categorized to foster a safe operation.

1.2.3 CSIs evaluate company manuals to ensure that routine and emergency procedures are consistent with Nig. CARs and guidance materials. CSIs evaluate the content of an operator's

written training programme for completeness and compliance with Nig. CARs, CSIs monitor classroom to ensure that training is conducted in accordance with the operator's approved training programme .CSIs also evaluate the type of training devices used by the operator to ensure that they are consistent with the type of emergency equipment found on their aircraft. The training devices must be designed to operate consistent with the aircraft equipment they represent and are maintained to function properly in accordance with an approved maintenance programme. The CSIs must ensure that an operator's instructors are properly trained and knowledgeable to perform training and follow the company's curriculum and lesson plans.

1.2.4 The CSIs inspect company record keeping systems to ensure compliance with Nig. CARs, as it pertains to training completeness and currency and cabin crewmember duty and rest requirements.

2.0 DUTIES AND RESPONSIBILITIES:

- CSIs conduct routine inspections on schedule using the following checklist and forms:
- Base inspection-CL-O-OPS 022
- Station inspection-CL O- OPS 019
- Records summary-CL O- OPS 018
- Carry on baggage programme CL –O-OPS 010
- Exit Row seating programme job aid-CL: O-OPS 011
-
- Cabin crew records check summary-CL:O-OPS 018b
- Pre-Flight inspection(Ramp)-CL -O-OPS 001A, CL: O- OPS-036
- In-flight inspection(En-route)CL-O OPS-002
- Training Programme inspection approval and checklist-CL –OOPS- 005/005A
- Training inspection-CL O-OPS 017A, Form O-OPS-006
- Identifying and Advising operations of Deficiencies -Form-O-OPS-003
- Cabin Crew Manual Inspection Checklist-CL- OPS-012
- Ditching/ Evacuation Demonstration Inspection-Form-O-OPS- 014
- Submitting reports of inspections

- Investigating violations
- Co-ordinating with other CAA inspectors

3.0 QUALIFICATIONS/METHOD OF ENTRY:

- Must be qualified on at least one type of aircraft and experienced on comparable routes to the route expected to conduct inspections.
- Must possess a broad air transport background of a minimum of five years.
- Experience in technical training programme development including visual aids, design of procedures, instructional techniques, training devices, aircraft mockups and supervision will be of advantage.
- Cabin crew instructor or at least experience in developing safety and /emergency procedures consistent with Nig. CARs will be of advantage.
- In addition to proven integrity, should possess qualities of initiative, tact, tolerance and patience.
- Cabin safety inspectors are required to maintain cabin crew qualifications by attending aircraft manufacturers' courses which would be included in the Directorate's training programme annually, however, they may not act as operating cabin crew members.

4.0 TRAINING PROGRAMMES OUTLINE FOR CSIs:

From the time of employment to the age of retirement, a CSI is expected to accomplish the training outlined in the Inspector training System (ITS) whose components are categorized into two parts.

The first part has the compulsory (core) courses as follows:

- Indoctrination
- Certification
- Surveillance
- Personnel Licensing
- Investigations while the second part has job specifications made up of :
- Job skills
- Dispatcher/Avionics
- Cabin Safety
- Management

And other necessary trainings in accordance with NCAA training profiles.

CHAPTER 33

MNPS CERTIFICATION

1.0 PRE-APPLICATION PHASE

Compliance Statement

The MNPS Certification" Compliance Statement should be used for this certification process. The applicant will provide the Authority with either an electronic or paper copy of this Compliance Statement.

2.0 REFERENCES:

2.1 Nigeria Civil Aviation Regulations Part 7 and Part 8

2.2 ICAO Annex 2 and Advisory Circular: NCAA-AC-OPS043

2.3 CHECKLIST, CL:O-OPS 016

3.0 REQUIRED DOCUMENTS

The applicant will be provided with a copy of Tables 8-1, 8-2, and 8-3 from Appendix 8 of the AOC manual annotated in the right (R) column to show the documents that must be included in their formal application submission:

- Compliance Statement
- Schedule of Events
- Flight Operations Manual Revisions (AWO policies)
- Condensed and Expanded Checklists (AWO procedures incorporated)
- Minimum Equipment List (AWO dispatch requirements and provisos incorporated)
- Flight Crew Aircraft Operating Manual (AWO procedures and systems operations)
- Route Guide (Airports and Minima)
- Flight Crew Training and Checking (AWO syllabus, checking, line experience)
- MCM/MME (revisions to incorporate AWO Maintenance Control processes)
- Aircraft and Component Maintenance Program (incorporation of necessary checks and standards)
- Maintenance Task Cards (required to provide for the necessary checks)
- Maintenance Planning Document
- Component Manufacturer's Maintenance Manual
- Individual Aircraft MNPS Compliance Statements

3.1 Schedule of Events

The applicant will submit the Schedule of Events in electronic and hard paper copies.

The CPM will ensure that all necessary NCAA actions are entered in the Schedule of Events (SOE).

Subsequently, the CPM will enter a running record of the return-for-work or acceptable determinations.

The CPM will printout the SOE each Monday morning.

3.1.1 Formal Application Phase

Operations Certification Report

The certification team leader should initiate an operations certification report and immediately annotate the evaluations that are not applicable.

Airworthiness Certification Report

The CPM should initiate an airworthiness certification report and immediately annotate those evaluations that are “not applicable” to this particular certification process.

3.1.2 Document Evaluation Phase

3.1.2.2 Early Training Evaluation and Initial Approval

The following items should be scheduled for evaluation as soon as possible after completion of the formal application phase for the necessary training approvals:

- Aircraft-specific Checklists
- Flight Crew Operating Manual
- Crew and Maintenance Training Contracts
- Aircraft-Specific Ground Training Curricula
- Aircraft-Specific Simulator and Flight Training Curricula
- Aircraft-Specific Simulator to be used
- Proposed Aircraft-Specific Proficiency Check
- Proposed Aircraft-Specific Check Pilots
- Aircraft-Specific Systems Maintenance Training

3.1.2.3 Inspection and Demonstration Phase

3.1.2.4 Minimum Required Inspections

The minimum inspections that must be conducted prior to certification are: (assuming no special certification issues)

3.1.2.5 Operations

The Operations team will complete all appropriate job tasks before the validation flights.

During the validation flight the Operations Team will complete all appropriate job tasks.

3.1.3 Airworthiness

The Airworthiness team will complete inspections of all appropriate job tasks before the validation flight(s).

3.1.3.3 VALIDATION FLIGHT

A validation flight will be accomplished with the first flight.

3.1.4 Approval Phase

3.1.4.3 AOC and Operations Specifications

E9 will be added to the Operations Specifications.

3.1.4.4 Completed Certification Report

No special instructions.

4.0 OPERATIONAL APPROVAL

4.1.1 General

Airspace where MNPS is applied should be considered special qualification airspace. The specific aircraft type or types that the operator intends to use will need to be approved by the responsible authority before the operator conducts flight in MNPS airspace. In addition, where operations in specified airspace require approval in accordance with an ICAO Regional Navigation Agreement, an operational approval will be needed. This document provides guidance for the approval of specific aircraft type or types, and for operational approval.

4.1.2 Approval of Aircraft

Each aircraft type that an operator intends to use in MNPS airspace should have received MNPS airworthiness approval from the NCAA, prior to approval being granted for MNPS operations, including the approval of continued airworthiness programmes.

It is accepted that aircraft, which have been approved in compliance with JAA Information Leaflet No. 23 or FAA Interim Guidelines 91-MNPS, satisfy the airworthiness type certification.

4.1.3 Continued Airworthiness Maintenance Procedures

MNPS maintenance requirements are detailed in the NCAA TGM VOL 4 Airworthiness Handbook.

4.1.4 Maintenance Documents

The following items should be reviewed, as appropriate:

(a) Maintenance Manuals.
(b) Structural Repair Manuals.
(c) Standard Practices Manuals.
(d) Illustrated Parts Catalogues.
(e) Maintenance Programme.
(f) MMEL/MEL.

4.1.5 Operational Approval

Approval will be required for each aircraft group and each aircraft to be used for MNPS operations. Approval will be required for each operator and the responsible authority will need to be satisfied that

(a) each aircraft holds airworthiness approval;
(b) each operator has continued airworthiness programmes (maintenance procedures);
(c) where necessary, operating procedures unique to the airspace have been incorporated in operations manuals;
(d) high levels of aircraft height keeping performance can be maintained.

4.1.6 Content of Operator MNPS Application

The following material should be made available to the NCAA, in sufficient time to permit evaluation, before the intended start of MNPS operations.

(a) Airworthiness Documents Documentation that shows that the aircraft has MNPS airworthiness approval.

(b) Description of Aircraft Equipment A description of the aircraft equipment appropriate to operations in an MNPS environment.

(c) Training Programmes and Operating Practices and Procedures Holders of Air Operators Certificates (AOC) may need to submit training syllabi for initial, and where appropriate, recurrent training programmes together with other appropriate material to the responsible authority. The material will need to show that the operating practices, procedures and training items, related to MNPS operations in airspace that requires NCAA operational approval, are incorporated. Non-AOC operators will need to comply with local procedures to satisfy the responsible authority that their knowledge of MNPS operating practices and procedures is equivalent to that set for AOC Holders, sufficient to permit them to conduct MNPS operations.

(d) Operations Manuals and Checklists The appropriate manuals and checklists should be revised to include information/guidance on standard operating procedures. Manuals should include a statement of the airspeeds, altitudes and weights considered in MNPS aircraft approval; including identification of any operating limitations or conditions established for that aircraft group. Manuals and checklists may need to be submitted for review by the authority as part of the application process.

(e) Past Performance Relevant operating history, where available, should be included in the application. The applicant should show that changes needed in training, operating or maintenance practices to improve poor height keeping performance have been made.

(f) Minimum Equipment List Where applicable, a minimum equipment list (MEL), adapted from the master minimum equipment list (MMEL) and relevant operational regulations, should include items pertinent to operating in MNPS airspace.

(g) Maintenance When application is made for operational approval, the operator should establish a maintenance programme acceptable to the NCAA.

(h) Plan for Participation in Verification/Monitoring Programmes The operator should establish a plan acceptable to the responsible authority, for participation in any applicable verification/ monitoring programme. This plan will need to include, as a minimum, a check on a sample of the operator's fleet by an independent height monitoring system.

4.1.6.1 AIRCRAFT PERFORMANCE

The content of the MNPS application may be sufficient to verify the aircraft performance and procedures. However, the final step of the approval process may require validation flights. The NCAA may appoint an inspector for a flight in MNPS airspace to verify that all relevant procedures are applied effectively. If the performance is satisfactory, operation in MNPS airspace may be permitted.

4.1.6.2 Form of Approval Documents

(a) *Holders of an Air Operator's Certificate* Approval to operate in designated MNPS airspace areas will be granted an Approval issued by the responsible authority in accordance with Nig. CARs, or in compliance with national regulations where operational approval is required by an ICAO Regional Agreement. Each aircraft group for which the operator is granted approval will be listed in the Approval.

(b) *Non AOC Holders* These operators will be issued with an Approval as required by national regulations or with Nig. CARs. These approvals will be valid for a period specified in national regulations and may require renewal.

Note: Subject to compliance with applicable criteria, an MNPS Approval combining the airworthiness approval and the operational approval is available from the NCAA.

4.1.6.3 Airspace Monitoring

For airspace where a numerical Target Level of Safety is prescribed, monitoring of aircraft height keeping performance in the airspace by an independent height monitoring system is necessary to verify that the prescribed level of safety is being achieved. However, an independent monitoring check of an aircraft is not a prerequisite for the grant of an MNPS approval.

4.1.6.4 Suspension, Revocation and Reinstatement of MNPS Approval

The incidence of height keeping errors that can be tolerated in an MNPS environment is small. It is expected of each operator to take immediate action to rectify the conditions that cause an error. The operator should report an occurrence involving poor height keeping to the responsible authority within 72 hours. The report should include an initial analysis of causal factors and measures taken to prevent repeat occurrences. The need for follow up reports will be determined by the responsible authority.

4.1.6.5 Operators Actions

The operator should make an effective, timely response to each height keeping error. The NCAA may consider suspending or revoking MNPS approval if the operator's responses to height keeping errors are not effective or timely. The NCAA will consider the operator's past performance record in determining the action to be taken.

4.1.6.6 Reinstatement of Approval

The operator will need to satisfy the responsible authority that the causes of height keeping errors are understood and have been eliminated and that the operator's MNPS programmes and procedures are effective. At its discretion and to restore confidence, the NCAA may require an independent height monitoring check of affected aircraft to be performed.

CHAPTER 34

APPROVAL OF OPERATOR'S GROUND HANDLING MANUAL

1.0 PURPOSE

1.1 **This chapter provides guidance of evaluating an Operator/Applicant's Ground Handling programme/procedures. Inspectors should be thoroughly familiar with this information before receiving those sections of an Air Operator's Manual concerning Ground Handling Procedures.**

1.2 **Ground Operations Inspectors (GOI) should be thoroughly familiar with serial of procedures and specifications when evaluating/receiving those portions of an Air Operator's Operations procedures/facilities that relate to Aircraft Ground Handling.**

2.0 REFERENCES

2.1 PART **8** of the Nigeria Civil Aviation Regulation.
2.2 PART **9** of the Nigeria Civil Aviation Regulation.
2.3 ICAO DOC 8335 – AN/879 (5.4).
2.4 Airport Handling Manual.

3.0 GENERAL

Approved Ground Handling procedures manual are the only means for an Operator/Applicant to authorize the use of other known ground equipment and facilities to conduct the Operations specified program.

4.0 The Operator/Applicant may develop and submit for approval a method or procedure for Aircraft Ground Handling.

4.1 Aircraft Structural Loading Limitation.
Weight Control of Load.
Equipment in Compartments procedures.
Manual Loadsheet.
Loadsheet Produced by electronic data processing machines.
Cargo Handling.
Standardisation of gravity forces against which load must be restrained.
Bulk compartment load Limitation.
Load Control procedure, responsibility, training and qualifications.
Compartibilty of Ground Support Equipment with Aircraft Types.
Standard Weights for passengers and baggage.

Balance calculations methods.

5.0 PROCEDURES

Coordinate with the Operator/Applicant. The Operator/Applicant must submit the following for review:

5.1 Ground Handling Manual
5.2 Passenger Handling.
5.3 Fuelling with passenger on board during embarkation

An Inspection should cover the building to be Utilized by the applicant at each base and terminal, including those located in other cities or town.
Facilities such as

Passenger service area.
Cargo storage and Handling Buildings
Personnel Accommodation.

AERODROMES

Destination/alternate aerodromes to be utilized in the Operation should be inspected. Inspectors should consider inspecting aerodromes considered by the Operator/applicant to be a major aerodromes or representative routes.

Aerodrome Ground Inspection should cover at least the following.

a. Runways
b. Clearways
c. Stopways
d. Taxiways
e. Apron or parking area
f. Approach lighting
g. Navigation facilities
h. Communication services
i. Meteorological

- Public protection aerodromes service equipment
- Availability of and handling procedures i.e fuel.

MOBILE EQUIPMENT

- TOWING TUGS
- CARGO AND BAGGAGE HANDLING

- CATERING VEHICLES
- SANITARY SERVICE TRUNK
- GROUND POWER TRUNK
- GROUND POWER UNITS
- FUEL TRUCKS

PASSENGER HANDLING/LOAD CONTROL PROCEDURE Nig. CARs 8.6.2.17

Load Control is a procedure ensuring that:

- Weight balance conditions of the aircraft are correct and within structural units.
- The aircraft is loaded in accordance with Operators approved procedure in general and loading instruction for the flight in particular: Nig. CARs:8.6.2.16(2).
- Information on the loadsheet corresponds with the actual load on the aircraft, passengers and fuel included.

RAMP SERVICES

- Do employees walk rather than run on ramp.
- Is the bridge properly aligned to the aircraft?
- Do all employees avoid driving ground equipment under the aircraft wings and fuselage?
- Are baggage tractor hood/fender/seat or top of containers free of baggage/cargo/mail?
- Are roadways used by equipment Operators?
- Are local speed limits observed by all drivers?

CARGO HANDLING PROCEDURES

Procedures for the storage of cargo after acceptance and preparation for aircraft loading must provide for:

- Security in all aspects including aviation security measures as mandated by local enforcement agencies.
- Segregation of aid suitable storage facilities for special types of cargo such as dangerous goods, live animals, perishables, vulnerable and valuable cargo. List of high consequences dangerous goods.

DEPARTURE/ARRIVAL PROCEDURES

A full compliance with aircraft loading procedure is an essential element in ensuring aircraft safety. Safety consideration must include:

- Airside Safety Training.
- Aircraft Handling Personnel, Responsibilities and Qualification.
- Safe Operating Practices in Aircraft Handling.
- Ramp Incident/Accident Report.
- Passenger Boarding Bridge Operations.
- Safety Considerations for Aircraft Movement Operations.

- Foreign Object Damage Prevention Program.
- Airside Driver Training.

CHAPTER 35

FATIGUE RISK MANAGEMENT SYSTEM (FRMS)

1.0 PURPOSE

This chapter describes what should be included in an FRMS policy and other documentation required to record its activities. The policy and documentation define organisational arrangements that support the core operational activities of the FRMS (the FRMS processes and the FRMS safety assurance processes). The FRMS policy specifies the operator's commitment and approach to the management of fatigue risk. The FRMS documentation describes the components and activities of the entire FRMS. It makes it possible for the effectiveness of the FRMS to be audited (internally and externally) to check whether it is meeting the safety objectives defined in the FRMS policy.

Fatigue is a major human factors hazard because it affects most aspect of a crewmember's ability to do their job. It therefore has implications for safety. ICAO defines a Fatigue Risk Management System (FRMS) as:

a data- driven means of continuously monitoring and managing fatigue-related safety risks, based on scientific principles and knowledge as well as operational experience that aims to ensure relevant personnel are performing at adequate levels of alertness.

An FRMS aims to ensure that flight and cabin crew members are sufficiently alert so they can operate to a satisfactory level of performance. It applies the principles and processes from Safety Management System (SMS) to manage the specific risks associated with crewmember fatigue. Like SMS, FRMS seeks to achieve a realistic balance between safety, productivity and costs.

1.1 REFERENCE REGULATIONS

ICAO FRMS Manual for Regulators (Doc 9966), Annex 6 Part 1 Appendix 8, ICAO Safety Management Manual (Doc 9859), Nig. CARs 8.11.1.2

2.0 APPROVAL PROCEDURES

The NCAA is to:

- Ensure that the operator is managing their fatigue related risks to an acceptable level of safety;
- Recognise that an FRMS needs to be unique to each operator; and
- Recognise that operational maturity is required for a successful FRM implementation.

2.1 FRMS Policy

Items that the FRMS policy must cover is found in ICAO Annex 6, Part 1, Appendix 8, section 1.1.3:

- reflect the shared responsibility of management, flight and cabin crews, and other involved personnel;
- clearly state the safety objectives of the FRMS;
- be signed by the accountable manager;

- be communicated, with visible endorsement, to all the relevant areas and levels of the organisation;
- declare management commitment to effective safety reporting;
- declare management commitment to the provision of adequate resources for the FRMS;
- declare management commitment to continuous improvement of the FRMS;
- require that clear lines of accountability for management, flight and cabin crews, and all other involved personnel are identified; and
- require periodic reviews to ensure it remains relevant and appropriate.

2.2 FRMS Documentation

The documentation describes all the elements of the FRMS and provides a record of FRMS activities and any changes to the FRMS. The documentation can be centralized in an FRMS Manual, or the required information may be integrated into an operator's SMS Manual. However, it needs to be accessible to all personnel who may need to consult it, and to the NCAA for audit.

ICAO Annex 6, Part I, Appendix 8 requires that an operator must develop and keep current FRMS documentation that describes and records:

- FRMS policy and objectives;
- FRMS processes and procedures;
- accountabilities, responsibilities and authorities for these processes and procedures;
- mechanisms for ongoing involvement of management, flight and cabin crew members, and all other involved personnel;
- FRMS training program, training requirements and attendance records;
- scheduled and actual flight times, duty periods and rest periods with significant deviations noted; and
- FRMS outputs including findings from collected data, recommendations, and actions taken.

2.3 FATIGUE RISK MANAGEMENT PROCESSES

2.3.1 Identification of hazards

An operator shall develop and maintain three fundamental and documented processes for fatigue hazard identification:

2.3.1.1 ***Predictive.*** The predictive process shall identify fatigue hazards by examining crew scheduling and taking into account factors known to affect sleep and fatigue and their effects on performance. Methods of examination may include but not limited to:

a) operator or Industry operational experience and data collected on similar types of operations;
b) evidence-based scheduling practices; and
c) biomathematical models.

2.3.1.2 ***Proactive.*** The proactive process shall identify fatigue hazards within current flight operations. Methods of examination include but not limited to:

a) self-reporting of fatigue risks;

b) crew fatigue surveys;
c) relevant flight and cabin crew performance data;
d) available safety databases and scientific studies; and
e) analysis of planned versus actual time worked.

2.3.1.3 ***Reactive.*** The reactive process shall identify the contribution of fatigue hazards to reports and events associated with potential negative safety consequences in order to determine how the impact of fatigue could have been minimized. At a minimum, the process may be triggered by any of the following:

a) fatigue reports;
b) confidential reports;
c) audit reports;
d) incidents; and
e) flight data analysis events.

2.3.2 Risk Assessment

2.3.2.1 An operator shall develop and implement risk assessment procedures that determine the probability and potential severity of fatigue-related events and identify when the associated risks require mitigation.

2.3.2.2 The risk assessment procedures shall review identified hazards and link them to:

a) operational processes;
b) their probability;
c) possible consequences; and
d) the effectiveness of existing safety barriers and controls.

2.3.3 Risk Mitigation

An operator shall develop and implement risk mitigation procedures that:

a) select the appropriate mitigation strategies;
b) implement the mitigation strategies; and
c) monitor the strategies' implementation and effectiveness.

2.4 FRMS Safety Assurance Process

2.4.1 The operator shall develop and maintain FRMS safety assurance processes to:

a) provide for continuous FRMS performance monitoring, analysis of trends, and measurement to validate the effectiveness of the fatigue safety risk controls. The sources of data may include, but not limited to:
   1) hazard reporting and investigation;
   2) audits and surveys; and
   3) reviews and fatigue studies.

b) provide a formal process for the management of change which shall include but not limited to:
   1) identification of changes in the operational environment that may affect FRMS ;

2) identification of changes within the organisation that may affect FRMS; and
3) consideration of available tools which could be used to maintain or improve FRMS performance prior to implementing changes; and

c) provide for the continuous improvement of the FRMS. This shall include but is not limited to:
1) the elimination and/or modification of risk controls have had unintended consequences or that are no longer needed due to changes in the operational or organisational environment;
2) routine evaluations of facilities, equipment, documentation and procedures; and
3) the determination of the need to introduce new processes and procedures to mitigate emerging fatigue-related risks.

2.5 FRMS Promotion Processes

2.5.1 FRMS promotion processes support the ongoing development of the FRMS, the continuous improvement of its overall performance, and attainment of optimum safety levels. The following shall be established and implemented by the operator as part of its FRMS:
a) training programs to ensure competency commensurate with the roles and responsibilities of management, flight and cabin crew, and all other involved personnel under the planned FRMS; and
b) an effective FRMS communication plan that:
1) explains FRMS policies, procedures and responsibilities to all relevant stakeholders; and
2) describes communication channels used to gather and disseminate FRMS-related information.

3.0 The FRMS Approval Process

3.1 Phased Approach to FRMS implementation

There is no “off-the-shelf” version of an FRMS that will suit all operators. Each operator needs to develop an FRMS that is appropriate to its organization and operations and the nature and level of the fatigue risk(s). A fully functioning FRMS does not happen overnight. The FRMS processes take time to plan and develop so the operator needs to implement its FRMS in stages, as is recommended for SMS.

FIGURE 3-1

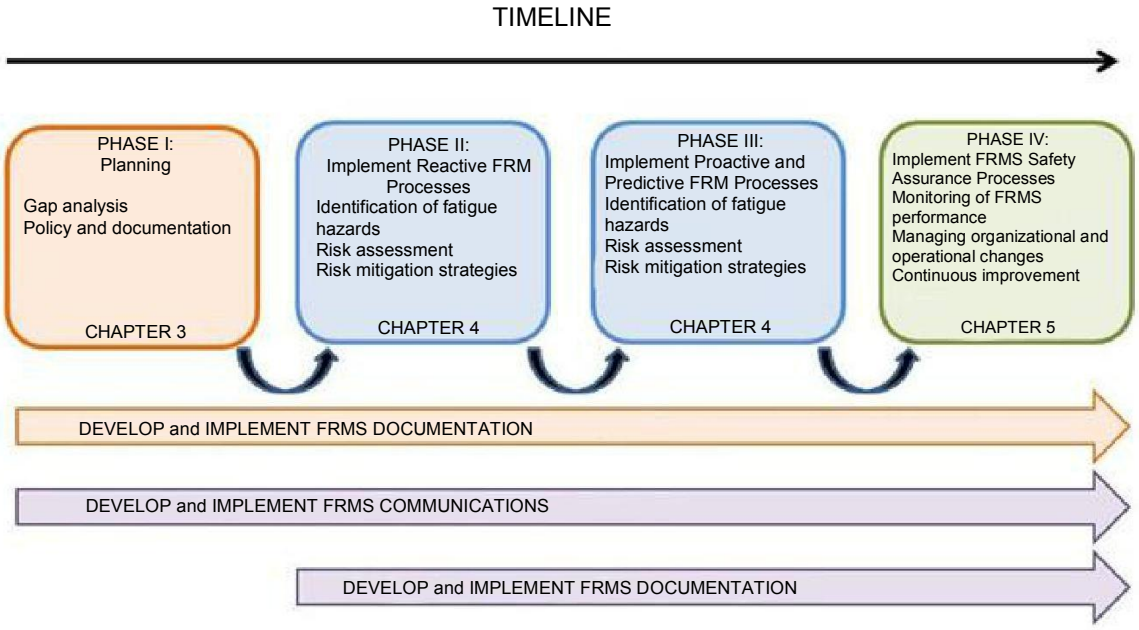


Figure 3-1 Phased approach to FRMS implementation

3.1.1 Phase 1 - Planning

The objective of Phase I is for the operator to arrive at an overall plan to demonstrate to the regulator how the FRMS will function, how it will be integrated with other parts of the operator's organization, who will be accountable for the FRMS, and who will be responsible for making sure that FRMS implementation is successfully completed.

It is recognized that some operators may wish to use outside consultants to "provide them with an FRMS" as a quick and relatively painless way of meeting their regulatory obligations. However, an FRMS requires ownership and commitment by the people who will be using it, and the regulator needs to see evidence of that ownership and commitment from the early stages of its inception. While experts can offer invaluable assistance within an FRMS at certain times, they do not have the operational knowledge and experience of the operator.

Consultants should not be the interface between the regulator and the operator. The relationship between the regulator and the operator concerning the use of FRMS should be identical to their relationship concerning the prescriptive flight and duty time limitation regulations.

Gap analysis and developing an implementation plan

Many elements needed for an FRMS may already be in place in an operator's organization. One

of the first steps in FRMS implementation is therefore for the operator to undertake a gap analysis to:

- identify elements of the FRMS that are already available in existing systems and process;
- identify existing systems and processes that could be modified to meet the needs of FRMS (to minimize “re-inventing the wheel”); and
- identify where new systems and processes need to be developed for the FRMS.

For example, an operator may already have a confidential safety reporting system as part of its SMS. Existing report forms may need to be modified to include the information needed to analyse the role of fatigue in safety events. Additional training may be needed for the staff responsible for analysing safety data to ensure that they know how to analyse for the role of fatigue in events. A procedure will need to be added for information on fatigue-related events to be communicated on a regular basis to the Fatigue Safety Action Group. Fatigue reports may also be used as an FRMS safety performance indicator. In this case, a procedure would need to be added for this information to be evaluated regularly as part of the FRMS safety assurance processes.

Data on scheduled and actual flight and duty times are required to be collected under the prescriptive flight and duty time regulations. An operator that is moving some of its operations into an FRMS could add a variable to the existing flight and duty time databases to identify the operations covered by the FRMS, so that this information can be analysed separately as required for the FRMS (Standard 4.10.8 of Annex 6, Part I). Procedures will need to be added for this information to be communicated to the Fatigue Safety Action Group and recorded as required in the FRMS documentation.

Rostering-related data may already be available for FRMS performance indicators, for example, monthly exceedances on duty limits, use of captain’s discretion, use of extended duties, or violation occurrence reports. A procedure will need to be added for this information to be evaluated regularly as part of the FRMS safety assurance processes.

It may be efficient to schedule FRMS training to coincide with other training activities that already bring the target groups together.

The results of the gap analysis are used as the basis for the development of the operator’s FRMS implementation plan. Essentially, this provides a road map describing how the development of each of the FRMS processes will proceed, with timelines.

By the end of Phase I, the operator should have:

- a completed gap analysis.
- an FRMS Policy Statement signed by the accountable executive. Developing the policy at the beginning of the FRMS implementation process will assist in defining the scope of the FRMS.

- an FRMS implementation plan.
- an FRMS documentation plan. This can be expected to evolve as the FRMS becomes operational.
- an FRMS communication plan. This can be expected to evolve as the FRMS becomes operational.
- allocation of financial and human resources. The accountable executive for the FRMS needs to have the authority and control to ensure that this happens.
- an established Fatigue Safety Action Group (or equivalent). The stage at which the Fatigue Safety Action Group is established will vary, according to the size and complexity of the organization and the FRMS, and whether there are suitably qualified people in other parts of the organization who are available to begin the Phase I activities.

In order to move on to Phase II, the operator is required to provide its FRMS plan to the Authority for review. This is an opportunity for the NCAA to assess and identify potential problem areas prior to the Authority or the operator investing excessive time and effort.

3.1.2 Phase II - Implementation reaction FRMS processes

Phase II requires the operator to implement the (first version) of the FRM processes. It does this by gathering and analysing existing sources of information and data that are relevant to the operations covered by the FRMS. Types of information that may be available include confidential safety reports, accident reports and incident investigations, audits, and historical rostering data (for example, data on scheduled and actual flight and duty times, and exceedances). In effect, Phase II activities consolidate existing fatigue risk management processes and procedures in the organization and introduce controls and mitigations to manage identified deficiencies in the existing system.

By the end of Phase II, the operator should have accomplished the following steps:

- FRM processes based on reactive hazard identification are operational, including risk assessment and the development, implementation and monitoring of appropriate controls and mitigations.
- FRMS documentation processes are established to support the current version of the FRMS.
- FRMS training activities are established to support the current version of the FRMS. (Stakeholders need training to ensure that they are competent to undertake their responsibilities in the FRMS as the implementation plan rolls out.)
- FRMS communication processes are established to support the current version of the FRMS.

- The operator is ready to undertake coordinated safety analyses of this first version of the FRMS, similar to the process used when implementing SMS (ICAO Doc 9859, 10.4).

3.1.3 Phase III - Implementation proactive and predictive FRMS processes

Phase III adds proactive and predictive fatigue hazard identification processes into the FRM processes established in Phase II.

By the end of Phase III, the operator should have accomplished the following steps:

- FRM processes based on reactive, proactive and predictive hazard identification are operational, including risk assessment and the development, implementation and monitoring of appropriate controls and mitigations.
- FRMS documentation processes are established to support the current version of the FRMS.
- FRMS training activities are established to support the current version of the FRMS. (A single programme to the level required for the full FRMS implementation may be more efficient than partial training at each phase of the implementation.)
- FRMS communication processes are established to support the current version of the FRMS.
- The operator is ready to undertake coordinated safety analyses of this version of the FRMS (ICAO Doc 9859, 10.4).

3.1.4 Phase IV - Implementation of FRMS safety assurance processes

Phase IV activates the FRMS safety assurance processes. By the end of Phase IV, the following steps need to be accomplished.

- Roles and responsibilities for assuring the safety performance of the FRMS are established.
- The necessary authorities and communication channels are active.
- FRMS safety performance indicators have been developed and agreed on.
- The procedures and processes for periodic evaluation of the safety performance indicators are established.
- Appropriate feedback is established between the FRM processes and the FRMS safety assurance processes.

- FRMS documentation processes are fully implemented.
- FRMS training processes are fully implemented.
- FRMS communication processes are fully implemented.

In other words, by the end of Phase IV, the FRMS should be fully functional and integrated with the operator's SMS and other parts of the organization, as appropriate. It should be continuously improving and able to respond to changes in the organization and the operating environment.

Regulatory approval for the full FRMS is sought at the end of Phase IV.

3.1.5 Operational example of staged FRMS implementation

Operator A is a major airline that flies primarily long-range, trans-oceanic flights with multinational crews. It has been flying for 20 years with an excellent safety record. Operator A is interested in starting an FRMS for both of its long-range fleets. The CEO decides to implement FRMS for the entire operation to enhance safety and efficiency.

This example works through the steps that Operator A could follow to establish a fully operational FRMS. It assumes that management at Operator A are familiar with information in the **FRMS Implementation Guide for Operators** (2011, a joint publication by ICAO, IATA, IFALPA) and are ready to start implementation.

Phase I

1. Responsibility for FRMS implementation assigned to a designated FRMS manager.
2. FRMS manager assembles an implementation team and organizes training for the team on FRMS basics and fatigue science.
3. Accountable executive for the FRMS allocates resources and authority to support FRMS development.
4. FRMS manager identifies internal stakeholders (department representatives).
5. FRMS policy statement is drafted.
6. Gap analysis undertaken by FRMS manager and implementation team.
7. FRMS documentation plan developed and first draft established.
8. FRMS communication plan developed and first draft established.
9. Implementation plan developed, with initial timeline.

10. Fatigue Safety Action Group established with required stakeholder membership and meets regularly with the implementation team (if different employees) to discuss progress.

Phase II

11. Fatigue Safety Action Group works through the FRM process, using existing information and data for reactive fatigue hazard identification.

    a) Step 1 — Decide whether domestic, international long-haul and ULR operations require different FRM processes. Carry out the following steps for each set of FRM processes.

    b) Step 2 — Collect and analyse available data and information (for example, confidential safety reports, accident reports and incident investigations, audits, and historical rostering data).

    c) Step 3 — Identify fatigue hazards(s).

    d) Step 4 — Establish risk assessment processes and procedures. Clarify linkages to SMS risk assessment and processes for prioritization of risks to be mitigated. (In this large airline example, the FRMS policy statement indicates that the Fatigue Safety Action Group is responsible for prioritizing fatigue risks and for developing, implementing and monitoring fatigue controls and mitigations. It is required to provide monthly reports of these activities to the SMS Safety Review Board, with the intent that this report will become part of the FRMS safety assurance process in the overall FRMS.)

    e) Step 5 — Select and implement controls and mitigations. Set safety performance indicators.

    f) Step 6 — Set up processes for monitoring the effectiveness of controls and mitigations.

12. Perform training to ensure that stakeholders are competent to undertake their roles and responsibilities in the FRMS. In this example, it is decided to undertake training to support the full FRMS. Communication channels are set up to provide training updates and reminders when Phases III and IV of the FRMS implementation become active.

13. FRMS communication channels established.

14. Fatigue Safety Action Group provides a coordinated safety analysis of the existing FRMS to the SMS Safety Review Board. (The SMS Safety Review Board is responsible for the FRMS safety assurance functions, in this example.)

Phase III

15. For each set of FRMS processes established in Phase II, the Fatigue Safety Action Group identifies appropriate tools for proactive and predictive fatigue hazard identification.

    a) Proactive fatigue identification tools are used for assessing routine and complex hazards.

16. Proactive and predictive fatigue hazard identification are integrated in to the FRM processes established in Phase II.

17. All stakeholders have received suitable training and are competent to undertake their roles and responsibilities in the FRMS.

18. FRMS communication channels are operational.

19. Fatigue Safety Action Group provides a coordinated safety analyses of the existing FRMS to the SMS Safety Review Board.

Phase IV

20. FRMS safety performance indicators are decided collaboratively by the Fatigue Safety Action Group and the SMS Safety Review Board and approved by the accountable executive for the FRMS.

21.

- Decide which information will be analysed for trends (for example, fatigue reporting rates between similar city pairs, operations, or fleets)

- Develop criteria for comparing performance with safety objectives (for example, is the overall risk level increasing, is the number of higher risk events increasing, are safety objectives in the FRMS policy being achieved, are regulatory requirements being met).

- Decide how emerging fatigue hazards are identified. For example, set triggers to identify when action is needed (at what level do adverse trends in performance indicators trigger an investigation of the causes of the trend).

22. Processes are established for identifying changes that could impact the FRMS.

23. Processes are established for evaluating how well Fatigue Safety Action Group recommendations are implemented in other parts of the organization, for example, in scheduling and flight operations.

24. The following safety assurance processes are established.

- Monthly reporting by the Fatigue Safety Action Group to the SMS Safety Review Board. To include updates on fatigue hazards identified and on the status of agreed safety performance indicators.
- SMS Safety Review Board is able to call for special reports from the Fatigue Safety Action Group, for example, after significant operational changes such as a newly established route.
- Quarterly review of trends in confidential crew reports relating to fatigue, to be undertaken by the Fatigue Safety Action Group and reported to the SMS Safety Review Board.
- Quarterly review of trends in exceedances of flight and duty time limits specified in the FRMS Policy, to be undertaken by the Fatigue Safety Action Group and reported to the SMS Safety Review Board.
- Quarterly review of trends in FRMS safety performance indicators identified in the FRMS policy, to be undertaken by the Fatigue Safety Action Group and reported to the SMS Safety Review Board.
- Annual review of fatigue hazard identification and mitigation activities of the Fatigue Safety Action Group by an independent FRMS Scientific Advisory Group.
- Internal audit of the FRMS by a team selected by the SMS Safety Review Board.
- Annual report of the Fatigue Safety Action Group to the SMS Safety Review Board and the accountable executive for the FRMS, to include the recommendations of the independent FRMS Scientific Advisory Group, findings of audits, and actions taken in response to them.

25. First quarterly audit of FRMS safety performance by the team selected by the SMS Safety Review Board. If audits are satisfactory for one year, internal audit will revert to every six months.
26. FRMS documentation fully implemented.
27. FRMS training fully implemented.
28. FRMS communications fully implemented.

3.2 FRMS Approval Process

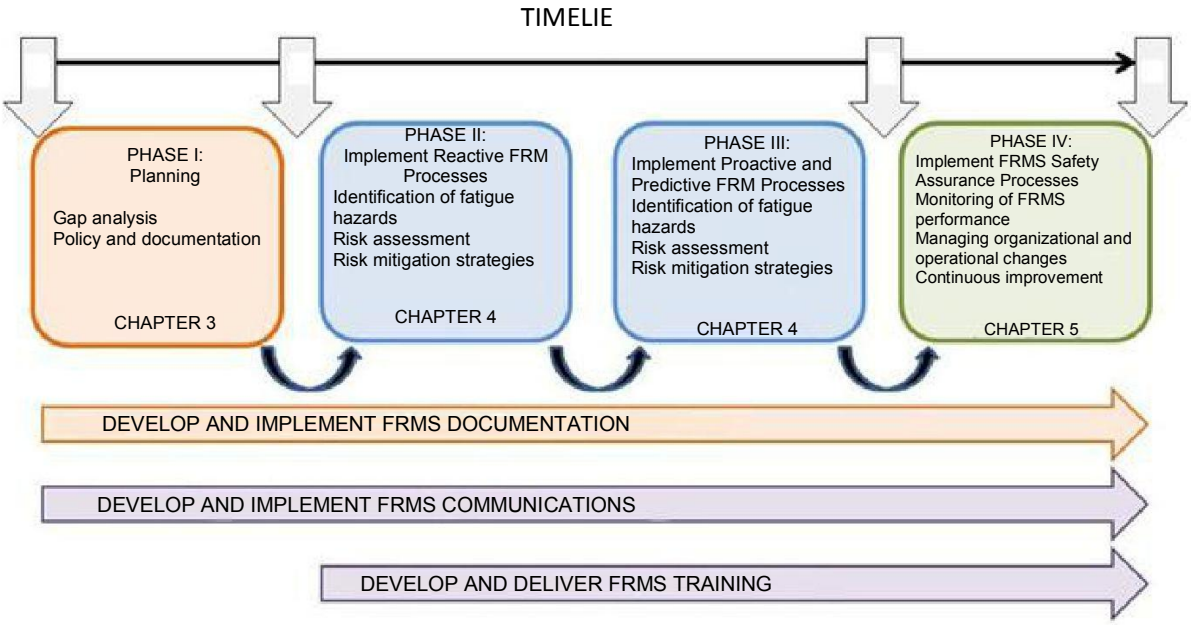


Figure 3-2 The FRMS approval process

The progressive implementation of an FRMS requires a regulatory approval process that monitors and documents its progression.

The regulatory milestones throughout the FRMS approval process are identified at the arrow points in Figure 3-2. All of these need to be achieved before final approval of the FRMS can be given.

To gain full approval, an FRMS for a large and complex operator is likely to take several years, so that enough time has elapsed to allow assessment of safety assurance functions. However, the regulator can still allow the operator to use FRM processes to move beyond prescribed flight and duty time limitations on a trial basis in order that the safety assurance functions can be developed.

Suggested documentation to be completed by the regulator during the course of the approval process is highlighted in each of the sections below. All of the information and evidence collected by the regulator during the approval process contributes to the overall assessment when deciding to grant final approval of the FRMS.

3.2.1 Regulatory Milestone 1 - Notification by the operator

Throughout the progressive implementation of an FRMS there should be contact between the regulator

and the operator, starting from the time the operator begins the implementation process. Such early interaction helps establish an open and informed working relationship between the regulator and the operator and allows the regulator to provide clear indication of its expectations and requirements.

The NCAA will require a written notification from an operator planning to develop an FRMS

At this point, the NCAA expects that the operator has already undertaken some preparatory actions. These may include:

- designation of a specific organizational manager(s) with proper authority;
- ensuring that a key person(s) has gained or is gaining adequate knowledge;
- allocation of resources to support FRMS development.

Once initial contact has been established by the operator, the NCAA will then provide the operator with a detailed checklist of its regulatory requirements for an FRMS. While necessarily detailed, this checklist will allow the operator flexibility in the way it can meet these requirements. Developing such a detailed checklist takes time and effort but once achieved it provides a key tool for both the operator and the regulator. It will form the basis of the operator's GAP analysis, required as part of the development of its FRMS implementation plan. For the NCAA, it forms the first part of the subsequent audit processes for both approval and oversight purposes. An outline of the checklist items for each of the subsequent regulatory milestones is discussed below.

Regulatory Milestone 2 - Review of FRMS plan, policy and documentation

Based upon the FRMS checklist, the NCAA will develop a more comprehensive tool that can be used to record where each required component of the FRMS has been documented in the operator's procedures, the method used by the operator to demonstrate compliance with the required FRMS components, and any regulator comments on the operator's proposal. This tool is the FRMS evaluation form (Form: O-OPS 009).

Regulatory documentation

1. Review of FRMS plan

The NCAA will review the operator's implementation plan, including the GAP analysis, the operations to which the FRMS is intended to be applied, the key personnel involved and the expected timelines, to allow early detection of any areas needing improvement in the operator's ability to implement an FRMS prior to the State or the operator investing excessive time and effort.

A positive review of the FRMS implementation plan means that the NCAA has been provided with evidence that the operator understands what is required.

The Flight Operations Inspector (FOI) will evaluate the FRMS Implementation Plan with CL: O-OPS 046A.

2. Review of the initial FRMS policy and documentation proposal

Using the FRMS evaluation form (mentioned above), the NCAA will conduct a desktop review of the policy and documentation to determine whether the operator's initial FRMS policy and documentation proposal adequately addresses the regulatory requirements. This will include evaluating:

- policy content;
- the organizational structure;
- the risk-based deviation recording process that will document the extent and reason for significant exceedances of scheduled flight and duty periods, significant reductions of rest periods; and significant numbers of uses of the captain's authority to complete the flight period;
- the proposed fatigue risk assessment process;
- the proposed safety assurance process;
- integration processes with the safety department;
- quality control audit procedures;
- initial training plan and procedures (including fatigue reporting);
- terms of reference for the Fatigue Safety Action Group;
- details of the safety promotion activities; and
- methods for monitoring and managing changes to the FRMS.

The NCAA may also wish to conduct some documented interviews of key personnel involved with the development of the implementation plan to check the level of organizational knowledge and commitment to the plan.

A positive review of the FRMS policy and documentation proposal means that the NCAA has been provided with evidence that the operator has a commitment to meet these requirements of implementing an FRMS.

The Flight Operations Inspector (FOI) will evaluate the FRMS policy and documentation with Checklist CL: O-OPS 046B.

3.2.3 Regulatory Milestone 3 - Review of initial FRMS processes

Once the plan for the development of the FRMS and the policy and documentation proposal have been positively reviewed, the operator can begin implementing the FRM processes. This incorporates Phases II and III of the operator's implementation process and may take a significant period of time and may require several meetings with the operator.

To achieve the third milestone of the regulatory process, the NCAA:

1. reviews the operator's reactive risk assessment process, including the tools used, such as the fatigue hazard log, how the risk matrix was developed and the use of the agreed upon severity and likelihood measures, the methodology for the development of mitigation strategies, fatigue report procedures, any crew surveys, and Fatigue Safety Action Group meeting minutes;

2. reviews the proactive and predictive hazard identification processes, including assessment of agreed fatigue roster metrics, any information from biomathematical modeling, development of FRMS performance indicators and their targets, supporting scientific documentation, Fatigue Safety Action Group meeting minutes, other operational best practices, the fatigue hazard log, and further proposed mitigations to reduce the risk;

3. reviews the results of all the risk assessment processes (reactive, proactive and predictive) and agrees on initial FRMS performance indicators and targets;

4. directly samples some of the records quoted in the risk assessment and assesses the operator's procedures against supplied risk assessments;

5. conducts the final review of the initial training programme and training records (and may possibly attend one of the initial training courses). The NCAA will review the training proposals for the operator's employees to check that they cover both generic fatigue material and operation-specific FRMS aspects. Training will need to be given in a proportionate manner to the employee groups' involvement in the FRMS. As part of the training programme, all employees who are involved with the fatigue reporting system need to be specifically trained on how the system works, how they use the system information, and at what point an individual would need to be further assessed due to trends in his filed fatigue reports. The Authority may choose to attend a training session rather than just review the training material and/or syllabus.

6. conducts documented interviews with a selection of employees from all the areas involved with the FRMS as part of its review of the information;

7. reviews the outer limits for the proposed FRMS operation and adjusts them accordingly if there is insufficient evidence to support the case;

8. produces an audit report and, where necessary, a list of corrective actions.

If the operator is required by the Authority to make corrective actions, time should be given for an action plan to make these corrections. Once the operator has taken the corrective actions, the Authority will go back into the above process at the relevant point and produce an audit closure report.

Where no corrective actions are necessary, or once corrective actions are complete, the Authority may then permit the operator for the trial of the proposed FRMS operations within the newly agreed outer limits. At this point, the FRMS does not have final approval as the safety assurance processes have not yet been implemented.

The Flight Operations Inspector (FOI) will evaluate the initial FRMS process using Checklist CL: O-OPS 046C.

3.2.4 Regulatory Milestone 4 - Approval of FRMS

Before final approval of the FRMS can be given, evidence must demonstrate that the FRMS is delivering the required safety outcomes. The operator now needs to validate the safety assurance processes and demonstrate a fully functioning FRMS within the agreed outer limits, which may be outside of the prescriptive limitations. Validation of the safety assurance processes will take time, and this will require the Authority to conduct regular visits, desktop reviews of sample data, analyses of documentation, and interviews of key personnel. All of the components of an FRMS, including the safety assurance processes, need to be functioning in a coordinated way within the operator's overall safety processes. During this trial period, the Authority will closely monitor all activities.

Importantly, the Authority will identify a time limit for the course of this trial period. While adequate time needs to be given to allow the operator to demonstrate that all components of an FRMS (including the safety assurance processes) are functioning, an operator cannot be allowed to operate outside of the prescriptive limits for an indefinite period. Protracted trial periods diminish the value of having an approved FRMS, if an operator can continue using an "FRMS in progress" that is not actively trying to meet approval requirements.

The operator will need to demonstrate that its FRMS safety assurance processes are used to review the FRMS performance indicators against its agreed targets and can identify and undertake any necessary actions. Where trends demonstrate that either the mitigations or the outer limits are not appropriate to achieve the safety performance targets, or where changes affecting the overall FRMS are detected by the safety assurance processes, the failing areas of the FRMS operation(s) are reassessed through the FRM processes.

These processes are documented and form part of the Fatigue Safety Action Group review of the system and are recorded in the minutes. The functioning of the Fatigue Safety Action Group must also demonstrate the identification and management of any new fatigue hazards and its subsequent risk assessment and management. The assurance functions monitor the effectiveness of the mitigations and suitability of the outer limits of the FRMS. The whole system will also be internally audited to check the procedures are being correctly applied and the effectiveness of risk mitigations and assumptions made. These audits must be documented.

During the course of this trial period, the Authority will have the opportunity to gain confidence in the operator's ability to respond appropriately to the data being collected and should be supplied with evidence that the operator is managing its fatigue risk appropriately. This should include the monitoring of the operator's safety performance after any changes. In some cases, the Authority may have observed the operator lowering flight and duty times that would otherwise be permitted using prescribed limitations using its FRMS processes.

In this final phase prior to approval, the operator will also have demonstrated that it has added effective recurrent training into its training programme. Further, the regulator should ensure that all initial training as identified in the accepted implementation plan has been completed prior to final approval of the FRMS.

Still using the FRMS evaluation form, the regulator should then conduct the final audit of the operator's FRMS. By now, this evaluation form documents the progress made by the operator throughout the approval process. At the final approval audit, the Authority will examine evidence of the operator's FRMS safety assurance functions by reviewing the agreed FRMS performance targets and assessing any trends. It should also check that the system has been subject to internal auditing of the processes. The Authority may choose to audit some of the primary sources of input into the system (for example, fatigue reports). However, the Authority will be mindful of the confidential nature of some of the methods of reporting (such as fatigue reports) examining such reports only to confirm the operator's assessment of trends. The integrity of the operator's effective safety reporting system, and the maintenance of reporter confidentiality that is required to support it, will be a priority for the Authority. The Authority will expect the operator to have already documented trends and re-evaluated the fatigue-related risk using the risk assessment functions.

The Authority will also conduct a review of the operator's final documentation and procedures to ensure required corrections or additions have been made. Finally, it should review the final training package, including the recurrent training programme.

Once all the criteria in each of the steps have been met, and all of the FRMS processes are functioning in a cohesive manner with regard to the specific operations to which they have been applied, approval can be given. This means that the operator is no longer on a trial period and may now use the FRMS to adjust flight and duty hours within the approved outer limits for the particular operations identified. Any changes to the scope of the FRMS cannot be implemented without Authority approval for its application to new operations.

The Flight Operations Inspector (FOI) will use CL: O-OPS 046D to evaluate the general requirements for validating the safety assurance process.

The final part of the approval process will be for the Authority to set up the ongoing audit requirements and the audit calendar. As part of this, the Authority may require that the operator send monthly updates (or another designated period of time) of trends on all or some of the agreed FRMS performance indicators.

In the same way that normal oversight audit functions are recorded, Authority will ensure that where an operator uses an FRMS, it has an adequate record-keeping process. These records will store the outcomes, findings and rectification notifications of the approval process and ongoing oversight.

4.0 Oversight of an FRMS

Once approval of an operator's FRMS has been given, it is the NCAA's responsibility to continue monitoring the effectiveness of the FRMS, that it complies with the regulations, and that it demonstrates an acceptable level of performance. Organizational conditions change, and many, such as external pressures on the operator, economic issues, and the overall performance of the operator, may have consequences for the effectiveness of the FRMS. Therefore, after final approval, the oversight of the FRMS forms part of the regulator's periodic surveillance programme of the operator.

4.1 Regulatory planning functions

In order to ensure appropriate levels of oversight, formal audits will need to be planned. Consideration will need to be given to:

- **Establishing an FRMS audit/inspection schedule as part of the oversight programme.**
  The Authority will visit the operator at least once a year. Ad hoc visits could also be made and, as part of the oversight, the Authority may also have more frequent documentation sent to it by the operator.

- **Inspectorate resources.**
  Inspectors need to have knowledge of fatigue science, experience in regulating FRMS, as well as practical knowledge of the operator.

4.2 Special requirements for FRMS oversight

In overseeing the operator's FRMS, the Authority will examine evidence of the operator's FRMS safety assurance functions by reviewing the agreed FRMS performance targets and assessing any trends. It will also check that the system has been subject to internal auditing of the processes. The Authority may choose to audit some of the primary sources of input into the system (for example, fatigue reports). It will need to confirm that the operator is documenting trends and, where necessary, is identifying potentially adverse trends and managing them appropriately as part of the risk assessment functions. The Authority will also conduct a review of the operator's documentation and procedures to assess any corrections or additions that have been made post-approval. It will also review the current training package, including all staff training records.

As part of normal oversight, the Authority will conduct interviews with a variety of people involved with the FRMS and monitor changes of key FRMS personnel. Where key personnel have changed, the Authority should seek to ensure the new personnel are included in its list of interviewees. Occasionally, an inspector might also ask to attend an operator's Fatigue Safety Action Group meeting to gain better insight in its FRMS processes, although the inspector cannot be part of the Fatigue Safety Action Group activities.

The Authority is seeking to ensure that all of the FRMS processes are functioning in a cohesive manner with regard to the specific operations to which they have been applied.

The FRMS oversight checklist CL: O-OPS 046E to be used.

4.3 Enforcement

The Authority will establish a process to be used when deficiencies in an FRMS are identified. Enforcement actions should be commensurate to the level of risk resulting from the deficiency. These actions may range from administrative changes or FRMS operational changes, to a withdrawal of FRMS approval.

The three enforcement alternatives in increasing severity are:

- **Operator on notice to improve FRMS processes:**
  Where concerns exist that the operator's FRMS may not meet regulatory requirements, then the operator should first be given an opportunity to improve the specific aspects of its FRMS so that it does meet regulatory requirements. Based on the findings of the audit process, the Authority will provide advice to the operator and identify a mutually-agreed corrective action plan.

- **Authority-mandated lowering of maximum values (and/or increasing minimum values):**
  Where the Authority's oversight produces concerns that an element of an operator's FRMS may be ineffective, the Authority may revise an operator's maximum and minimum values. These Authority-set limits should remain in place until the operator can provide evidence that its FRMS processes are effective and the Authority has regained regulatory confidence in the operator.

- **Withdrawal of FRMS approval:**
  Where there is a significant safety concern that has not been addressed by the above enforcement alternatives, it is the Authority's obligation to withdraw the FRMS approval and require the operator to operate within prescriptive flight and duty limitations. While complying with the prescriptive flight and duty limitations, the operator may attempt to improve its FRMS processes and other safety systems and SMS processes, in order to re-establish regulatory confidence and re-apply for FRMS approval. Should the Authority consider that the operator's FRMS meets its requirements at this point, the Authority may approve the FRMS on restricted conditions (for example, decreased maximum values for flight and duty periods and minimum values for rest periods) until such time as it is confident of the maturity and effectiveness of the system.

CHAPTER 36

ELECTRONIC FLIGHT BAG (EFB)

1.0 PURPOSE

The purpose of this chapter is to provide guidance regarding the Operational Approval Evaluation process required to approve an Operator's application for EFB.

2.0 Reference Regulations

Nig. CARs 8.2.1.10

3.0 Introduction

3.1 EFB is a system comprising hardware and software that provides:

- Flight Crew access to emerging electronic flight operations data, general purpose computing and communications. Similar application may be found available to the cabin in some cases.
- Replacement of many of today's paper documents.
- A range of implementations spanning portable electronic devices up to installed certified integrated systems.

3.2 It should be noted that the following features are not considered as EFB functions and, unless airworthiness approved, should not be hosted on an EFB:

a) Displaying information which may be tactically used by the flight-crew members to check or control the aircraft position or trajectory,
b) Displaying information which may be directly used by the flight crew to assess the real-time status of aircraft critical and essential systems,
c) Communicating with air traffic services,
d) Sending data to certified aircraft systems other than those certified for that intent.

4.0 Hardware system

4.1 Types of EFB

EFBs can be either portable or installed.

4.1.1 Portable EFB

(a) **Definition**

A portable EFB is a portable EFB host platform, used on the flight deck, which is not part of the certified aircraft configuration.

(b) **Complementary Characteristics**

- A portable EFB can be operated inside and outside the aircraft.
- A portable EFB hosts type A and/or type B EFB software applications. In addition, it may host miscellaneous (non-EFB) software applications.
- A portable EFB is a portable electronic device (PED).
- The mass, dimensions, shape, and position of the portable EFB should not compromise flight safety.
- A portable EFB may be provided with aircraft power through a certified power source.
- If mounted, the portable EFB is easily removable from its mounting device or attached to it, without the use of tools by the flight crew. If mounted, the attachment

or removal does not constitute a maintenance action.

- A portable EFB may be part of a system containing EFB installed resources which are part of the certified aircraft configuration.
- The installed EFB components are part of the certified aircraft configuration with the intended function to mount the EFB to the aircraft and/or connect to other systems.
- When a portable EFB is a T-PED (Transmitting PED), the conditions for use of its transmitting capability are established in the approved Aircraft Flight Manual (AFM).
- Portable EFBs may be used in all phases of the flight if secured to a certified mount or securely attached to a viewable stowage device in a manner which allows its normal use. Portable EFBs not meeting the above characteristic, should be stowed during critical phases of the flight.
- Portable EFBs are controlled PEDs.
- Any EFB component that is either not accessible in the flight crew compartment by the flight crew members or not removable by the flight crew, should be installed as 'certificated equipment' covered by a Type Certificate (TC), changed TC or Supplemental (S)TC.

4.2 Installed EFB

(a) **Definition**
An EFB host platform installed in the aircraft and considered as an aircraft part, covered, thus, by the aircraft airworthiness approval.

(b) **Complementary Characteristics**
An installed EFB is managed under the aircraft type design configuration.

4.2.1 In addition to hosting Type A and B applications, an installed EFB may host certified applications, provided the EFB meets the certification requirements for hosting such applications, including assurance that the non-certified software applications do not adversely affect the certified application(s). For example, a robust partitioning mechanism is one possible means to ensure the independence between certified applications and the other types of applications.

4.2.2 The installation shall be approved through certification process such as STC. Operator has the responsibility to evaluate and declare that the modifications fulfil the requirements of the STC and is applicable to the EFB definition of this Document.

4.3 Hardware Considerations For Portable EFB

4.3.1 Portable EFBs can be used as either handheld equipment or mounted in a fixed or moveable mount attached to the aircraft structure or temporarily secured (e.g. kneeboard).

4.3.2 Physical characteristics
The size and practicality of the EFB should be considered as the device may be cumbersome for normal use on a flight deck.

4.3.3 Readability
The EFB data should be legible under the full range of lighting conditions expected on the flight deck, including direct sunlight.

4.3.4 Environmental
The EFB has to be operable within the foreseeable cockpit operating conditions including rapid depressurization, if the EFB is intended for use after rapid depressurization.

4.3.5 Basic Non Interference Testing

4.3.5.1 EFB devices intended to be used in all phases of flight should demonstrate that they meet environmental standards for radiated emissions for equipment operating in an airborne environment. Installed EFBs will be required to demonstrate non-interference with other aircraft systems as part of their certification process. As previously noted, portable EFBs are considered to be portable electronic devices (PEDs). As such, in this section any reference to PEDs is also applicable to portable EFBs.

4.3.5.2 In order to operate a portable EFB during flight, the user/operator is responsible for ensuring that the EFB will not interfere in any way with the operation of aircraft equipment. The following is an accepted method to test portable EFBs that are to remain powered (including being in standby mode) during flight in order to ensure that the EFB will not interfere in any way with the operation of aircraft equipment.

4.3.5.3 The first step is to conduct an electromagnetic interference (EMI) test using RTCA/DO-160, section 21, Category M. An EFB vendor or other source, can conduct this test for an EFB user/operator. An evaluation of the results of the RTCA/DO-160 EMI test can be used to determine if an adequate margin exists between the EMI emitted by the EFB and the interference susceptibility threshold of aircraft equipment. If this step determines that adequate margins exist for all interference (both front door and back door emissions susceptibility), then the test is complete. Front door emissions typically couple to aircraft system antennas by means of propagation through aircraft apertures such as doors and windows while back door emissions couple to aircraft equipment, wires, and cables. However, if this step identifies inadequate margins for interference, or either front door or back door susceptibility, then step 2 testing must be conducted.

4.3.5.4 Step 2 testing non-interference testing is a complete test in each aircraft using standard industry practices. This should be done to the extent normally considered acceptable for non-interference testing of a portable EFB or PED in an aircraft for all phases of flight. Credit may be given to other aircraft of the same make and model equipped with the same avionics as the one tested.

4.3.5.5 It should be acceptable for operators/users to bypass Step 1 and go directly to Step 2 in order to determine non-interference of the EFB/PED.

4.3.6 Additional Testing for Transmitting Portable EFBs and Other Transmitting PEDs

4.3.6.1 In order to activate the transmitting function of a portable EFB or other PED during flight in conditions other than those that may be already certified at aircraft level (e.g. tolerance to specific transmitting PED models) and hence documented in the aircraft flight manual or equivalent, the user/operator is responsible to ensure that the device will not interfere with the operation of the aircraft equipment in any way. The following is an accepted method to test portable EFBs and PEDs that are to remain powered (including being in standby mode) during flight.

4.3.6.2 This test consists of two separate test requirements

(a) **Test Requirement 1.** Each model of the device should have an assessment of potential electro-magnetic interferences (EMI) based on a representative sample of the frequency and power output of it. This EMI assessment should follow a protocol such as the applicable processes set forth in RTCA/DO-294, *Guidance on Allowing Transmitting Portable Electronic Devices (T-PEDs) on Aircraft.* This frequency assessment must confirm that no interference of aircraft equipment will occur as a result of intentional transmissions from these devices.

(b) **Test Requirement 2**. Once an EMI assessment has determined that there will be no interference from the EFB/PED's intentional transmissions, test each model of the device while powered but not deliberately transmitting, using the basic non-interference testing methodology. Basic non-interference testing should be conducted with and without the transmit function being operative. The position of the transmitting device is critical to non-interference testing; hence locations of the EFB and of the transmitter (if applicable) should be clearly defined and adhered to.

4.3.7 Power Supply

The operator should ensure that power to the EFB, either by battery and/or supplied power, is available to the extent required for the intended operation.

4.3.8 Battery

Due to their proximity to the flight crew and potential hazard to safe operation of the aircraft, the use of rechargeable lithium-type batteries in portable EFBs located in the aircraft cockpit call for the following standards. Operators should collect and retain evidence of the following testing standards to determine whether rechargeable lithium-type batteries used to power EFBs are acceptable for use and for recharging. Operators should collect and retain evidence of the standards in subparagraphs (a) and either (b) or (c) or (d). Refer to the following current editions:

(a) United Nations (UN) Transportation Regulations. UN ST/SG/AC.10/11/Rev.5-2009, Recommendations on the Transport of Dangerous Goods-Manual of Tests and Criteria.

(b) Underwriters Laboratory (UL). UL 1642, Lithium Batteries; UL 2054, Household and Commercial Batteries; and UL 60950-1, Information Technology Equipment - Safety.

NOTE: Compliance with UL 2054 indicates compliance with UL 1642.

(c) International Electrotechnical Commission (IEC). International Standard IEC 62133, Secondary cells and batteries containing alkaline or other non-acid electrolytes – Safety requirements for portable sealed secondary cells, and for batteries made from them, for use in portable applications.

(d) RTCA/DO-311, Minimum Operational Performance Standards for Rechargeable Lithium Battery Systems. An appropriate airworthiness testing standard such as RTCA/DO-311 can be used to address concerns regarding overcharging, over-discharging, and the flammability of cell components. RTCA/DO-311 is intended to test permanently installed equipment; however, these tests are applicable and sufficient to test EFB rechargeable lithium-type batteries.

The operator should consider introducing procedures to handle thermal runaways or similar battery malfunctions potentially caused by EFB batteries.

4.3.9 Power Connection and Source

4.3.9.1 Connection of EFB power provisions to a non-essential, or to the least critical power bus, is recommended, so failure or malfunction of the EFB, or power supply, will not affect safe operation of aircraft critical or essential systems.

4.3.9.2 Connection to more critical aircraft power buses is, however, permitted if appropriate, taking into account the intended function of the EFB.

4.3.9.3 In all cases, an electrical load analysis should be conducted to replicate a typical EFB system to ensure that powering or charging the EFB will not adversely affect other aircraft systems and that power requirements remain within power-load budgets.

4.3.9.4 The aircraft power source delivering power supply to the EFB system should be demonstrated to protect the aircraft electrical network from EFB system failures or malfunctions (e.g. short-circuit, over-voltages, over-load, electrical transients or harmonics, etc.).

(a) A placard should be mounted beside the power outlet, containing the information needed by the flight or maintenance crews (e.g. 28 VDC, 115 VAC, 60 or 400 Hz, etc.).

(b) The EFB power source should be designed so that it may be deactivated at any time. If the flight crew cannot quickly remove the plug, which is used to connect the EFB to the aircraft electrical network, an alternate means should be provided to quickly stop powering and charging the EFB. Circuit breakers are not to be used as switches; their use for this purpose is prohibited.

(c) If a manual means (e.g. on/off switch) is used, this means should be clearly labelled and be readily accessible.

(d) If an automatic means is used, the applicant should describe the intended function and the design of the automatic feature and should substantiate that the objective of deactivating the EFB power source, when required to maintain safety, is fulfilled.

4.3.10 Cabling

4.3.10.1 If cabling is installed to mate aircraft systems with an EFB;

(a) if the cable is not run inside the mount, the cable should not hang loosely in a way that compromises task performance and safety. Flight crew should be able to easily secure the cables out of the way during operations (e.g. cable tether straps);

(b) cables that are external to the mounting device should be of sufficient length in order not to obstruct the use of any movable device on the flight crew compartment.

4.3.11 Temperature rise

Operating the proposed EFB device may generate heat. The placement of the EFB should allow sufficient airflow around the unit, if required.

4.3.12 Data Connectivity between EFBs

If two or more EFBs on the flight deck are connected to each other, then the operator should demonstrate that this connection does not negatively influence otherwise independent EFB platforms.

4.3.13 Data Connectivity to aircraft systems

4.3.13.1 EFB data connectivity should be validated and verified to ensure non-interference and isolation from certified aircraft systems during data transmission and reception.

4.3.13.2 Certified aircraft systems should be protected from adverse effects of EFB system failures by using a certified AID. An AID may be implemented as a dedicated device, e.g. as defined in ARINC 759, or it may be implemented in non-dedicated devices such as an EFB docking station, a Network File Server or other avionics equipment.

4.3.14 External connectivity

4.3.14.1 Some EFB may have the provision for external ports other than power or data connectivity with aircraft systems (e.g. an antenna or a data connection to operator ground network). Details should be supplied and approvals if necessary should be sought. External connectivity leading to a change to the aircraft Type design should require an airworthiness approval. The extent of this information is dependent on the complexity of the interface to the aircraft systems.

4.4 Hardware Considerations for Installed Resources

4.4.1 Installed resources should be certified either during the certification of the aircraft, through service bulletin by the original equipment manufacturer or through a third party STC.

4.4.2 Mounting Devices

4.4.2.1 If the mounting is permanently attached to aircraft structure, the installation will be approved in accordance with the appropriate airworthiness regulations.

4.4.2.2 The mounting device attaches or allows mounting of the EFB system. The EFB system may include more than one mounting device if it consists of separate items (e.g. one docking station for the EFB host platform and one cradle for the remote display).

4.4.2.3 The mounting device should not be positioned in such a way that it obstructs visual or physical access to aircraft controls and/or displays, flight crew ingress or egress, or external vision. The design of the mounting device should allow the user easy access to any item of the EFB system, even if stowed, and notably to the EFB controls and a clear view of the EFB display while in use. The following design practices should be considered:

(a) The mounting device and associated mechanisms should not impede the flight crew in the performance of any task (normal, abnormal, or emergency) associated with operating any aircraft system.

(b) When the mounting device is used to secure an EFB display (e.g. portable EFB, installed EFB side display), the mount should be able to be locked in position easily. If necessary, selection of positions should be adjustable enough to accommodate a range of flight crew member preferences. In addition, the range of available movement should accommodate the expected range of users' physical abilities (i.e. anthropometrics constraints). Locking mechanisms should be of the low-wear types that will minimise slippage after extended periods of normal use.

(c) Crashworthiness considerations should be taken into account in the design of this device. This includes the appropriate restraint of any device when in use.

(d) When the mounting device is used to secure an EFB display (e.g. portable EFB, installed EFB side display), a provision should be provided to secure or lock the mounting device in a position out of the way of flight crew operations when not in use. When stowed, the device and its securing mechanism should not intrude into the flight crew compartment space to the extent that they cause either visual or physical obstruction of flight controls/displays and/or egress routes.

(e) Mechanical interference issues of the mounting device, either on the side panel (side stick controller) or on the control yoke in terms of full and free movement under all operating conditions and non-interference with buckles, etc. For yoke mounted devices, (Supplemental)

Type Certificate holder data should be obtained to show that the mass inertia effect on column force has no adverse effect on the aircraft handling qualities.

(f) Adequate means should be provided (e.g. hardware or software) to shut down the portable EFB when its controls are not accessible by the pilot strapped in the normal seated position.

4.4.3 Stowage

4.4.3.1 When an EFB is stowed, the device and its securing mechanism should not intrude into the flight deck space to the extent that they cause either visual or physical obstruction of flight controls/displays and/or exit routes.

5.0 Operational Approval Evaluation Process

5.1 The process is designed to lead to formal operational approval where such is required and consists of the following courses of actions.

5.2 Elements of this process may also be used in instances where formal approval is not required.

5.3 The scope of the operational evaluation plan will depend upon the applicant's familiarity with EFB:
(a) the operator already has an existing approved EFB program established,
(b) is in the process of establishing an EFB program or
(c) has no EFB experience, thus requiring a "new application and approval process".

5.4 The operator is implementing EFB for a new fleet and may choose to start a paperless flight deck operation without paper back up.

5.5 A combination of solutions, with limited on-board paper backup, may also be used.

5.6 The operator may choose to keep the paper backup as a cross-check against the EFB information and as a means of mitigation against failure, when transition from paper to electronic format.

5.7 Phase One: Request Approval:

5.7.1 Phase one of the process begins when the operator requests approval from the NCAA to use the EFB. It should be noted that use of the EFB prior to operational approval does not imply any deviation from the operator's present procedures. It simply defines a training phase which will eventually lead to paperless trials.

5.7.2 During this phase, the NCAA and the operator reach a common understanding of when paperless trials should begin, how they must be conducted and documented, the role of the NCAA, and what documents and actions the operator is responsible for during each phase of the approval process.

5.8 Phase Two: Application

5.8.1 Phase Two begins when the operator submits a formal compliance plan to the NCAA for evaluation. The plan is reviewed for completeness and the NCAA may coordinate with other regulatory offices as necessary. Once the plan is accepted, the operator follows that plan to produce a complete EFB program. The operator must clarify the intent of the operation (with or without paper back-up or a combination of paperless and paper). The applicant user should submit the following information in the application package:

- EFB Operational Suitability Report
- EFB hardware and application specification EFB operator procedures/manual revisions,
- EFB evaluation checklists,
- EFB training program,
- EFB evaluation report
- Operational risk analysis

5.9 Phase Three: NCAA Review

5.9.1 The NCAA should use the checklist in the TGM to conduct a review of the application submitted by an operator. The NCAA should participate in the simulator evaluation or flight evaluation of an EFB when an operator is requesting initial EFB approval. Additional simulator or flight evaluations are not required for adding a new EFB to an existing approval unless there is a substantial change in EFB intended functions. When a new aircraft is added to a certificate with existing EFB approval, the suitability of the EFB for that aircraft must be addressed as part of the aircraft conformity and configuration control process. The NCAA should examine the technical content and quality of the proposed EFB program and other supporting documents and procedures. The operator's program for EFB management is critical to EFB reliability. The EFB program must address all EFB issues and be well documented.

5.10 Phase Four: Interim Approval to use EFB

5.10.1 An interim EFB Approval may be granted to allow the operator to proceed with EFB validation testing.

5.10.2 For operator transitioning from paper to EFB, during this validation of 6-month period, the operator must maintain paper back-up for all electronic information. The validation phase begins when the operator formally begins use of the EFB combined with paper backup for an established period of time. Use the EFB line Evaluation Job Aids for data collection during the validation phase.

5.10.3 For operators starting EFB operations without paper back-up, they must have in place adequate mitigations means to access the information in case of EFB failures, that are accepted by the NCAA.

5.10.4 Final considerations by the approving authority:

(a) Unacceptable Validation Results. If the NCAA finds the proposed EFB reliability and/or function to be unacceptable, the NCAA should contact the operator for corrective action. EFB deficiencies should be corrected and the EFB function revalidated prior to paperless approval being issued.

(b) Acceptable Validation Results. If the NCAA finds the proposed EFB reliability and/or function to be acceptable based on validation data then paperless approval may be issued.

5.11 Phase Five: Approval to use EFB

5.11.1 A formal letter is issued by the NCAA granting use of the EFB to the operator. Additionally, the approval of a "paperless flight deck" may be added if it was included as a part of the OPS Evaluation.

5.11.2 The initial approval should define criteria for changes to the EFB system which may require consideration of an amended approval.

CHAPTER 37

OPERATION ON MORE THAN ONE TYPE OR VARIANT

1.0 PURPOSE

This chapter provides guidance and procedures to Inspectors to determine differences or similarities existing within aircraft grouping before approving or rejecting operations on more than one type or variant.

2.0 Reference Regulations

Nig. CARs 8.4.1.16

3.0 APPLICABILITY

Applicable to operators and individuals holding Nigeria licenses requesting authorization to operate on more than one type or variant. Applicable to operations of aircraft of same operator.

3.1 Terminology

The terms used in the context of the operation of more than one type or variant have the following meaning:

(1) Base aircraft means an aircraft used as a reference to compare differences with another aircraft.

(2) Variant means an aircraft or a group of aircraft within the same pilot type rating that has differences to the base aircraft requiring difference training or familiarisation training.

(3) Credit means the recognition of training, checking or recent experience based on commonalities between aircraft. For substantiation of the credits ODR tables or other appropriate documentation for comparison of the relevant aircraft characteristics may be provided.

(4) Operator difference requirements (ODRs) mean a formal description of differences between types or variants flown by a particular operator.

3.2 Philosophy

3.2.1 The concept of operating more than one type or variant depends upon the experience, knowledge and ability of the operator and the flight crew concerned.

3.2.2 The first consideration is whether or not aircraft types or variants are sufficiently similar to allow the safe operation of both.

3.2.3 The second consideration is whether or not the types or variants are sufficiently similar for the training, checking and recent experience. All training, checking and recent experience requirements should be completed independently for each type or variant.

3.3 Methodology – Use of Operator Difference Requirement (ODR) Tables

3.3.1 Before assigning flight crew members to operate more than one type or variant of aircraft, the operator should conduct a detailed evaluation of the differences or similarities of the aircraft concerned in order to establish appropriate procedures or operational restrictions. This evaluation should take into account of the following:

(i) the level of technology;

(ii) operational procedures; and

(iii) handling characteristics.

3.3.2 The methodology described below should be used as a means of evaluating aeroplane differences and similarities to justify the operation of more than one type or variant, and when credit is sought.

3.3.3 ODR tables

3.3.3.1 Before requiring flight crew members to operate more than one type or variant, operators should first nominate one aircraft as the base aircraft from which to show differences with the second aircraft type or variant, the 'difference aircraft', in terms of technology (systems), procedures, pilot handling and aircraft management. These differences, known as operator difference requirements (ODR), preferably presented in tabular format, constitute part of the justification for operating more than one type or variant and also the basis for the associated differences/familiarisation or reduced type rating training for the flight crew.

3.3.4 The ODR tables should be presented as follows:

GENERAL OPERATOR DIFFERENCES REQUIREMENTS TABLE										
DIFFERENCE AIRCRAFT: **BASE AIRCRAFT:**				**COMPLIANCE METHOD**						
				TRAINING					**CHKG/CURR**	
General	**Differences**	**Flt char**	**Proc chg**	**A**	**B**	**C**	**D**	**E**	**FLT CHK**	**REC EXP**
GENERAL	Range ETOPs Certified	No	Yes		CBT					
DIMENTIONS	Configuration per AFM, FCOM	Yes	No		CBT					

SYSTEM OPERATOR DIFFERENCES REQUIREMENTS TABLE										
DIFFERENCE AIRCRAFT: **BASE AIRCRAFT:**				**COMPLIANCE METHOD**						
				TRAINING					**CHKG/CURR**	
System	**Differences**	**Flt char**	**Proc chg**	**A**	**B**	**C**	**D**	**E**	**FLT CHK**	**REC EXP**
21 – AIR CONDITIONING	CONTROLS AND INDICATORS: - Panel layout	No	Yes							
21 – AIR CONDITIONING	PACKS: - Switch type - Automatically controlled - Reset switch for both packs	No	Yes		CBT					

MANEUVER OPERATOR DIFFERENCES REQUIREMENTS TABLE										
DIFFERENCE AIRCRAFT: **BASE AIRCRAFT:**				**COMPLIANCE METHOD**						
				TRAINING					**CHKG/CURR**	
Manoeuvre	**Differences**	**Flt char**	**Proc chg**	**A**	**B**	**C**	**D**	**E**	**FLT CHK**	**REC EXP**
Exterior Preflight	Minor differences	No	No							
Preflight	Differences due to systems, ECL	No	Yes		CBT	FTD				
Normal takeoff	FBW handling vs Conventional; AFDS TAKEOFF: - Autothrottle engagement FMA indications	No	Yes		CBT			FFS		

3.3.5 Compilation of ODR Tables

3.3.5.1 ODR 1: General

The general characteristics of the candidate aircraft are compared with the base aircraft with regard to:

(A) general dimensions and aircraft design (number and type of rotors, wing span or category);

(B) flight deck general design;

(C) cabin layout;

(D) engines (number, type and position);

(E) limitations (flight envelope).

3.3.5.2 ODR 2: Systems

Consideration is given to differences in design between the candidate aircraft and the base aircraft. For this comparison the Air Transport Association (ATA) 100 index is used. This index establishes a system and subsystem classification and then an analysis performed for each index item with respect to the main architectural, functional and operations elements, including controls and indications on the systems control panel.

3.3.5.3 ODR 3: Manoeuvres

Operational differences encompass normal, abnormal and emergency situations and include any change in aircraft handling and flight management. It is necessary to establish a list of operational items for consideration on which an analysis of differences can be made.

The operational analysis should take the following into account:

(A) flight deck dimensions (size, cut-off angle and pilot eye height);

(B) differences in controls (design, shape, location and function);

(C) additional or altered function (flight controls) in normal or abnormal conditions;

(D) handling qualities (including inertia) in normal and in abnormal configurations;

(E) aircraft performance in specific manoeuvres;

(F) aircraft status following failure;

(G) management (e.g. ECAM, EICAS, navaid selection, automatic checklists).

3.3.5.4 Once the differences for ODR 1, ODR 2 and ODR 3 have been established, the consequences of differences evaluated in terms of flight characteristics (FLT CHAR) and change of procedures (PROC CHNG) should be entered into the appropriate columns.

3.3.5.5 Difference Levels - crew training, checking and currency

(A) The final stage of an operator's proposal to operate more than one type or variant is to establish crew training, checking and currency requirements. This may be established by applying the coded difference levels from the Table at paragraph 3.3.5.7 to the compliance method column of the ODR Tables.

(B) Differences items identified in the ODR tables as impacting flight characteristics, or procedures, should be analysed in the corresponding ATA section of the ODR manoeuvres. Normal, abnormal and emergency situations should be addressed accordingly.

3.3.5.6 Difference Levels

3.3.5.6.1 Difference levels — General

3.3.5.6.2 Difference levels are used to identify the extent of difference between a base and a candidate aircraft with reference to the elements described in the ODR tables. These levels are proportionate to the differences between a base and a candidate aircraft. A range of five difference levels in order of increasing requirements, identified as A through E, are each specified for training, checking, and currency.

3.3.5.6.3 Difference levels apply when a difference with the potential to affect flight safety exists between a base and a candidate aircraft. Differences may also affect the knowledge, skills, or abilities required from a pilot. If no differences exist, or if differences exist but do not affect flight safety, or if differences exist but do not affect knowledge, skills, or abilities, then difference levels are neither assigned nor applicable to pilot qualification. When difference levels apply, each level is based on a scale of differences related to design features, systems, or manoeuvres. In assessing the effects of differences, both flight characteristics and procedures are considered since flight characteristics address handling qualities and performance, while procedures include normal, non-normal and emergency items.

3.3.5.6.4 Levels for training, checking, and currency are assigned independently, but are linked depending on the differences between a base and candidate aircraft. Training at level E usually identifies that the candidate aircraft is a different type to the base aircraft.

3.3.5.7 Difference levels are summarised in the table below regarding training, checking, and currency.

DIFFERENCE LEVEL	TRAINING	CHECKING	CURRENCY
A	Self-instruction	Not applicable or integrated with next proficiency check	Not applicable
B	Aided instruction	Task or system check	Self-review
C	System devices	Partial proficiency check using qualified device	Designated system
D	Manoeuvre Training Devices[1] or aircraft to accomplish specific manoeuvres	Partial proficiency check using qualified device[1]	Designated manoeuvre(s)[1]
E	FSTDs[2] or aircraft	Proficiency check using FSTDs[2] or aircraft	As per regulation, using FSTDs[2] or aircraft

Footnote (1):

- *Aeroplane: FTD Level 2, or FFS, or aeroplane*
- *Helicopter: FTD Level 2 and 3, or FFS, or helicopter*

Footnote (2):

- *Aeroplane: FFS Level C or D, or aeroplane*
- *Helicopter: FSTD'S having dual qualification: FFS Level B and FTD Level 3, or FFS Level C or D, or helicopter*

Training Levels A and B require familiarisation training, levels C and D require differences training. Training Level E means that differences are such that type rating training is required.

3.3.5.8 Difference level — Training

3.3.5.8.1 The training differences levels specified represent the minimum requirements. Devices associated with a higher difference level may be used to satisfy a training differences requirement.

3.3.5.9 Level A training

3.3.5.9.1 Level A differences training is applicable to aircraft with differences that can adequately be addressed through self-instruction. Level A training represents a knowledge requirement such that once appropriate information is provided, understanding and compliance can be assumed to be demonstrated.

3.3.5.9.2 Training needs not covered by level A training may require level B training, or higher, depending on the outcome of the evaluations described in the aircraft evaluation process.

3.3.5.10 Level B training

3.3.5.10.1 Level B differences training is applicable to aircraft with system or procedure differences that can adequately be addressed through aided instruction.

3.3.5.10.2 At level B aided instruction it is appropriate to ensure pilot understanding, emphasise issues, provide a standardised method of presentation of material, or to aid retention of material following training.

3.3.5.11 Level C training

3.3.5.11.1 Level C differences training can only be accomplished through the use of devices capable of systems training.

3.3.5.11.2 Level C differences training is applicable to variants having 'part task' differences that affect skills or abilities as well as knowledge. Training objectives focus on mastering individual systems, procedures, or tasks, as opposed to performing highly integrated flight operations and manoeuvres in 'real time'. Level C may also require self-instruction or aided instruction of a pilot, but cannot be adequately addressed by a knowledge requirement alone. Training devices are required to supplement instruction to ensure attainment or retention of pilot skills and abilities to accomplish the more complex tasks, usually related to operation of particular aircraft systems.

3.3.5.11.3 The minimum acceptable training media for level C is interactive computer-based training, cockpit systems simulators, cockpit procedure trainers, part task trainers [such as Inertial Navigation System (INS), Flight Management System (FMS), or Traffic Collision Avoidance System (TCAS) trainers], or similar devices.

3.3.5.12 Level D training

3.3.5.12.1 Level D differences training can only be accomplished with devices capable of performing flight manoeuvres and addressing full task differences affecting knowledge, skills, or abilities.

3.3.5.12.2 Devices capable of flight manoeuvres address full task performance in a dynamic 'real time' environment and enable integration of knowledge, skills and abilities in a simulated flight environment, involving combinations of operationally oriented tasks and realistic task loading for each relevant phase of flight. At level D, knowledge and skills to complete necessary normal, non-normal and emergency procedures are fully addressed for each variant.

3.3.5.12.3 Level D differences training requires mastery of interrelated skills that cannot be adequately addressed by separate acquisition of a series of knowledge areas or skills that are interrelated. However, the differences are not so significant, that a full type rating training course is required. If demonstration of interrelationships between the systems was important, the use of a series of separate devices for systems training would not suffice. Training for level D differences requires a training device that has accurate, high fidelity integration of systems and controls and realistic instrument indications. Level D training may also require manoeuvre visual cues, motion cues, dynamics, control loading or specific environmental conditions. Weather phenomena such as low visibility operations or wind shear may or may not be incorporated. Where simplified or generic characteristics of an aircraft type are used in devices to satisfy level D difference training, significant negative training cannot occur as a result of the simplification.

3.3.5.12.4 Appropriate devices, satisfying level D differences training range from those where relevant elements of aircraft flight manoeuvring, performance, and handling qualities are incorporated. The use of a Manoeuvre Training Device or aircraft is limited for the conduct of specific manoeuvres or handling differences, or for specific equipment or procedures.

3.3.5.13 Level E training

3.3.5.13.1 Level E differences training is applicable to candidate aircraft having such a significant 'full task' differences that a full type rating training course or a type rating training course with credit for previous experience on similar aircraft types is required to meet the training objectives.

3.3.5.13.2 The training requires a 'high fidelity' environment to attain or maintain knowledge, skills, or abilities that can only be satisfied by the use of FSTDs or the aircraft itself. Level E training, if done in an aircraft, should be modified for safety reasons where manoeuvres can result in a high degree of risk.

3.3.5.13.3 When level E differences training is assigned, suitable credit or constraints may be applied for knowledge, skills or abilities related to other pertinent aircraft types and specifies the relevant subjects, procedures or manoeuvres.

3.3.5.14 Difference level — Checking

3.3.5.14.1 Differences checking addresses any pertinent pilot testing or checking. Initial and recurrent checking levels are the same unless otherwise specified.
It may be possible to satisfactorily accomplish recurrent checking objectives in devices not meeting initial checking requirements. In such instances the applicant may propose for revalidation checks the use of certain devices not meeting the initial check requirements.

3.3.5.15 Level A checking

3.3.5.15.1 Level A differences checking indicates that no check related to differences is required at the time of differences training. However, a pilot is responsible for knowledge of each variant flown.

3.3.5.16 Level B checking

3.3.5.16.1 Level B differences checking indicates that a 'task' or 'systems' check is required following initial and recurring -training.

3.3.5.17 Level C checking

3.3.5.17.1 Level C differences checking requires a partial check using a suitable qualified device. A partial check is conducted relative to particular manoeuvres or systems.

3.3.5.18 Level D checking

3.3.5.18.1 Level D differences checking indicates that a partial proficiency check is required following both initial and recurrent training. In conducting the partial proficiency check, manoeuvres common to each variant may be credited and need not be repeated. The partial proficiency check covers the specified particular manoeuvres, systems, or devices. Level D checking is performed using scenarios representing a 'real time' flight environment and uses qualified devices permitted for level D training or higher.

3.3.5.19 Level E checking

3.3.5.19.1 Level E differences checking requires that a full proficiency check be conducted in FSTDs or in an aircraft, following both initial and recurrent training. If appropriate, alternating Level E checking between relevant aircraft is possible and credit may be defined for procedures or manoeuvres based on commonality.
Assignment of level E checking requirements alone, or in conjunction with level E currency, does not necessarily result in assignment of a separate type rating.

3.3.5.20 Difference level — Currency

3.3.5.20.1 Differences currency addresses any currency and re-currency levels. Initial and recurrent currency levels are the same unless otherwise specified.

3.3.5.21 Level A currency

3.3.5.21.1 Level A currency is common to each aircraft and does not require separate tracking. Maintenance of currency in any aircraft suffices for any other variant within the same type rating.

3.3.5.22 Level B currency

3.3.5.22.1 Level B currency is 'knowledge-related' currency, typically achieved through self-review by individual pilots.

3.3.5.23 Level C currency

(A) Level C currency is applicable to one or more designated systems or procedures, and relates to both skill and knowledge requirements. When level C currency applies, any pertinent lower level currency is also to be addressed.

(B) Re-establishing level C currency

When currency is lost, it may be re-established by completing required items using a device equal to or higher than that specified for level C training and checking.

3.3.5.24 Level D currency

(A) Level D currency is related to designated manoeuvres and addresses knowledge and skills required for performing aircraft control tasks in real time with integrated use of associated systems and procedures. Level D currency may also address certain differences in flight characteristics including performance of any required manoeuvres and related normal, non-normal and emergency procedures. When level D is necessary, any pertinent lower level currency is also to be addressed.

(B) Re-establishing level D currency

When currency is lost, currency may be re-established by completing pertinent manoeuvres using a device equal to or higher than that specified for level D differences training and checking.

3.3.5.25 Level E currency

3.3.5.25.1 Level E currency requires that recent experience requirements and operational requirements be complied with in each aircraft separately. Level E currency may also specify other system, procedure, or manoeuvre currency item(s) necessary for safe operations, and requires procedures or manoeuvres to be accomplished in FSTDs or in an aircraft. Provisions are applied in a way which addresses the required system or manoeuvre experience.

3.3.5.25.2 When level E is assigned between aircraft of common characteristics, credit may be permitted. Assignment of level E currency requirements does not automatically lead to a determination on same or separate type rating. Level E currency is tracked by a means that is acceptable to the competent authority.

3.3.5.26 Re-establishing level E currency

3.3.5.26.1 When currency is lost, currency may be re-established by completing pertinent manoeuvres using a device specified for level E differences training and checking.

3.3.5.27 Competency regarding non-normal and emergency procedures — Currency

3.3.5.27.1 Competency for non-normal and emergency manoeuvres or procedures is generally addressed by checking requirements. Particular non-normal and emergency manoeuvres or procedures may not be considered mandatory for checking or training. In this situation it may be necessary to periodically practice or demonstrate those manoeuvres or procedures specifying currency requirements for those manoeuvres or procedures.

CHAPTER 38

PERFORMANCE-BASED NAVIGATION (PBN) - OPERATIONAL APPROVAL PROCES

1.0 PURPOSE

The key to successful PBN implementation is knowledge and experience. In many States, operators and regulators lack both. Our country is not excluded, however, with the aid of our handbook and ICAO documents, we will navigate our way through. Inspectors and operators can benefit by acquainting themselves of the contents of the NCAA Procedure Manual “Performance Based Navigation Operational Approval”.

2.0 Reference Regulations

Nig. CARs 8.8.1.36, NCAA Procedure Manual ‘Performance Based Navigation Operational Approval’

ICAO Doc. 9613 (Performance-Based Navigation Manual) and ICAO Doc. 9997 (Performance-Based Navigation Operational Approval Manual).

3.0 INTRODUCTION

Conventional navigation is dependent upon ground-based radio navigation aids. It has been the mainstay of aviation for as long as any of us have been in aviation.

Performance-based navigation (PBN) detailed in ICAO Doc 9613 is based upon area navigation principles. The PBN concept is intended to better define the use of area navigation systems and is expected to replace many of the existing conventional navigation routes within the next few years.

The fundamentals of PBN operations are relatively straightforward, and operational approval need not be a complicated process for either applicant or regulator. However, the transition to new technology, new navigation and new operational concepts and the dependence on data-driven operations require careful management.

An Application Form is provided to guide the Operator. Sections 1 and 2 shall be completed, while section 3 provides a submission matrix. Relevant documents shall be attached with the application.

Job Aids are available for the guidance of the Operators and for the use of Inspectors to assess the application for each Navigation Specification.

4.0 RNAV and RNP

The PBN concept is mainly about transitioning from conventional navigation to performance-based navigation. Area navigation is abbreviated RNAV which comes with different Navigation Specifications. Area navigation that includes the performance monitoring and alerting requirements is designated as RNP, Required Navigation Performance. These specifications are proceeded by a number indicating the accuracy requirements.

5.0 NAVIGATION SPECIFICATIONS

Flight Phase								
Navigation specification	*En-route oceanic/ remote*	*En-route continental*	*Arrival*	*Approach*				*Departure*
				Initial	*Intermediate*	*Final*	*Missed*	
RNAV 10	10							
RNAV 5[a]		5	5					
RNAV 2		2	2					2
RNAV 1		1	1	1	1		1[b]	1
RNP 4	4							
RNP 2	2	2						
Advanced RNP[c]	2[d]	2 or 1	1	1	1	0.3	1[b]	1
RNP 1			1[e]	1	1		1[b]	1[e]
RNP 0.3[f]		0.3	0.3	0.3	0.3	—	0.3[b]	0.3
RNP APCH				1	1	0.3[g]	1[b] or 0.3[h]	
RNP AR APCH				1-0.1	1-0.1	0.3-0.1	1-0.1[i]	

6.0 APPROVAL PROCESS

The approval process should consist of the following phases:

6.1 Step 1 – Pre-Application Phase

The operator initiates the approval process by reviewing the requirements; establishing that the aircraft, the operating procedures, the maintenance procedures and the training meet the requirements; and developing a written proposal to the regulator. If the proposed application is complex, the operator may need to obtain advice and assistance from OEMs or other design organisations, training establishments, data providers etc.

6.2 Step 2 – Formal Application Phase

The operator submits a formal, written application for approval to the CAA, which appoints a project manager either for the specific approval or generally for PBN approvals.

6.3 Step 3 – Document Evaluation Phase

The CAA project manager evaluates the formal, written application for approval to determine if all the requirements are being met. If the proposed application is complex, the project manager may need to obtain advice and assistance from headquarters, regional agencies or experts in other States.

6.4 Step 4 – Demonstration and Inspection Phase

During a formal inspection by the project manager (assisted as necessary by a CAA team), the operator demonstrates how the requirements are being met.

6.5 Step 5 – Approval Phase

Following a successful formal inspection by the CAA, approval is given via:
a) an Operations Specification (OpSpec), associated with the Air Operator's Certificate (AOC); or
c) a Letter of Authorisation (LOA) for General Aviation Operators.

7.0 CERTIFICATION AND OPERATIONAL APPROVAL

7.1 OVERVIEW

The PBN concept requires that the aircraft meets certain airworthiness certification standards, including the necessary navigation system performance and functionality, to be eligible for a particular application and that the operator has operational approval from an appropriate regulatory body before the system can be used. A PBN navigation specification operational approval is an approval that authorizes an operator to carry out defined PBN operations with specific aircraft in designated airspace. The operations approval for an operator may be issued when the operator has demonstrated to the regulatory authority of the State of Registry/State of the Operator that the specific aircraft are in compliance with the relevant airworthiness standard and that the continued airworthiness and flight operations requirements are satisfied.

- The Airworthiness element ensures that the aircraft meets the aircraft eligibility and safety requirements for the functions and performance defined in the navigation specifications and the installation meets the relevant airworthiness standards.

- The continued airworthiness element of the operational approval is not directly addressed in the PBN Manual since it is inherent in the aircraft airworthiness approval through the airworthiness requirements, but the operator is expected to be able to demonstrate that the navigation system will be maintained compliant with the type design.

- The flight operations element considers the operator's infrastructure for conducting PBN operations and flight crew operating procedures, training and competency demonstrations. This element also considers the operator's MEL, operations manual, checklists, instrument flight procedure approval processes, navigation database validation procedures, dispatch procedures, etc

7.2 OPERATIONAL APPROVAL

Operational approval is usually the responsibility of the regulatory authority of the state of Operator for commercial operations and state of Registry for general aviation operations.

The operational approval assessment must take account of the following:

a) aircraft eligibility and airworthiness compliance;

b) operating procedures for the navigation system used;

c) control of operating procedures (documented in the operations manual);

d) flight crew initial training and competency requirements and continued competency requirements;

e) dispatch training requirements; and

f) control of navigation database procedures. Where a navigation database is required, operators need to have documented procedures for the management of such database.

7.3 AIRCRAFT ELIGIBILITY

An aircraft is eligible for a particular PBN application provided there is a clear statement in:

a) the TC; or

b) the STC; or

c) the associated documentation - AFM or equivalent document; or

d) a compliance statement from the manufacturer, which has been approved by the State of Design and accepted by the State of Registry or the State of the Operator, if different.

The operator must have a configuration list detailing the pertinent hardware and software components and equipment used for the PBN operation.

7.4 OPERATING PROCEDURES

Standard operating procedures (SOPs) must be developed to cover both normal and non-normal (contingency) procedures for the systems used in the PBN operation. The SOPs must address:

a) pre-flight planning requirements including the MEL and, where appropriate, RNP/RAIM prediction;

b) actions to be taken prior to commencing the PBN operation;

c) actions to be taken during the PBN operation; and

d) actions to be taken in the event of a contingency, including the reporting to the operator and to the CAA of significant incidents such as:

1. navigation errors not associated with transitions from an initial navigation mode to a radio navigation mode;
2. unexpected deviations in lateral or vertical flight path attributed to in correct navigation data;
3. significant misleading information without failure warning;
4. total loss or multiple failures of the PBN navigation equipment; or
5. problems with ground navigation facilities leading to significant navigation errors.

General Aviation pilots must ensure that they have suitable procedures/checklists covering all these areas.

7.5 CONTROL OF OPERATING PROCEDURES

The SOPs must be adequately documented in the operations manual for commercial air operators of large or turbojet aircraft. For general aviation operators where operations manual is not required, the PBN operating procedures must still be documented.

7.6 FLIGHT CREW AND DISPATCH TRAINING AND COMPETENCY

A flight crew training programme and, if applicable, a dispatch training programme must cover all the tasks associated with the PBN operation as well as provide sufficient background to ensure a comprehensive understanding of all aspects of the operation.

7.7 CONTROL OF NAVIGATION DATABASE PROCEDURES

Navigation database are required for all PBN navigation specifications except RNAV 10 and RNAV 5. The procedures for maintaining currency, checking for errors to the navigation database supplier must be documented in the operations and maintenance manual.

8.0 CERTIFICATION STANDARDS

NAVIGATION SPECIFICATION	***EASA***	***FAA***
RNAV 10	AMC 20-12	Order 8400.12( )
RNAV 5	AMC 20-4	AC 90-96( )
RNAV 1 & RNAV 2	TGL 10	AC 90-100( )
RNP 4	No document	Order 8400.33
RNP 1	No document	AC 90-105
RNP APCH (LNAV)	AMC 20-27	AC 90-105
RNP APCH (LNAV/VNAV)	AMC 20-27	AC 90-105
RNP APCH (LPV)	AMC 20-28	AC 90-107
RNP AR APCH	AMC 20-26	AC 90-105

Use this table as guidance for required documents supplied by the Operator as attachments with the application.

OPERATIONS CHECKLISTS

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

DEVELOPED & REVIEWED FLIGHT OPERATIONS CHECKLISTS (CL)

ITEMS	CHECKLIST (CL) NO.	SUBJECT
1.	O-OPS 001	FLIGHT DECK RAMP INSPECTION
2.	O-OPS 001A	AIRCRAFT CABIN RAMP INSPECTION
3.	O-OPS 002	CABIN ENROUTE INSPECTION
4.	O-OPS 003	FLIGHT DECK ENROUTE INSPECTION
5.	O-OPS 004	OPERATIONAL CONTROL INSPECTION
6.	O-OPS 005	TRAINING PROGRAMME APPROVAL CHECKLIST
7.	O-OPS 005A	TRAINING PROGRAMME INSPECTION CHECKLIST
8.	O-OPS 006	APPROVAL OF OPERATOR'S MASS AND BALANCE CONTROL PROGRAMME CHECKLIST
9.	O-OPS 007	APPROVAL AND ACCEPTANCE OF THE AIRCRAFT OPERATING MANUAL (AOM) CHECKLIST
10.	O-OPS 008	APPROVAL AND ACCEPTANCE OF MINIMUM EQUIPMENT LISTS (MELS) AND CONFIGURATION DEVIATION LISTS (CDLS) CHECKLIST
11.	O-OPS 009	AIRCRAFT ACCEPTANCE/OPERATIONS INSPECTION
12.	O-OPS 010	CARRY-ON BAGGAGE PROGRAMME CHECKLIST
13.	O-OPS 011	EXIT SEATING PROGRAMME JOB AID
14.	O-OPS 012	CABIN CREW MANUAL INSPECTION CHECKLIST
15.	O-OPS 013	APPROVED RVSM OPERATIONS PROGRAMME CHECKLIST
16.	O-OPS 014	EMERGENCY EVACUATION/DITCHING DEMONSTRATION REPORT FRONT AND BACK PAGES
17.	O-OPS 015	REVIEWING AN APPLICANT'S PLAN FOR DEMONSTRATION FLIGHTS CHECKLIST
18.	O-OPS 015A	AN APPLICANT'S REQUEST FOR AN EXEMPTION FROM THE REQUIRED DEMONSTRATION FLIGHT HOURS
19.	O-OPS 015B	EVALUATION OF DEMO FLIGHT
20.	O-OPS 016	APPROVED MNPS OPERATIONS PROGRAMME CHECKLIST
21.	O-OPS 017	FLIGHT CREW TRAINING INSPECTION
22.	O-OPS 017A	CABIN CREW TRAINING INSPECTION
23.	O-OPS 017B	MULTI-PILOT/CREW PROFICIENCY CHECK
24.	O-OPS 017C	GROUND OPERATIONS INSPECTION
25.	O-OPS 018	CREW FLIGHT DUTY AND REST RECORDS
26.	O-OPS 018A	FLIGHT CREW QUALIFICATIONS RECORDS INSPECTION
27.	O-OPS 018B	CABIN CREW RECORDS CHECK SUMMARY

28.	O-OPS 018C	INSPECT FLIGHT PREPARATION RECORDS
29.	O-OPS 019	STATION INSPECTION
30.	O-OPS 019A	SCHEDULED SERVICES AIRPORT INSPECTION
31.	O-OPS 019B	GROUND HANDLING SERVICE PROVIDER (GHSP) STATION INSPECTION
32.	O-OPS 020	REVIEW OF MANUAL CONTAINING SIMULATOR/ TRAINING DEVICE PROCESS CHECKLIST
33.	O-OPS 020A	EVALUATE ADDITION OF SAME MAKE/MODEL AIRCRAFT
34.	O-OPS 020B	CURSORY REVIEW OF MANUALS
35.	O-OPS 020C	EVALUATE OPERATIONS MANUAL PART A
36.	O-OPS 021	CHECK PILOT (AUTHORIZATION, RENEWAL OF AUTHORIZATION, OR INSPECTION)
37.	O-OPS 021A	EVALUATE TRAINING AND CHECKING MANUAL
38.	O-OPS 021B	EVALUATE GROUND OPERATIONS MANUAL
39.	O-OPS 021C	EVALUATE DISPATCH MANUAL
40.	O-OPS 021D	EVALUATE SECURITY MANUAL
41.	O-OPS 021E	EVALUATE FLIGHT DISPATCHER TRAINING MANUAL
42.	O-OPS 022	BASE INSPECTION
43.	O-OPS 022A	OPERATIONS MANAGEMENT SUPPORT
44.	O-OPS 022B	GROUND HANDLING SERVICE PROVIDER (GHSP) BASE INSPECTION
45.	O-OPS 023	CARRIAGE OF DANGEROUS GOODS CHECKLIST
46.	O-OPS 024	FLIGHT CREW BASIC INDOCTRINATION TRAINING SUBJECT AREA 1 – OPERATOR-SPECIFIC TRAINING CHECKLIST
47.	O-OPS 025	COMMERCIAL AGRICULTURAL AIRCRAFT OPERATOR
48.	O-OPS 025A	COMMERCIAL BANNER TOWING
49.	O-OPS 025B	EVALUATION OF SAFETY MANUAL
50.	O-OPS 026	MANAGEMENT PERSONNEL EVALUATION CHECKLIST
51.	O-OPS 027	HELICOPTER EXTERNAL LOAD OPERATIONS INSPECTION AND DEMO
52.	O-OPS 028	ORGANIZATION STRUCTURE, STAFFING AND ADMINISTRATIVE FACILITIES CHECKLIST
53.	O-OPS 029	PROJECT MANAGER'S COMPLETION CERTIFICATE
54.	O-OPS 030	PASSENGER HANDLING AND PUBLIC SAFETY INSPECTION
55.	O-OPS 031	EVALUATION OF EXTENDED DIVERSION TIME OPERATIONS (EDTO)
56.	O-OPS 032	ASI OJT PROGRESS CHART
57.	O-OPS 033	EVALUATE FLIGHT SIM STANDARDS

58.	O-OPS 034	AIR OPERATOR CERTIFICATE CHECKLIST
59.	O-OPS 035	FOREIGN AIRCRAFT SAFETY ASSESSMENT PROG
60.	O-OPS 036	RESERVED
61.	O-OPS 037	EVALUATION OF ROUTE MANUAL
62.	O-OPS 038	EVALUATION OF QUALITY MANUAL
63.	O-OPS 039	ADDING AIRCRAFT TO OPERATIONS SPECIFICATIONS JOB AID
64.	O-OPS 040	FLIGHT DISPATCHER RAMP CHECKLIST
65.	O-OPS 040A	GROUND HANDLING SERVICE PROVIDER (GHSP) RAMP INSPECTION
66.	O-OPS 041	DANGEROUS GOODS SURVEILLANCE CHECKLIST
67.	O-OPS 042	EVALUATION OF SAFETY MANAGEMENT SYSTEM MANUAL
68.	O-OPS 043	RESERVED
69.	O-OPS 044	PERSONNEL AUTHORIZATION FOR PRECISION APPROACH DOWN TO CAT II/CAT III ILS
70.	O-OPS 045	ELECTRONIC FLIGHT BAGS (EFB)
71.	O-OPS 046	FATIGUE RISK MANAGEMENT SYSTEM
72.	O-OPS 046A	REVIEW OF FRMS IMPLEMENTATION PLAN
73.	O-OPS 046B	REVIEW OF INITIAL FRMS POLICY AND DOCUMENTATION
74.	O-OPS 046C	REVIEW OF INITIAL FRMS PROCESS
75.	O-OPS 046D	VALIDATION OF FRMS SAFETY ASSURANCES PROCESSES
76.	O-OPS 046E	FRMS OVERSIGHT
77.	O-OPS 047	RESERVED
78.	O-OPS 048	RESERVED
79.	O-OPS 049	RESERVED
80.	O-OPS 050	INSPECTION REPORT

NIGERIAN CIVIL AVIATION AUTHORITY

AVIATION HOUSE

P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS 001 FLIGHT DECK RAMP INSPECTION

Instructions for Use:

1. Check `**S**' column if you reviewed the record, procedure or event and it is `**Satisfactory'**.
2. Check `**U**' column if you reviewed the record, procedure or event and it is `**Unsatisfactory'**.
3. Check **NS** (**not seen**) column if you did not review the record, procedure or event or you do not have adequate information to make a valid comment.
4. Check **NA** (**not applicable**) column, if the line item is not required in this particular situation.
5. 'Enter any notes on reverse side regarding a 'U' answer for transfer to the Safety Issues Resolution Report.
6. For later reference, precede any notes with the appropriate question number.

a. Airline:…… Location:…….....

b. Aircraft Type…… Aircraft Registration:……

c. Flight No……Route:…… Date:……..

d. Captain:…… Lic. No:……..
Medical Exp……

e. First Officer:…….. Lic. No:……..
Medical Exp……

f. Flight Engineer…… Lic. No:……..
Medical Exp……

g. Purser:…… Lic. No:……..

h. Maintenance Personnel…… Lic. No:……..

***Enter fuel gauge readings*:**

LEFT:		**CTR:**		**RIGHT:**	
TOTAL:					

S/N	**FLIGHT CREW CERTIFICATES & EQUIPMENT**	S	**U**	**NS**	NA
1	Pilot or flight engineer certificate appropriate for assigned duties?				
2	Medical certificate appropriate for assigned duties?				
3	Torch for each crewmember.				
4	Individual aeronautical computing device?				
5	Proper glasses for vision (including a spare set)?				
	DOCUMENTS TO BE CARRIED	**S**	**U**	**NS**	**NA**
6	Certificate of Registration				
7	Certificate of Airworthiness				
8	Noise Certificate (if applicable)				
9	Air Operator Certificate				
10	Aircraft Radio License				
11	Third Party Liability Insurance Certificate				
	COMPANY PROCEDURES MANUALS	**S**	**U**	**NS**	**NA**
12	Current Flight Operations Manuals				
13	Current manual operational procedures for area navigation?				
	AIRCRAFT-SPECIFIC CHECKLISTS & MANUALS AVAILABLE	**S**	**U**	**NS**	**NA**
14	Condensed normal operations checklists for all crewmembers?				
15	Condensed emergency and abnormal checklist readily available?				
16	Details of the aircraft systems and limitations?				
17	Manufacturers Pilot Operating Handbook?				
18	Manufacturers Flight Crew Operating Manual?				
19	Company Aircraft Operating Manual?				
20	Approved Flight Manual (for specific aircraft serial number)?				
21	Runway analysis manual (or AFM charts and obstacle survey data?				
22	Performance and planning manual (or AFM section)?				
23	MEL/CDL?				
24	Loading manual (or ops manual section)?				
25	Refueling manual (or ops manual section)?				

	FLIGHT PLANNING	S	U	NS	NA
26	Operational Flight Plan (manual or computer) correctly calculated using appropriate routing, weather, fuel burn and contingency information?				
27	Redispatch planned or executed properly?				
28	“Master” flight plan designated and used?				
29	ATS Flight Plan filed?				
30	Navigation Log completed in accordance with specifications				
31	“Standard” flight plan (supported by operational conditions)?				
32	Weather reports, forecasts, charts appropriate and valid for flight?				
33	Alternate airports identified in flight planning?				
	CURRENT NAVIGATION INFORMATION AND EQUIPMENT	**S**	**U**	**NS**	**NA**
34	Fuel burn performance tables or graphs available?				
35	Current route guide readily available?				
36	Aeronautical information publication readily available?				
37	IFR departure navigation charts for each required pilot?				
38	IFR approach navigation charts for each required pilot?				
39	IFR enroute navigation charts for each required pilot				
40	VFR enroute navigation charts for each required pilot				
	LOADING AND SERVICING FORMS AVAILABLE	**S**	**U**	**NS**	**NA**
41	Passengers manifest (and compared)?				
42	Load Manifest appropriate to aircraft and signed by proper persons?				
43	CG takeoff (with stabilizer) and landing calculated?				
44	Takeoff limitations calculated?				
45	Dangerous goods notification?				
46	Fuel and oil servicing?				
	MAINTENANCE LOG	**S**	**U**	**NS**	**NA**
47	Appropriate maintenance release?				
48	Maintenance discrepancies properly corrected?				
49	Maintenance discrepancies properly deferred?				
50	Appropriate DMI stickers in place?				
51	Conformance with MEL dispatch procedures?				
52	Fuel uplift entered?				
53	Block-out and block-in times entered?				
54	Takeoff and landing times entered?				
	FLIGHT DECK INSTRUMENTS AND EQUIPMENT	**S**	**U**	**NS**	**NA**
55	Headsets available for all required crewmembers?				
56	Boom microphones for all required crewmembers?				
57	Microphones available for all required crewmembers?				
58	Required VHF communications radios operational?				
59	Required HF radios operational?				
60	Required navigational radios for routing available?				
61	All required flight instruments for daylight and meteorological conditions and required crew positions operational.				
62	Instrumentation properly marked?				
63	Altitude alerting system operational?				
64	Transponder and altitude reporting capability operational?				
65	Weather radar operational?				
66	GPWS operational?				
67	Cockpit voice recorder operational?				
68	Flight recorder operational?				
69	No circuit breakers popped?				
	FLIGHT DECK EMERGENCY EQUIPMENT	**S**	**U**	**NS**	**NA**
70	Operational safety harness for each required crewmember?				
71	Seatbelts and harness for all other occupants?.				
72	Quick-donning oxygen mask for each required crewmember?				
73	Regular oxygen mask for all occupants?				
74	Adequate oxygen for the flight (altitude and time)				
75	Smoke goggles for each required crewmember?				
76	PBEs for each required crewmember?				
77	First aid kit (with appropriate contents)?				

78	Medical kit (with appropriate contents)?				
79	Emergency evacuation means?				
80	Emergency locating beacon?				
81	Life vests for all occupants?				
82	Ditching raft?				
83	Crash axe?				
	SECURITY	**S**	**U**	**NS**	**NA**
84	Locking flight deck door?				
85	Bomb search checklist?				
86	Recommended bomb contingency location guidance?				
87	Firearms in the cabin notification?				
	COMPANY MAINTENANCE MANUALS	**S**	**U**	**NS**	**NA**
88	Maintenance Control Manual?				
89	Aircraft-specific Manufacturers Maintenance Manuals				
90	Aircraft flight-away kit included?				
	EXTERIOR FUSELAGE	**S**	**U**	**NS**	**NA**
91	Is the radome free of damage, cracking or bubbles?				
92	Are the pitot tubes damage free?				
93	Is the angle of attack sensor damage free?				
94	Are the antennas damage free?				
95	Are the static port areas clear and marked?				
96	Are wastewater heaters free of damage?				
97	Are Air Conditioning/Ram air inlets clear?				
98	No obvious corrosion, or dents?				
99	Visible repairs? (Note for future records check)				
	EXTERIOR EMERGENCY LIGHTS	**S**	**U**	**NS**	**NA**
100	Are exterior emergency exit markings properly painted? (Contrasting color stripping, proper width)				
101	Are exterior Emergency Exit placards clear and legible?				
102	Are the Strobe/Beacon lights working?				
	WINGS	**S**	**U**	**NS**	**NA**
103	Are leading edges damage free?				
104	Are trailing edges and under surfaces damage free?				
105	Are trailing edge devises drive assemblies greased and covers secure?				
106	No visible signs of leaks?				
	CARGO COMPARTMENTS	**S**	**U**	**NS**	**NA**
107	Are cargo areas clean and walls/sealing free of tears and/or dents?				
108	Have all repairs been made with fire resistant tape?				
109	Is a fire detection system installed?				
110	Is a fire suppression system installed?				
111	Are door nets free and operable?				
112	Are door-locking mechanisms free and clean?				
113	Are safety devices/nets clean and properly installed?				
	WHEEL WELLS	**S**	**U**	**NS**	**NA**
114	Is tire wear within limits?				
115	Is brake wear within limits?				
116	Is strut clean & properly inflated?				
117	Is linkage clean with no obvious defects?				
118	Are placards installed and legible?				
119	Is the general area clean with no fluid leaks?				
120	Are grease fittings clean and have they been recently greased?				
121	Is the truck area clean no fluid leaks?				
122	Are accumulators properly charged?				
123	Are safety devices/nets clean and properly installed?				
	PYLONS	**S**	**U**	**NS**	**NA**
124	Are pylons free of damage & leaks?				
125	Are all panels in place and secure?				
126	Are squibs properly marked and set?				
	POWERPLANTS	**S**	**U**	**NS**	**NA**
127	Are inlets clean, debris free, no blade damage				

128	Is the inlet free of pools of fluid?				
129	Are all cowl latches secured?				
130	Are reverser's properly stowed?				
131	Is the exhaust outlet clean, debris free, no blade damage?				
132	Is the exhaust outlet free of fluid?				
133	Is the ground under engine free of fluid?				
	SPECIAL AIRSPACE SATUS	**S**	**U**	**NS**	**NA**
134	Is the aircraft RVSM approval valid				
135	Is the aircraft MNPS approval valid				
136	Is the aircraft ETOPs approval valid				
137	**RESERVED**				
138	**RESERVED**				
139	**RESERVED**				
140	**RESERVED**				
141	**RESERVED**				

REMARKS & OBSERVATIONS

INSPECTOR NAME:_____ **SIGNATURE**:_____

DATE: _____

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CHECKLIST (CL) O-OPS 001A
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AIRCRAFT CABIN RAMP INSPECTION

Purpose

This inspection is to determine the condition of the passenger cabin with respect to applicable safety regulations.

Method

A. Before boarding the aircraft or performing any inspection, the inspector should coordinate with the crew as follows:

- Identify himself or herself to the captain and to the lead C/C as an NCAA inspector
- State the purpose of the inspection

B. Perform the Interior Inspection. The inspector should inspect the following, as applicable:

(1) Cabin placarding, markings, and signs (for example, exits, no smoking signs, and emergency equipment), to ensure marking legibility and the correct location.
(2) Fire extinguishers for the following:
- To verify the quantity and location
- To ensure that they are properly serviced, tagged, and stowed

(3) Portable oxygen bottles for the following:
- To verify the quantity and location
- To ensure that they are properly serviced, tagged, and stowed
- To determine the condition of the mask, tubing, and connectors

NOTE: There is no requirement that the mask/hose must be connected to the first aid oxygen bottles.

(4) Protective breathing equipment (PBE) for correct location, proper number of units, and proper stowage.

(5) First aid kits and emergency medical kits for correct number, location, and stowage.
NOTE: The NCAA requires that first aid and medical kits be sealed.

(6) Megaphones for correct number, location, general condition, and proper stowage.
(7) Overwater equipment as applicable.
(8) Passenger briefing cards, to ensure the following:

- That they are available for each passenger
- That they are appropriate to the aircraft
- That they contain the required information, to include the following:
  - Emergency exit location and operation
  - Slide use and location
  - Oxygen use
  - Seatbelt use
  - Flotation device use and location
  - Appropriate pictorials for extended overwater operations, including ditching exits, life preservers, and liferaft or slideraft in-flight location
  - Exit seating information

(9) Passenger seats, to ensure the following:

- That a reclined seat does not block emergency exits
- That the seat cushions are intact
- That the tray table latching mechanisms are operable
- That the self-contained and removable ashtrays are in serviceable condition and are available when smoking is authorized
- That each seat has a complete restraint system
- That seatbelts are operational and not frayed or twisted

(10) Passenger oxygen service units to ensure that they are closed and latched, without any extended red service indicators or pins.

(11) C/C station, to ensure the following:

- That the seat retraction/restraint system is operational and is properly secured
- That the seatbelts are operational and not frayed or twisted
- That the seat cushions are intact
- That the seat headrest is in the correct position
- That the public address (PA) system and interphone are operable
- That aircraft installed flashlight holders are indeed installed

NOTE: Flashlights are not required to be in the holders; however, when they are, they must be charged and operable.

(12) Galleys, to ensure that the following items are operable:

- The latching mechanisms (primary and secondary)
- The tiedowns
- Other galley restraints

(13) Galleys, to ensure the following:

- That the hot liquid restraint system is operable
- That the circuit breakers and water shutoff valves are accessible and properly identified
- That the cover and lining of trash receptacles fit properly
- That the nonskid floor is serviceable
- That the girt bar is clean and serviceable
- That the stationary cart tiedowns (mushrooms) are clean
- That the galley carts are in serviceable condition and properly stowed

- That, if applicable, the lower lobe galley emergency cabin floor exits are passable and not covered by carpeting

(14) Galley personnel lift (if applicable) to ensure that it does not move up or down with the doors open and that the activation switches operate properly.

(15) Lavatories, to ensure the following:
- That the placards are present and that the smoke alarm and ashtrays are present and operational
- That the trash receptacle cover and lining fit properly
- That the automatic fire extinguisher system is serviceable

(16) Stowage compartments, to ensure the following:
- That the weight restriction placards are displayed
- That the restraints and secondary latching mechanisms are operable
- That the compartments comply with stowage requirements for accessibility to emergency equipment

(17) Crew baggage, to ensure that it is properly stowed.

(18) Emergency lighting system, to ensure that all emergency lighting, including the floor proximity escape path system, is in serviceable condition (for example, no light covers should be cracked or missing)

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NIGERIAN CIVIL AVIATION AUTHORITY
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CL: O-OPS 001A AIRCRAFT CABIN RAMP INSPECTION

Instructions for Use:

1. Check **`S**' column if you reviewed the record, procedure or event and it is **`Satisfactory'**.
2. Check **`U**' column if you reviewed the record, procedure or event and it is **`Unsatisfactory'**.
3. Check **NS** (**not seen**) column if you did not review the record, procedure or event or you do not have adequate information to make a valid comment.
4. Check **NA** (**not applicable**) column, if the line item is not required in this particular situation.
5. 'Enter any notes on reverse side regarding a 'U' answer for transfer to the Safety Issues Resolution Report.
6. For later reference, precede any notes with the appropriate question number.

a. Airline:…… Location:…….....
b. Aircraft Type…… Aircraft Registration:…….
c. Flight No……Route:……...Date:……..
d. Captain:…… Lic. No:……..
Medical Exp.……
e. First Officer:…….. Lic. No:……..
Medical Exp.……
f. Flight Engineer…….. Lic. No:……..
Medical Exp.……
g. Purser:…… Lic. No:……..
h. Maintenance Personnel…… Lic. No:……..

S/N	AIRCRAFT CERTIFICATES AND LOGBOOK	S	U	NS	NA
1.	Aircraft registration certificate?				
2.	Airworthiness certificate?				
3.	Radio station license?				
4.	Aircraft and cabin logbook?				
5.	Maintenance discrepancies properly repaired or deferred?				
	PERSONNEL	**S**	**U**	**NS**	**NA**
6.	Proper crewmember or maintenance certificate(s)?				
7.	Current manuals used by crewmember and maintenance personnel?				
	GENERAL EMERGENCY EQUIPMENT	**S**	**U**	**NS**	**NA**
8.	Emergency equipment location standardized by aircraft type				
9.	Proper placarding of all emergency equipment locations?				
10.	Proper installation of emergency equipment?				
11.	Access to emergency equipment not obstructed?				
12.	Fire extinguishers – required number, approved type, location suitable, serviced and certificated OK?				
13.	First aid kit(s) - correct types, numbers and locations, properly serviced, safetied, tagged and installed?				
14.	Medical kit(s) - correct types, numbers and locations, properly serviced, safetied, tagged and installed ?				
15.	Crash ax - properly located and installed?				
16.	Life rafts – proper number, capacity and stowed as indicated on briefing card?				
17.	Signaling devices (with raft)?				
18.	Survival equipment (if required)?				
19.	Portable ELT located in a logical place?				
	COMMUNICATIONS SIGNS AND SYSTEMS	**S**	**U**	**NS**	**NA**
20.	Operational "Fasten Seatbelt" lights observable from all passenger seats?				
21.	Operational "No Smoking" lights observable from all passenger seats?				

22.	Public address system audible throughout cabin?				
23.	Interphone system operates from all locations?				
24.	Chime system operates from all locations?				
25.	Megaphone(s) -correct numbers and locations, in operable conditions and properly installed?				
	PASSENGER SEATS	**S**	**U**	**NS**	**NA**
26.	Passenger briefing cards (one at each seat position, appropriate to aircraft, required info depicted?.				
27.	Seat belts properly installed, operator and not frayed or twisted?				
28.	Self-contained and removable ashtrays?				
29.	Latching mechanism on tray tables?				
30.	Passenger seats do not obstruct ready opening of emergency exits?				
31.	Passenger seats do not recline into emergency exit aisles and access?				
32.	Emergency exit access and aisles meet the minimum width requirements?				
33.	Seat backs do not "break over" easily?				
34.	Flotation devices – proper number, readily accessible to crew and passengers, located and donned as shown on briefing card?				
35.	Life vests CO2 cartridge tagged and current?				
	CABIN CREW SEATING	**S**	**U**	**NS**	**NA**
36.	Distributed uniformly throughout cabin?				
37.	As near as practicable to emergency exits?				
38.	Each section of cabin under surveillance?				
39.	Seats equipped with harness – not frayed or twisted?				
40.	Retractable mechanism works rapidly?				
41.	Access to intercom when seated?				
42.	Access to passenger address system?				
43.	Torches at each crew station?				
44.	PBEs for cabin crew appropriately located, stowed and sealed? OXYGEN SUPPLY				
45.	Non-pressurized aircraft oxygen supplies adequate for planned flight?				
46.	Pressurized aircraft emergency oxygen supply adequate for planned flight and configuration?				
47.	Emergency oxygen mask conforms to passenger briefing card for donning and use?				
48.	Passenger oxygen service units – closed and latched with no extend read service indicators or pins?				
49.	Portable oxygen bottles (correct numbers and locations, properly serviced, tagged and installed, condition of mask, tubing and connectors?				
	EMERGENCY LIGHTING SYSTEMS?	**S**	**U**	**NS**	**NA**
50.	Emergency light system actuated from the flight deck switch?				
51.	Emergency lighting system operation independent of main system?				
52.	Floor patch light system – independent with proper lighting, bulb color?				
	NORMAL AND EMERGENCY EXITS	**S**	**U**	**NS**	**NA**
53.	Open normally without sticking?				
54.	Exit signs visible and operative?				
55.	General condition of exits and seals?				
56.	Handle mechanisms operative with opening placards and instructions?				
57.	Lights and switches operative – with guarding covers where required?				
58.	Slide girt bars and brackets – clean and not worn?				
59.	Slide or slideraft connections, visible lanyard and pressure indications?				
60.	Curtain tie-backs capable of securing curtain for takeoff and landing?				
	GALLEY (S)	**S**	**U**	**NS**	**NA**
61.	Circuit breakers accessible and clearly identified?				
62.	Water shutoff valves accessible and clearly identified?				
63.	Hot liquid restraints provide secure restraint?				
64.	Primary and secondary latching mechanisms in good working order?				

65.	Stationary cart tiedowns clean and secure?				
66.	Galley carts in good conditions and securely stowed				
67.	Trash receptacles are properly lined with secure fit of covers?				
68.	Floor is non-skid, without carpet?				
69.	Proper operation of galley personnel lift safety interlock system system?				
70.	Lower lobe galley emergency exits clear and passable?				
	STOWAGE ACCOMODATIONS	**S**	**U**	**NS**	**NA**
71.	Under-seat restraint bars – including aisle curve?				
72.	Overhead compartments with operative latching mechanisms?				
73.	Hanging bags closets with operative latching mechanisms?				
74.	All compartments placarded for weight limitations and floor loading?				
	TOILETS	**S**	**U**	**NS**	**NA**
75.	Operable smoke alarm (TSO)?				
76.	No Smoking placards and ashtray				
77.	Automatic fire extinguishing system?				
78.	Proper fit and lining of trash receptacles?				
	CABIN LAYOUT	**S**	**U**	**NS**	**NA**
79.	Passenger number not more than 5% above that for initial emergency evacuation demonstration?				
80.	No major configuration change to that in place for initial emergency demonstration?				
81.	Passenger seating does not exceed maximum number approved in type certificate?				
	CREW REST QUARTERS	**S**	**U**	**NS**	**NA**
82.	Crew seating rest area adequate (comfortable, quiet, private)				
83.	Crew berth rest quarters NCAA approved (comfortable, quiet, private)				
	MISCELLANEOUS	**S**	**U**	**NS**	**NA**
84.	Main leading gear viewing ports – clean and usable?				

REMARKS & OBSERVATIONS

INSPECTOR NAME:_____ **SIGNATURE**:_____

DATE:_____

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CHECKLIST (CL) O-OPS 002
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CABIN ENROUTE INSPECTION

Purpose

This chapter provides guidance for conducting a cabin enroute inspection to ensure that an operator's cabin safety procedures adhere to the safety regulations and safe operating practices.

Considerations for Cabin Enroute Inspections

Follow the guidelines for beginning a flight deck enroute, but

Advise the crew that you plan to occupy a spare cabin seat on an opportunity basis.

Introduce yourself to the senior cabin crew, stating your name and the purpose of the inspection.

If a seat is available, remove your ID before proceeding to the specific seat.

If there is adequate time before boarding, request the cabin crew documents for review.

Otherwise, take the seat and observe the cabin crew action without comment.

Do not complete the inspection form in a manner that is visible or noticeable to the passengers.

A general guideline is if passengers have been boarded or are in the process of emplaning or deplaning, you should not act in such a way as to distract the cabin staff from carrying out their duties. At other times and at your discretion, you may request information or ask individual cabin crews to locate and/or describe the use of items of safety equipment.

Do not delay members of the cabin staff who are required to connect with another flight or cause the aircraft to be delayed as a result of your inspection, unless you believe that essential safety items are not on board.

If you have sufficient time when passengers are not on board, before or after the flight, conduct a cabin interior ramp inspection using the appropriate checklist.

Cabin Enroute Inspection Technical Guidance

Cabin enroute inspections provide the NCAA with information concerning cabin crew (C/C) training programmes, operator procedures, and the condition and maintenance of aircraft emergency equipment and furnishings.

Cabin Enroute Inspection Areas

Three general areas have been identified for inspectors to observe and evaluate during cabin enroute inspections. Each area should be considered to be of equal importance.

The three inspection areas are as follows:

A. Cabin (Interior). The interior inspection area applies to the airworthiness of the aircraft cabin and the condition and availability of aircraft cabin emergency equipment and furnishings.
B. Crewmember. The crewmember inspection area applies to C/Cs who perform assigned safety duties during the flight. Inspectors should evaluate such items as crewmember knowledge, ability, and proficiency by directly observing C/Cs performing their assigned safety duties and functions.

NOTE: C/C trainees who are receiving operating experience should not be evaluated on the same basis as the fully qualified crewmembers.

C. Flight Conduct. The flight conduct inspection area relates to the specific phases of the flight that can be observed during the cabin enroute inspection. This includes a wide range of items, including C/C and flight crewmember coordination of the performance of duties. These types of areas can often be observed before beginning a flight, at enroute stops, or at the termination of a flight.

Initiation and Planning

(1) Inspectors conducting cabin enroute inspections should make arrangements for the inspection as far in advance of the flight as possible. Inspectors who have not provided the operator with the appropriate advance notice should not insist on a seat if the flight is full. AOC holders should not attempt to displace the inspector in favor of a passenger when notification has been provided. However, bumping a revenue passenger should only be done when there is no acceptable, alternative means of accomplishing the inspection. Inspectors are expected to exercise sound judgment in these matters.

NOTE: Inspectors will not occupy the C/C jumpseats. Only qualified crewmembers, as determined by the operator, are authorized to occupy these seats.
NOTE: Inspectors conducting an enroute inspection on aircraft with a flight deck jumpseat must occupy that position rather than displace a revenue passenger.

(2) When it is necessary to board a flight at an intermediate stop, the inspector will make every effort to advise the pilot in command (PIC), prior to boarding the flight, that a cabin enroute inspection will be conducted.

(3) The inspector must conform to the operator's approved carry-on baggage programme. If there is any concern that the inspector's carry-on baggage will exceed operator limitations, the baggage should be checked.

Performing the Cabin Enroute Inspection

The attention of the C/Cs must not be diverted from assigned duties including passenger boarding, deplaning, and inflight service. Surveillance of C/C awareness and the following of safety related procedures should continue during the flight.

A. Interior Inspection.

(1) This inspection should be performed without disturbing the boarding or deplaning of the passengers. Any discrepancies noted should be brought immediately to the attention of the lead C/C or the PIC.

(2) Crewmembers should initially be briefed to continue their assigned duties as if the inspector were not present. The inspector should then request that a crewmember provide a C/C manual and be available for a discussion relating to the crewmember's duties, at the crewmember's earliest convenience.

(3) Some operators require C/Cs to accomplish a preflight inspection of at least some of the emergency and safety equipment in the cabin. In such a case, the inspector should observe the C/C, inspect the equipment and then perform an additional inspection of selected equipment.

NOTE: An inspector can determine whether the operator requires a C/C to conduct preflight by examining the C/C manual.

(4) When a C/C preflight equipment inspection is not required by the operator or has already been performed, the inspector should inspect the equipment. If there is not enough time to inspect the emergency equipment before the flight, the inspector may choose to inspect it after the flight.

(5) Inspectors should avoid impeding the flow of passenger traffic or in any way interfering with crewmembers conducting their respective duties. Since passengers are naturally curious about an inspector's activities, it is recommended that reasonable passenger inquiries be answered in a brief, factual, and courteous manner.

B. Inflight Monitoring. This phase of the inspection includes the activities associated with boarding, predeparture, inflight, and landing. During this part of the inspection, the inspector will have the opportunity to do the following:

- Evaluate operator procedures
- Determine adherence to company policy, safety regulations, and safe operating practices
- Monitor passenger safety

C. Required Cabin crews. When regulations require C/Cs for the operation of a flight, the number of C/Cs required is based on the number of passenger seats and/or the emergency evacuation demonstration. The number of required C/Cs for each make, model and series aircraft used by the operator is listed in the operations specifications (OpSpecs).

(1) There must always be a full complement of C/Cs at originating and terminating points when passengers are on board. AOC holders may at intermediate stops, reduce the number of required C/Cs by dividing the number of C/Cs by two and rounding down. Regulations permit an operator to substitute personnel, qualified in emergency evacuation procedures for that specific aircraft, at intermediate stops. Substitute personnel must be easily identified.

(2) Additional, nonrequired, C/Cs may be used by the operator.

Deferred Maintenance

A. Minimum Equipment List (MEL), Deferred Maintenance

The operator's approved MEL allows the operator to continue a flight or series of flights with certain inoperative equipment. The continued operation must meet the requirements of the MEL deferral classification and the requirements for the equipment loss.

B. Other Deferred Maintenance

(1) Operators frequently use a system to monitor items that have previously been inspected and found to be within serviceable limits. These items are still airworthy yet warrant repair at a later time or when items no longer meet serviceable limits. This method of deferral may require repetitive inspections to ensure the continuing airworthiness of the items. Examples of items that are commonly deferred in this manner are overhead storage bins, seatbelts, and interim airworthy repairs.

(2) Passenger convenience item deferrals that are not safety or airworthiness related should be handled per the guidelines of the operator's programme. This may include a cabin log.

C. Coordinate With the Operator.

The inspector should coordinate with the operator at least 1 hour prior to the flight. While coordinating, the inspector should do the following:

(1) Identify himself or herself to the operator representative, and state that he or she is performing a cabin enroute inspection on a specific flight.

(2) Present NCAA identification and authorization to the operator representative.

(3) Obtain applicable operator boarding authorization per the airline procedures.

(4) Request access to the aircraft as soon as practical (for example, after passengers have deplaned) to meet the flight and cabin crews and perform the interior predeparture inspection, as time permits.

(5) If aircraft access is denied, the following steps should be taken by the inspector:

- Advise the operator representative of the regulation authorizing inspector access to aircraft
- Request to see the appropriate supervisor if the representative still refuses access
- Make it very clear to the operator that the denial of access is contrary to regulations and that enforcement action may be initiated
- Report the occurrence to the immediate supervisor upon return to the office, if access was not granted

D. Coordinate With the Crew.

(19) Availability of cockpit key to each crewmember.

E. Predeparture. The inspector should perform the following during predeparture:

(1) Ensure that each C/C has an operable flashlight readily available and has the appropriate up-to-date parts of a manual accessible when performing assigned duties.

(2) Ensure that any discrepancies noted during predeparture are addressed per the operator's manual.

(3) Ensure that the required number of C/Cs are aboard.

(4) Observe the C/Cs and ground personnel coordinating and supervising the boarding of passengers and properly stowing carry-on baggage.

NOTE: Ensure that the passenger-loading door is not closed until a required crewmember verifies that each piece of carry-on baggage is properly stowed. Proper stowage includes ensuring that the overhead bins are closed. Items that cannot be stowed must be processed as checked baggage.

(5) Ensure that items such as carry-on baggage and galley supplies do not cover or in any way interfere with aircraft emergency equipment in the overhead compartments.

(6) Ensure that a required crewmember verifies that passengers seated at the emergency exit seats meet the regulatory requirements.

NOTE: At some time prior to takeoff, the C/C must brief the passengers seated in the emergency exit seats on the selection criteria and their willingness and ability to perform the functions, according to the operator's approved programme.

(7) Ensure that all passengers are seated prior to any ground movements.
(8) Ensure that the C/Cs have sufficient time to take their assigned positions and to secure their restraint systems after giving the passenger briefing.
(9) Ensure that the C/C predeparture briefing is audible to all passengers and covers the following subjects:

(a) Smoking: When, where, and under what conditions smoking is prohibited, including a statement that federal law prohibits tampering with, disabling, or destroying any smoke detector in an airplane lavatory.
(b) Exit Locations: The preferred method is to physically point out exits.
(c) Seatbelt Use: Instructions on how to fasten, unfasten, and adjust seatbelts.
(d) Flotation Devices: Instructions on the location and use of required individual flotation devices.
(e) Oxygen Use: Instructions on the location of and a demonstration on the use of the oxygen mask. For non-turbojet aircraft, this briefing item must only be conducted when the flight will exceed 12,000 feet mean sea level (MSL). When this occurs, the briefing must be given prior to takeoff. For large turbojet operations, the briefing must be given prior to exceeding 25,000 feet MSL.
(f) Extended Overwater Operations: Instructions on the location, donning, and use of life preservers, liferafts (or sliderafts) and other means of flotation including a demonstration of the methods of donning and inflating a life preserver.

NOTE: The method of donning and inflating infant life preservers is usually substantially different from the method used for an adult life preserver.

(g) Special Passenger Briefings (when applicable): For persons who are handicapped or warrant some other special kind of attention, and for the individuals assisting them.

NOTE: AOC holders must include in their general briefing the location of survival equipment, when applicable, and the location and use of fire extinguishers.

G. Movement on the Surface. During movement on the surface, the inspector should do the following:

(1) Ensure that all C/Cs remain seated during the taxi unless performing safety related functions. Safety related activities can include the following:

- Passenger preparedness
- Baggage/cargo/galley stowage
- Exit readiness

(2) Ensure that each exit is closed and locked with the girt bars properly attached (if applicable).

(3) Ensure that the following items or activities are accomplished prior to takeoff:

(a) All stowage compartments are properly secured and latched.
(b) The galley is prepared as follows:

- Loose items are secured
- All serving carts are properly restrained

(c) The cockpit door is closed in accordance with the operator's manual.
(d) Passenger seatbelts are secured.
(e) Any unoccupied C/C seat restraint is properly secured for takeoff.
(f) Any other equipment is properly stowed and secured.

(4) Ensure that crewmembers observe the sterile cockpit rules.

H. Inflight Operations. During inflight operations, the inspector should do the following:

(1) Monitor the crewmembers' performance during inflight operations, to ensure the following:

(a) That during takeoff each C/C remains seated with restraint systems properly fastened.
(b) That after takeoff, before or immediately after the seatbelt illumination is shut off, an announcement is made that passengers should keep their seatbelts fastened, even when the seatbelt sign is turned off.
(c) That, if the flight is to be a smoking flight, an announcement is made that smoking is only permitted in specific rows and prohibited in the aisles and lavatories when the no smoking sign is turned off.

(2) Ensure that the following are accomplished, as applicable:

(a) Passenger compliance with seatbelt and no smoking signs.
(b) Effective crew coordination for flightcrew and cabin crewmember communications - routine and/or emergency.
(c) Turbulent air procedures are followed, including the proper restraint of serving carts, galley equipment, and compliance with instructions from the cockpit and coordination with flight crewmembers.

(d) Crewmember handling of the passengers, to include the following:

- Intoxicated passengers (not serving alcoholic beverages to them)
- Abusive or disruptive passengers
- Handicapped or ill passengers
- Passengers requiring special attention

(3) Ensure that crewmembers, during the approach and landing phases of flight, prepare the cabin for arrival by performing at least the following actions:

(a) Ensuring that carry-on baggage is stowed and that all seatbacks and tray tables are upright and stowed, respectively.

(b) Removing all food, beverages, and galley service items from each passenger seat location.

(c) Ensuring that all stowage compartments are latched and secured.

(d) Ensuring that the galley is prepared as follows:

- Loose items are secured
- All serving carts are properly restrained

(e) Ensuring that the cockpit door is closed and locked in accordance with the operator's manual.

(f) Verifying that passenger seatbelts and shoulder harnesses, if installed, are secured.

(g) Properly stowing and securing any other equipment.

(4) Ensure that crewmembers observe sterile cockpit rules.

(5) Ensure that crewmembers are seated in assigned seats before landing, with appropriate restraint systems fastened.

I. Flight Arrival. During flight arrival the inspector should do the following:

(1) Ensure that after landing, the C/Cs prepare the aircraft for arrival by performing the following duties:

- Before the captain has turned off the seatbelt sign, ensuring that passengers remain in their seats with seatbelts fastened

- Upon arrival at the gate and after the seatbelt sign has been turned off, preparing the exits for deplaning

NOTE: The girt bar must stay engaged during movement on the surface.

(2) Ensure that the appropriate complement of cabin crews remain on board the aircraft at enroute stops (when passengers remain on board the aircraft to proceed to another destination).

(3) Debrief the captain and lead C/C of any procedural problems or discrepancies/malfunctions noted during the flight.

NIGERIAN CIVIL AVIATION AUTHORITY

AVIATION HOUSE

P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS 002 CABIN ENROUTE INSPECTION

Record ID:	Inspector	Type of Operation	Activity Number - Checklist	
Date Accomplished	#Issues	Operator	Tracking #	
Flight #:	From:	To:	AC Registration	AC Type:
PIC #:	SCA Crew #	Other CA#		

Instructions for Use:

1. Check **`S**' column if you reviewed the record, procedure or event and it is **`Satisfactory'**.
2. Check **`U**' column if you reviewed the record, procedure or event and it is **`Unsatisfactory'**.
3. Check **NS** (**not seen**) column if you did not review the record, procedure or event or you do not have adequate information to make a valid comment.
4. Check **NA** (**not applicable**) column, if the line item is not required in this particular situation.
5. 'Enter any notes on reverse side regarding a 'U' answer for transfer to the Safety Issues Resolution Report.
6. For later reference, precede any notes with the appropriate question number.

S/N	CABIN CREW	S	U	NS	NA
1.	Number of required cabin crews?				
2.	Cabin crews certificates?				
3.	Cabin crew assigned duty-flight-rest times?				
4.	Cabin crew manuals?				
5.	Cabin crew seats and safety harness?				
6.	Cabin crews properly secured at duty stations during periods when emergency evacuation may be anticipated?				
	CABIN CREW MANUALS AND EQUIPMENT	**S**	**U**	**NS**	**NA**
7.	Cabin crew manual – general procedures?				
8.	Cabin crew manual – aircraft-specific details and procedures?				
9.	Cabin crew manual – location of emergency equipment?				
10.	Cabin crew manual – specific wording of emergency briefings?				
11.	Bomb search checklist?				
12.	Recommended contingency location for an explosive device?				
13.	Cabin crew personal torch?				
	FLIGHT DECK AND CABIN COMMUNICATIONS	**S**	**U**	**NS**	**NA**
14.	Use of crew resource management techniques?				
15.	Response to flight deck signals?				
16.	Knowledge of interphone signals?				
17.	Knowledge of coded communication?				
18.	Response to turbulence warnings?				
19.	Use of proper identification signals for flight deck door opening?				
	PASSENGER CONTROL	**S**	**U**	**NS**	**NA**
20.	Normal boarding duties?				
21.	Briefing of handicapped passengers?				
22.	Use of child restraint devices?				
23.	Handling of disorderly passengers?				
24.	Handling of incapacitated passengers?				
25.	Refueling with passengers procedures?				

	SEATING AND BAGGAGE CONSIDERATIONS	S	U	NS	NA
26.	Head count taken and communicated to pilot?				
27.	Verification of seat assignment?				
28.	Passenger seating vs center-of-gravity considerations?				
29.	Closet and overhead bin loading within limits and volume?				
30.	Carry-on baggage properly stowed during taxi, takeoff and landing?				
31.	Proper securing of cargo in the passenger compartment?				
	ROUTINE PASSENGER BRIEFING CONTENT	**S**	**U**	**NS**	**NA**
32.	Routine no-smoking briefing?.				
33.	Routine seat belt briefing?				
34.	Routine emergency exits briefing?				
35.	Routine use of oxygen briefing?				
36.	Routine use of flotation devices briefing?				
37.	Routine carry on baggage stowage briefing?				
38.	Routine survival equipment briefing?				
39.	Routine landing preparation briefing?				
40.	Routine after landing briefing?				
41.	Instructions for transiting ramp to terminal?				
42.	Routine turbulence briefing?				
	EMERGENCY BRIEFING CONTENT	**S**	**U**	**NS**	**NA**
43.	Planned emergency evacuation preparation?				
44.	Immediate bracing position instructions?				
45.	Planned ditching preparation?				
	BRIEFING METHODOLOGY				
46.	Acceptable pacing and communication of information?				
47.	Audio adequate for all passengers?				
48.	Content and use of video briefing?				
	SECURING CABIN INSPECTION				
49.	First flight emergency equipment checks?				
50.	Pre-flight cabin preparation (pax cards/belts/package search)?				
51.	Pre-taxi cabin secure inspection?				
52.	Pre-takeoff cabin secure inspection?				
53.	Turbulence cabin secure inspection?				
54.	Pre-landing cabin secure inspection?				
55.	After landing cabin secure inspection?				
56.	Securing of serving carts?				
	DOORS/EMERGENCY EXITS	**S**	**U**	**NS**	**NA**
57.	Manual door closing procedures?				
58.	Assisted door closing procedures?				
59.	Slide arming procedures?				
60.	Normal assisted door opening procedures?				
61.	Slide disarming procedures?				
62.	Normal manual door opening procedures?				
63.	Emergency door opening procedures?				
64.	Other emergency exit opening procedures?				
	EMERGENCY EQUIPMENT	**S**	**U**	**NS**	**NA**
65.	Fire extinguisher(s) location, use and limitations?				
66.	Oxygen location, use and limitations?				
67.	Protective breathing equipment location, use and limitations?				
68.	First aid kit(s) location and contents?				
69.	Medical kit location and contents?				
70.	Life raft location, movement, deployment and contents?				
	EMERGENCY PROCEDURES	**S**	**U**	**NS**	**NA**
71.	Cabin fire procedures?				
72.	Galley fire procedures?				
73.	Toilet fire procedures?				
74.	Immediate ditching procedures?				

75.	Emergency evacuation tasks and procedures?				
76.	Planned ditching procedures?				
77.	Aircraft hijacking procedures?				
78.	Assisting with an incapacitated pilot?				
	MISCELLANEOUS	**S**	**U**	**NS**	**NA**
79.	Dangerous goods recognition?				
80.	Security procedures?				

RECOMMEND ACCEPTANCE: ☐ YES ☐ NO (Reasons cited below)

REMARKS & OBSERVATIONS

_____

INSPECTOR SIGNATURE

Additional comments attached ☐ =>

CHECKLIST (CL) O-OPS 003
ATTACHED

FLIGHT DECK ENROUTE INSPECTION

A. Purpose

The primary objective of flight deck enroute inspections is for an inspector to observe and evaluate the inflight operations of a certificate holder within the total operational environment of the air transportation system. Enroute inspections are one of the NCAA's most effective methods of accomplishing its air transportation surveillance objectives and responsibilities. These inspections provide the NCAA with an opportunity to assess elements of the aviation system that are both internal and external to an AOC holder.

B. Flight Deck Enroute Inspections Areas

Inspectors should consider all inspection areas, both internal and external to the AOC holder, to be of equal importance. Four general inspection areas have been identified for observation and evaluation by inspectors during enroute inspections.

The "crewmember" inspection area applies to both flight crewmembers and cabin crewmembers.

Inspectors should evaluate such items as crewmember knowledge, ability, and proficiency by directly observing crewmembers performing their respective duties and functions. The checklist contains a list of reminder items that should be observed in the crewmember inspection area.

These items are not all-inclusive but represent the types of items inspectors should evaluate during a flight deck enroute inspection.

The "flight conduct" inspection area relates to 10 specific phases of flight that can be observed during an enroute inspection. The checklist contains a list of the items that should be evaluated by inspectors during these phases of flight. These items are not all-inclusive and in some cases (such as "powerback") may not be applicable to the flight conducted. Inspectors are, however, encouraged to observe, evaluate, and report on as many of these items as possible.

NOTE: Inspectors that are unfamiliar with the AOC holder's specific procedures for operating the aircraft should comment in their inspection reports on any item they believe should be brought to the POIs attention. Inspectors must use good judgment concerning whether to comment on these items when debriefing crewmembers.

The "airport/heliport" inspection area pertains to the various elements of airports or heliports that are passed through during the flight such as runways, taxiways, ramps, and aircraft ground movements. Inspectors should observe and evaluate as many of these elements as possible during an enroute inspection.

The "ATC/airspace" inspection area pertains to the various elements of Air Traffic Control and national or international airspace systems. These elements should be observed and evaluated by inspectors during enroute inspections. From an operational standpoint, these evaluations area valuable information source which can be used not only to enhance safety with respect to air traffic control and the airspace system, but also to enhance the effectiveness of enroute and terminal facilities and procedures.

Although these four general inspection areas cover a wide range of items, they are not the only areas that can be observed and evaluated during flight deck enroute inspections. Inspectors may have the opportunity to evaluate many other areas, such as line station operations, flight control procedures, and cabin crews in the performance of their duties. These types of inspection areas can often be observed before a flight begins, at enroute stops, or at the termination of a flight.

Elements of the aviation system, which are internal to the AOC holder and that can be observed during enroute inspections, are items such as the following:

- *Crewmembers*
- *AOC holder manuals and checklists*
- *Use of MELs and CDLs*
- *Operational control functions (dispatch, flight following, flight locating)*
- *Use of checklists, approved procedures, and safe operating practices*
- *Crew coordination/flight deck resource management*
- *Cabin safety*
- *Aircraft condition and servicing*
- *Training program effectiveness*

Elements of the aviation system, which are external to the AOC holder and that can be observed during enroute inspections, are items such as the following:

- *Airport/heliport surface areas*
- *Ramp/gate activities*
- *Airport construction and condition*
- *Aircraft movements*
- *ATC and airway facilities*
- *ATC and airspace procedures*
- *IAPs, SIDs, and STARs*
- *Navigational aids*
- *Communications*

A Flight Operations Inspection is the inspection and surveillance of an aircraft and its technical crew on a revenue-earning line operation conducted according to normal company procedures.

The purpose of this inspection is to ensure that operations are conducted in accordance with regulatory requirements and to assess:

- *The operational effectiveness of the operating crew*
- *The effectiveness of company procedures*

- *The effectiveness of other interrelated systems and procedures — for example, airspace, ATC, FAC, etc.*

B. Enroute Inspection: General

1) Beginning the Inspection. The Inspector should

- *Display an ID card and issue an NCAA authorization form.*
- *Introduce yourself to the aircraft captain, stating your name and the purpose of the inspection.*
- *Occupy an observer's seat on the flight deck or, when the aircraft requires a single pilot, the vacant control seat.*
- *If the captain objects to your presence on the flight deck, ask the captain to provide a written statement setting out reasons for his or her objection*

2) Conducting the Inspection

The inspector should carry out the inspection on a non-interference basis, using the proper checklist.

- *Do not distract the crew from their primary task of operating the aircraft*
- *Be familiar with the relevant section of the AOC holder's Operations Manual concerning the carriage of staff in the jump seat*
- *Be aware of any sterile flight deck provisions*
- *Monitor the radio and be aware of the need for checklist calls, when conversing with the crew*
- *Regard the crew as a sample product of the AOC holder's training and checking organization*
- *Regard the aircraft airworthiness status as a sample product of the AOC holder's maintenance planning and control organization.*

The inspector should not intervene in the conduct of the flight unless he or she is of the opinion that failing to intervene would jeopardize the safety of the aircraft. The inspector must alert the crew to a condition that they have failed to note, which may result in an unsafe situation, compromise compliance with the regulations or aircraft structural limitations.

3) Concluding the Inspection

At the conclusion of the inspection:

- Do not debrief the crew on the results of the inspection*, unless you have an immediate safety of flight issue, such as an aircraft unable or unsafe to fly or questions concerning crew competency to operate safely. These types of situations are rare.*
- *Complete the appropriate checklist and notes.*
- *Complete the safety issue resolution form(s); and*
- *Make the necessary notifications for safety issue resolution with the affected postholders.*

4) No Debriefing Required

If the inspector is not pilot-qualified on the aircraft, it is not necessary to do any debriefing. A simple *"thank you for the flight*" is an acceptable verbiage for departing the aircraft.

5) No Debriefing Issues

If the inspector is pilot-qualified and has no debriefing issues, the proper phraseology to use is *"I have no de-briefing items, thank you for a safe flight*."

6) Proper Approach to Debriefing Issues

If the inspector, regardless of technical qualification, believes that it is necessary to cover any debriefing issues with the flight crew, it is better to use an non-confrontation approach. The best method is to ask a clarifying question to discuss the issues and give the crewmembers the opportunity to explain. For example, where the flight crew failed to make a takeoff profile callout, a question, such as *"Is the 80 knot callout and crosscheck still a company takeoff callout*?" This brings the issue to their attention, but is not accusatory

The next step is crucial. After their explanation, politely close the discussion with the words, "Thank you for your explanation." Do not engage in further discussion or attempt to correct any apparent misconceptions. You should at this point have the necessary information to discuss this issue with the appropriate company postholder.

D. Enroute Inspections: Limit on the Number of Inspectors

As a general guideline, only one inspector should conduct a flight deck en route inspection of a given aircraft on a particular flight unless special circumstances exist.

Except for the conduct of demonstration flights, the only time two Inspectors would occupy the flight deck at the same time is during inspector training. This requires company consent. There may be occasions when one Inspector conducts a flight deck inspection while another conducts a cabin safety inspection, or, on a large aircraft, more than one inspector may be in the cabin to observe different components. These situations should be infrequent once an AOC holder has achieved a satisfactory standard of operations.

E. Preparation for Enroute Inspection

Company Operating Procedures. Before conducting enroute inspections, it is important that inspectors become familiar with the operating procedures and facilities used by the AOC holder. Inspectors can obtain such familiarization by reviewing pertinent sections of the AOC holder's manuals and by asking questions of, and obtaining briefings from, the POI or other inspectors who are acquainted with the AOC holder's procedures and facilities. The inspector is encouraged to comment on any procedure believed to be deficient or unsafe in the inspection report. The inspector must use good judgment, however, when debriefing crewmembers about procedures that may be specifically approved for that AOC holder.

Scheduling the Jumpseat. The AOC holder is to ensure that there are established procedures to be used by inspectors for scheduling the observer's seat (jumpseat). These procedures allow inspectors to have free, uninterrupted access to the jumpseat. Inspectors should, however, make jumpseat arrangements as far in advance as possible. Since inspectors may have sudden changes in schedule, and may not always be able to provide the appropriate advance notice, the AOC holder's procedures are flexible and permit use of an available jumpseat on short notice.

Whenever possible, inspectors should plan flight deck enroute inspections in a manner that will avoid disruption of AOC holder scheduled line checks and line flying under supervision flights.

Should an inspector arrive for a flight and find a line check or line flying under supervision in progress, the inspector must determine whether or not it is essential that the flight deck enroute inspection be conducted on that flight. If it is essential, the AOC holder must be so advised by the inspector and must make the jumpseat available to the inspector. If the flight deck enroute inspection can be rescheduled and the objectives of the inspection can still be met, the inspector
should make arrangements to conduct the inspection on another flight.

When a required checkride is being conducted by a training captain from the forward jumpseat and the enroute inspection is essential, the inspector should occupy the second jumpseat, if one exists. On line flying under supervision flights, the training captain should normally occupy one of the pilot seats and the inspector should occupy the forward jumpseat. When it is essential that the enroute inspection be conducted on an aircraft that does not have two jumpseats, the training captain must occupy a pilot seat and the inspector should occupy the jumpseat. In such a case, the flight crewmember not being checked must either be seated in the cabin or not accompany the flight.

Amplified Inspector Reporting Instructions. An inspector should begin a flight deck enroute inspection a reasonable amount of time before the flight (approximately 1 hour) by reporting at the operations area or at the gate. There the inspector must first complete the necessary jumpseat paperwork for inclusion in the AOC holder's passenger manifest and weight and balance documents. The flightcrew should then be located by the inspector. After the inspector gives a personal introduction to the flightcrew, which includes presentation of NCAA authorization, the inspector must inform the COMMANDER of the intention to conduct an enroute inspection.

The inspector should then request that, at a time convenient for the flightcrew, the flight crew present both their airman and medical certificates to the inspector for examination. Also, the inspector should request that, at a convenient time, the flightcrew present flight information such as weather documents, NOTAMs, planned route of flight, dispatch or flight release documents, and other documents with information about the airworthiness of the aircraft to the inspector for examination.

Late Boarding Situations. Sometimes an inspector cannot meet and inform the COMMANDER of the intention to conduct an enroute inspection before boarding the aircraft. In such a case, when boarding the aircraft, the inspector should make appropriate introductions, present NCAA Authorization for the COMMANDER’s inspection at the earliest convenient opportunity, and inform the flight crew of an

intention to conduct a flight deck inspection. In this situation a cabin crew will usually be at the main cabin entrance door. One of the cabin crew's primary duties is to ensure that only authorized persons enter the aircraft such as ticketed passengers, caterers, and authorized company personnel. Therefore, an inspector should be prepared to present NCAA Authorization and any applicable jumpseat paperwork to the cabin crew as identification before entering the flight deck.

When boarding the aircraft, an inspector should also avoid unnecessarily impeding passenger flow or interrupting cabin crews during the performance of their duties. Also, during this time an inspector usually has ample opportunity to observe and evaluate the AOC holder's carry-on baggage procedures and the gate agent's or cabin crew's actions concerning oversized items. Once inside the flight deck, the inspector should request an inspection of each flight crewmembers airman and medical certificates, if not previously accomplished. When the flightcrew has completed reviewing the aircraft logbooks (or equivalent documents), the inspector should inspect the logbooks to determine the airworthiness status of the aircraft.

Inflight. The inspector should wear a headset during the flight. During flight deck enroute inspections, inspectors must try to avoid diverting the attention of flight crewmembers performing their duties during "critical phases of flight." Inspectors must be alert and point out to the flightcrew any apparent hazards such as conflicting traffic. If during an enroute inspection, an inspector becomes aware of a potential violation or that the flightcrew is violating a regulation or an ATC clearance, the inspector must immediately inform the COMMANDER of the situation.

Checklist. Inspectors should use the Flight deck Enroute Inspection Checklist (**see CL:O-OPS 003**) while conducting these inspections. This checklist contains a list of reminder items for the specific inspection areas that should be observed and evaluated. Items may be evaluated during an enroute inspection, which are not listed on the checklist. For such items, inspectors should use the remarks section to record these comments and notes during the inspection, which can later be transferred to a Safety Issue Resolution Report (Form: O-OPS 003).

Once situated in the flight deck, the inspector should check the jumpseat oxygen and emergency equipment (if applicable) and connect the headset to the appropriate interphone system. The commander or a designated crewmember should offer to give the inspector a safety briefing. If the commander does not make such an offer, the inspector should request a briefing. It is important that the inspector monitor all radio frequencies being used by the flightcrew to properly evaluate ATC procedures, flightcrew compliance, transmission clarity, and radio phraseology.

The monitoring of these frequencies also ensures that the inspector does not inadvertently interfere with any flightcrew communications. Inspectors should continuously monitor these frequencies to remain aware of the progress of the flight.

Inspectors should observe and evaluate the crew during each phase of flight. This should include an evaluation of crewmember adherence to approved procedures and a proper use of all checklists. The inspector should also observe the commander’s crew management techniques, delegation of duties, and overall conduct. All crewmembers must follow sterile flight deck procedures. Some of the areas that should be observed and evaluated during each flight phase are as follows:

(1) **Preflight:** Inspectors should determine that the flightcrew has all the necessary flight information including the appropriate weather, dispatch, or flight release information; flight plan;

NOTAMs; and weight and balance information. MEL items should be resolved in accordance with the AOC holder's MEL and appropriate maintenance procedures. Inspectors should observe the flightcrew performing appropriate exterior and interior preflight duties in accordance with the AOC holder's procedures.

(2) **Predeparture:** Inspectors should observe the flightcrew accomplishing all predeparture checklists, takeoff performance calculations, and required ATC communications. The flightcrew should use coordinated communications (via hand signals or the aircraft interphone) with ground personnel. Often pushback or powerback clearance must be obtained from the appropriate ATC or ramp control facility. When weight and balance information is transmitted to the aircraft by company radio during the outbound taxi, the flightcrew should follow the AOC holder's procedures as to which crewmember receives the information and completes the final takeoff performance calculations and which crewmember monitors the ATC frequency. The inspector should observe the following:

- *Accomplishment of checklists during taxi*
- *Adherence to taxi clearances*
- *Control of taxi speed*
- *Compliance with hold lines*
- *Flightcrew conduct of a pretakeoff briefing in accordance with the AOC holder's procedures*

(3) **FOI Evaluation: Takeoff:** The takeoff procedure should be accomplished as outlined in the AOC holder's approved maneuvers and procedures document. Inspectors should observe and evaluate the following items or activities during the takeoff phase:

- *Aircraft centerline alignment*
- *Use of crosswind control techniques*
- *Application of power to all engines*
- *Takeoff power settings*
- *Flightcrew callouts and coordination*
- *Adherence to appropriate takeoff or V speeds*
- *Rate and degree of initial rotation*
- *Use of flight director, autopilot, and autothrottles*
- *Gear and flap retraction schedules and limiting airspeeds*
- *Compliance with the ATC departure clearance or with the appropriate published departure*

(4) **FOI Evaluation: Climb:** The climb procedure should be conducted according to the outline in the AOC holder's approved maneuvers and procedures document. Inspectors should observe and evaluate the following items and activities during the climb phase of flight

- *Climb profile/area departure*

- *Airspeed control*
- *Navigational tracking/heading control*
- *Powerplant control*
- *Use, of radar, if applicable*
- *Use of autoflight systems*
- *Pressurization procedures, if applicable*
- *Sterile flight deck procedures*
- *Vigilance*
- *Compliance with ATC clearances and instructions*
- *After takeoff checklist*

(5) **FOI Evaluation: Cruise:** Procedures used during cruise flight should conform to the AOC holder's procedures. Inspectors should observe and evaluate the following areas during the cruise phase of flight:

- *Cruise mach/airspeed control*
- *Navigational tracking/heading control*
- *Use of radar, if applicable*
- *Use of turbulence procedures, if applicable*
- *Monitoring fuel used compared to fuel planning*
- *Awareness of mach buffet and maximum performance ceilings*
- *Coordination with cabin crew*
- *Compliance with oxygen requirements, if applicable*
- *Vigilance*
- *Compliance with ATC clearances and instructions*

(6**) FOI Evaluation:** Descent: Procedures used during descents should conform to the AOC holder's procedures. Inspectors should observe and evaluate the following areas during the descent phase of flight:

- *Descent planning*
- *Crossing restriction requirements*
- *Navigational tracking/heading control*
- *Use of radar, if applicable*
- *Awareness of Vmo/Mmo speeds and other speed restrictions*
- *Compliance with ATC clearance and instructions*
- *Use of autoflight systems*
- *Pressurization control, if applicable*
- *Area/situational awareness*
- *Altimeter settings*
- *Briefings, as appropriate*
- *Coordination with cabin crew*
- *Sterile flight deck procedures*
- *Completion of appropriate checklist*
- *Vigilance*

(7) **FOI Evaluation:** Approach: Procedures used during the selected approach (instrument or visual) should be accomplished as outlined in the AOC holder's

maneuvers and procedures document. Inspectors should observe and evaluate the following areas during the approach phase of flight:.

- *Approach checklists*
- *Approach briefings, as appropriate*
- *Compliance with ATC clearances and instructions*
- *Navigational tracking/heading and pitch control*
- *Airspeed control, VREF speeds*
- *Flap and gear configuration schedule*
- *Use of flight director, autopilot, autothrottles*
- *Compliance with approach procedure*
- *Sinkrates*
- *Stabilized approach in the full landing configuration*
- *Flightcrew callouts and coordination*
- *Transition to visual segment, if applicable*

(8) **FOI Evaluation:** Landing: Procedures used during the landing maneuver should conform to those outlined in the AOC holder's maneuvers and procedures document. Inspectors should observe and evaluate the following areas during the landing phase of flight:

- *Before landing checklist*
- *Threshold crossing height (TCH)*
- *Aircraft centerline alignment*
- *Use of crosswind control techniques*
- *Sinkrates to touchdown*
- *Engine spool up considerations*
- *Touchdown and rollout*
- *Thrust reversing and speedbrake procedures*
- *Use of autobrakes, if applicable*
- *Braking techniques*
- *Diverting attention inside the flight deck while still on the runway*
- *After landing checklist*

(9) All Inspectors: Prearrival: Prearrival and parking procedures should conform to the AOC holder's procedures as outlined in the appropriate manual. Inspectors should evaluate crew accomplishment of after landing checklists, groundcrew parking, and passenger deplaning procedures.

(10) **All Inspectors:** Arrival: Inspectors should observe and evaluate the flightcrew complete postflight duties such as postflight checks, aircraft logbook entries, and flight trip paperwork completion and disposition.

G. Other Inspection Areas

During the enroute inspection, inspectors should observe and evaluate other inspection areas, such as ATC and airspace procedures and airports or heliports the flight transits during the flight deck enroute inspection.

(1) When evaluating airports or heliports, inspectors should observe the condition of surface areas, such as ramp and gate areas, runways, and taxiways. The following list contains other areas which may be observed and evaluated by inspectors during flight deck enroute inspections:.

- *Taxiway signs, markers, sterile areas, and hold lines*
- *Ramp vehicles, equipment, movement control*
- *Aircraft servicing, parking, and operations*
- *Obstructions, construction, and surface contaminants (such as ice, slush, snow, fuel spills, rubber deposits)*
- *Snow control, if applicable*
- *Security and public safety*

(2) During flight deck enroute inspections, inspectors have the opportunity to observe and evaluate ATC operations and airspace procedures from the vantage point of the aircraft flight deck. Inspectors may observe and evaluate the following areas from the flight deck:

- *Radio frequency congestion, overlap, or blackout areas*
- *Controller phraseology, clarity, and transmission rate*
- *ATIS*
- *Use of full call signs*
- *Simultaneous runway use operations*
- *Clearance deliveries*
- *Acceptable and safe clearances*
- *Aircraft separation standards*
- *Acceptability of instrument approach procedures, departure procedures, and feeder routings*

H. FLIGHT DECK ENROUTE INSPECTION CHECKLIST.

Figure O-1 is an example of the Flight Deck Enroute Inspection Checklist is provided on the following page.

NIGERIAN CIVIL AVIATION AUTHORITY

AVIATION HOUSE

P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS 003 FLIGHT DECK ENROUTE INSPECTION

Record ID:	Inspector	Type of Operation		Activity Number - Checklist
Date Accomplished	#Issues	Operator		Tracking #
Flight #:	From:	To	AC Registration	AC Type:
PIC #:	SIC #	Other		

Instructions for Use:

1. Check `**S**' column if you reviewed the record, procedure or event and it is `**Satisfactory'**.
2. Check `**U**' column if you reviewed the record, procedure or event and it is `**Unsatisfactory'**.
3. Check **NS** (**not seen**) column if you did not review the record, procedure or event or you do not have adequate information to make a valid comment.
4. Check **NA** (**not applicable**) column, if the line item is not required in this particular situation.
5. 'Enter any notes on reverse side regarding a 'U' answer for transfer to the Safety Issues Resolution Report.
6. For later reference, precede any notes with the appropriate question number.

S/N	ITEMS TO BE CHECKED ON THE GROUND	S	U	NS	NA
1.	General external/internal condition of the aircraft				
	DOCUMENTS TO BE CARRIED	**S**	**U**	**NS**	**NA**
2.	Certificate of Registration				
3.	Certificate of Airworthiness				
4.	Noise Certificate (if applicable)				
5.	Air Operator Certificate				
6.	Aircraft Radio License				
7.	Third Party Liability Insurance Certificate				
8.	Manuals to be carried (to be checked by the Inspector)				
9.	Aircraft Flight Manual (if applicable)				
10.	Flight Operation Manual (relevant parts for every crew member)				
11.	Check-list booklets				
	ADDITIONAL FORMS TO BE CARRIED	**S**	**U**	**NS**	**NA**
12.	Aircraft Technical log (including Hold Items List)				
13.	Cabin Equipments log (if different from Technical Log)				
14.	Journey log (except if other permitted doc)				
	COCKPIT	**S**	**U**	**NS**	**NA**
15.	General internal condition				
16.	Safety equipment				
	ITEMS OF FLIGHT CONDUCT	**S**	**U**	**NS**	**NA**
17.	Flight preparation				
18.	Load sheet				
	WEATHER/ NOTAMS ANALYSIS	**S**	**U**	**NS**	**NA**
19.	ATC Flight plan				
20.	Operational flight plan				
21.	Fuel calculation				
22.	Route and alternates				
23.	Crew coordination				

	AT THE AIRCRAFT (APRON)	S	U	NS	NA
24.	Technical log book survey, aircraft library (checked by the crew)				
25.	Cockpit preparation (includes cross check of INS/FMS initialization)				
26.	Compliance with MEL/CDL				
27.	Take-off data computation				
28.	Departure preparation (SID, noise abatement,..)				
29.	Check of the mass and balance sheet, passengers/cargo particularities				
30.	Use of check-lists and before start briefing				
31.	Liaison with Cabin Crew				
32.	Security aspects				
33.	Engines start-up, push-back				
	TAXI	**S**	**U**	**NS**	**NA**
34.	Awareness of other aircraft and vehicles				
35.	Before take-off briefing				
36.	Cabin crew warning				
	USE OF APPROPRIATE CHECK-LISTS	**S**	**U**	**NS**	**NA**
37.	Take-off and initial climb-out				
38.	2 steps power setting, flight crew standard call-out and coordination				
39.	Take-off rotation: rate and pitch target				
40.	Sequences of aircraft configuration changes, automatic devices use.				
41.	Use of radar and weather avoidance, if relevant.				
42.	Altimeters setting/checking procedure				
43.	Radio Communication and adherence to ATC clearances				
44.	Crew coordination and Check-lists				
45.	Adaptability to circumstances, awareness				
46.	Sterile cockpit				
	CLIMB AND CRUISE	**S**	**U**	**NS**	**NA**
47.	Navaids use (cross check primary/raw data versus FMS)				
48.	Flight and weather follow-up				
49.	Fuel management (incl fuel used/estimated fuel remaining on arrival)				
50.	General tasks sharing for long haul flights (briefing in case of in-flight relief of crew members, rest periods,)				
	DESCENT	**S**	**U**	**NS**	**NA**
51.	Descent calculation(s)				
52.	Briefing before descent-approach				
53.	Altitude awareness				
54.	Radio communications				
55.	TCAS monitoring/use				
56.	Use of autoflight systems				
	APPROACH AND LANDING	**S**	**U**	**NS**	**NA**
57.	Approach briefing and check-list				
58.	Deceleration and sequence of configurations changes				
59.	Automatic and flight crew call-out, coordination				
60.	Approach stabilization				
61.	Transition to visual segment, if applicable				
62.	Landing distance management				
63.	After landing sequence: brakes, reversers, spoilers,…..				
	AT THE APRON	**S**	**U**	**NS**	**NA**
64.	Security of the aircraft incase of a long aircraft stop				
65.	Reporting of the aircraft eventual defects				
	GENERAL	**S**	**U**	**NS**	**NA**
66.	Crew coordination including CRM (anonymous routine inspection)]				
67.	Correct phraseology				
68.	Correct filling of logs and report forms				
69.	Overall management of the flight				
70.	Compliance with the operation manual				
71.	Descent				
72.	Descent calculation(s)				

73.	Briefing before descent-approach				
74.	Altitude awareness				
75.	Radio communications				
76.	TCAS monitoring/use				
77.	Use of auto flight systems				
78.	Compliance with RVSM airspace operations				
79.	Compliance with MNPS airspace operations				
80.	Compliance with ETOPs airspace operations				
81.	**RESERVED**				

REMARKS & OBSERVATIONS

Additional comments attached ☐

Inspector Signature

NIGERIAN CIVIL AVIATION AUTHORITY

AVIATION HOUSE

P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS 004 OPERATIONAL CONTROL INSPECTION

Record ID:	Inspector	Type of Operation	Activity Number – Checklist
Date Accomplished:	# Issues	Operator	Tracking #
Flight #:	From:	To:	AC Registration:	**AC Type:**
PIC #: Other	Crew#	Check Pilot#:	

Instructions for Use:

1. Check **`S**' column if you reviewed the record, procedure or event and it is **`Satisfactory'**.
2. Check **`U**' column if you reviewed the record, procedure or event and it is **`Unsatisfactory'**.
3. Check **NS** (**not seen**) column if you did not review the record, procedure or event or you do not have adequate information to make a valid comment.
4. Check **NA** (**not applicable**) column, if the line item is not required in this particular situation.
5. 'Enter any notes on reverse side regarding a 'U' answer for transfer to the Safety Issues Resolution Report.
6. For later reference, precede any notes with the appropriate question number.

S/N	MANUALS:	S	U	NS	NA
1.	Current copy of the Flight Operations Manual available?				
2.	Current copy of the Aircraft-Specific Operations Manual available?				
3.	Current copy of Aircraft-Specific Checklists available?				
4.	Current copy of Flight Dispatch Manual available?				
5.	Current copy of AFM Performance available?				
6.	Current copy of Emergency Response Manual available?				
	OPERATIONAL FLIGHT PLAN – NAV LOG	**S**	**U**	**NS**	**NA**
7.	"Standard" operational flight plan used for the flight(s)?				
8.	"Standard" ops flight plan appropriate for this flight operation?				
9.	"Standard" flight plan calculated accurately?				
10.	"Manual" operational flight plan/nav log issued for the flight(s)?				
11.	"Manual" ops flight plan appropriate for this flight operation?				
12.	Assigned person accurately computed the manual plan?				
13.	Computer operational flight plan/nav log issued for the flight(s)?				
14.	Computer plan/nav log obtained from an approved source?				
15.	Computer plan/nav log calculated accurately?				
16.	Copy of the signed operational plan – nav log retained?				
17.	Retention method and time period in use acceptable?				
18.	Operational flight plan/nav log formats, examples and completion procedures accurately described in the Operations Manual?				
19.	Applicable Operations Manual content complete and acceptable?				
20.	Applicable Operations Manual policies applied as written?				
	WEATHER	**S**	**U**	**NS**	**NA**
21.	Complete weather briefing received by the flight crew?				
22.	Weather data obtained from approved source(s)?				
23.	Terminal weather observations appropriate for the flight?				
24.	Terminal weather forecasts appropriate for the flight?				
25.	Enroute weather appropriate for the flight?				
26.	Significant weather synopsis appropriate for the flight?				
27.	Winds aloft forecasts appropriate for the flight?				
28.	Upper Air pressure charts appropriate for the flight?				
29.	Severe weather reports and forecasts appropriate for the flight?				
30.	"Real-time" weather displays available for consultation?.				
31.	Weather data consistent with that used for ops plan/nav log?				
32.	Flight plan routing the best for the forecast weather?				

33.	Weather data appropriate to the flight(s) retained?				
34.	Retention method and period in use acceptable?				
35.	Weather data formats, examples and instructions accurately described in the Operations Manual?				
36.	Applicable Operations Manual content complete and acceptable?				
37.	Applicable Operations Manual policies applied as written?				
	SELECTION OF ALTERNATES	**S**	**U**	**NS**	**NA**
38.	Appropriate takeoff alternate selected?				
39.	Appropriate enroute alternates selected?				
40.	Appropriate destination alternate selected?				
41.	Alternates included in ops plan – nav log?				
	AERONAUTICAL DATA	**S**	**U**	**NS**	**NA**
42.	Appropriate notam data provided to the flight crew?				
43.	Notam data obtained from an approved source?				
44.	Route guide and nav charts available to operational control?				
45.	Nav log coordinates compared to the nav charts coordinates?				
46.	AFM aircraft-specific performance data available?				
47.	Aircraft specific takeoff and landing performance available?				
48.	Takeoff performance manually calculated?				
49.	Appropriate obstacle data use in the takeoff calculation?				
50.	T/O and Ldg performance data from an approved source and current?				
51.	Takeoff and landing performance data computer-generated?				
	MINIMUM FUEL SUPPLY	**S**	**U**	**NS**	**NA**
52.	Flight planning minimum fuel calculations based on weights approximated from a valid source?				
53.	Minimum fuel supply appropriate for aircraft and operation?				
54.	Minimum fuel contingencies considered?				
55.	Fuel/oil uplift information available?				
	LOAD MANIFEST	**S**	**U**	**NS**	**NA**
56.	Completed load manifest for the flight(s) available?				
57.	Source record for aircraft empty and basic operating weights available?				
58.	Load manifest contain the four takeoff weight limitations?				
59.	Load manifest contain the variable parameters for takeoff?				
60.	Takeoff and landing weights, e.g. and the stabilizer settings accurately calculated?				
61.	Standard passenger and baggage weights authorized and used properly?				
62.	Actual weights required and used properly				
63.	Approved method of computer load manifest calculation used?				
64.	Manual calculation yield the same results as the computer?				
65.	Presence of dangerous goods properly manifested?				
66.	Load manifest updated for the last minute changes?				
67.	Update posted in the flight preparation records before takeoff?				
68.	Update communicated to the flight crews?				
69.	Copy of the signed load manifests retained?				
70.	Retention method and time period acceptable?				
71.	Load manifest examples and completion procedures accurately described in the Operations Manual?				
72.	Applicable Operations Manual content complete and acceptable?				
73.	Applicable Operations Manual policies applied as written?				
74.	Personnel records of the load controllers show training completion on the subjects (aircraft specific) relating to their job tasks?				
	FLIGHT CREW CONSIDERATIONS	**S**	**U**	**NS**	**NA**
75.	Crew readiness status for this flight readily available?				
76.	Flight crew current and qualified for the flight operation?				

77.	Cabin crew current and qualified for the flight operation?				
78.	At least one of the flight crew have 100+ hours in type?				
79.	Pilots properly qualified for all weather operations minima?				
80.	Proper crew flight and rest time requirements applied?				
81.	Personnel records of the crew scheduling employees show training completion on the subjects relating to their job tasks?				
	AIRCRAFT CONSIDERATIONS	**S**	**U**	**NS**	**NA**
82.	On-going MEL-deferred items of the aircraft available?				
83.	On-going maintenance status of the aircraft available?				
84.	Copy of the tech log with maintenance release available?				
85.	Aircraft CAT II/III ready?				
86.	Aircraft ETOPS ready?				
	ATS STATUS	**S**	**U**	**NS**	**NA**
87.	ATS flight planned filed?				
88.	Operation conducted under instrument flight rules?				
	PROGRESS OF FLIGHT	**S**	**U**	**NS**	**NA**
89.	Takeoff and landing times for current flights available?				
90.	At least one on-duty person could provide an approximate position of the flight(s) at a selected time?				
91.	Operational control person has immediate access to telephone lines dedicated to flight operations issues?				
92.	Operational control person could contact the flight enroute?				
93.	Each station could be contacted during the period prior to flight arrival and immediately prior to flight arrival.				
94.	Flight locating information available for the flight crew?				
	COMMUNICATIONS RECORDS	**S**	**U**	**NS**	**NA**
95.	Operational control person maintains a continuous log?				
96.	A record of all radio communications is maintained by log or tape?				
97.	ACARS readout is available for previous flights?				
	OPERATIONAL CONTROL QUALIFICATIONS	**S**	**U**	**NS**	**NA**
98.	Operational control persons properly trained?.				
99.	Operational control persons properly qualified?				
	OVERALL ASSESSMENT	**S**	**U**	**NS**	**NA**
100.	Personnel were competent and proficient?				
101.	Compliance with Operations Manual, except where noted.				
102.	Adequate facilities and equipment available for required tasks.				

REMARKS & OBSERVATIONS

INSPECTOR SIGNATURE:_____

NIGERIAN CIVIL AVIATION AUTHORITY

AVIATION HOUSE

P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS 005 TRAINING PROGRAMME APPROVAL CHECKLIST

Instructions for Use:

1. Check `**S**' column if you reviewed the record, procedure or event and it is `**Satisfactory'**.
2. Check `**U**' column if you reviewed the record, procedure or event and it is `**Unsatisfactory'**.
3. Check **NS** (**not seen**) column if you did not review the record, procedure or event or you do not have adequate information to make a valid comment.
4. Check **NA** (**not applicable**) column, if the line item is not required in this particular situation.
5. 'Enter any notes on reverse side regarding a 'U' answer for transfer to the Safety Issues Resolution Report.
6. For later reference, precede any notes with the appropriate question number.

ORDER/CL No.	Inspector	Type of Operation	Tracking #

Date Accomplished	NCF/Discrepancies						Operator/Applicant	
	A	**B**	**C**	**D**	**E**	**F**		

Flight No:	From :	To:	AC Registration:	AC Type:	Action				
					S	**U**	**Ap**	**Ac**	**F**

PIC Lic No/Name:	Co-Pilot Lic No/Name:		Purser:	Other CC:

Document:	Company Representative:

NCF/Discrepancies code: A=Aircraft; B=Facilities; C=Documents; D=Procedures; E=Programmes; F = Other

***Action Codes: S=Satisfactory; U = Unsatisfactory; Ap – Approved; Ac= Accepted; F = Follow-up**

GENERAL

1. Check that training syllabuses have been designed for all operations personnel assigned to operational duties in connection with the preparation and conduct of a flight in accordance with the requirements of the Nigeria Civil Aviation Regulations Part 8 and 9 for approval by the Authority.

Requirement	**Assessment**			
ALL TRAINING COURSES	**S**	**U**	**NS**	**N/A**
2. Does each training course contain –				
(a) Course outline?				
(b) Detailed syllabus covering the Requirements of the Nigeria Civil Aviation Regulations Part dealing with Crew Member and Flight Operations Officer qualifications: Commercial Air Transport				
(c) Are properly qualified instructors available to meet training objectives and needs?				
(d) Examinations covering the requirements of the Nigeria Civil Aviation Regulations Part dealing with Crew member and Flight Operations Officer qualifications: Commercial Air Transport				
(e) Completion standards?				
(d) Specimen record forms?				
(f) Documents and certificates?				
(g) AUTHORITY approval process where required?				

FLIGHT CREW	S	U	NS	N/A
3. Do the training syllabuses for flight crew meet the applicable requirements of the Nigeria Civil Aviation Regulations Part dealing with Crew member and Flight Operations Officer qualifications: Commercial Air Transport and include-				
(a) A written training programme acceptable to the Authority that provides for initial, transition, difference, and recurrent training, and upgrade training as appropriate, for flight crew members for each type of aircraft flown by that crew member?				
(b) Does this written training include both normal and emergency procedures training applicable for each type of aircraft flown by the flight crew member?				
(c) Is the number of training hours specified for each curriculum segment?				
(d) Is the number of training hours realistic for the degree of complexity of the individual training modules?				
(e) Are adequate ground and flight training facilities provided?				
(f) Are minimum crew complement and minimum crew qualifications for specific types of training specified?				
(g) Are maximum numbers and qualifications of persons to be carried on training flights specified?				
(h) Are the minimum qualifications and experience and training requirements for training and check pilots specified?				
(i) Are specific flight time limitations for pilots engaged in flight training and checking specified?				
(j) Is Command responsibility during training and checking flights, including (if applicable) route checks and licence renewal proficiency tests specified?				
(k) Are adequate numbers of ground and flight instructors and check pilots available to ensure adequate training and flight testing of flight crew members?				
(l) Is there a current list of the following items to meet the training needs for each type and variation of aircraft flown or intended to be flown -				
(i) approved training materials?				
(ii) approved equipment?				
(iii) approved Training Devices?				
(iv) Approved Simulators?				
(v) Other required training items?				
(m) Is there a record system acceptable to the Authority to show compliance with appropriate training and currency requirements?				
CABIN CREW	**S**	**U**	**NS**	**N/A**
4. Do the training syllabuses for cabin crew members meet the applicable requirements of The Civil Aviation (Operation of Aircraft) Regulations Part dealing with Crew member and Flight Operations Officer qualifications: Commercial Air Transport –				
(a) Basic initial ground training covering duties and responsibilities?				
(b) Appropriate rules and regulations?				
(c) Appropriate portions of the operations manual to allow the crew member to effectively perform his duties?				
(d) Appropriate emergency training as required by the Authority and the operations manual?				
(e) Appropriate flight training?				
(f) Appropriate recurrent, upgrade, or difference training, as required, to maintain currency in both type and any variant the crew member may be required to work in?				
(g) Is there a training record system acceptable to the authority to show compliance with all required training?				

ALL AIRCRAFT CREW	**S**	**U**	**NS**	**N/A**
5. Has the written training been developed for all aircraft crew members in the emergency procedures appropriate to each make and model of aircraft flown by the crew member in accordance with the applicable requirements of the Nigeria Civil Aviation Regulations Part dealing with Crew member and Flight Operations Officer qualifications: Commercial Air Transport in the following areas:				
(a) Instruction in emergency procedures, assignments and crew co-ordination?				
(b) Individual instruction in the use of onboard emergency equipment such as -				
(i) Fire extinguishers?				
(ii) Emergency breathing equipment?				
(iii) First aid equipment and its proper use?				
(iv) Emergency exits and evacuation slides?				
(v) The aircraft's oxygen system including the use of portable emergency oxygen bottles?				
(vi) Practice by flight crew members in use of emergency equipment designed to protect them in case of cockpit fire or smoke?				
(c) Training instruction in potential emergencies such as rapid decompression, ditching, fire fighting, aircraft evacuation, medical emergencies, hijacking, and disruptive passengers?				
(d) Scheduled recurrent training?				
ALL OPERATIONS PERSONNEL	**S**	**U**	**NS**	**N/A**
6. Do the training syllabuses for all operations personnel include -				
(a) Training in the safe transportation and recognition of all dangerous goods permitted by the Authority to be shipped by air?				
(b) Does dangerous goods training syllabus include training in-				
(i) Proper packaging?				
(ii) Proper marking?				
(iii) Proper labelling?				
(iv) Proper documentation of dangerous articles and magnetized materials?				
(v) A method of providing any required notification of an accident or incident involving dangerous good?				
(c) All appropriate security training required by the Regulations?				
OPERATIONS PERSONNEL OTHER THAN AIRCRAFT CREW (e.g., flight operations officer, handling personnel etc.) -	**S**	**U**	**NS**	**N/A**
7. Is there a written training programme for operations personnel other than aircraft crew that pertains to their respective duties in accordance with the applicable requirements of the Nigeria Civil Aviation Regulations dealing with Crew member and Flight Operations Officer qualifications: Commercial Air Transport as follows:				
(a) Initial Training?				
(b) Recurrent Training?				
(c) Upgrade training as required?				
PROCEDURES FOR TRAINING AND CHECKING	**S**	**U**	**NS**	**N/A**
8. Do procedures for training and checking include –				
(a) Procedures to be applied in the event that personnel do not achieve or maintain the required standards?				
(b) Procedures to ensure that the simulations of abnormal or emergency situations are not conducted during commercial air transport operations?				
DOCUMENT RETENTION	**S**	**U**	**NS**	**N/A**
9. Does information on documentation to be stored and storage period include the requirement that all documentation required by the appropriate authority or the authority of a foreign country in which the operator operates, be retained for the time specified by the respective authority or for the time period needed to show compliance with appropriate regulations or the operations manual, whichever is longer?				

MANUAL INITIAL ISSUE AND AMENDMENTS	S	U	NS	N/A
10. Copies distributed to, or arrangements in place for distribution to:				
(a) Director Flight Operations				
(b) All operating crews assigned to checking and training duties				

AC/CL No:		**Tracking No.:**

Notes: *1. A "NO" or "N/S" response on a checklist must be accompanied by reason or comments.*
2. *A "NO" response to a safety issue finding in an inspection of an organization must be transferred to a CF report for corrective action where applicable.*
3. Precede all comments with the applicable checklist item number or discrepancy number.

Discrepancy Label: *(Circle the applicable numeric labels that best describe the discrepancies)*

Policy, Procedures, Instructions, Information, Documentation, Controls:					**Document Quality**
1.Not Specified	**2.**Unclear	Do not comply with:		**7.**Do not Identify:	**8.**Unreadable
3.Incomplete	**4.**Inconsistent	**5.** CAR	**6.**Guidance	Who, What, When, Where, How	**9.**Illegible

10. Resource requirements incomplete *(personnel, facilities, equipment, technical data)*

1	2	3	4	5	6	7	8	9	10

Comments:

Recommendations

Name of Inspector_____ Signature_____ Date_____

NIGERIAN CIVIL AVIATION AUTHORITY

AVIATION HOUSE

P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS 005A TRAINING PROGRAMME INSPECTION CHECKLIST

Date_____ Operator _____

Base Inspection Conducted by _____

☐ **CHECK**	DETERMINE THE NEED FOR THE INSPECTION/SURVEILLANCE
☐ **CHECK**	PLAN AND INITIATE THE INSPECTION
☐ **CHECK**	REVIEW OPERATOR'S OFFICE FILE
☐ **CHECK**	REVIEW OPERATOR'S TRAINING MANUAL
☐ **CHECK**	NOTIFY OPERATOR OF THE TRAINING PROGRAMME INSPECTION
☐ **CHECK**	CONDUCT THE OPERATOR INBRIEFING
☐ **CHECK**	CONDUCT THE INSPECTION
☐ **CHECK**	INSPECT THE OPERATOR'S TRAINING ORGANISATION
☐ **CHECK**	INSPECT OPERATOR'S TRAINING DOCUMENTS
☐ **CHECK**	IDENTIFY THE TRAINING PROGRAMME
☐ **CHECK**	IDENTIFY THE TRAINING MATERIALS
☐ **CHECK**	IDENTIFY TRAINING CURRICULUM CONTENT
☐ **CHECK**	OBSERVE AND EVALUATE THE OPERATOR'S TRAINING PROGRAMME
☐ **CHECK**	EVALUATE FLIGHT CREW TRAINING
☐ **CHECK**	INITIAL FLIGHT TRAINING

TRAINING PROGRAMME INSPECTION CHECKLIST

☐	**CHECK**	BASIC INDOCTRINATION
☐	**CHECK**	INITIAL EMERGENCY DRILL TRAINING
☐	**CHECK**	EVALUATE FLIGHT INSTRUCTOR TRAINING
☐	**CHECK**	EVALUATE CHECK PILOT TRAINING
☐	**CHECK**	EVALUATE COURSEWARE
☐	**CHECK**	EVALUATE INSTRUCTIONAL DELIVERY METHODS
☐	**CHECK**	EVALUATE TRAINING AIDS AND EQUIPMENT
☐	**CHECK**	EVALUATE FLIGHT SIMULATOR OR TRAINING DEVICE
☐	**CHECK**	EVALUATE TESTING AND CHECKING METHODS
☐	**CHECK**	INSPECT TRAINING RECORDS

To be filled out after inspection is complete:

☐	**CHECK**	DETERMINE THE RESULTS OF THE INSPECTION
☐	**CHECK**	DEBRIEF THE OPERATOR
☐	**CHECK**	DOCUMENT THE INSPECTION
☐	**CHECK**	SCHEDULE FOLLOW-UP ACTIVITIES
☐	**CHECK**	FILE INSPECTION RESULTS IN OFFICE

ORDER /CL No:		**Tracking No.:**

Notes: *1. A "NO" or "N/S" response on a checklist must be accompanied by reason or comments.*
2. *A "NO" response to a safety issue finding in an inspection of an organization must be transferred to a CF report for corrective action where applicable.*
3. Precede all comments with the applicable checklist item number or discrepancy number.

Discrepancy Label: *(Circle the applicable numeric labels that best describe the discrepancies)*

Policy, Procedures, Instructions, Information, Documentation, Controls:					**Document Quality**
1.Not Specified	**2.**Unclear	Do not comply with:		**7.**Do not Identify: Who, What, When, Where, How	**8.**Unreadable
3.Incomplete	**4.**Inconsistent	**5.** CAR	**6.**Guidance		**9.**Illegible

10. Resource requirements incomplete (personnel, facilities, equipment, technical data)

1	2	3	4	5	6	7	8	9	10

Comments:

Recommendations

Name of Inspector_____ Signature_____ Date_____

NIGERIAN CIVIL AVIATION AUTHORITY

AVIATION HOUSE

P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS006 (APPROVAL OF OPERATOR'S MASS AND BALANCE CONTROL PROGRAMME CHECKLIST)

Record ID:	Inspector (FOI)	Inspector (AWI)	Activity Number – Checklist
Date Accomplished:	# Issues:	Operator/Applicant:	Base:
Document:	Operator's Representative:		

Instructions for Use:

1. Check **`S**' column if you reviewed the record, procedure or event and it is **`satisfactory'**.
2. Check **`U**' column if you reviewed the record, procedure or event and it is **`Unsatisfactory'**.
3. Check **NS** (**not seen**) column if you did not review the record, procedure or event or you do not have adequate information to make a valid comment.
4. Check **NA** (**not applicable**) column, if the line item is not required in this particular situation.
5. 'Enter any notes on reverse side regarding a 'U' answer for transfer to the Safety Issues Resolution Report.
6. For later reference, precede any notes with the appropriate question number.

This Activity must be coordinated between the FOI and AWI before granting acceptance or approval by singing here: FOI……..AWI……..

S/N	Coordinate with the Operator/Applicant	S	U	N/S	N/A
1	**Have the following been submitted for review**				
(a)	Manual or revision?				
(b)	Mass and Balance programme document (if not part of a manual)?				
(c)	Pertinent company procedures?				
(d)	Instructions for completing forms used in aircraft mass control and aircraft loading?				
(e)	Mathematical justification for loading provisions or schedules?				
(f)	If the operator wishes to use an onboard mass and balance computer system as a primary source for dispatch, has he submitted this system for approval by the Authority?				
2	**The manual include the following**:	**S**	**U**	**N/S**	**N/A**
(a)	Procedures?				
(b)	Levels of authority?				
(c)	Information appropriate to Nigeria Civil Aviation Regulations?				
	Note: If an initial cursory review of the Manual/programme document shows that items at 1.and 2 above are not included, or are seriously deficient, it would be prudent to meet with the operator/applicant to further guide him on the requirements.				
3	**The manual contains an introduction including the following**	**S**	**U**	**N/S**	**N/A**
(a)	Description of the philosophy and the goals of the manual				
(b)	Description of the division of contents between volumes if more				

	than one volume				
(c)	List of effective pages and date				
4	There manual revision and distribution procedures, to ensure	**S**	**U**	**N/S**	**N/A**
(a)	Current information is provided to manual holders				
(b)	Manuals are available to maintenance, operations and ground personnel and are furnished				
5	There is a definition section of all significant terms used in the programme				
6	The definitions reflect the intended use				
7	Any acronyms or abbreviations unique to the manuals are included.				
8	There is a description of the organizational unit responsible for the control and maintenance of the mass and balance programme				
9	**A description of the organizational unit include:**	**S**	**U**	**N/S**	**N/A**
(a)	Definitions of lines of authority				
(b)	Description of the support structure				
10	**The Manual Includes:**	**S**	**U**	**N/S**	**N/A**
(a)	Job descriptions for all elements				
(b)	Training programmes that include training for the following:				
(i)	Operations and dispatch personnel				
(ii)	Maintenance personnel				
(iii)	Ground handling personnel				
(c)	A means of documenting and retaining individual training records.				
(d)	**Procedures for:**				
(i)	Determining standards and schedules for calibration of scales				
(ii)	Pre-weighing instructions and requirements				
(iii)	Determining which aircraft are be weighed				
(iv)	Establishing and maintaining equipment list for each aircraft				
(v)	Recording the type and serial number for each scale used, aircraft mass, residual fluids and scale tare mass				
(vi)	Initial weighing of aircraft				
(vii)	Monitoring and adjusting individual aircraft or fleet, empty mass and CG				
(viii)	Periodic re-weighing of aircraft				
(ix)	Ensuring aircraft are configured in accordance with approved data				
(e)	A loading schedule consisting of graphs/tables or a special loading schedule for a calculator or computerize programme				
	Note: The loading schedule should be design to ensure that pertinent data is available concerning all problem mass and balance conditions of the aircraft.				
(f)	**Instruction that the mass and balance documentation shall contain the following:**	**S**	**U**	**N/S**	**N/A**
(i)	Thev aircraft registration and type				
(ii)	Flight identification Number and date				
(iii)	Identity of pilot in- command				
(iv)	Identity the person who prepared the document.				
(v)	The dry operating mass and the corresponding center of gravity				
(vi)	The mass of the fuel at takeoff and the mass of trip fuel				
(vii)	The mass of consumables other than fuel.				
(viii)	The component of the load including passengers, baggage, freight and ballast				
(ix)	The takeoff mass, landing mass and zero fuel mass				
(x)	The load distribution				
(xi)	The applicable aircraft center of gravity positions				

(xii)	The limiting mass and center of gravity values				
(g)	The maximum allowable change in the number of passengers or hold load acceptable as a last minute change (LMC)				
(h)	**The LMC procedures must include the following:**				
(i)	Informing the PIC				
(ii)	Entering the LMC on the mass and balance documentation				
(iii)	Instructions that if the maximum allowable LMC is exceeded, new mass and balance documentation must be prepared				
(i)	**Procedures for-**	**S**	**U**	**N/S**	**N/A**
(i)	Completing the load manifest.				
(ii)	Ensuring that the load manifest is carried on the aircraft				
(iii)	Retaining the load manifest for the time periods specified in part 9 of the Nig-Cars				
(iv)	Distribution of the load manifest in accordance with				
(j)	Procedures to be used by crewmembers, cargo handlers, and other personel concerned with aircraft loading, for the following:				
(i)	Distribution of passengers				
(ii)	Distribution of fuel				
(iii)	Distribution of cargo				
(iv)	Verification and acceptance of actual cargo mass as listed on a bill of lading				
(v)	Restriction of passenger movement during flight, if applicable.				
(vi)	Dangerous Goods requirements, if applicable				
(K)	A drawing of each cargo and/or passenger configuration to include emergency equipment locations.				
(L)	**Mathematical justification for loading provisions or schedules.**				
	Note: This may be included under separate cover and not as part of the company				
(M)	An alternate procedure for allowing manual computations, if a computerized mass and balance programme is utilized.				
(N)	**Procedures for a mass range system, if applicable, that ensures:**				
(i)	The range is typical of passengers carried on similar operations				
(ii)	Computations for critical load considerations support the ranges				
(iii)	Personnel responsible for loading the aircraft are required to prepare appropriate loading records				
(iv)	The system includes methods for loading passengers whose mass are outside the range				
(v)	loading records indicates the number of passengers within the stated range and account for passengers that do not fall within the range				
(O)	**Procedures to verify actual mass of cargo**				
(P)	Standards and schedules for calibration of commercial scales used to determine baggage/cargo mass				
(Q)	Procedures to ensure that:				
(i)	Carry-on baggage is limited to articles which may be place in overhead compartments or under seats				
(ii)	Carry-on baggage mass is accounted for in the same manner as check baggage or added to the average passenger mass				
11	**If mass and balance documentation is generated by a computerize mass and balance system the manual must have procedures for:**	**S**	**U**	**N/S**	**N/A**
(a)	Verifying the integrity of the output data				
(b)	Procedures for checking that amendment to the input data are incorporated properly in the system.				

(c)	Procedures for verifying the output data at intervals not exceeding six months to ensure that the system is operating correctly on a continuous basses.				
(12)	**Review the draft Opspecs- Paragraph E include the following:**	**S**	**U**	**N/S**	**N/A**
(a)	**Aircraft make/model/series**				
(b)	**Type of loading schedules**				
(c)	**Loading schedules instruction for-**				
(i)	Passengers and crew (average or actual mass)				
(ii)	Baggage (average or actual mass) and cargo (actual)				
(d)	Mass and balance control procedures				
	Note: The above must be reference by indicating the locations in the operator/applicant manual; e.g volume, chapter				

REMARKS & OBSERVATIONS

_____

INSPECTOR SIGNATURE

Additional comments attached ☐ =>

NIGERIAN CIVIL AVIATION AUTHORITY

AVIATION HOUSE

P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS 007 APPROVAL AND ACCEPTANCE OF THE AIRCRAFT OPERATING MANUAL (AOM) CHECKLIST

Instructions for Use:

1. Check **`S**' column if you reviewed the record, procedure or event and it is **`Satisfactory'**.
2. Check **`U**' column if you reviewed the record, procedure or event and it is **`Unsatisfactory'**.
3. Check **NS** (**not seen**) column if you did not review the record, procedure or event or you do not have adequate information to make a valid comment.
4. Check **NA** (**not applicable**) column, if the line item is not required in this particular situation.
5. 'Enter any notes on reverse side regarding a 'U' answer for transfer to the Safety Issues Resolution Report.
6. For later reference, precede any notes with the appropriate question number.

Order/CL No.	Inspector	Type of Manual	Operator/Applicant
Date received	Date Accomplished		

Item	Assessment			
	S	U	NS	N/A
1. Has the AOM been tailored by the operator to accommodate his type of operation, fleet standardisation objectives, and cockpit management objectives?				
Note: *As an operator's operations become more complex, it is progressively more important to include detailed guidance in his AOM, which is specifically tailored to the operator's operations.*				
2. If the operator has aircraft which have been modified by STC, have different procedures been submitted for approval to ensure that the modifications have been accounted for?				
3. Has procedural information been presented in a step by step format?				
4. Has the operator developed standard operating procedures (SOPs)?				
5. Have the operating procedures been standardized both within and across aircraft types?				
Note: *A complete standardisation of procedures is not possible when there are significant differences between "manufacturer's" and "installed" equipment, but a high degree of standardization can still be achieved.*				
6. Are the procedural steps in the same sequence as the AFM?				
Note: *If the sequence is different, the operator must demonstrate that the change in sequence is safe and effective through validation testing. The inspector shall ensure adverse effects are not introduced. For example, with many aircraft the flaps are required to be extended or the trim to be set to specific settings before an adequate control check can be accomplished. If this sequence is reversed, the control check is invalid.*				
7. If similar procedures are combined into a single procedure does validation testing demonstrate that the procedure is clear, easy to use, and retains the safeguards of the individual procedures it replaces?				
Note: *If the combined procedure results in a complex and potentially error prone procedure, the inspector shall not approve it.*				
8. Has the operator been able to provide evidence that newly developed procedures are effective?				
Note: *This may be done by analysis, documentation, or validation tests. Tests may be conducted by the manufacturer, the operator, or another competent party (such as a*				

contractor). The inspector or a designated inspector qualified in the aircraft must evaluate the effectiveness of such tests.				
NORMAL PROCEDURES	**S**	**U**	**NS**	**N/A**
9. Does the normal procedures section of an AOM contain procedures for each normal operation that flight crewmembers are required to perform?				
10. Has each normal procedure been amplified by the operator with sufficient instruction to ensure that the procedure is properly accomplished?				
11. Is the amplification instruction sufficiently thorough to provide the least experienced flight crewmember with sufficient information to perform the procedures?				
12. Are procedures for crew coordination and use of the checklist included?				
13. Does the Procedures Section of the AOM contain clearly specified crew duties?				
14. Where an AFM or RFM does not contain normal procedures for specific operations, has the operator developed and published normal procedures in the AOM when such procedures are necessary to ensure an adequate level of safety?				
Note: *Instrument approach procedures, adverse weather operations, long range navigation, and special procedures for CAT II and CAT III operations are all examples of required normal procedures which may not be in an AFM or RFM.*				
15. Has the operator developed adequate procedures for operating computer-based systems in the cockpit?				
Note: *Procedures for computer operations should be keyed to menus and display prompts. Procedures should be written in an interactive format rather than as a rote listing of keystrokes.*				
MANOEUVRES AND PROCEDURES DOCUMENT	**S**	**U**	**NS**	**N/A**
16. Does the operator's "manoeuvres and procedures document" contain the tolerances which must be maintained in training and checking?				
17. Have these manoeuvres and procedures description been approved before being published?				
18. Are the operator's standards appropriate for the aircraft being flown and for the operation being conducted?				
NON-NORMAL AND EMERGENCY PROCEDURES	**S**	**U**	**NS**	**N/A**
19. Where an operator proposes to modify an non-normal or emergency procedure-				
(a) Does he show that the modified procedure does not adversely affect the airworthiness of the aircraft?				
Note: *The operator may establish the safety and effectiveness of proposed procedures by corresponding with the manufacturer and by analysis, documentation, or validation tests.*				
(b) Has the operator consulted with the manufacturer on these modified procedures?				
(c) Has the operator conducted analyses and validation tests in consultation with the manufacturer?				
(d) Are the correspondence with the manufacturer, analyses and validation tests properly documented?				
(e) Has the appropriate authority concurred with a proposed deletion of an item or the rearrangement of items on the checklist?				
Note: *1. Appropriate authority concurrence may be expressed informally (by telephone).* *2. Appropriate authority concurrence is not required if the operator provides evidence that the appropriate authority has already concurred with the identical procedure for another party (such as another operator or manufacturer).*				
IMMEDIATE ACTIONS	**S**	**U**	**NS**	**N/A**
20. Are immediate action situations included in the operator's AFM or AOM, as appropriate and include the following:				
(a) Imminent threat of crewmember incapacitation?				
(b) Imminent threat of loss of aircraft control?				

(c) Imminent threat of destruction of a system or component which makes continued safety of the flight and subsequent landing improbable?				
Note: *Under these criteria, a flight crew donning oxygen masks in response to a depressurisation or turning off the fuel and ignition in case of a hot start, are examples of situations requiring mandatory immediate action items. The loss of thrust on a jet engine during cruise, however, would not normally require an immediate action item according to these criteria.*				
21. Are immediate action items explicitly identified as such in the operator's AOM.				
22. Are immediate action items strictly limited to only those actions necessary to stabilise the situation?				
Note: *Inspectors must ensure that all remaining actions are accomplished by "challenge do verify" (CDV) checklists. CDV checklists have checklist items that require confirmation from a second crewmember before the step may be taken.*				
23. If the operator proposes to replace immediate action items in an AFM procedure with challenge do verify (CDV) checklist procedures in an AOM, is he able to show compliance with the above criteria relating to immediate action items and demonstrate an equivalent level of safety through validation tests?				
MANDATORY CONFIRMATION ITEMS	**S**	**U**	**NS**	**N/A**
24. Do the operator's procedures clearly identify critical procedural steps that must be confirmed by a second crewmember before the required action may be taken and the crewmember responsible for giving the confirmation?				
25. Do the types of procedural actions that require this confirmation include the following:				
(a) Actions resulting in the shutting down of an engine?				
(b) Actions resulting in the deactivation of flight controls?				
(c) Actions that if performed incorrectly, in the wrong sequence, or at the wrong time would produce a catastrophic result, even if the incorrect action is not highly likely?				
(d) Actions where past experience or analysis has shown that there is a high probability for error or incorrect action and which creates a hazardous situation?				
CREW MEMBER ROLES	**S**	**U**	**NS**	**N/A**
26. Does the AOM clearly define the various crewmember roles and responsibilities and properly express the following:				
(a) Does the operator's policy and guidance make it clear that the PIC's primary responsibility is to manage the actions of the crew and the conduct of the flight?				
Note: *While the PIC may delegate the management of the flight and manipulation of the controls to the co-pilot, the AOM must not indicate that the PIC can delegate the responsibility for safe conduct of the flight.*				
(b) Does the operator's manual contain policy and guidance to those flight crewmembers not in command, as to their responsibilities to the PIC and their responsibilities for the safe conduct of the flight?				
(c) Does the AOM contain guidance for the PIC concerning the conditions and circumstances under which a co-pilot may operate the aircraft?				
Note: *The operator's policies must delineate the limits of authority delegated to the co-pilot when the co-pilot is the pilot flying (PF). The operator's policies should address crew management in critical situations. For example, there may be certain situations in which the co-pilot should be the pilot flying (PF) so that the PIC can concentrate on managing those situations, particularly ensuring that required actions and appropriate checklists are properly accomplished. Procedures for transfer of control must be clearly addressed in the AOM.*				
(d) Does the AOM clearly express the requirements for proper and effective communication and co-operative action between crewmembers and the essential communications interaction between the PF and the Pilot Not Flying (PNF)?				
(e) Does the AOM contain a requirement for briefings and adequate guidance for the content of those briefings?				

OPERATIONS NOT EVALUATED IN AIRCRAFT CERTIFICATION	S	U	NS	N/A
27. Where the operator proposes to conduct operations which have not been evaluated during aircraft certification, has the operator developed and obtained approval of procedures for the conduct of the proposed operation?				
Note: *Such operations are often indicated by the absence of a procedure for the operation in the AFM. Examples of such operations could include power-back and taxi with engine shutdown.*				
28. Has the proposed procedure been thoroughly evaluated and co-ordinated with the AWI, manufacturer and appropriate authority before granting approval?				
LIMITATIONS	**S**	**U**	**NS**	**N/A**
29. When operating limitations are incorporated in an AOM, is each limitation co-related and identified with that contained in the AFM?				
30. Are all AFM operating limitations published in the AOM and clearly identified as AFM limitations?				
31. If the operator has added limitations to the AOM which are not contained in the AFM, is a method used which clearly distinguishes operator added limitations from AFM limitations?				
32. Does the AOM contain a statement that crewmembers are responsible for being aware of and for observing all limitations?				
OTHER	**S**	**U**	**NS**	**N/A**
33.				
34.				
35.				

OPS-K-O/CL No:		Tracking No.:

Notes: *1. A "U" or "N/S" response on a checklist must be accompanied by reason or comments.*
2. A "U" response to a safety issue finding in an inspection of an organization must be transferred to a CF report for corrective action where applicable.
3. Proceed all comments with the applicable checklist item number or discrepancy number.

Discrepancy Label: *(Circle the applicable numeric labels that best describe the discrepancies)*

Policy, Procedures, Instructions, Information, Documentation, Controls:					**Document Quality**
1.Not Specified	**2.**Unclear	Do not comply with:		**7.**Do not Identify: Who, What, When, Where, How	**8.**Unreadable
3.Incomplete	**4.**Inconsistent	**5.**NCAR	**6.**Guidance		**9.**Illegible

10. Resource requirements incomplete (personnel, facilities, equipment, technical data)

1	2	3	4	5	6	7	8	9	10

Comments:

Recommendations

Name of Inspector_____ Signature_____ Date_____

NIGERIAN CIVIL AVIATION AUTHORITY

AVIATION HOUSE

P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS 008 - APPROVAL AND ACCEPTANCE OF MINIMUM EQUIPMENT LISTS (MELs) AND CONFIGURATION DEVIATION LISTS (CDLs) CHECKLIST

Instructions for Use:

1. Check **`S**' column if you reviewed the record, procedure or event and it is **`Satisfactory'**.
2. Check **`U**' column if you reviewed the record, procedure or event and it is **`Unsatisfactory'**.
3. Check **NS** (**not seen**) column if you did not review the record, procedure or event or you do not have adequate information to make a valid comment.
4. Check **NA** (**not applicable**) column, if the line item is not required in this particular situation.
5. 'Enter any notes on reverse side regarding a 'U' answer for transfer to the Safety Issues Resolution Report.
6. For later reference, precede any notes with the appropriate question number.

Order/CL No.	Inspector FOPS	Inspector AW	Date received
Date Approved	**Operator/Applicant**	**Operator representative**	**Date issued to operator**

Item	Assessment			
This Activity must be coordinated between the AWI and FOI before granting approval or authorization by signing here : AWI_____FOI_____				
OVERALL MANUAL PRESENTATION	**S**	**U**	**N/S**	**N/A**
1 Bound in a secure form (not loose)?				
2 Exterior of binder clearly indicates manual content?				
3 Table of contents?				
4 Tabbed by ATA chapter?				
5 Revision Instructions adequate?				
6 List of effective pages provided and correct?				
7 Last applicable MMEL revision identified and latest?				
8 Preamble and instructions for use adequate?				
INDIVIDUAL PAGE PRESENTATION	**S**	**U**	**N/S**	**N/A**
9 Page numbered?				
10 Last revision number/date?				
11 ATA chapter identified?				
INDIVIDUAL ITEM PRESENTATION AND CONTENT	**S**	**U**	**N/S**	**N/A**
12 Proper MMEL-MEL number comparison?				
13 Proper item title?				
14 No item relief other than that shown in MMEL is allowed?				
15 Aircraft for which item is applicable identified by R/N or S/N?				
16 Number of item installed correct?				
17 Aircraft with non-standard installation identified by R/N or S/N?				
18 Correct repair interval listed?				
19 Number required for dispatch conforms to MMEL?				
20 Placarding symbols provided in accordance with MMEL?				
21 (O) & (M) symbols provided in accordance with MMEL?				
22 Remarks correctly aligned with applicable "required" numbers?				

23 Wording of MEL remarks not less restrictive than MMEL (special attention to use of “or” & “and”?				
24 Configuration (# installed/required) allowed is in accordance with all applicable regulations?				
25 All references to applicable regulations converted to remarks format and aligned with “required” number?				
26 All references to “by AFM” converted to remarks format?				
27 Adherence (#installed/required) to all special restrictions applicable to operations authorized for air operator included?				
28 All references to operations not authorized to air operator deleted?				
INDIVIDUAL (O) AND (M) PROCEDURES	**S**	**U**	**N/S**	**N/A**
29 There is an ops procedure for every MMEL (O) reference?				
30 There is a maintenance procedure for every MMEL (M) reference?				
31 Procedures provided in accordance with manufacturers MEL dispatch guide conform to the source references?				
32 Maintenance procedures taken from sources other than the manufacturer’s dispatch guide are technically correct, meet all remarks and have the source cited?				
33 Operations procedures taken from sources other than the manufacturers MEL dispatch guide are technically correct, not a normal operating procedure and meet all remarks?				
34 No normal operating procedures are provided?				
35 All procedures apply to the “dispatch” of aircraft?				
CDL EVALUATION	**S**	**U**	**N/S**	**N/A**
36 CDL properly tabbed in rear of MEL?				
37 CDL contents clearly identified?				
38 CDL items in accordance with current manufacturers guidance?				

Order/CL No:	Tracking No.:

Notes:
1. *A "NO" or "N/S" response on a checklist must be accompanied by reason or comments.*
2. *A "NO" response to a safety issue finding in an inspection of an organization must be transferred to a CF report for corrective action where applicable.*
3. *Preceed all comments with the applicable checklist item number or discrepancy number.*

Discrepancy Label: *(Circle the applicable numeric labels that best describe the discrepancies)*

Policy, Procedures, Instructions, Information, Documentation, Controls:					**Document Quality**
1.Not Specified	**2.**Unclear	Do not comply with:		**7.**Do not Identify: Who, What, When, Where, How	**8.**Unreadable
3.Incomplete	**4.**Inconsistent	**5.**NCAR	**6.**Guidance		**9.**Illegible

10. Resource requirements incomplete (personnel, facilities, equipment, technical data)

1	2	3	4	5	6	7	8	9	10

Comments:

Recommendations

Name of Inspector_____ Signature_____ Date_____

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS 009 AIRCRAFT ACCEPTANCE/OPERATIONS INSPECTION

Record ID:	Inspector	Type of Operation	Activity
Date Accomplished	# Issues	Operator	Tracking #
AC Registration	AC Type:		

Instructions for Use:

1. Check **`S'** column if you reviewed the record, procedure or event and it is **`Satisfactory'**.
2. Check **`U'** column if you reviewed the record, procedure or event and it is **`Unsatisfactory'**.
3. Check **NS** (**not seen**) column if you did not review the record, procedure or event or you do not have adequate information to make a valid comment.
4. Check **NA** (**not applicable**) column, if the line item is not required in this particular situation.
5. 'Enter any notes on reverse side regarding a 'U' answer for transfer to the Safety Issues Resolution Report.
6. For later reference, precede any notes with the appropriate question number.

S/N	**AIRCRAFT DOCUMENTATION**	**S**	**U**	**NS**	**NA**
1	Name of Owner				
2	Type of Aircraft				
3	Aircraft Registration				
4	Serial Number				
5	Year of Manufacture				
6	Passenger Configuration				
7	Air Transport Licence (ATL)/ Air Operator Certificate (AOC)				
8	Certificate of Registration				
9	Certificate of Airworthiness				
10	Noise Certificate (if applicable)				
11	Aircraft Radio License				
12	Certificate of Insurance				
13	Approved Flight Manual (for specific aircraft serial number)				
14	Company Aircraft Operating Manual?				
15	Flight Operations Manual				
16	Check-list booklets/Quick Reference Handbook (QRH)				
17	Runway analysis manual (or AFM charts and obstacle survey data?				
18	MEL/CDL?				
19	Technical Logbook				
20	Navigational Charts				
21	Approach Charts				
22	Load and Trim Sheets				
	FLIGHT DECK INSTRUMENTS AND EQUIPMENT	**S**	**U**	**NS**	**NA**
23	Altimeters				
24	ASI				
25	Compass System				
26	VOR: ILS: DME:				
27	ADF: RMI:				
28	INS: FMS: GPS:				
29	Required VHF communications radios operational?				
30	Required HF radios operational?				
31	Headsets available for all required crewmembers?				
32	Boom microphones for all required crewmembers?				
33	Microphones available for all required crewmembers?				

34	Instrumentation properly marked?				
35	Altitude alerting system?				
36	Transponder and altitude reporting capability?				
37	Airborne Weather radar?				
38	EGPWS operational?				
39	Cockpit voice recorder?				
40	Flight recorder?				
41	TCAS/ACAS				
	FLIGHT DECK EMERGENCY EQUIPMENT	**S**	**U**	**NS**	**NA**
42	Operational safety harness for each required crewmember?				
43	Seatbelts and harness for all other occupants?				
44	Quick-donning oxygen mask for each required crewmember?				
45	Oxygen System/Regular oxygen mask for all occupants?				
46	Fire extinguishers – required number, approved type, location suitable, serviced and certificated OK?				
47	Smoke goggles for each required crewmember?				
48	PBEs for each required crewmember?				
49	First aid kit (with appropriate contents)?				
50	Emergency evacuation means?				
51	Emergency locating beacon?				
52	Life vests for all occupants?				
53	Ditching raft?				
54	Crash axe?				
55	Escape rope (If applicable)				
56	Hand gloves				
57	Flash lights at each crew station				
	GENERAL EMERGENCY EQUIPMENT	**S**	**U**	**NS**	**NA**
58	Emergency equipment location standardized by aircraft type				
59	Proper placarding of all emergency equipment locations?				
60	Proper installation of emergency equipment?				
61	Access to emergency equipment not obstructed?				
62	Life rafts – proper number, capacity and stowed as indicated on briefing card?				
63	Signaling devices (with raft)?				
64	Survival equipment (if required)?				
65	Portable ELT located in a logical place?				
	CABIN EQUIPMENT	**S**	**U**	**NS**	**NA**
66	Emergency exits				
67	Emergency exits markings				
68	Emergency briefing cards?				
69	Seats, seat belts & life jackets				
70	Escape slides				
71	Portable Oxygen				
72	Portable Fire extinguisher				
73	Fire extinguishers – required number, approved type, location suitable, serviced and certificated OK?				
74	First aid kit(s) - correct types, numbers and locations, properly serviced, safetied, tagged and installed?				
75	Medical kit(s) - correct types, numbers and locations, properly serviced, safetied, tagged and installed ?				
76	Life rafts – proper number, capacity and stowed as indicated on briefing card?				
77	Galleys				
78	Megaphones				
79	Lavatories/smoke detectors				
	EXTERNAL	**S**	**U**	**NS**	**NA**
80	Aircraft External Inspection				
	OPERATIONS DEPARTMENT	**S**	**U**	**NS**	**NA**

81	Organizational Chart				
	OPERATIONS DOCUMENTS	**S**	**U**	**NS**	**NA**
82	Operations Manual				
83	Training Manual				
	CREW TRAINING RECORDS	**S**	**U**	**NS**	**NA**
84	Simulator Check				
85	Line Check				
86	Emergency Evacuation Check				
	OPERATIONS PROCEDURES	**S**	**U**	**NS**	**NA**
87	Flight Dispatch (Preparation, NOTAMS, etc)				
88	Information Dissemination				
89	Flight Operations (Execution)				
90	Fuelling				
91	Load Control				
92	Ops Control and Flight Following				
	PHYSICAL INSPECTION OF OPS OFFICES AND FACILITIES	**S**	**U**	**NS**	**NA**
93	Accommodation adequate?				
	CREW CURRENCY	**S**	**U**	**NS**	**NA**
94	Medicals				
95	Licences (Validity Period)				
96	Proficiency/Recurrent checks				
97	Annual Route Checks				
98	Emergency Test Plan				
99	Fire Fighting				

REMARKS & OBSERVATIONS

INSPECTOR NAME:_____

INSPECTOR SIGNATURE:_____

NIGERIAN CIVIL AVIATION AUTHORITY

AVIATION HOUSE

P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS 010 CARRY-ON BAGGAGE PROGRAMME: CHECKLIST

Instructions for Use:

1. Check `**S**' column if you reviewed the record, procedure or event and it is `**Satisfactory'**.
2. Check `**U**' column if you reviewed the record, procedure or event and it is `**Unsatisfactory'**.
3. Check **NS** (**not seen**) column if you did not review the record, procedure or event or you do not have adequate information to make a valid comment.
4. Check **NA** (**not applicable**) column, if the line item is not required in this particular situation.
5. 'Enter any notes on reverse side regarding a 'U' answer for transfer to the Safety Issues Resolution Report.
6. For later reference, precede any notes with the appropriate question number.

ORDER/CL No.	Inspector	Type of Operation	Tracking #

Date Accomplished	NCF/Discrepancies						Operator/Applicant	Activity Code
	A	**B**	**C**	**D**	**E**	**F**		

Flight No:	Location/From :	To:	AC Registration:	AC Type:	Action*				
					S	**U**	**Ap**	**Ac**	**F**

PIC Lic No/Name:	Co-Pilot Lic No/Name		Purser:	Operator Rep/Other CC:

NCF/Discrepancies code: A=Aircraft; B=Facilities; C=Documents; D=Procedures; E=Programmes; F = Other

***Action Codes: S=Satisfactory; U = Unsatisfactory; Ap – Approved; Ac= Accepted; F = Follow-up**

Requirement	Assessment			
	S	**U**	**NS**	**N/A**
1. Does the carry-on baggage programme include a description of the following types of carry-on baggage:				
(a) Information about the acceptable size of carry-on baggage?				
(b) A discussion of child restraint devices and how they will be handled?				
Note: *Child restraint devices that are not used during the flight are to be stowed either as carry-on baggage or as checked baggage.*				
2. Does the programme contain information and instructions about the proper stowage of carry-on baggage and cargo in the cabin, including the following:				
(a) Requirement that each piece of baggage fits under the seat in front of the passenger such that no part of the bag protrudes beyond the fully upright seat back or causes obstruction to passenger movement to, from, or across the aisle?				
(b) Requirement that baggage fits securely in the overhead compartment and the bin doors close without any forced effort?				
(c) Requirement to minimize or eliminate the chances of baggage and other articles falling out when the bin doors are opened?				
(d) Procedures to ensure that all carry-on baggage is stowed in an approved compartment or other specifically approved area?				
(e) Methods to ensure carry-on baggage and cargo do not exceed the placarded weight limitations or certificated load limits for the stowage areas, where they are stowed, or the restraints used to secure them?				
(f) A list of specific items that can be carried in the cabin but outside of specified carry-on baggage compartments?				

(g) Procedure for stowage of these items specify locations where they can be stowed and proper method for restraining them to ensure that they do not shift under emergency load conditions?				
(h) Procedures for stowage of unusual articles?				
(i) Procedures for ensuring that carry-on baggage does not interfere with emergency equipment?				
(j) Ensuring that carry-on baggage other than articles of loose clothing is not placed in an overhead rack unless that rack is equipped with approved restraining devices or doors;				
(k) Stowage of unusual articles?				
(l) Ensuring that –	**S**	**U**	**NS**	**N/A**
(i) A passenger seat under which carry-on baggage is allowed to be stowed is fitted with a means to prevent articles of carry-on baggage stowed under it from sliding forward?				
(ii) Each aisle seat is fitted with a means to prevent articles of carry-on baggage stowed under it from sliding sideward into the aisle under crash impacts severe enough to induce the ultimate inertia forces specified in the emergency landing condition regulations under which the aircraft was type certified?				
(iii) Where applicable, a flexible travel cane carried by a blind individual is stowed-	**S**	**U**	**NS**	**N/A**
(A) Under any series of connected passenger seats in the same row, where the cane does not protrude into an aisle and where the cane is flat on the floor? or				
(B) Between a non-emergency exit window seat and the fuselage, where the cane is flat on the floor?				
(m) Ensuring that an aircraft is not allowed to take off or land unless each article of carry-on baggage is stowed-	**S**	**U**	**NS**	**N/A**
(i) In a suitable closet or baggage or cargo stowage compartment placarded for its maximum weight and providing proper restraint for all baggage or cargo stowed within, and in a manner that does not hinder the possible use of any emergency equipment? or				
(ii) Under a passenger seat;				
(n) Information about the types of materials that should not be carried in carry-on baggage, such as dangerous goods;				
5. Is information provided to crew in the appropriate part of the crew members' manual about the operator's approved carry-on baggage programme?				
6. Does this information include –	**S**	**U**	**NS**	**N/A**
(a) Proper methods of stowing carry-on baggage, cargo, and other articles carried in the cabin?				
(b) Handling of items that have been boarded and cannot be properly stowed?				
(c) Crew co-ordination necessary to ensure items are properly stowed?				
(d) Assignment of crew member responsibility for verification?				
(e) Assignment of crew member responsibility for ensuring that carry-on baggage will not hinder the availability and use of emergency equipment?				
(c) Prohibiting the closing of all passenger entry doors of an aircraft in preparation for taxi or pushback unless at least one required crew member has verified that each article of carry-on baggage is stowed?				
Other pertinent information that the operations inspector determines should be in the crew members' manual?				
7. Does the operator provide training to appropriate ground personnel and to all crew members regarding the operator's approved programme?				
8. Does the training include –	**S**	**U**	**NS**	**N/A**
(a) Carry-on baggage limitations?				
(b) Baggage scanning?				

	(c) Processing of carry-on baggage that cannot be accommodated in any of the passenger compartments?				
	(d) Proper stowing of carry-on baggage?				
	(e) Stowing of cargo and unusual items in the cabin?				
	(f) Crew co-ordination?				
	(g) Applicable passenger information?				
	(h) Types of and limitations on, stowage provisions?				
	(i) Verification that carry-on baggage is stowed so it does not interfere with emergency?				
	(j) Handling of carry-on baggage during an emergency?				
9.	Does the carry-on baggage programme include instructions for-	**S**	**U**	**NS**	**N/A**
	(a) The scanning of passengers' bags to control the size and amount carried on board?				
	(b) The prohibition of boarding of a passenger where his carry-on baggage exceeds the baggage allowance prescribed in the carry-on baggage programme?				

ORDER/CL No:		Tracking No.:

Notes: *1. A "NO" or "N/C" response on a checklist must be accompanied by reason or comments.*
2. A "NO" response to a safety issue finding in an inspection of an organization must be transferred to a CF report for corrective action where applicable.
3. Preceed all comments with the applicable checklist item number or discrepancy number.

Discrepancy Label: *(Circle the applicable numeric labels that best describe the discrepancies)*

Policy, Procedures, Instructions, Information, Documentation, Controls:					**Document Quality**
1.Not Specified	**2.**Unclear	Do not comply with:		**7.**Do not Identify: Who, What, When, Where, How	**8.**Unreadable
3.Incomplete	**4.**Inconsistent	**5. N**CAR	**6.**Guidance		**9.**Illegible

10. Resource requirements incomplete (personnel, facilities, equipment, technical data)

1	2	3	4	5	6	7	8	9	10

Comments:

Recommendations

Name of Inspector_____ Signature_____ Date_____

NIGERIAN CIVIL AVIATION AUTHORITY

AVIATION HOUSE

P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS 011 EXIT SEATING PROGRAMME JOB AID

Instructions for Use:

1. Check **`S**' column if you reviewed the record, procedure or event and it is **`Satisfactory'**.
2. Check **`U**' column if you reviewed the record, procedure or event and it is **`Unsatisfactory'**.
3. Check **NS** (**not seen**) column if you did not review the record, procedure or event or you do not have adequate information to make a valid comment.
4. Check **NA** (**not applicable**) column, if the line item is not required in this particular situation.
5. 'Enter any notes on reverse side regarding a 'U' answer for transfer to the Safety Issues Resolution Report.
6. For later reference, precede any notes with the appropriate question number.

CL No.	Inspector	Type of Operation	Tracking #

Date Accomplished	NCF/Discrepancies						Operator/Applicant	
	A	**B**	**C**	**D**	**E**	**F**		

Flight No:	From :	To:	A/C Registration:	A/C Type:	Action*				
					S	**U**	**Ap**	**Ac**	**F**

|PIC Name and Licence No:	|Other Flt Crew Licence No		|CCM I/C	Other CC:

NCF/Discrepancies code: A=Aircraft; B=Facilities; C=Documents; D=Procedures; E=Programmes; F = Other

****Action Codes: S=Satisfactory; U = Unsatisfactory; Ap – Approved; Ac= Accepted; F = Follow-up***

EXIT SEATING PROCEDURES	**S**	**U**	**NS**	**N/A**
Procedures should be submitted as manual sections/training programme sections/bulletins, etc. as appropriate to the individual operator. The FOI should check for applicability and manual format and ensure that all applicable publications are revised. **THE PROCEDURES MUST ADDRESS THE FOLLOWING REGULATORY REQUIREMENTS, AND MUST ADDRESS WHEN, HOW, AND BY WHOM THE ITEMS WILL BE PERFORMED.** Selection Criteria: Reference Nig. CARs Part 8.9.2.11 "Exit Row Seating," (Operation of Aircraft).				
(1) Do operator procedures address when, how, and by whom the screening and/or selection will be accomplished?				
(2) Do operator procedures address the following selection criteria?				
(a) Does a person lack sufficient strength, dexterity or mobility in both arms and hands, and both legs to perform the following functions?				
(i) Reach upward, sideways, and downward to the location of emergency exit slide operating mechanisms.				
(ii) Grasp and push, pull, turn, or otherwise manipulate those mechanisms.				
(iii) Push, shove, pull, or otherwise open emergency exits.				
(iv) Lift out, hold, deposit on nearby seats, or manoeuvre over the seatbacks to the next row objects the size and weight of over wing exit doors.				
(v) Remove obstructions similar in size and weight of over wing exit doors.				
(vi) Reach the emergency exit expeditiously.				
(vii) Maintain balance while removing obstructions.				
(viii) Exit expeditiously.				
(ix) Stabilise an escape slide after deployment.				
(x) Assist others in getting off an escape slide.				
(b) Is the person less than 15 years of age or does the person lack the capacity to perform one or more of the functions listed above without the assistance of an adult companion, parent or other relative?				
(c) Does the person lack the ability to read and understand instructions related to emergency evacuation provided by the air operator in printed or graphic form or the ability to understand oral crew commands in the language used by the operator?				
(d) Does the person lack a sufficient visual capacity to perform one or more of the above functions without the assistance of visual aids beyond contact lenses or				

eyeglasses?				
(e) Does the person lack a sufficient aural capacity to hear and understand instructions shouted by crewmembers without the assistance beyond a hearing aid?				
(f) Does the person lack the ability to adequately impart information orally to other passengers?				
(g) Does the person have either of the following?				
(i) A condition or responsibility, such as caring for small children, that would prevent the person from performing one or more of the functions listed above.				
(ii) A condition that might cause the person harm if he or she performs one or more of the listed functions listed above.				
SEATING ASSIGNMENTS / VERIFICATION PROCEDURES	**S**	**U**	**NS**	**N/A**
(1) Are exit seats identified for seat assignment purposes?				
(2) Reference Nig. CARs Part 8.9.2.11 "Exit Row Seating" (Operation of Aircraft). Does the certificate holder have a procedure that taxi or pushback will not be allowed until at least one required crewmember has verified that no exit seat is occupied by a person the crewmember determines is likely to be unable to perform the functions listed in Nig. CARs Part 8.9.2.11 "Exit Row Seating" (Operation of Aircraft).				
(3) Reference Nig. CARs Part 8.9.2.11 "Exit Row Seating" (Operation of Aircraft). Are verifying crewmembers specifically identified?				
(4) Reference Nig. CARs Part 8.9.2.11 "Exit Row Seating" (Operation of Aircraft). Does the certificate holder have procedures to honour a passenger's request to be relocated and the procedures for relocation?				
(5) Does procedure reference that a person does not need to disclose his or her reason for the request?				
(6) Reference Nig. CARs Part 8.9.2.11 "Exit Row Seating" (Operation of Aircraft). Does the certificate holder have procedures to move a passenger to accommodate a relocated passenger, in the event of full booking of non-exit seats?				
DENIAL OF TRANSPORTATION / RESOLVING DISPUTES	**S**	**U**	**NS**	**N/A**
(1) Reference Nig. CARs Part 8.9.2.11 "Exit Row Seating" (Operation of Aircraft) Does the certificate holder have procedures to deny transportation because of either or both of the following?				
(a) The passenger refuses to comply with instructions.				
(b) The only seat that will physically accommodate the person's handicap is an exit seat.				
(2) Does the certificate holder have procedures for resolving disputes, including identification of the employee at the airport to whom complaints should be addressed for resolution?				
PASSENGER BRIEFING PROCEDURES	**S**	**U**	**NS**	**N/A**
(1) Reference Nig. CARs Part 8.9.2.11 "Exit Row Seating" (Operation of Aircraft). Does the passenger briefing reference the following:				
(a) Passenger information cards.				
(b) The selection criteria in Nig. CARs Part 8.9.2.11 "Exit Row Seating" (Operation of Aircraft).				
(c) The functions to be performed under Nig. CARs Part 8.9.2.11 "Exit Row Seating," (Operation of Aircraft).				
(d) A request for re-seating if any of the following conditions are met:				
(i) Cannot meet the selection criteria.				
(ii) Has a non-discernible condition that would prevent him or her from performing the listed functions.				
(e) May suffer bodily harm as the result of performing one or more of those functions.				
(f) Does not wish to perform those functions.				
AIRPORT INFORMATION	**S**	**U**	**NS**	**N/A**
(1) Reference Nig. CARs Part 8.9.2.11 "Exit Row Seating" (Operation of Aircraft). Does the certificate holder have written procedures for making determinations in regard to exit seating available for inspection by the public at all passenger loading gates and ticket counters at each airport where it conducts passenger operations?				
(2) Is a copy of the information attached?				
(3) Is the content complete and the method of inspection identified, such as flyers, signs, and so forth?				
PASSENGER INFORMATION CARDS Reference Part 9 of the Nigeria CARs (Air Operator Certification and Administration) and	**S**	**U**	**NS**	**N/A**

Part 8.9.2.11.- "Exit Row Seating" (Operation of Aircraft).				
(1) Are copies of applicable cards attached?				
(2) Are cards appropriate to carrier's aircraft and configurations?				
(3) Do procedures address the use and location of cards?				
(4) Do the briefing cards contain the following functions:				
(a) Locate the emergency exit.				
(b) Recognise the emergency exit opening mechanism.				
(c) Comprehend the instructions for opening the emergency exit.				
(d) Operate the emergency exit.				
(e) Assess whether opening the emergency exit will increase the hazards to passengers being exposed.				
(f) Follow oral directions and hand signals given by a crewmember.				
(g) Stow or secure the emergency exit door so that it will not impede use of the exit.				
(h) Assess the condition of the escape slide, activate the slide, and stabilise the slide after deployment to assist others in getting off the slide (where applicable to aircraft type).				
(i) Explain how to pass expeditiously through the emergency exit.				
(j) Explain how to assess, select, and follow a safe path away from the emergency exit.				
(5) Does the briefing card contain the selection criteria listed in Nig. CARs Part 8.9.2.11 (Operation of Aircraft)?				
(6) Does the briefing card contain a request that a passenger identify himself or herself to allow reseating if he or she meets one of the following criteria?				
(a) Cannot meet the selection criteria.				
(b) Has a non-discernible condition that will prevent him or her from performing the applicable functions listed above?				
(c) May suffer bodily harm as the result of performing one or more of those functions.				
(d) Does not wish to perform those functions.				
(e) Lacks the ability to read, speak, or understand the language, or the graphic form specified by the operator, or lacks the ability to understand oral crew commands (in every language used by the certificate holder for the card).				
AIRCRAFT FLOOR PLANS	S	U	NS	N/A
(1) Are the aircraft passenger seating floor plans submitted for each aircraft make, model, and series, and for each passenger seating configuration used by the certificate holder?				
(2) Are exits and exit seats identified?				

List aircraft operated:
Aircraft Make/Model/Series Configurations (same or show each configuration)

CL No:		Tracking No.:

Notes: *1. A "NO" or "N/S" response on a checklist must be accompanied by reason or comments.*
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3. Precede all comments with the applicable checklist item number or discrepancy number.

Discrepancy Label: *(Circle the applicable numeric labels that best describe the discrepancies)*

Policy, Procedures, Instructions, Information, Documentation, Controls:					**Document Quality**
1.Not Specified	**2.**Unclear	Do not comply with:		**7.**Do not Identify: Who, What, When, Where, How	**8.**Unreadable
3.Incomplete	**4.**Inconsistent	**5.** CAR	**6.**Guidance		**9.**Illegible

10. Resource requirements incomplete (personnel, facilities, equipment, technical data)

1	2	3	4	5	6	7	8	9	10

Comments:

Recommendations

Name of Inspector_____ Signature_____ Date_____

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS 012 CABIN CREW MANUAL GENERAL INFORMATION

Each Cabin crew (CC) manual required by Part 9 of the Nigeria Civil Aviation Regulations must include the necessary instructions and information for all personnel to perform their duties and responsibilities with a high degree of safety. The manual should include at least the following information in addition to some the pertinent portions of the operations manual.

BASIC AVIATION KNOWLEDGE

i. Applicable information from Nig. CARs and operation manuals
ii. Pertinent information from ICAO Annexes
iii. Company specific information
iv. Aviation terminology and terms of reference
v. Theory of Flight
vi. Major Aircraft components.
vii contamination of critical surfaces if applicable
viii. Weight & Balance
ix Air Traffic Control
x. Physiology of flight
xi. Effects of altitude
xii. Cabin Poisoning
xiii. Minimum Equipment List (MEL) use.

DUTIES OF CABIN CREW	**Manual Page**	**Accepted initials**
1. Definition of a crew member. This should include a general statement of the operator's philosophy regarding CABIN CREW duties and responsibilities.		
2. MANUALS		
i. The manual must be easy to read		
ii. The manual must be easy to revise		
iii. The manual should contain procedures for processing revisions as stipulated in Nig. CARs IS 9.1.1.2(d)		
iv. Each crew member shall have a manual accessible while performing assigned duties.		
v. The manual should contain the stipulation that each cabin crew must have a manual readily accessible on board any flight in which he is assigned any duties.		
vi. The manual must be up-to-date. This should be stated in the manual.		

3. CREW PROCEDURES	Manual Page	Accepted initials
i. Authority of the pilot-in-command.		
ii. Method of designating succession of command.		
iii. When applicable, equipment interchange should be in the manual.		
ADMISSION TO THE FLIGHT DECK		
iv. Persons who may be admitted to the flight deck are the following:		
v. Operating crew members		
(a) Representatives of the Authority responsible for certification, licensing or inspection, if this is required for the performance of their official duties; or		
(b) Individuals permitted by the operations manual under instructions contained therein.		
4. COCKPIT SECURITY PROCEDURE i. Procedures for coordinating access to the cockpit through the interphone system		
ii. Procedure for cockpit crew to identify cabin crew before allowing entry to flight deck.		
iii. Locking of the cockpit door.		
iv. Procedures for cockpit crew wishing to exit the cockpit.		
5. STERILE COCKPIT PROCEDURE Include a method of informing Cabin Crews that the flight is in a sterile cockpit time status.		
6. COMMUNICATION WITH CREW Normal methods of communication and co-ordination among crew members including establishing communication with the cockpit crew before or immediately after flight begins.		
7. CREW CO-ORDINATION i. General statement concerning the importance of crew co-ordination.		
ii. Pre-flight crew briefings cockpit crew and cabin crews		
iii. The importance of, and procedures for, reporting in-flight irregularities and/or malfunction (mechanical, passenger, or other) to the cockpit must be in the manual.		
iv. Crew co-ordination procedures to ensure that carry-on baggage has been properly stowed before the passenger loading door is closed.		
v. Crew co-ordination procedures to ensure that the aircraft (including the cabin) is ready for movement on the surface for takeoff or landing.		
vi. Crew co-ordination procedures for exit seating as stipulated in Nig. CARs 8.9.2.11		
CABIN CREW		
vii. Requirement for all Cabin Crew to be seated during movement on the surface unless performing safety-related duties.		
viii. Number of Cabin Crew that must be on board when there are passengers on board the aircraft and it is parked at the gate. Method to identify cabin crew substitutes that might be used while the aircraft is parked at the gate.		
ix. The specific number and location of Cabin Crew that must be on board before movement on the surface. Since this information should be given for each aircraft, it could be contained in the aircraft specific part of the manual.		
x. CABIN CREW duties and number of Cabin Crew required during refuelling procedures.		

xi Policy for use of cabin crew jump-seat by anyone other than the assigned Cabin Crew.		
DUTIES OF CABIN CREW	**Manual Page**	**Accepted initials**
xii. Policy of checking emergency equipment. When Cabin Crew are required to check, then specific responsibilities for specific equipment by aircraft type may be in the appropriate section of the manual.		
8. PASSENGER INFORMATION		
i. Briefing passengers before takeoff about the following: (a) Compliance with lighted signs, posted placards, and instruction of crew. Use of seatbelt. Demonstration of fastening and opening seat belt buckles and life vests.		
(b) That the Authority requires passenger compliance with lighted passenger information signs and crew member instructions concerning the use of seat belts.		
(c) No Smoking is allowed on board any aircraft. Smoke detectors are installed in the lavatories on board the aircraft. International law prohibits tampering with, disabling, or destroying smoke detectors.		
(d) Location of exits.		
(e) Location and use of required floatation equipment.		
ii. Exit seating reference to passenger information cards.		
iii. A request that a passenger should signify if he or she: (a) Cannot meet selection criteria,		
(b) Has an indiscernible condition,		
(c) May suffer bodily harm,		
(d) Does not wish to perform those functions.		
iv. Individual briefing of those who may need assistance and briefing of persons who may be attending these individuals.		
v. After take-off briefing: (a) Briefing that notifies passengers to keep their seat belts fastened even when “seat belt” sign is off (to be given after take-off and before or immediately after “seat belt” sign has been turned off).		
9. EXTENDED OVERWATER BRIEFING		
i. Include everything in Regulation 7.9.1.17 of Nig. CARs		
ii. Demonstrate donning and inflating life preserver.		
iii. Brief on the location and operation of the following: (a) Adult life preservers,		
(b) Life rafts,		
(c) Other floatation means.		
10. USE OF OXYGEN		
i. Before flight is conducted above FL 10,000 ft, crewmembers shall explain the necessity of using oxygen and perform the following:		
ii. Point out location of oxygen dispensing equipment.		
iii. Demonstrate use of oxygen dispensing equipment.		
11. ILLUMINATED SAFETY SIGNS		
i. When a passenger safety information sign remains illuminated for a period		

of time, the crew should make periodic announcements.		
DUTIES OF CABIN CREW	**Manual Page**	**Accepted Initials**
ii.. When a passenger continues not to obey a safety information sign, the pilot-in-command should be notified.		
12 . PASSENGERS		
i. Disabled: (A) Exit seating applicable parts of the Regulations. This may include the location, operation, and procedures for use of the following: (a) On board wheelchair,		
(b) Disable equipped lavatories,		
(c) Movable armrests.		
ii.. Infants and Children: The manual should include the following concerning infants and children: (a) Procedures for restraining including location and actions during an emergency.		
(b) Information that if the parents have purchased a ticket and the infant seat device is approved, it must be allowed.		
(c) The fact that infants should be restrained in the approved restraint device during turbulence.		
13. PASSENGER ISSUES		
i. Serving alcohol,		
ii. Reporting persons who cause a disturbance,		
iii. Armed passengers,		
iv. Passengers who abuse a crew member,		
v. Interference with a crew member in the performance of duties,		
vi. Passengers who are mentally retarded,		
vii. Passengers who are emotionally disturbed,		
viii. Pregnant passengers,		
ix. Non-language speaking passengers – refer to the exit seating rule,		
x. Stretcher patients,		
xi. Policy and procedures for non-compliance of smoking ban,		
xii. Others.		
14. SAFETY PROCEDURES		
i. Restraint of galley equipment (including galley) for movement on the surface, takeoff, landing, and when not in use. This should include the fact that carts should be properly restrained when not in use.		
ii. Proper stowage of cargo (including musical instruments and pet carriers) in the cabin, as stipulated in Nig. CARs 8.9.2.15 if applicable.		
iii. Appropriate portions of carry-on baggage program as stipulated in Nig. CARs 8.9.2.14		
iv. Management of boarding carry-on baggage. Each piece of carry-on baggage is properly stowed before the passenger loading door is closed. This includes the overhead bin and cabin cargo compartment doors.		

v. Approved stowage areas for carry-on baggage.		
vi. Crew baggage stowage.		
DUTIES OF CABIN CREW	**Manual Page**	**Accepted Initials**
vii. Stowage of canes.		
viii. Prohibition against stowage of trash or carry-on baggage in unauthorised receptacles such as lavatories or the cockpit.		
ix. Prohibition against stowing non-safety articles with safety equipment.		
x. Need for tray tables to be stowed for movement on the surface, takeoff, and landing. Movie screens that extend into the aisle must also be stowed for movement on the surface, takeoff, and landing.		
xi. Need for seatbacks to be in their full, upright position before takeoff and landing.		
xii. Need to stow Cabin Crews' restraint systems when not in use.		
15. DOORS		
i. Readying doors for movement on the surface, including general statement of responsibility for readying doors. Procedures for specific crewmembers at specific doors would probably be better included in aircraft section of the manual.		
ii. Ensure that one door is ready for passenger egress when aircraft is parked at the gate.		
16. DRUGS		
i. Carriage of drugs,		
ii. Use of drugs.		
17. ELECTRONIC DEVICES:		
i. Procedures to follow when occupants use electronic devices and which devices are not allowed.		
18. DANGEROUS GOODS		
i. Identification of and, if they are going to be in the cabin, procedures for storage and handling.		
19. LIGHTS		
i. Flashlight holders and operation, if applicable.		
ii. Operator's policy to ensure that each crew member has a workable flashlight.		
iii. Cabin light setting for take-off, landing, and forewarned (anticipated emergency evacuations and ditching).		
iv. Specific aircraft light controls may be contained in the aircraft section of the manual.		
20. TURBULENCE		
i. Crew co-ordination in turbulence.		
ii. Service procedures, especially of hot liquids, in turbulence.		

iii. Passenger seat belt discipline in turbulence.		
iv. Briefing of passenger during turbulence and carrying out periodic checks for compliance		
21. SURVIVAL		
Information about survival in situations appropriate for operations such as water, mountains, desert, or jungle.		
DUTIES OF CABIN CREW	**Manual Page**	**Accepted Initials**
22. HIJACKING		
i Hijacking procedures should be developed with the assistance of the Security Inspector assigned to the operator, but the responsibility for the final acceptance of manual contents rests with the Operations Inspector. NOTE: Procedures contained in CABIN CREW manual may be very limited. These procedures may be a "coded" memory aid.		
ii. A method of communication with other crew members when hijacking is either threatened or in progress. NOTE: Details may not be in the CABIN CREW manual.		
23. WEAPONS		
Security regulations and operator's procedures for the carriage of weapons.		
24. ILLNESS/INJURY i. Fundamentals of First Aid.		
ii. Contents and procedures for use of first aid kit.		
iii. Recognition of common medical problems.		
iv. First aid treatment that considers limited and special space for those problems in aircraft cabins.		
v.. Use of first aid oxygen may be placed with procedures or with use of equipment. In this checklist, it is with oxygen equipment.		
vi. Additional first aid.		
vii. Personal Hygiene		
vii. Tropical hygiene		
viii. Transmissible diseases		
ix. Quarantinable diseases		
x. Endemic diseases		
xi. Food Poisoning		
xii. Artificial respiration		
xiii. Use of Automatic External Difibrilator (AED)		
xiv Effects of drugs /intoxicants		
xv. Inflight medical emergencies and incidents including but not limited to:		
a. Choking		

b. Fracture		
c. Anaphylactic Shock		
d. Head Ache/pains		
e. Hyperventilation		
f. Tooth Ache		
g. Deep Vain Thrombosis		
h. Foreign object in ear /eye		
i. Fainting		
DUTIES OF CABIN CREW	**Manual Page**	**Accepted Initials**
j. Heart Burn		
k. Air sickness		
l. Cramps		
m. Epilepsy		
n. Convulsion		
o. Angina		
p. Death		
q. Heart Attack		
r. Indigestion		
s. Stroke		
t. Diarrhoea		
u. Shock		
v. Nose bleeding		
w. Diabetes		
x. Hypertension		
y. Miscarriages		
z. Hypothemia		
ai. Emergency Child birth		
aii. Menstrual cramps		
aiii. Asthma		
aiv Nausea		
av. Incapacitation (pilot, cabin crew & passenger)		
avi. Vomiting		
avii. Drug overdose		
aviii. Burns		
aix fever		
ax. Bleeding		
axi Strain/ Sprain.		

25. OXYGEN: USE AND NEED		
i. Depressurisation,		
ii. Slow leaks.		
iii. Rapid depressurisation procedures, including the following:		
(a) Signs of a loss of cabin pressures,		
(b) Symptoms of hypoxia,		
(c) Crew co-ordination,		
(d) Cabin Crew actions, including the following: (1) donning the nearest oxygen mask,		
DUTIES OF CABIN CREW	**Manual Page**	**Accepted initials**
(2) sitting down or holding on something solid and waiting for word from the flight deck before moving around,		
(3) assisting passengers.		
iv. Description of use of each type of portable oxygen bottle and mask. This is especially important with solid state (chemical) oxygen generators.		
v. Procedures for Cabin Crew to administer oxygen to self.		
vi. Procedures for use of medical (passenger supplied) oxygen (must be under operator's maintenance program).		
vii. Smoking is prohibited on board any aircraft		
26. FIRE PREVENTION AND CONTROL		
i. Fire prevention procedures that at least include the following: Checking the lavatories before take-off and periodically during flight.		
ii. Periodic cabin checks.		
iii. Use of circuit breakers located in the cabin (precautions against resetting).		
iv. Proper stowage of article that could contribute to fire (such as matches).		
v. Checking of oven and over vents.		
vi. Cabin Crew procedures for handling passengers.		
vii. Fire control procedures should include fires occurring in the following locations: (a) on the ground,		
(b) outside the aircraft,		
(c) inside aircraft,		
(d) during flight.		
viii. During fires inside the aircraft, fire control procedures should include the following: (a) Type of fire extinguisher or class of fire.		
(b) Use of protective breathing equipment (PBE).		
(c) Fire control when volatile fuel is involved (this may be included in hijacking or threatening passenger part of the manual),		
(d) Smoke control procedures,		
(e) Use of circuit breakers		

(f) Fire in galley, including oven,		
(g) Fire in the lavatory or other confined spaces,		
(h) Light ballast fires.		
27. EVACUATION PROCEDURES		
i. For each type of aircraft evacuation or ditching, the manual should at least include procedures and techniques regarding the following: (a) Crew co-ordination,		
(b) Giving commands to passengers,		
(c) Describing brace for impact positions,		
(d) Assessing condition,		
DUTIES OF CABIN CREW	**Manual Page**	**Accepted initials**
(e) Ensuring aircraft has come to a complete stop,		
(f) Evacuating persons and any of their attendants who may need assistance,		
(g) Redirecting passenger flow,		
(h) Caring for passengers following accident.		
ii. Un-forewarned (unanticipated aircraft evacuation or water landing) including the following: (a) Crew co-ordination,		
(b) Commands given to passengers,		
(c) Initiation,		
(d) Actions at door.		
iii. Forewarned (anticipated aircraft evacuation or water landing) including the following: (a) Crew co-ordination,		
(b) Commands given to passengers,		
(c) Passenger preparation,		
(d) Cabin preparation,		
iv. Unwarranted (unneeded) evacuation, passenger or crew initiated, including the following: (a) Crew co-ordination,		
(b) Stopping the evacuation.		

AIRCRAFT TYPE INFORMATION

1. AIRCRAFT DESCRIPTION	**Manual Page**	**Accepted initials**
i. The manual should contain a description and/or diagram of each type/model of aircraft showing the items listed below. If the location of any of these items varies from one aircraft to another, aircraft registration numbers with specific location should be given.		
ii. The assigned take-off and landing location for each crewmember who might be		

assigned safety duties in the cabin should be clearly designated.		
iii. The duties and duty station for each crew member (including flight crew)during an evacuation or ditching should be given.		
iv. If it is part of the operator's procedures, the pre-flight check of specific safety equipment should be given. This should include checking of placards.		
v. CABIN CREW location for performing safety demonstrations.		
2. AIRCRAFT EMERGENCY EQUIPMENT		
i. The emergency equipment location should be given for each type of aircraft; however, when equipment such as the first aid kit is the same from aircraft to aircraft, the description of the contents and the operation may be contained in the "general section" of the manual. (a) Each exit (clearly show what type of exit),		
DUTIES OF CABIN CREW	**Manual Page**	**Accepted Initials**
(b) Each first aid kit		
(c) Medical kit,		
(d) Portable lights/flashlight,		
(e) Each fire extinguisher by type,		
(f) Each Portable Breathing Equipment (PBE),		
(g) Floatation equipment,		
(h) Over water equipment,		
(i) Survival kits and transmitters, if not attached to life raft.		
(j) Crash axe,		
(k) Megaphone,		
(l) Appropriate circuit breakers,		
(m) Portable oxygen,		
(n) Supplemental (ship's) oxygen,		
(o) Approved crew bag stowage areas.		
3. FLOOR LEVEL EXITS		
i. A Description for operations and procedures at floor level exits should include the following: (a) Opening in normal mode,		
(b) Opening in emergency mode,		
(c) Ready for movement on the surface,		
(d) Ready for gate arrival		
(e) Ready at gate, if appropriate		
4. EVACUATION SLIDES		
i. A Description of operation and procedures for evacuation slides, slide/rafts, or ramps should include the following: (a) Emergency inflation,		
(b) Manual inflation.		
5. WINDOW EXITS		
i. A description of operation and procedures at window exits should include the following: (a) Opening exits,		

(b) Placement of window,		
(c) Recommended method of exiting window,		
(d) Use of life lines.		
6. VENTRAL STAIRS		
i. A description of the operation and procedures pertinent to ventral stairs should include the following: (a) Information regarding lowering or otherwise operating stairs in normal and emergency modes,		
ii. Information about stair use in evacuations.		
7. TAILCONES		
i. The information about the operation and procedures pertinent to tail-cones should contain the following; (a) Detailed description of the activation of the tail-cone.		
(b) Details of unusual environmental factors that could affect crewmember performance in or around tail-cones.		
DUTIES OF CABIN CREW	**Manual Page**	**Accepted Initials**
8. COCKPIT EMERGENCY EXITS		
i. Information about this equipment should describe or depict the opening and the use of any equipment that would assist in reaching the ground (such as escape ropes).		
9. ESCAPE ROUTES OTHER THAN CABIN		
i. Information should show the method of reaching these exits, the opening, and actions necessary to exit.		
10. OTHER EXITS		
11. DOOR SAFETY STRAPS i. Include both location and use in normal and emergency operations.		
12. DOOR INOPERATIVE PROCEDURES		
ii. If this type of aircraft is allowed to operate with a door inoperative, the procedures to follow for the specific aircraft should be given.		
13. CABIN CREW STATION		
i. The Cabin Crew manual should contain a description of each type of Cabin Crew station. This description should include the following: (a) The proper brace position for that station,		
(b) Information about the restraint system at that station and its use,		
(c) The safety equipment that a Cabin Crew can reach while seated at that station.		
14. ELECTRICAL EQUIPMENT		
i. The manual should contain information about circuit breakers, heat, or ventilation located in the cabin. ii. This information should include the following: (a) Location,		

(b) Function,		
(c) Operation of the controls.		
15. EMERGENCY LIGHTS		
i. Location of emergency lights, emergency light switches, and procedures for use should be in the manual.		
ii. Information about floor proximity lighting should be given as appropriate to that type of aircraft.		
16. PUBLIC ADDRESS AND INTERPHONE SYSTEMS		
A description of these systems that include their use in normal and emergency situation should be included.		
17. EVACUATION ALARMS		
When evacuation alarms are present, information about their location, function, and operation should be given.		
18. OXYGEN SYSTEMS		
i. The manual should include the following information: (a) Location of oxygen dispensing units,		
(b) Information about additional drop-down masks,		
(c) Proper method of use,		
(d) Manual deployment,		
DUTIES OF CABIN CREW	**Manual Page**	**Accepted Initials**
(d) If applicable, information about special characteristics of chemically generated devices, (such as heat generating properties).		
19. PORTABLE OXYGEN EQUIPMENT		
Description, location, and operation for each kind of portable oxygen dispensing unit and the masks should be given.		
20. GALLEY RESTRAINT		
Description of the location and operation of carry-on baggage restraints system should be given when applicable.		
21. CARRY-ON BAGGAGE RESTRAINT		
i. Description of the location and operation of all galley restrains should be given when applicable.		
ii. Stowage of items other than approved cargo compartments. Some airlines have as part of their carry-on procedures the fact that carry-on baggage may be stowed in a seat. If this is the case, the seats where it can be stowed and method of stowage should be included in the manual.		
22. SMOKE ALARMS		
The manual should give the location of the smoke alarms. It should also contain information regarding the procedures to follow when a smoke alarm has been activated.		
23. TRASH CONTAINER DOORS		
The manual should contain information about the location, function, and proper operation of these doors.		
24. UPPER/LOWER DECK		
Some aircraft are multi-decked. When this is the case, information regarding safety equipment on those decks should be provided.		
25. LIFTS		
Multi-decked aircraft are usually equipped with personnel/galley lifts. Operation and function of the safety interlock system of these lifts should be described.		

27. LIFE PRESERVERS		
Donning, inflation, use, and activation light for each type of life preserver, including infant and child preservers, should be given. (If only one type is used, this information may have been given in the "general section" of the manual).		
28. LIFERAFTS AND SLIDES USED IN FLOATATION		
When the aircraft is equipped with life rafts, slide/raft packs, or slides used as floatation ramps, information about this equipment should include a description of the equipment, its contents, and at least the following:		
(a) Transfer from one door to the next,		
(b) Inflation and launching		
(c) Proper method of boarding passengers and crew,		
(d) Crew assignment during ditching and in the life raft.		
29. INOPERABLE EQUIPMENT		
Procedures to follow when a piece of required safety equipment is inoperable should be part of the manual.		
30. FIRE EXTINGUISHER/PBE		
The location of the equipment and any features that make use of operation unique to this aircraft.		
DUTIES OF CABIN CREW	**Manual Page**	**Accepted Initials**
31. SMOKE BARRIERS		
Some aircraft are equipped with smoke barriers. When this is the case, information about their location and use should be part of the manual.		
32. FIRST AID/MEDICAL KITS		
The location of the equipment and any features that make its use unique to this aircraft should be given.		
33. Any other special information peculiar to any given aircraft type.		

NIGERIAN CIVIL AVIATION AUTHORITY

AVIATION HOUSE

P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL-O-OPS 013 APPROVED RVSM OPERATIONS PROGRAMME CHECKLIST

Instructions for Use:

1. Check **`S**' column if you reviewed the record, procedure or event and it is **`Satisfactory'**.
2. Check **`U**' column if you reviewed the record, procedure or event and it is **`Unsatisfactory'**.
3. Check **NS** (**not seen**) column if you did not review the record, procedure or event or you do not have adequate information to make a valid comment.
4. Check **NA** (**not applicable**) column, if the line item is not required in this particular situation.
5. 'Enter any notes on reverse side regarding a 'U' answer for transfer to the Safety Issues Resolution Report.
6. For later reference, precede any notes with the appropriate question number.

Order/CL No.	Inspector	Type of Operation	

Date Accomplished	NCF/Discrepancies						Operator/Applicant
	A	**B**	**C**	**D**	**E**	**F**	

Flight No:	Location/From :	To:	AC Registration:	AC Type:	Action*				
					S	**U**	**Ap**	**Ac**	**F**

PIC Lic No/Name:	Other Flt Crew Lic No		SCC Crew	Other CC:

Document:	Operator's Representative:

NCF/Discrepancies code: A=Aircraft; B=Facilities; C=Documents; D=Procedures; E=Programmes; F = Other

***Action Codes: S=Satisfactory; U = Unsatisfactory; Ap – Approved; Ac= Accepted; F = Follow-up**

Item	Assessment			
This Activity must be coordinated between the FOI and AWI	**S**	**U**	**NS**	**NA**
1 Do Operations Manual and checklists provide specific guidance on RVSM operations?				
2. Is the operator's training programme for flight crew operations in RVSM airspace adequate?				
3 Are RVSM operating practices and procedures incorporated in operations manual and documents?				
4 Are the contents of the operations manual on practices and procedures for RVSM operations complete and correct?				
5 If the operator has a separate RVSM manual, is it complete and correct?				
6 Are the following items included in the flightcrew training programmes:	**S**	**U**	**NS**	**NA**
(a) Knowledge and understanding of standard ATC phraseology used in each area of operations?				
(a) Importance of crew members cross checking each other to ensure that ATC clearances are promptly and correctly complied with?				
(b) Use and limitations in terms of accuracy of standby altimeters in contingencies?				
(e) Problems of visual perception of other aircraft at 1,000 ft (300 m) planned separation during night conditions, when encountering local phenomena such as northern lights, for opposite and same direction traffic, and during turns?				

	(f) Characteristics of aircraft altitude capture systems which may lead to the occurrence of overshoots?				
	(g) Operational procedures and operating characteristics related to TCAS (ACAS) operation in an RVSM operation?				
	(h) Relationship between the altimetry, automatic altitude control, and transponder systems in normal and abnormal situations?				
	(i) Aircraft operating restrictions (if required for the specific aircraft group) related to RVSM airworthiness approval?				
	(j) Use of track offset procedures where applicable to mitigate the effect of wake turbulence?				
7	Are the following required pilot knowledge elements as described in Appendix 5 of 91-RVSM addressed in flight crew training programmes and manuals:	**S**	**U**	**NS**	**NA**
	(a) Guidance to the pilot in the event of equipment failures or encounters with turbulence after entering RVSM airspace?				
	(b) Expanded RVSM equipment failure and turbulence scenarios?				
	(c) Contingency procedures published in ICAO document 7030, Regional Supplementary Procedures.				
	(d) Wake Turbulence Procedures?				
	(e) RVSM Transition Areas?				
8	Does coordination with the AWI confirm the following:	**S**	**U**	**NS**	**NA**
	(a) The aircraft is RVSM compliant?				
	(b) The MEL includes items pertinent to operations within RVSM airspace?				
	(c) The operator has plans for participation in variation and monitoring programmes for RVSM?				
	(d) The method of notifying the flight crew that the aircraft is not “RVSM Qualified” but is still airworthy for the intended flight is satisfactory?				
	(e) Identification of RVSM maintenance items that will render the aircraft unfit for RVSM flight, but is still airworthy for the intended flight?				
	(f) Procedures to notify the CAA office of gross height keeping errors and revalidation of the aircraft?				
	(g) Do maintenance procedures restrict aircraft identified as exhibiting height keeping performance errors from operating in RVSM airspace until corrective actions have been taken which verify support of RVSM operations?				
Other					
9					
10					

CL No:		

Notes:
1. *A "U" or "NS" response on the checklist must be accompanied by reason or comments.*
2. *A "U" response to a safety issue finding in an inspection of an organization must be transferred to the NCF report for corrective action where applicable.*
3. *Preceed all comments with the applicable checklist item number*.

Discrepancy Label: *(Use the applicable numeric label with description for each "NO" response)*

Policy, Procedures, Instructions, Information, Documentation, Controls:					**Document Quality**
1.Not Specified	**2.**Unclear	Do not comply with:		**7.**Do not Identify: Who, What, When, Where, How	**8.**Unreadable
3.Incomplete	**4.**Inconsistent	**5. N**CAR	**6.**Guidance		**9.**Illegible

10. Resource requirements incomplete (personnel, facilities, equipment, technical data)

Comments:

Recommendations

Name of Inspector_____ Signature_____ Date_____

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS 0014 EMERGENCY EVACUATION DITCHING/DEMONSTRATION REPORT

EMERGENCY EVACUATION DITCHING/DEMONSTRATION REPORT - FRONT PAGE

Instructions: Attach briefing card required by Part 8 of the Nigeria Civil Aviation Regulations (Operation of Aircraft), and diagram of aircraft showing location of cabin crew seats, emergency equipment, and exits used for the demonstration.

1. Date and Time of Demonstration	2. Results A. ☐ Satisfactory B. ☐ Unsatisfactory
3. Name of Operator and Designator	
4. Make, Model, Series, and Registration Number	
5. Name and Title of Team Members:	

6. Type of Demonstration	7. Reason for Demonstration	
A. ☐ Aborted Takeoff Full-scale B. ☐ Aborted Takeoff Partial C. ☐ Ditching	A. ☐ Initial Type Certification B. ☐ New Aircraft Type C. ☐ Increase in Seating Capacity D. ☐ Change in Cabin Configuration E. ☐ Change in CC Number, Duties, Location, or procedures	F. ☐ Change in Exit Number Location, or Opening Mechanism G. ☐ New Operator Certification H. ☐ Other (Specify) _____

8. Number of Persons on Board	9. Applicable Regulations	
A. Flight crew members _____ B. Cabin crew members _____ C. Passengers _____ D. Total _____	A. ☐ Nig-CAR Part 9 B. ☐ Nig-CAR Part 9	C. ☐ Nig-CAR Part 9 D. ☐ Nig-CAR Part 9 E. ☐ Nig-CAR Part 9

10. Exits Used*			11. Type of Slides Used	12. Time Record
A	B	C	A. ☐ Inflatable B. ☐ Non-inflatable C. ☐ Slide Raft	A. ☐ Aborted Takeoff Full Scale _____ sec B. ☐ Aborted Partial Takeoff _____ sec C. ☐ Ditching _____ min
D	E	F		

Comment Record

13. Aeroplane location A. ☐ Hangar B. ☐ Ramp	17. Crew Knowledge A. ☐ Satisfactory B. ☐ Unsatisfactory
14. Operator Safety Precautions A. ☐ Satisfactory B. ☐ Unsatisfactory	18. Equipment Reliability A. ☐ Satisfactory B. ☐ Unsatisfactory
15. Emergency Equipment Inspections A. ☐ Satisfactory B. ☐ Unsatisfactory	19. Operator Procedures A. ☐ Satisfactory B. ☐ Unsatisfactory
16. Emergency Equipment Inspections A. ☐ Satisfactory B. ☐ Unsatisfactory	20. Other (Record on block 23) A. ☐ Satisfactory B. ☐ Unsatisfactory

*Exit Code: L = Left; R = Right; W = Window; F = Floor Level; VS = Ventral Stairs; T = Tail, C = Cockpit, U = Upper Deck; B = Below Main Cabin Floor. Number the Exits from Cockpit to Tail.

EMERGENCY EVACUATION DITCHING/DEMONSTRATION REPORT – BACK PAGE			
21. How Non-designated Exits were blocked:			
22. Initiation Signal			
23. Discrepancies/Recommendations: (Make Reference to Appropriate Blocks)			
Block	Remarks		
24. Authority Office Action	Person responsible for safety oversight:		
DTL/CPM Name		Signature	Date
25. Director General/Managing Director of Civil Aviation Review:			
Name		Signature	Date

NIGERIAN CIVIL AVIATION AUTHORITY

AVIATION HOUSE

P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS015 REVIEWING AN APPLICANT'S PLAN FOR DEMONSTRATION FLIGHTS CHECKLIST

Instructions for Use:

1. Check **`S**' column if you reviewed the record, procedure or event and it is **`Satisfactory'**.
2. Check **`U**' column if you reviewed the record, procedure or event and it is **`Unsatisfactory'**.
3. Check **NS** (**not seen**) column if you did not review the record, procedure or event or you do not have adequate information to make a valid comment.
4. Check **NA** (**not applicable**) column, if the line item is not required in this particular situation.
5. 'Enter any notes on reverse side regarding a 'U' answer for transfer to the Safety Issues Resolution Report.
6. For later reference, precede any notes with the appropriate question number.

No.	Description	S	U	N/S	N/A
1.	Did the applicant submit the demonstration test plan at least 10 days in advance of proposed in-flight demonstrations (including training or ferry flights)?				
2.	Does the applicant's plan include the identification of the operator co-ordinator that will serve as the primary demonstration test spokesperson?				
3.	Does the applicant's plan include a detailed schedule of all proposed flights, including dates, times, and aerodromes to be used?				
4.	Does the applicant's plan differentiate which flights will be conducted for training, ferry, or representative en-route flights?				
5.	Do the applicant's representative flights include destinations to aerodromes that he is likely to use? Regulation 27				
6.	Do the applicant's representative flights include each type of instrument approach procedure requested?				
7.	Does the applicant's plan contain at least 5 instrument approaches under actual or simulated weather conditions if IFR is requested? Regulation 27				
8.	Does the applicant's plan contain at least 100 hours total flight time? Regulation 27				
9.	Does the applicant's plan contain at least 5 hours of night-time if night operations are requested? Regulation 27				
10.	Do the applicant's representative flights include flights through designated special areas? Regulation 27				
11.	Do the applicant's representative flights include the use of specialised navigation systems? Regulation 27				
12.	Does the applicant's plan list the names and the positions of the crew members that will be participating on each flight?				
13.	Does the applicant's plan contain a list of names, titles, and operator affiliations of non-crew member personnel whom the applicant intends to have onboard each flight? Regulation 27				
14.	If the applicant's plan is to carry revenue cargo, does he hold appropriate licences and clearances?				

REMARKS & OBSERVATIONS

_____

INSPECTOR SIGNATURE

Additional comments attached ☐ =>

NIGERIAN CIVIL AVIATION AUTHORITY

AVIATION HOUSE

P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS015A AN APPLICANT REQUEST FOR AN EXEMPTION FROM THE REQUIRED DEMONSTRATION FLIGHT HOURS

Instructions for Use:

1. Check **`S**' column if you reviewed the record, procedure or event and it is **`Satisfactory'**.
2. Check **`U**' column if you reviewed the record, procedure or event and it is **`Unsatisfactory'**.
3. Check **NS** (**not seen**) column if you did not review the record, procedure or event or you do not have adequate information to make a valid comment.
4. Check **NA** (**not applicable**) column, if the line item is not required in this particular situation.
5. 'Enter any notes on reverse side regarding a 'U' answer for transfer to the Safety Issues Resolution Report.
6. For later reference, precede any notes with the appropriate question number.

No.	Description	S	U	N/S	N/A
1.	Did the applicant submit the demonstration test plan at least 10 days in advance of proposed in-flight demonstrations (including training or ferry flights)?				
2.	Does the applicant's plan include the identification of the operator co-ordinator that will serve as the primary demonstration test spokesperson?				
3.	Does the applicant's plan include a detailed schedule of all proposed flights, including dates, times, and aerodromes to be used?				
4.	Does the applicant's plan differentiate which flights will be conducted for training, ferry, or representative en-route flights?				
5.	Do the applicant's representative flights include destinations to aerodromes that he is likely to use? Regulation 27				
6.	Do the applicant's representative flights include each type of instrument approach procedure requested?				
7.	Does the applicant's plan contain at least 5 instrument approaches under actual or simulated weather conditions if IFR is requested? Regulation 27				
8.	Does the applicant's plan contain at least 100 hours total flight time? Regulation 27				
9.	Does the applicant's plan contain at least 5 hours of night-time if night operations are requested? Regulation 27				
10.	Do the applicant's representative flights include flights through designated special areas? Regulation 27				
11.	Do the applicant's representative flights include the use of specialised navigation systems? Regulation 27				
12.	Does the applicant's plan list the names and the positions of the crew members that will be participating on each flight?				
13.	Does the applicant's plan contain a list of names, titles, and operator affiliations of non-crew member personnel whom the applicant intends to have onboard each flight? Regulation 27				
14.	If the applicant's plan is to carry revenue cargo, does he hold appropriate licences and clearances?				

No	Description	S	U	N/S	N/A
1.	The applicant's request for exemption include the total number of hours it proposes to fly in the reduced programme				
2.	The applicant's request for exemption include a flight experience resume for each flight crew member that it intends to use during the demonstration flight programme				
3.	The applicant's request for exemption include any other documentation of flight crew licenses, total flight time, previous experience with the aircraft being tested, years of experience with the applicant being tested and any other experience in commercial air transportation operations under an AOC?				
4.	The applicant's request for exemption include documentation of any other flight crew experience in transport operations such as military				
5.	The applicant's request for exemption include a statement of operator experience with operations as an AOC				
6.	The applicant's request for exemption include a statement of operator experience with aircraft of the same group or type				
7.	The applicant's request for exemption include a statement of operator experience with the aerodromes and areas of en-route operations into which the proposed aircraft will operate				

NO	EVALUATION CONSIDERATIONS	REMARKS
1	To what extent has an air operator certificated in this country used this aircraft previously in commercial air transportation	
2	To what extent have foreign air operators operated this aircraft	
3	How familiar is the Authority demonstration team with the aircraft	
4	For aircraft that have been demonstrated previously in operations under part 9 of the Nigeria Civil Aviation Regulations, to what extent does the new aircraft affect the applicant's operation	
5	To what extent is the applicant's route structure affected by the new aircraft	
6	what is the experience level of the flight and cabin personnel in the operation of this type of aircraft under an AOC	
7	what is the experience level of the flight and cabin personnel in the operation of similar types of aircraft under an AOC	
8	How does the applicant propose to conduct the demonstration flights i.e. a few long range flights, several short-range flights	
9	what level of management experience exists in the operator with this type or similar types of aircraft operated under an AOC	
RECOMMENDATION- PROVIDE JUSTIFICATION FOR PRESENT OR REDUCTION		

REMARKS & OBSERVATIONS

_____

INSPECTOR SIGNATURE

Additional comments attached ☐ =>

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS 015B EVALUATION OF DEMO FLIGHT

Demonstration flights must be conducted in all respects as if they were revenue services. Depending on the nature of the operation, more than one demonstration flight may be required.

The following conditions apply to demonstration flights.

- Demonstration flights must cover at least two route sectors, with one sector preferably conducted at night.
- Adequate time must be planned at each port to allow for inspection of the applicant's ground staff, procedures and facilities, and to enable inspection of dispatch preparation, aircraft loading, passenger processing and aircraft servicing.
- A demonstration flight must include a representative selection of the destinations intended to be serviced.
- In the interests of realism, the operator should be asked to carry operator staff or their family and friends to simulate a normal passenger load. The operator's cargo or equipment may also be carried.

NIGERIAN CIVIL AVIATION AUTHORITY

AVIATION HOUSE

P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS 015B EVALUATION OF DEMO FLIGHT

Record ID:	Inspector	Type of Operation	Activity Number – Checklist
Date Accomplished:	Location	Operator #	Tracking #
Station Manager		Aircraft Types Supported	

Instructions for Use:

1. Check **`S'** column if you reviewed the record, procedure or event and it is **`Satisfactory'**.
2. Check **`U'** column if you reviewed the record, procedure or event and it is **`Unsatisfactory'**.
3. Check **NS** (**not seen**) column if you did not review the record, procedure or event or you do not have adequate information to make a valid comment.
4. Check **NA** (**not applicable**) column, if the line item is not required in this particular situation.
5. 'Enter any notes on reverse side regarding a 'U' answer for transfer to the Safety Issues Resolution Report.
6. For later reference, precede any notes with the appropriate question number.

S/N	The following functions must be demonstrated during demonstration flights:	*S*	*U*	*NS*	*NA*
1.	Compliance with flight crew flight and duty times				
2.	Scheduled turn-around times and on-time departures				
3.	Recording and rectification of defects encountered				
4.	Refueling				
5.	Load control				
6.	Baggage and/or cargo loading and unloading				
7.	Passenger handling				
8.	Flight and cabin crew compliance with duties and company procedures				
9.	Capacity of airport facilities to support the services				
10.	Aircraft pushback (when used)				
11.	Capacity to notify relevant persons of operational changes				
12.	Flight planning				
13.	Operational control				
14.	Suitability of aircraft performance information				
15.	Suitability of route qualification training.				

REMARKS & OBSERVATIONS

_____

INSPECTOR SIGNATURE

Additional comments attached ☐ =>

NIGERIAN CIVIL AVIATION AUTHORITY

AVIATION HOUSE

P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL-O-OPS 016 APPROVED MNPS OPERATIONS PROGRAMME CHECKLIST

Instructions for Use:

1. Check **`S**' column if you reviewed the record, procedure or event and it is **`Satisfactory'**.
2. Check **`U**' column if you reviewed the record, procedure or event and it is **`Unsatisfactory'**.
3. Check **NS** (**not seen**) column if you did not review the record, procedure or event or you do not have adequate information to make a valid comment.
4. Check **NA** (**not applicable**) column, if the line item is not required in this particular situation.
5. 'Enter any notes on reverse side regarding a 'U' answer for transfer to the Safety Issues Resolution Report.
6. For later reference, precede any notes with the appropriate question number.

Order/CL No.	Inspector	Type of Operation	

Date Accomplished	NCF/Discrepancies						Operator/Applicant
	A	**B**	**C**	**D**	**E**	**F**	

Flight No:	Location/From :	To:	AC Registration:	AC Type:	Action*				
					S	**U**	**Ap**	**Ac**	**F**

PIC Lic No/Name:	Other Flt Crew Lic No		SCC Crew	Other CC:

Document:	Operator's Representative:

NCF/Discrepancies code: A=Aircraft; B=Facilities; C=Documents; D=Procedures; E=Programmes; F = Other

***Action Codes: S=Satisfactory; U = Unsatisfactory; Ap – Approved; Ac= Accepted; F = Follow-up**

Item	Assessment			
This Activity must be coordinated between the FOI and AWI	**S**	**U**	**NS**	**NA**
1 Do Operations Manual and checklists provide specific guidance on MNPS operations?				
2. Is the operator's training programme for flight crew operations in MNPS airspace adequate?				
3 Are MNPS operating practices and procedures incorporated in operations manual and documents?				
4 Are the contents of the operations manual on practices and procedures for MNPS operations complete and correct?				
5 If the operator has a separate MNPS manual, is it complete and correct?				
6 Are the following items included in the flightcrew training programmes:	**S**	**U**	**NS**	**NA**
(a) Knowledge and understanding of standard ATC phraseology used in each area of operations?				
(a) Importance of crew members cross checking each other to ensure that ATC clearances are promptly and correctly complied with?				
(b) Use and limitations in terms of accuracy of standby altimeters in contingencies?				
(e) Problems of visual perception of other aircraft at 1,000 ft (300 m) planned separation during night conditions, when encountering local phenomena such as northern lights, for opposite and same direction traffic, and during turns?				

	(f) Characteristics of aircraft altitude capture systems which may lead to the occurrence of overshoots?				
	(g) Operational procedures and operating characteristics related to TCAS (ACAS) operation in an MNPS operation?				
	(h) Relationship between the altimetry, automatic altitude control, and transponder systems in normal and abnormal situations?				
	(i) Aircraft operating restrictions (if required for the specific aircraft group) related to MNPS airworthiness approval?				
	(j) Use of track offset procedures where applicable to mitigate the effect of wake turbulence?				
7	Are the following required pilot knowledge elements as described in flight crew training programmes and manuals:	**S**	**U**	**NS**	**NA**
	(a) Guidance to the pilot in the event of equipment failures or encounters with turbulence after entering MNPS airspace?				
	(b) Expanded MNPS equipment failure and turbulence scenarios?				
	(c) Contingency procedures published in ICAO document 7030, Regional Supplementary Procedures.				
	(d) Wake Turbulence Procedures?				
	(e) MNPS Transition Areas?				
8	Does coordination with the AWI confirm the following:	**S**	**U**	**NS**	**NA**
	(a) The aircraft is MNPS compliant?				
	(b) The MEL includes items pertinent to operations within MNPS airspace?				
	(c) The operator has plans for participation in variation and monitoring programmes for MNPS?				
	(d) The method of notifying the flight crew that the aircraft is not “MNPS Qualified” but is still airworthy for the intended flight is satisfactory?				
	(e) Identification of MNPS maintenance items that will render the aircraft unfit for MNPS flight, but is still airworthy for the intended flight?				
	(f) Procedures to notify the CAA office of gross height keeping errors and revalidation of the aircraft?				
	(g) Do maintenance procedures restrict aircraft identified as exhibiting height keeping performance errors from operating in MNPS airspace until corrective actions have been taken which verify support of MNPS operations?				
Other					
9					
10					

CL No:		

Notes:
1. *A "U" or "NS" response on the checklist must be accompanied by reason or comments.*
2. *A "U" response to a safety issue finding in an inspection of an organization must be transferred to the NCF report for corrective action where applicable.*
3. *Preceed all comments with the applicable checklist item number*.

Discrepancy Label: *(Use the applicable numeric label with description for each "NO" response)*

Policy, Procedures, Instructions, Information, Documentation, Controls:					**Document Quality**
1.Not Specified	**2.**Unclear	Do not comply with:		**7.**Do not Identify: Who, What, When, Where, How	**8.**Unreadable
3.Incomplete	**4.**Inconsistent	**5. N**CAR	**6.**Guidance		**9.**Illegible

10. Resource requirements incomplete (personnel, facilities, equipment, technical data)

Comments:

Recommendations

Name of Inspector_____ Signature_____ Date_____

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS 017 FLIGHT CREW TRAINING INSPECTION
(Facilities or In-Progress)

Conduct Facilities and Records Inspections

Give a management representative short notice of the inspection.

Conduct an entry meeting with the management of the training facility:

- Review the scope of the inspection.
- Agree on the allocation of company staff or resources that may be needed for the inspection.
- Request a discrete and private working area to facilitate the confidential assessment of documents and preparation of reports.

Carry out the inspection, in a way that causes a minimum of disruption to the operator, using the appropriate checklists.

Follow appropriate checklists and procedures when carrying out specific separate inspections — for example, flight simulators.

Conduct a short exit meeting with the management representative.

Briefly report the findings of the inspection.

Make arrangements for any follow-up action.

Observations of Training-In-Progress Situations

Give the AOC holder notice of your intention to conduct an inspection.

Conduct an entry meeting with the management of the training facility:

- Review the scope of the inspection.
- Agree on the allocation of any company staff or resources that may be needed for the inspection.

Carry out the inspection, in a way that causes a minimum of disruption to the operator, using the appropriate checklist

Remain passive in classrooms and training areas. Do not:

- Ask questions of the instructors or students.
- Distract instructors or students in any way
- Displace existing students from their allocated seats or positions.

Conduct a short exit meeting with the training management:

a. Briefly report the findings of the inspection.
b. Make arrangements for any follow-up action.

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS 017 FLIGHT CREW TRAINING INSPECTION
(Facilities or In-Progress)

Record ID:	Inspector	Type of Operation	Activity Number – Checklist
Date Accomplished:	# Issues	Operator	Tracking #
Director of Training:	Checking Person:	Instructor:	
Curriculum:	Lesson:	Time:	

Instructions for Use:

1. Check **`S**' column if you reviewed the record, procedure or event and it is **`Satisfactory'**.
2. Check **`U**' column if you reviewed the record, procedure or event and it is **`Unsatisfactory'**.
3. Check **NS** (**not seen**) column if you did not review the record, procedure or event or you do not have adequate information to make a valid comment.
4. Check **NA** (**not applicable**) column, if the line item is not required in this particular situation.
5. 'Enter any notes on reverse side regarding a 'U' answer for transfer to the Safety Issues Resolution Report.
6. For later reference, precede any notes with the appropriate question number.

N/S	ADMINISTRATION	S	U	NS	NA
1.	Adequate accommodation and facilities?				
2.	Adequate supervisory support staff available?				
3.	Adequate administrative support staff available?				
4.	Training schedules coordinated with operational needs?				
	PRODUCTION FACILITIES				
5.	Printing capability?				
6.	Presentation development capability?				
7.	Video editing capability?				
8.	Electronic versions of training documents and handouts?				
9.	Computers available to training and checking personnel?				
	TRAINING AND CHECKING MANUAL	**S**	**U**	**NS**	**NA**
10.	Current revision (compare to NCAA approved copy)?				
11.	Current list of effective pages (compare to NCAA approved copy)?				
12.	Manual properly updated?				
13.	Pertinent portions of manual provided to instructor, checking and administration staff?				
14.	Tracking of amendments provided to personnel?				
	CURRICULUM AND LESSON PLANS	**S**	**U**	**NS**	**NA**
15.	Curriculum(s) in use available?				
16.	Lesson plan(s) in use available?				
17.	Curriculum(s) and lesson plan(s) current to relevant regulation and industry practices?				
	INSTRUCTOR(S)	**S**	**U**	**NS**	**NA**
18.	Adequate staffing/availability for range of training?				
19.	Knowledge of subjects and procedures?				
20.	Instruction techniques and delivery?				
21.	Adherence to lesson plan outline, content and timing?				

22.	Instructor(s) have proper qualifications?				
23.	Instructor(s) records up-to-date?				
24.	Appropriate “O” checklist for evaluation of instructor records completed?				
	CHECKING PERSONNEL	**S**	**U**	**NS**	**NA**
25.	Adequate staffing/availability for range of checking?				
26.	Checking personnel records are available?				
27.	Checking personnel records up-to-date				
28.	Appropriate “O” checklist for evaluation of checking person performance completed?				
29.	Appropriate “O” checklist for evaluation of checking person records completed?				
	EVALUATION AND DEBRIEFINGS	**S**	**U**	**NS**	**NA**
30.	Were the acceptable completion standards available?				
31.	Did the student receive a debriefing regarding performance?				
	COMPLETION OF RECORDS				
32.	Instructor or checking person made completion entries in student’s record(s)				
33.	Entries were accurate with respect to the debriefing and the student’s performance?				
	CLASSROOMS AND TRAINING AREAS	**S**	**U**	**NS**	**NA**
34.	Number and size adequate for the purpose used?				
35.	Student seating and writing accommodation?				
36.	Student visibility accommodation?				
37.	Student hearing accommodation?				
38.	Minimal visual and aural distractions?				
39.	Reasonable heating/cooling/ventilation/lighting?				
	BRIEFING ROOMS FOR PRE/POST FLIGHT LESSON	**S**	**U**	**NS**	**NA**
40.	Number and size adequate for the task?				
41.	Adequately furnished and equipped?				
	DOCUMENTS AND HANDOUTS [As specified in T&C Manual, curriculum, or lesson plan evaluated]	**S**	**U**	**NS**	**NA**
42.	Appropriate route and navigation charts available?				
43.	Appropriate portions of Operations Manual available?				
44.	Training source materials and examples?				
45.	Training problems and calculations?				
46.	Tests and other evaluation tools?				
	EQUIPMENT [As specified in T&C Manual, curriculum, or lesson plan evaluated]	**S**	**U**	**NS**	**NA**
47.	Whiteboards, markers and erasers?				
48.	Flight deck pictorial layout available?				
49.	Overhead projector?				
50.	Computer projector?				
51.	Video player?				
52.	Computer?				
53.	Special Equipment – System Mockup available and operational?				
54.	Special Equipment – Synthetic trainer available and operational?				
55.	Special Equipment – Simulator available and operational?				

☐ **REMARKS & OBSERVATIONS ATTACHED** #

CERTIFICATION? ☐ **YES** ☐ **NO**

_____

INSPECTION SIGNATURE

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS 017A CABIN CREW TRAINING INSPECTION
(Facilities or In-Progress)

Conduct Facilities and Records Inspections

Give a management representative short notice of the inspection.

Conduct an entry meeting with the management of the training facility:

- Review the scope of the inspection.
- Agree on the allocation of company staff or resources that may be needed for the inspection.
- Request a discrete and private working area to facilitate the confidential assessment of documents and preparation of reports.

Carry out the inspection, in a way that causes a minimum of disruption to the operator, using the appropriate checklists.

Follow appropriate checklists and procedures when carrying out specific separate inspections — for example, flight simulators.

Conduct a short exit meeting with the management representative.

Briefly report the findings of the inspection.

Make arrangements for any follow-up action.

Observations of Training-In-Progress Situations

Give the AOC holder notice of your intention to conduct an inspection.

Conduct an entry meeting with the management of the training facility:

- Review the scope of the inspection.
- Agree on the allocation of any company staff or resources that may be needed for the inspection.

Carry out the inspection, in a way that causes a minimum of disruption to the operator, using the appropriate checklist

Remain passive in classrooms and training areas. Do not:

- Ask questions of the instructors or students.
- Distract instructors or students in any way

- Displace existing students from their allocated seats or positions.

Conduct a short exit meeting with the training management:

a. Briefly report the findings of the inspection.
b. Make arrangements for any follow-up action.

NIGERIAN CIVIL AVIATION AUTHORITY

AVIATION HOUSE

P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS 017A CABIN CREW TRAINING INSPECTION

(Facilities or In-Progress)

Record ID:	Inspector	Type of Operation	Activity Number – Checklist 1611
Date Accomplished:	# Issues	Operator	Tracking #
Director of Training:	Checking Person:	Instructor:	
Instructor Status		Location	
Curriculum:	Lesson:	Time:	

Instructions for Use:

1. Check `**S**' column if you reviewed the record, procedure or event and it is `**Satisfactory'**.
2. Check `**U**' column if you reviewed the record, procedure or event and it is `**Unsatisfactory'**.
3. Check **NS** (**not seen**) column if you did not review the record, procedure or event or you do not have adequate information to make a valid comment.
4. Check **NA** (**not applicable**) column, if the line item is not required in this particular situation.
5. 'Enter any notes on reverse side regarding a 'U' answer for transfer to the Safety Issues Resolution Report.
6. For later reference, precede any notes with the appropriate question number.

	ADMINISTRATION	**S**	**U**	**NS**	**NA**
1.	Adequate accommodation and facilities?				
2.	Adequate supervisory support staff available?				
3.	Adequate administrative support staff available?				
4.	Training schedules coordinated with operational needs?				
	PRODUCTION FACILITIES	**S**	**U**	**NS**	**NA**
5.	Printing capability?				
6.	Presentation development capability?				
7.	Video editing capability?				
8.	Electronic versions of training documents and handouts?				
9.	Computers available to training and checking personnel?				
	TRAINING AND CHECKING MANUAL	**S**	**U**	**NS**	**NA**
10.	Current revision (compare to NCAA approved copy)?				
11.	Current list of effective pages (compare to NCAA approved copy)?				
12.	Manual properly updated?				
13.	Pertinent portions of manual provided to instructor, checking and administrative staff?				
14.	Tracking of amendments provided to personnel?				
	CURRICULUM AND LESSON PLANS	**S**	**U**	**NS**	**NA**
15.	Curriculum(s) in use available?				
16.	Lesson plan(s) in use available?				
17.	Curriculum(s) and lesson plan(s) current to relevant regulation and industry practices?				
	INSTRUCTOR(S)	**S**	**U**	**NS**	**NA**
18.	Adequate staffing/availability for range of training?				
19.	Knowledge of subjects and procedures?				
20.	Instruction techniques and delivery?				
21.	Adherence to lesson plan outline, content and timing?				
22.	Instructor(s) have proper qualifications?				
23.	Instructor(s) records up-to-date?				

	CHECKING PERSONNEL	S	U	NS	NA
24.	Adequate staffing/availability for range of checking?				
25.	Checking personnel records are available?				
26.	Checking personnel records up-to-date				
	EVALUATION AND DEBRIEFINGS	**S**	**U**	**NS**	**NA**
27.	Were the acceptable completion standards available?				
28.	Did the student receive a debriefing regarding performance?				
	COMPLETION OF RECORDS	**S**	**U**	**NS**	**NA**
29.	Instructor or checking person made completion entries in student's record(s)				
30.	Entries were accurate with respect to the debriefing and the student's performance?				
	CLASSROOMS AND TRAINING AREAS	**S**	**U**	**NS**	**NA**
31.	Number and size adequate for the purpose used?				
32.	Student seating and writing accommodation?				
33.	Student visibility accommodation?				
34.	Student hearing accommodation?				
35.	Minimal visual and aural distractions?				
36.	Reasonable heating/cooling/ventilation/lighting?				
	BRIEFING ROOMS FOR PRE/POST FLIGHT LESSON	**S**	**U**	**NS**	**NA**
37.	Number and size adequate for the task?				
38.	Adequately furnished and equipped?				
	DOCUMENTS AND HANDOUTS [As specified in T&C Manual, curriculum, or lesson plan evaluated]	**S**	**U**	**NS**	**NA**
39.	Appropriate portions of Operations Manual available?				
40.	Training source materials and examples?				
41.	Training problems and calculations?				
42.	Tests and other evaluation tools?				
	EQUIPMENT [As specified in T&C Manual, curriculum, or lesson plan evaluated]	**S**	**U**	**NS**	**NA**
43.	Whiteboards, markers and erasers?				
44.	Flight deck pictorial layout available?				
45.	Exits Pictorial Layout Available				
46.	Galley Pictorial Layout Available				
47.	Jump Seat Pictorial Layout Available				
48.	Slides Pictorial Layout Available				
49.	Overhead projector?				
50.	Computer projector?				
51.	Video player?				
52.	Computer?				
53.	Special Equipment – System Mockup available and operational?				
54.	Special Equipment – Synthetic trainer available and operational				
55.	Life Jacket (Cabin Crew, Adult, infant)				
56.	Protective Breathing Equipemnt (PBE)				
57.	Special Equipment – Simulator available and operational?				
58.	Life Raft				
59.	Seat belt				
60.	Oxygen bottle /Mask				
61.	Fire Extinguisher				
62.	Crash Axe				
63.	Medical Kit				
64.	First Aid Kit				
65.	Fire Gloves				
66.	Torch light				
67.	Manual Release Tool (MRT)				
68.	Emergency Locator Transmitter (ELT)				

69.	Automated External Defibrilator (AED)				
70.	Universal Precaution Kit (UPK)				
71.	Survival kit				
72.	Cardiopulmonary resuscitation (CPR)				
73.	Smoke goggle				
74.	Nig. CARs				
75.	LOPA				
76.	Cabin Crew Manual				
77.	Advisory Circulars				
78.	Safety Cards				
79.	Demo Kit				
80.	Extension Seat Belt				

☐ **REMARKS & OBSERVATIONS ATTACHED #**

☐ ☐

CERTIFICATION? YES NO

_____

INSPECTION SIGNATURE

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CHECKLIST (CL) O-OPS 017B
ATTACHED

MULTI PILOT/CREW PROFICIENCY CHECK

Introduction

Inspectors must ensure that the proficiency checks of the operator's flight crew personnel are carried out in accordance with the standards and frequency prescribed in the regulations. When personally conducting pilot and flight engineer proficiency checks, the inspector should possess the appropriate licence and be currently qualified in the specific type of aircraft to be used for the check. Alternatively, the inspector may choose to observe or monitor such checks conducted by an appropriately designated check pilot and check flight engineer. Where an approved check pilot or check engineer has been designated to conduct proficiency checks, the inspector should observe or monitor a sufficient number of checks conducted by such personnel each year in order to ensure positive quality control of check procedures.

Conduct of checks

The pilot proficiency check should be conducted in such a manner that the pilot as a minimum satisfactorily demonstrates knowledge, skill and judgement relative to:

a) the aircraft, its systems and components;

b) proper control of airspeed, configuration, direction, altitude and attitude in accordance with the procedures and limitations contained in the manufacturer's flight manual, the aircraft operating manual, the operations manual, checklists and other material applicable to the type of aircraft;

c) compliance with en-route, descent, instrument approach, missed approach and related air traffic control procedures; and

d) crew management and co-ordination.

The objective of the flight engineer proficiency check is to determine that the flight engineer is familiar with all essential current information and competent in operator procedures applicable to the type of aircraft used for the check. This check is similar to the flight check requirements for original certification as a flight engineer.
A proficiency/qualification checklist for pilots and flight engineers covering the essential items to be checked is attached. As a general rule, all applicable procedures on the checklist must be performed in a satisfactory manner in order for the pilot or flight engineer

to be deemed competent and qualified in the aircraft. Specific manoeuvres that may be accomplished in an approved flight simulator are also identified on this checklist.

With respect to the operator's pilots, the checks should be conducted by either an inspector currently qualified on the specific aircraft type used or a check pilot duly authorized by the DG. The following checks are prescribed:

a) pilots undertaking initial aircraft type ratings;

b) all pilots-in-command (normally conducted by an operator check pilot if one has been designated);

c) designated operator check pilots — at least once per year;

d) operator nominees for check pilot designation;

e) pilots requiring retesting after failure on a previous check;

f) pilots for upgrading;

g) pilots converting to other aircraft type; and

h) pilots involved in accidents or incidents where pilot proficiency or competency is in question.

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS 017B MULTI-PILOT/CREW PROFICIENCY CHECK

Record ID:	Inspector		Type of Operation	Activity Number – Checklist	
Date Accomplished:	# Issues	Operator		Tracking #	
Flight #:	To:	From	AC Registration:	AC or Simulator	Type**:**
PIC #:	Other Crew #		Check Pilot #:		

Instructions for Use:

1. An **"S"** entered in the S column indicates that the maneuver or procedure is not to be checked in an aircraft.
2. Prior to proficiency check, enter a **"X"** in the NA column for any line item maneuver not applicable to this particular check or not permitted, if an actual aircraft check.
3. An **'M"** in the W column indicates that the performance of this event must not be waived
4. Prior to proficiency check, enter a **"W"** in the W column for any line item maneuver or procedure that will not be performed during the proficiency check scenrio.
5. If the waiver decision is made during the course of the check, the "W" will be entered at that time.
6. Check **YES** column if the observed performance met the testing standards.
7. Check **NO** column if the observed performance did not meet testing standards.
8. Enter any notes regarding a **NO** answer as a **MEMO**.
9. For later reference, precede any notes with the appropriate question number.

NO	FLIGHT PREPARATION	Yes	No	NA	W	S
1.	Performance calculation?					
2.	Airplane exterior visual inspection?					
3.	Use of checklists prior to starting engines?					
4.	Taxiing					
5.	Preflight checks and checklists					
	TAKEOFFS					
6.	Normal takeoffs, including expedited takeoff?					
7.	Instrument takeoff (transition during rotation or immediately after becoming airborne					
8.	Crosswind Takeoff (a/c if practical)					
9.	Takeoff at maximum takeoff mass (actual or simulated)					
10.	Takeoff with simulated engine failure (at 500 AGL)					
11.	Takeoff with simulated engine failure shortly after reaching V2					
12.	Takeoff with simulated engine failure between V1 and V2					
13.	Takeoff with simulated engine failure as close as possible after V2					
14.	Rejected takeoff at a REASONABLE speed before reaching V1					
	FLIGHT MANUEVERS					
15.	Turns with and without spoilers					
16.	Tuck under and Mach buffets after reaching critical Mach number					
17.	Normal operations of systems and controls engineer's panel **NORMAL AND ABNORMAL SYSTEMS OPERATIONS** (MINIMUM MANDATORY = 3 PROCEDURES SELECTED FROM LIST)					

18.	Engine (if necessary propeller)					
19.	Pressurization and air conditioning					
20.	Pitot/static system					
21.	Fuel system					
22.	Electrical system					
23.	Hydraulic system					
24.	Flight control and trim system					
25.	Anti- and de-icing system, glare shield heating					
26.	Autopilot and flight director					
27.	Stall warning, stall avoidance and stability augmentation devices					
28.	Ground proximity warning system, weather radar, radio altimeter, transponder					
29.	Radios, navigation equipment, instruments, flight management system					
30.	Landing gear and brake-system					
31.	Slat and flap system					
32.	Auxiliary power unit					
	ABNORMAL AND EMERGENCY PROCEDURES (MINIMUM MANDATORY = 3 PROCEDURES SELECTED FROM LIST)					
33.	Fire Drills (e.g. Engine, APU, cabin, cargo compartment, flight deck, win and electrical fires including evacuation)					
34.	Smoke control and removal					
35.	Engine failures, shutdown and restart (at safe altitude)					
36.	Fuel dumping (simulated)					
37.	Wind shear at takeoff or landing					
38.	Simulated cabin pressure failure and emergency descent					
39.	Incapacitation of flight crew member					
40.	Special emergency procedure required by AFM					
41.	Steep Turns (45 degree bank-180 to 360 degrees left and right)					
42.	Takeoff configuration stall (early recognition and counter measures)					
43.	Cruising flight configuration stall (recognition and counter measures)					
44.	Landing configuration stall (recognition and countermeasures)					
45.	Recovery from full stall or activation of stall warning device					
	INSTRUMENT FLIGHT PROCEDURES					
46.	Adherence to departure and arrival routes and ATC instructions					
47.	Holding Procedures					
48.	ILS approach (200 DH) manually without flight director					
49.	ILS approach (200 DH) manually with flight director					
50.	ILS approach (200 DH) automatically with autopilot					
51.	ILS approach (200 DH) manually with one engine inop (JAR/FAR 25 a/c)					
52.	NDB or VOC/LOC to MDA					
53.	Circling Approach to another runway at least 90degrees off centerline from final approach at circling approach altitude (or low visibility pattern)					
	MISSED APPROACH PROCEDURES					
54.	Go-around with all engines operating after ILS approach from DH?					
55.	Other missed approach procedures?					
56.	Go-around with one engine simulated inoperative at ILS-DH					
57.	Rejected landing at 15m (50 feet) above runway threshold and					

	go-around					
	LANDINGS					
58.	Normal landings					
59.	Normal landings after ILS approach with transition to visual flight on reaching DH					
60.	Landing with simulated jammed horizontal stabilizer in any out of trim system					
61.	Crosswind landing (a/c, if practical)					
62.	Traffic pattern and landing without extended or with partly extended flaps and slats					
63.	Landing with critical engine simulated inoperative					
64.	Landing with two engines inoperative (3 and 4 engine a/c)					
	SPECIAL REQUIREMENTS FOR CATEGORY II/III APPROACHES (Cat II/III operations shall be accomplished in accordance with Operational Rules)					
65.	Aborted takeoff at minimum authorized RVR					
66.	ILS to applicable DH using flight guidance system					
67.	Go-around on reaching DH					
68.	Landing with visual reference established at DH (auto landing if authorized)					

REMARKS & OBSERVATIONS

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INSPECTOR SIGNATURE

Additional comments attached ☐ =>

CL: O-OPS 017C GROUND OPERATIONS INSPECTION
(Facilities or In-Progress)

Conduct Facilities and Records Inspections

Give a management representative short notice of the inspection.

Conduct an entry meeting with the management of the training facility:

- Review the scope of the inspection.
- Agree on the allocation of company staff or resources that may be needed for the inspection.
- Request a discrete and private working area to facilitate the confidential assessment of documents and preparation of reports.

Carry out the inspection, in a way that causes a minimum of disruption to the operator, using the appropriate checklists.

Follow appropriate checklists and procedures when carrying out specific separate inspections.

Conduct a short exit meeting with the management representative.

Briefly report the findings of the inspection.

Make arrangements for any follow-up action.

Observations of Training-In-Progress Situations

Give the AOC holder notice of your intention to conduct an inspection.

Conduct an entry meeting with the management of the training facility:

- Review the scope of the inspection.
- Agree on the allocation of any company staff or resources that may be needed for the inspection.

Carry out the inspection, in a way that causes a minimum of disruption to the operator, using the appropriate checklist

Remain passive in classrooms and training areas. Do not:

- Ask questions of the instructors or students.
- Distract instructors or students in any way
- Displace existing students from their allocated seats or positions.

Conduct a short exit meeting with the training management:

a. Briefly report the findings of the inspection.
b. Make arrangements for any follow-up action.

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS 017C GROUND OPERATIONS TRAINING INSPECTION
(Facilities or In-Progress)

Record ID:	Inspector	Type of Operation	Activity Number – Checklist
Date Accomplished:	# Issues	Operator	Tracking #
Director of Training:	Checking Person:	Instructor:	
Curriculum:	Lesson:	Time:	

Instructions for Use:

1. Check `**S**' column if you reviewed the record, procedure or event and it is `**Satisfactory'**.
2. Check `**U**' column if you reviewed the record, procedure or event and it is `**Unsatisfactory'**.
3. Check **NS** (**not seen**) column if you did not review the record, procedure or event or you do not have adequate information to make a valid comment.
4. Check **NA** (**not applicable**) column, if the line item is not required in this particular situation.
5. 'Enter any notes on reverse side regarding a 'U' answer for transfer to the Safety Issues Resolution Report.
6. For later reference, precede any notes with the appropriate question number.

N/S	ADMINISTRATION	S	U	NS	NA
1.	Adequate accommodation and facilities?				
2.	Adequate supervisory support staff available?				
3.	Adequate administrative support staff available?				
4.	Training schedules coordinated with operational needs?				
	PRODUCTION FACILITIES				
5.	Printing capability?				
6.	Presentation development capability?				
7.	Video editing capability?				
8.	Electronic versions of training documents and handouts?				
9.	Computers available to training and checking personnel?				
	TRAINING AND CHECKING MANUAL	**S**	**U**	**NS**	**NA**
10.	Current revision (compare to NCAA approved copy)?				
11.	Current list of effective pages (compare to NCAA approved copy)?				
12.	Manual properly updated?				
13.	Pertinent portions of manual provided to instructor, checking and administration staff?				
14.	Tracking of amendments provided to personnel?				
	CURRICULUM AND LESSON PLANS	**S**	**U**	**NS**	**NA**
15.	Curriculum(s) in use available?				
16.	Lesson plan(s) in use available?				
17.	Curriculum(s) and lesson plan(s) current to relevant regulation and industry practices?				
	INSTRUCTOR(S)	**S**	**U**	**NS**	**NA**
18.	Adequate staffing/availability for range of training?				
19.	Knowledge of subjects and procedures?				
20.	Instruction techniques and delivery?				
21.	Adherence to lesson plan outline, content and timing?				
22.	Instructor(s) have proper qualifications?				
23.	Instructor(s) records up-to-date?				
	CHECKING PERSONNEL	**S**	**U**	**NS**	**NA**
24.	Adequate staffing/availability for range of checking?				

25.	Checking personnel records are available?				
26.	Checking personnel records up-to-date				
27.	Appropriate “O” checklist for evaluation of checking person performance completed?				
28.	Appropriate “O” checklist for evaluation of checking person records completed?				
	EVALUATION AND DEBRIEFINGS	**S**	**U**	**NS**	**NA**
29.	Were the acceptable completion standards available?				
30.	Did the student receive a debriefing regarding performance?				
	COMPLETION OF RECORDS				
31.	Instructor or checking person made completion entries in student’s record(s)				
32.	Entries were accurate with respect to the debriefing and the student’s performance?				
	CLASSROOMS AND TRAINING AREAS	**S**	**U**	**NS**	**NA**
33.	Number and size adequate for the purpose used?				
34.	Student seating and writing accommodation?				
35.	Student visibility accommodation?				
36.	Student hearing accommodation?				
37.	Minimal visual and aural distractions?				
38.	Reasonable heating/cooling/ventilation/lighting?				
39.	Adequately furnished and equipped?				
	DOCUMENTS AND HANDOUTS	**S**	**U**	**NS**	**NA**
40.	Appropriate route and navigation charts available?				
41.	Appropriate portions of Operations Manual available?				
42.	Training source materials and examples?				
43.	Training problems and calculations?				
44.	Tests and other evaluation tools?				
	EQUIPMENT	**S**	**U**	**NS**	**NA**
45.	Whiteboards, markers and erasers?				
46.	Flight deck pictorial layout available?				
47.	Overhead projector?				
48.	Computer projector?				
49.	Video player?				
50.	Computer?				

CERTIFICATION? ☐ **YES** ☐ **NO**

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INSPECTION SIGNATURE

REMARKS & OBSERVATIONS ATTACHED #

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS 018 CREW FLIGHT DUTY AND REST RECORDS

Record ID:	Inspector	Type of Operation	Activity Number – Checklist
Date Accomplished:	# Issues	Operator #	Tracking #
Location:		Company Official	

Instructions for Use:

1. Check `**S**' column if you reviewed the record, procedure or event and it is `**Satisfactory'**.
2. Check `**U**' column if you reviewed the record, procedure or event and it is `**Unsatisfactory'**.
3. Check **NS** (**not seen**) column if you did not review the record, procedure or event or you do not have adequate information to make a valid comment.
4. Check **NA** (**not applicable**) column, if the line item is not required in this particular situation.
5. 'Enter any notes on reverse side regarding a 'U' answer for transfer to the Safety Issues Resolution Report.
6. For later reference, precede any notes with the appropriate question number

S/N		S	U	NS	NA
	Flight and Duty Times for the preceding 12 Months, showing the following up-to-date totals:				
1.	7 days				
2.	30 days				
3.	365 days				
	Current flight crew rosters				
4.	3 months				

REMARKS & OBSERVATIONS

_____
INSPECTOR SIGNATURE

Additional comments attached ☐ =>

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS 018A - FLIGHT CREW QUALIFICATIONS RECORDS INSPECTION

Facilities and Records

Give the operator notice of your intention to conduct an inspection of their operational records, so that the required documents and management representatives will be made available for the inspection. (Under some circumstances, you can make a spot check of operational records, without prior notification.)

Organize a discreet area to ensure minimal disruption to both yourself and the operator. Remain on the operator's premises during the inspection, observe the appropriate level of confidentiality and refrain from marking or defacing any records.

Carry out the inspection, using the appropriate checklist.

In your assessment of the operator's record-keeping system, consider the following:

- Practicality
- Accuracy and completeness
- Accessibility
- Security
- Control.

Comment on the adequacy and effectiveness of the operator's record-keeping system.

If you have discovered discrepancies during the inspection, bring these to the attention of the operator.

Conduct Facilities and Records Inspections

Give a management representative short notice of the inspection.
Conduct an entry meeting with the management of the training facility:

- Review the scope of the inspection.
- Agree on the allocation of company staff or resources that may be needed for the inspection.
- Request a discrete and private working area to facilitate the confidential assessment of documents and preparation of reports.

Carry out the inspection, in a way that causes a minimum of disruption to the operator, using the appropriate checklists.

Follow appropriate checklists and procedures when carrying out specific separate inspections — for example, flight simulators.

Conduct a short exit meeting with the a management representative.:

Briefly report the findings of the inspection.
Make arrangements for any follow-up action.

Consult the Technical Source References in Appendix 1

The remainder of this page intentionally left blank.

NIGERIAN CIVIL AVIATION AUTHORITY

AVIATION HOUSE

P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS 018A FLIGHT CREW RECORDS CHECK SUMMARY

Record ID:	Inspector	Type of Operation	Activity Number – Checklist
Date Accomplished:	# Issues	Operator #	Tracking #
Location:		Company Official	

Instructions for Use:

1. Check **`S**' column if you reviewed the record, procedure or event and it is **`Satisfactory'**.
2. Check **`U**' column if you reviewed the record, procedure or event and it is **`Unsatisfactory'**.
3. Check **NS** (**not seen**) column if you did not review the record, procedure or event or you do not have adequate information to make a valid comment.
4. Check **NA** (**not applicable**) column, if the line item is not required in this particular situation.
5. 'Enter any notes on reverse side regarding a 'U' answer for transfer to the Safety Issues Resolution Report.
6. For later reference, precede any notes with the appropriate question number..

	CERTIFICATES	**S**	**U**	**NS**	**NA**
1.	Copies of All Pilot License in the records?				
2.	Copies of current Medical Certificates in the records?				
	MINIMUM EXPERIENCE				
3.	Appropriate minimum experience in record for VFR operations?				
4.	Appropriate minimum experience in the records for IFR operations)				
	COMPANY PROCEDURES				
5.	Completion of Company Procedures Training in records? 6(4.2.3.1),				
	TR, CONVERSION, or COMMANDER				
6.	Completion of Type Rating Course in all records? 1.945				
7.	Completion of aircraft-specific systems training in all records				
8.	Completion of aircraft specific simulator training in all records				
9.	Completion of aircraft specific flight training in all records? 6(9.3)				
10.	Completion of required differences training posted in all records				
11.	Initial emergency equipment training posted in all records? 6(9.2)				
12.	Initial emergency experience training, including ditching posted? ; 6(9.2)				
13.	General First Aid training posted in all records				
14.	Initial security training posted in all records?				
15.	Initial dangerous goods training posted in all records? 6(9.3)				
16.	Initial CRM training posted in all records; 6(9.3)				
	QUALIFYING				
17.	Initial Proficiency Test for current aircraft assignment posted in all records?				
18.	Line flying under Supervision completion posted in all records?				
19.	Line Checks completion posted in all records?				
20.	Route Competence Qualification posted in all records? ; 6(9.4.3.5)				
21.	Either Seat Qualification posted in appropriate records?				
22.	Aerodrome Competence Qualification posted in appropriate records? 6(9.4.3.3)				
	RECURRENT TRAINING				
23.	Recurrent Company Procedures training posted?				
24.	Recurrent aircraft-specific systems training posted				
25.	Recurrent aircraft-specific simulator training posted?				

26.	Recurrent aircraft-specific flight training posted?				
27.	Recurrent dangerous goods training posted				
28.	Recurrent emergency equipment and safety training posted?				
29.	Recurrent CRM training posted? 6(9.3)				
30.	Recurrent emergency hands-on experience posted? 6(9.2)				
31.	Recurrent security training posted				
	RECURRENT CHECKING				
32.	Current Operator Proficiency Check in assigned aircraft posted? 6(9.4.4)				
33.	Current Line Checks in the assigned aircraft posted				
34.	Emergency and Safety equip checks posted? 6(9.2)				
	RECORDS RETENTION, SECURITY AND AVAILABILITY				
35.	Records retained for proper periods?				
36.	Records secured from unauthorized modifications or theft?				
37.	When crewmember changes air operator, a copy of the crewmembers records is provided to the other air operator upon proper request.?				

REMARKS & OBSERVATIONS

_____
INSPECTOR SIGNATURE

Additional comments attached ☐ =>

CL: O-OPS 018A1 Individual Flight Crew Record Check Supplemental Form

Checklist: **1614a**	Air Operator	Date:	Location:
Pilot/SO Record/:	Crew Position/Aircraft	Company Official	Inspector:

	CERTIFICATES		
1	Pilot License		
2	Medical Certificate		
	MINIMUM EXPERIENCE		
3	VFR)	Original	
4	IFR	Original	
	COMPANY PROCEDURES		
5	Company Procedures Training	Original	*
	TR, CONVERSION, or COMMANDER		
6	Type Rating Course Original		
7	Aircraft-specific systems training 6(9.3)	Original or Upgrade	*
8	Aircraft specific simulator training? 6(9.3)	Original or Upgrade	*
9	Aircraft specific flight training 6(9.3)	Original or Upgrade	*
10	Differences training?	Original or Upgrade	
11	Initial emergency equipment training 6(9.2)	Original or Upgrade	*
12	Initial emergency experience training, including ditching 6(9.2)	Original or Upgrade	*
13	General First Aid	Original	
14	Initial security training	Original	*
15	Initial dangerous goods training 6(9.3)	Original	
16	Initial CRM training 6(9.3)	Original	
	QUALIFYING		
17	Initial Proficiency Test	Original	
18	Line flying under Supervision	Original	
19	Line Check Original		
20	Route Competence Qual 6(9.4.3.5)	12 months	
21	Either Seat Qualification		
22	Aerodrome Competence Qual 6(9.4.3.3)	12 months	
	RECURRENT TRAINING		
23	Company Procedures	12 months	
24	Recurrent aircraft-specific systems training	12 months	
25	Recurrent aircraft-specific simulator Training	12 months	
26	Recurrent aircraft-specific flight training	12 months	
27	Recurrent dangerous goods training	2 years	
28	Recurrent emergency equipment and	12 months	

	safety training 6(9.2)		
29	CRM training 6(9.3)	Same as ground trng	
30	Recurrent emergency hands-on experience 6(9.2)	3 years	
31	Recurrent security training	12 months	
	RECURRENT CHECKING		
32	Operator Proficiency Check 6(9.4.4)	6 months	
33	Line Checks	12 months	
34	Emergency and Safety equip checks 6(9.2)	12 months	

REMARKS & OBSERVATIONS

_____
INSPECTOR SIGNATURE

Additional comments attached ☐ =>

CL: O-OPS 018B - INSPECTION OF CABIN CREW QUALIFICATION RECORDS

Purpose

This inspection is to ensure that the AOC holder is qualifying the cabin crew as outlined in their approved training program and recording the qualification in a timely manner.

Methods

Give the operator notice of your intention to conduct an inspection of their operational records, so that the required documents and management representatives will be made available for the inspection. (Under some circumstances, you can make a spot check of operational records, without prior notification.)

Organize a discreet area to ensure minimal disruption to both yourself and the operator. Remain on the operator's premises during the inspection, observe the appropriate level of confidentiality and refrain from marking or defacing any records.

Carry out the inspection, using the appropriate checklist.

In your assessment of the operator's record-keeping system, consider the following:

(1) Practicality
(2) Accuracy and completeness
(3) Accessibility
(4) Security
(5) Control.

Comment on the adequacy and effectiveness of the operator's record-keeping system.

If you have discovered discrepancies during the inspection, bring these to the attention of the operator.

Conduct Facilities and Records Inspections

Give a management representative short notice of the inspection.

Conduct an entry meeting with the management of the training facility:

- Review the scope of the inspection.
- Agree on the allocation of company staff or resources that may be needed for the inspection.

- Request a discrete and private working area to facilitate the confidential assessment of documents and preparation of reports.

Carry out the inspection, in a way that causes a minimum of disruption to the operator, using the appropriate checklists.

Follow appropriate checklists and procedures when carrying out specific separate inspections — for example, flight simulators.

Conduct a short exit meeting with the a management representative.:

a. Briefly report the findings of the inspection.

b. Make arrangements for any follow-up action.

Remainder of page intentionally left blank

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS 018B CABIN CREW RECORDS CHECK SUMMARY

Record ID:	Inspector	Type of Operation	Activity Number – Checklist
Date Accomplished:	# Issues	Operator #	Tracking #
Location:		Company Official	

Instructions for Use:

1. Check **`S**' column if you reviewed the record, procedure or event and it is **`Satisfactory'**.
2. Check **`U**' column if you reviewed the record, procedure or event and it is **`Unsatisfactory'**.
3. Check **NS** (**not seen**) column if you did not review the record, procedure or event or you do not have adequate information to make a valid comment.
4. Check **NA** (**not applicable**) column, if the line item is not required in this particular situation.
5. Enter any notes on reverse side regarding a 'U' answer for transfer to the Safety Issues Resolution Report.
6. For later reference, precede any notes with the appropriate question number

S/N	***CERTIFICATES***	S	U	NS	NA
1.	Copies of All Cabin Crew License in the records?				
2.	Copies of current Medical Certificates in the records?				
	MINIMUM EXPERIENCE				
3.	Appropriate minimum experience in record?				
	COMPANY PROCEDURES				
4.	Completion of Company Procedures Training in records? 6(4.2.3.1),				
	TR, CONVERSION				
5.	Completion of Type Rating Course in all records? 1.945				
6.	Completion of aircraft-specific systems training in all records				
7.	Completion of required differences training posted in all records				
8.	Initial emergency equipment training posted in all records? 6(9.2)				
9.	Initial emergency experience training, including ditching posted? ; 6(9.2)				
10.	General First Aid training posted in all records				
11.	Initial security training posted in all records?				
12.	Initial dangerous goods training posted in all records? 6(9.3)				
13.	Initial CRM training posted in all records; 6(9.3)				
	QUALIFYING				
14.	Initial Proficiency Test for current aircraft assignment posted in all records?				
15.	Line flying under Supervision completion posted in all records?				
16.	Line Checks completion posted in all records?				
17.	Route Competence Qualification posted in all records? ; 6(9.4.3.5)				
	RECURRENT TRAINING				
18.	Recurrent Company Procedures training posted?				
19.	Recurrent aircraft-specific training posted				
20.	Recurrent dangerous goods training posted				
21.	Recurrent emergency equipment and safety training posted?				
22.	Recurrent CRM training posted? 6(9.3)				
23.	Recurrent emergency hands-on experience posted? 6(9.2)				
24.	Recurrent security training posted				
	RECURRENT CHECKING				
25.	Current Operator Proficiency Check in assigned aircraft posted? 6(9.4.4)				
26.	Current Line Checks in the assigned aircraft posted				
27.	Emergency and Safety equip checks posted? 6(9.2)				

	RECORDS RETENTION, SECURITY AND AVAILABILITY				
28.	Records retained for proper periods?				
29.	Records secured from unauthorized modifications or theft?				
30.	When crewmember changes air operator, a copy of the crewmembers records is provided to the other air operator upon proper request.?				

REMARKS & OBSERVATIONS

_____
INSPECTOR SIGNATURE

Additional comments attached ☐ =>

CL: O-OPS18B1 Individual Cabin Crew Record Check Supplemental Form

Checklist: **1616a**	Air Operator	Date:	Location:
CC Record/:	Crew Position/Aircraft	Company Official	Inspector:

	CERTIFICATES		
1	Cabin Crew License		
2	Medical Certificate		
	MINIMUM EXPERIENCE		
3	Minimum experience	Original	
	COMPANY PROCEDURES		
5	Company Procedures Training	Original	*
	TR, CONVERSION		
6	Type Rating Course Original		
7	Aircraft-specific systems training 6(9.3)	Original or Upgrade	*
10	Differences training?	Original or Upgrade	
11	Initial emergency equipment training 6(9.2)	Original or Upgrade	*
12	Initial emergency experience training, including ditching 6(9.2)	Original or Upgrade	*
13	General First Aid	Original	
14	Initial security training	Original	*
15	Initial dangerous goods training 6(9.3)	Original	
16	Initial CRM training 6(9.3)	Original	
	QUALIFYING		
17	Initial Proficiency Test	Original	
18	Line flying under Supervision	Original	
19	Line Check Original		
20	Route Competence Qual 6(9.4.3.5)	12 months	
	RECURRENT TRAINING		
23	Company Procedures	12 months	
24	Recurrent aircraft-specific systems training	12 months	
27	Recurrent dangerous goods training	2 years	
28	Recurrent emergency equipment and safety training 6(9.2)	12 months	
29	CRM training 6(9.3)	Same as ground trng	
30	Recurrent emergency hands-on experience 6(9.2)	3 years	
31	Recurrent security training	12 months	
	RECURRENT CHECKING		
32	Operator Proficiency Check 6(9.4.4)	6 months	
33	Line Checks	12 months	
34	Emergency and Safety equip checks 6(9.2)	12 months	

REMARKS & OBSERVATIONS

_____
INSPECTOR SIGNATURE

Additional comments attached ☐ =>

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CHECKLIST (CL) O-OPS 018C
ATTACHED

INSPECT FLIGHT PREPARATION RECORDS

Purpose

This inspection will review the flight preparation records to determine that the AOC holder is using the procedures and methods outlined in their Operations and Maintenance Manuals, that the personnel are properly completing the documents, and the documents are accurate. The proper retention is also reviewed.

Facilities and Records

Give the operator notice of your intention to conduct an inspection of their operational records, so that the required documents and management representatives will be made available for the inspection. (Under some circumstances, you can make a spot check of operational records, without prior notification.)

Organize a discreet area to ensure minimal disruption to both yourself and the operator. Remain on the operator's premises during the inspection, observe the appropriate level of confidentiality and refrain from marking or defacing any records.

Carry out the inspection, using the appropriate checklist.

In your assessment of the operator's record-keeping system, consider the following:

- Practicality
- Accuracy and completeness
- Accessibility
- Security
- Control.

Comment on the adequacy and effectiveness of the operator's record-keeping system

If you have discovered discrepancies during the inspection, bring these to the attention of the operator.

Conduct Facilities and Records Inspections

Give a management representative short notice of the inspection.

Conduct an entry meeting with the management of the training facility:

- Review the scope of the inspection.
- Agree on the allocation of company staff or resources that may be needed for the inspection.
- Request a discrete and private working area to facilitate the confidential assessment of documents and preparation of reports.

Carry out the inspection, in a way that causes a minimum of disruption to the operator, using the appropriate checklists.

Follow appropriate checklists and procedures when carrying out specific separate inspections — for example, flight simulators.

Conduct a short exit meeting with the a management representative.

Briefly report the findings of the inspection.

Make arrangements for any follow-up action.

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS 18C INSPECT FLIGHT PREPARATION RECORDS

Record ID:	Protocol #	Tracking #	Activity #
Date Accomplished	Action Taken	Inspector	Type of Operation:
Air Operator/Organization	Aircraft Make/Model:	Location #	
Title of Manual reviewed:			

Instructions for Use:

1. Check **`S**' column if you reviewed the record, procedure or event and it is **`Satisfactory'**.
2. Check **`U**' column if you reviewed the record, procedure or event and it is **`Unsatisfactory'**.
3. Check **NS** (**not seen**) column if you did not review the record, procedure or event or you do not have adequate information to make a valid comment.
4. Check **NA** (**not applicable**) column, if the line item is not required in this particular situation.
5. 'Enter any notes on reverse side regarding a 'U' answer for transfer to the Safety Issues Resolution Report.
6. For later reference, precede any notes with the appropriate question number.

S/N		S	U	NS	NA
1.	Mass and balance calculations and procedures?				
2.	Passenger seat assignments?				
3.	Last-minute mass and balance changes?				
4.	Takeoff and landing performance calculations?				
5.	Weather acquisition and briefing?				
6.	Notam acquisition and briefing?				
7.	Operational flight plan calculations and procedures?				
8.	Flight following procedures?				
9.	Adequate communications capability with main base operations and maintenance function, including relay of information?				
10.	Flight preparation records filing?				
	RECORDS RETENTION AND ACCURACY	**S**	**U**	**NS**	**NA**
11.	Flight preparation records retention security?				
12.	Are operational flight plans/nav logs retained?.				
13.	Are briefing weather documents retained?				
14.	Are briefing information such as NOTAMs and other aeronautical data including NOTAMs retained?				
15.	Are copies of load manifests, including last minute calculations retained?				
16.	Are copies of tech log pages showing MEL dispatch or maintenance at station retained?				
17.	Are fuel and oil servicing records retained?				
18.	Are crew qualification records retained?				
19.	Were records inspected satisfactory and accurate?				

REMARKS & OBSERVATIONS

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INSPECTOR SIGNATURE Additional comments attached ☐ =>

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CHECKLIST (CL) O-OPS 019
ATTACHED

STATION INSPECTION

Purpose

This inspection should be conducted periodically at every location where the operator uses the facilities and services in connection with the operations. Its purpose is to assess the acceptability as it pertains to the operation under consideration of various navigation- communications-meteorological facilities and equipment, related operational control procedures and ground services and to evaluate the competency of the assigned staff to operate them. The objective is to ascertain that these facilities meet established requirements, that they are properly managed by qualified staff and that the required records are properly maintained.

Preferably these inspections should be conducted when actual departure or arrival operations are in progress in order to obtain an over-all view of the operation of the station and the effectiveness of the equipment, services, procedures and personnel utilized. The NCAA inspector should review staffing and the assignment of various duties with the operator's senior representative at the station. During this inspection a review should be made of the pertinent manuals (operations. maintenance, training, routes. etc.) to determine if they are readily available and current.

Personnel responsible for various duties should be queried regarding their familiarity with those operator instructions applicable to them and a determination made as to how competently they are performing their assigned duties. The operator's routine and emergency procedures for the operations of the station and related facilities must be reviewed and discussed with personnel concerned.

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS019 OPERATIONS STATION INSPECTION

Record ID:	Inspector	Type of Operation	Activity Number – Checklist
Date Accomplished:	# Issues	Operator #	Tracking #
Station Manager	Aircraft Types Supported		

Instructions for Use:

1. Check **`S**' column if you reviewed the record, procedure or event and it is **`Satisfactory'**.
2. Check **`U**' column if you reviewed the record, procedure or event and it is **`Unsatisfactory'**.
3. Check **NS** (**not seen**) column if you did not review the record, procedure or event or you do not have adequate information to make a valid comment.
4. Check **NA** (**not applicable**) column, if the line item is not required in this particular situation.
5. 'Enter any notes on reverse side regarding a 'U' answer for transfer to the Safety Issues Resolution Report.
6. For later reference, precede any notes with the appropriate question number.

S/N	CONFORMANCE WITH -	S	U	NS	NA
1.	Nigerian CARs?				
2.	ICAO Standards?				
	SUPPORT STAFF (INCLUDING CONTRACTOR PERSONNEL)	**S**	**U**	**NS**	**NA**
3.	Is there adequate staff to handle the required support functions?				
4.	Did all staff demonstrate competent performance in their function?				
5.	Did the staff follow the proper procedures for the functions they performed?				
6.	Was there adequate equipment and facilities for the complexity and functions performed?				
	SPECIFIC SUPPORT STAFF ACTIONS AND PROCEDURES OBSERVED SATISFACTORY	**S**	**U**	**NS**	**NA**
7.	Routine maintenance?				
8.	Deferred maintenance?				
9.	Marshalling of Aircraft?				
10.	Servicing of Aircraft?				
11.	Fueling of Aircraft?				
12.	Loading of Aircraft?				
13.	Deicing of Aircraft?				
14.	Aircraft security measures?				
15.	Passenger enplaning and deplaning?				
16.	Passenger ticketing and baggage acceptance?				
17.	Mass and balance calculations and procedures?				
18.	Passenger seat assignments?				
19.	Last-minute mass and balance changes?				
20.	Takeoff and landing performance calculations?				
21.	Weather acquisition and briefing?				
22.	Notam acquisition and briefing?				

23.	Operational flight plan calculations and procedures?				
24.	Flight following procedures?				
25.	Adequate communications capability with main base operations and maintenance function, including relay of information?				
26.	Flight preparation records filing?				
	RECORDS RETENTION AND ACCURACY	**S**	**U**	**NS**	**NA**
27.	Flight preparation records retention security?				
28.	Are operational flight plans/nav logs retained?.				
29.	Are briefing weather documents retained?				
30.	Are briefing information such as NOTAMs and other aeronautical data including NOTAMs retained?				
31.	Are copies of load manifests, including last minute calculations retained?				
32.	Are copies of tech log pages showing MEL dispatch or maintenance at station retained?				
33.	Are fuel and oil servicing records retained?				
34.	Are crew qualification records retained?				
35.	Were records inspected satisfactory and accurate?				
	MANUALS – PROCEDURES – INSTRUCTIONS - PLANS	**S**	**U**	**NS**	**NA**
36.	Were the required manuals immediately available?				
37.	Were the manuals updated to the current version?				
38.	Was there adequate information in the manuals for the support functions?				
39.	Were the instructions for operation of ground service equipment available?				
40.	Were the aircraft- and powerplant-specific maintenance manuals available?				
41.	Were the servicing & refueling procedures available for staff consultation?				
42.	Were aircraft towing and movement procedures available?				
43.	Was the aircraft loading and mass and balance instructions available?				
44.	Were there instructions for identifying, rejecting and handling dangerous goods				
45.	Were there procedures for adequate security measures?.				
46.	Were there instructions for acceptance of carry-on baggage?				
47.	Was there sufficient guidance available to accurately calculate takeoff and landing performance requirements				
48.	Were there instructions regarding the completion and handling of flight preparation records (tech log, load manifest, operational flight plan)?				
49.	Were there instructions for communications with main base, including flight following, maintenance and operations dispatch instructions?				
50.	Was there an instruction for severe weather protection for the aircraft and passengers?				
51.	Was there an emergency plan and updated phone lists?				
52.	Was there a procedure for handling accidents and incidents involving the aircraft and passengers?				
	SUPPORT STAFF TRAINING (Did the records show they received -)	**S**	**U**	**NS**	**NA**

53.	Assignments to specific duties and responsibilities?				
54.	Was there a list of the minimum training requirements for the staff to accomplish their functions?				
55.	Training in identification and handling of dangerous goods?				
56.	Training in passenger ticketing and baggage weight procedures?				
57.	Training in handling and seat assignment of special passengers?				
58.	Training in proper loading of the aircraft types supported?				
59.	Training for the assigned aircraft servicing functions?				
60.	Training in the proper method of communications with the crew?				
61.	Training in their assigned aircraft parking and departing functions?				
62.	Training in the aircraft security measures?				

REMARKS & OBSERVATIONS

INSPECTOR SIGNATURE:_____

NIGERIAN CIVIL AVIATION AUTHORITY

AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS 019A SCHEDULED SERVICES AIRPORT INSPECTION

Record ID:	Inspector	Type of Operation	Activity Number – Checklist
Date Accomplished:	Location	Operator #	Tracking #
Station Manager		Aircraft Types Supported	

Instructions for Use:

1. Check **`S**' column if you reviewed the record, procedure or event and it is **`Satisfactory'**.
2. Check **`U**' column if you reviewed the record, procedure or event and it is **`Unsatisfactory'**.
3. Check **NS** (**not seen**) column if you did not review the record, procedure or event or you do not have adequate information to make a valid comment.
4. Check **NA** (**not applicable**) column, if the line item is not required in this particular situation.
5. 'Enter any notes on reverse side regarding a 'U' answer for transfer to the Safety Issues Resolution Report.
6. For later reference, precede any notes with the appropriate question number.

	COMPANY DOCUMENTATION REVIEW	**S**	**U**	**NS**	**NA**
1.	Acceptable airport information and charts?				
2.	Acceptable instrument approach charts?				
3.	Acceptable departure (obstacle) procedures?				
4.	Acceptable special airport procedures?				
5.	Accurate Operations Manual information regarding the airport?				
	COMPANY FLIGHT PLANNING REVIEW	**S**	**U**	**NS**	**NA**
6.	Availability of adequate NOTAM for operations?				
7.	Availability of adequate weather for operations?				
8.	Availability of operational documents?				
9.	Suitable work area for station personnel?				
10.	Suitable planning area for flight crew?				
	AIRPORT LANDING AND TAKEOFF INFORMATION	**S**	**U**	**NS**	**NA**
11.	Airport radio information communications available?				
12.	Trained personnel available to provide information via radio?				
13.	Active runway and known traffic information available?				
14.	Existing wind direction and velocity available				
15.	Temperature information available?				
16.	Approved altimeter setting (QNH) source?				
17.	Approved weather observers?				
	AIRPORT DAY OPERATION PROVISIONS	**S**	**U**	**NS**	**NA**
18.	Runway markings acceptable?				
19.	Taxiway markings and width acceptable?				
20.	Runway width, length and load bearing capability acceptable?				
21.	Parking lead-in and stop marks adequate?				
22.	Aircraft parking "safety" area				
23.	Vehicle operational regulations acceptable?				
24.	Perimeter security arrangements acceptable?				
25.	Animal access to runway and taxiways blocked?				
26.	No areas that create gathering of birds?				
	AIRPORT NIGHT OPERATION PROVISIONS	**S**	**U**	**NS**	**NA**
27.	Lighting activation method acceptable?				
28.	Lighting hours adequate for AOC holder's operations?				
29.	Lighting – runway				
30.	Lighting – taxiway				
31.	Lighting – ramp area				
32.	Lighting – wind indicator				
33.	Lighting – obstacle				

	AIRPORT INSTRUMENT OPERATION PROVISIONS	S	U	NS	NA
34.	Non-precision instrument approach procedure (acceptable method and minimums for this AOC holder)?				
35.	Precision approach procedure (acceptable method and minimums for this AOC holder?				
	APPROACH VERTICAL GUIDANCE?	**S**	**U**	**NS**	**NA**
36.	Electronic vertical approach guidance?				
37.	Visual vertical approach guidance?				
	CREW REST PROVISIONS?	**S**	**U**	**NS**	**NA**
38.	Adequate crew rest provisions (transportation & residence)?				
	OTHER EVALUATIONS COMPLETED ON THIS VISIT	**S**	**U**	**NS**	**NA**
39.	O-6 checklist?				
40.	O-11 checklist?				

REMARKS & OBSERVATIONS

_____

INSPECTOR SIGNATURE

Additional comments attached ☐ =>

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS 019B GROUND HANDLING SERVICE PROVIDER (GHSP) STATION INSPECTION

Record ID:	Inspector	Type of Operation	Activity Number –Checklist
Date Accomplished:	# Issues	Operator #	Tracking #
Base location		Certificate No.	
Base Manager			

Instructions for Use:

1. Check `**S**' column if you reviewed the record, procedure or event and it is `**Satisfactory'**.
2. Check `**U**' column if you reviewed the record, procedure or event and it is `**Unsatisfactory'**.
3. Check **NS** (**not seen**) column if you did not review the record, procedure or event or you do not have adequate information to make a valid comment.
4. Check **NA** (**not applicable**) column, if the line item is not required in this particular situation.
5. 'Enter any notes on reverse side regarding a 'U' answer for transfer to the Safety Issues Resolution Report.
6. For later reference, precede any notes with the appropriate question number.

	ORGANIZATION, BASE FACILITIES AND EQUIPMENT				
S/N	**Staffing and organization**	**S**	**U**	**NS**	**NA**
1.	Management structure				
2.	Operations department staffing				
3.	Support Staff				
4.	Systems for provision of information				
	Base facilities	**S**	**U**	**NS**	**NA**
5.	Adequacy of office services				
6.	Accommodation				
7.	Operations library				
8.	Staff instructions/Notices				
9.	Technical library				
10.	Logs/Records				
11.	Duty briefing				
12.	Ramp reports				
13.	Passenger and cargo handling procedures				
14.	Passenger and cargo handling equipment				
	Safety Programme	**S**	**U**	**NS**	**NA**
15.	Safety data analysis programme				
16.	Accident Prevention and Safety Programme				
17.	Safeguards to protect source of data				
18.	Programme is non-punitive				
	Ground Support Equipment	**S**	**U**	**NS**	**NA**
19.	Passenger handling equipment				
20.	Baggage/Cargo handling equipment				
21.	Lavatory Trucks				
22.	Water trucks				
23.	Other Equipments (_____)				
24.	Emergency equipment				
	OPERATIONS MANUAL	**S**	**U**	**NS**	**NA**
25.	Purpose and scope of manuals				
26.	List of manuals comprising operations manual				
27.	Manuals/Checklist to be carried to the ramp				

28.	Responsibility for manual content				
29.	Responsibility for manual amendment				
30.	Distribution of manuals and amendments				
	MANAGEMENT ORGANIZATION	**S**	**U**	**NS**	**NA**
31.	Safety Manager				
32.	Operations manager — duties and responsibilities				
33.	Technical manager — duties and responsibilities				
34.	Other Officers — duties and responsibilities				
35.	Training Managers — duties and responsibilities				
36.	Duty hours for personnel/Duty time limitation				
	TRAINING	**S**	**U**	**NS**	**NA**
37.	Training program in place				
38.	Training records retention				
39.	Procedure to make sure that untrained, inexperienced, under drug/alcohol personnel do not operate ground-handling equipment in the ramp				
	GROUND SUPPORT EQUIPMENT WORKSHOP	**S**	**U**	**NS**	**NA**
40.	Adequate workshop space for the work in hand				
41.	“NO SMOKING” placard displayed prominently in the workshop				
42.	Record of all the equipment in use				
43.	Maintenance schedule for all the equipment				
44.	Workshop have the basic requirements in reference to lighting, water, drainage and compressed air				
45.	Established procedure for communicating defects and rectifications on equipments between the ramp and the workshop				
	EQUIPMENT INSPECTION	**S**	**U**	**NS**	**NA**
46.	Standard types of chocks available at the station				
47.	GPU available and serviceable				
48.	Hand brake working				
49.	Smoke level normal				
50.	Working beacon				
51.	Sockets for the electrical leads free from moisture and within limits or extra enlarged. Leads in good condition				
52.	Tires in good condition				
53.	Ground power unit kept clean and does it have reflectors				
54.	Working stands and steps available and good conditions				
55.	Jacks at the station in case they are needed				
56.	Jacks serviced and maintained according to an established Maintenance Schedule and schedule followed				
57.	Air starter units at the station				
58.	Acceptable level of smoke				
59.	Hand brake working				
60.	Serviceable beacon				
61.	Lights, mirrors, wipers and tires in good condition				
62.	Serviceable fire extinguisher fitted				
63.	Driver’s seat steady and in good condition				
64.	Unit, in reference to lights, brakes, beacon, tires, driver’s seat and wipers in good condition				
65.	Toilet service unit, in reference to lights, brakes, beacon, tires, driver’s seat and wipers in good condition				
66.	Drain hose in good condition				
67.	Unit fitted with a serviceable fire extinguisher				
68.	Passenger steps as regards, brakes, lights, mirrors, beacon, bumpers, canopy, condition, operation, wipers and driver’s seat in good condition				
69.	Fitted with serviceable fire extinguishers				
70.	Mobile conveyer belts with regard to lights, brakes, beacon, tires, wipers driver’s seat and mirrors, is the unit in good condition				
71.	Unit fitted with a serviceable fire extinguisher				
72.					

REMARKS & OBSERVATIONS

INSPECTOR NAME:_____ **SIGNATUR**E:_____

DATE: _____

NIGERIAN CIVIL AVIATION AUTHORITY

AVIATION HOUSE

P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS 020 REVIEW OF MANUAL CONTAINING SIMULATOR/TRAINING DEVICE PROCESS CHECKLIST

Instructions for Use:

1. Check **`S**' column if you reviewed the record, procedure or event and it is **`Satisfactory'**.
2. Check **`U**' column if you reviewed the record, procedure or event and it is **`Unsatisfactory'**.
3. Check **NS** (**not seen**) column if you did not review the record, procedure or event or you do not have adequate information to make a valid comment.
4. Check **NA** (**not applicable**) column, if the line item is not required in this particular situation.
5. 'Enter any notes on reverse side regarding a 'U' answer for transfer to the Safety Issues Resolution Report.
6. For later reference, precede any notes with the appropriate question number.

Order/CL No.	Inspector	Type of Manual	Operator/Applicant
Date Received	Date accomplished		

The inspector must -

(a) Review the regulatory requirements of the Civil Aviation (Air Operator Certification and Administration) Regulations, on General Requirements; Testing and Training for Pilot Licences of Civil Aviation (Personnel Licensing) Regulations, on Aircraft Operating And Performance Limitations of the Civil Aviation (Operations of Aircraft) Regulations, of Civil Aviation (Operation of Aircraft) Regulations and Civil Aviation (Approved Training Organization) Regulations as applicable in which simulators or synthetic training devices may be used and note details of the minimum requirements and any restrictions on their use.

(b) Review the duties and responsibilities for management and other personnel identified by the Certificate Holder who accomplish the Simulators / Training Devices process.

(c) Review the Certificate Holder's manual to ensure that it contains policies, procedures, instructions and information necessary for the Simulators / Training Devices process.

(d) Review the Certificate Holder's policies, procedures, instructions and information to gain an understanding of the controls that it has documented.

(e) Identify the person who has overall responsibility for the Simulators / Training Devices process.

(f) Identify the person who has overall authority for the Simulators / Training Devices process.

(g) Review the duties and responsibilities of the person(s), documented in the Certificate Holder's manual.

(h) Review the appropriate organizational chart.

Requirement	**Assessment**			
	S	**U**	**NS**	**N/A**
1. Does the Certificate Holder's manual-				
(a) Meet the specific regulatory and NCAA policy requirements for a Simulators / Training Devices process:				

(b) Contain general policies for the Simulators / Training Devices process that comply with the specific regulatory requirements?				
(c) Cite the regulatory requirements pertinent to the task?				
(d) Contain the duties and responsibilities for personnel who will accomplish the Simulators / Training Devices process?				
(e) Include instructions and information for personnel to meet the requirements of the Simulators / Training Devices process?				
(f) Specify procedures, instructions and information necessary to ensure it maintains the performance, functional, and other characteristics that are required for approval of each aeroplane simulator and training device?				
(g) Contain instructions and procedures to ensure that simulators and training devices are configured the same way as the aeroplane they represent?				
(h) Contain instructions and procedures to ensure the use of a daily discrepancy log to report discrepancies at the end of each training or check flight?				
(i) Specify that each flight training device to be used by the Certificate Holder or training centre for any of the purposes set forth in the NCAR must be approved by the Authority for its intended use?				

Requirement	Assessment			
	S	**U**	**NS**	**N/A**
(j) Require each training device approved for use in an approved crew training programme to be part of a continuing programme to provide for its serviceability to perform its intended function as approved by the NCAA?				
(k) Require each training device approved for use in an approved crew training programme to be part of a continuing programme to provide for its fitness to perform its intended function as approved by the NCAA?				
(l) Include the duties and responsibilities of those who manage the work required by the Simulators / Training Devices process?				
(m) Include instructions and information for those who manage the work required by the Simulators / Training Devices process?				
(n) Clearly and completely document the authority for this position?				
(o) Clearly and completely document their qualification standards for the person having responsibility for the Simulators / Training Devices process?				
(p) Clearly and completely document the qualification standards for the person having authority to establish and modify the Certificate Holder's policies, procedures, instructions and information for the Simulators / Training Devices process?				
(q) Clearly and completely document the procedures for delegation of authority for the Simulators / Training Devices process?				
2. If alternate procedures exist for use during irregular conditions, do the alternate procedures provide an equivalent level of safety to achieve the same results as the primary procedures?				
Note: In the following checks, reference is made to "controls". Controls are checks and restraints designed into a process to ensure a desired result. Controls should be written into the manual system to ensure that the most important manual policies, procedures or instructions and information will be complied with. Controls may be in the form of "administrative controls" which are secondary or supplemental written procedures. Like written procedures, administrative controls also need to provide answers to the associated who, what, when, where and how type questions. Controls may also be in the form of "engineered controls" such as automated features or mechanical actions or devices (i.e., safety devices, warning devices, etc.).				
3. Are the following controls built into the Simulators / Training Devices process to ensure that -				
(a) The simulators and training devices are configured the same way as the aeroplane they represent?				
(b) The Certificate Holder uses a maintenance log to report simulator and training device discrepancies?				
(c) The Certificate Holder uses a maintenance log to correct simulator and training device discrepancies?				
(d) The Certificate Holder upgrades its simulators and training devices to reflect operational/fleet changes and ensures that these changes were communicated to the training programme and inspection department?				
(e) The Certificate Holder's simulators and training devices are configured to meet low altitude wind shear training requirements?				
4. Does the Certificate Holder have a documented method for assessing the impact of any changes made to the controls in the Simulators / Training Devices process?				

Requirement	Assessment			
	S	**U**	**NS**	**N/A**
5. Does the Certificate Holder's Simulators / Training Devices have a process that would reveal if-				
(a) Simulators and training devices were not configured the same way as the aeroplane they represent?				
(b) The Certificate Holder did not use a maintenance log to report simulator and training device discrepancies?				
(c) The Certificate Holder did not use a maintenance log to correct simulator and training device discrepancies?				
(d) The Certificate Holder did not upgrade its simulators and training devices to reflect operational/fleet changes and ensure that these changes were communicated to the training programme and inspection department?				
(e) The Certificate Holder's simulators and training devices were not configured to meet low altitude wind-shear training requirements?				
5. Does the Certificate Holder document its process measurement methods and results?				
6. Does the organization that conducts the process measurements have direct access to the person with responsibility for the Simulators / Training Devices process?				
7. Are the following aspects of the Management Responsibility and Authority addressed in the Simulators / Training Devices process:				
(a) Does the Certificate Holder's manual clearly identify who is responsible for the quality of the Simulators / Training Devices process?				
(b) Does the Certificate Holder's manual clearly identify who has authority to establish and modify the policies, procedures, instructions and information for the Simulators / Training Devices process?				

ORDER/CL No:		

Notes: *1. A "NO" or "NS" response on a checklist must be accompanied by reason or comments.*
2. *A "NO" response to a safety issue finding in an inspection of an organization must be transferred to a CF report for corrective action where applicable.*
3. Preceed all comments with the applicable checklist item number or discrepancy number.

Discrepancy Label: *(Circle the applicable numeric labels that best describe the discrepancies)*

Policy, Procedures, Instructions, Information, Documentation, Controls:					**Document Quality**
1.Not Specified	**2.**Unclear	Do not comply with:		**7.**Do not Identify: Who, What, When, Where, How	**8.**Unreadable
3.Incomplete	**4.**Inconsistent	**5.** NCAR	**6.**Guidance		**9.**Illegible

10. Resource requirements incomplete (personnel, facilities, equipment, technical data)

1	2	3	4	5	6	7	8	9	10

Comments:

Recommendations

Name of Inspector_____ Signature_____ Date_____

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS020A EVALUATE ADDITION OF SAME MAKE/MODEL AIRCRAFT

Record ID:	Tracking/Protocol #	Activity #	Action Taken –
Date Accomplished:	Inspector #	Type of Operation	Air Operator/Organization
Location:	Aircraft Make/Model	AC Registration	Training Simulator –

Instructions for Use:

1. Check NO DIFFERENCE if you evaluated this line item and found no differences from the AOC holder's same make/model fleet.
2. Check DIFFERENCE column if you evaluated this line item and found some element of difference to the remainder of the AOC holders same make/model fleet.
3. Check N/A column if this line item is not applicable to the aircraft fleet
4. Enter any notes on reverse side regarding a DIFFERENCE answer for further manual or training differences or a necessary conformance change to aircraft.
5. For later reference, precede any notes with the appropriate line item number.

	FLIGHT DECK	**NO DIFFERENCE?**	**DIFFERENCE?**	**N/A**
1.	Flight Management System Presentation and Operation			
2.	Primary Flight Guidance Presentation and Operation			
3.	Other Instrumentation Location and Marking?			
4.	Other Switch Location and Operation			
5.	Warning Indications and Sounds Presentation?			
6.	Circuit Breaker Location			
7.	Communications Equipment			
	Revision necessary to critical information?			
8.	Instrument Approach Minimums			
9.	Passenger Information Cards			
10.	Condensed Checklists			
11.	Expanded Checklists			
12.	Aircraft Limitations			
13.	Aircraft Performance			
14.	Aircraft Weight and Balance			
15.	Weight and Balance Computations			
16.	Operational Flight Plan Computations			
17.	Aircraft Operation Manual			
18.	Minimum Equipment List (Installation & Dispatch)			
19.	Training Program or Syllabi			
20.	Operational Bulletin			
	Revision Necessary to AOC Holder Manuals for Aircraft Systems Details and Operation?			
21.	Aircraft General			
22.	Air Conditioning and Pressurization			
23.	Automatic Pilot			
24.	APU			
25.	Electrical			
26.	Emergency Equipment Location and Use			

27.	Powerplant			
28.	Fire Protection			
29.	Flight Controls			
30.	Fuel			
31.	Hydraulics			
32.	Ice & Rain Protection			
33.	Instrumentation and			
34.	Landing Gear			
35.	Navigation			

RECOMMEND APPROVAL: ☐ YES ☐ NO (Reason cited below)

_____

INSPECTOR SIGNATURE:

REMARKS & OBSERVATIONS

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL O-OPS020B CURSORY REVIEW OF MANUALS

Record ID:	Protocol #	Tracking #	Activity #
Date Accomplished	Action Taken	Inspector	Type of Operation:
Air Operator/Organization	Aircraft Make/Model:	Location #	
Title of Manual reviewed:			

Instructions for Use:

1. Check **`S**' column if you reviewed the record, procedure or event and it is **`Satisfactory'**.
2. Check **`U**' column if you reviewed the record, procedure or event and it is **`Unsatisfactory'**.
3. Check **NS** (**not seen**) column if you did not review the record, procedure or event or you do not have adequate information to make a valid comment.
4. Check **NA** (**not applicable**) column, if the line item is not required in this particular situation.
5. 'Enter any notes on reverse side regarding a 'U' answer for transfer to the Safety Issues Resolution Report.
6. For later reference, precede any notes with the appropriate question number.

S/N	OVERALL MANUAL PRESENTATION	*S*	*U*	*NS*	*NA*
1.	Bound in a secure form (not loose)?				
2.	Binder is 3 or 4 ring?				
3.	Exterior of binder clearly indicates manual content?				
4.	Prepared in English language?				
	MANUAL CONTROL PROCESS	***S***	***U***	***NS***	***NA***
5.	Copies numbered for controlled issuance?				
6.	Name or title of each person who holds a copy?				
7.	Amendment issuance tracking process?				
8.	Statement that the operations manual contains operating instructions which are required to be complied with by all personnel?				
9.	Statement of Compliance				
	MANUAL REVISION PROCESS	***S***	***U***	***NS***	***NA***
10.	Revision Instructions adequate?				
11.	Revision page for proper revision entry?				
12.	List of effective pages provided and correct?				
13.	Last revision to individual pages identified?				
	MANUAL REFERENCING SYSTEM	***S***	***U***	***NS***	***NA***
14.	Table of contents easy to find and use?				
15.	Index, if included, easy to find and use?				
16.	Tabbed as necessary for usability without difficulty?				
	INDIVIDUAL PAGE PRESENTATION	***S***	***U***	***NS***	***NA***
17.	Page numbered in chronological sequence (by chapter or single document?				
18.	Last revision number/date appears on each page?				
19.	Company name (and logo) appears on each page?				
20.	If manufacturer's document is submitted in lieu of a company manual, does the manufacturer's name appear on each page?				
21.	For all manufacturers' documents submitted, a manufacturer's letter or reference document is provided to substantiate current revision number/date?				
	PARAGRAPH NUMBERING	***S***	***U***	***NS***	***NA***
22.	Paragraphs and sub-paragraphs numbered or alphabetized for ease of reference?				

	SUPPLEMENTARY CONTENT REFERENCING	*S*	*U*	*NS*	*NA*
23.	Tables referenced for ease of use?				
24.	Figures referenced for ease of use?				
25.	Appendices referenced for ease of use?				
	MANUAL CONTENTS CONFORMANCE	***S***	***U***	***NS***	***NA***
26.	Conforms to Nig. CARs 9.3.1.2 and IS 9.3.1.2, Ops Manual Contents				
27.	Complies with NCAA Guidance Reference: AOC Administration:				
28.	Conforms to ICAO Annex 6-I, Appendix 2, Ops Manual Contents				
	MANUAL EXCERPTS PROPERLY REFERENCED?	***S***	***U***	***NS***	***NA***
29.	Condensed Checklists compared and current?				
30.	Passenger Briefing Cards compared and current?				
31.	Training materials?				

RECOMMEND ACCEPTANCE: ☐ YES ☐ NO (Reasons cited below)

_____

INSPECTOR SIGNATURE:

REMARKS & OBSERVATIONS

_____

INSPECTOR SIGNATURE

Additional comments attached ☐ =>

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS 020C EVALUATE OPERATIONS MANUAL PART A

Record ID:	Protocol #	Tracking #	Activity #
Date Accomplished	Action Taken	Inspector	Type of Operation:
Air Operator/Organization	Aircraft Make/Model:	Location #	
Title of Manual reviewed:			

Instructions for Use:

1. Check **`S**' column if you reviewed the record, procedure or event and it is **`Satisfactory'**.
2. Check **`U**' column if you reviewed the record, procedure or event and it is **`Unsatisfactory'**.
3. Check **NS** (**not seen**) column if you did not review the record, procedure or event or you do not have adequate information to make a valid comment.
4. Check **NA** (**not applicable**) column, if the line item is not required in this particular situation.
5. 'Enter any notes on reverse side regarding a 'U' answer for transfer to the Safety Issues Resolution Report.
6. For later reference, precede any notes with the appropriate question number.

	ORGANIZATION, BASE FACILITIES AND AIRCRAFT EQUIPMENT				
S/N	**Staffing and organization**	***S***	***U***	***NS***	***NA***
1.	Management structure				
2.	Operations department staffing				
3.	Traffic and loading staff				
4.	Systems for provision of information				
	Base facilities	***S***	***U***	***NS***	***NA***
5.	Flying staff instructions				
6.	Navigation logs/records				
7.	Pilot's flight briefs				
8.	Voyage reports				
9.	Passenger and cargo handling procedures				
	Safety Programme	***S***	***U***	***NS***	***NA***
10.	Flight data analysis programme				
11.	Accident Prevention and Flight Safety Programme				
12.	Safeguards to protect source of data				
13.	Programme is non-punitive				
	Aircraft equipment	***S***	***U***	***NS***	***NA***
14.	Emergency equipment				
15.	Use of Checklists				
	OPERATIONS MANUAL	***S***	***U***	***NS***	***NA***
16.	Purpose and scope of manuals				
17.	List of manuals comprising operations manual				
18.	Manuals to be carried on aircraft				
19.	Responsibility for manual content				
20.	Responsibility for manual amendment				
21.	Distribution of manuals and amendments				

	MANAGEMENT ORGANIZATION	S	U	NS	NA
22.	Safety Manager				
23.	Operations manager — duties and responsibilities				
24.	Technical manager — duties and responsibilities				
25.	Chief pilot — duties and responsibilities				
26.	Training captains — duties and responsibilities				
27.	Flying hours for management personnel				
	CREW TO BE CARRIED	**S**	**U**	**NS**	**NA**
28.	Composition of crew				
29.	Minimum flight crew				
30.	Minimum number of cabin attendants				
31.	Carriage of navigator				
32.	Carriage of flight engineer				
33.	Crew licences				
	DUTIES OF FLIGHT CREW AND OTHER OPERATING STAFF	**S**	**U**	**NS**	**NA**
34.	Designation of pilot-in-command				
35.	Authority of pilot-in-command				
36.	Duties of crew members				
37.	Briefing of passengers				
38.	Necessity of pilots to remain at controls				
39.	Co-pilot handling of the aircraft				
40.	Refuelling duties/responsibilities				
41.	Loading by flight crew				
	FLIGHT DECK MANAGEMENT	**S**	**U**	**NS**	**NA**
42.	Preflight action by pilot-in-command				
43.	Succession to command				
44.	Normal duties				
45.	Flight crew — division of IMC duties				
46.	Flight crew — procedures in event of incapacitation				
47.	Flight crew — acknowledgement of calls during take- off and landing				
48.	Flight crew — querying of deviations from flight plan				
49.	Flight crew — briefing before take-off and landing				
50.	Flight crew — consumption of alcohol				
51.	Flight crew — wearing of harness for take-off and landing				
52.	Flight crew — simulation of emergencies not permitted when carrying passengers				
53.	Operation of radio in aircraft				
54.	Radio checking procedure				
55.	Altimeter checking procedure				
56.	Operation of flight data recorder				
57.	Emergency evacuation procedures				
58.	Procedures in event of pressurization failure				
	FLIGHT TIME LIMITATIONS	**S**	**U**	**NS**	**NA**
	Definitions of:				
59.	Flight time				
60.	Duty period				
61.	Flying duty period				
62.	Split duty				
63.	Positioning				
64.	Standby duty				
65.	Rest period				

66.	Time off				
67.	Day				
68.	Local day/night				
69.	Local time				
70.	Requirement of scheme to regulate flight times				
71.	Maximum duty period — two pilot crew — aeroplane				
72.	Maximum duty period — single pilot crew — aeroplane				
73.	Maximum duty period — two pilot crew — helicopter				
74.	Maximum duty period — single pilot crew — helicopter				
75.	Particular cases:				
76.	Extension of duty period by inflight relief				
77.	Split duty				
78.	Positioning (dead-heading)				
79.	Standby duty				
80.	Traveling time				
81.	Pilot-in-command's discretion to extend flying duty period				
82.	Minimum rest periods				
83.	Pilot-in-command's discretion to reduce rest period				
84.	Cumulative duty and flying hours:				
85.	Maximum weekly duty hours				
86.	Maximum monthly duty hours				
87.	Maximum monthly flying hours				
88.	Maximum annual flying hours				
89.	Duty cycles and time-off duty:				
90.	Normal duty cycle				
91.	Short breaks away from base				
92.	Time off at base				
93.	Records to be maintained for each crew member				
94.	Scheme for regulation of flight times for cabin attendants				
95.	Responsibilities of all crew members				
	ADMINISTRATION	***S***	***U***	***NS***	***NA***
96.	Drunkenness in aircraft				
97.	Smoking in aircraft				
98.	Imperiling safety of aircraft				
99.	Stowaways				
100.	Carriage of livestock				
101.	Carriage of dangerous goods				
102.	Carriage of weapons of war				
103.	Carriage of unauthorized persons				
104.	Provision of navigational flight-plan forms				
105.	Provision of pilot-in-command's brief				
106.	Provision of operations library				
107.	Filing airmiss reports				
108.	Filing flight safety/incident reports				
109.	Allowable deficiencies MEL Application				
110.	Use of flight plans				
111.	Use of technical log				
112.	Method of deferring defects approved by Airworthiness division				
113.	Carriage of CAA inspectors				
	STANDARD AND EMERGENCY CHECKLISTS	***S***	***U***	***NS***	***NA***
114.	Drills and checks to be listed in full in the operations manual				
115.	Checks required prior to take-off				
116.	Checks required prior to landing				
117.	Check of safety altitude before descent				
118.	Emergency drill — items to be covered				

119.	Instruction that checklist must be used				
120.	Requirement for cabin attendants to be issued with individual copies of emergency evacuation drills				
	FUEL FLIGHT PLANNING AND RECORDS	***S***	***U***	***NS***	***NA***
121.	Flight planning formula				
122.	Island reserve				
123.	Rules for replanning in flight				
124.	Effect on fuel consumption of use of ancillary equipment				
125.	Effect on fuel consumption of engine or system failures				
126.	Fuel consumption records in flight (every hour)				
127.	Records of uplift and fuel states				
128.	Retention of fuel records:				
129.	Technical logs				
130.	In-flight records				
131.	Retention of fuel records on navigation logs				
132.	Refuelling with passengers on board — special instructions				
133.	Fumes in aircraft				
134.	Jettisoning fuel — special precautions				
	ROUTE OPERATING INFORMATION	***S***	***U***	***NS***	***NA***
	Company policy on:				
135.	Flights on and off airways				
136.	Nomination of alternate aerodromes (heliports)				
137.	Operation of VFR flights				
138.	Cancellation of IFR flight plans				
139.	Details of AOC area of operations				
140.	Details of navigation area restrictions				
141.	Details of radio area restrictions				
142.	Definition of public transport				
143.	Flight plan/nav forms — items to be provided for:				
144.	to be retained for _____ months				
145.	exceptions to above requirement				
146.	Use of prepared navigational flight plans				
147.	Nav log forms for use by navigators				
148.	Radio equipment to be carried				
149.	Operation of radio in aircraft				
150.	Radio failure procedures				
151.	Minimum safe altitudes				
152.	Terrain clearance following loss of engine(s)				
153.	Minimum aerodrome facilities for approach and landing				
154.	Documents to be carried on public transport aircraft				
155.	Details of aircraft library and nav bag				
156.	Flying staff instructions or notices:				
157.	Operational				
158.	Technical				
159.	Administration				
160.	Time limit after issue				
161.	Requirement to carry life rafts				
162.	Provision and use of oxygen				
163.	Briefing of passengers in use of oxygen				
164.	Noise abatement procedures				
165.	Allowable deficiencies — guidance to pilots-in- command				
	AERODROME OPERATING MINIMA	***S***	***U***	***NS***	***NA***
166.	Operating minima to be included for every airfield used regularly in respect of take-off, landing and visual manoeuvring				

167.	Conditions for commencing a flight				
168.	Conditions for commencing/continuing an approach				

REMARKS & OBSERVATIONS

_____

INSPECTOR SIGNATURE

Additional comments attached ☐ =>

CL: O-OPS 021 (Authorization, Renewal of Authorization, or Inspection)

Conduct a Check Pilot Observation

Give the check pilot/check flight engineer notice of your intention to conduct an inspection.

Brief the check pilot/check flight engineer not to advise the pilot/crew of the result of the check until after discussion with you.

Arrive at the facility in time to observe the pre-exercise briefing.

Carry out the inspection on a non-interference basis, using the appropriate checklist(s).

Observe the check pilot/check flight engineer as he or she briefs and debriefs the person undergoing the check and completes relevant documentation, while occupying a crew seat relevant to the check.

Ensure that the check pilot/check flight engineer makes a correct assessment of the person undergoing the check, or conducts appropriate remedial teaching, if carrying out a training exercise.

If the check is conducted in a simulator, ensure that the check pilot/check flight engineer demonstrates proficiency in operating the simulator, including:

- Setting to a specified locality and runway
- Setting to a specified in flight position
- Inserting specific operation parameters — for example, weight, fuel, environment, etc.

If the check is conducted in an aircraft, and if appropriate, ensure that the check pilot records indicate that he has demonstrated critical maneuvers from the right-hand seat, including:

- Simulated engine failure at VI
- A landing with one engine simulated inoperative.
- During this demonstration, the left-hand seat must be occupied by a suitably qualified check pilot or the Inspector.

At the completion of the exercise, observe the check pilot/check flight engineer as he or she discusses the results of the check with the pilot/crew

NIGERIAN CIVIL AVIATION AUTHORITY

AVIATION HOUSE

P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS 021 (Authorization, Renewal of Authorization, or Inspection)

Record ID:	Inspector	Type of Operation	Activity Number – Checklist		
Date Accomplished:	# Issues	Operator/Applicant			
Flight #:	From:	To:	AC Registration:	A/C or Simulator	Type**:**
PIC/Lic #:	Other Crew /Lic#:	Check Pilot /Lic#:			
Type of Check:	Supervisory Check Pilot #	Check Approval			

Instructions for Use:

1. Check **`S**' column if you reviewed the record, procedure or event and it is **`satisfactory'**.
2. Check **`U**' column if you reviewed the record, procedure or event and it is **`Unsatisfactory'**.
3. Check **NS** (**not seen**) column if you did not review the record, procedure or event or you do not have adequate information to make a valid comment.
4. Check **NA** (**not applicable**) column, if the line item is not required in this particular situation.
5. 'Enter any notes on reverse side regarding a 'U' answer for transfer to the Safety Issues Resolution Report.
6. For later reference, precede any notes with the appropriate question number.

S/N		S	U	N/S	N/A
1	Observe the check pilot candidate as he briefs the person under going the check and complete relevant documentation while occupying a crew seat relevant to the check				
2	Does the person being checked by the check pilot candidate understand clearly what is required during the check?				
3	Ensure that the check candidate makes a correct assessment of the person undergoing the check or conducts appropriate remedial teaching if carrying out a training excise.				
4	If the check is conducted in a simulator, does the candidate demonstrate proficiency in operating the simulator, including:	**S**	**U**	**N/S**	**N/A**
(a)	Setting to a specified locality and runway?				
(b)	Setting to specified In-flight position?				
(c)	Inserting specific operation parameters- for example, Weight, Fuel, Environment, etc?				
	NCAA FILES	**S**	**U**	**N/S**	**N/A**
5	Is the air operator's nomination of check person in the file?				
6	Is an updated copy of the check person's resume in the file?				
7	Is a copy of the last designation in the file?				
	AIR OPERATOR FILES	**S**	**U**	**N/S**	**N/A**
8	Does the check person meet the minimum experience requirements?				
9	Has the check person completed all required company training?				

10	Is the check person current and qualified for the aircraft?				
11	Is the check person current and qualified for the routes or navigation required?				
12	Does the cheek candidate have a through knowledge of privileges limitations of the authorization and check standards				
13	Does the approved training programme contain all training required by the Nig-CARs 8.10.1.40				
	NCAA BRIEFINGS	**S**	**U**	**N/S**	**N/A**
14	Has the designee attended an NCAA Examiner Seminar?				
15	Has the designee attended an annual NCAA briefing?				
	ACCEPTABLE CONDUCT OF CHECK SESSION	**S**	**U**	**N/S**	**N/A**
16	Pre-briefing?				
17	Pre-flight planning?				
	AIRCRAFT KNOWLEDGE EXAMINATION	**S**	**U**	**N/S**	**N/A**
18	Examination of aircraft limitations knowledge?				
19	Examination of aircraft systems knowledge?				
20	Examination of aircraft checklist immediate action items?				
21	Examination of aircraft exterior inspection knowledge?				
	FLIGHT PROFICIENCY EXAMINATION	**S**	**U**	**N/S**	**N/A**
22	Examination of flight deck preparation procedures?				
23	Examination of flight maneuvers proficiency?				
24	Examination of normal procedures proficiency?				
25	Examination of abnormal procedures proficiency?				
26	Examination of emergency procedures proficiency?				
	ADMINSTRATION OF FLIGHT SCENARIO	**S**	**U**	**N/S**	**N/A**
27	Operation of simulator console acceptable?				
28	“Realistic, real-time” events as much as practical?				
29	Handling of marginal performance acceptable?				
30	Handling of unacceptable performance a?				
31	Handling unexpected simulator or scenario glitches?				
	LINE CHECK OR SUPERVISORY PILOT ROLE	**S**	**U**	**N/S**	**N/A**
32	Check candidate is qualified for the route and type of operations proposed?				
33	Check candidate understands prohibitions on simulated IFR and abnormal?				
34	Check candidate exhibits very well standardized procedures (re Ops Manual)?				
35	Check candidates evaluation is directed to standardized conduct of flight operations?				
36	Check candidate does not “lead’ person being checked?				
37	Check candidate demonstrated the ability to evaluate an individual while at the same time perform the crew member activities normally associated with the seat occupied?				
	RIGHT SEAT CONVERSION TRAINING	**S**	**U**	**N/S**	**N/A**
38	Has the PIC completed right seat conversion training before operating from the co-pilot’s position?				
39	Has a pilot who may be assigned to operate from either pilot’s seat completed the appropriate training and checking programme?				
40	Does a PIC whose duties also require him to operate from the right-hand seat and carry out the duties of co-pilot, or PIC required to conduct training or examining duties from the right hand seat completed additional training and checking including:-				
(a)	An engine failure during takeoff (simulated when carried out in an aeroplane)?				
(b)	A one engine inoperative approach and go-around?				
(c)	A one engine inoperative landing?				

41	When operating from the right-hand seat, are the checks required for operating in the left-hand seat also valid and current?				
	DEBRIEFING AND EVALUATION OF PERSON CHECKED?	**S**	**U**	**N/S**	**N/A**
42	Debriefing covered all significant items?				
43	Accurate assessment of performance of person being checked?				
	COMPLETION OF REQUIRED DOCUMENTATION	**S**	**U**	**N/S**	**N/A**
44	Appropriate company documentation completed?				
45	Appropriate "Ops" check form completed for insertion in pilot's personnel record file by ASI?				
	OTHER	**S**	**U**	**N/S**	**N/A**

REMARKS & OBSERVATIONS

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INSPECTOR SIGNATURE

Additional comments attached ☐ =>

NIGERIAN CIVIL AVIATION AUTHORITY

AVIATION HOUSE

P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS 021A EVALUATE TRAINING AND CHECKING MANUAL

Record ID:	Inspector	Type of Operation	Activity Number – Checklist
Date Accomplished:	# Issues	Operator #	Tracking #
Location:			

Instructions for Use:

1. Check **`S**' column if you reviewed the record, procedure or event and it is **`Satisfactory'**.
2. Check **`U**' column if you reviewed the record, procedure or event and it is **`Unsatisfactory'**.
3. Check **NS** (**not seen**) column if you did not review the record, procedure or event or you do not have adequate information to make a valid comment.
4. Check **NA** (**not applicable**) column, if the line item is not required in this particular situation.
5. 'Enter any notes on reverse side regarding a 'U' answer for transfer to the Safety Issues Resolution Report.
6. For later reference, precede any notes with the appropriate question number.

N/S	**MANUAL CONTROL**	**S**	**U**	**NS**	**NA**
1.	COMPLETE CHECKLIST CL: O-OPS020B				
2.	**TRAINING ORGANIZATION**	**S**	**U**	**NS**	**NA**
3.	Structure of the training and checking organization				
4.	Training policies and directives				
	INSTRUCTORS AND EXAMINERS	**S**	**U**	**NS**	**NA**
5.	List of designated instructors and line check airmen				
6.	**SYLLABI**	**S**	**U**	**NS**	**NA**
7.	Comprehensive syllabi, including lesson plans for approved training for Flight Crew				
8.	CFIT				
9.	ACAS				
10.	Comprehensive syllabi, including lesson plans for approved training for Dispatchers				
11.	Comprehensive syllabi, including lesson plans for approved training for Cabin Crew				
12.	**EXAMINATIONS**	**S**	**U**	**NS**	**NA**
13.	Procedures for the conduct of examinations and manoeuvre tolerances for flight crew				
14.	Procedures for the conduct of examinations for dispatchers				
15.	Procedures for the conduct of examinations for cabin crew				
16.	**COMPLETION STANDARDS**	**S**	**U**	**NS**	**NA**
17.	Procedures to require that flight crew members are properly trained and examined on abnormal and emergency conditions				
18.	Procedures to require that cabin crew members are properly trained and examined on abnormal and emergency conditions				
19.	Procedures for remedial training and subsequent examination of flight crew unable to achieve or maintain required standards				
20.	Procedures for remedial training and subsequent examination of dispatcher unable to achieve or maintain required standards				
21.	Procedures for remedial training and subsequent examination of cabin crew unable to achieve or maintain required standards				

RECOMMEND ACCEPTANCE: ☐ YES ☐ NO (Reasons cited below)

REMARKS & OBSERVATIONS
_____ **INSPECTOR SIGNATUR**E:

NIGERIAN CIVIL AVIATION AUTHORITY

AVIATION HOUSE

P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL O-OPS021B EVALUATE GROUND OPERATIONS MANUAL

Record ID:	Protocol #	Tracking #	Activity #
Date Accomplished	Action Taken	Inspector	Type of Operation:
Air Operator/Organization	Aircraft Make/Model:	Location #	
Title of Manual reviewed:			

Instructions for Use:

1. Check **`S**' column if you reviewed the record, procedure or event and it is **`Satisfactory'**.
2. Check **`U**' column if you reviewed the record, procedure or event and it is **`Unsatisfactory'**.
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4. Check **NA** (**not applicable**) column, if the line item is not required in this particular situation.
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6. For later reference, precede any notes with the appropriate question number.

S/N	OVERALL MANUAL PRESENTATION	*S*	*U*	*NS*	*NA*
1.	Bound in a secure form (not loose)?				
2.	Binder is 3 or 4 ring?				
3.	Exterior of binder clearly indicates manual content?				
4.	Prepared in English language?				
	MANUAL CONTROL PROCESS	*S*	*U*	*NS*	*NA*
5.	Copies numbered for controlled issuance?				
6.	Name or title of each person who holds a copy?				
7.	Amendment issuance tracking process?				
8.	Statement that the operations manual contains operating instructions which are required to be complied with by all personnel?				
9.	Statement of Compliance				
	MANUAL REVISION PROCESS	*S*	*U*	*NS*	*NA*
10.	Revision Instructions adequate?				
11.	Revision page for proper revision entry?				
12.	List of effective pages provided and correct?				
13.	Last revision to individual pages identified?				
	MANUAL REFERENCING SYSTEM	*S*	*U*	*NS*	*NA*
14.	Table of contents easy to find and use?				
15.	Index, if included, easy to find and use?				
16.	Tabbed as necessary for usability without difficulty?				
	INDIVIDUAL PAGE PRESENTATION	*S*	*U*	*NS*	*NA*
17.	Page numbered in chronological sequence (by chapter or single document?				
18.	Last revision number/date appears on each page?				
19.	Company name (and logo) appears on each page (exception – 18)?				
20.	Paragraphs and sub-paragraphs numbered or alphabetized for ease of reference?				
21.					
	PASSENGER HANDLING	*S*	*U*	*NS*	*NA*
22.	General				
23.	Passenger Handling Procedure				
24.	Special Passenger Categories				
25.	Passenger Priority				

26.	Seating of Passengers				
27.	Seating of Special Passengers				
28.	Seating of Passengers with Reduced Mobility (PRM)				
29.	Exit Row Seating				
30.	Passenger Check-In				
31.	Transfer and Transit passengers				
32.	Passenger identification				
33.	Passenger Embarkation				
34.	Boarding procedure				
35.	Dangerous Goods Carried by Passengers and Crew				
36.	Use of electronic equipment on board (PED) in the aircraft				
37.	Inadmissible Passengers and Deportees				
38.	Passenger Disembarkation				
39.	Pre-Arrival Arrangements				
40.	Arrival Assistance				
41.	Passenger Handling Irregularities				
42.	Delayed Flight Departure				
43.	Delayed Flight Arrivals				
44.	Cancelled flights				
45.	Overbooking				
46.	Claims and Compensations				
47.	Acceptance and Carriage of Incapacitated Passengers				
48.	Carriage of Passengers with Infectious/Communicable Disease				
49.	Interline Agreement Policy				
	BAGGAGE HANDLING	***S***	***U***	***NS***	***NA***
50.	Hand Baggage				
51.	Checked Baggage				
52.	Excess Baggage				
53.	Special Baggage				
54.	Dangerous Goods in Passenger Baggage				
55.	Baggage Handling Irregularities				
56.	Claims and Compensations on baggage				
	CARGO/MAIL HANDLING	***S***	***U***	***NS***	***NA***
57.	General				
58.	Preparation for Loading of cargo				
59.	Securing of Load (Restraint device)				
60.	Handling of damaged/Pilfered cargo				
61.	Handling of Perishable Cargo				
62.	Handling and Stowage of Live Animals				
63.	Handling of Human Remains				
64.	Mail Handling				
65.	Handling of missing airmail				
66.	Handling of damaged mail				
67.	Company mail				
68.	Mixed Contents (Baggage and Cargo)				
	AIRCRAFT HANDLING AND LOADING	***S***	***U***	***NS***	***NA***
69.	General				
70.	Unloading Operation				
71.	Loading Operation				
72.	Securing of Bulk Load				
73.	Description of Unit Load Devices				
74.	Handling of Unit Load Devices				
75.	Storage of Unit Load Device				
76.	Stowing of load in Passenger Cabin				
	LOAD CONTROL	***S***	***U***	***NS***	***NA***
77.	General				
78.	Load Control Procedure				

79.	Load Planning				
80.	Designation of aircraft holds, compartments, bay and cabin				
81.	Aircraft structural loading limitations				
82.	Definitions and Codes				
83.	Standard Masses				
84.	Load Priority				
85.	Loading Instruction/Report				
86.	Load- and Trim Sheet				
87.	Last Minute Change (LMC) Procedure				
88.	Special Load - Notification To Captain (NOTOC)				
89.	General Declaration				
90.	Manual loadsheet				
91.	Computer loadsheet				
92.	Balance calculation Methods				
93.	Standard weights for passengers and baggage				
94.	Load message				
95.	Load control procedure, responsibility, training and qualification				
	RAMP HANDLING	***S***	***U***	***NS***	***NA***
96.	Ramp Safety				
97.	Pushback Operations				
98.	Handling Actions during Long-Term and Overnight Turnarounds				
99.	Ground/Flight Deck Communication				
100.	Ground Support Equipment				
101.	Marshalling, Hand Signals				
102.	Handling of accidents, incidents and occurrences				
103.	Fuelling and/or Defueling				
104.	Fuelling with passengers on board				
105.	Toilet Service				
106.	Start-up, Departure and Arrival Procedure on the Ramp				
107.	Fire Fighting and Protection on the Ramp				
	AIRSIDE MANAGEMENT AND SAFETY	***S***	***U***	***NS***	***NA***
108.	Guidelines for a Safety Management System				
109.	Airside safety training				
110.	Airside safety Performance Audit				
111.	Aircraft Handling personnel, responsibilities and qualifications				
112.	Airside driver training				
113.	Guidelines for an emergency management system				
114.	Apron markings and signs				
115.	Foreign Object Damage prevention Program				
	SECURITY	***S***	***U***	***NS***	***NA***
116.	Crime on Board				
117.	Sabotage				
118.	Hijacking				
119.	Bomb Threat				
120.	Unruly passengers				
121.	Carriage of armed Individuals				
122.	Prohibition against carriage of weapons				
123.	Security Check on Passengers and Baggage				
124.	Baggage Reconciliation				
125.	Security on parked Aircraft				
	TRAINING	***S***	***U***	***NS***	***NA***
126.	General				
127.	Initial and Recurrent Training				
128.	Training of Service Provider's staff in Ground Handling				
129.	Ground Operations Trainers				
130.	Training Organizations				

131.	Training Schedule				
132.	**Training Specifications and Syllabi:**				
133.	Station Managers				
134.	Duty Managers				
135.	Load Control Staff				
136.	Ramp Agents				
137.	Check-In Staff				
138.	Passenger Service Agent				
139.	Lost & Found Agent				
140.	Baggage Handlers				
141.	Ground Operations Trainers				
	GROUND HANDLING FORMS SAMPLES	***S***	***U***	***NS***	***NA***
142.	Boarding Pass				
143.	Baggage Tag				
144.	Unaccompanied Minor (UM) Form				
145.	Manual/eTicket				
146.	Passenger Manifest				
147.	Property Irregularity Report Form				
148.	Ground Incident/Accident/Damage Report Form				
149.	Missing Baggage Form				
150.	Notification to Captain (NOTOC)				
151.	Load-/Trim Sheet (All aircraft type)				
152.	Loading Instruction/Report Form				
153.	Seat Plan (All aircraft type)				
154.	General Declaration (GenDec)				
	SUPPLEMENTARY CONTENT REFERENCING	***S***	***U***	***NS***	***NA***
155.	Tables referenced for ease of use?				
156.	Figures referenced for ease of use?				
157.	Appendices referenced for ease of use?				
	MANUAL CONTENTS CONFORMANCE	***S***	***U***	***NS***	***NA***
158.	Conforms to Nig. CARs 9.3.1.2 and IS 9.3.1.2, Ops Manual Contents				
159.	Complies with NCAA Guidance Reference: AOC Administration:				
160.	Conforms to ICAO Annex 6-I, Appendix 2, Ops Manual Contents				

RECOMMEND ACCEPTANCE: ☐ YES ☐ NO (Reasons cited below)

_____

INSPECTOR SIGNATURE:

REMARKS & OBSERVATIONS

_____

INSPECTOR SIGNATURE

Additional comments attached ☐ =>

NIGERIAN CIVIL AVIATION AUTHORITY

AVIATION HOUSE

P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS 021C EVALUATE DISPATCH MANUAL

Record ID:	Protocol #	Tracking #	Activity #
Date Accomplished	Action Taken	Inspector:	Type of Operation:
Air Operator/Organization	Aircraft Make/Model:	Location #	
Title of Manual reviewed:			

Instructions for Use:

1. Check **`S**' column if you reviewed the record, procedure or event and it is **`Satisfactory'**.
2. Check **`U**' column if you reviewed the record, procedure or event and it is **`Unsatisfactory'**.
3. Check **NS** (**not seen**) column if you did not review the record, procedure or event or you do not have adequate information to make a valid comment.
4. Check **NA** (**not applicable**) column, if the line item is not required in this particular situation.
5. 'Enter any notes on reverse side regarding a 'U' answer for transfer to the Safety Issues Resolution Report.
6. For later reference, precede any notes with the appropriate question number

S/N	OVERALL MANUAL PRESENTATION	*S*	*U*	*NS*	*NA*
1.	Bound in a secure form (not loose)?				
2.	Binder is 3 or 4 ring?				
3.	Exterior of binder clearly indicates manual content?				
4.	Prepared in English language?				
	MANUAL CONTROL PROCESS	***S***	***U***	***NS***	***NA***
5.	Copies numbered for controlled issuance?				
6.	Name or title of each person who holds a copy?				
7.	Amendment issuance tracking process?				
8.	Statement that the operations manual contains operating instructions which are required to be complied with by all personnel?				
9.	Statement of Compliance				
	MANUAL REVISION PROCESS	***S***	***U***	***NS***	***NA***
10.	Revision Instructions adequate?				
11.	Revision page for proper revision entry?				
12.	List of effective pages provided and correct?				
13.	Last revision to individual pages identified?				
	MANUAL REFERENCING SYSTEM	***S***	***U***	***NS***	***NA***
14.	Table of contents easy to find and use?				
15.	Index, if included, easy to find and use?				
16.	Tabbed as necessary for usability without difficulty?				
	INDIVIDUAL PAGE PRESENTATION	***S***	***U***	***NS***	***NA***
17.	Page numbered in chronological sequence (by chapter or single document?				
18.	Last revision number/date appears on each page?				
19.	Company name (and logo) appears on each page (exception – 18)?				
	PARAGRAPH NUMBERING	***S***	***U***	***NS***	***NA***
20.	Paragraphs and sub-paragraphs numbered or alphabetized for ease of reference?				
	SUPPLEMENTARY CONTENT REFERENCING	***S***	***U***	***NS***	***NA***
21.	Tables referenced for ease of use?				
22.	Figures referenced for ease of use?				
23.	Appendices referenced for ease of use?				

	MANUAL CONTENTS CONFORMANCE	*S*	*U*	*NS*	*NA*
	Organization And Management				
24.	Organizational Chart				
25.	Director - Flight Operations				
26.	Manager - Flight Dispatch				
27.	Flight Dispatcher				
28.	Flight Dispatcher & Pilot-In-Command				
	General Operational Control Policies				
29.	Safety				
30.	Personal Conduct				
31.	Standardization				
32.	Notice of Violations				
33.	Personal Electronic Devices				
34.	Communications				
35.	Disagreement Resolution Policy				
36.	Communication Records				
37.	Dispatcher Records				
38.	Training				
	Administration Policies				
39.	Objectives				
40.	Reporting For Duty				
41.	Shift/Workload Change Over				
42.	Briefing				
43.	Operational Control				
44.	Workload Management				
45.	Operational Tasks				
46.	Operating Procedures				
	Flight Planning				
47.	General				
48.	Operational Flight Plan				
49.	Filing Flight Plans				
50.	Filing Flight Plans				
51.	Weather Minimum				
52.	Take-off and Landing Minima				
53.	Alternate Airports				
54.	Take-off Alternates				
55.	Auto or Computer Flight Planning				
56.	Manual Flight Planning				
57.	Manual Planning Fuel Calculations (example)				
58.	Manual Flight Plan Release (example)				
59.	Information Bulletins				
60.	Information Circulars				
	Emergency Procedures				
61.	Roles and Responsibilities				
62.	Alarm Call List				
63.	Hazardous Material Call List				
64.	Nig CARs AVIATION SAFETY AOC ADMINISTRATION INSPECTOR GUIDANCE AND SUPERVISION				
65.	Complies with NCAA Guidance Reference: AOC Administration:				
66.	Conforms to ICAO Annex 6-I, Appendix 2, Ops Manual Contents				
	MANUAL EXCERPTS PROPERLY REFERENCED?				
67.	Condensed Checklists compared and current?				
68.	Passenger Briefing Cards compared and current?				
69.	Training materials?				

RECOMMEND ACCEPTANCE: ☐ YES ☐ NO (Reasons cited below)

REMARKS & OBSERVATIONS

_____

INSPECTOR SIGNATURE

Additional comments attached ☐ =>

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS 021D EVALUATE SECURITY MANUAL

Record ID:	Protocol #	Tracking #	Activity #
Date Accomplished	Action Taken	Inspector	Type of Operation:
Air Operator/Organization		Location #	
Title of Manual reviewed:			

Instructions for Use:

1. Check **`S**' column if you reviewed the record, procedure or event and it is **`Satisfactory'**.
2. Check **`U**' column if you reviewed the record, procedure or event and it is **`Unsatisfactory'**.
3. Check **NS** (**not seen**) column if you did not review the record, procedure or event or you do not have adequate information to make a valid comment.
4. Check **NA** (**not applicable**) column, if the line item is not required in this particular situation.
5. 'Enter any notes on reverse side regarding a 'U' answer for transfer to the Safety Issues Resolution Report.
6. For later reference, precede any notes with the appropriate question number.

S/N	OVERALL MANUAL PRESENTATION	*S*	*U*	*NS*	*NA*
1.	COMPLETE CHECKLIST 0-20B				
	MANUAL CONTENTS	***S***	***U***	***NS***	***NA***
2.	Policy and adequate procedures to enable cabin crew to discreetly communicate to flight crew in the event of suspicious activity or security breaches in the passenger cabin?				
3.	Policy and adequate procedures in relation to the flight crew compartment access?				
4.	Policy and adequate procedures in relation to a bomb threat or warning, when the aircraft is on the ground or in flight?				
5.	Procedure checklist for searching a bomb and/or inspecting an aircraft for concealed weapons, explosives and other dangerous devices?				
6.	Security training programme has been established and approved by the authority?				
	TRAINING PROGRAMME	***S***	***U***	***NS***	***NA***
7.	Security of the flight crew compartment				
8.	Aircraft search procedure checklist				
9.	Determination of the seriousness of any occurrences				
10.	Crew communication and coordination				
11.	Appropriate self-defence responses				
12.	Use authorized by the State of the Operator of non-lethal protective devices assigned to crew members				
13.	Understanding of behaviour of terrorists				
14.	Live situational training exercises regarding various threat conditions				
15.	Post-flight concerns for the crew				
16.	Security of the flight crew compartment				
17.	Aircraft search procedure checklist				
18.	Determination of the seriousness of any occurrences				
19.	Crew communication and coordination				
20.	Appropriate self-defence responses				
21.	Use authorized by the State of the Operator of non-lethal protective devices assigned to crew members				
22.	Understanding of behaviour of terrorists				
23.	Live situational training exercises regarding various threat conditions				
24.	Post-flight concerns for the crew				

	SUPPLEMENTARY CONTENT REFERENCING	*S*	*U*	*NS*	*NA*
25.	Tables referenced for ease of use?				
26.	Figures referenced for ease of use?				
27.	Appendices referenced for ease of use?				
	MANUAL CONTENTS CONFORMANCE				
28.	Conforms to ICAO Annex 6-I				

RECOMMEND ACCEPTANCE: ☐ YES ☐ NO (Reasons cited below)

_____

INSPECTOR SIGNATURE:

REMARKS & OBSERVATIONS

☐ Additional comments attached ⇨

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL O-OPS021E EVALUATE FLIGHT DISPATCHER TRAINING MANUAL

Record ID:	Protocol #	Tracking #	Activity #
Date Accomplished	Action Taken	Inspector	Type of Operation:
Air Operator/Organization	Aircraft Make/Model:	Location #	
Title of Manual reviewed:			

Instructions for Use:

1. Check **`S**' column if you reviewed the record, procedure or event and it is **`Satisfactory'**.
2. Check **`U**' column if you reviewed the record, procedure or event and it is **`Unsatisfactory'**.
3. Check **NS** (**not seen**) column if you did not review the record, procedure or event or you do not have adequate information to make a valid comment.
4. Check **NA** (**not applicable**) column, if the line item is not required in this particular situation.
5. 'Enter any notes on reverse side regarding a 'U' answer for transfer to the Safety Issues Resolution Report.
6. For later reference, precede any notes with the appropriate question number.

S/N	OVERALL MANUAL PRESENTATION	*S*	*U*	*NS*	*NA*
1.	Bound in a secure form (not loose)?				
2.	Binder is 3 or 4 ring?				
3.	Exterior of binder clearly indicates manual content?				
4.	Prepared in English language?				
	MANUAL CONTROL PROCESS	***S***	***U***	***NS***	***NA***
5.	Copies numbered for controlled issuance?				
6.	Name or title of each person who holds a copy?				
7.	Amendment issuance tracking process?				
8.	Statement that the operations manual contains operating instructions which are required to be complied with by all personnel?				
9.	Statement of Compliance				
	MANUAL REVISION PROCESS	***S***	***U***	***NS***	***NA***
10.	Revision Instructions adequate?				
11.	Revision page for proper revision entry?				
12.	List of effective pages provided and correct?				
13.	Last revision to individual pages identified?				
	MANUAL REFERENCING SYSTEM	***S***	***U***	***NS***	***NA***
14.	Table of contents easy to find and use?				
15.	Index, if included, easy to find and use?				
16.	Tabbed as necessary for usability without difficulty?				
	INDIVIDUAL PAGE PRESENTATION	***S***	***U***	***NS***	***NA***
17.	Page numbered in chronological sequence (by chapter or single document?				
18.	Last revision number/date appears on each page?				
19.	Company name (and logo) appears on each page (exception – 18)?				
20.	If manufacturer's document is submitted in lieu of a company manual, does the manufacturer's name appears on each page?				
21.	For all manufacturers' documents submitted, a manufacturer's letter or reference document is provided to substantiate current revision number/date?				
	PARAGRAPH NUMBERING	***S***	***U***	***NS***	***NA***
22.	Paragraphs and sub-paragraphs numbered or alphabetized for ease of reference?				

	TRAINING ORGANIZATION	*S*	*U*	*NS*	*NA*
23.	Structure of the training and checking organization				
24.	Training policies and directives				
	INSTRUCTORS AND EXAMINERS	***S***	***U***	***NS***	***NA***
25.	List of designated instructors and line check dispatcher				
	SYLLABI	***S***	***U***	***NS***	***NA***
26.	Comprehensive syllabi, including lesson plans for approved training for Dispatchers:				
27.	Company Procedure Indoctrination				
28.	Initial Dangerous Goods training				
29.	Initial Security training				
30.	Initial Dispatchers Resource Management				
31.	Initial Aircraft Ground Training				
32.	Aircraft Differences training				
33.	Flight Dispatchers Competence Checks				
34.	Flight Dispatchers Line Observations				
35.	Flight Dispatchers Recurrent Training/Re-Establishment of Qualifications				
36.	Procedures for remedial training and subsequent examination of dispatcher unable to achieve or maintain required standards				
37.	Termination of a Proficiency/Competence/Line Check				
38.	Extended Range Operations with Twin-Engined Aeroplanes				
39.	Computer Flight Planning				
40.	Comprehensive syllabi, including lesson plans for approved training for Loadmasters/Load Planners				
41.	Recording of Flight Dispatchers Qualifications				
	EXAMINATIONS	***S***	***U***	***NS***	***NA***
42.	Procedures for the conduct of examinations for dispatchers				
43.	Aircraft dispatcher qualifications				
	SUPPLEMENTARY CONTENT REFERENCING	***S***	***U***	***NS***	***NA***
44.	Tables referenced for ease of use?				
45.	Figures referenced for ease of use?				
46.	Appendices referenced for ease of use?				
	MANUAL CONTENTS CONFORMANCE	***S***	***U***	***NS***	***NA***
47.	Conforms to Nig. CARs 9.3.1.2 and IS 9.3.1.2, Ops Manual Contents				
48.	Complies with NCAA Guidance Reference: AOC Administration:				
49.	Conforms to ICAO Annex 6-I, Appendix 2, Ops Manual Contents				

RECOMMEND ACCEPTANCE: ☐ YES ☐ NO (Reasons cited below)

_____

INSPECTOR SIGNATURE:

REMARKS & OBSERVATIONS

_____

INSPECTOR SIGNATURE

Additional comments attached ☐ =>

CHECKLIST (CL) O-OPS 022
ATTACHED

BASE INSPECTION

Purpose

The purpose of the inspection is to assess the suitability of the operator's organization, management, facilities, equipment, manuals, personnel and operations, maintenance and training records. The base inspection should be performed at the operator's principal base of operations, sub-bases and separate maintenance facilities.

Base Inspections Areas

Before undertaking a base inspection, the inspectors should carefully review the operator's instructions including the operations, maintenance and training manuals.

Upon arrival at the operator's base, the inspector should be introduced to the operations manager or equivalent officer, present credentials and explain the plan to conduct an in-depth inspection of the operator's base facilities and staffing arrangement. During the inspection, inspectors should refer to the appropriate manuals to confirm that established procedures and practices applicable to various areas of the operator's flight activities, maintenance and related training are being adhered to. The accuracy, completeness, accessibility and currency of the related manuals must also be verified. It must also be ascertained that the operator's organization and personnel do in fact function as outlined in the respective manual. Where changes in supervisory personnel or revisions in their duties or responsibilities have occurred, inspectors must determine that these changes are incorporated in the respective manuals. The primary purpose of the manual review is to determine that adequate and current instructions are provided to the operator's staff which enables them to properly perform their duties. The inspection should also verify the timely dissemination of the "need to know" information, including manual information, to appropriate personnel.
When conducting the base inspection, inspectors should determine that the buildings, including hangars, maintenance shops and administrative, operational control, technical and training work areas, are properly equipped, functional and adequate for the purposes intended.

Checklist Inspectors should use the Base Inspection Checklist (see figure 0-25) while conducting these inspections. This checklist contains a list of reminder items for the specific inspection areas that should be observed and evaluated. Items may be evaluated during a base inspection, which are not listed on the checklist. For such items, inspectors should use the remarks section to record these comments and notes during the inspection, which can later be transferred to a Safety Issue Resolution Report.

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS 022 BASE INSPECTION

Record ID:	Inspector	Type of Operation	Activity Number – Checklist
Date Accomplished:	# Issues	Operator #	Tracking #
Base location		AOC No.	
Base Manager		Aircraft Types Supported	

Instructions for Use:

1. Check **`S**' column if you reviewed the record, procedure or event and it is **`Satisfactory'**.
2. Check **`U**' column if you reviewed the record, procedure or event and it is **`Unsatisfactory'**.
3. Check **NS** (**not seen**) column if you did not review the record, procedure or event or you do not have adequate information to make a valid comment.
4. Check **NA** (**not applicable**) column, if the line item is not required in this particular situation.
5. 'Enter any notes on reverse side regarding a 'U' answer for transfer to the Safety Issues Resolution Report.
6. For later reference, precede any notes with the appropriate question number.

	ORGANIZATION, BASE FACILITIES AND AIRCRAFT EQUIPMENT				
S/N	**Staffing and organization**	***S***	***U***	***NS***	***NA***
1.	Management structure				
2.	Operations department staffing				
3.	Traffic and loading staff				
4.	Systems for provision of information				
	Base facilities	***S***	***U***	***NS***	***NA***
5.	Adequacy of office services				
6.	Accommodation				
7.	Operations library				
8.	Legislation and AIS information				
9.	Flying staff instructions				
10.	Aircraft technical library				
11.	Navigation logs/records				
12.	Pilot's flight briefs				
13.	Voyage reports				
14.	Passenger and cargo handling procedures				
15.	Passenger and cargo handling equipment				
	Safety Programme	***S***	***U***	***NS***	***NA***
16.	Flight data analysis programme				
17.	Accident Prevention and Flight Safety Programme				
18.	Safeguards to protect source of data				
19.	Programme is non-punitive				

	Aircraft equipment	***S***	***U***	***NS***	***NA***
20.	Normal equipment				
21.	Emergency equipment				
22.	Internal and external markings/notices				
23.	Checklists				
24.	Radio/radar navigation equipment				
25.	Automatic systems (auto-land, etc.)				
	OPERATIONS MANUAL	***S***	***U***	***NS***	***NA***
26.	Purpose and scope of manuals				
27.	List of manuals comprising operations manual				
28.	Manuals to be carried on aircraft				
29.	Responsibility for manual content				
30.	Responsibility for manual amendment				
31.	Distribution of manuals and amendments				
	MANAGEMENT ORGANIZATION	***S***	***U***	***NS***	***NA***
32.	Safety Manager				
33.	Operations manager — duties and responsibilities				
34.	Technical manager — duties and responsibilities				
35.	Chief pilot — duties and responsibilities				
36.	Training captains — duties and responsibilities				
37.	Flying hours for management personnel				
	CREW TO BE CARRIED	***S***	***U***	***NS***	***NA***
38.	Composition of crew				
39.	Minimum flight crew				
40.	Minimum number of cabin attendants				
41.	Carriage of navigator				
42.	Carriage of flight engineer				
43.	Crew licences				
	DUTIES OF FLIGHT CREW AND OTHER OPERATING STAFF	***S***	***U***	***NS***	***NA***
44.	Designation of pilot-in-command				
45.	Authority of pilot-in-command				
46.	Duties of crew members				
47.	Briefing of passengers				
48.	Necessity of pilots to remain at controls				
49.	Co-pilot handling of the aircraft				
50.	Refuelling duties/responsibilities				
51.	Loading by flight crew				
	FLIGHT DECK MANAGEMENT	***S***	***U***	***NS***	***NA***
52.	Preflight action by pilot-in-command				
53.	Succession to command				
54.	Normal duties				
55.	Flight crew — division of IMC duties				
56.	Flight crew — procedures in event of incapacitation				
57.	Flight crew — acknowledgement of calls during take- off and landing				
58.	Flight crew — querying of deviations from flight plan				
59.	Flight crew — briefing before take-off and landing				
60.	Flight crew — consumption of alcohol				
61.	Flight crew — wearing of harness for take-off and landing				
62.	Flight crew — simulation of emergencies not permitted when carrying passengers				

63.	Operation of radio in aircraft				
64.	Radio checking procedure				
65.	Altimeter checking procedure				
66.	Operation of flight data recorder				
67.	Emergency evacuation procedures				
68.	Procedures in event of pressurization failure				
	FLIGHT TIME LIMITATIONS	***S***	***U***	***NS***	***NA***
69.	Definitions of:				
70.	Flight time				
71.	Duty period				
72.	Flying duty period				
73.	Split duty				
74.	Positioning				
75.	Standby duty				
76.	Rest period				
77.	Time off				
78.	Day				
79.	Local day/night				
80.	Local time				
81.	Requirement of scheme to regulate flight times				
82.	Maximum duty period — two pilot crew — aeroplane				
83.	Maximum duty period — single pilot crew — aeroplane				
84.	Maximum duty period — two pilot crew — helicopter				
85.	Maximum duty period — single pilot crew — helicopter				
86.	Particular cases:				
87.	Extension of duty period by inflight relief				
88.	Split duty				
89.	Positioning (dead-heading)				
90.	Standby duty				
91.	Traveling time				
92.	Pilot-in-command's discretion to extend flying duty				
93.	period				
94.	Minimum rest periods				
95.	Pilot-in-command's discretion to reduce rest period				
96.	Cumulative duty and flying hours:				
97.	Maximum weekly duty hours				
98.	Maximum monthly duty hours				
99.	Maximum monthly flying hours				
100.	Maximum annual flying hours				
101.	Duty cycles and time-off duty:				
102.	Normal duty cycle				
103.	Short breaks away from base				
104.	Time off at base				
105.	Records to be maintained for each crew member				
106.	Scheme for regulation of flight times for cabin attendants				
107.	Responsibilities of all crew members				
	ADMINISTRATION	***S***	***U***	***NS***	***NA***
108.	General requirement for AOC				
109.	Application for AOC				
110.	Requirement for air transport licence				
111.	Form of certificate				
112.	Renewal of certificate				
113.	Variation of certificate				
114.	Revocation of certificate				
115.	Exits and break-in markings				

116.	Drunkenness in aircraft				
117.	Smoking in aircraft				
118.	Imperiling safety of aircraft				
119.	Stowaways				
120.	Carriage of livestock				
121.	Carriage of dangerous goods				
122.	Carriage of weapons of war				
123.	Carriage of unauthorized persons				
124.	Vehicle ferry operations				
125.	Provision of navigational flight-plan forms				
126.	Provision of pilot-in-command's brief				
127.	Provision of operations library				
128.	Filing airmiss reports				
129.	Filing flight safety/incident reports				
130.	Allowable deficiencies				
131.	Use of flight plans				
132.	Use of technical log				
133.	Method of deferring defects approved by Airworthiness division				
134.	Carriage of CAA inspectors				
	STANDARD AND EMERGENCY CHECKLISTS	***S***	***U***	***NS***	***NA***
135.	Drills and checks to be listed in full in the operations manual				
136.	Checks required prior to take-off				
137.	Checks required prior to landing				
138.	Checking/setting V ref				
139.	Check of safety altitude before descent				
140.	Emergency drill — items to be covered				
141.	Checklists for two pilot crews				
142.	Checklist for flight engineers				
143.	Checklist for single pilot crews				
144.	Instruction that checklist must be used				
145.	Requirement for cabin attendants to be issued with individual copies of emergency evacuation drills				
	FUEL FLIGHT PLANNING AND RECORDS	***S***	***U***	***NS***	***NA***
146.	Flight planning formula				
147.	Island reserve				
148.	Rules for replanning in flight				
149.	Effect on fuel consumption of use of ancillary equipment				
150.	Effect on fuel consumption of engine or system failures				
151.	Fuel consumption records in flight (every hour)				
152.	Records of uplift and fuel states				
153.	Retention of fuel records:				
154.	Technical logs				
155.	In-flight records				
156.	Retention of fuel records on navigation logs				
157.	Refuelling with passengers on board — special instructions				
158.	Fumes in aircraft				
159.	Jettisoning fuel — special precautions				
	ROUTE OPERATING INFORMATION	***S***	***U***	***NS***	***NA***
	Company policy on:				
160.	Flights on and off airways				
161.	Nomination of alternate aerodromes (heliports)				
162.	Operation of VFR flights				
163.	Cancellation of IFR flight plans				
164.	Details of AOC area of operations				

165.	Details of navigation area restrictions				
166.	Details of radio area restrictions				
167.	Definition of public transport				
168.	Flight plan/nav forms — items to be provided for:				
169.	to be retained for _____ months				
170.	exceptions to above requirement				
171.	Use of prepared navigational flight plans				
172.	Nav log forms for use by navigators				
173.	Radio equipment to be carried				
174.	Operation of radio in aircraft				
175.	Radio failure procedures				
176.	Minimum safe altitudes				
177.	Terrain clearance following loss of engine(s)				
178.	Minimum aerodrome facilities for approach and landing				
179.	Documents to be carried on public transport aircraft				
180.	Details of aircraft library and nav bag				
181.	Flying staff instructions or notices:				
182.	Operational				
183.	Technical				
184.	Administration				
185.	Time limit after issue				
186.	Requirement to carry life rafts				
187.	Provision and use of oxygen				
188.	Briefing of passengers in use of oxygen				
189.	Noise abatement procedures				
190.	Allowable deficiencies — guidance to pilots-in- command				
	AERODROME OPERATING MINIMA	***S***	***U***	***NS***	***NA***
191.	Operating minima to be included for every airfield used regularly in respect of take-off, landing and visual manoeuvring				
192.	Runways NOT to be used to be clearly indicated				
193.	Conditions for commencing a flight				
194.	Conditions for commencing/continuing an approach				
	Definitions of:				
195.	Decision Height				
196.	Approach to landing				
197.	Circling approach procedures				
198.	RVR, etc.				
199.	Minima for pilots-in-command with limited experience on type				
200.	Take-off and landing when an RVR reported				
201.	Take-off and landing when RVR is reported from more than one position on the runway				
202.	Instructions concerning landing in shallow fog				
203.	Alternate for each intended destination to be specified				
204.	General guidance concerning selection of alternate aerodrome				
205.	Guidance concerning selection of “return” alternate				
206.	Instructions concerning use of return alternate — weather below landing minima				
207.	Minima for aerodromes without approach aids				
208.	Special minima for non-public transport flights				
209.	Special rules for aircraft with performance category C, D or E				
210.	Calculation of in-flight visibility for manoeuvring				
211.	Relationship between RVR and DH				
212.	Conversion of reported MET visibility to RVR				
	PERFORMANCE DATA	***S***	***U***	***NS***	***NA***
213.	Simplified RTOW/landing mass data				

214.	Calculation of V_{NO}, V_{Ne}, etc.				
215.	Calculation of V1, V 2, and V ref				
216.	En-route performance, limitations				
217.	Flights over water				
218.	Effect on performance of take-off procedures at particular aerodromes				
219.	Effect of noise abatement requirements				
220.	Abnormal pressurization affecting performance				
221.	Definitions of:				
222.	Landing distance				
223.	Take-off distance				
224.	Emergency distance, etc.				
225.	Factors arising from runway surface conditions:				
226.	Water				
227.	Snow and slush				
228.	Ice				
229.	Grass				
230.	Minimum strip width after snow clearance				
231.	Cross-wind limitations				
232.	Maximum wind velocity — light aircraft				
233.	Airworthiness or flight manual approval for above				
234.	Flight manual performance figures				
235.	Compliance with any special handling instructions not specified in Certificate of Airworthiness or flight manual				
236.	Ferry flights with one engine inoperative				
237.	Handling techniques — one engine inoperative				
238.	Weather and route limitations				
239.	Fuel consumption				
	TECHNICAL INFORMATION	***S***	***U***	***NS***	***NA***
240.	Airframe leading particulars				
241.	Simplified description of systems				
242.	System pressures				
243.	Fuel system				
244.	Flying controls, etc.				
245.	Airframe limitations:				
246.	V_{NO}				
247.	V_{NE}				
248.	$V_{MO/MMO}$, etc				
249.	Engine — basic details				
250.	Engine limitations				
251.	C-18Certification and Continued Surveillance				
252.	Engine handling procedures				
	Approved types of:				
253.	Fuel				
254.	Oil				
255.	Coolant				
256.	Hydraulic fluid				
257.	Water/methanol				
258.	Anti-icing fluid, etc.				
259.	Replenishment of all systems				
260.	Refuelling or de-fuelling				
261.	Operating instructions — all systems				
262.	Electrical				
263.	Hydraulic				
264.	Brakes				
265.	Anti-icing				
266.	Oxygen, etc.				

267.	Radio equipment — general description				
268.	Radio equipment — operating instructions				
269.	Operating instructions for:				
270.	Auto-pilot				
271.	Flight director system				
272.	Flight recorder				
273.	Special navigation equipment, etc.				
274.	Preflight inspection by crew				
275.	Abnormal drills:				
276.	Invertor failure				
277.	Flight systems failures, etc.				
	Aircraft handling techniques:				
278.	following loss of engine in turbulence				
279.	on slippery surfaces, etc.				
280.	Safety precautions (no smoking)				
281.	Operation with defective fuel tank				
282.	Method of use of oxygen				
	CHECK — OPERATIONS MANUAL AND TRAINING MANUAL	***S***	***U***	***NS***	***NA***
283.	Purpose and scope				
284.	Responsibility for content				
285.	Responsibility for distribution				
286.	Responsibility for amendment				
287.	Training staff duties and responsibilities				
288.	Policy statements covering:				
289.	Responsibility for appointment and supervision of training staff				
290.	Qualifications of training staff				
291.	Use and approval of flight simulators				
292.	Administration and recording of crew tests				
293.	Employment of pilots and flight engineers on more than one type				
294.	Method of simulating engine failure				
295.	Method of simulating in-flight conditions				
296.	Conversion training				
297.	Minimum qualification and experience				
298.	Ground technical training				
299.	Flight conversion training				
300.	Special equipment training				
301.	Cabin attendant training				
302.	Route qualification				
303.	Records of progress				
304.	Certification of completion of each stage				
305.	Conversion to aircraft commander (captain)				
306.	Periodic Crew Tests				
307.	Flights on which training may be conducted				
308.	Adequacy of training syllabus				
309.	Adequacy of check forms/certificate for crew test				
310.	Survival tests				
311.	Six-month check — pilot-in-command/co-pilot				
312.	Line check — pilot-in-command/co-pilot				
313.	Rating checks				
314.	Instrument approach competence				
315.	Pilot-in-command route competence				
316.	Flight navigators checks				
317.	Flight engineer checks				
318.	Pilot-in-command recent type experience				
319.	Pilot-in-command aerodrome qualification				
320.	Cabin attendant checks				

321.	Pilots' familiarity with flight engineer panel				
	TECHNICAL RECORDS				
322.	Validity of maintenance certifications				
323.	Maintenance release properly executed				
324.	Technical logs correctly completed				
325.	Fuel, oil and methanol quantities sufficient for flight				
326.	Flight times correctly entered:				
327.	Technical log				
328.	Flight log				
329.	Engine log				
330.	Propeller (if applicable) log				
331.	Defect correction properly covered by signature				
332.	Significant defects entered as they occur				
333.	Deferred defects log				
334.	Recurring defects and any shortage of spares				
335.	Records of FDR parameter allocation, conversion equations, periodic calibration and serviceability/maintenance information				
336.	Retention of flight recorders in safe custody pending their disposition				
	CREW RECORDS	***S***	***U***	***NS***	***NA***
337.	Records of flying duty, duty and rest periods				
338.	Discretionary reports				
339.	Records of periodic crew tests:				
340.	All crew — emergency/survival				
341.	All pilots:				
342.	Annual instrument rating renewal				
343.	Line checks				
344.	Six-month checks				
345.	Instrument approach proficiency				
346.	Recency checks				
347.	Pilot-in-command — area/route checks				
348.	Flight engineers — six-month/line checks				
349.	Flight navigator — annual checks				
350.	Induction and conversion training				
351.	List of operator's check and training pilots				

REMARKS & OBSERVATIONS

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INSPECTOR SIGNATURE

Additional comments attached ☐ =>

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS022A OPERATIONS MANAGEMENT AND SUPPORT

Record ID:	Inspector	Type of Operation	Activity Number – Checklist
Date Accomplished:	# Issues	Operator	Tracking #
DIRECTOR OF OPERATIONS	CHIEF PILOT	DIRECTOR OF FLIGHT SAFETY:	

Instructions for Use:

1. Check `**S**' column if you reviewed the record, procedure or event and it is `**Satisfactory'**.
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4. Check **NA** (**not applicable**) column, if the line item is not required in this particular situation.
5. 'Enter any notes on reverse side regarding a 'U' answer for transfer to the Safety Issues Resolution Report.
6. For later reference, precede any notes with the appropriate question number.

S/N	**ORGANIZATIONAL STRUCTURE**	***S***	***U***	***NS***	***NA***
1.	Organization suitable with regard to the size and scope of the proposed Operation?				
2.	Management persons assigned to positions key to safety acceptable?				
3.	NCAA Management Acceptance documents issued for these persons?				
4.	NCAA Air Operator Management Database correct?				
	CHAIN OF COMMAND APPROPRIATE TO ENSURE SAFETY OF OPERATIONS?	***S***	***U***	***NS***	***NA***
5.	Numbers of management positions not excessive				
6.	Flying and administration balanced for flight crew managers?				
	SUFFICIENT QUALIFIED AND COMPETENT EMPLOYEES	***S***	***U***	***NS***	***NA***
7.	Flight crews?				
8.	Cabin crews?				
9.	Crew training and checking?				
10.	Other technical trainers?				
11.	Operations planning?				
12.	Operations control?				
13.	Crew scheduling?				
14.	Load control?				
15.	Passenger handling?				
16.	Administration Support?				
17.	NCAA Air Operator Employee Database correct?				
	ADMINISTRATIVE FACILITIES				
18.	Adequate bases and facilities?				
19.	NCAA Air Operator Base, Sub base and Station Database correct?				
20.	Office accommodation size?				
21.	Equipment?				
22.	Support staff?				
	COMMUNICATIONS AND PROVISION OF INFORMATION	***S***	***U***	***NS***	***NA***
23.	Communication and information system that can communicate efficiently and rapidly with all crew, operational support staff and their managers?				

24.	Printing and distribution facilities?				
	SERVICES PROVIDED	***S***	***U***	***NS***	***NA***
25.	Performance information				
26.	Navigation information/route data cards				
27.	Instrument approach minima				
28.	Computer flight planning				
29.	Obstacle avoidance procedures				
30.	Operational control support				
	FOR EACH SERVICE PROVIDED – EVALUATE	***S***	***U***	***NS***	***NA***
31.	Staff qualifications				
32.	Staff training				
33.	Staff competence				
34.	Suitability of accommodations				
35.	Availability of appropriate information				
36.	Reliability of system to convey current information to crews				
37.	Responsiveness to changed input				
	RECORDS OF ISSUE OF OPERATIONAL DOCUMENTS TO:	***S***	***U***	***NS***	***NA***
38.	Flight crew				
39.	Cabin crew				
40.	Load control				
41.	Dispatch staff				
42.	Appropriate amendment system of company documents?				
43.	Responsibility for updating documents?				
	OPERATIONS LIBRARY	***S***	***U***	***NS***	***NA***
44.	Location accessible to operating crew				
45.	All required operational documents and materials available?				
46.	Documents up-to-date and readily accessible form				
47.	Current Operations Manual?				
48.	Aviation regulations or Nig - CARs				
49.	Civil aviation guidance				
50.	Aeronautical information publication				
51.	Aeronautical maps and charts				
52.	Notams and other aeronautical info				

REMARKS & OBSERVATIONS

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INSPECTOR SIGNATURE

Additional comments attached ☐ =>

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CHECKLIST (CL) O-OPS 022B
ATTACHED

GROUND HANDLING SERVICE PROVIDER (GHSP) BASE INSPECTION

Purpose

The purpose of the inspection is to assess the suitability of the service provider's organization, management, facilities, equipment, manuals, personnel, operations, and training records. The ground handling service provider inspection should be performed at the organization's principal base of operations and sub-bases.

GHSP Inspections Areas

Before undertaking a GHSP Base inspection, the Inspectors should carefully review the organization's operations and training manuals/records.

Upon arrival at the GHSP's base, the Inspector should be introduced to the Accountable Manager or Representative, present credentials and explain the plan to conduct an in-depth inspection of the GHSP's base facilities and staffing arrangement. During the inspection, Inspectors should refer to the appropriate manuals to confirm that established procedures and practices applicable to various areas of the GHSP's operational activities and related training are being adhered to. The accuracy, completeness, accessibility and currency of the related manuals must also be verified. It must also be ascertained that the GHSP's organization and personnel do in fact function as outlined in the respective manuals. Where changes in supervisory personnel or revisions in their duties or responsibilities have occurred, Inspectors must determine that these changes are incorporated in the respective manuals. The primary purpose of the manual review is to determine that adequate and current instructions are provided to the GHSP's staff which enables them to properly perform their duties. The inspection should also verify the timely dissemination of the "need to know" information, including manual information, to appropriate personnel.

When conducting the GHSP Base inspection, Inspectors should determine that the work environment and administrative, operational control, technical and training work areas, are properly equipped, functional and adequate for the purposes intended.

Checklist: Inspectors should use the GHSP Base Inspection Checklist CL: O-OPS 022B while conducting these inspections. This Checklist contains a list of reminder items for the specific inspection areas that should be observed and evaluated. Items may be evaluated during a GHSP Base inspection, which are not listed on the Checklist. For such items, Inspectors should use the remarks section to record these comments and notes during the inspection, which can later be transferred to a Safety Issue Resolution Report.

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS 022B GHSP BASE INSPECTION (GROUND HANDLING SERVICE PROVIDER)

Record ID:	Inspector	Type of Operation	Activity Number – Checklist
Date Accomplished:	# Issues	Operator #	Tracking #
Base location		Certificate. No.	
Base Manager			

Instructions for Use:

1. Check **`S**' column if you reviewed the record, procedure or event and it is **`Satisfactory'**.
2. Check **`U**' column if you reviewed the record, procedure or event and it is **`Unsatisfactory'**.
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	ORGANISATION AND MANAGEMENT				
S/N	**Organization and Staffing**	***S***	***U***	***NS***	***NA***
1.	Management system structure, accountability, association and conformity throughout the organization.				
2.	Assignment and deployment of supervision responsibilities.				
3.	Conformity of operations with applicable regulations and customers' requirements.				
4.	Nominated officials responsible for the provision and conduct of operations.				
	Management Commitment, Review, Communication and Provision of Resources	***S***	***U***	***NS***	***NA***
5.	Corporate safety and security policies				
6.	Corporate continual improvement policy				
7.	Communication of policies in all operational areas				
8.	Organizational capability for communicating information relevant to operations to all personnel (e.g. Emails, Internet, safety notices, letters, memos, bulletins, newsletters, magazines) and acknowledgment of receipt.				
9.	Corporate management review process (regular management review meetings and examples of changes implemented to improve organizational performance)				
10.	Positions within the organization that affect operational safety and security are filled by personnel that possess the knowledge, skills, training, and experience appropriate for the position				
11.	Personnel who perform operationally critical functions maintain competence on the basis of continuing education and training				
12.	Use of psychoactive substances policy and consequences for such behavior is defined and implemented in all operational areas.				

	Documentation and Record Systems	***S***	***U***	***NS***	***NA***
13.	System(s) for management & control of operational documentation & data				
14.	Implementation of documentation management/control system in all operational areas				
15.	Process for schedule back-up of electronic documentation, data and or electronic operational records. Satisfactory functionality of back-up system(s), including recovery of data.				
16.	The back-up process is implemented in all operational areas.				
17.	A system for the management and control of operational records to ensure the content and retention of such records is in accordance with applicable regulations				
	Operational Manuals	***S***	***U***	***NS***	***NA***
18.	Policies and Procedures Manuals (PPM) that contain the operational policies, procedures, instructions and other guidance or information necessary for ground handling personnel to perform their duties and be in compliance with applicable regulations, laws, rules, requirements and standards.				
19.	The manuals are accessible to all operational personnel in a usable format at all stations.				
20.	Process to ensure conformance with the specific operational requirements of each customer airline				
21.	Process defining the Operator documentation Gap Analysis and development of GHSP's specific procedure				
22.	Process to implement updated Operator-specific procedures to all operational personnel as applicable.				
23.	Processes to ensure the required operational documentation is accessible in a usable format in all station locations where operations are conducted.				
	Safety, Security and Quality Management System	***S***	***U***	***NS***	***NA***
24.	SMS–Safety Policy and Objectives				
25.	SMS – Safety Risk Management				
26.	SMS – Safety Assurance				
27.	Quality Control Program				
28.	Safety Promotion				
29.	Outsourcing Quality Control Program				
30.	Security Program				
31.	Program is non punitive				
	Training and Qualification	***S***	***U***	***NS***	***NA***
32.	Load control training program				
33.	Passenger handling training program				
34.	Baggage handling training program				
35.	Aircraft handling and loading training program				
36.	Aircraft ground movement training program				
37.	Cargo and mail handling training program				
38.	Safety and security training program				
39.	Dangerous goods training program				
40.	Instructors (trainers) training program				
	Ground Support Equipment (GSE) Management	***S***	***U***	***NS***	***NA***
41.	GSE Maintenance Program - A program that ensures that GSE:				
42.	(i) Is maintained in accordance with instructions and/or guidance from				

	the GSE manufacturer;				
43.	(ii) Is serviceable and in good condition prior to being used in ground operations;				
44.	(iii) When found to be defective, is reported and evaluated for removal from service;				
45.	(iv) Tagged as “Out of Service” and not utilized in airside operations if found in unserviceable condition;				
46.	(v) Removed from operations for repair or maintenance if unserviceable;				
47.	(vi) Maintenance is documented in records, and such records are retained for a period as specified by the Provider and applicable regulations.				
48.	All aircraft GSE is equipped with a device that senses the proximity of an aircraft and provides a visual and audible indication to the operator of the aircraft GSE to reduce the risk of impact with the aircraft.				
	Unit Load Device (ULD) Management	***S***	***U***	***NS***	***NA***
49.	ULD airworthiness and serviceability				
50.	ULD Loading procedures				
51.	ULD handling and storage procedure				
52.	Facilities and equipment e.g. ULD holders				
	Station Airside Supervision and Safety	***S***	***U***	***NS***	***NA***
53.	A process to ensure all station operational activities, including, if applicable, those outsourced to external ground service providers, are conducted under the direct oversight of supervisory personnel.				
54.	A processes to ensure station personnel that provide oversight of operational activities including, if applicable, personnel of external ground service providers that conduct outsourced ground operations for the GHSP, complete training and are qualified to supervise ground operations.				
55.	Airside fire safety procedure				
56.	Airside cleanliness procedure				
57.	Airside severe weather plan				
58.	Passenger safety plan				
59.	Personnel safety plan				
	Load Control Process	***S***	***U***	***NS***	***NA***
60.	Procedures in accordance with the customer airline(s) to ensure any verbal exchange of load information or data that could affect aircraft weight and balance calculations				
61.	Load Planning				
62.	Weight and Balance calculations				
63.	Loading instruction / report				
64.	Notification to Captain (NOTOC)				
65.	Loadsheet				
66.	Departure Control System (DCS)				
67.	Reports and messages				
	Passenger and Baggage Handling Operations	***S***	***U***	***NS***	***NA***
68.	Load control communication procedure				
69.	Check-in procedures				
70.	Dangerous goods handling procedure				
71.	Security procedure				
72.	Carriage of weapons policy / procedure				
73.	Special category passengers handling procedure				
74.	Hold baggage handling and ULD procedures				
75.	Passenger boarding bridge and stairs handling procedure				

	Aircraft Handling and Loading	***S***	***U***	***NS***	***NA***
76.	Aircraft access doors operation procedure				
77.	Aircraft servicing procedure				
78.	Loading Management procedure				
79.	Load positioning process				
80.	Dangerous goods loading procedure				
81.	Other special loading procedure				
82.	Loading equipment operations procedure				
83.	In-Plane loading procedure				
84.	Hold baggage security procedure				
	Aircraft Ground Movement	***S***	***U***	***NS***	***NA***
85.	Aircraft arrival and parking (taxi in)				
86.	Aircraft and general marshalling operations				
87.	Pushback and towing operations				
88.	Conventional tractor and towbar				
89.	Towbarless tractor				
90.	Main gear tractor (Power Push Unit)				
91.	Specific requirements for towing operations				
92.	Taxi-Out departure				
	Cargo / Mail Handling and Security	***S***	***U***	***NS***	***NA***
93.	General Policy on Cargo/mail acceptance and handling				
94.	Communication procedures for the transfer of information and data to the load control office to ensure all cargo, mail and stores (supplies) loaded onto the aircraft is accounted for in the load control process in accordance with requirements of the customer airline(s)				
95.	Procedures to ensure cargo and/or mail for air transport is accepted and handled in accordance with applicable regulations and requirements of the customer airline(s)				
96.	Procedures to address cargo and mail that is found to be damaged				
97.	A process to ensure scales utilized to determine the weight of cargo intended for air transport are periodically checked and calibrated.				
98.	Cargo handling facilities have specifically configured areas appropriate for the storage of special cargo.				
99.	Dangerous goods acceptance checklist				
100.	Separation of dangerous goods from other cargo or incompatible materials				
101.	Notices providing information about the transportation of dangerous goods are prominently displayed at cargo acceptance locations				
102.	Procedures to ensure packages or overpacks containing dangerous goods and labeled “Cargo Aircraft Only” are loaded, in accordance to requirements of customer airline(s)				
103.	Live animals acceptance and handling procedure				
104.	Perishable shipments acceptance and handling procedure				
105.	Human Remains acceptance and handling procedure				
106.	Valuable Cargo acceptance and handling procedure				
107.	Overhang, fragile and Heavy Cargo acceptance and handling procedure				
108.	Company material (COMAT) acceptance and handling procedure				
109.	Time and temperature sensitive goods acceptance and handling procedure				
110.	A security program to ensure security controls are in place to prevent personnel and vehicles from unauthorized access into the GHSP's facilities and any other areas where the GHSP conducts cargo handling operations for customer airlines.				
111.	Security controls are applied to cargo and mail consignments accepted for transport on a commercial flight, and such controls are in				

	accordance with the applicable State civil aviation security program and requirements of the customer airline(s).				
112.	Cargo and mail consignments accepted for transport on an all-cargo flights are subjected to the security requirements of the applicable State(s) and/or controls commensurate with the security threat as determined by risk assessment.				
113.	Cargo and mail intended for transport on a commercial aircraft, and which is moved about or stored at the airport prior to being transferred to the operation for loading onto an aircraft, remains inaccessible from unauthorized interference.				
114.	If the GHSP accepts and handles stores and supplies, to include catering supplies, intended for transport on commercial aircraft of customer airlines, the GHSP shall have a process to ensure such stores and supplies are subjected to security controls in accordance with the applicable civil aviation security program, and thereafter protected until transferred to the operation for loading onto an aircraft.				
115.	The GHSP shall have a process to ensure known cargo consignments presented for transport on a commercial aircraft are:				
116.	(i) Delivered for transport by an employee or nominated person of a regulated agent, known shipper/consignor, or customer airline;				
117.	(ii) Free from any signs of unauthorized tampering;				
118.	(iii) Presented with documents corresponding to the cargo being delivered:				
119.	(iv) Protected from unauthorized access;				
120.	(v) Subjected to additional security controls, as required by risk assessment.				
121.	Procedures for managing Regulated Agent or Known Shipper Programs				

REMARKS & OBSERVATIONS

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INSPECTOR SIGNATURE

Additional comments attached ☐ =>

NIGERIAN CIVIL AVIATION AUTHORITY

AVIATION HOUSE

P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS 023 CARRIAGE OF DANGEROUS GOODS CHECKLIST

Instructions for Use:

1. Check `**S**' column if you reviewed the record, procedure or event and it is `**Satisfactory'**.
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6. For later reference, precede any notes with the appropriate question number.

Order/CL No.	Inspector	Type of Operation	Tracking #

Date Accomplished	NCF/Discrepancies						Operator/Applicant	Activity Code
	A	**B**	**C**	**D**	**E**	**F**		

Flight No:	Location/From:	To:	AC Registration:	AC Type:	Action				
					S	**U**	**Ap**	**Ac**	**F**

PIC Name and Lic No:	Other Flt Crew and Lic No:		SCC :	Other CC:

Document:	Operator's Representative:

NCF/Discrepancies code: A=Aircraft; B=Facilities; C=Documents; D=Procedures; E=Programmes; F = Other

***Action Codes: S=Satisfactory; U = Unsatisfactory; Ap – Approved; Ac= Accepted; F = Follow-up**

Contents of Dangerous Goods Manual

Procedures, instructions and information contained in Certificate Holder's manual are documented methods for accomplishing a process. Policies contained in the Certificate Holder's Dangerous Goods manual should establish the Certificate Holder's compliance posture. Policies may not be stand-alone statements but may be imbedded within procedures, instructions or information regarding a particular regulatory requirement. The Inspector should review the contents of the manual to answer the following questions to determine whether the Dangerous Goods manual meets the specific requirements for a Dangerous Goods Programme as required by CAA Regulations and the ICAO Technical Instructions:

Item	**Assessment**			
	S	**U**	**NS**	**N/A**
1. Does the Dangerous Goods Manual Contain:				
(a) General policies for the Dangerous Goods Programme that comply with the specific regulatory requirements of Nig. CARs and the ICAO Technical instructions?				
(b) Information on the regulatory source for the requirement?				
(c) The duties and responsibilities for personnel who will accomplish the Dangerous Goods Programme?				
(d) Instructions and information for personnel to meet the requirements of the Dangerous Goods Programme?				
(e) Procedures and information to identify packages marked or labelled as containing dangerous goods?				
2. If the Certificate Holder carries, stores or handles dangerous goods, does the manual contain procedures and instructions for the carriage, storage or handling of dangerous goods that include the following:				
(a) The proper shipper certification required by Nig. CARs: for proper packaging, marking, labelling, shipping documents, compatibility of materials, and instructions on				

the loading, storage and handling?				
(b) Reporting hazardous material incidents?				
(c) The notification of the pilot in command when there are dangerous goods aboard the aircraft?				
3. Does the approved training programme require personnel who perform any duties or have responsibility for handling dangerous articles and magnetized materials to be trained every 12 calendar months on the following:	**S**	**U**	**NS**	**N/A**
(a) The proper packaging?				
(b) The proper marking?				
(c) The proper labelling and documentation instructions regarding compatibility, loading, storage and handling characteristics?				
4. Does the Certificate Holder maintain satisfactory completion records for individuals who are required to receive training on the handling and carriage of dangerous articles and magnetized materials?				
5. Does the Certificate Holder's manual contain instructions and information that If the Certificate Holder operates in a foreign country where the loading and unloading of aircraft is performed by personnel of the foreign country who do not meet the requirements of Regulations "Carriage of dangerous goods" and Regulation "Initial dangerous goods training" of the Nigeria Civil Aviation Regulations (Operation of Aircraft), that they will be supervised during the loading and unloading by a person qualified in accordance with the Technical Instructions?				
6. Does the Certificate Holder's Dangerous Goods Programme comply with the guidance contained in the Technical Instructions with respect to the following:	**S**	**U**	**NS**	**N/A**
(a) Instructions and information that the Certificate Holder who does not accept, handle, or store dangerous goods or dangerous goods provides procedures and instructions in the operator's manual to ensure that no packages are accepted by the operator that contain a hazardous material?				
Instructions and information that the Certificate Holder who does not accept, handle, or store dangerous goods or dangerous goods provides in their manual, procedures and instructions for reporting that damaged packages found to contain, or that are suspected of containing, dangerous goods or dangerous goods are reported (in compliance with Regulation "Dangerous goods incident and accident reports" of the Nigeria Civil Aviation Regulations?				
(c) Instructions and information that the DGI is the CAA's point of contact for the operator and is the final approving authority for the operator's training programme?				
(d) Instructions and information about damage-free packages?				
(e) Instructions and information about Authorization of Carriage of dangerous goods, dangerous goods, or other regulated materials?				
(f) Instructions and information providing specific guidance on the storage of dangerous goods or dangerous goods?				
(g) Instructions and information providing specific guidance on the storage of Class 8 (corrosive) materials?				
(h) Instructions and information providing specific guidance on the storage of Class 7 (radioactive) materials?				
(i) Instructions and information providing specific guidance on the storage of Class 6, Division 6.1 (poisonous) materials?				
(j) Instructions and information providing specific guidance for loading of other regulated materials (ORM) aboard aircraft?				
(k) Procedures for handling damaged packages?				
(l) Procedures for handling radioactive contamination?				
(m) Procedures for handling substances in Class 6, Division 6.2 (infectious substances)?				
(n) Information that includes a list of telephone numbers and addresses of organizations that can provide technical advice on clean-up techniques and precautions to minimize the possibility of injury to employees and the general public?				
(o) If the Certificate Holder is authorized to handle poisons, does the manual include				

procedures for handling packages bearing a poison label?				
(p) Instructions and information that the Certificate Holder's training programme is approved by the CAA (either initial or final)?				
(q) Does the Certificate Holder's Dangerous Goods Programme comply with the guidance contained in the Technical Instructions?				
CONTROLS	**S**	**U**	**NS**	**N/A**
7. Are controls built into the Dangerous Goods Programme to ensure that -				
(a) Personnel are able to identify packages marked or labelled as containing dangerous goods?				
(b) The Certificate Holder's personnel are able to handle occurrences of radioactive contamination, infectious substances, and poisons in accordance with its procedures?				
(c) The procedures for handling dangerous goods are adhered to by personnel?				
(d) Individuals associated with handling cargo and/or dangerous goods report hazardous material related incidents correctly?				
(e) The Certificate Holder's Pilot in Command notification procedures are followed when carrying dangerous goods?				
(f) The Certificate Holder maintains records of the individuals who are properly trained to handle dangerous goods?				
(g) Packages containing hazardous material are inspected to verify that they are not damaged?				
(h) The Certificate Holder's procedures are followed when oxygen generators are shipped?				
(i) Dangerous Goods (including COMAT) are accepted in accordance with the Certificate Holder's procedures?				
(j) Compatibility of materials restrictions are adhered to by personnel?				
8. Does the Certificate Holder have a documented method for assessing the impact of any changes made to the controls (under Item 7) in the Dangerous Goods Programme?				
INTERNAL AUDIT	**S**	**U**	**NS**	**N/A**
9. Does the Certificate Holder's Dangerous Goods Programme include an internal audit of the most important policies, procedures or instructions and information any of the following situations:				
(a) If personnel were unable to identify packages marked or labelled as containing dangerous goods?				
(b) If company personnel were unable to handle radioactive contamination, infectious substances, and poisons in accordance with their procedures?				
(c) If the procedures for handling of dangerous goods were adhered to by personnel?				
(d) If individuals associated with handling cargo and/or dangerous goods report hazardous material related incidents correctly?				
(e) If the Certificate Holder's Pilot-in-Command notification procedures were not followed when carrying dangerous goods?				
(f) If the Certificate Holder failed to maintain records of the individuals who are properly trained to handle dangerous goods?				
(g) If the packages containing hazardous material were not inspected to verify that they were not damaged?				
(h) If oxygen generators were shipped without following the Certificate Holder's procedures?				
(i) If dangerous goods (including COMAT) were not accepted in accordance with the Certificate Holder's procedures?				
(j) If the compatibility of materials restrictions were not adhered to by personnel?				
4. Does the Certificate Holder document the internal audit measurement methods and results?				
5. Does the organization that conducts the internal audit measurements have direct access to the person with responsibility for the Dangerous Goods Programme?				

CL No:		Tracking No.:

Notes:
1. *A "NO" or "N/S" response on a checklist must be accompanied by reason or comments.*
2. *A "NO" response to a safety issue finding in an inspection of an organization must be transferred to a CF report for corrective action where applicable.*
3. *Precede all comments with the applicable checklist item number or discrepancy number.*

Discrepancy Label: *(Circle the applicable numeric labels that best describe the discrepancies)*

Policy, Procedures, Instructions, Information, Documentation, Controls:					**Document Quality**
1.Not Specified	**2.**Unclear	Do not comply with:		**7.**Do not Identify: Who, What, When, Where, How	**8.**Unreadable
3.Incomplete	**4.**Inconsistent	**5.**NCAR	**6.**Guidance		**9.**Illegible

10. Resource requirements incomplete (personnel, facilities, equipment, technical data)

1	2	3	4	5	6	7	8	9	10

Comments:

Recommendations

Name of Inspector_____ Signature_____ Date_____

NIGERIAN CIVIL AVIATION AUTHORITY

AVIATION HOUSE

P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS 024 FLIGHT CREW BASIC INDOCTRINATION TRAINING SUBJECT AREA 1 - OPERATOR-SPECIFIC TRAINING CHECKLIST

Instructions for Use:

1. Check `**S**' column if you reviewed the record, procedure or event and it is `**Satisfactory'**.
2. Check `**U**' column if you reviewed the record, procedure or event and it is `**Unsatisfactory'**.
3. Check **NS** (**not seen**) column if you did not review the record, procedure or event or you do not have adequate information to make a valid comment.
4. Check **NA** (**not applicable**) column, if the line item is not required in this particular situation.
5. 'Enter any notes on reverse side regarding a 'U' answer for transfer to the Safety Issues Resolution Report.
6. For later reference, precede any notes with the appropriate question number.

TRAINING SUBJECTS	Were the following satisfactory									
	(a) Adequacy Of Elements		(b) Adequacy Of Courseware		(c) Training Aids And Facilities		(d) Other		(e) Other	
	S	U	S	U	S	U	S	U	S	U
1. Operator History, Organization, and Description										
2. Operational Concepts, Scope and Policy										
3. General Forms, Records, and Administrative Procedures										
4. Employee Standards and Rules of Conduct										
5. Employee Compensation and Benefits										
6. Contracts										
7. Overview of Nig. CARs										
8. Certificate and Operations Specifications										
9. Operator Manuals										
10. Flight Control										
11. Mass and Balance										
12. Principles of Mass and Balance										
13. Performance and Airport Analysis										

14. Principles of Meteorology										
15. Principles of Navigation										
16. Airspace and ATC Procedures										
17. En Route/Terminal Charting and Flight Planning										
18. Instrument Procedures										

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS 025 COMMERCIAL AGRICULTURAL AIRCRAFT OPERATOR (Authorisation or Inspection)

Record ID:	Inspector	Type of Operation	Activity Number – Checklist		
Date Accomplished:	# Issues	Operator	Tracking #		
Flight #:	From:	To:	AC Registration:	Facility:	Type:
PIC #:	SIC#	Training Manager #:			
Supervisory Check Trainer #		Check Approval:			

Instructions for Use:

1. Check `**S**' column if you reviewed the record, procedure or event and it is `**Satisfactory'**.
2. Check `**U**' column if you reviewed the record, procedure or event and it is `**Unsatisfactory'**.
3. Check **NS** (**not seen**) column if you did not review the record, procedure or event or you do not have adequate information to make a valid comment.
4. Check **NA** (**not applicable**) column, if the line item is not required in this particular situation.
5. 'Enter any notes on reverse side regarding a 'U' answer for transfer to the Safety Issues Resolution Report.
6. For later reference, precede any notes with the appropriate question number.

S/N	NCAA FILES	*S*	*U*	*NS*	*NA*
1.	Pilot License				
2.	Medical Certificate				
	CURRENCY	***S***	***U***	***NS***	***NA***
3.	Currency				
4.	Rating				
	AIRCRAFT	***S***	***U***	***NS***	***NA***
5.	Certificated				
6.	Airworthiness				
7.	Insurance				
8.	Equipped for agricultural operation				
	KNOWLEDGE AND SKILL	***S***	***U***	***NS***	***NA***
9.	Steps to be taken before starting operations				
10.	Survey of the area to be worked				
11.	Safe handling of economic poisons				
12.	Disposal of used containers for poisons				
13.	General effects of economic poisons and agricultural chemicals on:				
	(a) Plants				
	(b) Animals				
	(c) Persons				
14.	Precautions to be observed in using chemicals and poisons				
15.	Primary symptoms of poison				
16.	Location of poison control centre				

	PERFORMANCE CAPABILITIES AND OPERATING LIMITATIONS OF THE AIRCRAFT	*S*	*U*	*NS*	*NA*
17.	Safe flight and application procedures				
18.	The following maneuvers demonstrated at max certificated take off mass:				
	(a) Short-field take off				
	(b) Soft-field take off				
	(c) Approaches to the working area				
	(d) Flare out				
	(e) Swath runs				
	(f) Pull ups and turn arounds				
	(g) Rapid declaration or quick stops in helicopters only.				

REMARKS & OBSERVATIONS

_____

INSPECTOR SIGNATURE

Additional comments attached ☐ =>

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS 025A COMMERCIAL BANNER TOWING (Authorisation or Inspection)

Record ID:	Inspector	Type of Operation	Activity Number – Checklist		
Date Accomplished:	# Issues	Operator	Tracking #		
Flight #:	From:	To:	AC Registration:	Facility:	Type**:**
PIC:	SIC:	Training Manager:			
Supervisory Check Trainer:		Check Approval			

Instructions for Use:

1. Check **`S**' column if you reviewed the record, procedure or event and it is **`Satisfactory'**.
2. Check **`U**' column if you reviewed the record, procedure or event and it is **`Unsatisfactory'**.
3. Check **NS** (**not seen**) column if you did not review the record, procedure or event or you do not have adequate information to make a valid comment.
4. Check **NA** (**not applicable**) column, if the line item is not required in this particular situation.
5. 'Enter any notes on reverse side regarding a 'U' answer for transfer to the Safety Issues Resolution Report.
6. For later reference, precede any notes with the appropriate question number.

S/N	**NCAA FILES**	***S***	***U***	***NS***	***NA***
1.	Pilot License				
2.	Medical Certificate				
3.	Instruments Rating				
	AIRCRAFT	***S***	***U***	***NS***	***NA***
4.	Certificated				
5.	Airworthiness				
6.	Insurance				
7.	A tow hook and release control system that meet applicable standard of airworthiness.				
	DEMO FLIGHT	***S***	***U***	***NS***	***NA***
	(a) Pick up				
	(b) Drop				

REMARKS & OBSERVATIONS

_____

INSPECTOR SIGNATURE

Additional comments attached ☐ =>

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS 025B EVALUATION OF SAFETY MANUAL

Record ID:	Protocol #	Inspector:	Action Taken:
Air Operator/Organization:	Date Accomplished:	Type of Operation:	Location:
Title of Manual reviewed:			

Instructions for Use:

1. Check `**S**' column if you reviewed the record, procedure or event and it is `**Satisfactory'**.
2. Check `**U**' column if you reviewed the record, procedure or event and it is `**Unsatisfactory'**.
3. Check **NS** (**not seen**) column if you did not review the record, procedure or event or you do not have adequate information to make a valid comment.
4. Check **NA** (**not applicable**) column, if the line item is not required in this particular situation.
5. 'Enter any notes on reverse side regarding a 'U' answer for transfer to the Safety Issues Resolution Report.
6. For later reference, precede any notes with the appropriate question number

SN	OVERALL MANUAL PRESENTATION	S	U	NS	NA
1.	Bound in a secure form (not loose)?				
2.	Binder is 3 or 4 ring?				
3.	Exterior of binder clearly indicates manual content?				
4.	Prepared in English language?				
	MANUAL CONTROL PROCESS	**S**	**U**	**NS**	**NA**
5.	Copies numbered for controlled issuance?				
6.	Name or title of each person who holds a copy?				
7.	Amendment issuance tracking process?				
8.	Statement that the manual contains instructions which are required to be complied with by all personnel?				
9.	Statement of Compliance with relevant regulations?				
	MANUAL REVISION PROCESS	**S**	**U**	**NS**	**NA**
10.	Revision Instructions adequate?				
11.	Revision page for proper revision entry?				
12.	List of effective pages provided and correct?				
13.	Last revision to individual pages identified?				
	MANUAL REFERENCING SYSTEM	**S**	**U**	**NS**	**NA**
14.	Table of contents easy to find and use?				
15.	Index, if included, easy to find and use?				
16.	Tabbed as necessary for usability without difficulty?				
	INDIVIDUAL PAGE PRESENTATION	**S**	**U**	**NS**	**NA**
17.	Page numbered in chronological sequence (by chapter or single document?				
18.	Last revision number/date appears on each page?				
19.	Company name (and logo) appears on each page (exception – 18)?				
	PARAGRAPH NUMBERING	**S**	**U**	**NS**	**NA**
20.	Paragraphs and sub-paragraphs numbered or alphabetized for ease of reference?				
	SUPPLEMENTARY CONTENT REFERENCING	**S**	**U**	**NS**	**NA**
21.	Tables referenced for ease of use?				
22.	Figures referenced for ease of use?				
23.	Appendices referenced for ease of use?				

	MANUAL CONTENTS CONFORMANCE	S	U	NS	NA
	Organization and Management				
24.	Organizational Chart				
25.	Safety Manager				
	Safety Management	**S**	**U**	**NS**	**NA**
26.	Safety Policy?				
27.	Identification of safety hazards?				
28.	Remedial action necessary to maintain an acceptable level of safety?				
29.	Provision for continuous monitoring of the safety level achieved?				
30.	Provision for regular assessment of the safety level achieved?				
31.	Provision to make continuous improvement to the overall level of safety?				
32.	Clearly defined lines of safety accountability throughout the operator's organization?				
33.	Direct accountability for safety on the part of senior management?				
	Flight Data Analysis (For a Certificate holder of aircraft of a certificated takeoff mass in excess of 27,000 kilograms)	**S**	**U**	**NS**	**NA**
34.	Flight data analysis programme?				
35.	Is Flight data analysis programme non-punitive?				
36.	Adequate safeguards to protect the source of the data?				
37.	For flight data analysis programme contracted to third party, does operator retain overall responsibility for the maintenance of the programme?				
38.	Description of Flight safety document system for the use and guidance of operational personnel?				
	COMPLIANCE WITH REQUIREMENTS	**S**	**U**	**NS**	**NA**
39.	Complies with Nigerian CARs Part 9.2.2.10 and IS 9.2.2.10?				
40.	Complies with NCAA Guidance Reference: AOC Administration?				

RECOMMEND ACCEPTANCE: ☐ S ☐ (Reasons cited below)

REMARKS & OBSERVATIONS

_____

INSPECTOR SIGNATURE

Additional comments attached ☐ =>

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS 26 Management Personnel Evaluation Checklist

Name of Operator	Management Position	NAME OF NOMINEE

Comments:	Acceptable		Not Acceptable		Follow-up Required	

Recommended Follow-up Action Required by Applicant:

INSPECTOR NAME_____ SIGNATURE_____ DATE_____

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS027 AERIAL WORK/HELICOPTER EXTERNAL LOAD OPERATIONS INSPECTION AND DEMONSTRATION (Authorisation or Inspection)

Record ID:	Inspector	Type of Operation	Activity Number - Checklist
Date Accomplished	#Issues	Operator	Tracking #
Flight #:	From:	To:	AC Registration / AC Type:
PIC #:	SIC #	Other	

Instructions for Use:

1. Check **`S**' column if you reviewed the record, procedure or event and it is **`Satisfactory'**.
2. Check **`U**' column if you reviewed the record, procedure or event and it is **`Unsatisfactory'**.
3. Check **NS** (**not seen**) column if you did not review the record, procedure or event or you do not have adequate information to make a valid comment.
4. Check **NA** (**not applicable**) column, if the line item is not required in this particular situation.
5. 'Enter any notes on reverse side regarding a 'U' answer for transfer to the Safety Issues Resolution Report.
6. For later reference, precede any notes with the appropriate question number.

S/N	NCAA FILES	S	U	NS	NA
	DOCUMENTATION				
1.	Application for External Load Operator Certificate				
2.	Valid Certificate of Airworthiness				
3.	Supplement to Operations Manual Part A External Load Carrying Operations/Agricultural Operations				
	PERSONNEL (KEY POST HOLDERS)	***S***	***U***	***NS***	***NA***
4.	Chief Pilot (Helicopter External Load)				
5.	Assistant Chief Pilot (Helicopter External Load Operations				
	LIMITATION	***S***	***U***	***NS***	***NA***
6.	Are the weights of the helicopter/load combination and C of G within approved limits?				
7.	Load does not interfere with emergency release device.				
	CREW TRAINING AND CURRENCY	***S***	***U***	***NS***	***NA***
8.	Demonstration of knowledge and skill with respect to the helicopter/load combination.				
9.	Evidence of competency or appropriate logbook entry indicating compliance with Nig - CARs Part 11.3.3.3.				
10.	Evidence of successful completion of an approved initial or recurrent training programme within the preceding 12 calendar months.				
	OPERATIONAL FLIGHT CHECK	***S***	***U***	***NS***	***NA***
	CLASS A Helicopter Load Combination:				
11.	Take off and landing				
12.	Demonstration of adequate directional control in hover				
13.	Acceleration from hover				
14.	Horizontal flight at airspeeds up to the maximum airspeed for which authorization is requested.				

	CLASS B AND D Helicopter Load Combination:				
15.	Pick-up of the external load				
16.	Demonstration of adequate directional control				
17.	Acceleration from hover				
18.	Horizontal flight at airspeeds up to the maximum airspeed for which authorization is requested.				
19.	Demonstration of appropriate lifting device operation.				
20.	Manoeuvring of external load into release position and its release.				

REMARKS & OBSERVATIONS

_____

INSPECTOR SIGNATURE

Additional comments attached ☐ =>

NIGERIAN CIVIL AVIATION AUTHORITY

AVIATION HOUSE

P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS 028 ORGANIZATION STRUCTURE, STAFFING AND ADMINISTRATIVE FACILITIES CHECKLIST

Instructions for Use:

1. Check `**S**' column if you reviewed the record, procedure or event and it is `**Satisfactory'**.
2. Check `**U**' column if you reviewed the record, procedure or event and it is `**Unsatisfactory'**.
3. Check **NS** (**not seen**) column if you did not review the record, procedure or event or you do not have adequate information to make a valid comment.
4. Check **NA** (**not applicable**) column, if the line item is not required in this particular situation.
5. 'Enter any notes on reverse side regarding a 'U' answer for transfer to the Safety Issues Resolution Report.
6. For later reference, precede any notes with the appropriate question number.

ORDER/CL No.	Inspector	Operator	
Base	AOC NO.	Date of inspection	Reference No.
Document:		Operator's Representative:	

Requirement	Assessment			
	S	U	NS	N/A
Organization Structure				
1. Is the organization structure suitable for the size and scope of the proposed operation?				
2. Is the chain of command appropriate to satisfy safety of operations with respect to -				
(a) Numbers of Management positions not excessive?				
(b) Flying/Admin tasks balanced for Flight Crew Managers?				
Qualified and Competent Employees	**S**	**U**	**NS**	**N/A**
3. Does the Organization have sufficient number of suitably qualified and competent employees in the following areas:				
(a) Flight crew?				
(b) Cabin crew?				
(c) Crew training and checking?				
(d) Other technical trainers?				
(e) Operations planning?				
(f) Operations control?				
(g) Crew scheduling?				
(h) Load control?				
(i) Passenger handling?				
(j) Administrative support?				
Note: *Maintenance staff numbers to be assessed by the Airworthiness team.*	**S**	**U**	**NS**	**N/A**
Administrative Facilities - Office				
4. Are offices accommodation size adequate?				
5. Is the support equipment adequate?				
6. Is the support staff adequate?				

Administrative Facilities – Communications	S	U	NS	N/A
7. Is the communication/information system adequate to allow efficient and rapid communications with all crew, operational support staff and their managers?				
8. Are printing and distribution facilities adequate?				
OTHER	**S**	**U**	**NS**	**N/A**

ORDER/CL No:		Tracking No.:

Notes:
1. *A "NO" or "N/C" response on a checklist must be accompanied by reason or comments.*
2. *A "NO" response to a safety issue finding in an inspection of an organization must be transferred to a CF report for corrective action where applicable.*
3. *Preceed all comments with the applicable checklist item number or discrepancy number.*

Discrepancy Label: *(Circle the applicable numeric labels that best describe the discrepancies)*

Policy, Procedures, Instructions, Information, Documentation, Controls:					**Document Quality**
1.Not Specified	**2.**Unclear	Do not comply with:		**7.**Do not Identify: Who, What, When, Where, How	**8.**Unreadable
3.Incomplete	**4.**Inconsistent	**5.**NCAR	**6.**Guidance		**9.**Illegible

10. Resource requirements incomplete (personnel, facilities, equipment, technical data)

1	2	3	4	5	6	7	8	9	10

Comments:

Recommendations

Name of Inspector_____ Signature_____ Date_____

NIGERIAN CIVIL AVIATION AUTHORITY

AVIATION HOUSE

P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS 029 PROJECT MANAGER'S COMPLETION CERTIFICATE

Item	Signature
1. Completion certificates received:	
(a). Flight Operations Team	
(b) Airworthiness Inspection Team	
(c). DG Inspector	
(d). Security Programme	
2. AOC preparation:	
(a). Approved aircraft types	
(b) Approved terminals	
(c) Approved routes	
(d) Operations Specifications included	
3. NCAR Requirements	
4. Applicant's financial position (ASL) considered	
5. Final invoice action initiated	
6. Certification report action noted	

I certify that the processes described in the Orders for the issue of an Air Operator Certificate (AOC), have been completed and recommend that the attached Air Operator's Certificate with accompanying Operations Specifications be issued to:

.....

Project Manager.....Signature.....Date.....

(BLOCK)

NIGERIAN CIVIL AVIATION AUTHORITY

AVIATION HOUSE

P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS 030 PASSENGER HANDLING AND PUBLIC SAFETY INSPECTION

Record ID:	Inspector	Type of Operation	Activity Number – Checklist
Date Accomplished:	Location	Operator #	Tracking #
Station Manager	Aircraft Types Supported		

Instructions for Use:

1. Check **`S**' column if you reviewed the record, procedure or event and it is **`Satisfactory'**.
2. Check **`U**' column if you reviewed the record, procedure or event and it is **`Unsatisfactory'**.
3. Check **NS** (**not seen**) column if you did not review the record, procedure or event or you do not have adequate information to make a valid comment.
4. Check **NA** (**not applicable**) column, if the line item is not required in this particular situation.
5. 'Enter any notes on reverse side regarding a 'U' answer for transfer to the Safety Issues Resolution Report.
6. For later reference, precede any notes with the appropriate question number.

S/N	**PASSENGER HANDLING IN TERMINAL**	**S**	**U**	**NS**	**NA**
1.	Acceptable procedures for identification and seat allocation for handicapped persons?				
2.	Seat allocation for infants and children?				
3.	Scales for weighing baggage and cargo?				
4.	Appropriate system for control of loose articles in the cabin (carry-on baggage?				
	PASSENGER RAMP SAFETY	**S**	**U**	**NS**	**NA**
5.	DAY – Air bridge/directions to board				
6.	NIGHT – Air bridge/directions to board				
7.	DAY – Proper positioning of steps?				
8.	NIGHT – Proper positioning of steps?				
9.	DAY – Staff in attendance with passengers?				
10.	NIGHT - Staff in attendance with passengers?				
11.	DAY – Protection from jet blast?				
12.	NIGHT – Protection from jet blast?				
13.	DAY – Clearance from propellers?				
14.	NIGHT – Clearance from propellers?				
15.	DAY – Clear of taxiing aircraft?				
16.	NIGHT – Clear of taxiing aircraft?				
17.	DAY – Clear of moving vehicles?				
18.	NIGHT – Clear of moving vehicles				
19.	DAY – Positioning of service vehicles?				
20.	NIGHT – Positioning of service vehicles?				
21.	DAY – Are there safety routes available for emergency evacuation?				
22.	NIGHT – Are there safety routes available for emergency evacuation?				
	CREW COORDINATION WITH LOAD CONTROL	**S**	**U**	**NS**	**NA**
23.	Are passengers occupying their assigned seats?				
24.	Was a head count compared to load manifest for accuracy?				

REMARKS & OBSERVATIONS

_____

INSPECTOR SIGNATURE

Additional comments attached ☐ =>

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS 031 EXTENDED DIVERSION TIME OPERATIONS (EDTO)

Instructions for Use:

1. Check **`S'** column if you reviewed the record, procedure or event and it is **`Satisfactory'**.
2. Check **`U'** column if you reviewed the record, procedure or event and it is **`Unsatisfactory'**.
3. Check **NS** (**not seen**) column if you did not review the record, procedure or event or you do not have adequate information to make a valid comment.
4. Check **NA** (**not applicable**) column, if the line item is not required in this particular situation.
5. 'Enter any notes on reverse side regarding a 'U' answer for transfer to the Safety Issues Resolution Report.
6. For later reference, precede any notes with the appropriate question number.

S/N	OVERALL MANUAL APPEARANCE	S	U	NS	NA
0	COMPLETE CHECKLIST CL: O-OPS 020B				

S/N	APPROVAL PROCESS	S	U	NS	NA
	Two engine airplane systems design items for Type Design Approval includes:				
1	Electrical System Redundancy				
2	Battery Life				
3	Full Time APU				
4	Emergency/Standby Electrical Generation Systems				
5	Redundancy in Hydraulic and Pneumatic Systems				
6	Increased Endurance of Time-Limited Equipment				
7	Improved Ice Protection				
8	Reduction of crew workload in normal and non-normal flight situations				
9	Cargo Fire Suppression Longevity				
	OPERATIONAL APPROVAL	**S**	**U**	**NS**	**NA**
	Compliance with ALL of the following aspects:				
10	Airplane Configuration				
11	Maintenance Practices				
12	Special Training/Briefing for Engineers, Pilots and Dispatchers				
13	Flight operations one engine in-operational flight procedures				
14	Flight dispatch and continuous flight watch and control of EDTO operations				
15	Definition of en-route aerodromes and alternate minima				
	FLIGHT OPERATIONS ASPECT	**S**	**U**	**NS**	**NA**
16	Two engine airplane Minimum Equipment List [MEL] is in place				
17	Two engine airplane component reliability record and assurance programme is established				
18	Pilots and dispatchers have undergone the requisite two engine airplane training				
19	Two engine airplane aspects have been included in the various operational documentation				
20	Successful operation of validation flight[s] – observed by the NCAA				
	MAINTENANCE ASPECT	**S**	**U**	**NS**	**NA**
21	The airplane configuration and subsequent changes captured in the CMP standards				
22	The airframe/engine combination has met the required reliability standards; e.g. IFSD rate of 0.0022/1000 hours for 180 minutes two engine airplane				
23	The two engine airplane maintenance practices and procedures are demonstrated to be in place				
	PILOTS AND DISPATCHERS TRAINING	**S**	**U**	**NS**	**NA**
24	Two engine airplane - Regulations/Operational Approval				
25	Aircraft Performance and Diversion Strategies				
26	Area of Operations				
27	Fuel Requirements				

28	Dispatch considerations MMEL, CDL, weather minima				
29	Flight crew documentation and procedures				
30	Line and recurrent training and check				
	MAINTENANCE PERSONNEL TRAINING	**S**	**U**	**NS**	**NA**
31	Two engine airplane – Regulations/Operational Approval				
32	Dispatch considerations				
33	Airplane configurations; additional maintenance tasks [CMP]				
34	Engine and systems review				
35	Two engine airplane service checks:				
	a] Spare parts control				
	b] Engine/APU preventive maintenance				
	c] IFSD preventive programme				
	d] Use of on-board maintenance facilities				
	FLIGHT PLANNING ANALYSIS	**S**	**U**	**NS**	**NA**
36	Operational Flight Plan:				
	a] Manually generated/computer generated				
	b] Appropriate routing				
	c] Weather acquisition system				
	d] Fuel planning system				
	e] Contingency Information				
37	Suitable En-route Alternate Airports				
	a] Fire protection				
	b] Passenger handling [including lodging]				
	c] Fuel and Oil servicing				
	d] Approach facilities				
	e] Airport lighting				
	f] Airport facilities				
	g] Maintenance facilities				
	h] Stable weather conditions				
	i] Medical facilities				
38	Alternate weather validity period [1hr before earliest ETA until 1hr after latest ETA]				
39	Dispatch alternate weather minima:				
	a] 1 runway: DH/MDA +400 feet and vis +1500 meters				
	b] 2 runways [with approach facilities]: DH/MDA +200ft and vis +800 meters				
40	EDTO fuel burn performance tables or graphs available				
41	Fuel planning [FL100, one engine out, ice accumulation]				
42	Critical fuel scenario description				
	LONG RANGE ROUTE REQUIREMENTS	**S**	**U**	**NS**	**NA**
43	Survival equipment and its use				
44	Communication Equipment [VHF, HF, SATCOM]				
45	Navigation [RNAV, GPS, IRS, RVSM, MNPS]				
46	Passenger and crew oxygen [time and distance]				
	CONTINUING SURVEILLANCE AND REPORTING SYSTEM	**S**	**U**	**NS**	**NA**
47	Any significant service event in the EDTO fleet				
48	Corrective actions for short and long term				
49	Statistical reliability indicators for essential systems and engines				
	SPECIFIC SAFETY RISK ASSESSMENT	**S**	**U**	**NS**	**NA**
50	Has the operator conducted a specific safety risk assessment which demonstrates how an equivalent level of safety will be maintained, taking into account the following:				
	a] Capabilities of the operator				
	b] Overall reliability of the airplane				
	c] Reliability of each time limited system				
	d] Relevant information from the airplane manufacturer				
	e] Specific mitigation measures				
51	As regards alternate aerodromes, specific safety risk assessment to be demonstrated shall contain the following:				
	a] Capabilities of the operator				

	b] Overall capability of the airplane and its systems				
	c] Available aerodrome technologies, capabilities and infrastructures				
	d] Quality and reliability of meteorological information				
	e] Identified hazards and safety risks associated with each alternate aerodrome variations				
	f] Specific mitigation measures				
52	**RESERVED**				
53	**RESERVED**				
54	**RESERVED**				
55	**RESERVED**				
56	**RESERVED**				

REMARKS & OBSERVATIONS

INSPECTOR NAME:_____ **SIGNATURE**:_____

DATE: _____

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS032

AVIATION SAFETY INSPECTOR OJT PROGRESS CHART

1. Name of Trainee	2. OJT Instructor: OPERATIONS ☐	3. Position Description (FOI, GOI & CSI)

	4. OJT Job Task	5. Order Number	6. Level 1 Discuss	7. Level 2 Observe/Assist	8. Level 3 Perform	9. Confirmed By: Sign & Date

KEYS

-: OJT JOB TASK: ====➔ Refer to specific job task (i.e. inspection to be carried out)
-: ORDER NUMBER: ==➔ See attached
-: LEVEL 1: ==========➔ Discussion of job task and associated checklist
-: LEVEL 2: ==========➔ Job task (Inspection) demonstration by OJT & Instructor
-: LEVEL 3: ==========➔ Trainee to conduct job task (Inspection) under supervision of instructor
-: CONFIRMED: ======➔ Instructor's comment (satisfactory or unsatisfactory)

OJT TASKS NUMBER GUIDE (ORDER NUMBER)

2.0 Certification **2.000**
Formal Course Name: Air Operator Certification - Operations
Formal Course Number: 2001

Certification	Air Operator	2.001	Cert Phase I: Pre-application Phase - (Gate I)
Certification	Air Operator	2.002	Cert Phase II: Formal Application Phase - (Gate II)
Certification	Air Operator	2.003	Cert Phase III: Document Compliance Phase
Certification	Air Operator	2.004	Cert Phase IV: Demonstration and Inspection Phase - (Gate III)
Certification	Air Operator	2.005	Cert Phase V: Certification Phase
Certification	Air Operator	2.006	Conduct Certification of an Agricultural Aircraft Operator
Certification	Air Operator	2.007	Conduct Administrative Activities for an Air Carrier Operator Applicant
Certification	Air Operator	2.008	Evaluate a Compliance Statement
Certification	Air Operator	2.009	Evaluate a General Operations Manual
Certification	Air Operator	2.010	Approve a Flight Crew Training Program
Certification	Air Operator	2.011	Add an Aircraft to an Existing Air Carrier Operating Certificate
Certification	Air Operator	2.012	Blank
Certification	Air Operator	2.013	Approve an Aircraft Checklist
Certification	Air Operator	2.014	Approve an Exit Row Seating Program
Certification	Air Operator	2.015	Approve a Carry-On Baggage Program
Certification	Air Operator	2.016	Approve a Passenger Briefing Card
Certification	Air Operator	2.017	Approve a Flight Simulation Device (Simulator and/or Flight Training Device)
Certification	Air Operator	2.018	Evaluate Director of Operations Qualifications
Certification	Air Operator	2.019	Evaluate Chief Pilot Qualifications
Certification	Air Operator	2.020	Evaluate Director of Safety Qualifications
Certification	Air Operator	2.021	Approve a Check Airman
Certification	Air Operator	2.022	Evaluate and approve a Minimum Equipment List (MEL)
Certification	Air Operator	2.023	Evaluate a Weight and Balance Control Program
Certification	Air Operator	2.024	Approve a Hazardous Materials Program
Certification	Air Operator	2.025	Evaluate an Aircraft Lease Agreement
Certification	Air Operator	2.026	Evaluate an Exemption, Deviation, or Waiver Request
Certification	Air Operator	2.027	Evaluate/ Approve a Deicing Program
Certification	Air Operator	2.028	Evaluate a Line Station Facility
Certification	Air Operator	2.029	Evaluate a Crewmember Recordkeeping System
Certification	Air Operator	2.030	Evaluate a Flight/Trip Recordkeeping System
Certification	Air Operator	2.031	Evaluate an Internal Evaluation Program
Certification	Air Operator	2.032	Evaluate an Environmental Assessment
Certification	Air Operator	2.033	Evaluate a Main Operations Base
Certification	Air Operator	2.034	Conduct an Emergency Evacuation Demonstration
Certification	Air Operator	2.035	Conduct a Ditching Demonstration
Certification	Air Operator	2.036	Blank
Certification	Air Operator	2.037	Conduct an Aircraft Proving Test
Certification	Air Operator	2.038	Issue or Amend Operations Specifications (OPSS)
Certification	Air Operator	2.039	Evaluate a Dispatch Center
Certification	Air Operator	2.040	Evaluate a Dispatch Training Program
Certification	Air Operator	2.041	Evaluate a Dispatch System (Operational Control)
Certification	Air Operator	2.042	Evaluate a Airport Aeronautical Data
Certification	Air Operator	2.043	Evaluate Aeronautical Weather Data
Certification	Air Operator	2.044	Approve an Enhanced Weather Information System
Certification	Air Operator	2.045	Approve Aircraft Performance Operating Limitations and Airport Runway Performance Data Analysis System
Certification	Air Operator	2.046	Evaluate Personnel Who have been Granted Operational Control Authority
Certification	Air Operator	2.047	Evaluate Flight Following Procedures for Supplemental Operations
Certification	Air Operator	2.048	Evaluate Flight Locating Procedures

Certification	Air Operator	2.049	Evaluate Alternate Airport Considerations
Certification	Air Operator	2.050	Conduct Initial Certification/Renewal of a Rotorcraft Operator
Certification	Air Operator	2.051	Add a helicopter to an Existing External Load Certificate
Certification	Air Operator	2.052	Evaluate a Rotorcraft-Load Combination Flight Manual
Certification	Air Operator	2.053	Approve a Rotorcraft Class D Training Program
Certification	Air Operator	2.054	Evaluate a Rotorcraft Congested Area Plan
Certification	Air Operator	2.055	Issue Operations Specifications for a Rotorcraft Operator
Certification	Air Operator	2.056	Evaluate a Flight Attendant Training Program
Certification	Air Operator	2.057	Evaluate a Flight Attendant Manual
Certification	Air Operator	2.058	Evaluate an Extended Range Operations With Two-Engine Airplanes (ETOPS)
Certification	Air Operator	2.059	Evaluate a Reduced Vertical Separation Minimums (RVSM) Program
Certification	Air Operator	2.060	Evaluate a Special Means of Navigation
Certification	Air Operator	2.061	Evaluate a Category II and Category III Program
Certification	Air Operator	2.062	Approve Special Category I/ Category II/ Category III Operation
Certification	Air Operator	2.063	Conduct a Validation Test

3.0 Surveillance **3.000**
Formal Course Name: Air Operator Surveillance - Operations
Formal Course Number: 3001

Surveillance	Air Operator	3.001	Plan a Surveillance Work Program
Surveillance	Air Operator	3.002	Conduct an Ultralight Ramp Inspection
Surveillance	Air Operator	3.003	Conduct Airplane Ramp Inspection
Surveillance	Air Operator	3.004	Conduct a Cabin En Route Inspection
Surveillance	Air Operator	3.005	Conduct a Cockpit En Route Inspection
Surveillance	Air Operator	3.006	Inspect a Line Station Operation and Facilities
Surveillance	Air Operator	3.007	Inspect Trip Records
Surveillance	Air Operator	3.008	Inspect Crew & Dispatch Records
Surveillance	Air Operator	3.009	Inspect a Check Airman
Surveillance	Air Operator	3.010	Inspect a Main Operations Base
Surveillance	Air Operator	3.011	Inspection During Bankruptcy, Strike, or Merger
Surveillance	Air Operator	3.012	Inspect a Deicing Program
Surveillance	Air Operator	3.013	Inspect a General Operations Manual
Surveillance	Air Operator	3.014	Inspect an Internal Evaluation Program
Surveillance	Air Operator	3.015	Blank
Surveillance	Air Operator	3.016	Inspect Extended Range Operations for Two-Engine Airplanes (ETOPS)
Surveillance	Air Operator	3.017	Inspect a Flight Crew Training Program
Surveillance	Air Operator	3.018	Inspect a Cabin Crew Training Program
Surveillance	Air Operator	3.019	Inspect a Check Airman or Instructor Training Program
Surveillance	Air Operator	3.020	Inspect a Dispatcher Training Program
Surveillance	Air Operator	3.021	Inspect Simulator or Flight Training Device
Surveillance	Air Operator	3.022	Inspect a Station Personnel Training Program
Surveillance	Air Operator	3.023	Inspect a Flight Follower Training Program
Surveillance	Air Operator	3.024	Inspect Flight Following/ Flight Locating Procedures
Surveillance	Air Operator	3.025	Inspect Dispatch Procedures
Surveillance	Air Operator	3.026	Inspect Personnel Who have Been Granted Operational Control Authority
Surveillance	Air Operator	3.027	Inspect a Heliport
Surveillance	Air Operator	3.028	Conduct a Rotorcraft Ramp Inspection
Surveillance	Air Operator	3.029	Inspect Rotorcraft External Load Base Inspection
Surveillance	Air Operator	3.030	Inspect Rotorcraft External Load Operation
Surveillance	Air Operator	3.031	Conduct Surveillance of a Banner Tow Operator
Surveillance	Air Operator	3.032	Conduct Surveillance of a Special Event
Surveillance	Air Operator	3.033	Conduct a Ramp Inspection of Foreign Registered Aircraft

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS033 EVALUATE FLIGHT SIMULATOR STANDARDS

Record ID:	Inspector	Type of Operation	Activity Number – Checklist
Date Accomplished:	# Issues	Operator #	Tracking #
Location:	Simulator serial no.		

Instructions for Use:

1. Check **`S**' column if you reviewed the record, procedure or event and it is **`Satisfactory'**.
2. Check **`U**' column if you reviewed the record, procedure or event and it is **`Unsatisfactory'**.
3. Check **NS** (**not seen**) column if you did not review the record, procedure or event or you do not have adequate information to make a valid comment.
4. Check **NA** (**not applicable**) column, if the line item is not required in this particular situation.
5. 'Enter any notes on reverse side regarding a 'U' answer for transfer to the Safety Issues Resolution Report.
6. For later reference, precede any notes with the appropriate question number.

S/N	CONFORMANCE WITH -	S	U	NS	NA
1.	ICAO Standards?				
2.	JAR Standards?				
3.	FAA Standards?				
4.	Copies of sums papers issued by certifying authority				
	GENERAL	**S**	**U**	**NS**	**NA**
5.	Cockpit, a full scale replica of the aeroplane simulated?				
6.	Direction of movement of control and switches identical to that in the Aeroplane?				
7.	Does the cockpit, for simulator purpose, consist of all that space forward of a cross section of the fuselage?				
8.	Do Additional required crew member duty stations and those required bulkheads of the pilots' seats, (considered part of the cockpit) replicate the aeroplane ?				
9.	Are circuit breakers properly located and functionally accurate?				
10.	Do the effects of aerodynamic changes for various combination of drag and thrust normally encountered in flight, correspond to actual flight conditions?				
11.	Effects of change in aeroplane attitude, thrust, drag, altitude, temperature, gross weight, centre of gravity location, and configuration?				
12.	Relevant instrument indications involved in the simulation of the applicable aeroplane, automatically respond to control movement by crew or induced disturbance to the simulated aeroplane: e.g. turbulence or windshear?				
13.	Communications, Navigation and Caution and Warning equipment correspond to that installed in the applicants aeroplane?				
14.	Are there observer seats available for the Examiner and Authority inspector?				
15.	Simulator systems should simulate applicable aeroplane system operation both on the ground and in flight, accomplish normal, abnormal and emergency procedures.				
16.	Instructor controls to control all required system variables and insert				

	abnormal or emergency conditions?				
17.	Control forces and control travel correspond to that of the replicated aeroplane?				
18.	Cockpit sounds which result from pilot actions corresponding to those of the aeroplane?				
19.	Sounds and aeroplane noise perceptible to the pilot during normal operations?				
20.	The ground handling and aerodynamic programme comply with standard provisions?				
21.	Windshear models, which provide training in specific skills, comply with standard provisions?				
22.	Sim. has controls for wind speed and direction?				
23.	Sim. comply with required provisions?				
24.	Sim has a means for quickly and effectively testing sim. programming and hardware?				
25.	Control feel dynamics and relative integrated sensory cues tested in the last CAA approval?				
26.	Daily preflight documentation easily accessible for review?				
	MOTION SYSTEM	**S**	**U**	**NS**	**NA**
27.	Motion cues e.g. touchdown cues a function of the simulated rate of descent?				
28.	Motion system in compliance with requisite standards?				
29.	Means of recording Motion response time for comparison with aeroplane data?				
30.	Special effects programming?				
31.	Characteristic buffet motions?				
	VISUAL SYSTEM	**S**	**U**	**NS**	**NA**
32.	Visual system capable of meeting all standards (validation and Functions and Subjective Tests.				
33.	Continuous minimum collimated visual field-of-view as specified.				
34.	A means of recording the visual response time for visual systems.				
35.	Verification of visual ground segment and visual scene content at a decision height on landing approach.				
36.	Visual cues to assess sink rate and depth perception during T/O and landing				
37.	Test procedures to confirm visual system colour, RVR, focus, intensity, level horizon, and attitude compared with the simulated attitude indicator				
38.	Dusk scene to enable identification of visible horizon and terrain characteristics.				
39.	A minimum of ten levels of occulting				
40.	Demonstration of surface resolution confirmed by calculations in the statement of compliance.				
41.	Light point size				
42.	Light point contrast ratio				
43.	Daylight, Dusk and night scenes to recognise airport, the terrain and major landmarks to accomplish a visual landing.				

" **REMARKS & OBSERVATIONS ATTACHED** #

CERTIFICATION INSPECTION: ☐ YES ☐ NO

_____

INSPECTOR SIGNATURE:

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS 034 AIR OPERATOR CERTIFICATE CHECKLIST

(COMMERCIAL AIR TRANSPORT OPERATOR)

I. Purpose

This Air Operator Certificate Checklist (AOCC) is the method used by the NCAA, by which the overall completion of the Flight Operations Inspectors and the Maintenance and Avionics Inspectors participation in the operations and airworthiness evaluation, inspection and certification process is tracked.

It provides critical historical evidence that the proper operations evaluations were considered and accomplished. Once completed, this report will be included in the AOC Certification File.

The Certification Project Coordinator (CPM) shall ensure that the AOCC is properly filled and completed by all pertinent inspectors.

II. General Completion Instructions:

Part A – Details of the Auditee, NCAA Task Number, type of inspection and Assigned Inspectors

Part B – Pre-Application Phase

Part C - Formal Application Phase

Part D – Document Compliance and Evaluation Phase

Part E – Demonstration and Inspection Phase

Part F – Certification Phase

III. Evaluation Responsibilities

All line item job tasks, evaluations and inspections the left column of this report must have been evaluated by a designated member of the Certification Team, whose responsibilities are identified as follow:

- CPM - Certification Project Coordinator
- O - Flight Operations Inspector
- C - Cabin Safety Inspector
- A - Airworthiness Safety Inspector

After completion of an assigned task, the assigned inspector shall identify it as Satisfactory (S) or Unsatisfactory (US). In the case of an US condition, please refer to Appendix 7 for the issuance of Safety Issue Resolution Report(s).

IV. Other Coordination Required

The CPM should ensure that the proper coordination has been made with those line item evaluations that are also required by DAWS.

V. Renewal or Variation of AOCs

In the case of an AOC Renewal or Variation, the same type of form shall be applied.

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CL: O-OPS 034 AIR OPERATOR CERTIFICATE CHECKLIST

(COMMERCIAL AIR TRANSPORT OPERATOR)

Part A

OFFICIAL NAME OF COMPANY		LOCATION ADDRESS
MAILING ADDRESS (If different from location)		NCAA Reference Number
TYPE OF INSPECTION _____ Initial _____ Re-issuance _____ Variation		CERTIFICATION PROJECT COORDINATOR*
FLIGHT OPERATIONS INSPECTOR(s)*	CABIN SAFETY INSPECTOR(s)*	AIRWORTHINESS SAFETY INSPECTOR(s)*

* Assignments:
CPM - Certification Project Coordinator
O - Flight Operations Inspector
C- Cabin Safety Inspector
A - Airworthiness Safety Inspector

** Legend:
S – Satisfactory
US - Unsatisfactory

Part B

Task #	Pre-Application Phase	Inspector Initials	S/US (if US, action to be taken)	Date Received/ Accomplished	Date Returned for Changes	Remarks
1 (CPM)	A) Initial enquiry (verbal or written) made by applicant. Form NCAA-AOC-001)					
2 (CPM)	B) Pre-application statement 1) Procedures and other guidance materials for application of AOC. 2) PASI forwarded to DOT					
3 (CPM)	C) Certification Team (at least one Flight Operations Inspector, one Cabin Safety Inspector, one Airframe/Engine, one avionics inspector)					
4 (CPM)	D) Team determines acceptability of submitted PASI					
5 (CPM)	Conduct Pre-application Meeting					
5.1	1) Clarify PASI (Form NCAA-AOC-001)					
5.2	2) Overview of Certification process, i. e. civil aviation regulations compliance statement.					
5.3	3) Provide Schedule of Events describing all elements of the Certification process:					
5.3.1	a) Form, content of and documents required for formal application.					
5.3.2	b) Model Operations Specifications provisions.					
5.3.3	c) Other applicable publications and documents.					

Part C

Task #	Formal Application Phase	Inspectors Initials	*S/US (if US, action to be taken)	Date Received/ Accomplished	Date Returned for Changes	Remarks
6 (CPM)	A) Applicant submits a formal application (returns AOC application form).					
7 (CPM)	B) Initial Review of Applicant's submission.					
7.1	1) Full and official name (legal)					
7.2	2) Mailing address					
7.3	3) Primary Operating location (Principal Maint. Base)					
7.4	4) Management Personnel names.					
7.5	5) Name and address of applicant					
7.6	6) Formal application attachments					
7.6.1	a) As per NCAA-AOC-002					
7.6.2	b) Statement of compliance with the civil aviation regulations					
7.6.3	c) Company general manuals to be submitted:					
7.6.3.1 (A)	i) Maintenance Management Exposition					
7.6.3.2 (O)	ii) Operations Manual must include at least:					
	- Purpose and scope of manuals					
	- Manuals to be carried on board					

	- Responsibility for manual content					
	- Responsibility for manual amendment					
	- Distribution of manuals and amendments					
7.6.3.3 (O)	iii) Initial/new line curricula (crew members & Flt Ops officers:					
	Curricula must include at least:					
	- Basic indoctrination training					
	- Initial aircraft ground training					
	- Initial aircraft flight training					
7.3.6.4 (O)	iv) Training Manuals to include:					
	- Responsibility for appointment and supervision of training staff.					
	- Qualification of training staff					
	- Adequacy of training syllabus approved by NCAA					
	- Adequacy of check forms/certificate for crew tests					
7.3.6.5 (A)	v) Curricula for maintenance personnel training					
7.3.6.6 (CPM)	vi) Management staff resumes:					
	General Manager (where applicable)					
	- Director of Operations					
	- Director of Maintenance					
	- Chief Pilot					

	- Chief Inspector (where applicable)					
7.3.6.7 (CPM)	vii) Documents of purchase, contract(s) and/or letters of intent to address:					
	- Aircraft					
	- Station facilities and services					
	- Weather and NOTAM – gathering facilities and services					
	- Communications facilities and services					
	- Maintenance facilities and services					
	- Aeronautical charts and related publications					
	- Airport analysis and obstruction data					
	- Contract training or facilities					
7.3.6.8 (CPM)	viii) Initial Compliance Statement (list each regulation pertinent to proposed operation and denote proposed compliance methods alongside each)					
	- may refer to a manual or other document or indicate that the information will be provided in the final compliance statement)					
8 (CPM)	C) Formal Application Meeting					

8.1	1) Review Schedule of events (set dates in proper sequence for accomplishing or submitting listed items):					
8.2	2) Discuss each submission					
8.3	3) Resolve all discrepancies/ omissions, etc.					
8.4	4) Review Certification process					
8.5	5) Review impact if schedule of events are not met					
	Remarks: (Initial decision on acceptability of formal application and attachments)					

Part D

Task #	Document Compliance and Evaluation Phase	Inspectors Initials	*S/US (if US, action to be taken)	Date Received/ Accomplished	Date Returned for Changes	Remarks
9 (CPM)	A) Evaluate Management Qualifications (Review and accept/ approve/reject manuals and other documents (see inspectors handbooks as reference)					
9.1	1) Accountable Managers					
9.2	2) Director of Operations					
9.3	3) Director of Maintenance					
9.4	4) Quality Manager(s) a) Quality Manager/Chief Inspector for Operations (if any) b) Quality Manager for Maintenance (if applicable)					
9.5	5) Chief Pilot					
9.6	6) Safety Manager					
9.7	7) Training Captains					
9.8	8) Deviation letter (if a deviation from management personnel requirements is anticipated)					
9.9	9) Others					
10 (O)	B) Evaluate Operations Manual					
10.1	10) Emergency exit plan					

10.2	11) Carry-on Baggage Plan					
10.3	12) Drunkenness in aircraft					
10.4	13) Smoking in aircraft					
10.5	14) Imperiling safety of aircraft					
10.6	15) Stowaways					
10.7	16) Carriage of livestock					
10.8	17) Carriage of dangerous goods					
10.9	18) Carriage of weapons of war					
10.10	19) Carriage of unauthorized persons					
10.11	20) Allowable deficiencies					
10.12	21) Filing flight safety/incident reports					
10.13	22) Flying hours for management staff					
10.14	23) Method of deferring defects approved by Airworthiness dept.					
10.15	24) Least risk bomb location for each aircraft type.					
11 (A)	C) Maintenance Management Exposition					
12 (A/O)	D) Approved Aircraft Flight Manual					
12.1	1) Aircraft checklist					
12.1.1	a) Normal					
12.1.2	b) Abnormal					
12.1.3	c) Emergency					
13 (C)	E) Cabin Attendant Manual					
13.1	1) Emergency Equipment					
13.2	2) Cabin Equipment					
13.3	3) Galley					

13.4	4) Cabin Attendant knowledge					
13.5	5) Others – compliance with NCAA Operating regulations and rules (Passenger briefing cards)					
14 (A/O)	F) Deviation Request					
15 (A/O)	G) Flight Dispatch/Flight following/flight Locating procedures					
16 (A/O)	H) Continuous analysis and surveillance system					
17 (A/O/C)	I) Emergency evacuation demonstration plan.					
18 (O)	J) Aerodromes Data & Enroute Manual (Charts & Plates)					
19 (O)	K) Aerodrome/Runway Analysis (Performance)					
20 (A/O)	L) Minimum Equipment List/Configuration Deviation List					
21 (C)	M) Aircraft Cabin Log					
22 (A)	N) Maintenance Technical Manuals/ Documents					
22.1	1) Validity of Maintenance certifications					
22.2	2) Maintenance Release properly executed					
22.3	3) Technical logs (acceptable format and properly completed)					
22.4	4) Defect rectification properly covered by signature					
22.5	5) Deferred defect log					
22.6	6) Recurring defects and any shortage of spares					
22.7	7) Parts scrapping policy					
23 (O)	O) Fueling/Refuelling/ Defuelling Fuel flight planning & Records					

23.1	1) Flight planning formula					
23.2	2) Retention of fuel records					
23.3	3) Refueling with passengers on board – special instructions					
23.4	4) Fuel quality audit manual					
24 (O)	P) Ground servicing manual					
25 (O)	Q) Mass and Balance control programme					
26 (O)	R) Carriage of Dangerous Goods					
27 (O)	S) Security					
28 (O)	T) Continuing Analysis & Surveillance Programme					
29 (A)	U) Continuing Airworthiness Maintenance Programme					
30 (O)	V) Company's Emergency plan/notification					
31 (A/O)	W) Proving Flight Tests					
	Evaluate Applicable Training Programme Manuals					
32 (O)	X) Training Curricula (flight crew) to include:					
32.1	1) Company procedures indoctrination					
32.2	2) Emergency Equipment Drills					
32.3	3) Ground Training (Handling/ Servicing)					
32.4	4) Flight Training					
32.5	5) Recurrent training/recency checks					
32.6	6) Flight conversion training					

32.7	7) Special equipment training					
32.8 (C)	8) Cabin crew training					
32.9	9) Command training (captain)					
32.10	10) Records of progress					
32.11	11) Difference Training					
32.12	12) Security					
32.13	13) Dangerous Goods					
32.14	14) Check Airmen/Flight instructor					
32.15	15) Crew Resource Management					
32.16	16) Human factor elements					
32.17	17) Flt Safety Officer Training					
32.18 (A)	18) Maintenance Training					
32.18.1	a) Aircraft Maintenance Engineers Training/ Conversion Prog.					
32.18.2	b) Technicians Training					
	Remarks					

Part E

Task #	Demonstration and Inspection Phase	Inspectors Initials	*S/US (if US, action to be taken)	Date Received/ Accomplished	Date Returned for Changes	Remarks
33 (O/A)	A) Evaluate Organization, Base Facilities and Aircraft Equipment (observe, approve or disapprove)					
33.1 (O)	1) Airman/Cabin Crew training (classroom, simulator & aircraft training)					
33.2 (O)	2) Airman/Cabin crew testing and certification (airmen, crew members and dispatchers, as applicable)					
33.3 (O)	3) Station facilities inspection (equipment, procedures and personnel)					
33.4 (O)	4) Record keeping procedures inspection (documentation of training, flight and duty times, flight paper, etc)					
33.5 (O)	5) Flight Operations (dispatch, flight following or flight locating capabilities)					
33.6 (A)	6) Approved maintenance programme procedures inspection					
33.7 (A)	7) Maintenance activities (facilities, personnel, technical information, spare parts, etc)					
33.8 (A)	8) Aircraft inspection (conformity inspection, aircraft maintenance records, etc)					

33.9 (A)	9) Minimum Equipment List and Configuration Deviation List inspection (compliance with airplane owner's manual/airplane flight manual maintenance procedures, etc)					
33.10 (O)	10) Mass and balance control inspection (procedures, accuracy and document control)					
33.11 (O)	11) Emergency evacuation demonstration (aborted take off and/or ditching demonstrations)					
33.12 (A/O)	12) Aircraft proving test (Ref ICAO 8335-AN/879 : 5.5.4)					
33.13 (A/O)	13) Any other event appropriate for the type of operation to be conducted					
34 (O)	B) Evaluate Operator Conducting Training (classroom, simulators, aircraft)					
34.1	1) Training facilities					
34.2	2) Training schedules					
34.3	3) Flight crew member Training Evaluation					
34.3.1	a) Company procedures indoctrination					
34.3.2	b) Emergency equipment drills training					
34.3.3	c) Ground training					
34.3.4	d) Flight training					
	e) Differences Training					
34.4	4) Check Airmen/Instructor					

34.5	5) Cabin Crew Training Evaluation					
34.5.1	a) Company procedures Indoctrination					
34.5.2	b) Ground Training					
34.5.3	c) Emergency Equipment Drills Training					
34.6	6) Crew Resource Management					
34.7	7) Flight Supervision and Monitoring/ Flight Following					
34.8	8) Dangerous Goods Training					
34.8.1	a) Crew members					
34.8.2	b) Ground personnel					
34.9	9) Security Training					
34.10	10) Maintenance Training					
34.10.1	a) Training programme					
	ix) Maintenance Personnel					
	x) Quality assurance personnel					
34.10.2	b) Individual responsible for Maintenance training					
34.10.3	c) Training Facilities					
34.10.4	d) Training records					
34.11	11) Testing/Certification					
34.11.1	a) Pilots					
34.11.2	b) Flight Engineers (where applicable.					
34.11.3	c) Flt/ops/officers					

34.11.4 (C)	d) Cabin crew					
35 (A/O)	C) Aircraft Conformity Inspection (confirmation of actual a/c documents, etc)					
36 (A/O)	D) Main Operational Base					
37 (O)	E) Station/Facilities (Operations)					
38 (A)	F) Station/Facilities Maintenance)					
39 (O)	G) Flight Supervision and Monitoring/Flight Following					
40 (O)	H) Record Keeping Procedures					
40.1	1) Crew member					
40.1.1	a) Training					
40.1.2	b) Flight & Rest times					
40.1.3	c) Qualifications					
40.1.4	d) Location of records					
40.2 (A)	2) Maintenance					
40.2.1	a) Aircraft records					
40.2.2	b) Maintenance Personnel training					
40.2.3	c) Location of records					
40.2.3.1	i) Individual responsible for maintenance					
40.2.3.2	ii) Quality Manager & Staff					
40.2.3.3	iii) Contract employees					
41 (O)	I) Flight/Trip Records					
	Records of periodic crew tests					
	xi) All crew – emergency/ survival					
	xii) All pilots – annual instrument rating renewal line checks					

	xiii) Six months checks					
	xiv) Instrument approach proficiency					
	xv) Recency checks					
42 (O/C)	J) Emergency Evacuation Demonstration					
43 (O/C)	K) Ditching Demonstration					
44 (CPM)	L) Financial capability. (ICAO 8335-AN-879, 3.21.c3 ; 3.3.2.8f;4.2a)					Referred to DATR on ……
45 (CPM)	M) Certified proof of insurance					
	Remarks					

Part F

Task #	Certification Phase	Inspectors Initials	*S/US (if US, action to be taken)	Date Received/ Accomplished	Date Returned for Changes	Remarks
46 (CPM)	A) Prepare Certification Report					
46.1	1) Assemble Report					
46.1.1	a) Formal application letter/form of intent and attachments					
46.1.2	b) Final compliance statement (by NCAA)					
46.1.3	c) Copy of operations specifications					
46.1.4	d) Copy of Certificates					
47 (CPM)	B) Submit Report to DOT					
48 (CPM)	C) Prepare Operations Specifications					
49 (CPM)	D) Present Certificate & Operations Specifications					
50 (CPM)	E) Develop Post Certification Surveillance Programme					
50.1	1) Within Geographic Area					
50.2	2) Outside Geographic Area					
	Remarks					

I have hereby reviewed this Form and declare conformity to the established Nigerian CAR's:

CPM's Name: _____

Signature: _____

Date: _____

AOC Number: _____

CL: O-OPS 035 FOREIGN AIRCRAFT SAFETY ASSESSMENT PROGRAMME

Proof of Inspection Form No: ……

Date:	Time:	Place:	
Operator:		State:.00	AOC No:
Route From:	Flight No:	Route to:	Flight No:
Flight Type:	Chartered by Operator:	Aircraft Type:	Aircraft Configuration:
Charterer's State:		Registration No:	Construction No:
Flight Crew State Licensing:	Acknowledgement of Receipt (*)		
1.	Name:		
2.	Signature:	Reasons for refusing to sign:	
	Functions:		

Nigerian Civil Aviation Authority
Flight Standards Group (FSG)
Murtala Muhammed Int'l Airport
P.M.B. 21029, 21038, Ikeja
Lagos, Nigeria
Phone: +234 8150647938
Fax: +234 8077291113
Email:fasap.ncaa@gmail.com

A	Flight Deck	Check	Remark
1	General Condition		
2	Emergency Exit		
3	Equipment		
	Documentation		
4	Manuals		
5	Checklists		
6	Radio Navigation Charts		
7	Minimum Equipment List		
8	Certificate of Registration		
9	Noise Certificate (where Applicable)		
10	AOC or equivalent		
11	Radio License		
12	Certificate of Airworthiness (CofA)		
	Flight Data		
13	Flight Preparation		
14	Weight and Balance Sheet		
	Safety Equipment		
15	Hand Fire Extinguishers		
16	Life Jacket/Flotation Devices		
17	Harness		
18	Oxygen Equipment		
19	Flash Light		

	Flight Crew	Check	Remark
20	Flight Crew License		
	Journey Logbook/Technical Log or equivalent		
21	Journey Logbook or equivalent		
22	Maintenance Release		
23	Defect notification and rectification including Tech Log		
24	Pre-flight inspection		
B	**Safety / Cabin**		
1	General Internal Condition		
2	Cabin Attendant's Station and crew rest area		
3	First Aid Kit/ Emergency Medical Kit		
4	Hand fire extinguisher		
5	Life Jacket/ Flotation Devices		
6	Seat Belt and seat condition		
7	Emergency exit, lighting and marking, Torches		
8	Slides/ life-Rafts (as Required) ELT		
9	Oxygen Supply (Cabin Crew and Passenger)		
10	Safety Instructions		
11	Cabin Crew Members		
12	Access to emergency exits		
13	Safety of passenger baggage		
14	Seat capacity		

C	Aircraft Condition	Check	Remark
1	General external Condition		
2	Doors and Hatches		
3	Flight Controls		
4	Wheels, Tyres and Brakes		
5	Undercarriage, skids/floats		
6	Wheelwell		
7	Powerplant and pylon		
8	Fan blades		
9	Propellers, Rotors (Main/tail)		
10	Obvious repairs		
11	Obvious unrepaired damage		
12	Leakage		
D	**Cargo**		
1	General Condition of cargo compartment		
2	Dangerous Goods		
3	Safety of cargo on board		
E	**General**		
1	General remarks		

Class	Action taken	Check	Findings**	
3C	Aircraft grounded by NCAA		Item	Remarks
3B	Corrective actions before flight			
3A	Restrictions on the aircraft operation			
2	Information to the Authority and operator			
1	Information to the Captain			

1. Inspector Name, Credential No. and Sign.	4. Inspector Name, No. and Sign.
2. Inspector Name, Credential No. and Sign	5. Inspector Name, No. and Sign.
3. Inspector Name, Credential No. and Sign	6. Inspector Name, No. and Sign.

(*) Signature by any member of the crew or other representative of the inspected operator does in no way imply acceptance of the listed findings but simply a confirmation that the aircraft has been inspected on the date and at the place indicated on this document. This report represents an indication of what was found on this occasion and must not be construed as a determination that the aircraft is fit for the intended flight. Data submitted in this report can be subject to changes for correct wording upon entering into the FASAP database. Additional paper may be used to record findings

No:……

FASAP Ramp Inspection Detailed Findings Form

Date:	Time:	Place:	
Operator:		State:	AOC No:
Route From:	Flight No:	Route To:	Flight No:
Flight Type:	Chartered by Operator:	Aircraft Type:	Aircraft Configuration:
Charterer's State:		Registration Mark:	Construction No:

Item Code	Remark

(*) Signature by any member of the crew or other representative of the inspected operator does in no way imply acceptance of the listed findings but simply a confirmation that the aircraft has been inspected on the date and at the place indicated on this document. This report represents an indication of what was found on this occasion and must not be construed as a determination that the aircraft is fit for the intended flight. Data submitted in this report can be subject to changes for correct wording upon entering into the FASAP database. Additional paper may be used to record findings

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

RESERVED

NIGERIAN CIVIL AVIATION AUTHORITY

AVIATION HOUSE

P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS 037 EVALUATION ROUTE MANUAL

Record ID:	Protocol #	Inspector:	Action Taken:
Air Operator/Organization:		Type of Operation:	Date Accomplished:
Title of Manual reviewed:			

Instructions for Use:

1. Check **`S'** column if you reviewed the record, procedure or event and it is **`Satisfactory'**.
2. Check **`U'** column if you reviewed the record, procedure or event and it is **`Unsatisfactory'**.
3. Check **NS** (**not seen**) column if you did not review the record, procedure or event or you do not have adequate information to make a valid comment.
4. Check **NA** (**not applicable**) column, if the line item is not required in this particular situation.
5. 'Enter any notes on reverse side regarding a 'U' answer for transfer to the Safety Issues Resolution Report.
6. For later reference, precede any notes with the appropriate question number

SN	OVERALL MANUAL PRESENTATION	S	U	NS	NA
1.	Bound in a secure form (not loose)?				
2.	Binder is 3 or 4 ring?				
3.	Exterior of binder clearly indicates manual content?				
4.	Prepared in English language?				
	MANUAL CONTROL PROCESS	**S**	**U**	**NS**	**NA**
5.	Copies numbered for controlled issuance?				
6.	Name or title of each person who holds a copy?				
7.	Amendment issuance tracking process?				
8.	Statement that the operations manual contains operating instructions which are required to be complied with by all personnel?				
9.	Statement of Compliance				
	MANUAL REVISION PROCESS	**S**	**U**	**NS**	**NA**
10.	Revision Instructions adequate?				
11.	Revision page for proper revision entry?				
12.	List of effective pages provided and correct?				
13.	Last revision to individual pages identified?				
	MANUAL REFERENCING SYSTEM	**S**	**U**	**NS**	**NA**
14.	Table of contents easy to find and use?				
15.	Index, if included, easy to find and use?				
16.	Tabbed as necessary for usability without difficulty?				
	INDIVIDUAL PAGE PRESENTATION	**S**	**U**	**NS**	**NA**
17.	Page numbered in chronological sequence (by chapter or single document?				
18.	Last revision number/date appears on each page?				
19.	Company name (and logo) appears on each page (exception – 20)?				
20.	If manufacturer's document is submitted in lieu of a company manual, does the manufacturer's name appear on each page?				
21.	For all manufacturers' documents submitted, a manufacturer's letter or reference document is provided to substantiate current revision number/date?				
	PARAGRAPH NUMBERING	**S**	**U**	**NS**	**NA**
22.	Paragraphs and sub-paragraphs numbered or alphabetized for ease of reference?				
	SUPPLEMENTARY CONTENT REFERENCING	**S**	**U**	**NS**	**NA**
23.	Tables referenced for ease of use?				
24.	Figures referenced for ease of use?				
25.	Appendices referenced for ease of use?				

	MANUAL CONTENTS CONFORMANCE	S	U	NS	NA
26.	Types and areas of operations to be conducted.				
27.	A description of the aeronautical charts that must be carried on board in relation to the type of flight and the route to be flown, including the method to check their validity				
28.	System for obtaining weather reports and forecasts used for decisions regarding flight preparation, routing and terminal operations ;				
29.	Instructions and information relating to Minimum flight level/altitude				
30.	Instructions and information relating to Operating minima for departure, destination and alternate Aerodrome/Heliports				
31.	Availability of aeronautical information				
32.	Instructions and information relating to Runway data and Aerodrome/Heliport facilities				
33.	Instructions and information relating to Approach, missed approach and departure procedures including noise abatement procedures				
34.	Instructions and information relating to Communication facilities and navigation aids				
35.	En-route COM/NAV procedures				
36.	Instructions and information relating to COM-failure procedures				
37.	Instructions and information relating to Search and rescue facilities in the area over which the Aircraft is to be flown				
38.	Aerodrome/ Heliport categorization for flight crew competence				
39.	Special Aerodrome/ Heliport limitations (performance limitations and operating procedures etc)				
	MANUAL EXCERPTS PROPERLY REFERENCED?	**S**	**U**	**NS**	**NA**
40.	Condensed Charts compared and current?				
	COMPLIANCE WITH REQUIREMENTS	**S**	**U**	**NS**	**NA**
41.	Complies with Nigerian CARs Part 9.3.1.20?				
42.	Complies with NCAA Guidance Reference: AOC Administration?				

RECOMMEND ACCEPTANCE: ☐ YES ☐ NO (Reasons cited below)

REMARKS & OBSERVATIONS

_____

INSPECTOR SIGNATURE

Additional comments attached ☐ =>

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS 038 EVALUATION OF QUALITY MANUAL

Record ID:	Protocol #	Inspector:	Action Taken:
Air Operator/Organization:	Date Accomplished:	Type of Operation:	Location:
Title of Manual reviewed:			

Instructions for Use:

1. Check `**S**' column if you reviewed the record, procedure or event and it is `**Satisfactory'**.
2. Check `**U**' column if you reviewed the record, procedure or event and it is `**Unsatisfactory'**.
3. Check **NS** (**not seen**) column if you did not review the record, procedure or event or you do not have adequate information to make a valid comment.
4. Check **NA** (**not applicable**) column, if the line item is not required in this particular situation.
5. 'Enter any notes on reverse side regarding a 'U' answer for transfer to the Safety Issues Resolution Report.
6. For later reference, precede any notes with the appropriate question number

SN	OVERALL MANUAL PRESENTATION	S	U	NS	NA
1.	Bound in a secure form (not loose)?				
2.	Binder is 3 or 4 ring?				
3.	Exterior of binder clearly indicates manual content?				
4.	Prepared in English language?				
	MANUAL CONTROL PROCESS	**S**	**U**	**NS**	**NA**
5.	Copies numbered for controlled issuance?				
6.	Name or title of each person who holds a copy?				
7.	Amendment issuance tracking process?				
8.	Statement that the manual contains instructions which are required to be complied with by all personnel?				
9.	Statement of Compliance with relevant regulations?				
	MANUAL REVISION PROCESS	**S**	**U**	**NS**	**NA**
10.	Revision Instructions adequate?				
11.	Revision page for proper revision entry?				
12.	List of effective pages provided and correct?				
13.	Last revision to individual pages identified?				
	MANUAL REFERENCING SYSTEM	**S**	**U**	**NS**	**NA**
14.	Table of contents easy to find and use?				
15.	Index, if included, easy to find and use?				
16.	Tabbed as necessary for usability without difficulty?				
	INDIVIDUAL PAGE PRESENTATION	**S**	**U**	**NS**	**NA**
17.	Page numbered in chronological sequence (by chapter or single document?				
18.	Last revision number/date appears on each page?				
19.	Company name (and logo) appears on each page?				
	PARAGRAPH NUMBERING	**S**	**U**	**NS**	**NA**
20.	Paragraphs and sub-paragraphs numbered or alphabetized for ease of reference?				
	SUPPLEMENTARY CONTENT REFERENCING	**S**	**U**	**NS**	**NA**
21.	Tables referenced for ease of use?				
22.	Figures referenced for ease of use?				
23.	Appendices referenced for ease of use?				

	MANUAL CONTENTS CONFORMANCE	S	U	NS	NA
	Organization and Management				
24.	Organizational Chart?				
25.	Quality Manager?				
	Quality Management	**S**	**U**	**NS**	**NA**
26.	Quality Policy?				
27.	Clearly defined lines of quality accountability throughout the organization?				
28.	Direct accountability for quality on the part of senior management?				
29.	Compliance monitoring includes a feedback system to the accountable manager to ensure corrective action as necessary?				
30.	Quality system includes a quality assurance programme?				
31.	Quality assurance programme contains procedures designed to verify that all operations are being conducted in accordance with all applicable requirements, standards and procedures?				
32.	System for monitoring the continuing compliance with the requirements of the regulations?				
33.	For maintenance purposes, quality system includes monitoring that the activities of the Safety Management System are being performed in accordance with the accepted procedures?				
34.	Procedures for ensuring that contracted maintenance is carried out in accordance with the contract?				
	COMPLIANCE WITH REQUIREMENTS	**S**	**U**	**NS**	**NA**
35.	Complies with Nigerian CARs Part 9.2.2.3 and IS 9.2.2.3?				
36.	Complies with NCAA Guidance Reference: AOC Administration?				

RECOMMEND ACCEPTANCE: ☐ YES ☐ NO (Reasons cited below)

REMARKS & OBSERVATIONS

_____

INSPECTOR SIGNATURE

Additional comments attached ☐ =>

NIGERIAN CIVIL AVIATION AUTHORITY

AVIATION HOUSE

P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

Adding Aircraft to Operations Specifications Job Aid

Operator:	**Carrier ID:**

Aircraft Registration #:	**M/M/S:**

State of Operator:	**State of Registry:**

Documents submitted by operator:	**Operator's Date/Initial**	**Date/Initial IFO Reviewed**	**Date/Initial IFO Accepted**
1) Letter requesting the addition of aircraft including;			
a) Make/Model/Serial Number, Registration Number, and Serial Number;			
b) State of Registry; 1. Copy of Airworthiness Certificate 2. Copy of Registration 3. Copy of Radio License			
c) Noise state compliance;			
d) How many seats it was certificated with and how many it has installed;			
e) How many Cabin Crew it must carry, if any;			
2) Copy of current Foreign Operations Specifications showing :			
a) Proposed aircraft type (if new type)			
b) Route authority,			
c) Type of operations (cargo/passenger, or combination)			
d) Approved dispatch system.			
e) Regular and alternate authorized Nigerian airports. **(NOTE: In accordance with Annex 6, Part 1, subparagraph 6.1.2, if Operations Specifications are issued by the State of the Operator in a language other than English, an English translation shall be included.)**			

Documents submitted by operator:	Operator's Date/Initial	Date/Initial IFO Reviewed	Date/Initial IFO Accepted
3) Copy of lease agreement(s) or written memorandum, as applicable (wet/dry) or interchange agreement indicating who has operational control and who is responsible for the airworthiness of the aircraft.			
4) Proof that applicable Maintenance Program is approved by the State of Operator or State of Registry.			
5) Documents that show the following aircraft requirements:			
a) AD Compliance Listing;			
b) Proof that aircraft is TCAS equipped (required for more than 9 passenger seats);			
c) Proof that aircraft are Stage III equipped;			
d) Aircraft Weight and Balance documents (date last weighed/basic operating weight/etc.);			
e) Current FDR read out in accordance with Annex 6, Part 1, Chapter 6;			
f) Flight deck door compliance in accordance with Nig. CARs Part 8 ; (Verify list of approved modifications)			
g) Verify compliance with Continued Airworthiness Safety Improvements;			
h) Verify compliance with Annex 6.15 (TWAS/EGPWS) as applicable;			
i) Verify RVSM approval.			
6) Verify that applicable MELs is approved by the State of Operator or by the State of Registry.			
7) Runway analysis for applicable Nigerian airports (unless previously submitted)			
8) List of flight crewmembers with date, company, and location of last proficiency check.			

Documents submitted by operator:	Operator's Date/Initial	Date/Init ial IFO Reviewed	Date/Initial IFO Accepted
9) Crewmembers licensing requirements i.a.w. Nig. CARs Part 2 (if Nigerian-registered)			
10) Provide NCAA a copy of current economic authority			
11) Provide NCAA with Certificate of Insurance.			

This section below is to be completed by FSG Inspectors

12) Generate two copies of Operations Specifications, print & sign (if not electronic)

	Operations	Airworthiness	Avionics
13) Principal Inspectors completed evaluation initials :	_____ Signature/Date	_____ Signature/Date	_____ Signature/Date

The following activity number codes will be used, but not limited to, for adding aircraft to Operations Specifications. Any of the activity codes below that are not specifically witnessed will be closed with comments on verification of completion by the host country CAA and where specifically in the Air Carrier's Manual the procedure is found.

OPERATIONS

Activity Code	Description	Inspector ID
1310	Approve Ground Ice/Anti-ice Program (Nig. CARs Part 9.3.1.22)	
1322	Minimum Equipment List (MEL) approval (Nig. CARs Part 9.3.1.12)	
1327	Operation Specifications Revision.	
1328	Process / Evaluate deviation requests (Nig. CARs Part 9.2.3.5 & 6)	
1330	Evaluate Dispatch	
1333	Review State of the Operator's Operations Specifications	
1343	Evaluate Aircraft Lease	
1411	Evaluate aircraft/equipment/RVSM full, if applicable	
1413	Aircraft/Equipment /Approval/RVSM Others	

AIRWORTHINESS

Activity Code	Description	Inspector ID
3303	Evaluate Maintenance Records Systems (Nig. CARs 9.3.2), if different M/M	
3306	Evaluate Training Revision /Revision System. (Nig. CARs 9.3.2) if different M/M	
3312	Minimum Equipment list (MEL) approval. (Nig. CARs 9.3.1.12)	
3316	Operation Specifications Revision.	
3329	Evaluate Weight and Balance Control. if different M/M	
3337	Evaluate Additional Aircraft TechDocs	
3338	Evaluate Operators Shops and Facilities. (Nig. CARs 9.3.2) if different M/M	
3339	Evaluate Maintenance Contract Facility. (Nig. CARs 9.3.2) if different M/M	
3340	Evaluate Maintenance Support Facility. (Nig. CARs 9.3.2) if different M/M	
3341	Evaluate Operators Inspection Program. if different M/M	
3345	Evaluate Structural Inspection program. (Nig. CARs 9.3.2) if different M/M	
3346	Evaluate Engineering Orders / AD Implementation. (Nig. CARs 9.3.2)	
3351	Evaluate Technical Manuals / Documents. (Nig. CARs 9.3.2)	
3352	Evaluate Personnel Records. (Nig. CARs 9.3.2)	
3359	Evaluate Aircraft Lease.	
3411	Evaluate aircraft/equipment/RVSM full, if applicable	
3413	Aircraft/Equipment/Approved/RVSM Others	

AVIONICS

Activity Code	Description	Inspector ID
5303	Evaluate Maintenance Records Systems (Nig. CARs 9.3.2), if different M/M.	
5306	Evaluate Training Revision /Revision System (Nig. CARs 9.3.2) if different M/M	
5313	Minimum Equipment List (MEL) Approval. (Nig. CARs 9.3.1.12) if different M/M	
5315	Operations Specs Revision	
5329	Evaluate Weight and Balance Control.	
5337	Evaluate Aircraft Additional	
5338	Evaluate Operators Shops and Facilities (Nig. CARs 9.3.2) if different M/M	
5339	Evaluate Maintenance Contract Facility (Nig. CARs 9.3.2) if different M/M	
5340	Evaluate Maintenance Support Facility. (Nig. CARs 9.3.2) if different M/M	
5341	Evaluate Operators Inspection Program. (Nig. CARs 9.3.2) if different M/M	
5342	Evaluate Revisions to Operators Inspection program. (Nig. CARs 9.3.2) if different M/M	
5346	Evaluate Engineering Orders / AD Compliance. (Nig. CARs 9.3.2)	
5351	Evaluate Technical Manual / Documents. (Nig. CARs 9.3.2)	
5352	Evaluate Personnel Records (Nig. CARs 9.3.2)	
5358	Evaluate Maintenance Records. System. (Nig. CARs 9.3.2) if different M/M	
5411	Evaluate aircraft/equipment/RVSM full, if applicable	
5413	Aircraft/Equipment/Approval/RVSM Others	

NIGERIAN CIVIL AVIATION AUTHORITY

AVIATION HOUSE

P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS 040 GROUND OPERATIONS RAMP INSPECTION

Instructions for Use:

1. Check **`S'** column if you reviewed the record, procedure or event and it is **`Satisfactory'**.
2. Check **`U'** column if you reviewed the record, procedure or event and it is **`Unsatisfactory'**.
3. Check **NS** (**not seen**) column if you did not review the record, procedure or event or you do not have adequate information to make a valid comment.
4. Check **NA** (**not applicable**) column, if the line item is not required in this particular situation.
5. 'Enter any notes on reverse side regarding a 'U' answer for transfer to the Safety Issues Resolution Report.
6. For later reference, precede any notes with the appropriate question number.

a. Airline:…… Location:…….....

b. Aircraft Type…… Aircraft Registration:……

c. Flight No……Route:…….. Date:……..

d. Captain:……..:……..

e. Flight Dispatcher:…… Lic. No:……Expire…….……..

f. Flight Operations Officer ……. Lic. No:…… Expire ……...

g. Loadmaster:…….....:……..……..

h. Handling Company……:……..

i. Initial/Recurrent Expiration Date:……..……..…

j Dispatcher Evaluation Date……

S/N	MANUALS:	S	U	NS	NA
1.	Current copy of the Flight Operations Manual available?				
2.	Current copy of Flight Dispatch Manual available?				
3.	Current copy of Flight Dispatcher Training available				
	OPERATIONAL FLIGHT PLAN – NAV LOG	**S**	**U**	**NS**	**NA**
4.	"Standard" operational flight plan used for the flight(s)?				
5.	"Standard" ops flight plan appropriate for this flight operation?				
6.	"Standard" flight plan calculated accurately?				
7.	"Manual" operational flight plan/nav log issued for the flight(s)?				
8.	"Manual" ops flight plan appropriate for this flight operation?				
9.	Assigned person accurately computed the manual plan?				
10.	Computer operational flight plan/nav log issued for the flight(s)?				
11.	Computer plan/nav log obtained from an approved source?				
12.	Computer plan/nav log calculated accurately?				
13.	Copy of the signed operational plan – nav log retained?				
14.	Operational flight plan/nav log formats, examples and completion procedures accurately described in the Operations Manual?				
15.	Revision Status of Current Flight Plan				
	WEATHER	**S**	**U**	**NS**	**NA**
16.	Complete weather briefing received by the flight crew?				
17.	Weather data obtained from approved source(s)?				
18.	Terminal weather observations appropriate for the flight?				
19.	Terminal weather forecasts appropriate for the flight?				
20.	Enroute weather appropriate for the flight?				
21.	Significant weather synopsis appropriate for the flight?				
22.	Winds aloft forecasts appropriate for the flight?				
23.	Upper Air pressure charts appropriate for the flight?				
24.	Severe weather reports and forecasts appropriate for the flight?				
25.	"Real-time" weather displays available for consultation?.				
26.	Weather data consistent with that used for ops plan/nav log?				
27.	Flight plan routing the best for the forecast weather?				
28.	Weather data appropriate to the flight(s) retained?				
29.	Weather data formats, examples and instructions accurately				

	described in the Operations Manual?				
	SELECTION OF ALTERNATES	**S**	**U**	**NS**	**NA**
30.	Appropriate takeoff alternate selected?				
31.	Appropriate enroute alternates selected?				
32.	Appropriate destination alternate selected?				
33.	Alternates included in ops plan – nav log?				
	AERONAUTICAL DATA	**S**	**U**	**NS**	**NA**
34.	Appropriate notam data provided to the flight crew?				
35.	Notam data obtained from an approved source?				
36.	Route guide and nav charts available to operational control?				
37.	Nav log coordinates compared to the nav charts coordinates?				
38.	Aircraft specific takeoff and landing performance available?				
39.	Takeoff performance manually calculated?				
40.	Appropriate obstacle data use in the takeoff calculation?				
41.	T/O and Ldg performance data from an approved source and current?				
42.	Takeoff and landing performance data computer-generated?				
43.	Date & Revision Status of Runway Analysis Data				
	MINIMUM FUEL SUPPLY	**S**	**U**	**NS**	**NA**
44.	Flight planning minimum fuel calculations based on weights approximated from a valid source?				
45.	Minimum fuel supply appropriate for aircraft and operation?				
46.	Minimum fuel contingencies considered?				
47.	Fuel/oil uplift information available?				
	LOAD MANIFEST & SERVICING FORMS AVAILABLE	**S**	**U**	**NS**	**NA**
48.	Completed load manifest for the flight(s) available?				
49.	Source record for aircraft empty and basic operating weights available?				
50.	Load manifest contain the four takeoff weight limitations?				
51.	Load manifest contain the variable parameters for takeoff?				
52.	Takeoff and landing weights, e.g. and the stabilizer settings accurately calculated?				
53.	Standard passenger and baggage weights authorized and used properly?				
54.	Actual weights required and used properly				
55.	Approved method of computer load manifest calculation used?				
56.	Manual calculation yield the same results as the computer?				
57.	Presence of dangerous goods properly manifested?				
58.	Load manifest updated for the last minute changes?				
59.	Update posted in the flight preparation records before takeoff?				
60.	Update communicated to the flight crews?				
61.	Copy of the signed load manifests retained?				
62.	Load manifest examples and completion procedures accurately described in the Operations Manual?				
63.	Loading of Aircraft acceptable				
64.	Passenger manifest (and compared)?				
65.	Date & Revision Status of Mass & Balance Data				
	ATS STATUS	**S**	**U**	**NS**	**NA**
66.	ATS flight planned filed?				
67.	Operation conducted under instrument flight rules?				
	OVERALL ASSESSMENT	**S**	**U**	**NS**	**NA**
68.	Marshalling of Aircraft?				
69.	Aircraft Security measures?				
70.	Personnel were competent and proficient?				
71.	Compliance with Operations Manual, except where noted.				
72.	Adequate facilities and equipment available for required tasks.				

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REMARKS & OBSERVATIONS
INSPECTOR NAME:_____ **SIGNATURE**:_____ **DATE:** _____

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS 040A GROUND HANDLING SERVICE PROVIDER (GHSP) RAMP INSPECTION

Instructions for Use:

1. Check `**S**' column if you reviewed the record, procedure or event and it is `**Satisfactory'**.
2. Check `**U**' column if you reviewed the record, procedure or event and it is `**Unsatisfactory'**.
3. Check **NS** (**not seen**) column if you did not review the record, procedure or event or you do not have adequate information to make a valid comment.
4. Check **NA** (**not applicable**) column, if the line item is not required in this particular situation.
5. 'Enter any notes on reverse side regarding a 'U' answer for transfer to the Safety Issues Resolution Report.
6. For later reference, precede any notes with the appropriate question number.

a. Handling Company:……Airline/Location:……..…….....
b. Aircraft Type…… Aircraft Registration:…….
c. Flight No……Route:…… Date:……..
d. Captain:……..:……..
e. Duty Officer:……
f. Equipment Operating Officer ……..
g. Equipment Type…….……..:……..……..
h. Equipment Operating Officer……..……..
i. Equipment Type:……..……..…
j. Equipment Operating Officer ……
k. Equipment Type:……..……..…

S/N	PRE- ARRIVAL:	S	U	NS	NA
1.	Ground personnel are ready and in position before flights arrive				
2.	Vehicles and equipment approach aircraft only after aircraft anti-collision light is turned off				
3.	Chocks are positioned				
4.	Chocks are in good condition				
5.	Aircraft are parked only in approved parking stands, with nose wheel on appropriate mark				
6.	FOD has been removed from the apron parking, approach and departure paths, as well as any obstructions prior to arrival and immediately after departure of an aircraft				
7.	Chocks are properly stowed				
8.	The apron and parking areas are free of any fuel or hydraulic oil spills				
9.	Marshaller is in position before aircraft arrival				
10.	Marshallers use appropriate internationally recognized hand signals to give guidance to aircraft				
11.	Ground crew check around aircraft for passengers, personnel, vehicles and other aircraft before giving engine start-up signal				
12.	FOD is picked up and disposed of in designated containers				
13.	Equipment and vehicles are free of FOD				
	BAGGAGE/CARGO HANDLING:	**S**	**U**	**NS**	**NA**
14.	Ground handling vehicles and equipment do not block fuel truck exit				
15.	All Equipment brakes are tested. Brake pedals do not show signs of wear, tires are in good condition				
16.	All equipment is checked to ensure it is not producing metallic FOD (rusted metal pieces etc.)				
17.	Baggage tractors do not haul trailers/carts more than specified				
18.	Trailer/Cart brakes are applied (handle up) or if no brakes are chocked when not being towed				
19.	Tractors operate at walking speed around aircraft				

20.	Tractors/ mobile equipment are operated with caution around fuel hydrant pit, hoses, safety lanyards and bonding cables during refueling operations				
21.	Prepositioned trailers/carts are parked in appropriate areas with brakes and/or chocks applied				
22.	Spills of any hazardous materials are reported promptly to captain, senior ground handling supervisor and CAA				
	PASSENGER HANDLING:	**S**	**U**	**NS**	**NA**
23.	Disembarkation of passengers occurs only when aircraft anti-collision lights have been turned off. (In the originating gate and in the gate adjacent to port side of aircraft.)				
24.	Air stairs are placed and locked in placed (chocked) before Disembarkation / embarkation commences				
25.	Safety cones are placed beneath each wing, in front of engines and as clear guides to passengers. Passengers not allowed under wing				
26.	Airline, or their ground handling agents lead passengers to and from aircraft by most expeditious and safe route, using lanes designated by cones placed by the airline/handling agent				
27.	Passengers are warned, when required, to walk in designated lanes or areas, not to smoke, not to use cell phones within 15m of refueling, not to throw trash, etc				
28.	Surrounding areas are clear of passengers when an aircraft powers in to a parking stand.				
29.	Passengers proceed expeditiously to the bus and do not loiter on the apron				
30.	Passengers not allowed to retrieve baggage on the apron				
31.	Passenger Disembarkation onto apron is controlled to ensure that adequate busses are available before Disembarkation				
32.	Bus parking brake applied and engine off during boarding/unloading process				
33.	Ground handler to check bus doors before closing to ensure that they are unobstructed				
34.	Bus not left unattended on the apron or on airside roads				
35.	Designated passenger walkways are clear of oil, hydraulic fluid and fuel spills				
36.	Loaded bus follows designated roadways at or below speed limit				
37.	Passenger embarkation at terminal is controlled to ensure that passengers do not wander onto airside or airside roads				
	FUELING				
38.	Fuelling vehicles are positioned to allow rapid removal of aircraft and other servicing vehicles during an emergency				
39.	Refueling hoses and hydrant pits are clearly seen before fuelling commences and during fuelling.				
40.	Fuelling is controlled by a flight crew/engineer member and a fuel company representative				
41.	Fuelling vehicle brakes are set before refueling commences				
42.	Fire extinguisher on fuel vehicle is within certification dates				
43.	Fire extinguishers on air side are clear of all obstructions				
44.	Fuel vehicle has appropriate quantities of fuel absorbent material to clean up small spills				
45.	No vehicles are parked or stopped under aircraft wing tank vents				
46.	Cell phones are not used within 15 meters of a refueling aircraft				
47.	There is no smoking by any person on the apron				
48.	No vehicle/equipment parked or stopped within 5 meters of an aircraft which is being refueled starts its engines (or with running engines) while refueling is taking place during refueling				
49.	Ground Handler has verified that hot surfaces on aircraft engines , brakes and auxiliary power units (APU's) will not interfere with fuelling operations				
50.	Fuelling with passengers aboard the aircraft takes place only at airlines request				

51.	Passenger boarding is not allowed on an aircraft in the refueling process				
52.	Fuel spills are reported promptly to aircraft pilot and senior ground handler				
	OTHER SERVICES				
53.	Lav/Water Trucks are properly connected to aircraft				
54.	Lav /water truck when reversing up to aircraft has a guide and reversing alarm				
55.	Leakage/spillage from Lav truck in gate area is cleaned up				
56.	Lav/ water truck Engines are turned off during servicing				
57.	Lav/ water truck have brakes or chocks during servicing of aircraft				
58.	Catering vehicle is guided into and out of position				
59.	Catering vehicle stops before contacting aircraft				
60.	Catering vehicle brakes and/or chocks are applied during servicing				
61.	Catering vehicle engine is off during servicing				
62.	Catering vehicle uses a reversing alarm				
63.	Catering vehicle brakes are tested. Brake pedals do not show signs of wear, tires are in good condition				
64.	Catering vehicle is checked to ensure it is not producing metallic FOD (rusted metal pieces etc.)				
65.	Catering vehicle operated with caution around fuel hydrant pit, hoses, safety lanyards and bonding cables during refueling operations when servicing same side of aircraft as fueller				
66.	Are the expected ground handling services within the scope of operations?				
	OVERALL ASSESSMENT	**S**	**U**	**NS**	**NA**
67.	Marshalling of Aircraft?				
68.	Equipment Security measures?				
69.	Personnel were competent and proficient?				
70.	Compliance with Operations Manual, except where noted.				
71.	Adequate facilities and equipment available for required tasks.				

REMARKS & OBSERVATIONS

INSPECTOR NAME:_____ **SIGNATURE**:_____

DATE: _____

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
PMB 21029, 21038, Ikeja, Lagos, Nigeria
CL O-OPS-041

DANGEROUS GOODS SURVEILLANCE CHECKLIST

INSTRUCTIONS FOR USE	
i	Check '**S**' column if you reviewed the record, procedure or event and it is '**Satisfactory**'.
ii	Check '**U**' column if you reviewed the record, procedure or event and it is '**Unsatisfactory**'.
iii	Check **NS** (**not seen**) column if you did not review the record, procedure or did not see it.
iv	Check **NA** (**not applicable**) column, if the line item is not required in this particular situation.
v	Enter any notes on reverse side regarding a 'U' answer.
vi	For later reference, preceed any notes with the appropriate question number.

DOCUMENTATION - Shipper's Responsibility					
NO.	**DESCRIPTION**	**S**	**U**	**NS**	**NA**
1	Has the shipper provided two copies of the DG Transport document/form for each type of consignment?				
2	Is the document/form easy to identify, legible and durable?				
3	Is the document/form completed and signed?				
4	Are the names and addresses of the shipper and the consignee of the DG included on the DG transport document?				
5	**Are the following information used to describe each of the Dangerous substance/material/article offered for transport?**				
	(i) UN Number?				
	(ii) Proper shipping name?				
	(iii) Primary hazzard class?				
	(iv) Subsidary hazzard class?				
	(v) Packing group?				
6	Are they supplied in the above order?				
7	**Is the proper shipping name supplimented with any of the following additional descriptive names (where necessary)?**				

	(i) Technical name?				
	(ii) Empty uncleaned packaging?				
	(iii) Wastes				
	(iv) Elevated temperature substances				
8	Are there information on the quantity of dangerous goods, number and type of packaging used for each of the DG offered for transport?				
9	Are they supplied for each of the DG bearing a diffeerent UN number, Proper shipping name and Packing group?				
10	Are they also clearly stated for different quantities of the same DG?				
11	Is there an attached copy of the Classification Approval and Conditions of Transport for **'self reactive substance'** or **'organic peroxides'** ?				
12	Are there names and phone numbers of individuals responsible for the goods (where the DG being transported are **'infectious/controlled substances')** ?				
13	**Where the DG is a'radio active' material, the following information are to be supplied in the DG transport document.**				
	(i) The name or symbol of each radionuclide				
	(ii) A description of the physical and chemical form of the material				
	(iii) The maximum activity of the radioactive content during transport expresses in units of becquerels (Bq) with a appropriate SI prefix symbol				
	(iv) The category of the package				
	(v) The transport index				
	(vi) The criticality safety index (except 6.7.10.2)				
	(vii) The identification mark of authority appproval certificate				
	(viii) The statement 'EXCLUSIVE USE SHIPMENT' for consignment to be shipped under exclusive use				
	(xi) The total activity of the consignment as a multiple of A2 for LSA-II, LSA-III, SCO-I and SCO-II				

14	**Is there a statement regarding actions to be taken be the carrier (if any) on any of the following?**				
	(i) Supplementary requirements for loading, stowage, carriage, handling and unlocking of the DG?				
	(ii) Restrictions on the type of aircraft and necessary routing instructions?				
	(iii) Emergency arrangements appropriate to the consignment?				
15	Is there detailed packing instructions for the DG?				
16	Are the packing instructions supplied with '**passenger aircraft packing instruction number**' or '**cargo aircraft packing instruction number**' (where applicable)?				
17	Are there special handling instructions (where applicable)?				
18	Is there a statement that an overpack has been used (where applicable)?				
19	Is there a certificate/declaration that the goods are packaged, marked or labelled properlly and in proper condition for transport?				
20	Is it signed and dated by the shipper?				
21	Is is DG transport document written in English?				
ACCEPTANCE PROCEDURE - Operator's Responsibility					
NOS	**DESCRIPTION**	**YES**	**NO**	**REMARKS**	
22	Is the DG accepted by the operator for transport accompanied by two copies of the DG Transport document/form?				
23	Has the operator inspected the DG and found it to be properlly marked and labelled, without leakages and its integrity has not been compromised?				
24	Has the operator established that packages of DG requiring segergation (Table 7-1) are not mixed?				
25	Has the operator established that overpacks of the DG does not contain any packages bearing the 'Cargo aircraft only' label unless:				
26	(i) The packages are assembled in such a way that clear visibility and easy access to them is possible or				
27	(ii) The packages are not required to be accessible under 7;2.4.1.or				
28	(iii) Not more than one package is involved.				

29	**Has the operator established that the following are clearly visible or reproduced on the outside of the overpacks?**				
	(i) Proper shipping names				
	(ii) UN Numbers				
	(iii) Labels				
	(iv) Limited Quantity (when applicable)				
	(v) Special handling instructions				
30	Are all four sides of containers containing radioactive materials correctly labelled?				
31	Are identification tags attached to unit loads of consumer commodities?				
32	**Infectious Substances**				
33	Is the route used to transport infectious substances the quickest possible?				
34	Is a checklist available to assist in the operator's acceptance of DG?				
35	Are the operators acceptance staff adequately trained to carry out their duties?				
36	Has the shipper made provisions for safe keeping of undelivered DG?				
STORAGE AND LOADING					
37	Are dangerous goods bearing the "cargo only" label carried on passenger aircraft?				
38	Are incompatible dangerous goods stowed next to each other on an aircraft?				
39	**Are the following explosives transported on passenger aircraft?**				
	(i) Division 1.3: Compactability Groups C, G				
	(ii) Division 1.4: Compactibility Groups B, C, D, E, G, S				
40	Are single packaging with end closures containing liquid DG loaded and stowed with closures upwards?				
41	Are packages with "cargo aircraft only' and 'hazard warning label' loaded in such a manner that crew members and authorized persons can see the labels?				
42	Has the operator adequately secured the DG in the aircraft to prevent any movement in flight?				
43	Has the operator made adequate arrangements to ensure that damaged or leaking packages of DG are removed and safely disposed?				
44	Has the operator made arrangement for the replacement of dangerous goods packages labels which has become lost of detached?				
45	have unit load devices of DG been properly packed and tagged with an identification tag for easy identification?				

46	Does the tag have a prominent red hatching border on both sides with a minimum dimension of 148mm * 210mm?				
47	Are the primary and subsidary hazard class and division numbers clearly marked on this tag?				
48	**Are the following substamces carried in the same compactment of an aircraft without animals and foodstuffs?**				
	(i) Substances of class 6 (toxic and category A infectious substances)				
	(ii) Substances requiring a subsidary toxic 'label'.				
49	Has the operator made adequate provisions to control the unecessary exposure transport and storage personnel to radiation (in cases where such operator transports such categories of DG).				
50	Has the operator educated her transport and storage personnel on the hazards involved in transporting such goods and necessary procautions to be taken?				
51	Are the radiation level of DG under transport kept under 2mSv/h at any point and 0.1 mSv/h at 2m from the external surface of the aircraft?				
52	Are packages or overpacks having either a transport index greater than 10 or any consignment having criticality safety index greater than 50 transported under exclusive use?				
53	Are groups of packages containing fissile material stored to maintain a spacing of at least 6m from other such groups?				
54	Are type B(M) packages and consignment under 'exclusive use' transported on passenger aircraft?				
	Seperation				
55	Are category II & III Yellow packeges, overpacks or freight seperated from persons?				
56	Are category II & III Yellow packeges, overpacks or freight seperated from undeveloped photographic films and plates.				
57	Are category II & III Yellow packeges, overpacks or freight seperated from live animals.				
58	Is it seperated from the live animal by a distance of at least 0.5meters for a journey not exceeding 24 hours and by a distance of 1.0 meters for journeys longer than 24 hours.				
59	Are self reactive substances or organic peroxides shaded from direct sunlight, stored away from all sources of heat in a well ventilated area?				
INSPECTION AND DECONTAMINATION - Operator's Responsibility					

60	Has packages or overpacks loaded into an aircraft or a unit load device been inspected prior to loading and found free of leakages or damage.				
61	Are aircraft and equipments used regularly for the transport of radio active materials periodically checked to determine the level opf contamination?				
PROVISION OF INFORMATION - Operator's Responsibility					
62	Is the pilot in command been provided with a document concerning the DG that are to be carried as cargo.				
63	**Are the following information provided on the above document:**				
	(i) The airway bill number (when issued)				
	(ii) The Proper shipping name.				
	(iii) The class or division and subsidiary risk.				
	(iv) The packing group				
	(v) The number of packages and their exact loading location				
	(vi) The net quantity and gross mass of each package				
64	**For radioactive materials**				
	(a) The number of packages, overpacks and freight containers				
	(b) Their category, their transport index and their exact loading location				
65	(vii) Whether the package must be carried on cargo aircraft only				
66	(viii) The aerodrome at which the package(s) is to be unloaded				
67	(xi) The telephone number where a copy of the DG information provided to the pilot in command can be obtained				
68	(x) A signed confirmation that there was was no evidence of any damage to or leakage from the packages loaded on the aircraft				
69	Are these information present on a separate, dedicated form and are not part of the DG transport document or airway bills, or invoices?				
70	Is there any evidence of confirmation that the pilot in command has received a copy of the above document?				
71	Is a copy of the above document retained at the operator's base station?				
72	Is the copy readily accessible to the aerodrome of last departure and the next scheduled arrival point?				
73	Are the DG information to the to the pilot written on the above document written in English Language?				
74	Are the employees employed in the transport of DG provided with appropriate manuals to enable the dicharge their duties effectively?				

75	Does the manual cantain information instructions on actions to be taken in the event of an emergency?				
76	Is the appropriate manual also provided to ground handling agents (where applicable).				
77	Is there a procedure to enable the pilot-in-command inform the appropriate air traffic service unit of any in-flight emergency?				
78	Are there established procedures for reporting DG accidents or inncidents to the appropriate authority of the state of the operator and the state in which the accident occurred?				
79	Are there provisions for reporting undecleared or miss declared DG discovered in the cargo?				
80	Are notices giving information about the transport of dangerous goods provided at the acceptance points for DG cargo?				
81	Are they in sufficient number?				
82	Are they prominently displayed?				
	Are the employees employed in the transport of DG adequately trained to enable them dicharge their duties effectively?				
PROVISIONS CONCERNING PASSENGERS AND CREW					
83	Has the operator provided information to the passengers on the types on DG which are forbidden to transport on board an aircraft?				
84	Are notices giving information on the types of DG which passengers are forbidden to transport on board an aircraft?				
85	Are they in sufficient number?				
86	Are they prominently displayed?				
87	**Are they displayed at the following locations:**				
	(i) Where tickets are issued				
	(ii) At the check-in-counter				
	(iii) At the boarding gates/areas				
88	Are the operator's check-in staff adequately trained to enable them identify and detect DG carried by passengers?				
MARKING					
89	Are the markings placed on packagings covered or obscured?				
90	**Are package markings:**				
	i.Durable/printed/affixed to external surface?				
	ii.Readily visible and legible?				
	iii. Able to withstand open weather exposure without substantial reduction in effectiveness?				
	iv. Displayed on a background of contrasting colour?				
	v. Not located with other package markings that could substantially reduce their effectiveness?				

91	Are there arrows other than indicating proper orientation on a package containing liquid dangerous goods?				
92	Are the proper shipping name,UN number and packaging group clearly displayed on unpackaged articles?				
93	Is the UN number "'placed within a diamond" indicated on packages containing limited quantities of dangerous goods.				
EXPLOSIVE					
94	Are the dangerous goods marked with net quantity and gross mass of the package?				
95	Are the markings stamped,printed or otherwise marked with adequate permanency?				
RADIOACTIVE MATERIAL					
96	Are there permissible gross mass clearly displayed on packages exceeding 50kg?				
97	Are the marked packages designed on the outside with receptacle which is resistant to fire and water?				
REFRIGERATED LIQUEFIED GAS					
98	Are there arrows indicating "Package Orientation"?				
DRY ICE					
99	Is the net mass indicated on the package?				
100	**ENVIRONMENTALLY HAZARDOUS SUBSTANCES**				
101	Are the substances durably marked?				
102	Are the markings adjacently located?				
OVERPACKS					
103	Are they clearly marked with the following;Proper shipping name,UN number and special handling nstructions?				
LABELLING					
104	Are the dangerous goods affixed with the following:Subsidiary risk label,danger class label?				
105	Are the labels showing the class or division number?				
106	Are the labels durable enough?				
107	Are radioactive materials indicating their characteristics?				
108	Are the labels on both sides of the package?				
109	Are the labels folded?				
110	Are are labels firmly attached to the packages?				
111	Are magnetized materials indicating the "Magnetized material" label?				
112	Are dangerous materials indicating the handling labels?				
113	Are the dangerous goods within overpack well labelled?				
114	Are there arrows indicated on dangerous goods containing liquid?				

115	Are dangerous goods containing lithium batteries adequately packed bearing "Lithium battery"handle label?				
116	Are the carrying packages indicating four vertically placed placards?				
117	Are the placards of appropriate dimension?				

REMARKS AND OBSERVATIONS

Inspector(s) Name:……. **Signature:…….**

Date: ……..

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS 042 EVALUATION OF SAFETY MANAGEMENT SYSYTEM MANUAL

Record ID:	Protocol #	Inspector:	Action Taken
Operator/Organization:	Date Accomplished:	Type of Operation:	Location:
Title of Manual			

Instructions for Use:

1. Check **'S'** column if you reviewed the record, procedure or event and it is **'Satisfactory'.**
2. Check **'U'** column if you reviewed the record, procedure or event and it is **'Unsatisfactory'**.
3. Check **NS (not seen)** column if you did not review the record, procedure or event or you do not have adequate information to make a valid comment.
4. Check **NA (not applicable)** column, if the line item is not required in this particular situation.
5. Enter any notes on reverse side regarding a 'U' answer for transfer to the Safety issues Resolution Report.
6. For later reference, precede any notes with the appropriate item number.

S/N	OVERALL MANUAL APPEARANCE	S	U	NS	NA
0	COMPLETE CHECKLIST CL: O-OPS 020B				

S/N	A. SAFETY POLICY AND OBJECTIVES				
A.1	**Management Commitment and Responsibility**	**S**	**U**	**NS**	**NA**
1	There is a safety policy in place.				
2	Safety policy reflects organizational commitments regarding safety management.				
3	Safety policy includes a clear statement about the provision of the necessary resources for the implementation of safety policy.				
4	Safety policy includes the safety reporting procedure.				
5	Safety policy clearly indicates which types of operational behaviours are acceptable.				
6	Safety policy clearly includes the conditions under which disciplinary action would not apply.				
7	The safety policy is assigned by the Accountable Manager.				
8	The safety policy is communicated, with visible endorsement throughout the organization.				
9	The safety policy is periodically reviewed to ensure it remains relevant and appropriate to the organization.				
10	There is a formal process to develop a coherent set of safety objectives				
11	The safety objectives are linked to the safety performance indicators, safety performance targets and action plans.				
12	The safety objectives are publicized and distributed				
A.2	**Safety Accountabilities**	**S**	**U**	**NS**	**NA**
13	The Accountable Manager has the ultimate responsibility and accountability for the implementation of the SMS.				
14	The Accountable Manager has responsibility for ensuring that SMS is properly implemented and performing to requirements in all areas of the organization.				
15	The Accountable Manager has full financial control for the operations authorized under the AOC.				
16	The Accountable Manager has full control of human resources required under the authorized operations of the AOC.				
17	The Accountable Manager has direct responsibility for the conduct of the organization's affairs.				
18	The Accountable Manager has final authority over operations authorized to be conducted under the AOC.				
19	The organization has recognized the accountabilities of members of management, irrespective of other functions, as well as of employees, with respect to the safety performance of the SMS.				

20	The safety responsibilities, accountabilities and authorities are documented and communicated throughout the organization.				
21	The organization has included a definition of the levels of management with authority to make decisions regarding safety risk tolerability.				
A.3	**Appointment of Key Safety Personnel**	**S**	**U**	**NS**	**NA**
22	The organization has appointed a qualified person to manage and oversee the day to day operation of the SMS.				
23	The person overseeing the operation of the SMS will fulfill the required job functions and responsibility.				
24	The safety authorities, responsibilities and accountabilities of personnel of all levels of the organization defined and documented.				
A.4	**Coordinating of Emergency Response Planning**	**S**	**U**	**NS**	**NA**
25	The organization has an emergency response/contingency plan appropriate for its size, nature and complexity.				
26	The organization coordinates its emergency response/contingency procedures with those of the other organizations it interfaces with during the provision of services.				
27	The organization has a process to distribute and communicate the coordination procedures to the personnel involved in such interaction.				
A.5	**Documentation**	**S**	**U**	**NS**	**NA**
28	The organization has developed and maintains a safety library for appropriate hazard documentation and documentation management.				
29	The organization has developed and maintains SMS docs. in paper.				
30	The organization has developed and maintains SMS electronically.				
31	The SMS documentation developed describes the SMS and the consolidated interrelationships between all the SMS components.				
32	The service provider has developed its SMS implementation plan and it meets the organization's safety objectives.				
33	The SMS implementation plan has been developed by a person or a planning group which comprises an appropriate experience base.				
34	There is provision for the person or planning group to have resources (including time for meetings) for the development of SMS implementation plan.				
35	The SMS implementation plan is endorsed by senior management.				
36	The SMS implementation plan is regularly reviewed by senior management.				
37	The SMS implementation plan proposes SMS implementation in phases.				
38	The SMS implementation plan explicitly addresses the coordination between this service provider's SMS and the SMS of other organizations it must interface with during the provision of services.				
39	The service provider has developed this safety management system manual (SMSM) as a key instrument for communicating its approach to safety to the whole organization.				
40	This SMSM documents all aspects of SMS including, among others, the safety policy, objectives, procedures and individual safety accountabilities.				
41	This SMSM clearly articulates the role of safety risk management as an initial design activity and the role of safety assurance as a continuous activity.				
42	Relevant portions of SMS-related documentation are incorporated, as applicable into approved documentation, such as company operations manual, maintenance control/policy manual and airport operation manual.				
43	The service provider has a records system that ensures generation and retention of all records necessary to document and support operational requirements.				
44	The service provider's records system is in accordance with applicable regulatory requirements and industry best practices.				
45	The records system provides the control processes necessary to ensure appropriate identification, legibility, storage, protection, archiving. retrieval, retention time, and disposition of records.				
B	**SAFETY RISK MANAGEMENT**				
B.1	**Hazard Identification**	**S**	**U**	**NS**	**NA**
46	The organization has a formal safety data collection and processing system (SDCPS) for effective collection of information about hazards in operations.				

47	The organization has reactive processes that provide of the capture of information relevant to safety and risk management.				
48	The service provider has developed training relevant to reactive methods of safety data collection.				
49	The reactive reporting is simple, accessible and commensurate with the size of the service provider.				
50	Reactive reports are to be reviewed at the appropriate level of management				
51	There is a feedback process to notify contributors that their reports have been received and to share the results of the analysis.				
52	The service provider has proactive processes that actively look for the identification of safety risks through the analysis of its activities.				
53	There is training relevant to proactive methods of safety data collection				
54	Proactive reporting is simple, accessible and commensurate with the size of the service provider.				
55	The service provider has predictive processes that provide the capture of system performance as it happens in real-time normal operations.				
56	There is training relevant to predictive methods of safety data collection.				
57	The service provider has developed communication relevant to predictive methods of safety data collection.				
58	The predictive data capture process is commensurate with the size of the service provider.				
B.2	**Safety Risk Assessment and Mitigation**	**S**	**U**	**NS**	**NA**
59	The organization has developed and maintains a formal process that ensures analysis, assessment and control of the safety risks in the organization.				
60	The organization's SMS documentation clearly articulates the relationship between hazards, consequences and safety risks.				
61	There is a structured process for the analysis of the safety risks associated with the consequences of identified hazards, expressed in terms of probability and severity of occurrence.				
62	There are criteria for assessing safety risks with safety risk tolerability (i.e. the acceptable level of safety risk the organization is willing to accept).				
63	The service provider has safety risk mitigation strategies that include corrective/preventive action plans to prevent recurrence of reported occurrences and deficiencies.				
C	**SAFETY ASSURANCE**				
C.1	**Safety Performance Monitoring and Measurement**	**S**	**U**	**NS**	**NA**
64	The organization has implemented an internal process to verify the safety performance of the organization and to validate the effectiveness of safety risks controls.				
65	The internal process has Safety Reporting System.				
66	The internal process has Safety Studies.				
67	The internal process has Safety Reviews.				
68	The internal process has Safety Audits.				
69	The internal process has Safety Surveys.				
70	The internal process has Safety Investigations.				
71	The safety performance of the organization is verified in reference to the safety performance indicators and safety performance targets of the SMS.				
72	Safety Reports will be reviewed at the appropriate level of management.				
73	There is a feedback process to notify contributors that their reports have been received and to share the results of the analysis.				
74	There are corrective and preventive actions generated in response to hazard identification.				
75	There is a procedure in place for the conduct of internal investigations.				
76	There is a process in place to ensure that occurrences and deficiencies reported are analyzed to identify all associated hazards.				
77	The service provider has a process for evaluating the effectiveness of the corrective/preventive measures that have been developed.				
78	The service provider has a system that monitors the internal reporting process and the associated corrective actions.				
79	There is an audit function with independence and authority required to carry out effective internal evaluations.				

80	The audit system covers all functions, activities and organizations within the service provider.				
81	There are selection/training processes to ensure the objectivity and competence of auditors as well as the impartiality of the audit process.				
82	There is a procedure for reporting audit results and maintaining records				
83	There is a procedure outlining requirements for timely corrective and preventive action in response to audit results.				
84	There is a procedure to record verification of action(s) taken and the reporting of verification results.				
85	There is a process in place to analyze trends.				
C.2	**The Management of Change**	**S**	**U**	**NS**	**NA**
86	The organization has developed and maintains a formal process to identify changes within the organization which may affect established processes and services.				
87	The formal process for the management of change analyze changes to operations or key personnel for safety risks.				
88	The organization has established arrangements to ensure safety performance prior to implementing changes.				
89	The organization has established a process to eliminate or modify safety risk controls that are no longer needed due to changes in the operational environment.				
C.3	**Continuous Improvement of SMS**	**S**	**U**	**NS**	**NA**
90	The organization has developed and maintains a formal process to identify the causes of substandard performance of the SMS.				
91	The organization has established mechanism (s) to determine the implications of substandard performance of the SMS on operations.				
92	The organization has established mechanism (s) to eliminate or mitigate the causes of substandard performance on the SMS.				
93	The organization has a process for the proactive evaluation of facilities, equipment, documentation and procedures (through audits and surveys, etc.).				
94	The organization has a process for the proactive evaluation of an individual's performance, to verify the fulfillment of that individual's safety responsibilities.				
D	**SAFETY PROMOTION**				
D.1	**Training and Education**	**S**	**U**	**NS**	**NA**
95	There is a documented process to identify training requirements so that personnel are trained and competent to perform their SMS duties.				
96	The safety training is appropriate to the individual's involvement in the SMS.				
97	The safety training is incorporated into indoctrination training upon employment.				
98	There is emergency response/contingent training for affected personnel.				
99	There is a process that measures the effectiveness of training.				
D.2	**Safety Communication**	**S**	**U**	**NS**	**NA**
100	There are communication processes in place within the organization that permit the safety management system to function effectively.				
101	There are communication processes (written, meetings, electronic, etc.) commensurate with the size and scope of the service provider.				
102	Safety-critical information is established and maintained in a suitable medium that provides direction regarding relevant SMS documents.				
103	Safety-critical information is disseminated throughout the organization and the effectiveness of safety communication is monitored.				
104	There is procedure that explains why particular safety actions are taken and why safety procedures are introduced or changed.				

REMARKS & OBSERVATIONS

INSPECTOR NAME:_____

INSPECTOR SIGNATURE

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS 044 PERSONNEL AUTHORIZATION FOR PRECISION APPROACH DOWN TO CAT II/CATIII ILS

Record ID:	Inspector:	Type of Operation:	Operator/Organization:
Date Accomplished:	Airport Location	Runway	Aircraft /Simulator Type
Personnel Name	Licence #	Authorized Seat **LEFT/RIGHT/BOTH**	Limitation **CATII/CATIIIA/CATIIIB**
Approved By	Signature		

Instructions for Use:

1. Check '**S**' column if you reviewed the record, procedure or event and it is '**Satisfactory'.**
2. Check '**U**' column if you reviewed the record, procedure or event and it is '**Unsatisfactory**'.
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4. Check **NA** (**not applicable**) column, if the line item is not required in this particular situation.
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6. For later reference, precede any notes with the appropriate question number.

S/N	AIRCRAFT/EQUIPMENT	S	U	NS	NA
1	Procedure as specified in AFM				
2	Instruments and Equipments for CAT II Ops. Nig. CARs 7.2.1.6				
3	Instruments and Equipments for CAT III Ops Nig. CARs 7.2.1.7				
4	Certificate of Airworthiness of Equipments				
5	Operator's NCAA Approved CAT II/CAT III Operations Manual				
	TRAINING (Initial)Nig. CARs IS:2.3.2.5 & 8.10.1.16	**S**	**U**	**NS**	**NA**
6	Personnel Knowledge Training and Test				
7	Skill Test for CAT II Operations in FSTD/Flight Simulator				
8	Evaluator's Oral Questions during CAT II Check				
9	Skill Test for CAT III Operations in FSTD/Flight Simulator				
10	Evaluator's Oral Questions during CAT III Check.				
11	Crew Resource Management				
	RECURRENT CHECK Nig. CARs 8.10.1.20	**S**	**U**	**NS**	**NA**
12	Skill Test for CAT II Operations in FSTD/Flight Simulator				
13	Evaluator's Oral Questions during CAT II Check				
14	Skill Test for CAT III Operations in FSTD/Flight Simulator				
15	Evaluator's Oral Questions during CAT III Check				
16	Crew Resource Management				
	RECENCY Nig. CARs 8.4.1.10	**S**	**U**	**NS**	**NA**
17	IFR Currency on Authorized Seat (Left Seat)				
18	IFR Currency on Authorized Seat (Right Seat)				
19	IFR Currency on All Seats				
20	Currency in CAT II Operations (Left Seat)				
21	Currency in CAT II Operations (Right Seat)				
22	Currency in CAT III Operations (Left seat)				
23	Currency in CAT III Operations (Right Seat)				
24	Crew Resource Management				
	CONTINOUS MONITORING PROCESS				
25	Periodic Flight Reports Received By NCAA				
26	Experienced, but New Type of Equipment - Abridged Training				
27	Experienced, but New Air Operator – Abridged Training				
28	Crew Resource Management				

REMARKS & OBSERVATIONS

RECOMMENDATIONS:

INSPECTOR NAME:_____

INSPECTOR SIGNATURE

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS 045 ELECTRONICS FLIGHT BAG (EFB)

Instructions for Use:

1. Check **`S**' column if you reviewed the record, procedure or event and it is **`Satisfactory'**.
2. Check **`U**' column if you reviewed the record, procedure or event and it is **`Unsatisfactory'**.
3. Check **NS** (**not seen**) column if you did not review the record, procedure or event or you do not have adequate information to make a valid comment.
4. Check **NA** (**not applicable**) column, if the line item is not required in this particular situation.
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6. For later reference, precede any notes with the appropriate question number.

S/N	**GENERAL CONSIDERATIONS**	S	U	NS	NA
1	Research if any of the EFB hardware or software is covered by an existing Aircraft Evaluation Group (AEG) report.				
	Workload:				
2	Is an in-flight evaluation necessary? (An in-flight evaluation may be necessary if you are not able to adequately evaluate each function intended for this specific operation while on the ground.) If so, verify that the in-flight evaluation confirms that the overall workload is acceptable.				
3	Review user/operator responses to evaluation question for "Workload" from **Form: O-OPS 010B** – Electronic Flight Bag Operational Evaluation.				
4	Verify that procedures are published and available to all EFB users and maintainers				
5	Verify that preflight procedures and checklists are revised to include EFB				
6	Verify that procedures are established for single and dual failure of EFB				
	PHYSICAL PLACEMENT	**S**	**U**	**NS**	**NA**
	Design and Placement of Structural Cradle:				
7	Verify that user/operator procedures specify locations for both EFB stowage and use				
8	Verify that EFB specified locations do not obstruct visual or physical access to flight controls and/or displays				
9	Verify that EFB locations do not obstruct the emergency egress path				
10	Verify that EFB locations provide for security in flight				
11	Does mounting device have appropriate airworthiness documentation per EFB requirements?				
12	Does mounting device lock in position easily?				
13	Is the mounting device adjustable enough to accommodate a range of flight crew member preferences and does range of adjustment accommodate the expected range of user's physical abilities?				
14	Locking mechanisms should be durable enough to minimize slippage after extended periods of normal use				
15	Crashworthiness considerations must be addressed as well as appropriate restraint of EFB when in use				
	TRAINING/PROCEDURES CONSIDERATIONS	**S**	**U**	**NS**	**NA**
	EFB Documentations and Policy:				
16	Verify that written policy adequately addresses each specific EFB application and that any published AEG recommendations have been incorporated into the operator's EFB program				
17	Verify that procedures are in place to communicate upgrades or malfunctions of EFBs to users in a timely manner				
18	Verify that the EFB information from the manufacturer is incorporated into operating procedures				
	EFB Training:				
19	Verify that the initial EFB training includes evaluation of knowledge and skill requirements. The training should include demonstration of key tasks				
20	Verify that the recurrent training includes evaluation of proficiency with the EFB				

21	Verify that minimum training checking, and currency requirements are specified in training programs				
22	Verify that EFB training is customized to EFB applications being used.				
	VALIDATION PHASE AND CONTINUED DATA COLLECTION	**S**	**U**	**NS**	**NA**
	Validation Phase Data Collection:				
23	Verify that the 6-month validation phase pilots/users of the EFB to documents evaluations and that there is a formal process for gathering feedback about the EFB and its performance				
24	Verify that procedures specify personnel responsible for maintenance and database management				
25	Ensure that the operator has an ongoing data collection and feedback/correction process that ensures the suitability/reliability of the data. The data collection process in place should be factored into the operator's Safety Management System (SMS)				
	SMS INTERFACE	**S**	**U**	**NS**	**NA**
26	Verify that the hazards associated with the use and integration of the EFB have been identified, eliminated, or controlled to an acceptable level throughout the life cycle. Consider such hazards as: misuse, hazardous misleading information due to failure or malfunction, loss of information when needed, miscalculation, masking of information, confusion, corruption of data, excessive complexity of use, accidental damage, and human error in use, setup, and operation.				
27	Verify that the applicant's SMS has procedures to mitigate identified hazards availability, and reliability of design, cross-checking of calculation/data, crew training, and misuse potential				
	SOFTWARE CONSIDERATIONS				
28	Verify that procedures are established for testing of each software revision or database update prior to operational use				
	HARDWARE CONSIDERATIONS	**S**	**U**	**NS**	**NA**
29	Verify that display lightning and reflectivity has been evaluated for acceptability in each aircraft model				
30	Verify that EFB maintenance procedures are in place for batteries, display interaction devices (pen, etc), display pixel) display pixel burnout, and component condition				
	ELECTRONIC DOCUMENTS	**S**	**U**	**NS**	**NA**
31	Verify that electronic documents are easily accessed and clearly controlled as to revision and currency				
32	Verify that use of electronic documents is incorporated in training program for initial and recurrent				
	ELECTRONIC CHECKLIST (ECL) SYSTEMS	**S**	**U**	**NS**	**NA**
33	Verify that the ECL system is customized to aircraft being operated				
34	If checklist is "interactive", verify that the checklist is subject to a 6-month validation phase				
35	If checklist is "automatically linked", ensure that AEG involvement and concurrence is obtained				
36	Verify that the use of ECL system is incorporated into the training program for initial and recurrent				
	WEIGHT AND BALANCE (W&B)	**S**	**U**	**NS**	**NA**
37	Verify that EFB procedures provide means to comply with load manifest record keeping requirements				
38	Verify that procedures clearly identify if the EFB W&B program is for "planning purposes only" when not an approved means for calculating W&B				
39	Verify that the use of W&B is incorporated into the training program for initial and recurrent				
	ELECTRONIC PERFORMANCE CALCULATIONS	**S**	**U**	**NS**	**NA**
40	Verify that EFB procedures provide means to comply with load manifest/flight plan recordkeeping requirements				
41	Verify that procedures clearly identify if EFB aircraft performance program is for "planning purposes only" when not an approved means for calculating aircraft performance				

42	Verify that the use aircraft performance is incorporated into the training program for initial and recurrent				
	ELECTRONIC CHARTS	**S**	**U**	**NS**	**NA**
43	Verify that the Electronic Charts Application does not display “own-ship position” except on the ground				
44	Verify that preflight procedures are established to ensure currency of electronic chart information				
45	Verify EFB display. The screen must be large enough to show an entire instrument approach procedure (IAP) chart at once, with the equivalent degree of legibility and clarity as a paper chart				
46	Verify that the use of electronic charts is incorporated into training program for initial and recurrent				
	VALIDATION PHASE	**S**	**U**	**NS**	**NA**
47	Verify that procedures are established to collect user data for both normal and abnormal. EFB functions during the validation phase and to provide a written report of reliability and problem resolution prior to authorization for paperless operation				

REMARKS & OBSERVATIONS

INSPECTOR NAME:_____ **SIGNATURE**:_____

DATE: _____

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS 046 FATIGUE RISK MANAGEMENT SYSTEM

Instructions for Use:

1. Check **`S**' column if you reviewed the record, procedure or event and it is **`Satisfactory'**.
2. Check **`U**' column if you reviewed the record, procedure or event and it is **`Unsatisfactory'**.
3. Check **NS** (**not seen**) column if you did not review the record, procedure or event or you do not have adequate information to make a valid comment.
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6. For later reference, precede any notes with the appropriate question number.

S/N	OVERALL MANUAL APPEARANCE	S	U	NS	NA
0	COMPLETE CHECKLIST CL: O-OPS 020B				

S/N	GENERAL: FRMS ADDRESSES	S	U	NS	NA
1	Transient and cumulative fatigue				
2	Shared operator – individual responsibility				
3	Effective safety reporting				
4	Senior Management commitment				
5	Continuous monitoring process				
6	Investigation of safety occurrences				
7	Sharing of information				
8	Integrated training				
9	Effective implementation of SOPs				
10	Continuous improvement				
11	Establishment of maximum value for flight times and/or flight duty period(s) and duty period(s) and minimum values for rest periods				
12	Item 11 is based on scientific principles and knowledge/data-driven solutions				
13	Maintenance of records for all flight and cabin crew members of flight time, flight duty periods, duty periods, and rest periods for a period of time specified				
	FRMS POLICY: THE POLICY	**S**	**U**	**NS**	**NA**
14	Define FRMS policy, with all elements of the FRMS clearly defined				
15	Scope of the FRMS operations is clearly defined in the operations manual				
16	Reflect the shared responsibility of management, flight and cabin crews, and other involved personnel				
17	Clearly state the safety objectives of the FRMS				
18	Is signed by Accountable Executive of the organization				
19	Communicated, with visible endorsement, to all the relevant areas and levels of the organization.				
20	Declares management commitment to effective safety reporting				
21	Declares management commitment to the provision of adequate resources for the FRMS				
22	Declares management commitment to the continuous improvement of the FRMS				
23	Requires that clear lines of accountability for management, flight and cabin crews, and all other involved personnel are identified				
24	Requires periodic reviews to ensure it remains relevant and appropriates				
	FRMS DOCUMENTATION	**S**	**U**	**NS**	**NA**
	An operator must develop and keep current FRMS documentation that describes and records:				
25	FRMS policy and objectives				
26	FRMS processes and procedures				
27	Accountability, responsibilities and authorities for these processes and procedures				
28	Mechanisms for ongoing involvement, flight and cabin crew members, and all other involved personnel				

29	FRMS training programme, training requirements and attendance records				
30	Scheduled and actual flight times, duty periods and rest periods with significant deviations and reasons for deviations noted				
31	FRMS outputs including findings from collected data, recommendations, and actions taken				
	FRMS PROCESSES	**S**	**U**	**NS**	**NA**
32	Identification of hazards				
33	Risk assessment				
34	Risk mitigation				
	FRMS SAFETY ASSURANCE PROCESSES	**S**	**U**	**NS**	**NA**
35	Provides for continuous FRMS performance monitoring				
36	Provides a formal process of management of operational and organizational change				
37	Provides for the continuous improvement of the FRMS				
	FRMS PROMOTION PROCESSES	**S**	**U**	**NS**	**NA**
	Operator shall establish and implement:				
38	Training programme				
39	Effective FRMS communication plan				
40	**RESERVED**				
41	**RESERVED**				
42	**RESERVED**				
43	**RESERVED**				
44	**RESERVED**				

REMARKS & OBSERVATIONS

INSPECTOR NAME:_____ **SIGNATURE**:_____

DATE: _____

NIGERIAN CIVIL AVIATION AUTHORITY

AVIATION HOUSE

P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS 046A REVIEW OF FRMS IMPLEMENTATION PLAN

Instructions for Use:

1. Check `**S**' column if you reviewed the record, procedure or event and it is `**Satisfactory'**.
2. Check `**U**' column if you reviewed the record, procedure or event and it is `**Unsatisfactory'**.
3. Check **NS** (**not seen**) column if you did not review the record, procedure or event or you do not have adequate information to make a valid comment.
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6. For later reference, precede any notes with the appropriate question number.

S/N	**FRMS IMPLEMENTATION PLAN**	S	**U**	**NS**	NA
1	Reflects a commitment to an effective safety reporting culture				
2	Define the safety objectives of the FRMS				
3	Define roles and responsibilities for all stakeholders in the FRMS, including identifying the accountable executives				
4	Identifies to what specific operations the implementation plans pertain				
5	Identifies an overall timeline for seeking final approval				
6	Plan for the development of documentation				
7	Plan for the development of FRM processes				
8	Plan for the development of FRMS safety assurance processes				
9	Plan for the development of FRMS training				
10	Plan for the development of FRMS communication procedures and processes				

REMARKS & OBSERVATIONS

INSPECTOR NAME:_____ **SIGNATURE**:_____

DATE: _____

NIGERIAN CIVIL AVIATION AUTHORITY

AVIATION HOUSE

P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS 046B REVIEW OF INITIAL FRMS POLICY AND DOCUMENTATION

Instructions for Use:

1. Check `**S**' column if you reviewed the record, procedure or event and it is `**Satisfactory'**.
2. Check `**U**' column if you reviewed the record, procedure or event and it is `**Unsatisfactory'**.
3. Check **NS** (**not seen**) column if you did not review the record, procedure or event or you do not have adequate information to make a valid comment.
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6. For later reference, precede any notes with the appropriate question number.

S/N	**INITIAL FRMS POLICY AND DOCUMENTATION**	S	**U**	**NS**	NA
1	An FRMS policy is in place				
2	The FRMS policy reflects organizational commitments regarding fatigue risk management				
3	The FRMS policy includes a clear statement about the provision of the necessary resources for the implementation of the policy				
4	FRMS reporting procedures are identified				
5	There is clear indication of which types of operational behaviours are unacceptable within the context of the FRMS				
6	The conditions under which disciplinary action would apply are clearly identified in the context of the FRMS				
7	The policy is communicated, with visible endorsement, throughout the organization				
8	The accountable executive, who has ultimate responsibility and accountability for the implementation and maintenance of the FRMS and full control of the necessary resources, is identified				
9	Delivery of initial documentation including:				
	FRMS processes				
	FRMS safety assurance processes				
	FRMS training				
	FRMS communication procedures and processes				

REMARKS & OBSERVATIONS

INSPECTOR NAME:_____ **SIGNATURE:**_____

DATE: _____

NIGERIAN CIVIL AVIATION AUTHORITY

AVIATION HOUSE

P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS 046C REVIEW OF INITIAL FRMS PROCESS

Instructions for Use:

1. Check **`S'** column if you reviewed the record, procedure or event and it is **`Satisfactory'**.
2. Check **`U'** column if you reviewed the record, procedure or event and it is **`Unsatisfactory'**.
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S/N	**INITIAL FRMS PROCESS**	S	**U**	**NS**	NA
1	Establishment of FSAG:				
	Appointment of FSAG members				
	Appointment of a qualified person to manage and oversee the functions of the FSAG				
	All FSAG members fulfil the required job functions and responsibilities				
2	Establishment of outer limits (maximum values for flight times and/or flight duty period(s) and duty period(s), and minimum values for rest periods)				
3	Maintenance of records of flight time, flight duty periods, duty periods and rest periods				
4	An effective fatigue reporting system is in place				
5	The operations covered by each set of FRMS processes are identified				
6	Data and information are collected				
7	Hazards are identified				
8	Risk assessments are undertaken and documented				
9	Appropriate risk mitigation is undertaken				
10	There is a demonstrable information flow between the FRMS and other safety systems (e.g. their SMS through the Safety Action Group meetings or their safety department)				
11	Training plan implemented with personnel involved in FRMS displaying required level of knowledge of sleep and fatigue, and their responsibilities and procedural requirements in relation to the FRMS				
12	Training records maintained				
13	FRMS-related information is disseminated in a timely manner to all necessary stakeholders				

REMARKS & OBSERVATIONS

INSPECTOR NAME:_____ **SIGNATURE:**_____

DATE: _____

NIGERIAN CIVIL AVIATION AUTHORITY

AVIATION HOUSE

P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS 046D VALIDATION OF FRMS SAFETY ASSURANCE PROCESSES

Instructions for Use:

1. Check `**S**' column if you reviewed the record, procedure or event and it is `**Satisfactory'**.
2. Check `**U**' column if you reviewed the record, procedure or event and it is `**Unsatisfactory'**.
3. Check **NS** (**not seen**) column if you did not review the record, procedure or event or you do not have adequate information to make a valid comment.
4. Check **NA** (**not applicable**) column, if the line item is not required in this particular situation.
5. 'Enter any notes on reverse side regarding a 'U' answer for transfer to the Safety Issues Resolution Report.
6. For later reference, precede any notes with the appropriate question number.

S/N	**INITIAL FRMS PROCESS**	S	**U**	**NS**	NA
1	Safety performance indicators are identified and acceptable to the regulator				
2	The safety performance of the FRMS is monitored through monitoring of trends in safety performance indicators				
3	Mitigations and controls are changed where necessary in response to the findings				
4	There is an existing process for identifying and managing changes that effect the FRMS				
5	There is an existing process for continual improvement of the FRMS				
6	Review final FRMS documentation, including:				
	FRMS processes				
	FRMS safety assurance processes				
	FRMS training (including recurrent training programme)				
	FRMS communication procedures and processes				

REMARKS & OBSERVATIONS

INSPECTOR NAME:_____ **SIGNATURE:**_____

DATE: _____

NIGERIAN CIVIL AVIATION AUTHORITY

AVIATION HOUSE

P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS 046E FATIGUE RISK MANAGEMENT SYSTEM OVERSIGHT

Instructions for Use:

1. Check `**S**' column if you reviewed the record, procedure or event and it is `**Satisfactory'**.
2. Check `**U**' column if you reviewed the record, procedure or event and it is `**Unsatisfactory'**.
3. Check **NS** (**not seen**) column if you did not review the record, procedure or event or you do not have adequate information to make a valid comment.
4. Check **NA** (**not applicable**) column, if the line item is not required in this particular situation.
5. 'Enter any notes on reverse side regarding a 'U' answer for transfer to the Safety Issues Resolution Report.
6. For later reference, precede any notes with the appropriate question number.

S/N	**FRMS OVERSIGHT**	S	**U**	**NS**	NA
1	FRMS performance indicator and target review				
2	Targeted sampling of records and documentation				
3	Documented interviews				
4	Continuous reporting				
5	Attendance at meetings, training sessions				
6	Evidence of information flow between SMS and FRMS				
7	Fatigue Safety Action Group:				
	Review of hazard log				
	Review of meeting minutes				
8	Collection of information from external sources, e.g. scientific reviews, experience gained from oversight of other operators' FRMSs				
9	Reviewing outer limits				
10	Reviewing flight and duty time limitations identified within the FRMS operations				
11	Assess management of changes, for example:				
	The operations to which the FRMS applies				
	Key personnel				

REMARKS & OBSERVATIONS

INSPECTOR NAME:_____ **SIGNATURE:**_____

DATE: _____

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CL: O-OPS 050 Inspection report

[Add Facility Name]

[Add Applying Nigerian Operator Name]

Unique Reference	[Add number] {See instructions above}
Checklist(s) used	[Add Title And Checklist No.]
Inspection dates	[add date(s)]
Reporting inspector	[Add Name]

This inspection of [Add Name] was carried out under [add section/part of the act or regulations] of 2006.

Type of Facility	[Add Type]	Facility address	[Add Address]
Type of Aircraft/ Simulator Inspected	[Add Type]		
Registration Number of Aircraft	[Add Reg]	Serial Number of Aircraft	[Add Number]
Operating Certificate	[Add Type]	Certificate No.	[Add Number]
Issuing Authority	[Add Name]		
Issue Date	[Add Date]		
Valid Until	[Add Date]		
Date of previous Facility inspection	[Add Date Or N/A]		
Date of previous Aircraft inspection	[Add Date Or N/A]		
Date of previous Simulator inspection	[Add Date Or N/A]		

Introduction

The inspection was carried out by [Add Name] on [Add Date] at [Add Location Address].

[Brief Description Of The Facility].

Findings

[Summarize Main Findings]

Overall assessment and Recommendation

[Overall Statement Of Assessment]

[Sign Off Here]
Lead inspector

OPERATIONS FORMS

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

DEVELOPED & REVIEWED FLIGHT OPERATIONS FORMS

ITEMS	FORM NO	SUBJECT
1.	Form: O-OPS 001	Pre-Application Statement of Intent (PASI)/Application Forms
2.	Form: O-OPS 001A	Air Operator Certification Job Aid
3.	Form: O-OPS 001B	Management Personnel Biographical Data
4.	Form: O-OPS 001C	Air Operator Complexity Form
5.	Form: O-OPS 001D	Required AOC Manuals and Supporting Documents
6.	Form: O-OPS 001E	Schedule of Events
7.	Form: O-OPS 001F	Operations Specifications Format
8.	Form: O-OPS 001G	Sample Air Operator Certificate
9.	Form: O-OPS 002	Application for Issue/Renewal/Grant/Variation of An Air Operator Certificate
10.	Form: O-OPS 003	Safety Issues Resolution Report
11.	Form: O-OPS 003A	Procedure for Tracking Aircraft Resolution of Safety Issues
12.	Form: O-OPS 004	Prevent Flying
13.	Form: O-OPS 005	Flight/Cabin Crew Emergency Drill Inspection Report
14.	Form: O-OPS 006	Cabin Crew Training Inspection Report
15.	Form: O-OPS 006A	GROUND OPERATIONS TRAINING INSPECTION REPORT
16.	Form: O-OPS 007	Mandatory Occurrence Report
17.	Form: O-OPS 007A	Service Difficult Report
18.	Form: O-OPS 007B	Dangerous Goods Occurrence Report
19.	Form: O-OPS 008	Notification of Access to Aircraft
20.	Form: O-OPS 009	FRMS Evaluation Form
21.	Form: O-OPS 010	CAT II/III Approval Job Aids(OPERATIONS)
22.	Form: O-OPS 011	Electronic Flight Bag Job Aid
23.	Form: O-OPS 011A	Table Top Electronic Bag Evaluation
24.	Form: O-OPS 011B	Electronic Flight Bag Operational Evaluation
25.	Form: O-OPS 012	Reserved
26.	Form: O-OPS 013	Foreign Air Operator’s Application Form
27.	Form: O-OPS 014	Evacuation and Ditching Demonstration Job Aid
28.	Form: O-OPS 015	Air Operator Demonstration Flight Job Aid
29.	Form: O-OPS 016	Reserved
30.		

NIGERIAN CIVIL AVIATION AUTHORITY

AVIATION HOUSE

P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

FORM: O-OPS001

PRE-APPLICATION STATEMENT OF INTENT (PASI)/ APPLICATION FORM

To be completed by an applicant for an Air Operator Certificate or Approved Maintenance Organisation or ATO.

Section 1A: To be completed by all applicants

1. Name and mailing address of company (include business name if different from company name).	2. Address of the principal (main) base where operations will be conducted.

3. Proposed Start-up Date:	4. Requested company (3 letters ICAO) identifier in order of preference. (1). (2). (3).

5. Management and Key Staff Personnel.

Name (Surname/First/Middle).	Title.	Telephone (include mobile) & address (if different from company) include country code.

Section 1B. To be completed by Air Operator and/or Approved Maintenance Organisation.

6.
- ☐ Air Operator intends to perform maintenance as an AMO.
- ☐ Air Operator intends to arrange for maintenance and inspections of aircraft and associated equipment to be performed by others.
- ☐ Air Operator intends to perform maintenance under an equivalent system.
- ☐ Approved Maintenance Organisation.
- ☐ Approved Training Organisation

7. Proposed type of operation (Tick as many as applicable). Air Operator Certificate

☐ Passengers and Cargo. ☐ Cargo Only. ☐ Scheduled Operations. ☐ Charter Flight Operations

☐ Aerial Work

8. Proposed type of Approved Maintenance Organisation Rating(s). iaw AMO Regulations (Tick as many as applicable)

Airframe	Power-plant	Components				Specialized Services
☐ (a) (i) ☐ (a) (ii) ☐ (a) (iii) ☐ (a) (iv)	☐ (b) (i) ☐ (b) (ii) ☐ (b) (iii)	☐ (c) (i) ☐ (c) (ii) ☐ (d) (i) ☐ (d) (ii) ☐ (d) (iii)	☐ (e) (i) ☐ (e) (ii) ☐ (e) (iii) ☐ (e) (iv) ☐ (f) (i)	☐ (f) (ii) ☐ (f) (iii) ☐ (g) (i) ☐ (g) (ii) ☐ (c) (iii)	☐ (g) (iv)	☐ (3 (a) ☐ (3) (b)

9. Proposed courses to be conducted by ATO (Tick as applicable)

☐ Pilot Training

☐ Flight Operations Officer Training

☐ Air Traffic Services Training

☐ Cabin Crew Training

☐ Aviation Security Personnel Training

☐ Aircraft Maintenance Engineers Training

☐ Other Training (Specify type of training)

Section 1C. Training .Aircraft and Simulator Information (to be completed by Prospective Operator Prospective, Pilot Training ATO and Prospective Air Traffic Control Training ATO).

10. Training Aircraft Data.		**Simulator Information**	
		[Authority Assigned ID] :	
Aircraft Type Make, Model and Series (M/M/S).	**Number of Aircraft Type**	**Make, Model and Series (M/M/S) of Aircraft being Simulated**	**Qualification Level Assigned**

Section 1D. Blocks 11 and 12 to be completed by Air Operator.

11. Data for Aircraft used for operations (For foreign registered aircraft, please provide a copy of the lease agreement).		12. Geographic areas of intended operations and proposed route structure.
Numbers and types of aircraft (By make, model, and series).	Number of passenger seats or cargo payload capacity.	

PRE-ASSESSMENT STATEMENT OF INTENT (PASI)/ APPLICATION FORM

Section 1E To be completed by all applicants		
11. Additional information that provides a better understanding of the proposed operation or business **(**Attach additional sheets, if necessary).		
12. Proposed Training (Aircraft and/or Simulator).		
13. The statement and information contained on this form denotes an intention to apply for the Authority Certificate.		
Type of Organisation:		
Signature.	Date (day/month/year).	Name and Title (Block Letters).
Section 2. To be completed by the Authority.		
Received by (Name and Office):		Date received (day/month/year).
Assigned Certification Project Manager:		
Date forwarded to the Certification Project Manager (CPM) (day/month/year):		For: ☐ Action ☐ Information only.
Remarks:		
Section 3. To be completed by the Manager Flight Operations.		
Received by:	Date (day/month/year):	
Pre-application Number:	Assigned Certification Number:	
Assigned FOI:	Date:	
Remarks:		

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

"Air Operator Certification Job-Aid"

FORM: O-OPS 001A

I. Purpose

The Air Operator Certification Job-Aid (JA-AOC) is inspector guidance intended for use throughout the air carrier certification process. The JA-AOC is a project management, record-keeping and communications tool used to -

1. Track the certification progress of an air carrier applicant,

2. Provide references for the activities, participation, contribution and observations of NCAA inspectors,

3. Help assure that action required to bestow an AOC upon an applicant is accomplished in a timely manner,

4. Provide a reference to corresponding documentation in the file, thus ensuring complete and appropriate records are maintained, and

5. Inform the AOC Applicant and NCAA leadership upon the accomplishment of key phases of the certification process.

Instructions in the JA-AOC are not a replacement for requirements described in the Nigeria Civil Aviation Regulations (Nig. CARs). Should there be an apparent conflict between information contained in the JA-AOC and Nig. CARs, the Nig. CARs take precedence. Nig. CARs supersede instructions contained in the JA-AOC and any other guidance material that may apply.

II. Contents

1. Five (5) Phase Completion-Validation and Communication pages.

2. Five (5) AOC Application-Tracking Lists

Phase 1	Pre-Application
Phase 2	Formal Application
Phase 3	Document Evaluation
Phase 4	Demonstration and Inspection
Phase 5	Certification

III. Description

1. The JA-AOC is comprised of five (5) "Completion-Validation and Communication" (CVC) cover pages at the beginning of each phase followed by a series of lists corresponding to each of five phases comprising the Nigerian Civil Aviation Authority Air Operator Certification process.

A. CVC cover pages provide space for-

a. Validating each phase of the AOC process,

b. Entry of information corresponding to completion of each phase of the certification process, as well as a

c. Standard format for communicating the accomplishment of each phase internally-hierarchically, within the NCAA, as well as externally - with the AOC applicant.

B. Job-Aid (JA) pages are comprised of tables as described below.

a. The first row of each JA-AOC page contains a list of headers describing information contained in the columns below; for example -

i. Line reference number and Nig. CARs related to each task

ii. Post holder responsible

iii. A condensed textual description of each activity

iv. Initials of Inspector responsible.

v. Date information received and/or date accomplished

vi. Date returned for changes

vii. Rating: "Satisfactory" (S), or "Unsatisfactory" (U).

viii. Remarks.

b. Rows contain information related to the completion of specific tasks required by Nig. CARs; for example -

i. Titles describing the contents of each row.

ii. Space for the initials of the AOC team-inspector responsible for particular JA-AOC activity.

iii. Dates received, accomplished, and/or returned for changes.

iv. Explanatory "Remarks."

IV. Instructions

In consultation with the Chairman, Flight Standards Group, the CPM assigns NCAA inspectors to AOC tasks in accordance with their specific discipline in the art and practice of aviation, and the corresponding level of skill, experience, knowledge and ability they bring to the project. Depending on the needs of the NCAA, the complexity of the application, and the qualifications of the personnel involved, there may be more than one inspector assigned to each discipline. When there is more than one inspector assigned to each discipline, then one inspector will be designated as the "Lead" inspector for that discipline and thereby assumes accountability to the CPM for all related tasks in that phase.

The CPM uses the first pages of each phase of the JA-AOC to recount applicant-specific information and to record the names of Inspectors assigned to tasks within the corresponding phase of the AOC certification process.

When assigning the allocation of AOC tasks to specific NCAA personnel, the following abbreviations apply -

- CPM - Certification Project Manager
- O – Flight Operations Inspector
- C – Cabin Safety Inspector
- A – Airworthiness Safety Inspectors:
    - Principal Maintenance Inspector (PMI)
        - Airframe and Powerplant (A & P) and;
    - Principal Avionics Inspector (PAI)
        - Avionics (AV)
- G – Ground Operations Inspector
- L - Licensing

As columns and rows comprising the JA-AOC depict specific action steps corresponding to the evaluation of an application for AOC, each must contain information corresponding to the particular operator.

After completing assigned tasks, inspectors shall identify it as Satisfactory (S) or Unsatisfactory (U).

The "Remarks" section should be used to record relevant details. For example, when discrepancies are noted, a "U" is assigned, and the reasons recorded in the remarks section of the JA-AOC.

Thereafter, the CPM must obtain a corrective action plan from the AOC Applicant and revise the schedule of events accordingly. Each discrepancy and corrective action must be fully documented and recorded in the certification file (see TGM GEN 3.3.6.6).

Each item in each phase must be addressed satisfactorily for the AOC application to proceed and to culminate in certification.

V. Other Coordination Required

The CPM is responsible for coordination of NCAA personnel, departments and procedures necessary to confer an AOC; for example, Flight Operations, Airworthiness, Licensing and the Document Tracking System. The CPM is responsible to ensure that information pertaining to tasks described in the JA-AOC have been completed by the designated members of the Certification Team.

VI. Renewal or Variation of AOCs

The identical process applies to AOC Renewal or Variation.

NIGERIAN CIVIL AVIATION AUTHORITY

AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

PHASE ONE (1)

AIR OPERATOR CERTIFICATE CHECKLIST

(COMMERCIAL AIR TRANSPORT OPERATOR)

<table>
<tr><td colspan="2">NAME AND MAILING ADDRESS OF COMPANY (including business name if different from company name)</td><td colspan="2">ADDRESS OF THE PRINCIPAL (Main) Base where operations will be conducted</td></tr>
<tr><td colspan="2">MAILING ADDRESS (If different from the principal (Main) base of operation)</td><td colspan="2">NCAA Reference Number</td></tr>
<tr><td colspan="2">TYPE OF INSPECTION
_____ Initial Certification

_____ Re-Certification

Renewal/Variation</td><td colspan="2">CERTIFICATION PROJECT MANAGER</td></tr>
<tr><td>FLIGHT OPERATIONS INSPECTOR(s)</td><td>CABIN SAFETY INSPECTOR(s)</td><td>GROUND OPERATIONS INSPECTOR(S)</td><td>AIRWORTHINESS SAFETY INSPECTOR(s)</td></tr>
</table>

*** Assignments:**
CPM - Certification Project Manager
O - Flight Operations Inspector
C- Cabin Safety Inspector
A - Airworthiness Safety Inspector
G – Ground Operations Safety Inspector

**** Legend:**
S – Satisfactory
U – Unsatisfactory
NA – Not Applicable

☐ As the applicant for Air Operator Certification (AOC) has not provided the required documents and/or conducted the activities necessary to complete this phase of the AOC certification process within the time-frames depicted in the schedule of events, further NCAA action corresponding to this AOC application is suspended for a minimum period of thirty (30) days.

During the period of suspension, the operator is not authorized to conduct any flight operations corresponding to Part 9 of the Nig. CARs.

After thirty (30) days have passed _____(enter date), depending upon the resources of the NCAA, activities associated with this AOC application may resume with applicant submission of required documents and/or accomplishment of activities necessary to complete the tasks remaining in this phase of the AOC process. Thereafter, depending on the resources of the NCAA, the process must adhere to the schedule of events.

If the AOC applicant does not provide the necessary documents and/or conduct the activities necessary to complete this phase within the succeeding thirty (30) calendar days, by _____ **(enter date),** or should the applicant/operator miss another due-date depicted on the schedule of events, then this AOC process will be deemed terminated and the file closed. In that event, the AOC applicant must re-apply to commence AOC certification at the beginning of Phase 1 of the process.

☐ I have reviewed the completion of tasks corresponding to this phase of the AOC certification process, confirmed conformity to the appropriate Nig. CARs, and, by my signature below, declare Phase 1 of the AOC certification process complete.

CPM's Name: _____

Signature: _____

Date: _____

Protocol/AOC Number: _____

Document Distribution: DG, DOT, DAWS, Operator's Rep.

Phase One

Ref #	RESP. POS.	Pre-Application Phase	Insp. Initials	Date Received/ Accomplished	*S/U/NA (if U, action must be taken)	Date Returned for Changes	Remarks
1		1) Applicant initial ENQUIRY* (verbal or written) (Form AC-OPS 001) 2) Provide applicant with procedures and other guidance materials for application of AOC. TGM-OPS 1.4					
2 Nig. CARs 9.1.1.5	DOT	Applicant submits Pre-Application Statement of Intent (PASI) and required attachments to DOT 1) PASI forwarded to DOT. 2) PASI Review: Determine acceptability of PASI TGM OPS 1.5					
3 Nig CARs 9.1.1.6(a)(6)	DOT	Confirm Directorate of Air Transport Regulation (DATR) has received application for Economic Authority (obtain reference number)					
4	DOT	• Select Certification Team • Designate a CPC from the Team TGM OPS 1.6					
5	CPM	Conduct Pre-application Meeting with the AOC Applicant. TGM OPS 1.8					
6	CPM	1) Clarify PASI Form: AC-OPS 001, TGM OPS 1.8					
7	CPM	2) Review Certification process, including Civil Aviation Regulations and compliance statement with AOC Applicant. TGM OPS 1.8					

Ref #	RESP. POS.	Pre-Application Phase	Insp. Initials	Date Received/ Accomplished	*S/U/NA (if U, action must be taken)	Date Returned for Changes	Remarks
8	CPM	3) Provide the applicant with AOC Certification Package: TGM OPS 1.8.2.1(a – g)					
9	CPM	a) Sample Operations Specifications. Form AC-OPS 001D, TGM OPS 1.8.2.1(f)					
10	CPM	b) Schedule of Events Form describing all elements of the Certification process. Form: AC-OPS 001A, TGM OPS 1.10					
11	CPM	c) Discuss other applicable publications and documents. TGM OPS 1.8.2.1(g)					
12	CPM	d) Discuss Form, content and documents required for formal application. (NCAA-AC-OPS 001) , TGM OPS 1.9					
END							

NIGERIAN CIVIL AVIATION AUTHORITY

AVIATION HOUSE

P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

PHASE TWO (2)

AIR OPERATOR CERTIFICATE CHECKLIST

(COMMERCIAL AIR TRANSPORT OPERATOR)

<table>
<tr><td colspan="2">NAME AND MAILING ADDRESS OF COMPANY (including business name if different from company name)</td><td colspan="2">ADDRESS OF THE PRINCIPAL (Main) Base where operations will be conducted</td></tr>
<tr><td colspan="2">MAILING ADDRESS (If different from the principal (Main) base of operation)</td><td colspan="2">NCAA Reference Number</td></tr>
<tr><td colspan="2">TYPE OF INSPECTION
_____ Initial Certification
_____ Re-Certification
_____ Renewal/Variation</td><td colspan="2">CERTIFICATION PROJECT MANAGER</td></tr>
<tr><td>FLIGHT OPERATIONS INSPECTOR(s)</td><td>CABIN SAFETY INSPECTOR(s)</td><td>FLIGHT OPERATIONS INSPECTOR(s)</td><td>CABIN SAFETY INSPECTOR(s)</td></tr>
</table>

*** Assignments:**

CPM - Certification Project Manager
O - Flight Operations Inspector
C- Cabin Safety Inspector
A - Airworthiness Safety Inspector
G – Ground Operations Safety Inspector

**** Legend:**

S – Satisfactory
U – Unsatisfactory
NA – Not Applicable

☐ As the applicant for Air Operator Certification (AOC) has not provided the required documents and/or conducted the activities necessary to complete this phase of the AOC certification process within the time-frames depicted in the schedule of events, further NCAA action corresponding to this AOC application is suspended for a minimum period of thirty (30) days.

During the period of suspension, the operator is not authorized to conduct any flight operations corresponding to Part 9 of the Nig. CARs.

After thirty (30) days have passed _____(enter date), depending upon the resources of the NCAA, activities associated with this AOC application may resume with applicant submission of required documents and/or accomplishment of activities necessary to complete the tasks remaining in this phase of the AOC process. Thereafter, depending on the resources of the NCAA, the process must adhere to the schedule of events.

If the AOC applicant does not provide the necessary documents and/or conduct the activities necessary to complete this phase within the succeeding thirty (30) calendar days, by _____ **(enter date),** or should the applicant/operator miss another due-date depicted on the schedule of events, then this AOC process will be deemed terminated and the file closed. In that event, the AOC applicant must re-apply to commence AOC certification at the beginning of Phase 2 of the process.

☐ I have reviewed the completion of tasks corresponding to this phase of the AOC certification process, confirmed conformity to the appropriate Nig. CARs, and, by my signature below, declare Phase 2 of the AOC certification process complete.

CPM's Name: _____

Signature: _____

Date: _____

Protocol/AOC Number: _____

Document Distribution: DG, DOT, DAWS, Operator Rep

Phase Two

Ref #	RESP. POS.	Formal Application Phase	Insp. Initials	Date Received/ Accomplished	*S/U/NA (if U, action must be taken)	Date Returned for Changes	Remarks
13 Nig CARs 9.1.1.5	CPM	Receive formal application TGM-GEN 3.3.4.1					
14 Nig CARs 9.1.1.5	CPM	Evaluate the application package TGM-GEN 3.3.4.2, AC-OPS 001.7.2, TGM-OPS 1.10					
15	CPM	Conduct an application meeting – initial table top exercise TGM-GEN 3.3.4.3					
END							

NIGERIAN CIVIL AVIATION AUTHORITY

AVIATION HOUSE

P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

PHASE THREE (3)

AIR OPERATOR CERTIFICATE CHECKLIST

(COMMERCIAL AIR TRANSPORT OPERATOR)

<table>
<tr><td colspan="2">NAME AND MAILING ADDRESS OF COMPANY (including business name if different from company name)</td><td colspan="2">ADDRESS OF THE PRINCIPAL (Main) Base where operations will be conducted</td></tr>
<tr><td colspan="2">MAILING ADDRESS (If different from the principal (Main) base of operation)</td><td colspan="2">NCAA Reference Number</td></tr>
<tr><td colspan="2">TYPE OF INSPECTION
_____ Initial Certification

_____ Re-Certification

Variation</td><td colspan="2">CERTIFICATION PROJECT MANAGER</td></tr>
<tr><td>FLIGHT OPERATIONS INSPECTOR(s)</td><td>CABIN SAFETY INSPECTOR(s)</td><td>GROUND OPS INSPECTOR(S)</td><td>AIRWORTHINESS SAFETY INSPECTOR(s)</td></tr>
</table>

*** Assignments:**

CPC - Certification Project Coordinator
O - Flight Operations Inspector
C- Cabin Safety Inspector
A - Airworthiness Safety Inspector
G – Ground Operations Safety Inspector

**** Legend:**

S – Satisfactory
U – Unsatisfactory
NA – Not Applicable

☐ As the applicant for Air Operator Certification (AOC) has not provided the required documents and/or conducted the activities necessary to complete this phase of the AOC certification process within the time-frames depicted in the schedule of events, further NCAA action corresponding to this AOC application is suspended for a minimum period of thirty (30) days.

During the period of suspension, the operator is not authorized to conduct any flight operations corresponding to Part 9 of the Nig. CARs.

After thirty (30) days have passed _____(enter date), depending upon the resources of the NCAA, activities associated with this AOC application may resume with applicant submission of required documents and/or accomplishment of activities necessary to complete the tasks remaining in this phase of the AOC process. Thereafter, depending on the resources of the NCAA, the process must adhere to the schedule of events.

If the AOC applicant does not provide the necessary documents and/or conduct the activities necessary to complete this phase within the succeeding thirty (30) calendar days, by _____ **(enter date),** or should the applicant/operator miss another due-date depicted on the schedule of events, then this AOC process will be deemed terminated and the file closed. In that event, the AOC applicant must re-apply to commence AOC certification at the beginning of Phase 3 of the process.

☐ I have reviewed the completion of tasks corresponding to this phase of the AOC certification process, confirmed conformity to the appropriate Nig. CARs, and, by my signature below, declare Phase 3 of the AOC certification process complete.

CPM's Name: _____

Signature: _____

Date: _____

Protocol/AOC Number:_____

Document Distribution: DG, DOT, DAWS, Operator Rep

Phase Three

Task #	RESP. POS.	Document Compliance and Evaluation Phase	Insp. Initials	Date Received/ Accomplished	*S/U/NA (if U, action must be taken)	Date Returned for Changes	Remarks
16 Nig CARs IS 9.2.2.2	CPM O & A	A) Evaluate Management Qualifications (Review and accept/ approve/reject manuals and other documents (see inspectors handbooks as reference) TGM-OPS.24, TGM-CL:O-OPS026, TGM-CL: O-OPS028					
17 Nig CARs 9.2.2.2(a)	CPM	1) Accountable Manager					
18 Nig CARs 9.2.2.2(b)(1)	O	2) Director of Operations TGM-OPS. 24. Appx.1					
19 Nig CARs 9.2.2.2(b) (4)	A	3) Director of Maintenance TGM-OPS. 24 Appx 4					
20 Nig CARs 9.2.2.2(b)(6)	A	4) Quality Manager(s). a) Quality Manager for Operations b) Quality Manager for Maintenance c) Additional as applicable TGM-OPS. 24 Appx. 5					
21 Nig CARs 9.2.2.2(b)(2)	O	5) Chief Pilot TGM-OPS. 24 Appx. 2					
22 Nig CARs 9.2.2.2(b)(3)	O	6) Director of Safety TGM-OPS. 24 Appx. 3					
23 Nig CARs 9.2.2.2(b)(5)	A	7) Chief Inspector					
24 Nig CARs 9.2.2.2(c)	CPM	8) Other Management positions as applicable					

Ref #	RESP. POS.	Document Compliance and Evaluation Phase	Insp. Initials	Date Received/ Accomplished	*S/U/NA (if U, action to be taken)	Date Returned for Changes	Remarks
25 Nig CARs 1.4 & 9.2.2.2(c)	CPM	9) Exemption/ Deviation letter (if a deviation for required management positions is anticipated) TGM-OPS 1.10.5.3, AC-OPS 001.5.7.6					
26 Nig CARs Part 9	CPM	B) Statement of compliance with the Nig. CARs (TGM-GEN. 3.3.3.3(c), 3.3.5.1 & TGM-OPS 3).					
27 Nig CARs 9.3.1.2	O	C) Evaluate Operations Manual TGM-OPS 020, CL:O-OPS 020B					
28 Nig CARs 7.9.1.1	O, C	1) Emergency exit plan TGM-OPS 011					
29 Nig CARs 8.9.2.14	O, C	2) Carry-on Baggage Plan TGM-OPS 10 TGM-CL: O-OPS 010					
30 Nig CARs IS 9.3.1.2, 8.2 8.9.1.7	O, C	3) Intoxicated, hostile and unruly passenger in aircraft TGM-OPS 020 (12.2.3)(b)(vii)					
31 Nig CARs 7.10.1.3(i), 8.9.1.1(e)	O, C	4) Smoking in aircraft TGM-OPS 020 (12.2.3)(b)(v)					
32	O, C	5) Imperiling safety of aircraft TGM-OPS 020 (12.2.3)(b)(vii)					
33 Nig CARs 8.9.1.1(d)	O, C	6) Stowaways					
34 Nig CARs 8.9.2.3, 9.5.1.4 IS 9.3.1.2	O	7) Carriage of persons without complying with passenger carriage requirements.					

Phase Three Cont'd

Ref #	RESP. POS.	Document Compliance and Evaluation Phase	Insp. Initials	Date Received/ Accomplished	*S/U/NA (if U, action to be taken)	Date Returned for Changes	Remarks
35 Nig CARs IS 9.3.1.2., 9.1, 9.3.1.2, 9.2	O, C & A	8) Carriage of dangerous goods TGM-OPS 021					
36 Nig CARs 9.3.1.12.	O&A	9) Allowable deficiencies (MEL) TGM-GEN 004,OPS 008 CL: O-OPS 008					
37 Nig. CARs 5.5.1.4	O, C & A	10) Filing flight safety/incident reports AC-OPS-031 Appx. C					
38 Nig. CARs 8.11	O, A & C	11) Flight, rest and duty-time procedures and record-keeping system. a. Flying hours for management staff (Duty Time) AC-OPS-027					
39 Nig CARs 9.3.2.9	O&A	12) Method of reporting and deferring defects. TGM-CL:O-AWS006, TGM-OPS 8					
40 Nig CARs 9.4.1.3(b)(7)		13) Least risk bomb location for each aircraft type. TGM-OPS 16.15.3.1(o)(iv)					
41	O	D) Approved Aircraft Operating Manual TGM-OPS 7					
42		1) Aircraft checklist					
43		a) Normal TGM-OPS 7.5.11 CL:O-OPS 007					
44		b) Abnormal TGM-OPS 7.5.13 CL:O-OPS 007,					

Phase Three Cont'd

Ref #	RESP. POS.	Document Compliance and Evaluation Phase	Inspectors Initials	Date Received/ Accomplished	*S/U/NA (if U, action must be taken)	Date Returned for Changes	Remarks
45		c) Emergency TGM-OPS 7.5.13 CL:O-OPS 007					
46 Nig CARs 8.9, 9.3.1.17 & 9.3.1.18	C	E) Cabin Attendant Manual TGM-OPS 12					
47 Nig CARs 7.9.1.2		1) Emergency Equipment TGM-OPS 14.4.4.3					
48 Nig CARs 9.1.3.5		2) Cabin Equipment TGM-OPS 14.4.4.3					
49	C	3) Galley TGM-OPS 14.4.4.3(c)					
50 Nig CARs IS 8.10.1.14(b)(ii)	C	4) Cabin Attendant knowledge TGM-OPS 12					
51 Nig CARs 9.3.1.18	C	5) Others – compliance with NCAA Operating regulations and rules (Passenger briefing cards) TGM-OPS 20.13, AC-OPS 007					
52 Nig CARs 1.4	A & O	F) Deviation Request TGM-OPS 24.5.1.16					
53 Nig CARs 8.6.2.19 8.10.1.8 8.12.1.3, 9.3.1.2 IS 9.3.1.2, IS 9.3.1.23	G	G) Flight Dispatch/Flight following/flight Locating procedures TGM-OPS 16					

Phase Three Cont'd

Task #	RESP. POS.	Document Compliance and Evaluation Phase	Insp. Initials	Date Received/ Accomplished	*S/U/NA (if U, action must be taken)	Date Returned for Changes	Remarks
54 Nig. CARs 8.2.1.8(a)(20) (b)(14) 8.5.1.8(c) 9.3.1.19, 20 & 26 IS 8.10.1.14(b) (a)(9)(i)	O	H) Aerodromes Data & En-route Manual (Charts & Plates) TGM-OPS 16.5.7 AC-OPS 001.5.7.8					
55 Nig CARs 8.7 IS 9.3.1.4.5.1	O	I) Aerodrome/Runway Analysis (Performance) TGM-OPS 9					
56 Nig CARs 8.2.1.5 9.3.1.12	A & O	J) Minimum Equipment List/Configuration Deviation List. TGM-GEN 4, TGM-OPS 8 CL:O-OPS 008					
57	C	K) Aircraft Cabin Log TGM-GEN 5.5.3.2					
58 Nig CARs 9.3.2.10, 9.1.1.11 IS 6.5.1.9	A	L) Maintenance Technical Manuals/ Documents TGM-AWS 3, 5, & 6					
59 Nig CARs 5.4.1.5	A	1) Validity of Maintenance certifications TGM-AWS 11					
60 Nig CARs 5.5 5.7.1.3, 6.4, 6.5.1.7 9.1.1.2 (33) IS 9.2.2.5	A	2) Maintenance Release properly Executed TGM-AWS 10.11 & 10.13 TGM-AWS 6 TGM-CL: O-AWS006					

Phase Three Cont'd

Task #	RESP. POS.	Document Compliance and Evaluation Phase	Insp. Initials	Date Received/ Accomplished	*S/U/NA (if U, action must be taken)	Date Returned for Changes	Remarks
61 Nig CARs 5.7.1.1 8.5.1.18 9.2.2.8, IS 9.2.2.8, 9.3.1.5	A & O	3) Technical logs (acceptable format and properly completed) TGM-AWS 1 & 5, TGM CL: O-AWS001					
62 Nig CARs 5.6.1.4	A	4) Defect rectification properly covered by signature TGM-AWS 10.11 & 10.13					
63 Nig CARs 9.3.2.9 IS 9.3.2.4	A	5) Deferred defect log TGM-AWS					
64 Nig CARs	A	6) Recurring defects and any shortage of spares					
65	A	7) Parts scrapping policy					
66 Nig CARs 9.3.2.4	A	M) Maintenance Control Manual AC-AWS 010 & 011 TGM-AWS 6, TGM-CL: O-AWS006 (AD,SB Accomplishment Procedure)					
67 Nig CARs 9.2.2.3	A	1) Continuous Analysis and Surveillance System. AC-AWS 017.3.1.8, TGM-AWS 9.3.1.9					
68 Nig CARs 8.6, 8.9.1.2 8.9.2.8(b) 8.12.1.3(4) 8.6.2.13 IS9.3.1.2(8.2.1)	O, A & G	N) Fueling/Refueling/ Defueling, Fuel flight planning & Records TGM: OPS 016 (7.0)					
69 Nig CARs 8.6	O, G	1) Flight planning formula TGM:OPS016 (7.0) TGM:OPS020 (8.0)					

Phase Three Cont'd

Task #	RESP. POS.	Document Compliance and Evaluation Phase	Insp. Initials	Date Received/ Accomplished	*S/U/NA (if U, action must be taken)	Date Returned for Changes	Remarks
70 Nig CARs 9.2.2.5(a)(4) IS9.2.2.5	A, G	2) Retention of fuel records TGM-OPS016 (13.1.2) & (13.8.1)					
71 Nig CARs 8.9.1.2	O, A & C	3) Refueling with passengers on board – special instructions TGM-OPS030 (3.1.3.1.3)					
72 Nig CARs IS9.2.2.3 IS9.3.2.4(3.11)	O, A, G	4) Fuel quality audit manual TGM-AWS006 CL:O-AWS006					
73 Nig CARs 9.2.4.1 9.3.1.15 IS9.2.2.3(4.1)	O,G	O) Ground servicing manual TGM-OPS030 (3.1.3.1.3) AC-OPS 001A					
74 Nig. CARs 8.2.1.8(18) 8.6.2.17, 9.3.1.16(a) IS8.10.1.14(B) IS9.3.1.4	O, A & G	P) Mass and Balance control Programme TGM-OPS2 , 6 & 20 TGM-OPS030 (3.1.3.1.3) CL: O-AWS001D					
75 Nig CARs 8.10.1.10 & 9.5,	O, A, G & C	Q) Carriage of Dangerous Goods TGM-OPS21, TGM-OPS4.4.1.28(g)					
76 Nig. CARs 8.10.1.11 & 9.4	O, A, G & C	R) Security TGM-OPS12 & 20, CL: O-OPS012 TGM-OPS4.4.1.28(b)					
77 Nig CARs 9.2.2.3	A	S) Continuing Analysis & Surveillance Programme AC-AWS 017.3.1.8, TGM-AWS 9.3.1.9					

Phase Three Cont'd

Task #	RESP. POS.	Document Compliance and Evaluation Phase	Insp. Initials	Date Received/ Accomplished	*S/U/NA (if U, action must be taken)	Date Returned for Changes	Remarks
78 Nig CARs 8.3.1.6, 9.3.2.2, 9.3.2.3, 9.3.2.4, 9.3.2.12	A	T) Continuing Airworthiness Maintenance Programme TGM-AWS3, CL-O-AWS 004.					
79 Nig CARs 9.5.1.13(g)(h) 9.2.3.5 IS9.2.2.10 IS9.3.1.2	O	U) Company's Emergency plan/notification TGM-OPS 20, TGM-OPS 30(3.1.9.1.2)					
80 Nig CARs 9.2.3.5 IS9.2.3.5	A, O, G & C	V) Emergency evacuation demonstration plan TGM-OPS 14					
81 Nig. CARs 9.2.3.6, IS9.2.3.6	O, A, C & G	W) Demonstration Flight Tests Plan TGM-OPS15, CL:O-OPS15 & 15A					
82 Nig CARs IS9.3.1.3	O	X) Evaluate Applicable Training Programme Manuals. Training Curricula to include (As appropriate)					
83 Nig CARs 9.2.2.9	O, A, C & G	1) Company procedures indoctrination TGM Chp.5, CL:O-OPS005 & 005A					
84 Nig. CARs 8.10.1.13 IS8.10.1.13	O, A, C & G	2) Emergency Equipment Drills TGM-OPS1 (10.4.2)(b)					
85 Nig CARs 8.10.1.14 IS8.10.1.14(B) IS9.3.1.3		3) Ground Training TGM-OPS1 (10.4.2)(c)					

Phase Three Cont'd

Task #	RESP. POS.	Document Compliance and Evaluation Phase	Insp. Initials	Date Received/ Accomplished	*S/U/NA (if U, action must be taken)	Date Returned for Changes	Remarks
86 Nig CARs 8.10.1.15		4) Flight Training TGM-OPS1 (10.4.2)(d), TGM-OPS22					
87 Nig. CARs 8.10.1.33 9.3.1.3, IS9.3.1.3	O, A, C & G	5) Recurrent training / recency checks TGM-OPS 5					
88 Nig. CARs 2.2.4.2 8.10.1.19 9.3.1.3, IS9.3.1.3(1.2)	O	6) Flight conversion training.					
89 Nig CARs 8.10.1.16 & IS8.10.1.16	O	7) Special equipment training. TGM-OPS 15(13.5)					
90 Nig. CARs 8.10.1.14(c) 8.10.1.24 8.10.1.34, 9.3.1.3, IS9.3.1.3(1.3)	C	8) Cabin crew training. TGM-OPS12					
91 Nig CARs 8.10.1.26	O	9) Command training (captain)					
92 Nig CARs 9.2.2.5(b)(c)	O, A, C & G	10) Records of progress TGM-OPS 5 (7.2.5), TGM-OPS19(13.7)					

Phase Three Cont'd

Task #	RESP. POS.	Document Compliance and Evaluation Phase	Insp. Initials	Date Received/ Accomplished	*S/U/NA (if U, action must be taken)	Date Returned for Changes	Remarks
93 Nig CARs 9.3.1.3 IS9.3.1.3(1.2)	O, A, C & G	11) Difference Training TGM-OPS 5					
94 Nig CARs 8.10.1.11 9.4.1.3	O, A, C & G	12) Security TGM-OPS 26, FORM: AC-OPS001					
95 Nig CARs 8.10.1.10 & IS8.10.1.10	O, C & G	13) Dangerous Goods TGM-OPS 21					
96 Nig CARs 8.10.1.40 IS8.10.1.40	O	14) Check Airmen / Flight Instructor TGM-OPS 19 AC- OPS 032					
987 Nig CARs 8.10.1.12 & IS8.10.1.12	O, C, G & A	15) Crew Resource Management TGM-OPS 23, AC-OPS 010					
98 Nig. CARs 9.3.1.2(g) IS9.3.1.2	O, A, C & G	16) Human factor elements TGM-OPS 23					
99 Nig CARs IS9.3.1.3(1.5)	O	17) Flight Safety Officer Training AC-OPS 031(4.2.3)					

Phase Three Cont'd

Task #	RESP. POS.	Document Compliance and Evaluation Phase	Insp. Initials	Date Received/ Accomplished	*S/U/NA (if U, action must be taken)	Date Returned for Changes	Remarks
100 Nig. CARs 2.2.4.8 2.6.2	A	18) Maintenance Training: a) Aircraft Maintenance Engineers Training					
101 Nig CARs 2.6.4		b) Aircraft Repair Specialist (Technician) Training TGM-AWS 6, CL:O-AWS 006					
END							

NIGERIAN CIVIL AVIATION AUTHORITY

AVIATION HOUSE

P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

PHASE FOUR (4)

AIR OPERATOR CERTIFICATE CHECKLIST

(COMMERCIAL AIR TRANSPORT OPERATOR)

<table>
<tr><td colspan="2">NAME AND MAILING ADDRESS OF COMPANY (including business name if different from company name)</td><td colspan="2">ADDRESS OF THE PRINCIPAL (Main) Base where operations will be conducted</td></tr>
<tr><td colspan="2">MAILING ADDRESS (If different from the principal (Main) base of operation)</td><td colspan="2">NCAA Reference Number</td></tr>
<tr><td colspan="2">TYPE OF INSPECTION
_____ Initial Certification
_____ Re-Certification
_____ Variation</td><td colspan="2">CERTIFICATION PROJECT MANAGER</td></tr>
<tr><td>FLIGHT OPERATIONS INSPECTOR(s)</td><td>CABIN SAFETY INSPECTOR(s)</td><td>GROUND OPS INSPECTOR(S)</td><td>AIRWORTHINESS SAFETY INSPECTOR(s)</td></tr>
</table>

*** Assignments:**

CPC - Certification Project Coordinator
O - Flight Operations Inspector
C- Cabin Safety Inspector
A - Airworthiness Safety Inspector
G – Ground Operations Safety Inspector

**** Legend:**

S – Satisfactory
U – Unsatisfactory
NA – Not Applicable

☐ As the applicant for Air Operator Certification (AOC) has not provided the required documents and/or conducted the activities necessary to complete this phase of the AOC certification process within the time-frames depicted in the schedule of events, further NCAA action corresponding to this AOC application is suspended for a minimum period of thirty (30) days.

During the period of suspension, the operator is not authorized to conduct any flight operations corresponding to Part 9 of the Nig. CARs.

After thirty (30) days have passed _____(enter date), depending upon the resources of the NCAA, activities associated with this AOC application may resume with applicant submission of required documents and/or accomplishment of activities necessary to complete the tasks remaining in this phase of the AOC process. Thereafter, depending on the resources of the NCAA, the process must adhere to the schedule of events.

If the AOC applicant does not provide the necessary documents and/or conduct the activities necessary to complete this phase within the succeeding thirty (30) calendar days, by _____ **(enter date),** or should the applicant/operator miss another due-date depicted on the schedule of events, then this AOC process will be deemed terminated and the file closed. In that event, the AOC applicant must re-apply to commence AOC certification at the beginning of Phase 4 of the process.

☐ I have reviewed the completion of tasks corresponding to this phase of the AOC certification process, confirmed conformity to the appropriate Nig. CARs, and, by my signature below, declare Phase 4 of the AOC certification process complete.

CPM's Name: _____

Signature: _____

Date: _____

Protocol /AOC Number: _____

Document Distribution: DG, DOT, DAWS, Operator Rep

Phase Four

Ref #	RESP. POS.	Demonstration and Inspection Phase	Insp. Initials	Date Received/ Accomplished	*S/U/NA (if U, action must be taken)	Date Returned for Changes	Remarks
102 Nig CARs 9.2.2.1	O & A	A) Evaluate Organization, Base Facilities and Aircraft Equipment (observe, approve or disapprove) CL: O-AWS001D, TGM-OPS 29. & 30, CL: O-OPS 022					
103 Nig CARs 8.10.1.14, 8.10.1.15 IS9.3.1.3	O & C	1) Airman / Cabin Crew training (classroom, simulator & aircraft training) TGM-OPS 5, CL: O-OPS005A.					
104 Nig CARs 8.10.1.15, 8.10.1.23 to 25 IS 8.10.1.24		2) Airman / Cabin crew testing and certification (airmen, crew members and dispatchers, as applicable) TGM-OPS 5, CL:O-OPS 005A					
105 Nig CARs 9.2.4	O & A	3) Station facilities inspection (equipment, procedures and personnel) TGM-OPS 30, CL:O-AWS 001D					
106 Nig CARs 9.2.2.5, IS9.2.2.5.	O	4) Record keeping procedures inspection (documentation of training, flight and duty times, flight records, etc) TGM-OPS 5.7.2.5,15.8.1.3(f) & 29.6.1.3					
107 Nig CARs 9.3.1.23, IS 9.3.1.23	O	5) Flight Operations (dispatch, flight following or flight locating capabilities) TGM-OPS 20.7.2					
108 Nig CARs 9.3.2.12, 9.3.2.3	A	6) Approved maintenance programme procedures inspection. TGM-AWS 3, CL:O-AWS 004 AC- AWS 008, 009 & 010					
109 Nig CARs 8.3 & 9.3.2	A	7) Maintenance activities (facilities, personnel, technical information, spare parts, etc) CL:O-AWS001D					

Phase Four Cont'd

Ref #	RESP. POS.	Demonstration and Inspection Phase	Insp. Initials	Date Received/ Accomplished	*S/U/NA (if U, action must be taken)	Date Returned for Changes	Remarks
110 Nig CARs 9.2.3.1	A	8) Aircraft inspection (conformity inspection, aircraft maintenance records, etc) TGM-AWS 11, CL:O-AWS 001A, 012, AC-AWS 002 & 003					
111 Nig CARs 9.3.1.12	O & A	9) Minimum Equipment List and Configuration Deviation List inspection (compliance with airplane owner's manual/airplane flight manual maintenance procedures, etc) TGM-OPS 8, CL: O-OPS 008 TGM-GEN 4, AC-OPS 030					
112 Nig CARs 9.3.1.15, 9.3.1.16	O	10) Mass and balance control inspection (procedures, accuracy and document control). TGM-OPS6, AC-AWS 016					
113 Nig CARs 9.2.3.5	O	11) Emergency evacuation demonstration (aborted takeoff and/or ditching demonstrations) TGM-OPS 14, CL:O-OPS 014					
114 Nig CARs 9.2.3.6	A & O	12) Aircraft demonstration flight TGM-OPS 15, CL:O-OPS 015					
115 Nig CARs 9.2.3.6 IS 9.2.3.6	A & O	13) Any other event appropriate for the type of operation to be conducted. TGM-OPS 15, CL:O-OPS 015					
116 Nig CARs 8.10.1.2, 8.10.1.3, 8.10.1.14, 8.10.1.15.	O	B) Evaluate Operator Conducting Training (classroom, simulators, aircraft) TGM-OPS 5, CL:O-OPS 005A.					

Phase Four Cont'd

Ref #	RESP. POS.	Demonstration and Inspection Phase	Insp. Initials	Date Received/ Accomplished	*S/U/NA (if U, action must be taken)	Date Returned for Changes	Remarks
117 Nig CARs 9.2.4.1	O	1) Training facilities. TGM-OPS 5.4.2.8					
118 Nig CARs 9.3.1.3 IS 9.3.1.3	O, C & G	2) Training programme TGM-OPS 5, CL:O-OPS 005A					
119 Nig. CARs 8.10.1.30	O	3) Flight crew member Training Evaluation:					
120 Nig CARs 9.2.2.9, 8.10.1.9	O	a) Company procedures indoctrination TGM-OPS 22.4.0, CL: O-OPS 17					
121 Nig CARs 8.10.1.13, IS 8.10.1.13	O	b) Emergency equipment drills training CL: O-OPS 17					
122 Nig CARs 8.10.1.14 IS 8.10.1.14(b)	O	c) Ground training CL: O-OPS 17					
123 Nig CARs 8.10.1.15	O	d) Flight training CL: O-OPS 17					
124 Nig CARs 8.10.1.17, IS8.10.1.17	O	e) Differences Training CL: O-OPS 17					

Phase Four Cont'd

Ref #	RESP. POS.	Demonstration and Inspection Phase	Insp. Initials	Date Received/ Accomplished	*S/U/NA (if U, action must be taken)	Date Returned for Changes	Remarks
125 Nig. CARs. 9.3.1.9, 8.10.1.37-40, IS8.10.1.37 & 40	O	4) Check Airmen / Instructor TGM-OPS19, CL:O-OPS 021					
126 Nig. CARs 8.10.1.14, IS 8.10.1.14(c)	C	5) Cabin Crew Training Evaluation TGM-OPS 5, CL:O-OPS 17A					
127 Nig CARs 9.2.2.9	C	a) Company procedures Indoctrination CL:O-OPS 17A					
128 Nig CARs IS 8.10.1.14(c)	C	b) Ground Training CL:O-OPS 17A					
129 Nig CARs 9.3.1.17(c) IS 8.10.1.13	C	c) Emergency Equipment Drills Training. CL:O-OPS 17A					
130 Nig CARs 8.10.1.12, IS 8.10.1.12	O, C & G	6) Crew Resource Management TGM-OPS 23					
131 Nig CARs 9.3.1.23 IS9.3.1.23(d)	O & G	7) Flight Supervision and Monitoring/ Flight Following TGM-OPS 16.13.0					
132 Nig. CARs 9.5.1.14, 8.10.1.10, IS 8.10.1.10	O, G & C	8) Dangerous Goods Training, TGM-OPS 21, CLO-OPS 023					

Phase Four Cont'd

Ref #	RESP. POS.	Demonstration and Inspection Phase	Insp. Initials	Date Received/ Accomplished	*S/U/NA (if U, action must be taken)	Date Returned for Changes	Remarks
133 Nig CARs 9.5.1.14, 8.10.1.10 IS 8.10.1.10	O & C	a) Crew members, TGM-OPS 21, CLO-OPS 023					
134 Nig CARs 9.5.1.14, 8.10.1.10, IS 8.10.1.10	G	b) Ground personnel TGM-OPS 21, CLO-OPS 023					
135 Nig CARs 9.4.1.3, 8.10.1.11	O, G & C	9) Security Training TGM-OPS 5, CL-O-OPS 005A					
136 Nig CARs 9.3.1.3 6.4.1.2(c), IS 6.4.1.2	A	10) Maintenance Training: a) Training programme,					
137 Nig CARs IS 6.4.1.2	A	i) Maintenance Personnel					
138 Nig. CARs 9.2.2.3, IS 9.2.2.3	A	ii) Quality personnel, TGM-AWS 7					
139 Nig. CARs, IS 6.2.1.12(1.3)	A	b) Individual responsible for Maintenance training					
140 Nig CARs 9.2.4.1	A	c) Training Facilities, TGM-OPS 5.5.2.8					

Phase Four Cont'd

Ref #	RESP. POS.	Demonstration and Inspection Phase	Insp. Initials	Date Received/ Accomplished	*S/U/NA (if U, action must be taken)	Date Returned for Changes	Remarks
141 Nig. CARs 9.2.2.5, IS 9.2.2.5	A	d) Training records, TGM-OPS 5.7.2.5					
142 Nig CARs 8.10	O	11) Testing / Certification a) Pilots CL:O-OPS 005A, TGM-OPS 5.14.6.4					
143 Nig CARs 8.10	O	b) Flight Engineers (where applicable). CL:O-OPS 005A, TGM-OPS 5.14.6.4					
144 Nig CARs 8.10	G	c) Flt / Ops / Officers CL:O-OPS 005A, TGM-OPS 5.14.6.4					
145 Nig CARs 8.10	C	d) Cabin crew CL:O-OPS 005A, TGM-OPS 5.14.6.4					
146 Nig CARs 9.2.3.1	A & O	C) Aircraft Conformity Inspection (confirmation of actual a/c documents, etc) TGM-AWS 11, 12, CL: O-AWS 001A, CL:O- AWS 012, CL: O-OPS 001					
147 Nig. CARs 9.2.2.1	A & O	D) Main Operational Base TGM-OPS 29					
148 Nig. CARs 9.2.4.1	O	E) Station / Facilities (Operations) TGM-OPS 30, CL:O-AWS001D					
149 Nig. CARs 9.2.4.1	A	F) Station / Facilities (Maintenance) TGM-OPS 30, CL:O-AWS001D					
150 Nig CARs 9.3.1.23	O	G) Flight Supervision and Monitoring/Flight Following. TGM-OPS 16					

Phase Four Cont'd

Ref #	RESP. POS.	Demonstration and Inspection Phase	Insp. Initials	Date Received/ Accomplished	*S/U/NA (if U, action must be taken)	Date Returned for Changes	Remarks
151 Nig. CARs 9.2.2.5 IS 9.2.2.5	O	H) Record Keeping Procedures TGM-GEN 3.3.6.3					
152 Nig. CARs 9.2.2.5 IS 9.2.2.5	O	i. Crew member 1. Training, TGM-OPS 5, TGM-OPS 19.13.7					
153 Nig CARs 9.2.2.5 IS 9.2.2.5	O	2. Flight & Rest times TGM-OPS 16.11.0					
154 Nig CARs 9.2.2.5 IS 9.2.2.5	O	3. Qualifications TGM-OPS 16.11.0, TGM-OPS 19.13.7, CL:O-OPS 018A					
155 Nig. CARs 9.2.2.5 9.2.2.5(c)	O	4. Location of records CL:O-OPS 018A					
156 9.2.2.5 9.2.2.5(c)	A	ii. Maintenance 1. Aircraft records TGM-OPS 29.6.1.4.1(g)					
157 Nig CARs 9.2.2.5 IS 9.2.2.5	A	2. Maintenance Personnel training CL:O-AWS 001D					
158 Nig CARs 9.2.2.5(c) IS 9.2.2.5	A	3. Location of records CL:O-AWS 001D					

Phase Four Cont'd

Ref #	RESP. POS.	Demonstration and Inspection Phase	Insp. Initials	Date Received/ Accomplished	*S/U/NA (if U, action must be taken)	Date Returned for Changes	Remarks
159 Nig CARs 9.2.2.5(c) IS 9.2.2.5	A	i) Individual responsible for maintenance CL: O-AWS001D					
160 Nig CARs 9.2.2.5 IS9.2.2.5(c)	A	ii) Quality Manager & Staff CL: O-AWS001D					
161 Nig CARs 9.2.2.5 IS9.2.2.5(c)	A	iii) Contract employees,					
162 Nig CARs 9.3.1.5, 8.6.2.16	O	I) Flight / Trip Records, CL:O-OPS 004 & 022					
163 Nig CARs 8.10.1.45 9.2.2.5 IS 9.2.2.5, IS8.10.1.13	O & C	Records of periodic crew tests i) All crew – emergency/ survival, CL:O-OPS 018A, CL:O-OPS 018B					
164 Nig CARs 9.3.1.9 9.2.2.5 IS 9.2.2.5	O	a. All pilots – annual instrument rating renewal line checks, CL:O-OPS 018A					
165 Nig CARs 2.3.1.6(c) 8.10.1.33	O	iii) Six months checks, CL:O-OPS 018A					

Phase Four Cont'd

Ref #	RESP. POS.	Demonstration and Inspection Phase	Insp. Initials	Date Received/ Accomplished	*S/U/NA (if U, action must be taken)	Date Returned for Changes	Remarks
166 Nig CARs 2.3.1.6(c) 8.10.1.33	O	iv) Instrument approach proficiency, CL:O-OPS 018A					
167 Nig CARs 2.3.1.6(c) 8.10.1.33	O & C	v) Recency checks, CL:O-OPS 018A &18B					
168 Nig CARs 9.2.3.5, IS 9.2.3.5	O & C	J) Emergency Evacuation Demonstration, CL: O-OPS014					
169 Nig CARs 9.2.3.5(d), IS 9.2.3.5	O & C	K) Ditching Demonstration, CL: O-OPS014					
170 Nig CARs 9.1.1.6(a)(6)	CPM	L) Economic Authority.					
171 Nig CARs 8.2.1.8(a)(27)	CPM	M) Certified proof of aircraft insurance CL:O-AWS 001A, TGM-GEN 5.6.2.1(d)					
END							

NIGERIAN CIVIL AVIATION AUTHORITY

AVIATION HOUSE

P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

PHASE FIVE (5)

AIR OPERATOR CERTIFICATE CHECKLIST

(COMMERCIAL AIR TRANSPORT OPERATOR)

<table>
<tr><td colspan="2">NAME AND MAILING ADDRESS OF COMPANY (including business name if different from company name)</td><td colspan="2">ADDRESS OF THE PRINCIPAL (Main) Base where operations will be conducted</td></tr>
<tr><td colspan="2">MAILING ADDRESS (If different from the principal (Main) base of operation)</td><td colspan="2">NCAA Reference Number</td></tr>
<tr><td colspan="2">TYPE OF INSPECTION
_____ Initial Certification
_____ Re-Certification
_____ Variation</td><td colspan="2">CERTIFICATION PROJECT MANAGER</td></tr>
<tr><td>FLIGHT OPERATIONS INSPECTOR(s)</td><td>CABIN SAFETY INSPECTOR(s)</td><td>GROUND OPS INSPECTOR(S)</td><td>AIRWORTHINESS SAFETY INSPECTOR(s)</td></tr>
</table>

*** Assignments:**

CPC - Certification Project Coordinator
O - Flight Operations Inspector
C- Cabin Safety Inspector
A - Airworthiness Safety Inspector
G – Ground Operations Safety Inspector

**** Legend:**

S – Satisfactory
U – Unsatisfactory
NA – Not Applicable

☐ As the applicant for Air Operator Certification (AOC) has not provided the required documents and/or conducted the activities necessary to complete this phase of the AOC certification process within the time-frames depicted in the schedule of events, further NCAA action corresponding to this AOC application is suspended for a minimum period of thirty (30) days.

During the period of suspension, the operator is not authorized to conduct any flight operations corresponding to Part 9 of the Nig. CARs.

After thirty (30) days have passed _____(enter date), depending upon the resources of the NCAA, activities associated with this AOC application may resume with applicant submission of required documents and/or accomplishment of activities necessary to complete the tasks remaining in this phase of the AOC process. Thereafter, depending on the resources of the NCAA, the process must adhere to the schedule of events.

If the AOC applicant does not provide the necessary documents and/or conduct the activities necessary to complete this phase within the succeeding thirty (30) calendar days, by _____ **(enter date),** or should the applicant/operator miss another due-date depicted on the schedule of events, then this AOC process will be deemed terminated and the file closed. In that event, the AOC applicant must re-apply to commence AOC certification at the beginning of Phase 1 of the process.

☐ I have reviewed the completion of tasks corresponding to this phase of the AOC certification process, confirmed conformity to the appropriate Nig. CARs, and, by my signature below, declare Phase 1 of the AOC certification process complete.

CPM's Name: _____

Signature: _____

Date: _____

Protocol/AOC Number: _____

Document Distribution: DG, DOT, DAWS, Operator Rep.

Phase Five

Ref. #	RESP. POS.	Certification Phase	Inspectors Initials	Date Received/ Accomplished	*S/U/NA (if U, action must be taken)	Date Returned for Changes	Remarks
172	CPM	A) Prepare Certification Report TGM-GEN 3, TGM-OPS 26					
173	CPM	1) Assemble Report TGM-OPS 17.6.0					
174	CPM	a) PASI and Formal Application letter/ form of intent and attachments. TGM-OPS 1 Formal Application Form AC-OPS 001, TGM-GEN 3.3.7, Form: O-OPS 002					
175	CPM	b) Final compliance statement AC-OPS 001.7.3 TGM-GEN 3.3.7.1(d)(ii), TGM-OPS 3					
176	CPM	c) Copy of operations specifications TGM-OPS 2, Form : AC-OPS 001D TGM-GEN 3.3.7.1(d)(v),					
177	CPM	d) Copy of Certificates Form : AC-OPS 001C TGM-GEN 3.3.7.1(d)(iv),					
178	CPM	B) Submit Report to DG via DOT. TGM-OPS 17.7.1					
179 Nig CARs 9.1.1.6	CPM	C) Present Certificate & Operations Specifications TGM-OPS 17.5.0					

Phase Five Cont'd

Ref. #	RESP. POS.	Certification Phase	Inspectors Initials	Date Received/ Accomplished	*S/U/NA (if U, action must be taken)	Date Returned for Changes	Remarks
180 Nig CARs 9.1.1.11	DOT	D) Develop Post Certification Surveillance Programme 1) Within Geographic Area					See NCAA -Air Operator Surveillance Programme
181		2) Outside Geographic Area					Awaiting implementation
END							

NIGERIAN CIVIL AVIATION AUTHORITY

AVIATION HOUSE

P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

Form # O-OPS001B

MANAGEMENT PERSONNEL BIOGRAPHICAL DATA

MANAGEMENT PERSONNEL BIOGRAPHICAL DATA (To be completed by the Nominee)		
1. Company name:	1. Comp any address:	
3. Name of nominee:	4. Position:	
5. Address of Nominee:		
6. Status: ☐ Permanent ☐ Contracted - Full Time ☐ Contracted - Part Time		
7. Qualifications relevant to item (4) position (Tick here ☐ if information is continued on reverse side of this form)	Date From	Date to
(1)		Present
(2)		
(3)		
(4)		
(5)		
(6)		
(7)		
(8)		
8. Work experience relevant to item (4) position:	Date From	Date to
(1)		Present
(2)		
(3)		
(4)		
(5)		
(6)		
(7)		
(8)		

9. I,…… hereby confirm that
(Print Name in full)

(a) I have not
(i) held a certificate or aviation document issued by a civil aviation authority that was revoked or terminated within the previous five years by reason of criminal, fraudulent, improper action or insanity on my part; nor

(ii) contributed materially to the revocation or suspension of an aviation document issued by a civil aviation authority

(b) The information provided on this form is true and correct to the best of my knowledge.

Signature:…….. Date:……

10. **For NCAA Official Use Only**

Received by:

Name: …… Position: …….

Signature:…….... Date:……

Attach copies of certificates/proof of experience to this form in support of information supplied.

FORM: O-OPS 001C

Air Operator Complexity Forms

TABLE 001C-1 (Page 1) MANAGEMENT INFORMATION		
CHIEF EXECUTIVE OFFICER		
	Name **Address:** **Phone Number** **Fax Number** **email address:**	
AGENT FOR SERVICE		
	Name **Address:** **Phone Number** **Fax Number** **email address:**	
PRESIDENT		
	Name **Address:** **Phone Number** **Fax Number** **email address:**	
QUALITY SYSTEM ACCOUNTABLE MANAGER		
	Name **Address:** **Phone Number** **Fax Number** **email address:**	

TABLE 001C -1 (Page 2)		
DIRECTOR FLIGHT OPERATIONS		
	Name **Address:** **Phone Number** **Fax Number** **email address:**	
DIRECTOR MAINTENANCE SYSTEM		
	Name **Address:** **Phone Number** **Fax Number** **email address:**	
DIRECTOR CREW TRAINING		
	Name **Address:** **Phone Number** **Fax Number** **email address:**	
DIRECTOR GROUND OPERATIONS		
	Name **Address:** **Phone Number** **Fax Number** **email address:**	

TABLE 001C - 1 (Page 3)		
MANAGER FLIGHT SAFETY		
	Name **Address:** **Phone Number** **Fax Number** **email address:**	
MANAGER QUALITY ASSURANCE		
	Name **Address:** **Phone Number** **Fax Number** **email address:**	
MANAGER INFLIGHT SERVICE		
	Name **Address:** **Phone Number** **Fax Number** **email address:**	
MANAGER FLIGHT SUPERVISION		
	Name **Address:** **Phone Number** **Fax Number** **email address:**	

TABLE 001C -1 (Page 4)		
MANAGER FLEET OPERATIONS TRAINING AND STANDARDIZATION		
	Name **Address:** **Phone Number** **Fax Number** **email address:**	
OTHER MANAGER _____		
	Name **Address:** **Phone Number** **Fax Number** **email address:**	
OTHER MANAGER _____		
	Name **Address:** **Phone Number** **Fax Number** **email address:**	
OTHER MANAGER _____		
	Name **Address:** **Phone Number** **Fax Number** **email address:**	

TABLE 001C -2 (Page 1) BASE LOCATION INFORMATION		
PRINCIPAL BUSINESS ADDRESS		
	Address:	
	Nearest Airport:	
	Contact Name Title:	
	Address:	
	Phone Number	
	Fax Number	
	email address:	
MAIN OPERATIONS BASE		
	Address:	
	Nearest Airport:	
	Contact Name Title:	
	Address:	
	Phone Number	
	Fax Number	
	email address:	
MAIN MAINTENANCE BASE		
	Address:	
	Nearest Airport:	
	Contact Name Title:	
	Address:	
	Phone Number	
	Fax Number	
	email address:	

TABLE 001C -2 (Page 2) BASE LOCATION INFORMATION		
PRIMARY PILOT DOMICILE		
	Address:	
	Nearest Airport:	
	Contact Name Title:	
	Address:	
	Phone Number	
	Fax Number	
	email address:	
PRIMARY CABIN CREW DOMICILE		
	Address:	
	Nearest Airport:	
	Contact Name Title:	
	Address:	
	Phone Number	
	Fax Number	
	email address:	
PRIMARY PILOT TRAINING LOCATION		
	Address:	
	Nearest Airport:	
	Contact Name Title:	
	Address:	
	Phone Number	
	Fax Number	
	email address:	

TABLE 001C -2 (Page 3)		
PRIMARY CABIN CREW TRAINING LOCATION		
	Address: **Nearest Airport:** **Contact Name Title:** **Address:** **Phone Number** **Fax Number** **email address:**	
OTHER LOCATION:_____		
	Address: **Nearest Airport:** **Contact Name Title:** **Address:** **Phone Number** **Fax Number** **email address:**	
OTHER LOCATION_____		
	Address: **Nearest Airport:** **Contact Name Title:** **Address:** **Phone Number** **Fax Number** **email address:**	

TABLE 001C - 3

RECORDS LOCATION INFORMATION

OPERATIONS RECORDS		
RECORD	**LOCATION**	**TRUSTEE NAME & PHONE NUMER**
	:	
	:	
	:	
	:	
	:	
	:	
	:	
	:	
	:	
	:	
AIRWORTHINESS RECORDS		
	:	
	:	
	:	
	:	
	:	
	:	
	:	
	:	
STATION RECORDS		
	:	
	:	
	:	
	:	
	:	
	:	
	:	
	:	
	:	
	:	

TABLE 001C -4 (Page 1) TRAINING CONTRACT/SIMULATOR INFORMATION		
Contractor	**Location & Phone**	**Contract Service Provided**

TABLE 001C -4 (Page 2)
TRAINING CONTRACT/SIMULATOR INFORMATION

Contractor	Location & Phone	Contract Service Provided

TABLE 001C -5 (Page 1)
TRAINING AND CHECKING PERSONNEL

CC=Cabin Crew, TRI=Type Rating Instructor; TRE=Type Rating Examiner; S=Simulator; A=Aircraft; LC=Line Check; LF=Line Flying under Supervision

Name	Aircraft or Equipment	NCAA Expiration	CC	TRI	TRE	S	A	LC	LF

.

TABLE 001C -5 (Page 2)
TRAINING AND CHECKING PERSONNEL

CC=Cabin Crew, TRI=Type Rating Instructor; TRE=Type Rating Examiner; S=Simulator; A=Aircraft; LC=Line Check; LF=Line Flying under Supervision

Name	Aircraft or Equipment	NCAA Expiration	CC	TRI	TRE	S	A	LC	LF

TABLE 001C -6 (Page 1) SCHEDULED CITY PAIRS, ROUTE AND SPECIAL OPERATION INFORMATION					
Airport	Airport	Aircraft and Type Navigation	"C" Airport? (Yes/No)	AWO (Cat?)	ER-ET

TABLE 001C -6 (Page 2) SCHEDULED CITY PAIRS, ROUTE AND SPECIAL OPERATION INFORMATION					
Airport	Airport	Aircraft and Type Navigation	"C" Airport? (Yes/No)	AWO (Cat?)	ER-ET

TABLE 001C -7 (Page 1) LIST OF AIRCRAFT	
Aircraft Make/Model **Registration Number** **Leased From** **Term of Lease** **C of A Renewal** **83bis Applicable?**	
Aircraft Make/Model **Registration Number** **Leased From** **Term of Lease** **C of A Renewal** **83bis Applicable?**	
Aircraft Make/Model **Registration Number** **Leased From** **Term of Lease** **C of A Renewal** **83bis Applicable?**	
Aircraft Make/Model **Registration Number** **Leased From** **Term of Lease** **C of A Renewal** **83bis Applicable?**	
Aircraft Make/Model **Registration Number** **Leased From** **Term of Lease** **C of A Renewal** **83bis Applicable?**	
Aircraft Make/Model **Registration Number** **Leased From** **Term of Lease** **C of A Renewal** **83bis Applicable?.**	

TABLE 001C -7 (Page 2) LIST OF AIRCRAFT	
Aircraft Make/Model Registration Number Leased From Term of Lease C of A Renewal 83bis Applicable?	
Aircraft Make/Model Registration Number Leased From Term of Lease C of A Renewal 83bis Applicable?	
Aircraft Make/Model Registration Number Leased From Term of Lease C of A Renewal 83bis Applicable?	
Aircraft Make/Model Registration Number Leased From Term of Lease C of A Renewal 83bis Applicable?	
Aircraft Make/Model Registration Number Leased From Term of Lease C of A Renewal 83bis Applicable?	
Aircraft Make/Model Registration Number Leased From Term of Lease C of A Renewal 83bis Applicable?.	

TABLE 001C -8 (Page 1) CAR 6 Information	
Base Maintenance Contractor **Certificate Number** **Ratings** **Nearest Airport** **Address** **Contact** **Phone Number**	
Line Maintenance Contractor **Certificate Number** **Ratings** **Nearest Airport** **Address** **Contact** **Phone Number**	
Line Maintenance Contractor **Certificate Number** **Ratings** **Nearest Airport** **Address** **Contact** **Phone Number**	
Line Maintenance Contractor **Certificate Number** **Ratings** **Nearest Airport** **Address** **Contact** **Phone Number**	

TABLE 001C -8 (Page 2) CAR 6 Information	
Base Maintenance Contractor **Certificate Number** **Ratings** **Nearest Airport** **Address** **Contact** **Phone Number**	
Line Maintenance Contractor **Certificate Number** **Ratings** **Nearest Airport** **Address** **Contact** **Phone Number**	
Line Maintenance Contractor **Certificate Number** **Ratings** **Nearest Airport** **Address** **Contact** **Phone Number**	
Line Maintenance Contractor **Certificate Number** **Ratings** **Nearest Airport** **Address** **Contact** **Phone Number**	

TABLE 001C -9 (Page 1) STATION SERVICING CONTRACTOR INFORMATION							
Contractor	Maintenance		Fueling	Ground Handling	Training		Deicing.
	MAINT	AVNCS			MAIN	AVNCS	

TABLE 001C -9 (Page 2) STATION SERVICING CONTRACTOR INFORMATION							
Contractor	Maintenance MAINT	 AVNCS	Fueling	Ground Handling	Training MAIN	 AVNCS	Deicing.

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

FORM: O-OPS 001D

Required AOC Manuals and Supporting Documents

I. Purpose

This Appendix provides guidance regarding the Operations and Maintenance Manuals and supporting documentation, which must be provided to the NCAA with the formal application

A. General Guidance

***NCAA Property*.**

1. A copy of all manuals and supporting documentation submitted with the formal AOC application become the property of the NCAA.

2. After the formal application meeting, these copies will only be returned to the applicant in the event that the certification is voluntarily terminated before completion.

3. The applicant may simultaneously submit a second copy of all manuals, with the intent that these second copies will be returned to the applicant with the NCAA annotated document evaluation comments. These copies will be returned.

B. CPM Provides Annotated Tables to Applicant.

During the Pre-Application Meeting, the CPM will provide the applicant with a copy of the tables in this Appendix. Each of those tables will have a check (X) in the left column adjacent to the manual or document, which must be provided with the AOC application.

***C. Applicant Provides Annotated Tables With the AOC Application*.**

When the formal AOC application is delivered to the NCAA, these tables must be included with the application. The applicant may annotate the “enclosed” column to indicate that each requested manual or document is included with the application.

D. Requested Document(s) Not Included.

If the requested documents are not included with the formal AOC application, the application and all other documents will be returned to the applicant. The only exception to this guidance will be with the specific written authorization of the Director of Operations and Training.

The remainder of this page intentionally left blank

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

TABLE 001D-1: GENERAL POLICY AND PROCEDURES
OPERATIONS AND AIRWORTHINESS DOCUMENTS

Instructions:
1. The NCAA has placed an (X) in the left column by all items which must be submitted with the AOC application.
2. The "enclosed" column may be used by the applicant to identify those documents that are included with the AOC application. Place an (X) to indicate that the documents are included.
3. These tables must be submitted as attachments to the formal AOC application with the requested manuals and documents.

(R)		Enclosed	Date Submitted	Inspector Initials
	GENERAL			
	Air Operator Complexity			
	Conformance Report			
	Schedule of Events			
	Management Resumes			
	Quality System Manual			
	OPERATIONS MANUALS			
	Flight Operations Manual			
	Cabin Crew Manual			
	Dispatch Manual			
	Route Guide			
	Flight Crew Training and Checking Manual			
	Cabin Crew Training Manual			
	Flight Operations Officer Training Manual			
	Accident Prevention Manual			
	Security Manual			
	Dangerous Good Manual			
	Emergency Response Manual			

TABLE 001D -1 Continued				
(R)	OPERATIONS CONTRACTS			
	Training			
	Operational Control			
	Performance Data			
	Flight Planning Data			
	GENERAL AIRWORTHINESS MANUAL			
	Maintenance Control Manual (MCM)			
	Maintenance Procedures Manual (MPM)			
	Maintenance Training Programme Manual			
	AIRWORTHINESS CONTRACTS			
	MaIntenance Contractual Arrangements			

TABLE001D -2: FLEET SPECIFIC

OPERATIONS AND AIRWORTHINESS DOCUMENTS

Instructions: Provide the following for each different aircraft make and model fleet proposed for operation.

(R)	MAKE/MODEL:	Enclosed	Date Submitted	Inspector Initials
	OPERATIONS (Aircraft Fleet Specific)			
	Aircraft Operations Manual			
	Approved Flight Manual			
	Condensed Checklists			
	Minimum Equipment List			
	Manufacturers Master Minimum Equipment List Configuration Deviation List (CDL)			
	Passenger Briefing Cards			
	Runway Analysis			
	Aircraft Loading Manual			
	Training and Checking Captain Nominations			
	MAINTENANCE (Aircraft Fleet Specific)			
	Maintenance Program			
	Manufacturers Maintenance Planning Document			
	Maintenance Task Cards			
	Ground Handling Manual			
	Aircraft Deicing Manual			
	Aircraft Fueling Manual			
	Manufacturers Maintenance Manual - Aircraft			
	Manufacturers Maintenance Manual - Engines			
	Manufacturers Maintenance Manual - Components			
	Maintenance Review Board Report (MRBR)			
	Reliability Programme Mass and Balance Procedure/programme.			

TABLE 001D -3: AIRCRAFT SPECIFIC
OPERATIONS AND AIRWORTHINESS DOCUMENTS

Instructions: Provide the following information for each aircraft proposed for operation. Use more than one page if necessary

(R)	**Registration:**	
	Airworthiness Certificate	
	Registration Certificate	
	Export C of Airworthiness	
	Approved Flight Manual	
	Equipment List	
	W & Balance Report	
	Type Certificate Data Compliance	
	LOPA	
	Configuration Conformance Report	
	Aircraft Lease	

(R)	**Registration:**	
	Airworthiness Certificate	
	Registration Certificate	
	Export C of Airworthiness	
	Approved Flight Manual	
	Equipment List	
	W & Balance Report	
	Type Certificate Data Compliance	
	LOPA	
	Configuration Conformance Report	
	Aircraft Lease	

(R)	**Registration:**	
	Airworthiness Certificate	
	Registration Certificate	
	Export C of Airworthiness	
	Approved Flight Manual	
	Equipment List	
	W & Balance Report	
	Type Certificate Data Compliance	
	LOPA	
	Config. Conformance	
	Aircraft Lease	

(R)	**Registration:**	
	Airworthiness Certificate	
	Registration Certificate	
	Export C of Airworthiness	
	Approved Flight Manual	
	Equipment List	
	W & Balance Report	
	Type Certificate Data Compliance	
	LOPA	
	Config Conformance	
	Aircraft Lease	

NOTES

NIGERIAN CIVIL AVIATION AUTHORITY

AVIATION HOUSE

P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

FORM: O-OPS 001E

Schedule of Events

Table 001E-1 (Page 1)

AIR OPERATOR CERTIFICATION
SCHEDULE OF EVENTS

AIR OPERATOR NAME:

SUBMITTED BY:(NAME)

TELEPHONE AND EMAIL CONTACT INFORMATION:

AIRCRAFT:

This SOE is applicable to the following process (es):

- Original Cert– Small Domestic
- Original Cert – Small International
- Original Cert – Large Domestic
- Original Cert– Large International
- Add Same Type Aircraft
- Add New Type Aircraft
- ER - Extended Range Operations
- ETOPS – Extended Twin Engine Ops
- MNPS – Special RNP Certification
- RVSM – Reduced Vertical Separation
- CAT II Approaches (All Weather Ops)
- CAT III Approaches (All Weather Ops)

Instructions for Air Operator Completion of Certification Schedule of Events

SUBMITTED (CLOCK) DATE FOR NCAA ENTRY **The date the NCAA is first aware of the need for this action or event AND has the necessary documents and equipment availability**	**DOCUMENT-ACTION-EVENT Insert the document submitted, event that is to take place or action expected of either the AOC applicant or NCAA.**	**RESPONSIBLE PERSON AND ORGANIZATION Insert the name of the AOC applicant or NCAA person responsible for completing the action or event.**	**TARGET DATE Insert date NEGIOTATED WITH NCAA**	**COMPLETED DATE *FOR NCAA ENTRY*** **The date the material was submitted to the NCAA or the date the NCAA completes their Evaluation work and officially advises the AOC applicant.**

Table 001E-1 (Page 2)
Schedule of Events

Date: Page 2

Submitted (Clock) Date	NECESSARY DOCUMENT-ACTION-EVENT	RESPONSIBLE PERSON AND ORGANIZATION	TARGET DATE	COMPLETED DATE.

Table 001E-1 (Page 3)

Schedule of Events

Date: Page 3

Submitted (Clock) Date	NECESSARY DOCUMENT-ACTION-EVENT	RESPONSIBLE PERSON AND ORGANIZATION	TARGET DATE	COMPLETED DATE.

Table 001E-1 (Page 4)

Schedule of Events

Date: Page 4

Submitted (Clock) Date	NECESSARY DOCUMENT-ACTION-EVENT	RESPONSIBLE PERSON AND ORGANIZATION	TARGET DATE	COMPLETED DATE

NIGERIAN CIVIL AVIATION AUTHORITY

AVIATION HOUSE

P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

OPERATIONS SPECIFICATIONS

(Subject to the approved conditions in the operations manual)

ISSUING AUTHORITY CONTACT DETAILS [1]

Telephone:_____ Fax:_____ E-mail:_____

AOC#[2]:_____ Operator name[3]:_____ Date[4]:_____ Signature:_____

Dba trading name:_____

Aircraft model[5]:

Types of operation: Commercial air transportation ☐ Passenger ☐ cargo ☐ Other[6]:_____

Areas(s) of operation[7]:

Special limitation[8]:

SPECIAL AUTHORIZATIONS	YES	NO	SPECIFIC APPROVALS[9]	REMARKS
Dangerous goods	☐	☐		
Low visibility operations ☐ Approach and landing ☐ Take-off ☐	☐	☐	CAT[10]:___ _ RVR:_____ m DH: _____ft RVR[11]:_____ m	
RVSM[12] ☐ N/A	☐	☐		
ETOPS[13] ☐ N/A	☐	☐	Maximum diversion time[14]_____minutes	
Navigation specifications for PBN operation[15]	☐	☐		16
Continuing airworthiness	X	X	17	
Other[18]	☐	☐		

Notes: _

1. *Telephone and fax contact details of the authority, including the country code. E-mail to be provided if available.*
2. *Insert the associated AOC number.*
3. *Insert the operator's registered name and the operator's trading name, if different. Insert "dba" before the trading name (for "doing business as").*
4. *Issuance date of the operations specifications (dd-mm-yyy) and signature of the authority representative.*
5. *Insert the Commercial Aviation Safety Team (CAST)/ICAO designation of the aircraft make, model and series, or master series, if a series has been designated (e.g. Boeing – 737 – 3K2 or Boeing -777 -232). The CAST/ICAO taxonomy is available at: http:/www.intlaviationstandrds.org/*
6. *Other type of transportation to be specified (e.g. emergency medical service).*
7. *List the geographical area(s) of authorized operation (by geographical coordinates or specific routes, flight information region or national or regional boundaries).*
8. *List the applicable special limitations (e.g. VFR only, day only).*
9. *List in this column the most permissive criteria for each approval or the approval type (with appropriate criteria).*
10. *Insert the applicable precision approach category (CAT 1, II, IIIA, IIIB or IIIC). Insert the minimum RVR in meters and decision height in feet. One line is used per listed approach category.*
11. *Insert the approved minimum take-off RVR in meters. One line per approval may be used if different approvals are granted.*
12. *"No applicable (N/A) "box may be checked only If the aircraft maximum ceiling is below FL 290.*
13. *Extended range operations (ETOPS) current applies only to twin-engine aircraft. Therefore the "Not applicable (N/A)" box may be checked if the aircraft model has more than 2 engines. Should the concept be extended to 3 or 4-engined aircraft in the future, the "Yes" or "No" checkbox will be required to be checked.*
14. *The threshold distance may also be listed (in NM), as well as the engine type.*
15. *Performance-based navigation (PBN): one line is used for each PBN specification authorization (e.g. RNAV 10, RNAV 1, RNP 4), with appropriate limitations or conditions listed in the "Specific Approvals" and/or "Remarks" columns.*
16. *Limitations, conditions and regulatory basis for operational approval associated with the performance-based navigation specifications (e.g. GNSS, DME/DME/IRU). Information on performance – based navigation, and guidance concerning the implementation and operational approval process, are contained in the Performance – based Navigation Manual (Doc 9613).*
17. *Insert the name of the person/organization responsible for ensuring that the continuing airworthiness of the aircraft is maintained and the regulation that requires the work, i.e. within AOC regulation or a specific approval (e.g. EC2042/2003. Part M, Subpart G).*
18. *Other authorizations or data can be entered here, using one line (or one multi-line block) per authorization (e.g. special approach authorization, MNPS, approved navigation performance).*

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D45	- Leased Aircraft Maintenance Programme Authorisation ...	19th Oct, 2006	
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D49	- Reliability Programme Contractual Arrangement Authorisation..	16th Jan., 2008	
D50	- Reliability Programme Authorisation: Airframe, Power plant, Systems, or Selected Items ….....	16th Jan., 2008	
D51	- Maintenance Programme Authorisation for Two Engine Airplanes Used in Extended Range Operation. …….....	19th Oct, 2006	
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D54	- Parts Borrowing Authorisation …….....	19th Oct, 2006	
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D56	- Maintenance Time Limitations Section – Operator with Reliability Programme …….....	19th Oct, 2006	
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D58	- Prorated Time Authorisation …….....	19th Oct, 2006	
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D60	- Maintenance Contractual Arrangement Authorisation for Specific Maintenance …….....	16th Jan., 2008	
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Nigerian Civil Aviation Authority
Operations Specifications

SCHEDULE B. OPERATIONS SPECIFICATIONS STANDARD PARAGRAPHS

PART A - GENERAL PROVISIONS
(AIRCRAFT GENERAL PROVISIONS)

1. The following pages contain the AUTHORITYs standard Operations Specifications (OpSpecs) - Part A.

2. These standard OpSpecs may not be changed without using the amendment process described in NCAA Technical Guidance Materials, NCAA-O-OPS002 3.5.1 and 3.5.2.

3. Certificate holders must include the information contained in the OpSpecs issued to them in their manuals. Some paragraphs are required by the NCAA and some may be requested by the certificate holder to enhance or define its operation.

A1. ISSUANCE AND APPLICABILITY

a. The following Operations Specifications (OpSpecs) are issued to ....whose principal base of operation is located at,

Mailing Address:

_____ _____

_____ _____

_____ _____

The holder of these OpSpecs is the holder of AIR OPERATOR CERTIFICATE, Number _____ and shall hereafter be referred to as the certificate holder. The certificate holder is authorised to conduct Domestic (and if applicable; International) operations in common carriage pursuant to the Nigeria Civil Aviation Regulations (Nigeria CARs). The certificate holder shall conduct these operations in accordance with the specific authorisations, limitations and the procedures in these OpSpecs and all appropriate Nigeria CARs.

b. These OpSpecs are effective as of the "Effective Date" on the reverse side of each page and shall remain in effect as long as the certificate holder continues to meet the Nigeria CARs requirements specified for certification and provided, at all times, the certificate holder has an Air Transport Licence or Air Operating Permit issued by the Minister of Aviation, Nigeria.

c. The certificate holder is authorised to conduct the operations described in sub-paragraph 1. under the following other business names:

(1) _____

(2) _____

(3) _____

A3. AIRCRAFT AUTHORISATION

a. The certificate holder is authorised to conduct operations using aeroplanes with the approved passenger seating capacities and the number of required cabin attendant personnel described in the following table:

Type of Aircraft Make/Model/Series	Reg. No	Serial No.	Type of Operations	Passenger Seating Capacity or Cargo Only		Number of Required Cabin Crew
				Demonstrated	Approved	

A4. SUMMARY OF SPECIAL AUTHORISATIONS AND LIMITATIONS

a. The certificate holder, in accordance with the reference paragraphs is authorised to:

b. The certificate holder is not authorised and shall not:

A5. EXEMPTIONS AND DEVIATIONS

a. The certificate holder is authorised to conduct operations in accordance with the provisions, conditions, and/or limitations set forth in the following exemptions and deviations. The certificate holder is not authorised and shall not conduct any operations under the provisions of any other exemptions and/or deviations.

b. Exemptions: Remarks and/or References:

c. Deviations: Remarks and/or References:

A6. MANAGEMENT PERSONNEL

a. The certificate holder uses the underlisted personnel for the following duties and responsibilities from the management positions section, listed is shown on the organisation and responsibilities section of its Operations Manual.

A7. OTHER DESIGNATED PERSONS

a. The following person(s) is (are) designated as the certificate holder's agent for service:

_____

(NAME) / (TITLE)

_____

(NAME) / (TITLE)

b. The following personnel are designated to officially apply for and receive OpSpecs for the certificate holder.

_____

(NAME) / (TITLE)

_____

(NAME) / (TITLE)

_____

(NAME) / (TITLE)

A8. OPERATIONAL CONTROL

a. The system described or referenced in this paragraph is used by the certificate holder to provide operational control of flight operations.

A9. AIRPORT AERONAUTICAL DATA

a. The system described or referenced in this paragraph is used by the certificate holder to obtain, maintain, and distribute current aeronautical data for the aerodromes it uses.

A10. AERONAUTICAL WEATHER DATA

a. The system described or referenced in this paragraph is used by the certificate holder to obtain and disseminate aeronautical weather data for the control of flight operations.

A11. AIRCREW TRAINING AND CHECKING ARRANGEMENTS

a. The arrangement(s) described or referenced in this paragraph is/are used by the certificate holder to obtain training and checking expertise for its aircrews.

A2 INTERPRETATIONS

a. The following interpretations of words and phrases used in these OpSpecs and the Nigeria Civil Aviation Regulations (Nigeria CARs) should enhance understanding between the NCAA and the aviation industry. Additional words and/or phrases may be added as necessary by amendment.

b. (1) In the Regulations, unless the context otherwise requires:

"aerial work" means work, not being public transport, for which an aircraft is flown for hire or reward;

"aerial work aircraft" means an aircraft, not being a public transport aircraft, which flies or is intended by the operator to fly for the purpose of aerial work;

"aerial work undertaking" means an undertaking whose business includes the performance of aerial work;

"aerobatic manoeuvres" includes loops, spins, rolls, bunts, stall turns, inverted flying and any similar manoeuvre;

"aerodrome" means any area of land or water designed, equipped, set apart or commonly used for affording facilities for the take-off and landing of aircraft (not being an area the use of which for those purposes has been abandoned);

"aerodrome flight information unit" means a person appointed by the Minister or by any other person maintaining an aerodrome to give information by means of radio signals to aircraft flying or intending to fly within the aerodrome traffic zone of that aerodrome; and "aerodrome flight information service" shall be construed accordingly;

"aerodrome operating minima" in relation to the operation of an aircraft at an aerodrome, means the cloud ceiling and runway visual range for take-off, and decision height or the minimum descent height, runway visual range and visual reference for landing, which are the minimum for the operation of that aircraft at that aerodrome;

"aerodrome traffic zone" in relation to any aerodrome, means the airspace in the vicinity of an aerodrome -

a) at which the length of the longest runway is notified as 1,850 metres or less, the airspace from the surface to a height of 2,000 feet above the level of the aerodrome within the area bounded by a circle centred on the midpoint of the longest runway and having a radius of 2 nm:

Provided that where such an aerodrome traffic zone would extend less than 1 1/2 nm beyond the end of any runway at the aerodrome, sub-paragraph b) shall apply as though the length of the longest runway is greater than 1,850 metres;

A2 INTERPRETATIONS

b) at which the length of the longest runway is greater than 1,850 metres, the airspace extending from the surface to a height of 2,000 feet above the level of the aerodrome within the area bounded by a circle centred on the midpoint of the longest runway and having a radius of 2 1/2 nm;

"aeronautical beacon" means an aeronautical ground light which is visible either continually or intermittently to designate a particular point on the surface of the earth;

"aeronautical ground light" means any light specifically provided as an aid to air navigation other than light displayed by an aircraft;

"aeronautical radio station" means a radio station on the surface which transmits or receives signals for the purpose of assisting aircraft;

"aeroplane" means a power-driven heavier-than-air aircraft deriving its lift in flight mainly from aerodynamic reactions on surfaces which remain fixed under given conditions of flight;

"aircraft" means any machine that can derive support in the atmosphere from the reactions of the air other than reactions of the air against the surface of the earth;

"air traffic control unit" means a person appointed by the appropriate authority to give instructions or advice by means of radio signals or lights to aircraft in the interests of safety but does not include a person so appointed solely to give information to aircraft; and "air traffic control service" shall be construed accordingly;

"air transport undertaking" means an undertaking whose business includes the carriage by air of passengers or cargo for hire or reward;

"approach to landing" means that portion of the flight of the aircraft, when approaching to land, in which the aircraft is descending below a height of 1,000 feet above the relevant specified decision height or minimum descent height;

"appropriate aeronautical radio station" in relation to an aircraft, means an aeronautical radio station serving the area in which the aircraft is for the time being;

"appropriate air traffic control unit" in relation to an aircraft, means the air traffic control unit serving the area in which the aircraft is for the time being;

"area navigation equipment" means equipment carried on board an aircraft which enable the aircraft to navigate on any desired flight path within the coverage of appropriate ground based navigation aids or within the limits of that on-board equipment or a combination of the two;

A2 INTERPRETATIONS

"authorised person" means any law enforcement agent, and or any person authorised by the Minister either generally or in relation to a particular case or class of cases and references to a person authorised by the Minister include references to the holder for the time being of any office designated by the Minister;

"beneficial interest" includes interests arising under contract or other equitable interests;

"cabin crew" in relation to an aircraft, means a person not being a member of the flight crew who is carried on a public transport flight for the purpose of performing, in the interest of the safety of passengers, duties assigned by the operator or commander of the aircraft;

"captive balloon" means a balloon which when in flight is attached by a restraining device to the surface;

"certificate of airworthiness" includes any validation thereof and any flight manual performance schedule or other document, whatever its title, incorporated by reference in that certificate relating to the certificate of airworthiness;

"certificate of release to service" has the meanings assigned to it in sub-section 1.1.1.4 of the Nigerian CARs.

"cloud ceiling" in relation to an aerodrome, means the vertical distance from the elevation of the aerodrome to the lowest part of any cloud visible from the aerodrome which is sufficient to obscure more than one-half of the sky so visible;

"commander" in relation to an aircraft, means the member of the flight crew designated as commander of that aircraft by the operator thereof or such other person who is for the time being the pilot-in-command of the aircraft;

"competent authority" means in relation to Nigeria, NCAA and in relation to any other country, the authority responsible under the law of that country for promoting the safety of civil aviation;

"congested area" in relation to a city, town or settlement, means any area which is substantially used for residential, industrial, commercial or recreational purposes;

"Contracting State" means any State which is a party to the Chicago Convention;

"controlled airspace" means control areas and control zones;

"control area" means airspace which has been notified as such and which extends upwards from a notified altitude or flight level;

A2 INTERPRETATIONS

"control zone" means airspace which has been notified as such and which extends upwards from the surface;

"co-pilot" in relation to an aircraft, means a pilot who in performing his duties as such is subject to the direction of another pilot carried in the aircraft;

"crew" has the meaning assigned to it by paragraph (3);

"danger area" means airspace which has been notified as such within which activities dangerous to the flight of aircraft may take place or exist at such times as may be notified;

"decision height" in relation to the operation of an aircraft at an aerodrome, means the height in a precision approach at which a missed approach must be initiated if the required visual reference to continue that approach has not been established;

"flight" and "to fly" have the meanings respectively assigned to them by paragraph (2);

"flight crew" in relation to an aircraft, means those members of the crew of the aircraft who respectively undertake to act as pilot, flight navigator, flight engineer and flight radio operator of the aircraft;

"flight level" means one of a series of levels of equal atmospheric pressure separated by notified intervals and each expressed as the number of hundreds of feet which would be indicated at that level on a pressure altimeter calibrated in accordance with the International Standard Atmosphere and set to 1013.2 millibars;

"flight recording system" means a system comprising either a flight data recorder or a cockpit voice recorder or both;

"flight simulator" means apparatus by means of which flight conditions in an aircraft are simulated on the ground;

"flight visibility" means the visibility forward from the flight deck of an aircraft in flight;

"government aerodrome" means any aerodrome in Nigeria which is under the control of the Government or is in the occupation of any Government Department or visiting force;

"hire-purchase agreement" means an agreement for the bailment of goods under which the bailee may buy goods or under which the property in the goods will or may pass to the bailee;

"instrument flight rules" means Instrument Flight Rules contained in the Rules of the Air and Air Traffic Control;

"instrument meteorological conditions" means weather precluding flight in compliance with the Visual Flight Rules;

A2 INTERPRETATIONS

"to land" in relation to aircraft, including alighting on the water;

"licence" includes any certificate of competence or certificate of validity issued with the licence or required to be held in connection with the licence by the law of the country in which the licence is granted;

"licensed aerodrome" means an aerodrome licensed under the pertinent Civil Aviation Regulations;

"life jacket" includes any device designed to support a person in or on the water;

"log book" in the case of an aircraft log book, technical log, engine log book, variable pitch propeller log book or personal flying log book, includes a record kept either in a book, or by any other means approved by the Authority in the particular case;

"maximum total weight authorised" in relation to an aircraft, means the maximum total weight of the aircraft and its contents at which the aircraft may take-off anywhere in the world in the most favourable circumstances in accordance with the certificate of airworthiness in force in respect of the aircraft;

"mile" means the international nautical mile;

"military aircraft" includes the naval, army or air force aircraft of any country and any aircraft in respect of which there is in force a certificate issued by the Authority that the aircraft is to be treated for the purposes of these Regulations as a military aircraft;

"minimum descent height" in relation to the operation of an aircraft at an aerodrome, means the height in a non-precision approach below which descent may not be made without the required visual reference;

"nautical mile" means the International Nautical Mile, that is to say, a distance of 1,852 metres;

"navigation services" includes information, directions and other facilities furnished, issued or provided for the purposes of or in connection with the navigation or movement of aircraft;

"night" means the time between half an hour after sunset and half an hour before sunrise, sunset and sunrise being determined at surface level;

"non-precision approach" means an instrument approach using non-visual aids for guidance in azimuth or elevation but which is not a precision approach;

"notified" means published in any of the following publications issued by the NCAA or other angency duly authorised by the Minister whether before (and not addressed by) or after the coming into operation of these Regulations, that is to say, "AIP (Aeronautical Information Publication)", "NOTAMS (Notices to Airmen)",

A2 INTERPRETATIONS

"Aeronautical Information Circulars", or such other official publication so issued for the purpose of enabling compliance with any of the provisions of these Regulations;

"operator" has the meaning assigned to it by paragraph (4);

"parascending chute" means a parachute which is towed by a cable in such a manner as to cause it to rise;

"pilot-in-command" in relation to an aircraft, means a person who for the time being is in charge of the piloting of the aircraft without being under the direction of any other pilot in the aircraft;

"precision approach" means an instrument approach using instrument landing system, microwave landing system or precision approach radar for guidance in both azimuth and elevation;

"prescribed" means prescribed by regulations made under the authority of the Minister;

"pressurised aircraft" means an aircraft provided with means of maintaining in any compartment a pressure greater than that of the surrounding atmosphere;

"private flight" means a flight which is not for the purpose of aerial work or public transport;

"public transport and aerial work" has the meaning assigned to it by paragraph (5);

"public transport aircraft" means an aircraft flying, or intended by the operator of the aircraft to fly, for the purpose of public transport;

"record" includes in addition to a record in writing—

(a) any disc, tape, sound-track or other device in which sounds or signals are embodied so as to be capable (with or without the aid of some other instrument) of being reproduced therefrom;

(b) any film, tape of other device in which visual images are embodied so as to be capable (as aforesaid) of being reproduced therefrom; and

(c) any photograph,

and any reference to a copy of a record includes, in the case of a record falling within paragraph (a) only, a transcript of the sounds or signals embodied therein, in the case of a record falling within paragraph (b) only, a still reproduction of the images embodied therein, and in the case of a record falling within both those paragraphs, such a transcript together with such a still reproduction;

A2 INTERPRETATIONS

"replacement" in relation to any part of an aircraft or its equipment, includes the removal and replacement of that part whether or not by the same part, and whether or not any work is done on it, but does not include the removal and replacement of a part which is designed to be removable solely for the purpose of enabling another part to be inspected, repaired, removed or replaced or cargo to be loaded;

"Rules of the Air and Air Traffic Control" means the Rules and regulation governing movement of aircraft in controlled airspace and air traffice control.

"runway visual range" in relation to runway, means the distance in the direction of take-off or landing over which the runway lights or surface markings may be seen from the touch-down zone as calculated by human observation or instruments in the vicinity of the touch-down or, where this is not reasonably practicable, in the vicinity of the mid-point of the runway; and the distance if any, communicated to the commander of an aircraft by or on behalf of the person in charge of the aerodrome as being the runway visual range for the time being:

"scheduled journey" means one of a series of journeys which is undertaken between the same two places and which together amount to a systematic service;

"special VFR flight" means a flight which is a special VFR flight for the purposes of the Rules of the Air and Air Traffic Control;

"Visual Flight Rules" means Visual Flight Rules contained in the Rules of Air and Air Traffic Control;

"visual meteorological conditions" means weather permitting flight in accordance with the Visual Flight Rules.

(2) An aircraft shall be deemed to be in flight—

(a) in the case of a piloted flying machine, from the moment when, after the embarkation of its crew for the purpose of taking off, it first moves under its own power, until the moment when it next comes to rest after landing;

(b) in the case of a pilotless flying machine or a glider, from the moment when it first moves for the purpose of taking off until the moment when it next comes to rest after landing;

(c) in the case of an airship or free balloon, from the moment when it first becomes detached from the surface until the moment when it next becomes attached thereto or comes to rest thereon, and the expressions "a flight" and "to fly" shall be construed accordingly.

(3) Every person employed or engaged in an aircraft in flight on the business of the aircraft shall be deemed to be a member of the crew therefore.

A2 INTERPRETATIONS

(4) References in the Nigeria CARs to the operator of an aircraft are, for the purpose of the application of any provision of these Regulations in relation to any particular aircraft, references to the person who at the relevant time has the management of that aircraft, and cognate expressions shall be construed accordingly:

Provided that for the purposes of the application of any provision in Part III, when by virtue of any charter or other agreement for the hire or loan of an aircraft a person other than an air transport undertaking or an aerial work undertaking has the management of that aircraft for a period not exceeding fourteen days, the foregoing provisions of this paragraph shall take effect as if that agreement had not been entered into.

(5) Subject to the provisions of paragraph (6) and (7), an aircraft in flight shall, for the purpose of the CARs be deemed to fly for the purpose of public transport—

(a) if hire or reward is given or promised for the carriage of passengers or cargo in the aircraft on that flight; or

(b) if any passengers or cargo are carried gratuitously in the aircraft on that flight by an air transport undertaking, not being persons in the employment of the undertaking (including in the case of a body corporate, its directors) or persons with the authority of the NCAA either making any inspection or witnessing any training or tests for the purposes of the Regulations or cargo intended to be used by such passengers; or

(c) for the purposes of Part 9 of the Regulations, if hire or reward is given or promised for the primary purpose of conferring on a particular person the right to fly the aircraft on that flight (not being a single seat aircraft of which the maximum take-off mass does not exceed 910 kg and in respect of which a certificate of airworthiness of the Special Category is in force) otherwise than under a hire purchase agreement or conditional sale agreement,

and the expression "public transport of passengers" shall be construed accordingly:
Provided that notwithstanding that an aircraft may be flying for the purpose of public transport by reason of sub-paragraph (c) it shall not be deemed to be flying for the public transport of passengers unless hire or reward is given for the carriage of those passengers.

(6) Where under a transaction effected by or on behalf of a member of an association of persons on the one hand and the association of persons or any member thereof on the other hand a person is carried in or given the right to fly an aircraft in such circumstances that hire or reward would be given or promised if the transaction were effected otherwise than aforesaid hire or reward shall, for the purposes of the Regulations, be deemed to have been given as promised, notwithstanding any rule of law as to such transaction.

(7) A flight in respect of which hire or reward has been given or promised for the carriage of passengers and which is for the purpose of—

A2 INTERPRETATIONS

(a) the dropping of persons by parachute and which is made under and in accordance with the Nigeria CARs.

(b) positioning the aircraft for such a flight as is specified in sub-paragraph (a) and which is made with the intention of carrying out such flight and on which persons intended to be dropped are carried;

(c) returning after such flight as aforesaid to the place from which the aircraft departed, shall be deemed to be for the purposes of aerial work.

SECTION 2. PART B - EN ROUTE AUTHORISATIONS AND LIMITATIONS

The following pages contain the AUTHORITY's Standard Part B OpSpecs.

B15. OPERATIONS WITHIN NORTH ATLANTIC MINIMUM NAVIGATION PERFORMANCE SPECIFICATIONS (MNPS) AIRSPACE

a. Operations within the airspace defined as the North Atlantic (NAT) MNPS airspace shall not be conducted unless the aircraft's navigation equipment and the procedures for use of that equipment have been approved by the NCAA as capable of meeting the following tolerances:

(1) the standard deviation (one sigma) of lateral track error is less than 6.3 nautical miles (nm);

(2) the proportion of the total flight time spent by aircraft 30 nm or more off track is less than 5.3×10^{-4}; and

(3) the proportion of the total flight time spent by aircraft between 50 and 70 nm off track is less than 1.3×10^{-4}.

b. The NAT-MNPS airspace is defined as:

(1) between latitudes 27 degrees North and 67 degrees North;

(2) the Eastern boundaries of Santa Maria Oceanic, Shanwick Oceanic and Reykjavik Flight Information Region (FIR);

(3) the Western boundaries of Reykjavik and Gander FIRs and the New York Oceanic FIR East of longitude 60 degrees West; and

(4) between flight levels 275 and 400.

c) The certificate holder is authorised to operate in NAT-MNPS airspace using the following aircraft and equipment;

_____ (type aircraft)

_____ (navigation equipment)

B16. AUTHORISED AREAS OF EN ROUTE OPERATION

a. The areas described or referenced in this paragraph are the certificate holder's authorised geographical area(s) of operation.

SECTION 3. PART C - AEROPLANE TERMINAL INSTRUMENT PROCEDURES AND AERODROME AUTHORISATIONS AND LIMITATIONS

a. The following pages contain the AUTHORITY's Standard Part C OpSpecs.

C25. TERMINAL INSTRUMENT PROCEDURES

a. The certificate holder is authorised to conduct terminal instrument operations using the procedures and minima specified in these OpSpecs, provided the terminal instrument procedures used is prescribed or approved by the government of an ICAO contracting State.

b. Terminal instrument procedures may be developed and approved by NCAA for use by the AOC holder provided a determination is made that each procedure developed is equivalent to ICAO PANS-OPS or U.S. TERPS criteria.

c. When operating in the U.S. where the metric system is not used and the minima are specified only in feet, the certificate holder shall use the following table for both takeoff and landing operations.

RVR		METEOROLOGICAL VISIBILITY WHEN RVR IS NOT AVAILABLE		
FEET	METRES	STATUTE MILES	METRES	NAUTICAL MILES
300 ft	90 m	1/4 sm	400 m	1/4 nm
400 ft	120 m	1/2 sm	800 m	1/2 nm
500 ft	150 m	3/4 sm	1200 m	7/10 nm
600 ft	175 m	1 sm	1600 m	9/10 nm
700 ft	200 m	1 1/4 sm	2000 m	1 1/10 nm
1000 ft	300 m	1 1/2 sm	2400 m	1 3/10 nm
1200 ft	350 m	1 3/4 sm	2800 m	1 1/2 nm
1600 ft	500 m	2 sm	3200 m	1 3/4 nm
1800 ft	550 m	2 1/4 sm	3600 m	2 nm
2000 ft	600 m	2 1/2 sm	4000 m	2 2/10 nm
2100 ft	630 m	2 3/4 sm	4400 m	2 4/10 nm
2400 ft	720 m	3 sm	4800 m	2 6/10 nm
4000 ft	1200 m			
4500 ft	1400 m			
5000 ft	1500 m			
6000 ft	1800 m			

C26. BASIC INSTRUMENT APPROACH PROCEDURE AUTHORISATIONS ALL AERODROMES

a. The certificate holder is authorised to conduct the following types of instrument approach procedures and shall not conduct any other types.

(1) Non-precision Instrument Approach Procedures.

1) VOR
2) VOR/DME
3) NDB
4) LOC
5) LOC Back Course
6) LOC/DME
7- 10) Reserved

(2) Precision instrument approach Procedures - Other Than Categories II and III.

1) ILS
2) ILS/DME
3 - 7) Reserved

C27 CATEGORY I IFR LANDING MINIMA - ALL AERODROMES

a. The certificate holder shall not use any IFR Category I landing minimum lower than that prescribed by the applicable published instrument approach procedure (IAP). The IFR landing minima prescribed in this paragraph are the lowest Category I minima authorised for use at any aerodrome.

b. Straight-in Category I Non-precision Approach Procedures. The certificate holder shall not use an IFR landing minimum for straight-in non-precision approach procedures, lower than that specified in the Operations Manual, paragraphs _____ and _____ Touchdown zone (TDB) RVR reports, when available for a particular runway, are controlling for all approaches to and landings on that runway.

c. Straight-In Category I Precision Approach Procedures. The certificate holder shall not use an IFR landing minimum for straight-in precision approach procedures lower than specified in the Operations Manual, paragraph _____ and _____ Touchdown zone RVR reports, when available for a particular runway, are controlling for all approaches to and landings on that runway.

d. Circling Manoeuvres. The certificate holder shall not conduct circling manoeuvres when the ceiling is less than 1,000 feet or the visibility is less than 3 statute miles, unless the pilot-in-command has satisfactorily completed an approved training programme for the circling manoeuvre or satisfactorily completed a flight check for the circling manoeuvre. When conducting an instrument approach procedure which requires a circling manoeuvre to the runway of the intended landing, the certificate holder shall not use a landing minimum lower than the minimum prescribed for the applicable circling manoeuvre or a landing minimum lower than specified in the Operations Manual, paragraph _____ and _____, whichever is higher. The lowest authorised IFR landing minimum for instrument approaches which require a circling manoeuvre to the runway of intended landing shall be determined for a particular aircraft by using the speed category appropriate to the highest speed used during the circling manoeuvre.

C27 CATEGORY I IFR LANDING MINIMA - ALL AERODROMES

e. Special Limitations and Provisions for Instrument Approach Procedures at Some Foreign Aerodromes.

(1) For straight-in landing minima at foreign aerodromes where a Minimum Descent Altitude (MDA) or Decision Height (DH) is not specified, the lowest authorised MDA or DH shall be obtained as follows:

(a) When an obstruction clearance limit (OCL) is specified, the authorised MDA or DH is the sum of OCL and the touchdown zone elevation (TDZE). If the TDZE for a particular runway is not available, threshold elevation shall be used. If threshold elevation is not available, aerodrome elevation shall be used. For non-precision approaches, the MDA may be rounded to the next higher 10 foot increment.

(b) When an obstacle clearance altitude (OCA)/obstacle clearance height (OCH) is specified, the authorised MDA or DH is equal to the OCA/OCH. For non-precision approaches, the authorised MDA may be expressed in intervals of 10 feet.

1) The Height Above Terrain (HAT) or Height Above Aerodrome (HAA) used for non-precision approaches shall not be below those specified in subparagraph (a). The HAT or HAA used for precision approaches shall not be below those specified in subparagraph 2).

(2) When only an OCL or an OCA/OCH is specified, visibility and/or RVR minima appropriate to the authorised HAA/HAT values determined in accordance with subparagraph e(2) above will be established in accordance with criteria prescribed by U.S. TERPS.

C28 IFR TAKEOFF MINIMA - ALL AERODROMES

a. Standard takeoff minima are defined as 1 statute mile visibility or RVR 5,000 feet for aeroplanes having 2 engines or less and 1/2 statute mile visibility or RVR 2,400 for aeroplanes having more than 2 engines. RVR reports, when available for a particular runway, shall be used for all takeoff operations on that runway. All takeoff operations, based on RVR, must use RVR reports from the locations along the runway specified in this paragraph.

b. When a takeoff minimum is not published, the certificate holder may use the applicable standard takeoff minimum and any lower than standard takeoff minima authorised by these OpSpecs. When standard takeoff minima or greater are used, the touchdown zone report, if available, is controlling.

c. When published takeoff minimum is greater than the applicable standard takeoff minimum and an alternate procedure (such as a minimum climb gradient compatible with aircraft capabilities) is not prescribed, the certificate holder shall not use a takeoff minimum lower than the published minimum. The touchdown zone RVR report, if available, is controlling.

d. When takeoff minima are equal to or less than the applicable standard takeoff minimum, the certificate holder is authorised to use the lower than standard takeoff minima described below.

(1) Visibility or RVV 1/4 statute mile or touchdown zone RVR 1,600, provided at least one of the following visual aids is available. The touchdown zone RVR report, if available, is controlling. The mid RVR report may be substituted for the touchdown zone RVR report if the touchdown zone RVR report is not available.

(a) Operative high intensity runway lights (HIRL)
(b) Operative runway centreline lights (CL)
(c) Runway centreline marking (RCLM).
(d) In circumstances when none of the above visual aids are available, visibility or RVR 1/4 statute mile may still be used, provided other runway markings or runway lighting provide pilots with adequate visual reference to continuously identify the takeoff surface and maintain directional control throughout the takeoff run.

C28 IFR TAKEOFF MINIMA - ALL AERODROMES

(2) Touchdown Zone RVR 1,200 (beginning of takeoff run) and Rollout RVR 1,000, provided all of the following visual aids and RVR equipment are available. The Mid RVR report may be substituted for the Touchdown Zone RVR report if the Touchdown RVR report is not available.

(a) Operative runway centreline lights (CL).

(b) Two operative RVR reporting systems serving the runway to be used, both of which are required and controlling. A Mid RVR report may be substituted for either a Touchdown Zone RVR report if a Touchdown Zone report is not available or a Rollout RVR report if a Rollout RVR report is not available.

(3) Touchdown Zone RVR 600 (beginning of takeoff run), Mid RVR 600, and Rollout RVR 600, provided all of the following visual aids and RVR equipment are available.

(a) Operative runway centreline lights (CL).

(b) Runway centreline markings (RCLM).

(c) Operative Touchdown Zone and Rollout RVR reporting systems serving the runway to be used, both of which are controlling, or three RVR reporting systems serving the runway to be used, all of which are controlling. However, if one of the three RVR reporting systems has failed, a takeoff is authorised, provided the remaining two RVR values are at or above the appropriate takeoff minimum as listed in this paragraph.

(d) At aerodromes that have runway lighting systems equivalent to U.S. standards, takeoff is authorised with a reported Touchdown Zone RVR of 175 meters, Mid RVR of 175 meters, and Rollout RVR of 175 meters. At those aerodromes where reported RVR values are in 50 meter increments, takeoff is authorised with a reported Touchdown Zone RVR of 200 meters, Mid RVR of 200 meters, and Rollout RVR of 150 meters. At those aerodromes where it has been determined that the runway lighting system is not equivalent to U.S. standards, the minima in subparagraphs c.(1) or (2), as appropriate, apply.

C29 CATEGORY II INSTRUMENT APPROACH AND LANDING OPERATIONS

a. The certificate holder is authorised to conduct Category (CAT) II instrument approach and landing operations to the aerodromes and runways listed in subparagraph h., using the procedures and minima specified in the AOM, Operations Manual paragraphs _____ and _____ and this paragraph and shall conduct no other Category II operations.

b. Category II Approach and Landing Minima and Authorised Aircraft. The certificate holder shall not use any CAT II IFR landing minima lower than those prescribed by any applicable published CAT II instrument approach procedure. The CAT II IFR landing minima prescribed by these OpSpecs, or Operations Manual paragraphs _____ and _____ are the lowest CAT II minima authorised for use at any aerodrome

c. Required Category II Airborne Equipment. The flight instruments, radio navigation equipment, and other airborne systems required by the applicable Nig CARs and the manufacturer's appro ved Aeroplane Flight Manual for the conduct of CAT II operations must be installed and operational. The additional airborne equipment listed or referenced in the following table is also required and must be operational for CAT II operations.

AEROPLANE MAKE/ MODEL/SERIES	ADDITIONAL EQUIPMENT AND SPECIAL PROVISIONS	KIND OF CAT II OPERATION	
		MANUAL	AUTOPILOT

d. Required RVR Reporting Equipment. The certificate holder shall not conduct any CAT II operations, unless the following RVR reporting systems are installed and operational for the runway of intended landing:

C29 CATEGORY II INSTRUMENT APPROACH AND LANDING OPERATIONS

(1) For authorised landing minima of RVR 1,600, the Touchdown Zone RVR reporting system is required and must be used. This RVR report is controlling for all operations.

(2) For authorised landing minima of RVR 1,200, the Touchdown Zone and the Rollout RVR reporting systems are required and must be used. The Touchdown Zone RVR report is controlling for all operations and the Rollout RVR report provides advisory information to pilots. The Mid RVR report (if available) provides advisory information to pilots and may be substituted for the Rollout RVR report if the Rollout RVR report is not available.

e. Pilot Qualifications. A pilot-in-command shall not conduct CAT II operations in any aeroplane until that pilot has successfully completed the AOC holder's approved CAT II training programme, and has been certified as being qualified for CAT II operations by one of the AOC holder's check airmen properly qualified for CAT II operations or a qualified NCAA operations inspector. The pilot-in-command shall not conduct CAT II operations in turbojet aeroplanes, unless that pilot has had at least 300 hours as pilot-in-command in turbojet aeroplanes. The AOC holder is authorised to conduct CAT II operations with those pilots meeting these requirements and shall not conduct any other CAT II operations.

f. Operating Limitations. The pilot-in-command shall not begin the final approach segment of an instrument approach procedure, unless the latest reported controlling RVR is at or above the minima authorised for the operation being conducted. If the aircraft is established on the final approach segment and the controlling RVR is reported to decrease below the authorised minima, the approach may be continued to the DH applicable to the operation being conducted. The pilot-in-command shall not begin the final approach segment of an instrument approach procedure when the Touchdown Zone RVR report is less than RVR 1,800, unless all of the following conditions are met:

(1) The airborne equipment required by subparagraph c. above is installed and operating satisfactorily.

(2) The required components of the CAT II ground system are installed and in normal operation including all of the following:

(a) Each required component of the ground based CAT II navigation system. For ILS operations, a precision or surveillance radar fix, a designated NDB, VOR, or DME fix may be used in lieu of an outer marker. Except for CAT II instrument approach procedures designated as "RANA"

C29 CATEGORY II INSTRUMENT APPROACH AND LANDING OPERATIONS

(radar/radio altimeter not authorised) operative radar/radio altimeters may be used in lieu of an inner marker. A middle marker is not required.

(b) Approach lighting systems described in the Operations Manual paragraphs _____ and _____ or foreign equivalents. Sequenced flashing lights are required at U.S. aerodromes. Unless required by a specific State, sequenced flashing lights are not required at other foreign aerodromes.

(c) High intensity runway lights.

(d) Approved touchdown zone lights and runway centreline lights.

(3) The RVR reporting systems required by subparagraph d. above are operating satisfactorily.

(4) The crosswind component on the runway of intended landing is 10 knots or less.

(5) Fifteen percent additional runway length is available over the landing field length specified for the destination aerodrome.

g. Missed Approach Requirements. A missed approach shall be initiated when any of the following conditions exist.

(1) Upon reaching the authorised DH, the pilot has not established sufficient visual references with the CAT II lighting system to safely continue the approach by visual reference alone.
(2) After passing the authorised DH, the pilot loses visual reference with the CAT II lighting system, or a reduction in visual reference occurs which prevents the pilot from safely continuing the approach by visual reference alone.
(3) The pilot determines that a landing cannot be safely accomplished within the touchdown zone.
(4) Before arriving at DH, any of the required elements of the CAT I ground system becomes inoperative.
(5) Any of the airborne equipment required for the particular CAT II operation being conducted becomes inoperative. However, if the AOC holder is authorised both manually flown and automatically flown CAT II operations, an automatic approach may be continued manually using the approved manual systems, provided the automatic systems has malfunctioned and is disengaged higher than 1,000 feet above the elevation of the touchdown zone.

C29 **CATEGORY II INSTRUMENT APPROACH AND LANDING OPERATIONS**

h. Authorised Category II Aerodromes and Runways. The AOC holder is authorised CAT II operations. Category II operations are also authorised for the aerodromes and runways listed in the following table.

AERODROMES (IDENT)	RUNWAYS	SPECIAL LIMITATIONS

C30 CATEGORY III INSTRUMENT APPROACH AND LANDING OPERATIONS

a. The AOC holder is authorised to conduct Category (CAT) III instrument approach and landing operations to the aerodromes and runways listed in subparagraph h. using the procedures and minima specified in the Operations Manual paragraphs _____ and _____ and this paragraph and shall conduct no other CAT III operations.

b. Category III Approach and Landing Minima. The AOC holder is authorised to use the following CAT III straight-in approach and landing minima for the aeroplanes listed below at authorised aerodromes and runways, provided the special limitations in subparagraph h. are met. These minima are the lowest authorised at any aerodrome.

1. CATEGORY IIIa FAIL - PASSIVE OPERATIONS		
AEROPLANE TYPE MAKE / MODEL / SERIES	DH	LOWEST AUTHORISED RVR

2. CATEGORY IIIa FAIL - PASSIVE OPERATIONAL OPERATIONS		
AEROPLANE TYPE MAKE / MODEL / SERIES	DH/AH	LOWEST AUTHORISED RVR

3. CATEGORY IIIb FAIL - PASSIVE OPERATIONAL OPERATIONS		
AEROPLANE TYPE MAKE / MODEL / SERIES	DH/AH	LOWEST AUTHORISED RVR

c. Required Category III Airborne Equipment. The flight instruments, radio navigation equipment, and other airborne systems required by the applicable Nig CARs and the

C30 CATEGORY III INSTRUMENT APPROACH AND LANDING OPERATIONS

manufacturer's approved Aeroplane Flight Manual must be installed and operational for CAT III operations. The additional airborne equipment listed or referenced in the following table is also required and must be operational for CAT III operations.

AEROPLANE MAKE/MODEL /SERIES	ADDITIONAL EQUIPMENT AND SPECIAL PROVISIONS	KIND OF CAT III OPERATION			
		CATE IIa		CAT IIIb	
		FAIL PASS	FAIL OP	RVR 600	BELOW 600

d. Required RVR Reporting Equipment. The AOC holder shall not conduct any CAT III operations unless the following RVR reporting systems are installed and operational for the runway of intended landing:

(1) For authorised CAT III landing minima as low as RVR 600 (175 meters), the Touchdown Zone, Mid, and Rollout RVR reporting systems are required and must be used. Touchdown Zone and Mid RVR reports are controlling for all operations. The Rollout report provides advisory information to pilots.

(2) For authorised CAT IIIb landing minima below RVR 600 (175 meters) using fail-passive rollout control systems, the Touchdown Zone, Mid, and Rollout RVR reporting systems are required and must be used. All three RVR reports are controlling for all operations.

(3) For authorised CAT IIIb landing minima below RVR 600 (175 meters) using fail-operational rollout control systems, the Touchdown Zone, Mid, and the Rollout RVR reporting systems are normally required and are controlling for all operations. If one of these RVR reporting systems is temporarily inoperative, these operations may continue using the two remaining RVR reporting systems. Both RVR reports are controlling.

e. Pilot Qualifications. The minima prescribed in subparagraphs b. and h. are authorised for only those pilots-in-command and seconds-in-command who have completed the AOC holder's approved CAT III training programme and who have been certified as qualified for CAT IIIa, or CAT IIIb operations, by one of the AOC holder's check airmen properly qualified for CAT III operations or a qualified NCAA operations inspector. No pilot-in-command shall be authorised to conduct CAT III operations in turbojet aeroplanes, unless that pilot has had at least 300 hours as pilot-in-command in turbojet aeroplanes, including 100 hours in the CAT III type aeroplane

C30 CATEGORY III INSTRUMENT APPROACH AND LANDING OPERATIONS

f. Operating Limitations. The pilot-in-command shall not begin the final approach segment of an instrument approach procedure, unless the latest reported controlling RVR for the landing runway is at or above the minima authorised for the operation being conducted. If the aircraft is established on the final approach segment and the controlling RVR is reported to decrease below the authorised minima the approach may be continued to the AH/DH applicable to the operation being conducted. Unless all of the following conditions are met, the pilot-in-command shall not begin the final approach segment of a CAT IIIa instrument approach when the controlling RVR for the landing runway is reported to be less than CAT II minima, or begin the final approach segment of a CAT IIIb instrument approach when the controlling RVR for the landing runway is reported to be less than CAT III a minima:

(1) The airborne equipment required by subparagraph c. above is operating satisfactorily.

(2) All required elements of the CAT III ground system, except sequence flashing lights, are in normal operation.

(3) All CAT III operations using minima below RVR 600 shall be conducted to runways which provide direct access to taxi routings equipped with serviceable taxiway centreline lighting which meets ICAO criteria for CAT III operations.

(4) The crosswind component on the landing runway is 10 knots or less.

(5) The runway field length requirements, the special operational equipment requirements, and the special limitations listed or referenced in the following table are met. If required runway field length factors are listed in this table, the required field length is established by multiplying these factors by the runway field length required by the provisions of U.S. FAR 121.195(b). All CAT IIIb operations using minima shall be conducted to grooved or porous friction course (PFC) runway surfaces.

C30 CATEGORY III INSTRUMENT APPROACH AND LANDING OPERATIONS

AEROPLANE MAKE/MODEL/SERIES	REQUIRED FIELD LENGTH			SPECIAL OPERATIONAL EQUIPMENT AND SPECIAL LIMITATIONS
	CAT IIIa	CAT IIIb		
		RVR 600	BELOW 600	

g. Missed Approach Requirements.

(1) For CAT IIIa approaches with a fail-passive flight control system, a missed approach shall be initiated when any of the following conditions exists:

(a) At the DH, if the pilot has not established sufficient visual reference with the touchdown zone or touchdown zone lights to verify that the aeroplane will touchdown in the touchdown zone.

(b) If, after passing the DH, visual reference is lost or a reduction in visual reference occurs which prevents the pilot from continuing to verify that the aeroplane will touchdown in the touchdown zone.

(c) When a failure in the fail-passive flight control system occurs prior to touchdown.

(d) If the pilot determines that touchdown cannot be safely accomplished within the touchdown zone.

(e) When any of the required elements of the ground system becomes inoperative before arriving at DH. However, CAT III approaches and landings may be continued if sequence flashers are inoperative.

C30 CATEGORY III INSTRUMENT APPROACH AND LANDING OPERATIONS

(2) For fail-operational CAT IIIa approaches with a rollout control system and for CAT IIIb approaches, a missed approach will be initiated when any of the following conditions exist.

(a) Unless a fail-passive rollout control system is used for CAT IIIa/IIIb RVR 600 operations, or a fail-operational rollout control system is used for CAT IIIb operations with minima below RVR 600, a missed approach is required upon reaching the AH/DH if the latest reported controlling RVR is below the applicable minima.

(b) At the DH, when a DH is used, if the pilot has not established sufficient visual reference with the touchdown zone or touchdown zone lights to verify that the aeroplane will touchdown in the touchdown zone.

(c) If, after passing the DH when a DH is used, visual reference is lost or a reduction in visual reference occurs which prevents the pilot from continuing to verify that the aeroplane will touchdown in the touchdown zone.

(d) If the pilot determines that touchdown cannot be safely accomplished within the touchdown zone.

(e) If, before reaching the AH/DH, the pilot cannot determine that the rollout control is available.

(f) When a failure occurs in one of the required systems in the aeroplane before reaching the AH/DH.

(g) Before reaching the AH or DH, as applicable, any of the required elements of the ground system becomes inoperative. However, CAT III approaches and landings may be continued if sequence flashers are inoperative.

(3) The preceding paragraphs g.(1) and (2) do not preclude continuation of a higher minimum Category approach if the system failures do not effect the systems required for the higher approach minima.

h. Authorised Category III Aerodromes and Runways. The certificate holder is authorised to conduct CAT III operations at the aerodromes and runways listed in the following table.

C30 CATEGORY III INSTRUMENT APPROACH AND LANDING OPERATIONS

AERODROMES (IDENT)	RUNWAYS	SPECIAL LIMITATIONS

C31. SPECIAL AERODROME AUTHORISATIONS, PROVISIONS AND LIMITATIONS.

a. The AOC holder is authorised, under these Opspecs, to conduct aeroplane operations at the following special aerodromes. The AOC holder shall conduct all operations at these aerodromes in accordance with the provisions and limitations specified in this paragraph for each special aerodrome.

C32. AERODROMES AUTHORISED FOR SCHEDULED OPERATIONS.

a. The AOC holder is authorised to conduct scheduled passenger and cargo operations to the cities/ aerodromes and with the aeroplanes specified in the following table.

AERODROME LOCATION/NAME	AEROPLANES AUTHORISED

SECTION 4. PART D - MAINTENANCE

a. The responsibility for preparaing this Part D OpSpecs is assigned to the Airworthiness Aviation Safety Inspector. The guidelines for the material/OpSpecs contained in Part D are found in the NCAA Technical Guidance Materials, NCAA-O-OPS002 Appendix 2.0 and 3.0 (Operations Specifications, Part D and E).

b. Maintenance OpSpecs are found in the AOC's Maintenance Operations Specifications Part D.

D40 AIRCRAFT MAINTENANCE – GENERAL REQUIREMENTS

The certificate holder is authorized to conduct operations under the Nigeria Civil Aviation Regulations (Nigeria CARs) using the aircraft identified in the certificate holder's aircraft listing providing following conditions are met:

a. Each aircraft authorised for use shall be maintained in accordance with the maintenance programme and limitations specified in these operations specifications.

b. The maintenance programme must be sufficiently comprehensive in scope and detail to fulfill its responsibility to maintain the aircraft in an airworthy condition in accordance with applicable Regulations and standards prescribed and approved by the Director General of NCAA. The programme shall be included in the certificate holders manual.

c. Each aircraft and its component parts, accessories, and appliances are maintained in an airworthy condition in accordance with the time limits for the accomplishment of the overhaul, replacement, periodic inspection, and routine checks of the aircraft and its component parts, accessories, and appliances. Time limits or standards for determining time limits shall be contained in these operations specified or in a document approved by Director General of NCAA and referenced in these operations specifications.

d. Items identified as "on condition" shall be maintained in a continuous airworthy condition by periodic inspections, checks, service, repair, and/or preventive maintenance. The procedures and standards for inspection, checks, service, repair, and/or preventive maintenance checks or tests, shall be described in the certificate holders' manual.

e. Parts or subassemblies of components that do not have specific time intervals shall be checked, inspected, and/or overhauled at the same time limitations specified for the component or accessory to which such parts or subassemblies are related or included at the time period indicated for the ATA chapter heading.

D41 APPROVED SMALL AIRCRAFT INSPECTION PROGRAMME

The certificate holder is authorised to use each aircraft listed in the following table provided each aircraft is inspected in accordance with the certificate holder's Approved Small Aircraft Inspection Programme

Registration	Aircraft Make/Model/Serial Number

D42 ADDITIONAL MAINTENANCE REQUIREMENTS FOR SMALL AIRCRAFT

The aircrafied below shall not be used in operations unless the following additional maintenances listed below are met:

Table 1

Aircraft Type

a. Each installed engine, its component parts, and accessories for its functions shall be maintained in an airworthy condition in accordance with the following maintenance documents. The engine, its component parts and accessories shall be overhauled on or before the time-in-service interval shown in Tabel 2.

Engine Make/Model	Maintenance Document	Time-in-Service Interval

a. Each installed propeller and propeller control shall be maintained in an airworthy condition in accordance with the schedule of maintenance in the following maintenance documents. The propeller and propeller control shall be overhaul on or beofore the time-in-service interval shown in Table 3

Table 3

Propeller / Governor Make/Model	Maintenance Document	Time-in-service Interval Hours/Calendar

c. Each rotor installed on the helicopters listed in Table 4 is maintained in an airworthy condition in accordance with the schedule of maintenance functions in the following manufacturer's maintenance documents.

Table 4

Helicopter Make and Model	Maintenance Document

d. Each item of installed emergency equipment listed in Table 5 is mainted in an airworthiness conditon in accordancew tih the schedule of maintenance and inspection functions in the following maintenance document:

TABLE 5

Emergency Equipment Item	Maintenance Decument
OXYGEN REGULATOR	
*OXYGEN BOTTLE	
**EXTINGUISHER	PLACARD INSTRUCTIONS
LIFE VESTS	OPERATORS OR MANUFACTURER'S DOCUMENT
PYROTECHNIC SIGNAL DEVICE	OPERATORS OR MANUFACTURER'S DOCUMENT

e. Inspections, hydrostatic tests, and life limits of pressure vessels manufactured under the U.S. DOT specifications are accomplished as set forth in U.S 49 CFR Part 173, as amended.

f. ** Inspections, hydrostatic tests, and life limits for portable fire estinguishers manufactured in the U.S are accomplished as set forth in the U.S. 46 CFR 71.25 and 162.028, as amended.

g. Pressure vessels manufactured under a MIL-SPEC are maintained in accordance with the applicable military specifications.

h. Other foreign-manufactured pressure clyinders are maintained in accordance with the applicable foreign manufacturer's specifications.

i. Pressure clyinders not manufactured under the U.S. DOT, other foreign or U.S. MIL-SPECS are maintained in accordance with the applicable aircraft manufacturer's specifications.

j. Life-limited parts are replaced as set forth in the applicable specification or type certificate data sheet, for each engine and/or propeller.

k. Life-limited parts are replaced as set forth in the applicable specification or type certificate data sheet for each engine and rotor.

Note: Subparagraphs b, c, and e through k are options, selected to fit a particular certiificate holder's operation.

D43 AIRCRAFT LISTING

The certificate holder is authorized to conduct operations under the Nigeria CARs using the aircraft identified on this operations specifications or the attached current aircraft listing.

AIRCRAFT TYPE/MODEL	REG. NO	SERIAL NO.

D44 MAINTENANCE CONTRACTUAL ARRANGEMENT AUTHORISATION FOR ENTIRE AIRCRAFT

The certificate holder is authorized to use the provisions of the contractual agreement listed in the following table for the maintenance of the aircraft listed in accordance with the contractor's approved maintenance program.

Contractor	Contract No./Date	Aircraft Make/Model/Series	Reliability Programme Name/No./Date

a. The certificate holder is authorized to participate in the contractor's reliability programme, identified in the table above with the certificate holder's aircraft included in the contractor's fleet for the purpose of that programme. Maintenance intervals and assignment of maintenance processes are controlled by that programme.

b. The certificate holder shall ensure that each component, system, and structure unique to its aircraft is accounted for in the certificate holder's or the contractor's maintenance program.

c. Each maintenance contract must provide that all maintenance records applicable to the certificate holder's aircraft shall be maintained by the contractor at the maintenance bases identified in the agreements and the certificate holder's manual.

d. The certificate holder shall forward each maintenance record generated during the term of the agreement to the contractor for inclusion in the records of the certificate holder's aircraft. The certificate holder shall retain a copy of these maintenance records in its files for each aircraft.

e. The certificate holder shall determine that all replacement components, other than those provided by the contractor which are common to the above-listed aircraft and the contractor's fleet, are evaluated by the contractor to ensure they meet the contractor's standards.

f. Administration of these agreements and related policies and procedures, including those pertaining to the control of maintenance interval lists, shall be included in the certificate holder's manual.

g. This agreement provides for the contractor to perform ALL SCHEDULED MAINTENANCE ABOVE THE "A" CHECK, including structural inspection, powerplant shop maintenance in accordance with the contractor's methods, standards, and procedures.

h. The contractor shall provide the certificate holder with a current copy of the publication and documents relating to the contractor's maintenance programme as listed in that agreement and revisions. All maintenance performed by the certificate holder shall be in accordance with those publications and documents.

I. The authorization for the certificate holder's contractual maintenance arrangements shall be subject to re-evaluation by the NCAA if any of the following situations occur:

1. The certificate holder's contractual arrangements are canceled or altered.

2. The contractor should cease to provide the contracted service for any reason.

3. The contractor's certificate is amended, suspended, revoked, or otherwise terminated.

D45 LEASED AIRCRAFT MAINTENANCE PROGRAMME AUTHORISATIONS - NIGERIAN - REGISTERED AIRCRAFT

a. The certificate holder is authorized to maintain the aircraft listed in Table 1 in accordance with the lessor's approved maintenance programme for the specific make, model, and series aircraft and lease agreements identified in table 1, except as provided for in subparagraph b.

Table 1

Aircraft Make/Model/Series	Registration Number	Lessor	Lease Date

b. The items listed in Table 2 will be maintained in accordance with the certificate holder's (lessee) approved maintenance programme.

Table 2

Aircraft Make/Model/Series	Items

D46 MAINTENANCE PROGRAMME AUTHORISATION FOR LEASED FOREIGN- REGISTERED AIRCRAFT OPERATED BY NIGERIAN-REGISTERED OPERATOR

The certificate holder is authorized to maintain the leased foreign-registered aircraft listed below, subject to the conditions and limitations of these Operations Specifications.

Table 1

Foreign Air Carrier	Aircraft Make/Model/Series	Identification/ Registration Number	Lease Date	Maintenance Program Rev. No./Date

a. The certificate holder is authorized to adopt the foreign air carrier's maintenance programs, for the aircraft identified above, as its own program.

b. Each aircraft listed shall be maintained in accordance with the certificate holder's maintenance program identified in paragraph (a) above.

c. Differences and/or exceptions to the maintenance programs identified above are listed in subparagraph (h).

d. All revisions to the maintenance program identified above must be approved on an individual basis by amending this Operations Specification paragraph.

e. The aircraft lease agreement identified in the preceding table shall not be contrary to these Operations Specifications, the certificate holder's maintenance programme, or the Civil Aviation Regulations

f. All maintenance shall be recorded in accordance with the certificate holder's approved programme (supplemented as necessary to meet the foreign certifying country's continuing requirements to validate the foreign certificate of airworthiness if applicable.)

g Mass and balance control shall be accomplished in accordance with the certificate holder's approved mass and balance programme.

h. The difference and/or exceptions to the certificate holder's maintenance program for its foreign-registered aircraft are identified below and will be maintained in accordance with the certificate holder's maintenance programme.

Table 2

ATA Chapter	Primary Maintenance Process	Inspection and Check Period	Other

i. In the event the aircraft lease agreement between the Foreign Air Operator and certificate holder is terminated by either party, this authorization will terminate effective on the same day.

D47 -1 MINIMUM EQUIPMENT LIST AUTHORISATION

The certificate holder is authorised to use an approved Minimum Equipment List (MEL) for the aircraft listed in operations specification D43 (Aircraft Listing) provided the conditions and limitations of paragraph "a) below are met.

(a) Maximum Times Between Deferral and Repair. Except as provided in subparagraph C, the certificate holder shall have items repaired within the time interval listed below:

1) Category A. Items in this category shall be repaired within time intervals specified in the remarks column of the certificate holder's approved MEL.

2) Category B. Items in this category shall be repaired within 3 consecutive calendar days (72 hours) excluding the day the malfunction was recorded in the aircraft technical log and/or record.

3) Category C. Items in this category shall be repaired within 10 consecutive calendar days (240 hours) excluding the day the malfunction was recorded in the aircraft technical log and/or record.

4) Category D. Items in this category repaired within one hundred and twenty (120) consecutive calendar days (2880 hours) excluding the day the malfunction was recorded in the aircraft technical log and/or record.

(b) MEL Management Programme. The certificate holder shall develop and maintain a comprehensive programme for managing the repair of equipment listed in the approved MEL. The certificate holder shall include in the manual a description of the MEL management programme. The MEL management programme must include at least the following provisions:

1) A method which provides for tracking the date and when appropriate the time an item was deferred and subsequently repaired. The item must include a supervisory review of the number of deferred item per aircraft and a supervisory review of each deferred item to determine the reason for any delay, repair, length of delay and the estimated date the item will be repaired.

2) A plan for bringing together parts, maintenance personnel and aircraft at a specific time and place for repair.

3) A review of items deferred because of the unavailability of partsto ensure that a valid back order exists with a firm delivery.

D47 -2 MINIMUM EQUIPMENT LIST AUTHORISATION

4) A description of specific duties and responsibilities by the title of personnel who manage the MEL management programme.

5) Procedures for controlling extensions to specified maximum repair interval as permitted by subparagraph C, to include the limit of the extension, documentation of the reason for the extension and the procedures to be used for authorising extensions.

C. The certificate holder is authorised to use a conituning authorisation to approve extensions to the maximum repair interval for category B and C items as specified in the approved MEL provided the Authority is notified within 24 hrs of any extension approved. The certificate holder is not authorised to approved any extensions to the maximum repair interval for category A and D items as specified in the approved MEL. The Authority may deny the use of this continuing authorisation if above is evident.

D48 RELIABILITY PROGRAMME AUTHORISATION: ENTIRE AIRCRAFT

The certificate holder is authorized to use the provisions of a maintenance reliability programme for the aircraft identified in the following table:

Aircraft Make/Model/Series	Document Name and Number	Document Date

a. The programme description and the standards for determining maintenance intervals and processes are contained in the certificate holder's document in the table above.

b. The time limitations for the overhaul, inspections, and checks of the aircraft and related systems including appliances and components controlled by the programme shall be contained in the certificate holder's COMPUTER PROGRAMME DOCUMENT NUMBER _____; or be contained in _____ Airlines' Maintenance Management Exposition Sections _____.

c. If the programme document is cancelled, the maintenance programme shall be completely re-evaluated by the NCAA. Maintenance and overhaul time limits shall then be re-established by the operator and approved by the NCAA.

D49 RELIABILITY PROGRAMME CONTRACTUAL ARRANGEMENT AUTHORISATION

The certificate holder is authorized to participate in the following reliability program in accordance with the provisions of the contractual agreements identified in the following table.

Contractors	Contract No./Date	Aircraft/Powerplant/Make /Model/Series	Reliability Program Name/No./Date

a. The certificate holder's aircraft may be included in the contractor's fleet for the purpose of the reliability programme identified in the table above.

b. Maintenance intervals and assignment of maintenance processes shall be controlled by the contractor's reliability programme.

c. The authorization for the certificate holder's contractual arrangements shall be subject to re-evaluation by the NCAA if any of the following situations occur:

1. The certificate holder's contractual arrangements are canceled or altered.
2. The contractor's reliability program is canceled.
3. The contractor ceases to operate that specific make/model aircraft or engine.
4. The contractor should cease to provide the contracted service for any reason.
5. The contractor's certificate is amended, suspended, revoked, or otherwise terminated.
6. When a change in either the operator's or contractor's operational environment adversely affects operational data.

D50 RELIABILITY PROGRAMME AUTHORISATION: AIRFRAME, POWER PLANT SYSTEMS OR SELECTED ITEMS

The certificate holder is authorized to use the provisions of its maintenance reliability program for the airframe, powerplant, systems, or individually selected items identified in the following table.

Aircraft Make/Model/Series	Document Name and Number	Document Date

a. The programme description and the standards for determining maintenance intervals and processes are contained in the certificate holder's document in the table above.

b. Airframe, powerplant, systems, or individually selected items controlled by the reliability document shall be identified by an asterisk (*) or other identifier in the time limitation section of the certificate holder's Operations Specifications or other document approved by the NCAA and referenced in the time limitations section.

c. If the programme document is canceled, the maintenance programme shall be completely re-evaluated by the NCAA. Maintenance and overhaul time limits shall then be re-established by the operator and approved by the NCAA.

D51 MAINTENANCE PROGRAMME AUTHORISATION FOR TWO ENGINE AEROPLANES USED IN EXTENDED RANGE OPERATION (ETOPS)

The certificate holder is authorized to use the airplane listed in Table 1 below in extended-range operations subject to the conditions and limitations of these Operations Specifications.

Table 1

Aircraft/Powerplant Make/Model/Series	Registration Number	Diversion Time (Minutes) Mean	Diversion Time (Minutes) Maximum

a separate reliability reporting system must be established for the extended-range fleet.

b. The certificate holder shall continually assess the propulsion and airframe systems reliability within the extended range fleet in accordance with the progress identified in Table. 2.

c. Items controlled by these programs shall be identified in the certificate holder's manual.

Table 2

Aircraft/Powerplant Make/Model/Series	Programme Number	Programme Name	Programme Date

d. The airplanes must meet all requirements for configuration, maintenance, and procedures (CMP) for extended-range operations as specified in the manufacturer's approved document.

Table 3

Aircraft/Powerplant Make/Model/Series	Manufacturer's Document Name	Manufacturer's Document Number	Date

D52 SHORT – TERM ESCALATION AUTHORISATION

The certificate holder is authorized to use the short-term escalation procedures as follows:

a, Procedures for short term escalation of maintenance intervals shall be in the certificate holder's manual and are subject to the following limitations:

Table 1

Aircraft Make/Model/Series	Limitations
	AIRCRAFT HOURS-TIME-IN-SERVICES Aircraft Time-in-service / Calender time /landings
	AIRCRAFT HOURS-TIME-IN-SERVICE Aircraft time-in-service/Calendar time/landing

Powerplants and powerplant components or accessories - 10% Not To Exceed 500 hours time-in-service

Airframe components, accessories, and appliances - 10% Not To Exceed 500 hours time-in-service.

Maximum Variation For Calendar Time Controlled Items Is As Follows:

Time Period Involved	Maximum Variation
1. year or less	10% or 1 month, whichever is the lesser
2. More than 1 year but not exceeding 3 years	2 months
3. More than 3 years	3 months.

Maximum Variation for Landings/Cycles Controlled Items Is As Follows:

Period Involved	Maximum Variation
1.500 landings/cycles or less	10% or 25 landings/cycles, whichever is lesser
2. More than 500 landings/cycles	10% or 500 landings/cycles, whichever is the lesser

Items Controlled By More Than One Limit. For items controlled by more than one limit, e.g. items controlled by flying hours and calendar time or flying hours and landings/cycles, the more restrictive limit shall be applied.

NOTE: An individual item may be escalated to a higher figure by an extended short-term escalation predicated on justification presented to the assigned NCAA senior airworthiness inspector (maintenance or avionics, as applicable) and subject to approval before exceeding the current short-term escalation limitations.

b. PROHIBITIONS. Short-term escalation procedures do not apply to the following:

1. Intervals specified by Airworthiness Directives or mandatory service bulletins from the country of aircraft manufacture.

2. Life limits specified by type certificate data sheets.

3. Limitations specified by minimum equipment lists or configuration deviation lists.

4. Structural sampling periods imposed by maintenance review boards.

D53 MINIMUM EQUIPMENT LIST AUTHORISATION: SMALL AIRCRAFT

The certificate holder is authorized to use an approved Minimum Equipment List (MEL) provided the conditions and limitations of this paragraph are met. The certificate holder shall not use an MEL for any aircraft not specifically authorized by this paragraph.

a, Authorized Aircraft. The certificate holder is authorized to use an approved MEL for the aircraft listed below.

Table 1

Aircraft Make/Model/Series

b. Maximum Times Between Deferral and Repair. Except as provided in subparagraph (d), the certificate holder shall have items repaired within the time intervals listed below:

1. Category A. Items in this category shall be repaired within the time interval specified in the remarks column of the certificate holder's approved MEL.

2. Category B. Items in this category shall be repaired within 3 consecutive calendar days (72 hours) excluding the calendar day the malfunction was recorded in the aircraft maintenance log and/or record.

3. Category C. Items in this category shall be repaired within 10 consecutive calendar days (240 hours) excluding the calendar day the malfunction was recorded in the aircraft maintenance log and/or record.

4. Category D. Items in this category shall be repaired within one hundred and twenty (120) consecutive calendar days (2880 hours), excluding the day the malfunction was recorded in the aircraft maintenance log and/or record.

c. MEL Management Programme. The certificate holder shall develop and maintain a comprehensive programme for managing and repair of items listed in the approved MEL. The certificate holder shall include in its manual a description of the MEL management programme. The MEL management programme must include at least the following provisions:

1. A method which provides for tracking the date and when appropriate, the time an item was deferred and subsequently repaired. The method must include a supervisory review of the number of deferred items per aircraft and a supervisory review of each deferred item to determine the reason for any delay in repair, length of delay, and the estimated date the item will be replaced.

2. A plan for bringing together parts, maintenance personnel, and aircraft at a specific time and place for repair.

3. A review of items deferred because of the unavailability of parts to ensure that a valid back order exists with a firm delivery date.

4. A description of specific duties and responsibilities by the job title of personnel who manage the MEL management programme.

5. Procedures for controlling extensions to specified maximum repair intervals as permitted by subparagraph (d), to include the limit of the extension, documentation of the reason for the extension, and the procedures to be used for the authorizing extensions.

d. The certificate holder is authorized to use a continuing authorization to approve extensions to the maximum repair interval for category B and C items as specified in the approved MEL provided the Authority is notified within 24 hours of any extension approval. The certificate holder is not authorized to approve any extensions to the maximum repair interval for Category A items as specified in the approved MEL. The Authority may deny the use of this continuing authorization if abuse is evident.

D54 PARTS BORROWING AUTHORISATION

The certificate holder, in time of need, is authorized to use a borrowed part in accordance with the following conditions and limitations:

a, The borrowed part must be obtained from an air operator who is certificated to operate its aircraft in an ICAO member country and who operates its aircraft under a continuing airworthiness maintenance programme.

b. A borrowed part having a higher time-in-service since overhaul than the certificate holder's approved overhaul time limit may be used as follows:

1. The part must have at least 200 hours time-in-service remaining until overhaul (or 100 landings if the overhaul time is controlled by landings) in relation to the lender's overhaul time limit.

2. The part may be used for a time period not to exceed 100 hours time-in-service (or 50 landings if the overhaul time limit is controlled by landings).

c. The certificate holder shall not use a "life-limited" borrowed part beyond its approved life limit.

D55 MAINTENANCE TIME LIMITATIONS SECTION – OPERATOR WITHOUT RELIABILITY PROGRAMME

The certificate holder is authorized to use the Maintenance Time Limitations specified in the manual/document for the aircraft listed in the Table below, or listed in a document(s), which is an attachment to this paragraph.

Aircraft Make/Model/Series	Manual/Document Name and Number	Manual/Document Date

b. Each change to an item must be NCAA approved

D56 MAINTENANCE TIME LIMITATIONS SECTION – OPERATOR WITH RELIABILITY PROGRAMME

The certificate holder is authorized to use the Maintenance Time Limitations specified in the manual/document which is an attachment to this paragraph for the aircraft listed in the Table below.

Aircraft Make/Model/Series	Manual/Document Name and Number	Manual/Document Date

b. Each change to an item not controlled by the certificate holder's approved reliability programme must be NCAA approved.

D57 SPECIAL FLIGHT PERMIT WITH CONTINUOUS AUTHORISATION TO CONDUCT FERRY FLIGHTS

The certificate holder is authorized to conduct ferry flights using a special flight permit with continuous authorization.

a. This special flight permit with continuous authorization is the certificate holder's authorization to fly any aircraft on its Aircraft List which may not meet applicable airworthiness requirements but is capable of safe flight to the nearest base where the necessary maintenance can be performed.

b. A copy of this operation specification, or appropriate sections of the certificate holder's manual which restate this permit, shall be carried on board the aircraft when operating under a special flight permit.

c. Before operating an aircraft that does not meet applicable airworthiness requirements, the certificate holder shall determine that the aircraft can safely be flown to the nearest station where maintenance or alterations can be performed. The certificate holder shall have the aircraft inspected or evaluated according to procedures in its manual and have a certificated mechanic or repairman certify in the aircraft record that the aircraft is in a safe condition for the flight as specified in the operator's manual. A certificated repairman may certify only for the work appropriate to the job for which he or she is employed. The flight must be flown on a route for which it is equipped and must take into account any hazards which may affect the persons on board.

d. Only flight crewmembers and persons essential to operations of the aircraft shall be carried aboard during ferry flights where the aircraft flight characteristics may have been appreciably changed or its operation in flight substantially affected.

e. The operating weight of the aircraft must be the minimum necessary for the flight with necessary reserve fuel load.

f. Flight shall be conducted according to appropriate special conditions or limitations in (specify chapter and section) of the certificate holder's manual.

g. This authorization does not permit operation of a product to which an Airworthiness Directive applies except in accordance with the requirement of that AD.

h. The Authority shall be duly notified prior to using a special flight permit authorised by this paragraph.

D58. PRORATE TIME AUTHORISATION

The certificate holder is authorized to use the aircraft listed in the following table for which prorated items have been established.

a. Each aircraft, including its installed powerplants, propellers, and appliances shall be maintained in accordance with the adjusted time identified in the certificate holder's document listed in the table below.

Aircraft Make/Model/Series	Registration Number	Serial Number	Proration Document Number	Proration Document Date

b. This authorization remains in effect until the aircraft, its powerplants, propellers, and appliances are inspected and/or overhauled on or before the adjusted time limits listed in the proration document. Thereafter, the aircraft and its powerplants, propellers, and appliances shall be maintained in accordance with the certificate holder's maintenance programme and approved time limits.

D59 PARTS POOL AGREEMENT AUTHORISATION

The certificate holder is authorized to participate in a parts pool agreement subject to the following conditions and limitations.

a. Only the parts pool participants listed in the table below shall be eligible to provide parts to the certificate holder.

Participant	Location

b. The certificate holder shall not use any part provided by any participant identified herein unless that part complies with applicable provision of the Civil Aviation (Air Navigation) Regulations and the certificate holder's manual.

c. Administration of this agreement, related policies, and maintenance procedures, including those procedures pertaining to the control over subsequent revisions of maintenance data by the foreign operator, shall be included in the certificate holder's manual.

D60 MAINTENANCE CONTRACTUAL ARRANGEMENT AUTHORISATION FOR SPECIFIC MAINTENANCE

The certificate holder is authorized to use the provisions of the contractual agreements listed in the following table. Maintenance is limited to those functions listed for the contractor in subparagraph f.

Table 1

Contractor	Contract Number & Date	Aircraft Make/Model/Series	Powerplant Make/Model/Series

a. All maintenance accomplished under this authorization shall be in accordance with the contractor's approved maintenance program.

b. The contractor shall provide the certificate holder with a current copy of the publications and documents relating to the contractor's maintenance as listed in that agreement and revisions.

c. Maintenance records applicable to work performed under the terms of this agreement shall be maintained by the respective contractor at the maintenance facilities identified in the contract agreement and the certificate holder's manual.

d. The certificate holder shall maintain a copy of all maintenance records of work performed by the contractor.

e. Administration of this agreement and related policies and procedures, including those pertaining to the control of maintenance interval limits shall be included in the certificate holder's manual.

f. The agreements identified in Table 2 provide for the performance of the following maintenance functions:

Table 2

Maintenance Contractor	Maintenance Function

g. In the event this arrangement is cancelled, altered, or if the contractor should cease for any reason to provide the services contracted for, the entire program is subject to re-evaluation by the NCAA.

D61: EQUIVALENT MAINTENANCE SYSTEM APPROVAL FOR OPERATOR USING EQUIVALENT SYSTEM OF MAINTENANCE

The Certificate holder is authorized to use the ratings listed in the following table. Maintenance is limited to those ratings listed below.

1. LIMITED RATINGS

Ratings	Manufacturer	Make/Model	Capability	Limitation
AIRFRAME				
POWERPLANT				
PROPELLER				
ACCESSORIES	From the accepted capability list as amended			
NON DESTRUCTIVE INSPECTION, TESTING AND PROCESSING				

SPECIALISED SERVICE (RATINGS)

Rating	Specifications	Limitations

LOCATIONS:

E61 - MASS AND BALANCE CONTROL PROCEDURES

a. The responsibility for preparing this Part E OpSpecs is assigned to the Airworthiness Aviation Safety Inspector. The guidelines for the material/OpSpecs contained in Part E are found in the NCAA Technical Guidance Materials, NCAA-O-OPS002 Appendix 3.0 (Operations Specifications Part E).

b. Maintenance OpSpecs are found in the AOC's Maintenance Operations Specification Part E.

c. The following procedures have been established to maintain control of mass and balance of the certificate holder's aircraft operated under the terms of these specifications (identified below) and to ensure that these aircraft are loaded within the gross weight and center of gravity limitations:

1. Procedures by which either actual or approved average passenger and crew mass may be used in the operator's mass and balance control program.

2. Procedures by which either actual or approved average baggage mass may be used are in the operator's mass and balance control program.

3. The actual passenger and baggage mass shall be used in computing the mass and balance of charter flights and other special service involving the carriage of special groups.

4. All aircraft shall be weighed in accordance with the procedures for establishing individual or fleet aircraft mass outlined in the operator's mass and balance control programme.

5. The following loading schedules and instructions shall be used for routine operations:

Aircraft Make/ Model/Series	Type of Loading Schedule	Loading Schedule Instructions	Mass & Balance Control Procedures

SECTION 6. PART F - INTERCHANGE OF EQUIPMENT OPERATIONS

The following page(s) contain(s) the AUTHORITY's Standard Part F OpSpecs.

PART F. INTERCHANGE OF EQUIPMENT OPERATIONS

a. The holder of these OpSpecs shall conduct all operations authorised under the terms of the Interchange of Equipment Agreement between _____ and _____ dated _____ in accordance with the applicable provisions of the Civil Aviation Regulations (CARs) and these OpSpecs. Such operations are authorised between the interchange points specified below and over the routes and to and from the pertinent aerodromes specified below. Such operations shall be conducted with _____ type of aircraft and _____ flight crews. _____ shall be responsible for the operational control of such flights. The aeroplanes utilised in such operations shall be maintained and loaded in accordance with _____ Operations Manual and OpSpecs.

Interchange points of _____ and _____
Specified routes _____
Pertinent aerodromes _____

Interchange points of _____ and _____
Specified routes _____
Pertinent aerodromes _____

Interchange points of _____ and _____
Specified routes _____
Pertinent aerodromes _____

Interchange points of _____ and _____
Specified routes _____
Pertinent aerodromes _____

Interchange points of _____ and _____
Specified routes _____
Pertinent aerodromes _____

Interchange points of _____ and _____
Specified routes _____
Pertinent aerodromes _____

SECTION 7. PART G - AIRCRAFT LEASING OPERATIONS

a. The following page(s) contain(s) the AUTHORITY's Standard Part G OpSpecs.

PART G. AIRCRAFT LEASING ARRANGEMENTS

a. The holder of these OpSpecs shall conduct all operations authorised under the terms of the lease agreement between the _____ and _____ dated _____ in accordance with the provisions of the Nigeria Civil Aviation Regulations (Nigeria CARs) and these OpSpecs. Such operations are authorised over the routes and areas specified below. Such operations will be conducted with _____ type aircraft and _____ flight crews. _____ shall be responsible for the operational control of such flights.

b. This authorisation remains in effect until _____ or until surrendered, suspended, revoked or otherwise terminated by the Director-General, NCAA.

Aircraft Type	*Reg. No.*	*Serial No*

Routes and Areas of Operation

SECTION 8. PART H - HELICOPTER TERMINAL INSTRUMENT PROCEDURES AND AERODROME AUTHORISATIONS AND LIMITATIONS

The following pages contain the AUTHORITY's Standard Part H OpSpecs.

H101. TERMINAL INSTRUMENT PROCEDURES

a. The certificate holder is authorised to conduct terminal instrument operations using the procedures and minima specified in these OpSpecs, provided the terminal instrument procedures used is prescribed or approved by the NCAA or a government of an ICAO contracting State.

b. Terminal instrument procedures may be developed and used by the AOC holder provided a determination is made that each procedure developed is equivalent to ICAO PANS-OPS or U.S. TERPS criteria.

H102. BASIC INSTRUMENT APPROACH PROCEDURE AUTHORISATIONS ALL AERODROMES

The AOC holder is authorised to conduct the following types of instrument approach proce dures and shall not conduct any other types.

(1) Non-precision Instrument Approach Procedures.

1) VOR
2) VOR/DME
3) NDB
4) LOC
5) LOC Back Course
6) LOC/DME
7- 10) Reserved

(2) Precision instrument approach Procedures - Other Than Categories II and III.

1) ILS
2) ILS/DME
3 - 7) Reserved

H103. CATEGORY I IFR LANDING MINIMA - ALL AERODROMES

a. The AOC holder shall not use any IFR Category (CAT) I landing minimum lower than that prescribed by the applicable published instrument approach procedure (IAP). The IFR landing minima prescribed in this paragraph are the lowest CAT I minima authorised for use at any aerodrome.

b. Straight-in Category I Non-precision Approach Procedures. The AOC holder shall not use an IFR landing minimum for straight-in non-precision approach procedures, lower than that specified in the Operations Manual, paragraphs _____ and _____. Touch-down zone (TDZ) RVR reports, when available for a particular runway, are controlling for all approaches to and landings on that runway.

c. Straight-In Category I Precision Approach Procedures. The AOC holder shall not use an IFR landing minimum for straight-in precision approach procedures lower than specified in the Operations Manual, paragraphs _____ and _____. Touchdown zone RVR reports, when available for a particular runway, are controlling for all approaches to and landings on that runway.

d. Circling Manoeuvres. The AOC holder shall not conduct circling manoeuvres when the ceiling is less than 1,000 feet or the visibility is less than 3 statute miles, unless the pilot-in-command has satisfactorily completed an approved training programme for the circling manoeuvre or satisfactorily completed a flight check for the circling manoeuvre. When conducting an instrument approach procedure which requires a circling manoeuvre to the runway of the intended landing, the AOC holder shall not use a landing minimum lower than the minimum prescribed for the applicable circling manoeuvre or a landing minimum lower than specified in the Operations Manual, paragraphs _____ and _____, whichever is higher. The lowest authorised IFR landing minimum for instrument approaches which require a circling manoeuvre to the runway of intended landing shall be determined for a particular aircraft by using the speed category appropriate to the highest speed used during the circling manoeuvre.

H104. IFR TAKEOFF MINIMA - ALL AERODROMES

a. Standard takeoff minima are defined as 1 statute mile visibility or RVR 5,000 feet for rotorcraft having 2 engines or less and 1/2 statute mile visibility or RVR 2,400 for rotorcraft having more than 2 engines. RVR reports, when available for a particular runway, shall be used for all takeoff operations on that runway. All takeoff operations, based on RVR, must use RVR reports from the locations along the runway specified in this paragraph.

b. When a takeoff minimum is not published, the AOC holder may use the applicable standard takeoff minimum and any lower than standard takeoff minima authorised by these OpSpecs. When standard takeoff minima or greater are used, the touchdown zone report, if available, is controlling.

c. When the published takeoff minimum is greater than the applicable standard takeoff minimum and an alternate procedure (such as a minimum climb gradient compatible with rotorcraft capabilities) is not prescribed, the AOC holder shall not use a takeoff minimum lower than the published minimum. The touchdown zone RVR report, if available, is controlling.

d. When takeoff minima are equal to or less than the applicable standard takeoff minimum, the AOC holder is authorised to use the lower than standard takeoff minima described below.

(1) Visibility or Runway Visual Visibility (RVV) 1/4 statute mile or touchdown zone RVR 1,600, provided at least one of the following visual aids is available. The touchdown zone RVR report, if available, is controlling. The mid RVR report may be substituted for the touchdown zone RVR report if the touchdown zone RVR report is not available.

(a) Operative high intensity runway lights (HIRL)

(b) Operative runway centreline lights (CL)

(c) Runway centreline marking (RCLM).

(d) In circumstances when none of the above visual aids are available, visibility or RVR 1/4 statute mile may still be used, provided other runway markings or runway lighting provide pilots with adequate visual reference to continuously identify the takeoff surface and maintain directional control throughout the takeoff run.

H104.-2 IFR TAKEOFF MINIMA - ALL AERODROMES

(2) Touchdown zone RVR 1,200 (beginning of takeoff run) and rollout RVR 1,000, provided all of the following visual aids and RVR equipment are available. The mid RVR report may be substituted for the touchdown zone RVR report if the touchdown RVR report is not available.

(a) Operative runway centreline lights (CL).

(b) Two operative RVR reporting systems serving the runway to be used, both of which are required and controlling. A Mid RVR report may be substituted for either a Touchdown Zone RVR report if a Touchdown Zone report is not available or a Rollout RVR report if a Rollout RVR report is not available.

(3) Touchdown zone RVR 600 (beginning of takeoff run), mid RVR 600, and Rollout RVR 600, provided all of the following aids and RVR equipment are available.

(a) Operative runway centreline lights (CL).

(b) Runway centreline markings (RCLM).

(c) Operative Touchdown Zone and Rollout RVR reporting systems serving the runway to be used, both of which are controlling, or three RVR reporting systems serving the runway to be used, all of which are controlling. However, if one of the three RVR reporting systems has failed, a takeoff is authorised, provided the remaining two RVR values are at or above the appropriate takeoff minimum as listed in this paragraph.

(d) At aerodromes which have runway lighting systems equivalent to U.S. standards, takeoff is authorised with a reported Touchdown Zone RVR of 175 meters, Mid RVR of 175 meters, and Rollout RVR of 175 meters. At those aerodromes where reported RVR values are in 50 meter increments, takeoff is authorised with a reported Touchdown Zone RVR of 200 meters, Mid RVR of 200 meters, and Rollout RVR of 150 meters. At those aerodromes where it has been determined that the runway lighting system is not equivalent to U.S. standards, the minima in subparagraphs c.(1) or (2), as appropriate, apply.

H105 CATEGORY II INSTRUMENT APPROACH AND LANDING OPERATIONS

a. The AOC holder is authorised to conduct Category (CAT) II instrument approach and landing operations to the aerodromes and runways listed in subparagraph h. using the procedures and minima specified in the Operations Manual paragraphs _____ and _____ and this paragraph and shall conduct no other CAT II operations.

b. Category II Approach and Landing Minima and Authorised Aircraft. The AOC holder shall not use any CAT II IFR landing minima lower than those prescribed by any applicable published CAT II instrument approach procedure. The CAT II IFR landing minima prescribed by these OpSpecs, or Operations Manual paragraphs _____ and _____ are the lowest CAT II minima authorised for use at any aerodrome.

c. Required Category II Airborne Equipment. The flight instruments, radio navigation equipment, and other airborne systems required by the applicable Nig CARs and the manufacturer's approved Rotorcraft Flight Manual for the conduct of CAT II operations must be installed and operational. The additional airborne equipment listed or referenced in the following table is also required and must be operational for CAT II operations.

ROTORCRAFT MAKE/MODEL/SERIES	ADDITIONAL EQUIPMENT AND SPECIAL PROVISIONS	KIND OF CAT II OPERATION	
		MANUAL	AUTOPILOT

H105 CATEGORY II INSTRUMENT APPROACH AND LANDING OPERATIONS

d. Required RVR Reporting Equipment. The AOC holder shall not conduct any CAT II operations, unless the following RVR reporting systems are installed and operational for the runway of intended landing:

(1) For authorised landing minima of RVR 1,600, the Touchdown Zone RVR reporting system is required and must be used. This RVR report is controlling for all operations.

(2) For authorised landing minima of RVR 1,200, the Touchdown Zone and the Rollout RVR reporting systems are required and must be used. The Touchdown Zone RVR report is controlling for all operations and the Rollout RVR report provides advisory information to pilots. The Mid RVR report (if available) provides advisory information to pilots and may be substituted for the Rollout RVR report if the Rollout RVR report is not available.

e. Pilot Qualifications. A pilot-in-command shall not conduct CAT II operations in any rotorcraft until that pilot has successfully completed the AOC holder's approved CAT II training programme, and has been certified as being qualified for CAT II operations by one of the AOC holder's check airmen properly qualified for CAT II operations or a qualified NCAA operations inspector. The pilot-in-command shall not conduct CAT II operations in turbojet rotorcraft, unless that pilot has had at least 300 hours as pilot-in-command in turbojet rotorcraft. The AOC holder is authorised to conduct CAT II operations with those pilots meeting these requirements and shall not conduct any other CAT II operations.

f. Operating Limitations. The pilot-in-command shall not begin the final approach segment of an instrument approach procedure, unless the latest reported controlling RVR is at or above the minima authorised for the operation being conducted. If the aircraft is established on the final approach segment and the controlling RVR is reported to decrease below the authorised minima, the approach may be continued to the DH applicable to the operation being conducted. The pilot-in-command shall not begin the final approach segment of an instrument approach procedure when the Touchdown Zone RVR report is less than RVR 1,800, unless all of the following conditions are met:

(1) The airborne equipment required by subparagraph c. above is installed and operating satisfactorily.

H105-3. CATEGORY II INSTRUMENT APPROACH AND LANDING OPERATIONS

(2) The required components of the CAT II ground system are installed and in normal operation including all of the following:

(a) Each required component of the ground based CAT II navigation system. For ILS operations, a precision or surveillance radar fix, a designated NDB, VOR, or DME fix may be used in lieu of an outer marker. Except for CAT II instrument approach procedures designated as "RANA" (radar/radio altimeter not authorised) operative radar/radio altimeters may be used in lieu of an inner marker. A middle marker is not required.

(b) Approach lighting systems described in the Operations Manual paragraphs_____ and _____ or foreign equivalents. Sequenced flashing lights are required at U.S. aerodromes. Unless required by a specific State, sequenced flashing lights are not required at other foreign aerodromes.

(c) High intensity runway lights.

(d) Approved touchdown zone lights and runway centreline lights.

(3) The RVR reporting systems required by subparagraph d. above are operating satisfactorily.

(4) The crosswind component on the runway of intended landing is 10 knots or less.

(5) Fifteen percent additional runway length is available over the landing field specified for the destination aerodrome.

g. Missed Approach Requirements. A missed approach shall be initiated when any of the following conditions exists.

(1) Upon reaching the authorised decision height, the pilot has not established sufficient visual references with the CAT II lighting system to safely continue the approach by visual reference alone.

(2) After passing the authorised DH, the pilot loses visual reference with the CAT II lighting system, or a reduction in visual reference occurs which prevents the pilot from safely continuing the approach by visual reference alone.

H105-4. CATEGORY II INSTRUMENT APPROACH AND LANDING OPERATIONS

(3) The pilot determines that a landing cannot be safely accomplished within the touchdown zone.

(4) Before arriving at DH, any of the required elements of the CAT I ground system becomes inoperative.

(5) Any of the airborne equipment required for the particular CAT II operation being conducted becomes inoperative. However, if the AOC holder is authorised both manually flown and automatically flown CAT II operations, an automatic approach may be continued manually using the approved manual systems, provided the automatic systems has malfunctioned and is disengaged higher than 1,000 feet above the elevation of the touchdown zone.

h. Authorised Category II Aerodromes and Runways. The AOC holder is authorised CAT II operations. CAT II operations are also authorised for the aerodromes and runways listed in the following table.

AERODROMES (IDENT)	RUNWAYS	SPECIAL LIMITATION

H106. FLIGHT CONTROL GUIDANCE SYSTEMS FOR AUTOMATIC LANDING OPERATIONS FOR CATEGORY I

a. The AOC holder is authorised, under these OpSpecs, to conduct helicopter operations with the use of flight guidance systems for automatic landing to touchdown.

ROTOCRAFT TYPE MAKE/MODEL/SERIES	FLIGHT CONTROL GUIDANCE SYSTEM (MANUFACTURER / MODEL)

H107. SPECIAL TERMINAL AREA IFR OPERATIONS - AUTHORISATIONS, LIMITATIONS, AND PROVISIONS

a. The AOC holder is authorised, under these OpSpecs, to conduct either non-scheduled passenger and cargo and scheduled all-cargo or scheduled passenger terminal area IFR operations outside of controlled airspace, or at aerodromes without an operating air traffic control tower.

AERODROMES (IDENT)	SOURCE OF WEATHER	SOURCE OF TRAFFIC ADVISORY

H108. SPECIAL AERODROME AUTHORISATIONS, PROVISIONS, AND LIMITATIONS.

a. The AOC holder is authorised, under these OpSpecs, to conduct helicopter operations at the following special aerodromes. The certificate holder shall conduct all operations at these aerodromes in accordance with the provisions and limitations specified in this paragraph for each special aerodrome.

H109. AERODROMES AUTHORISED FOR SCHEDULED OPERATIONS.

a. The AOC holder is authorised to conduct scheduled passenger and/or cargo operations to the aerodromes and with the rotorcraft specified in the following table.

AERODROME LOCATION/NAME	ROTORCRAFT AUTHORISED

Nigerian Civil Aviation Authority
Operations Specifications

OpSpecs Paragraph _____ is issued to and accepted by:

_____ _____
(AOC No.) (Signature)

_____ _____
(Name of Operator) (Title)

Application For Amendment:

I certify that the statements submitted in connection herewith are true and that I am duly authorised to make application on behalf of the applicant.

_____
(Signature)

_____ _____
Date (Title)

The amendment to the standard OPS SPEC paragraph on the reverse side hereof is/is not approved.

Amendment No. _____ _____
(Signature)

Date: _____ _____
(Title)

This standard OpSpecs paragraph is issued by the authority of the Director-General, NCAA.

_____
(S ignature)

_____ _____
Effective date (Title)

AIR OPERATOR CERTIFICATE

This Certificate is granted pursuant to the Civil Aviation Act 2006 and the Nigeria Civil Aviation Regulations (Nig. CARs) being in force, subject to the conditions in the Specific Operating Provisions annexed hereto.

	FEDERAL REPUBLIC OF NIGERIA **NIGERIAN CIVIL AVIATION AUTHORITY (NCAA)**	
AOC NUMBER: EXPIRY DATE: Valid until ……. Unless suspended, cancelled or revoked.	**(OPERATORS NAME)** Dba trading name: Operators Address: Telephone: Fax: Email:	**OPERATIONAL POINT OF CONTACT** Contact details, at which operational management can be contacted without undue delay, are listed in **OpSpecs Paragraph A6**

This Certificate Certifies that _____ is authorised to perform commercial air operations, as defined in the attached operations specifications, in accordance with the operations manual and the Nigeria Civil Aviation Regulations Part 9.

Date of Issue:	Type of Operation:	Name: **CAPTAIN MUKTAR USMAN** Signature: Title: **DIRECTOR GENERAL**

NIGERIAN CIVIL AVIATION AUTHORITY

AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

FORM: O-OPS 002

APPLICATION FOR ISSUE / RENEWAL / GRANT / VARIATION OF AN AIR OPERATOR CERTIFICATE

1. Official Business Name: _____

   Address: _____

   Telephone(s): _____ Fax/E-mail: _____

2. Description of the applicant's business organization and corporate structure
   And names and address of those entities and individuals having a major Financial interest: _____

   _____

   _____

3. (a) Base of Operations(Address): _____

   (b) Description of Facilities: _____

4. (a) Maintenance Base(Address): _____

   (b) Description of Facilities: _____

5. (a) Route Stations: _____

   (b) Description of Facilities: _____

6. Description of the Proposed Operation: _____

7. Aircraft Maintenance Arrangements:_____

   Key Management Personnel (Last name, first name, middle name and resume/CV for all these positions):

(a) CEO: _____

Experience/Qualifications:_____

(b) Accountable Officer (if different from above): _____

Experience/Qualifications: _____

(c) Director of Operations: _____

Experience/Qualifications: _____

(d) Director of Maintenance: _____

Experience/Qualifications: _____

(e) Chief of Quality: _____

Experience/Qualifications: _____

(f) Chief Pilot: _____

Experience/Qualifications: _____

(g) Safety Manager_____

Experience/Qualifications_____

9. State in respect of the following documents, date(s) of submission, approval ref.

No. & date(s):_____

(i) Operator Management Exposition: _____

Submission date: _____ Approval ref. no. & date: _____

(ii) Operations Manual: _____

Submission date: _____ Approval ref. no. & date:_____

10. **AIRCRAFT DATA**

Number of Aircraft_____

No. of Pax. Seats_____

Cargo Payload_____

Capacity_____

(Provide detailed list of aircraft with individual registration markings and communications/navigation equipment installed).

11. **CREW TRAINING** (Provide details of operations training for all crew positions):

12. Current AOC held (attach a copy): _____

(i) Certificate No. _____

(ii) Date of Issue: _____

(iii) Issuing Authority: _____

13. If a foreign registered aircraft is intended to be used list the state of registry:

_____

14. Aircraft types for which variation is sought (state the number of each type to be Added:

_____

15. In respect of each aircraft type to be included in the AOC, please indicate the following:

(i) Maintenance Schedule/Programme:

Submission Date:_____

Approval ref. no. and date: _____

(ii) Minimum Equipment List:

Submission date _____

Approval ref. no. and date _____

(iii) Aircraft technical log:

Submission date _____

(iv) Arrangements for engineering support::_____

(a) In-house maintenance to be carried out:_____

_____

- inspection/check: (state type of)_____
- others:_____
- type of facility available and location:_____

(b) Contracted maintenance (technical specifications of maintenance contract and Nigerian AMO approval must be attached)

- Type/Level of check/inspection to be handled_____
- Others:_____
- Nigerian AMO approval:_____
- Reference No._____
- Date of first issue_____
- Expiration date_____

(v) Mandatory Occurrence Reporting (State whose responsibility it is):

_____

(vi) Name and designation of nominated person for liaison with contracting organization on airworthiness matters:

_____

(vii) Particulars of maintenance personnel including age, nationality, qualification (ratings and currency) and experience (please attach list):

_____

(viii) Training arrangements for personnel responsible for supervising the engineering support for aircraft to be included in the AOC (this should be made before introducing the aircraft into service) – type of training and number of personnel involved to be stated in respect of the following:

Management_____

Supervision_____

Quality Assurance_____

(attach further details as necessary

Arrangements for aircraft and system familiarization training and related maintenance practices for maintenance personnel (state type of training and number of maintenance personnel involved):

(x) Provision made for periodic refresher course and O.J.T. programmes (also state frequency):

(xi) Is an airworthiness occurrence control system in place? YES/NO: If yes, state:

- Method of operation: _____

- Procedures for ensuring that organization responsible for type certification of each aircraft type receives adequate reports of occurrences:_____

16. In respect of each aircraft type to be included in the AOC, please indicate:

    (i) Particulars of operations personnel including age, nationality, qualification (ratings and currency on assigned aircraft) and experience (list to be attached):

    (ii) Training arrangement for personnel responsible for flight operations of aircraft to be included in the AOC (this should be made before introducing the aircraft into service) – state type of training and number of personnel involved, including Cabin Crew and ground operations personnel (list to be attached):

17. Expatriate quota for foreign staff (attach pertinent papers):

18. Last audit/inspection of operator's organization carried out by NCAA:

    (i) Location(s)

    (ii) Date(s)

19. Fee Paid:

    Amount: ——————— Receipt No._____ Date: _____

    Name: ——————————— Signature: ——————————————

    Designation: ——————— Date: ——————————————

Note:

1. (i) Application for grant of an AOC must be submitted at least 90 days before the date of intended operation. However, the operations manual must be submitted not less than 60 days before this date.

   (ii) Application for variation of an AOC must be submitted at least 30 days before the date of intended operation.

   (iii) Application for the renewal of an AOC must be submitted at least 30 days before expiry date of the existing certificate.

2. The Authority must be given at least 10 days prior notice of a proposed change of a nominated post holder.

3. The fee to be paid for grant or variation of an AOC is as per the latest revision of the Civil Aviation (fees) Regulations.

4. Annual and utilization fees are also to be paid in respect of an AOC

20. Proof of Financial Capability__(Attachment)_____

21. Security Program:___(Attachment_____

***Delete/leave blank if not applicable.**

TO BE COMPLETED BY THE NCAA:

(i) Received by (Name & Signature): ……

(ii) Date: ……..

(iii) Assigned Certification No: ……

(iv) Officers assigned for assessment:

……
……
……

(v) Date forwarded to assigned officers:
……..

(vi) Remarks: ……...……..

…….....

…….....

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

FORM: O-OPS 003

Procedures for Tracking Resolution of Safety Issues

I. Purpose

This procedure provides guidance on the completion of reports associated with the tracking and resolution of safety issues on a day-to-day basis. (A full copy of each of the forms is included at the end of this procedure.

A. General Guidance

Tracking the Resolution of Safety Issues. If safety issues are identified during the AOC Administration activities. Those safety issues will be recorded and tracked using 2 reports.

3. Safety Issues Summary, and
4. Safety Issue Resolution Report

Both line item explanations and complete reports are included in this procedure.

B. SAFETY ISSUES SUMMARY

This report is an interim method of tracking safety issue resolution for specific aviation organizations. Its primary purpose is the establishment of a pattern of tracking resolution of safety issues. (This report will be terminated when the proposed tracking database is fully operational.)

1. ***Aviation Organization***: Enter the name of the aviation organization on the line directly below the title of the form.

SAFETY ISSUES SUMMARY for
Anywhere Airlines

2. ***Record ID#*** The Record ID number of the related activity report will be used for this tracking. If there is more than one safety issue finding from a specific work activity, the same record ID# number will be used for each finding.

3. ***Issue #.*** - Assign a chronological number for each safety issue. No number will be used more than once.

4. ***Level/Type*** – Enter the level/type that was entered on the safety resolution form

5. ***Date Open*** – Date the safety issue occurred or was identified by the NCAA.

6. ***Date Closed*** – Enter the date that the safety issue was closed.

7. ***Person Closing*** – Enter the name of the person who authorized the closing of the issue.

RECORD #	FINDING #	LEVEL / TYPE	DATE OPEN	DATE CLOSE	PERSON CLOSING

00-000001	**1**	**1A**	**24/09/01**	**24/09/01**	**J. ADEOYE**

V. SAFETY ISSUE RESOLUTION REPORT

This is primarily a training form to establish a habit pattern for recording and tracking resolution of safety issues. (An electronic work tracking system (WTS) is being developed in a database. When that development is complete, this manual form will be obsolete.)

General Instructions: Each identified safety issue will be recorded on a separate Safety Resolution Report. A copy of this report will be completed and attached to the specific inspection or activity report generated for the particular activity.

1. ***Record #.*** - Enter record number assigned by NCAA in summary report. (This number will auto fill from the activity report when the information is entered into the database later.)

2. ***Safety Issue #*** - This number is assigned chronologically by the originating inspector. Note that it must include two numbers. If the number is less than 10, place a zero before the number. (At the present time, this number must be entered chronologically into the database by the originating inspector. Provisions will be made to auto fill this number later.)

3. ***Checklist #*** - If this safety issue was identified through the use of a standard checklist, the specific checklist "activity number" will be entered in this field.

4. ***Question #*** - If a standard checklist was used, the question number that identified the safety issue will be entered in this field.

5, ***Initials***. Leave blank. (This is for data-entry use later.)

Record #	Finding #	Checklist #	Question #
00 - 000001	**01**	**0-1**	**31**

6. ***Status***. The status at the time of entry should be indicated by a single letter. The choices are O=Open, R=Resolved, A=Already in Work or X=Cancelled. Open is self-explanatory. Resolved is used when the issue is resolved to the NCAA's satisfaction. Already-in-Work indicates that there is an on-going corrective process, but allows documentation of subsequent observation of the same issue in intervening inspections. X=Cancelled allows for the NCAA to retract a safety issue that is later determined not to be valid.

7. ***Organization/Individual***. The NCAA number and/or letter identifier for the organization involved should be entered. For an individual, the person's last name, first name, and middle initial should be entered.

8. **A/C Reg. No. :** The Ramped Aircraft Registration Number should be entered.

9. **A/C TYPE:** The Ramped Aircraft specific type and series should be entered.

10. ***Document Reference***. The specific regulation or guidance document paragraph reference associated with the safety issue should be entered in this field.

Status	Air Operator	Document Reference
O	**NAL1**	**Nig-CARs 9.1.1.5**

11. ***Finding Level***. Circle the proper number. (Database entries have a drop-down window.)

12. ***Type of Finding.*** Circle the letter, which indicates the basis for the safety issue. (Database entries have a drop-down window.)

0 – Prevent Flying Form Issued 1 – Needs Priority Correction (1 to 3 days) 2 - Priority Correction Not Required (Corrective action within 30 days) 3 - Inspector Observation (Corrective action within 90 days)	A. Non-conformance with Nigerian law and legislation B. Non-conformance with Regulations C. Non-adherence with applicable NCAA Aviation Guidance D. Non-adherence with relevant safety Practice E. Non-conformance with ICAO Standard

13. ***Safety Issue***. Enter in plain text the safety issue found and related facts. Recommend that the first sentence be a short summary of the issue.

FINDING: No Record of Takeoff Limitations Check. The runway and climb limit info not included in any of the flight preparation forms certified by the PIC.

14. ***Recommendation:*** Enter in plain text, the suggested method for correcting this issue.

RECOMMENDATION Recommend that blocks for entries associated with this check be inserted into the load manifest form.

15. ***Presented to***: The next two lines are provided to record the presentation of the safety issue to the company. There are fields for the date, name of the official, company and title. The second line provides a place for the finding inspector. (The safety issue reporting database provides only a field for entering the individual's name and receipt date.)

Presented to (Print Name)	Company:	Position
Robert West	**Anywhere Airlines**	**Operations Director**

Date:	Inspector (Print)	Inspector Signature
01/12/09	**JOHN ADEOYE**	**John Adeoye**

16. ***Target Date***. The date, which the company and inspector have agreed that the issue will be resolved. (If the inspector is unable to reach agreement with the company before issuing the form, a reasonable date considering the nature of the issue should be entered in this field. The date may be changed, if so that information should be entered chronologically in the "Resolution" field.

17. ***Resolution***. Enter in plain text, the resolution of the safety issue. It is possible that the chronological log may have to be continued on the reverse side of the document. (In the database, the entries in this field may be as long as necessary.)

RESOLUTION (Brief Description) [TARGET DATE = 01/02 /02
The load manifest was revised to include provisions for the takeoff limitations check. The revised example is not included in the Operations Manual. A follow-up inspection of accuracy of completion was satisfactory.

18. Resolution found Acceptable. This line is provided for the inspector who conducted the close out to sign.

RESOLUTION FOUND ACCEPTABLE		
Date: **02/10/01**	Inspector (Print):- **JOHN ADEOYE**	Signature: **John Adeoye**

SAFETY ISSUES SUMMARY for

_____

RECORD #	FINDING #	LEVEL/TYPE	DATE OPEN	DATE CLOSED	PERSON CLOSING

NIGERIAN CIVIL AVIATION AUTHORITY

AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

FORM: O-OPS 003

SAFETY ISSUE RESOLUTION REPORT

Record#	Finding #	Checklist #	Question #
Status	Organization/Individual		A/C REG NO.
A/C TYPE	Document Reference		

FINDING LEVEL (Circle Number)	TYPE OF FINDING (Circle Letter)
0 – Prevent Flying Form Issued 1 – Needs Priority Correction (1 to 3 days) 2 - Priority Correction Not Required (Corrective action within 30 days) 3 - Inspector Observation (Corrective action within 90 days)	A. Non-conformance with Nigerian law and legislation B. Non-conformance with Regulations C. Non-adherence with applicable NCAA Aviation Guidance (NCAA Forms) D. Non-adherence with relevant safety practice E. Non-conformance with ICAO Standard.

SAFETY ISSUE:

RECOMMENDATION:

Presented to (Print Name):	Company:	Position Title:
Date:	Inspector (Print)	Inspector Signature:

RESOLUTION (Brief Description) [Target Date _____

RESOLUTION FOUND ACCEPTABLE

Date:	Inspector (Print):	Signature:

GM (Standards)/GM (Operations)

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

FORM: O-OPS 003A

Procedures for Tracking Aircraft Resolution of Safety Issues

I. Purpose

This procedure provides guidance on the completion of reports associated with the tracking and resolution of safety issues on a day-to-day basis. (A full copy of each of the forms is included at the end of this procedure.

A. General Guidance

Tracking the Resolution of Safety Issues. If safety issues are identified during the AOC Administration activities. Those safety issues will be recorded and tracked using 2 reports.

3. Safety Issues Summary, and
4. Safety Issue Resolution Report

Both line item explanations and complete reports are included in this procedure.

B. SAFETY ISSUES SUMMARY

This report is an interim method of tracking safety issue resolution for specific aviation organizations. Its primary purpose is the establishment of a pattern of tracking resolution of safety issues. (This report will be terminated when the proposed tracking database is fully operational.)

1. ***Aviation Organization***: Enter the name of the aviation organization on the line directly below the title of the form.

SAFETY ISSUES SUMMARY for
Anywhere Airlines

2. ***Record ID#*** The Record ID number of the related activity report will be used for this tracking. If there is more than one safety issue finding from a specific work activity, the same record ID# number will be used for each finding.

3. ***Issue #.*** - Assign a chronological number for each safety issue. No number will be used more than once.

4. ***Level/Type*** – Enter the level/type that was entered on the safety resolution form

5. ***Date Open*** – Date the safety issue occurred or was identified by the NCAA.

6. ***Date Closed*** – Enter the date that the safety issue was closed.

7. ***Person Closing*** – Enter the name of the person who authorized the closing of the issue.

RECORD #	FINDING #	LEVEL / TYPE	DATE OPEN	DATE CLOSE	PERSON CLOSING

V. SAFETY ISSUE RESOLUTION REPORT

This is primarily a training form to establish a habit pattern for recording and tracking resolution of safety issues. (An electronic work tracking system (WTS) is being developed in a database. When that development is complete, this manual form will be obsolete.)

General Instructions: Each identified safety issue will be recorded on a separate Safety Resolution Report. A copy of this report will be completed and attached to the specific inspection or activity report generated for the particular activity.

1. ***Record #.*** - Enter record number assigned by NCAA in summary report. (This number will auto fill from the activity report when the information is entered into the database later.)

2. ***Safety Issue #*** - This number is assigned chronologically by the originating inspector. Note that it must include two numbers. If the number is less than 10, place a zero before the number. (At the present time, this number must be entered chronologically into the database by the originating inspector. Provisions will be made to auto fill this number later.)

3. ***Checklist #*** - If this safety issue was identified through the use of a standard checklist, the specific checklist "activity number" will be entered in this field.

4. ***Question #*** - If a standard checklist was used, the question number that identified the safety issue will be entered in this field.

5, ***Initials***. Leave blank. (This is for data-entry use later.)

Record #	Finding #	Checklist #	Question #

6. ***Status***. The status at the time of entry should be indicated by a single letter. The choices are O=Open, R=Resolved, A=Already in Work or X=Cancelled. Open is self-explanatory. Resolved is used when the issue is resolved to the

NCAA's satisfaction. Already-in-Work indicates that there is an on-going corrective process, but allows documentation of subsequent observation of the same issue in intervening inspections. X=Cancelled allows for the NCAA to retract a safety issue that is later determined not to be valid.

7. ***Organization/Individual***. The NCAA number and/or letter identifier for the organization involved should be entered. For an individual, the person's last name, first name, and middle initial should be entered

8. ***Document Reference***. The specific regulation or guidance document paragraph reference associated with the safety issue should be entered in this field.

Status	Air Operator	Document Reference **Nig-CARs 9.1.1.5**

9. ***Finding Level***. Circle the proper number. (Database entries have a drop-down window.)

10 ***Type of Finding.*** Circle the letter, which indicates the basis for the safety issue. (Database entries have a drop-down window.)

0 – NO–GO item rectify before dispatch 1 - MEL Item Category: A – See remarks column (5) B – Rectify within 3 calendar days C – Rectify within 10 calendar days D – Rectify within 120 calendar days	A. Non-conformance with Nigerian law and legislation B. Non-conformance with Regulations C. Non-adherence with applicable NCAA Aviation Guidance D. Non-adherence with relevant safety Practice E. Non-conformance with ICAO Standard

11. ***Safety Issue***. Enter in plain text the safety issue found and related facts. Recommend that the first sentence be a short summary of the issue.

FINDING:

12. ***Recommendation:*** Enter in plain text, the suggested method for correcting this issue.

13. ***Presented to***: The next two lines are provided to record the presentation of the safety issue to the company. There are fields for the date, name of the official, company and title. The second line provides a place for the finding inspector. (The safety issue reporting database provides only a field for entering the individual's name and receipt date.)

Presented to (Print Name)	Company:	Position

Date:	Inspector (Print)	Inspector Signature

14. ***Target Dat***e. The date, which the company and inspector have agreed that the issue will be resolved. (If the inspector is unable to reach agreement with the company before issuing the form, a reasonable date considering the nature of the issue should be entered in this field. The date may be changed, if so that information should be entered chronologically in the "Resolution" field.

15. ***Resolutio***n. Enter in plain text, the resolution of the safety issue. It is possible that the chronological log may have to be continued on the reverse side of the document. (In the database, the entries in this field may be as long as necessary.)

RESOLUTION (Brief Description) [TARGET DATE _____

16. Resolution found Acceptable. This line is provided for the inspector who conducted the close out to sign.

RESOLUTION FOUND ACCEPTABLE		
Date:	Inspector (Print):-	Signature:

SAFETY ISSUES SUMMARY for

_____

RECORD #	FINDING #	LEVEL/TYPE	DATE OPEN	DATE CLOSED	PERSON CLOSING

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

FORM: O-OPS 003A

AIRCRAFT SAFETY ISSUE RESOLUTION REPORT

Record#	Finding #	Checklist #	Question #
Status	Organization/Individual		Document Reference

FINDING LEVEL (Circle Number)	TYPE OF FINDING (Circle Letter)
0 – NO–GO item rectify before dispatch 1 - MEL Item Category: A – See remarks column (5) B – Rectify within 3 calendar days C – Rectify within 10 calendar days D – Rectify within 120 calendar days	A. Non-conformance with Nigerian law and legislation B. Non-conformance with Regulations C. Non-adherence with applicable NCAA Aviation Guidance (NCAA Forms) D. Non-adherence with relevant safety practice E. Non-conformance with ICAO Standard

SAFETY ISSUE:

RECOMMENDATION:

Presented to (Print Name):	Company:	Position Title:
Date:	Inspector (Print)	Inspector Signature:

RESOLUTION (Brief Description) Target Date _____

RESOLUTION FOUND ACCEPTABLE

Date:	Inspector (Print):	Signature:

GM (Standards)/GM (Operations)

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

FORM: O-OPS 004

PREVENT FLYING

This is to inform you that aircraft make _____, Serial Number _____ with Registration _____ is found to be unsafe for operation due to the following condition(s):

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

As a result of this unsafe condition and due to the fact that _____ intends to operate _____ in service, the undersigned NCAA Aviation Safety Inspector exercises the Authority of Article 18(3) of the Civil Aviation Act of 2006 and Subsection 1.17 of the Nigerian Civil Aviation Regulations to temporary ground the above aircraft for a period of _____ commencing with the issuance of this notification. This aircraft is hereby grounded and can not be used in air transportation unless found by the NCAA to be in a condition for safe operation.

Aviation Safety Inspector (Name & Signature): _____

Received by (Name & Signature): _____
Air Operator: _____
Date: _____

Use reverse side for additional comments

NIGERIAN CIVIL AVIATION AUTHORITY

AVIATION HOUSE

P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

FORM: O-OPS 005

FLIGHT/CABIN CREW EMERGENCY DRILLS INSPECTION REPORT

FROM: ……

TO: ……

TYPE OF DRILL: …….. FIRE FIGHTING ☐ EVACUATION ☐ DITCHING ☐

AIRCRAFT TYPE: ……

NAME OF AIRLINE: ……

INSTRUCTOR(S): ……

DATE OF DRILL: ……

VENUE: ……

PARTICIPANTS

SN	NAMES	SN	NAMES
1.		7.	
2.		8.	
3.		9.	
4.		10.	
5.		11.	
6.		12.	

(NOTE: Attach list if necessary and counter sign)

TICK AS APPROPRIATE, TRAINING WAS;

SATISFACTORY ☐ NOT SATISFACTORY ☐

REMARK/OBSERVATION: ……

……

1. INSPECTOR'S NAME: …… SIGN: ……..

2. INSPECTOR'S NAME: …… SIGN: ……

3. INSPECTOR'S NAME: …… SIGN: ……

DISTRIBUTION: (1) Original Copy (DOT), (2) Duplicate Copy (Inspector), (3) Triplicate Copy (Airline).

NIGERIAN CIVIL AVIATION AUTHORITY

AVIATION HOUSE

P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

FORM: O-OPS 006

CABIN CREW TRAINING INSPECTION REPORT

TYPE OF TRAINING: TICK THE APPROPRIATE BOX

☐ INITIAL

☐ RECURRENT ☐ REFRESHER

☐ CONVERSION ☐ DIFFERENCE

AIRCRAFT TYPE: …… DATE: ……

NAME OF AIRLINE(S): ……..

INSTRUCTOR(S): ……..

PARTICIPANTS

SN	NAMES	SN	NAMES
1.		7.	
2.		8.	
3.		9.	
4.		10.	
5.		11.	
6.		12.	

(NOTE: Attach list if necessary and counter sign)

TICK AS APPROPRIATE, TRAINING WAS;

SATISFACTORY ☐ NOT SATISFACTORY ☐

REMARK/OBSERVATION: ……

……

1. INSPECTOR'S NAME: …… SIGN: ……..

2. INSPECTOR'S NAME: …… SIGN: ……

3. INSPECTOR'S NAME: …… SIGN: ……

DISTRIBUTION: (1) Original Copy (DOT), (2) Duplicate Copy (Inspector), (3) Triplicate Copy (Airline).

NIGERIAN CIVIL AVIATION AUTHORITY

AVIATION HOUSE

P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

FORM: O-OPS 006A

GROUND OPERATIONS TRAINING INSPECTION REPORT

TYPE OF TRAINING: TICK THE APPROPRIATE BOX

☐ INITIAL	☐ INDOCTRINATION	☐ COMPETENCY
☐ RECURRENT	☐ REFRESHER	☐ DANGEROUS GOODS
☐ CONVERSION	☐ DIFFERENCE	☐ OTHERS:

AIRCRAFT TYPE: …… DATE: ……

NAME OF AIRLINE(S): ……..

INSTRUCTOR(S): ……..

PARTICIPANTS

SN	NAMES	SN	NAMES
1.		7.	
2.		8.	
3.		9.	
4.		10.	
5.		11.	
6.		12.	

(NOTE: Attach list if necessary and counter sign)

TICK AS APPROPRIATE, TRAINING WAS;

SATISFACTORY ☐ NOT SATISFACTORY ☐

REMARK/OBSERVATION: ……

……

1. INSPECTOR'S NAME: …… SIGN: ……..
2. INSPECTOR'S NAME: …… SIGN: ……
3. INSPECTOR'S NAME: …… SIGN: ……

DISTRIBUTION: (1) Original Copy (DOT), (2) Duplicate Copy (Inspector), (3) Triplicate Copy (Airline).

NIGERIAN CIVIL AVIATION AUTHORITY

AVIATION HOUSE

P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

Form: O-OPS07

MANDATORY OCCURRENCE REPORT

ORGANISATION REF NO.	CAA OCCURRENCE NO.

1. FLIGHT CREW REPORT

AIRCRAFT TYPE & SERIES	REGISTRATION	OPERATOR	DATE	LOCATION/POSITION/RW	CAPTAIN	CO-PILOT

FLIGHT NR	ROUTE		TIME (UTC):	FLIGHT LEVEL/ALT (FT)	IAS	ETOPS	
	FROM:	TO:	DAY/NIGHT/TWILIGHT			YES	NO

NATURE OF FLIGHT	PAX	FREIGHT	POSITIONING	FERRY	TEST	TRAINING	BUSINESS	AGRICULTURAL	SURVEY	PLEASURE	CLUBGROUP	PRIVATE	PARACHUTING	TOWING

FLIGHT PHASE	PARKED	TAXYING	TAKEOFF	INITIAL CLIMB	CLIMB	CRUISE	DESCENT	HOLDING	APPROACH	LANDING	CIRCUIT	AEROBATICS	HOVER

ENVIRONMENTAL DETAILS

WIND		CLOUD			PRECIPITATION				OTHER METEOROLOGICAL CONDITIONS								RUNWAY STATE				
DIRN	SPEED (kts)	TYPE	HT (ft)	8th	RAIN	SNOW	SLEET	HAIL	VISIBILITY	ICING			TURBULENCE			OAT (C)	DRY	WET	ICE	SNOW	SLUSH
					LIGHT	MODERATE		HEAVY	KM/M	LIGHT	MOD	SEVERE	LIGHT	MOD	SEVERE		CATEGORY		I	II	III

BRIEF TITLE

2. DESCRIPTION OF OCCURRENCE (To be used for all occurrences reported on this form)

Use additional form if required, ☐ Tick here if additional form used

Results of subsequent investigation

Tick here ☐ If Part 4 includes action taken to avoid recurrence

Any procedures, manuals, publications, (e.g. AIC, AD, SB, etc) directly relevant to occurrence and compliance state of aircraft, equipment or documentation	

ORGANISATION	NAME	POSITION	SIGNATURE	DATE

3. GROUND STAFF REPORT

A/C SERIAL NUMBER	ENGINE TYPE/SERIES	ETOPS APPROVED		GROUND		AIRCRAFT BELOW 5700KG ONLY – MAINTENANCE ORGANISATION ETOPS APPROVED
		YES	NO	MAINTENANCE		
				GROUND HANDLING		
				UNATTENDED		TEL NO

COMPONENT/PART	MANUFACTURER	PART NR	SERIAL NR	MANUAL REF	COMPONENT OH/REPAIR ORGANISATION

UTILISATION - AIRCRAFT				UTILIZATION – ENGINE/COMPONENT				MANUFACTURER ADVISED	
	TOTAL	SINCE OH/REPAIR	SINCE INSPECTION		TOTAL	SINCE OH/REPAIR	SINCE INSPECTION	YES	NO
HOURS				HOURS					
CYCLES				CYCLES					
LANDINGS				LANDINGS					

4. REPORTING ORGANISATION – REPORT

ORGANISATION COMMENTS – ASSESSMENT/

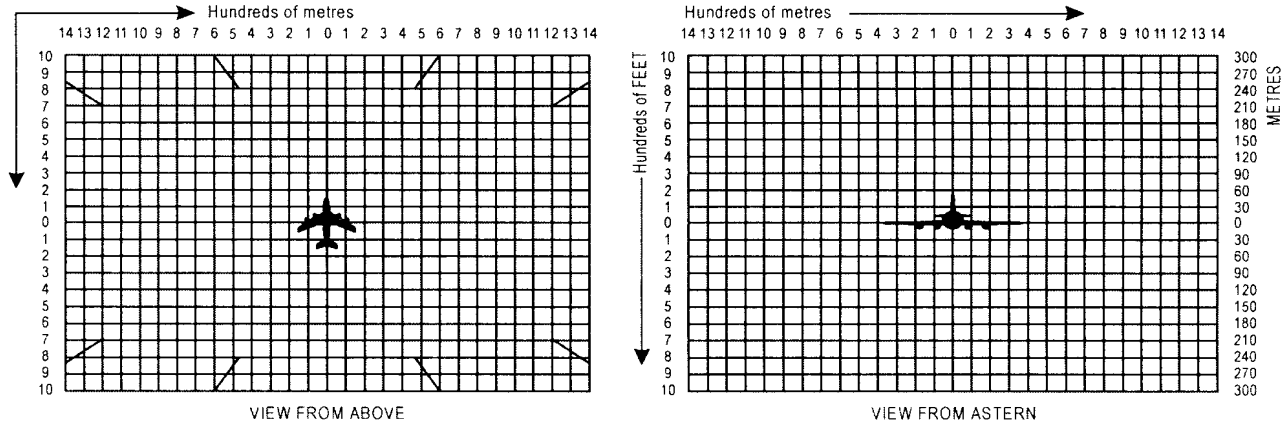
ACTION TAKEN/SUGGESTIONS TO PREVENT RECURRENCE

ORGANISATION	TEL/FAX	REPORTERS REF	REPORT		REPORTERS INVESTIGATION					FDR DATA RETAINED	
			NEW SUPPL		NIL	CLOSED		OPEN		YES	NO

NAME	POSITION	SIGNATURE	DATE

5. AIRMISS/ATC INCIDENT (DELETE AS APPLICABLE) and/or TCAS RA

Mark passage of other aircraft relative to you, in plan on the left and in elevation on the right, assuming YOU are at the centre of each diagram indicate appropriate scale.



HDG/RTE ROUTE	°	TAS	FL/ALT SETTING		ATC INSTRUCTIONS ISSUED		CALLSIGN	FREQUENCY IN USE	HEADING	CLEARED ALTITUDE	MINIMUM VERTICAL SEPARATION	MINIMUM HORIZONTAL SEPARATION
FROM:	TO:				YES	NO			°		FT	M/NM

CLIMB/DESCENT: LEVEL ☐ CLIMBING ☐ DESCENDING ☐ **BANK ANGLE: SLIGHT ☐ MODERATE ☐ STEEP ☐**

TCAS ALERT			TYPE OF RA	RA FOLLOWED		WAS TCAS ALERT USEFUL		AVOIDING ACTION TAKEN	
RA	TA	NONE		YES	NO	YES	NO	YES	NO

DETAILS OF OTHER AIRCRAFT						
TYPE	MARKINGS	COLOUR	LIGHTING	CALLSIGN	ATTITUDE	AVOIDING ACTION TAKEN
						YES / NO

RESTRICTIONS TO VISIBILITY: NONE ☐ SUNGLARE ☐ DIRTY WINDSCREEN ☐ WINDSCREEN PILLAR ☐ OTHER COCKPIT STRUCTURE ☐

6 WAKE TURBULENCE

HEADING	TURNING			G/S POSITION		EXT C/L POSITION			CHANGE IN ATTITUDE				CHANGE IN ALTITUDE	ANY BUFFET		STICK SHAKE	
°	LEFT	RIGHT	NO	HIGH	LOW	LEFT	RIGHT	NO	PITCH	ROLL	YAW	°	FT	YES	NO	YES	NO

WHAT MADE YOU SUSPECT WAKE TURBULENCE

DESCRIBE ANY VERTICAL ACCELERATION

NAME	POSITION	SIGNATURE	DATE

7. CAA REVIEW OF ACTION TAKEN BY ORGANISATION

SUMMARY OF FOLLOW-UP ACTION BY CAA:

OPEN	
CLOSED	
RECORD ENTERED IN DB	

NAME OF INSPECTOR _____ **SIGNATURE** _____ **DATE** _____

NIGERIAN CIVIL AVIATION AUTHORITY

AVIATION HOUSE

P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

Form: O-OPS07A

SERVICE DIFFICULTY REPORT

(To be used for reporting of Failures, Malfunctions and Defects as required by the Nigeria Civil Aviation Regulations .

1 Aircraft Registration	**2 (a) Address of the Civil Aviation Authority**			**3** Date of Occurrence
4 Location:	**2 (b)** (Address of State of Design Authority)	**2 (c)** (Address of Type Certificate Holder)		**5** Date Submitted
				6 OPEN ☐ CLOSED ☐
	Make	Model	Serial No.	**8** Phase of Operation/Maintenance
7 (a) Aircraft				Ground ☐ Taxi ☐
(b) Powerplant				Take-off ☐ Climb ☐
(c) Propeller				Cruise ☐
				Descent ☐ Landing ☐

9 System/Component (assembly that includes Part)

Name	Make	Model	Serial No.

10 Specific Part (of Component) causing problem

Name	Number	Part/Defect Location

12 ATA Code	**13** Part TT	**14** Part TSO	**15** Part Condition

11 Submitted by:

Operator ☐ AMO ☐
Air Traffic Controller ☐
Pilot ☐ AMEL ☐

16 Comments (*Describe the service difficulty and the circumstances under which it occurred. State probable cause and recommended corrective action to prevent recurrence, use reverse side if needed.*)

17

Name_____ **Signature** _____ **Organisation** _____

NIGERIAN CIVIL AVIATION AUTHORITY

AVIATION HOUSE

P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

Form: O-OPS07B

DANGEROUS GOODS OCCURRENCE REPORT

Type of Occurrence: Accident ☐ Incident ☐ Other Occurrence ☐

(See notes on reverse side of this form. Boxes identified with an asterisk in the heading need only be completed if applicable.	**Tracking/Ref No:**

1. Operator	2. Date of Occurrence	3. Local time of Occurrence

4. Date of Flight *	5. Flight Number*	6.. Aircraft Type*	7. Aircraft Registration*

8. Departure Airport*	9. Destination Airport*	10. Location Of Occurrence	11. Origin of Goods

12. Description of the Occurrence, including details of injury, damage, etc (continue overleaf if necessary)

13. Proper Shipping Name (including the technical name)	14. UN/ID Number (when known)

15. Class/Division	16. Subsidiary Risk*	17. Packing Group*	18. Category (Class 7 Only)*

19. Type of Packaging*	20. Packaging Specification marking*	21. Number of Packages*	22. Quantity (or transport index if applicable)*

23. Reference Number of Air-way bill*l	24. Reference Number of courier pouch, baggage tag or passenger ticket*

25. Name and address of shipper, agent, passenger, etc

26. Other relevant information (including suspected cause, any action taken)

27. Name and Title of person making report	28. Telephone Number
29. Company Dept code, E-mail or Info mail code	30. Reporter's Ref*
31. Address	32. Signature/Date
	_____/_____ Signature Date

33. Summary of Action by NCAA Name of Inspector_____ Signature _____ Date _____	Open	
	Closed	
	Record Entered in DB	

NIGERIAN CIVIL AVIATION AUTHORITY

AVIATION HOUSE

P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

FORM O-OPS08

NOTIFICATION OF ACCESS TO AIRCRAFT

Notification No.:

Pursuant to the Nigeria Civil Aviation Authority Regulations, access to Aircraft is being notified for the person herein named. Please issue a ticket On ☐ must fly ☐ space available basis.			INSPECTOR'S NAME-PRINT
NAME OF OPERATOR			INSPECTOR'S TITLE
DATE	TIME	FLIGHT NO.	HEADQUARTERS (City and State)
ROUTE(S)			CREDENTIAL NO.
FROM	TO		
PURPOSE COCKPIT / CABIN – EN-ROUTE INSPECTION			INSPECTOR'S SIGNATURE
APPROVED BY:			DG/DOT/GM

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

Fatigue Risk Management System Evaluation Form

FORM: O-OPS 009

TO BE COMPLETED AND SIGNED FOR BY THE SAFETY MANAGER OR ACCOUNTABLE EXECUTIVE	
ORGANIZATION:	
SIGNATURE	POSITION:
PRINT NAME:	DATE:
FRMS MANUAL REVISION:	
FOR AUTHORITY USE ONLY	
INSPECTOR NAME AND ID:	
SIGNATURE	DATE:

0. GENERAL ISSUES AND FRMS IMPLEMENTATION

FRMS Scope of Implementation

The applicant should define the scope of the use of FRMS within its operation. In establishing an FRMS a GAP analysis should be carried out and an implementation plan that will address how the organization will transition to a fully functioning and effective FRMS.

	In Place[1]	**Documented Reference[2]**	**How is it achieved?[3]**	**Inspector's assessment remarks[4]**
0.1 In respect of the management system, have the structure, activities and scope of the FRMS operations been defined?				
0.2 Does the FRMS correspond to the size, nature and complexity of the operation and the hazards and associated risks inherent with its activities				
0.3 Has a gap analysis been carried out?				

1 Yes (Y), No (N) or Partial (P).
2 Where is it documented in your documentation?
3 Provide details that describe or demonstrate your response to the question.
4 This will be completed by the Authority during the assessment process.

	In Place[1]	Documented Reference[2]	How is it achieved?[3]	Inspector's assessment remarks[4]
0.4 Is there an FRMS implementation plan that reflects the gap analysis				

1. SAFETY POLICY AND OBJECTIVES
1.1 Management commitment and responsibility The applicant should define its FRMS policy which should be in accordance with international and national requirements, and which shall be signed by the accountable executive. This policy should reflect organizational commitments regarding fatigue risk, including a clear statement about the provision of the necessary human and financial resources for its implementation and be communicated, with visible endorsement, throughout the organization. The FRMS policy should include the fatigue reporting procedures and management commitment to continuous improvement of the FRMS. It must also reflects the shared responsibility for the management of fatigue risks with all the stakeholders. The policy should be periodically reviewed to ensure it remains relevant and appropriate to the organization and the operations to which FRMS applies. (Where the FRMS is integrated within the organizations SMS, these management commitments and responsibilities may be included in the SMS safety policy. If this is done, it must still be possible to demonstrate these responsibilities as clearly referenced to fatigue.

	In Place[1]	Documented Reference[2]	How is it achieved?[3]	Inspector's assessment remarks[4]
1.1.1 Is there a written FRMS policy clearly stating the safety objectives of the FRMS and endorsed by the accountable executive? Or are there clear references to fatigue risk management with the SMS policy as endorsed by the accountable executive?				
1.1.2 Were key staff consulted in the development of the FRMS policy/integration of FRMS into the SMS?				
1.1.3 Has the FRMS policy been communicated effectively throughout the organization?				
1.1.4 Does senior management continuously promote and demonstrate its commitment to continuous improvement of the FRMS?				

	In Place[1]	Documented Reference[2]	How is it achieved?[3]	Inspector's assessment remarks[4]
1.1.5 Does the Policy include a commitment: to strive to achieve the highest safety standards; observe all applicable legal requirements, standards and best practice; provide appropriate resources as a primary responsibility of all managers?				
1.1.6 Does the FRMS policy actively encourage fatigue reporting				
1.1.7 Is the FRMS management system based on the FRMS policy?				
1.1.8 Does the FRMS policy reflect the shared responsibility of the management of fatigue with all stakeholders?				
1.1.9 Does the FRMS policy reflect the need for periodic review?				

1.2 Accountabilities

The applicant shall identify the accountable executive who, irrespective of other functions, shall have ultimate responsibility and accountability, on behalf of the organization, for the implementation and maintenance of the FRMS. The organization shall also identify the fatigue risk accountabilities of all members of senior management, irrespective of other functions, as well as of employees, with respect to the performance of the FRMS. Responsibilities, accountabilities and authorities shall be documented and communicated throughout the organization and shall include a definition of the levels management with authority to make decisions regarding fatigue risk tolerability.

(Where the FRMS is integrated within the organization's SMS, these accountabilities may be included in the SMS documentation. If this is done it must still be possible to demonstrate these accountabilities as clearly referenced to fatigue.)

	In Place[1]	Documented Reference[2]	How is it achieved?[3]	Inspector's assessment remarks[4]
1.2.1 Does the accountable executive have full responsibility for the FRMS and corporate authority for the organization?				
1.2.2 Does the accountable executive have an awareness of his FRMS roles and responsibilities in respect of the FRMS policy and of fatigue risk management within the safety culture of the organization?				
1.2.3 Are fatigue risk management accountabilities, authorities and responsibilities defined throughout the organization?				

	In Place[1]	Documented Reference[2]	How is it achieved?[3]	Inspector's assessment remarks[4]
1.2.4 Are there clearly defined lines of fatigue risk management accountabilities throughout the organization?				
1.2.5 Are all staff aware of, and do they understand, their accountabilities, authorities and responsibilities with regard to fatigue?				

1.3 Appointment of key safety personnel

The applicant shall identify an FRMS manager to be the responsible individual and focal point for the implementation and maintenance of an effective FRMS. There needs to be a clear mechanism for ongoing involvement of all involved personnel through a functional group responsible for coordinating FRMS activities throughout the organization, which should be defined and documented. (The reference used in this document is to the Fatigue Safety Action Group (FSAG).)

(Where the FRMS is integrated into the SMS, the FRMS manager would normally report to the safety manager, who would have a direct reporting line to the accountable executive. Where the organization is small but with a functioning SMS, it may not be practical to have a FSAG but to have fatigue as an agenda item on the Safety Action Group meetings).

	In Place[1]	Documented Reference[2]	How is it achieved?[3]	Inspector's assessment remarks[4]
1.3.1 Has an FRMS manager (or equivalent) been appointed with the appropriate knowledge, skills and experience as defined in the guidance material?				
1.3.2 Is there a direct reporting line between the FRMS manager and the accountable executive? (Or, where integrated with SMS, between the FRMS manager and the safety manager).				
1.3.3 Does the FRMS manager carry out the functions as detailed in the ICAO guidance material?				
1.3.4 Has a Fatigue Safety Action Group or equivalent been established that fulfils the functions defined in the guidance material?				
1.3.5 Does the Board monitor the performance and effectiveness of the FRMS as detailed in the guidance material?				
1.3.6 is the Fatigue Safety Action Group's membership and frequency of meetings defined and minuted?				

1.4 FRMS documentation

The applicant shall develop and maintain FRMS documentation describing the FRMS policy and objectives, the FRMS requirements, the FRMS processes and procedures, the accountabilities, responsibilities and authorities for processes and procedures, and the FRMS outputs. The organization shall develop and maintain an FRMS manual to communicate its approach to the management of safety throughout the organization or shall incorporate the FRMS documentation into its existing SMS documentation.

	In Place[1]	Documented Reference[2]	How is it achieved?[3]	Inspector's assessment remarks[4]
1.4.1 Does the FRMS management manual contain all the elements as detailed in the guidance material?				
1.4.2 is it regularly reviewed?				
1.4.3 is there a system for recording scheduled and actual flight times, duty and rest periods with deviations and reasons for any deviations?				
1.4.4 Is there a system for the recording and storage of FRMS outputs, i.e. hazard logs, risk assessments, fatigue reports, safety cases, roster metrics, FSAG minutes?				

2.1 Hazard Identification

The applicant shall develop and maintain a formal process that ensures that fatigue hazards are identified. This should include the investigation of incidents and accidents to identify potential fatigue hazards. Fatigue hazard identification shall be based on a combination of reactive, proactive and predictive methods of data collection.

	In Place[1]	Documented Reference[2]	How is it achieved?[3]	Inspector's assessment remarks[4]
2.1.1 Is there a process for establishing how fatigue hazards are identified and from what sources?				
2.1.2 Is there a confidential fatigue reporting scheme that encourages fatigue-related issues to be reported by staff? (This needs to be open to proactive and predictive as well as reactive information)				
2.1.3 Is there feedback to the reporter and the rest of the organization?				
2.1.4 Does fatigue hazard identification include reactive, proactive and predictive schemes?				
2.1.5 Have the major fatigue hazards been identified and assessed for the organization and its current activities?				
2.1.6 Do safety investigations throughout the organization include fatigue hazards as possible causal factors?				

	In Place[1]	Documented Reference[2]	How is it achieved?[3]	Inspector's assessment remarks[4]
2.1.7 Are the fatigue hazards identified from fatigue investigations addressed and communicated to the rest of the organization?				
2.1.8 Are fatigue-related errors, hazards and near misses being reported by staff?				

2.2 Fatigue safety risk assessment and mitigation process

The applicant shall develop and implement formal risk assessment procedures that determine the probability and potential severity of fatigue-related events and identify those that require mitigation. They shall also develop and implement risk mitigation procedures. The Fatigue Safety Action Group is often used to assess the risks and develop the mitigations.

	In Place[1]	Documented Reference[2]	How is it achieved?[3]	Inspector's assessment remarks[4]
2.2.1 Is there a process to assess the risks associated with identified fatigue hazards?				
2.2.2 Is there a criterion (e.g. risk tolerability matrix) that evaluates risk and the tolerable levels of risk an organization is willing to accept? Is the criterion and process appropriate for the operation?				
2.2.3 Are the mitigation actions, including timelines and responsibilities documented?				
2.2.4 Is there a clear process to select the appropriate mitigation actions?				

3. FATIGUE SAFETY ASSURANCE

3.1 Fatigue safety performance monitoring and measurement

The applicant shall develop and maintain the means to verify the fatigue safety performance of the organization and to validate the effectiveness of fatigue risk controls and mitigations. The fatigue safety performance of the organization shall be verified in reference to the fatigue safety performance indicators and fatigue safety performance targets of the FRMS.

(Where the FRMS is incorporated into the SMS, the fatigue safety performance indicators and fatigue safety performance targets must be clearly identified.)

	In Place[1]	Documented Reference[2]	How is it achieved?[3]	Inspector's assessment remarks[4]
3.1.1 Are fatigue risk mitigations and controls being verified/audited to confirm their effectiveness?				
3.1.2 Are lessons learnt incorporated into the policy and procedures?				

	In Place[1]	Documented Reference[2]	How is it achieved?[3]	Inspector's assessment remarks[4]
3.1.3 Have fatigue safety performance indicators been defined and promulgated, and are they being monitored and analysed for trends?				
3.1.4 Is the FRMS audited to assess its effectiveness and that the regulations and standards are being followed? Are these audits documented?				
3.1.5 Are fatigue surveys carried out?				
3.1.6 Are fatigue studies carried out? (where appropriate)				

3.2 The management of change

The applicant shall develop and maintain a formal process to identify changes within the organization and/or operation which may affect established processes in relation to fatigue risk. These processes need to ensure fatigue safety performance before implementing changes and to eliminate or modify fatigue risk mitigation that are no longer needed or effective due to changes in the operational environment.

	In Place[1]	Documented Reference[2]	How is it achieved?[3]	Inspector's assessment remarks[4]
3.2.1 Is there a documented change management process to proactively identify fatigue hazards and to mitigate fatigue risks during organizational and operational changes?				
3.2.2 Are there periodical reviews of the fatigue safety performance after organizational or operational changes to assure assumptions remain valid and the change was effective?				

3.3 Continuous improvement of the FRMS

The applicant shall develop and maintain a formal process to review the performance of the FRMS, with the aim of continuous improvement of the system and to determine the implications of substandard performance of the FRMS, and eliminate or mitigate such causes.

	In Place[1]	Documented Reference[2]	How is it achieved?[3]	Inspector's assessment remarks[4]
3.3.1 Is there a means to monitor the overall performance of the FRMS to allow for continuous improvement to be achieved?				
3.3.2 Is there a means to eliminate and/or modify risk controls that have unintended consequences or are no longer needed?				
3.3.3 Is there evidence of continuous improvement being achieved?				

4. FRMS PROMOTION

4.1 Training and education

The applicant shall develop and maintain a fatigue awareness and countermeasures training programme that ensures that personnel are trained and competent to both perform their FRMS duties and manage fatigue risks in actual operations. The scope of the training shall be appropriate to each individual's involvement in the FRMS.

	In Place[1]	**Documented Reference[2]**	**How is it achieved?[3]**	**Inspector's assessment remarks[4]**
4.1.1 Have all staff received training on the organization's FRMS and their roles and responsibilities in respect of the FRMS including the accountable executive, senior management, managers, supervisors and operational staff?				
4.1.2 Is the initial and recurrent training syllabus suitable for the organization's FRMS operations?				
4.1.3 Is the effectiveness of the training measured and documented?				

4.2 FRMS communication

The applicant shall develop and maintain formal means for FRMS communication that ensures that all personnel are fully aware of the FRMS, conveys fatigue-related safety-critical information, and explains why particular actions are taken and why procedures are introduced or changed.

	In Place[1]	**Documented Reference[2]**	**How is it achieved?[3]**	**Inspector's assessment remarks[4]**
4.2.1 Does FRMS communication each all levels of staff in the organization?				
4.2.2 Does the FRMS communication clearly explain the policies, procedures and responsibilities? Does it complement and enhance the organization's safety culture?				
4.2.3 Is the FRMS information disseminated in suitable communication channels and is it monitored for its effectiveness?				

NIGERIAN CIVIL AVIATION AUTHORITY

AVIATION HOUSE

P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

CAT II/III APPROVAL JOB AIDS (OPERATIONS)

FORM: O-OPS 010

S/N	CAT II/II APPROVAL JOB AID			COMMENT
1	Operator Name:			
2	14 CFR PART: 121 □ 125 □ 135 □ 91K □ 91F		Date:	
3	Application for: CAT II □ CAT III □ Authorization			
4	Previous CAT II: Yes □ No □	Previous CAT III: Yes □ No □		29A/10.9/10.10/10.10.3 / 28D/10.9/10.10/10.10.3
5	New Aircraft to operator: Yes □ No □			
6	Upgraded equipment on existing aircraft: Yes □ No □			
	FLIGHT OPERATIONS		**Operator's Reference Document**	
	OPERATOR PROCEDURES			
7	Type of Operation			Autoflight/manual land/HGS/manual land/Hybrid/29A/5.8//28D/5.8
6	Cat II and III Instrument Approach Procedures			29A6.2/6.2.2/28D/6.2/6.2.2
8	AFM/FOM/POH/QRH Provisions, as applicable			29A/6.1.1/10.1/Appendix 2, sec 9/Appendix 3, sec 9//28D/6.1.1/10.1
9	Crew Coordination and Monitoring Procedures			29A/6.1.2/6.1.3/AC 120-71A, Appendix 19//28D/6.1.2/6.1.3
10	Callouts			29A/6.1.5/AC120-71A: Appendix 19//28D/6.1.5
11	Use of DA (H) [Fail Passive]			29A/4.3.4//28D/4.3.4/4.3.5/4.3.7 /4.3.8/5.6/5.8/6.1.4/App3/App6
12	Use of Alert Height (AH) [Fail Operational]			28D/4.3.2/4.3.3/4.3.7/4.3.8/6.1.4 /App3
13	Crew Briefing			
14	Configurations			29A/6.1.6//28D/6.1.6
15	Non-Normal Operations and Procedures			29A/4.3.1.7/5.23.26.1.8/10.8thru10.8.5 //28D/6.1.8
16	Special Environmental Considerations			29A/6.2.11 thru 6.2.13.12

GENERAL REMARKS AND RECOMMENDATION

Assigned Aircraft: _____Date: _____

Inspector Name/ID:_____

Inspector Signature: _____ Date: _____

NIGERIAN CIVIL AVIATION AUTHORITY

AVIATION HOUSE

P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

ELECTRONIC FLIGHT BAG LINE EVALUTION JOB AIDS

FORM: O-OPS 011

This tool provides a starting point for Electronic Flight Bag (EFB) line operations evaluations. The questions are primarily designed to aid the Operations Inspector (OI) but may also be useful to the operator for the collection of a structured set of observations about the use of the EFB before and during the 6-month validation phase. This is a final check to ensure that there are no problems with the EFB design/interface, training, or procedures prior to the authorization for use.

The questions below encompass the operations and safety evaluation. In cases where a system shows weaknesses or limitations, mitigations must be developed in consultation with the applicant.

In some cases, an EFB may add to the complexity of flight operations. The key questions to be answered are:

1) Can the flight be conducted as safely with an EFB as with the methods/products it is intended to replace?
2) Does the EFB add an *unacceptable* level of complexity for any critical activity or phase of flight?

In order to answer these questions, it is helpful to consider more specific aspects of EFB usage, which are covered in Sections II through V below. Space is also provided
in Section I to record general notes about the system and the evaluation.

I. Describe system configuration description and flight conditions:

II. Overview. The main aspects to be assessed are encompassed by the following questions:

1. Was training adequate to ensure that the pilot(s) could perform in a safe and efficient manner?
· Were individual pilot knowledge and skills adequate to allow normal coordinated flight deck activities?
· Was pilot knowledge regarding observed software applications adequate? No Yes

2. Are adequate procedures in place to ensure that the EFB is integrated into the crew's/operator's system (e.g., normal and abnormal/emergency operations and maintenance functions)? No Yes

3. Was the EFB hardware or software adequate and appropriate during the flight? If there were any problems, particularly in a critical phase of flight, describe in the notes space below. No Yes

4. Could the pilot(s) recover from usage errors without undue distraction or discussions? If usage errors were frequent or a distraction, describe in notes below. No Yes

5. Was the workload required for completing a task with the EFB equal to or less than the workload for completing the task with the conventional method? If no, specify phase of flight and task for any marginal or unacceptable increases in workload in notes space below. No Yes

Describe any problems noted as "No" above:

III. General

6. Was each pilot able to use the cursor, track ball, touch screen, etc., for menu and functionality without frequent errors? No Yes

7. Was the device appropriate and operational when exposed to environmental factors (e.g. turbulence, cold weather, vibration)? No Yes

8. Was the device free of significant limitations in regard to display (e.g., off-axis view angles or various different lighting conditions)?

· The device had easy and adequate dimming functions in low light (nighttime) conditions?

· The device was adequately backlit and/or was viewable by flight deck lighting in lowlight (nighttime) conditions?

· The device was clearly visible in bright sunlight conditions? No Yes

9. Was the device display clear (adequate resolution)? Confirm that the display was never misinterpreted because of viewing limitations. If so, record issues in notes space below. No Yes

10. Did the pilot(s) ensure proper stowage and security (i.e., between flights, etc.) of the EFB per standard operating procedures (SOP)? Temperature limitations acknowledged? No Yes

11. Does the display continue to be usable after prolonged use in the flight deck environment (if applicable)? No Yes

12. Normal functions (e.g., shutdown, startup) are adequate and do not require undue pilot attention or concern?

13. Were procedures adequate for identifying currency of EFB data? No Yes

14. Could the pilot(s) easily find and use required items and functions? No Yes

15. Were the abbreviations and/or icons easy to understand? No Yes

16. If multiple applications are supported, could the pilot(s) easily switch between critical applications? No Yes

17. If critical (e.g., abnormal or emergency checklists) applications are authorized in the EFB configuration basis, is their use at least equal to or better than previously approved methods? No Yes

18. The time to complete normal tasks was appropriate. No Yes

19. The audio features did not cause pilot distraction and/or were adjustable and appropriate for the flight deck environment. No Yes

Describe any problems noted as "No" above:

IV. Electronic Charts, Documents, and Checklists.

20. Were all necessary documents (including charts, checklists, and manuals) found, identified, and easily viewed by the pilot(s) without undue distraction? No Yes

21. Was information contained in electronic charts, documents, and checklists complete, equal in quality to previously provided products, and easily accessible and understandable? No Yes

22. Was pilot knowledge of chart/document/checklist selection and viewing adequate? No Yes

23. Could the pilot(s) easily rearrange content on the screen to meet needs (e.g., by zooming, panning, or otherwise customizing the view)? No Yes

24. If printers are used, are printouts acceptable? No Yes

25. Did the pilot(s) exhibit adequate knowledge of EFB functions to efficiently brief and fly required procedures? No Yes

26. Did the pilot(s) exhibit adequate knowledge of the software revision process procedure/method that ensures appropriate database accuracy and currency? No Yes

27. Did the pilot(s) exhibit adequate knowledge of contingency procedures?
In the event of a failure of a single device:
In the event that both devices fail: No Yes

28. Were both pilots able to monitor necessary electronic chart displays during critical phases of flight? No Yes

29. Did the EFB allow quick entry of updates for last minute changes (e.g., flight plan/runway changes)? No Yes

30. For electronic checklists (ECL), was it easy to track completed items? No Yes

Describe any problems noted as "No" above:

V. Flight Performance Data/Calculations.

31. Could the pilot(s) interpret and use flight performance data/calculations efficiently and accurately? No Yes

32. Did the device allow quick entry of updates for last minute changes (e.g., flight plan/runway changes)? No Yes

33. In the event that the Weight and Balance (W&B) and/or performance calculation software is not approved by the Aircraft Certification Office (ACO), all crewmembers are aware of the software's limitations and understand that only approved calculation methods may be used as a primary means of computation. No Yes

Describe any problems noted as "No" above:

VI. General Conclusions

34. Were any unique safety issues or events caused or exacerbated by using the EFB during this evaluation? No Yes

35. Can the flight be conducted as safely with an EFB as with the methods/products it is intended to replace? No Yes

36. Does the EFB add an unacceptable level of complexity for any critical activity or phase of flight? No Yes

GENERAL REMARKS AND RECOMMENDATION

Assigned Aircraft: _____Date: _____

Inspector Name/ID:_____

Inspector Signature: _____ Date: _____

NIGERIAN CIVIL AVIATION AUTHORITY

AVIATION HOUSE

P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

"Table Top Electronic Bag Evaluation"

FORM: O-OPS 011A

I. Purpose

This form contains a list of questions for operators to use during a tabletop evaluation of the Electronic Flight Bag (EFB) focusing on the EFB hardware and software applications. The Form starts with EFB hardware questions, then presents general user interface questions, and ends with specific application questions (if applicable).
The checklist is designed so that any question answered as "No" requires a comment that may include, "Not Applicable."
After the operator has completed this form, the results should be documented so the operations inspector can review.

S/N	Information	Yes	No
	EFB Hardware		
1.	If the EFB is to be used outside of the fight Deck, can the EFB display be read under direct sunlight?		
2.	Is the display brightness and contrast adjustable		
3	Is the display brightness acceptable when it adjusts automatically		
4	Are there any display artifacts such as jagged lines that impair functionality		
5	Are controls labeled appropriately to describe their intended function		
6	Are buttons and labels visible and readable under all flight deck illumination conditions?		
7	Can EFB inputs be made quickly and accurately in any operational environment?		
8	Does the input device provide sufficient tactile feedback in all environmental conditions?		
9	Are inadvertent or multiple activation of controls minimized?		
10	Does the EFB start up in a predictable state?		
11	Can the EFB be rebooted when power is cut to the EFB?		
12	Does the EFB function correctly when rebooted?		
13	Are all the EFB failure modes easy to see and identify?		
14	Is the failure annunciation/message appropriate for the EFB function that has failed?		
15	Are EFB recovery means easy to remember and apply when the EFB fails?		
Provide the Number and a Comment for Each EFB Hardware Question Checked as "No."			
	General User Interface		
16.	Is the revision information and currency expiration date available and presented clearly?		
17.	Does the device respond immediately to user inputs?		
18.	Is the processing speed always appropriate for normal use?		
19.	Are appropriate busy or progress indicators displayed when processing is delayed?		
20.	Is the user interface, including functions and navigation, consistent throughout the EFB?		

21.	Is all information that is needed displayed and easily accessible? Is there missing or difficult to find information?		
22.	Are common actions and time-critical functions easy to access?		
23.	Are there standard ways to perform common actions?		
24.	Are the displays and controls used on the EFB similar across applications? Are a common set of controls and graphical elements used?		
25.	Can all colors be distinguished under the various lighting conditions?		
26.	Is color coding implemented with a secondary code such as shading or highlighting when used to display critical information		
27.	Are the colors red and yellow used appropriately only for warnings and cautions?		
28.	Is the text easily readable?		
29.	Do the characters stand out against the display background?		
30	Are upper case and italic text used infrequently?		
31.	Is text that may be used in low-visibility conditions appropriate in size and easy to read?		
32.	Is it easy to zoom in on text or graphics when they are too small?		
33.	Is it obvious when information is out of view and can it easily be brought into view?		
34	Is the spacing between characters appropriate?		
35	Is the vertical spacing between lines appropriate?		
36	Are icons and symbols legible?		
37	Are icon and symbol functions obvious?		
38	Are the icons and symbols distinguishable from one another?		
39	Is each icon's meaning explained by a label or other means?		
40	Are the EFB icons and symbols consistent with their paper equivalents?		
41	Do EFB alerts and reminders meet the requirements in the appropriate regulations and advisory circular regarding the Human Factors Considerations for EFBs?		
42	Are alerts and reminders consistent across all applications?		
43	Are alerts and reminders implemented so as not to distract?		
44	Is there control over when, and whether, the audio or video is activated?		
45	Is it easy to reset parameters to their default when they have been customized?		
46	Is EFB customization controlled through an administrative control process?		
Provide the Number and a Comment for Each General User Interface Question Checked as "No."			
47	Can required information be found quickly and accurately within all applications?		
48	Is the information within applications organized consistently?		
49	Is information layout consistent with the paper equivalent?		
50	Is the layout of information appropriate for all applications?		
51	Is high priority information easy to read?		
52	Is it easy to tell which application is currently open/active?		
53	Is it easy to switch between applications?		

54	Is extra acknowledgement required to open applications that are not flight related?		
55	Do all open applications function as intended on an individual basis?		
56	Is access or links to related information appropriately supported?		
57	Are similar types of information accessed in the same way?		
58.	Is it easy to return to the place where the user started from?		
59.	Is printing supported, and if so, is the hard copy usable?		
60	Can a portion of a document be selected to be printed?		
61	Can a print job be terminated immediately?		
Provide the Number and a Comment for Each General Software Applications Question Checked as "No."			
62	Is it easy to tell where one is in relation to the full document?		
63	Is it easy to move between documents quickly?		
64	Is it easy to tell what document is currently in view?		
65	Is there a list of available documents to choose from?		
66	Is the document search function appropriate?		
67	Are tables, especially complex ones, readable and usable?		
68	. Are figures readable and usable?		
	Electronic Charts (If Applicable)		
69.	Is there a way to pre-select specific charts for easy access during a particular flight?		
70.	Is there more than one way to search for a chart?		
71	Is it easy to access charts when a last minute change is necessary?		
72	If the chart application uses aircraft location to facilitate access to charts, is this function appropriate.		
73.	Is it easy to switch between a decluttered and normal display if decluttering is supported?		
74.	Is there a clear indication when any chart elements are suppressed?		
Provide the Number and a Comment for Each Electronic Documents and Charts Question Checked as "No."			
	Electronic Checklists (ECL) (If Applicable)		
75.	Are normal checklists available in the appropriate order of use?		
76.	Can checklists be accessed individually for review or reference?		
77.	During non-normal conditions, are relevant checklists easy to access?		
78.	During non-normal conditions, does the device indicate which checklists and/or checklist items are required and which are optional?		
79.	Is it clear where to find all checklists, whether on the EFB or on paper?		
80.	Is the location of a paper document provided when it is referred to by the ECL?		
81.	Does each checklist have a constantly visible title distinct from other checklists?		

82.	Is it easy to select a checklist from a set of open checklists?		
83.	Is there a reminder to review incomplete items when closing an incomplete checklist?		
84.	Can an incomplete checklist be closed after acknowledging it is not complete?		
85	Does the ECL discourage two or more checklists from being used simultaneously?		
86.	Is progress through the ECL clear?		
87.	It is easy to reset the ECL to start over again?		
88.	Does the checklist provide appropriate reminders for tasks that require a delayed action?		
89.	Does the checklist clearly highlight decision branches?		
90.	Can you return to the checklist from links or related information in one step?		
91.	Is there an indicator of which item in the checklist you are working on?		
92	Is the checklist's active item clearly indicated?		
	Electronic Checklists (ECL) (If Applicable)_____		
93.	Can the status of an item be easily changed?		
94.	Does the next item automatically become active when the previous one is complete?		
95.	Can the current item be deferred without completing it?		
96.	Is it easy to view other items, even in a long checklist, without changing the active item?		
97.	Is it easy to move between items within a checklist?		
98.	Does the active item change to the next after an item is completed?		
99.	Is there a clear indication that all items as well as the whole checklist are complete when		
	finished?		
Provide the Number and a Comment for Each ECL Question Checked as "No."			
	Performance Calculations (If Applicable)		
100.	Does the device identify entries that have an incorrect format or type and does it generate an appropriate error message?		
101.	Does the error message clarify the type and range of data expected?		
102	Are units for performance data clearly labeled?		
103.	Do the labels used in the EFB match the language of other operator documents?		
104.	Is all the information necessary for a given task presented together or easily accessible?		
105.	Can the crews modify performance calculations easily, especially when making last minute changes?		
106.	Are outdated results of performance calculations deleted when modifications are entered?		
107.	Does the display and/or crew training provide information to the crew on the assumptions onwhich the calculations are based?		
108.	Are crews trained to identify and review default values and assumptions about the aircraft status or environmental conditions?		
109.	Are the assumptions made about any calculation as clear to pilots as similar information would be on a tabular chart?		

Provide the Number and a Comment for Each Performance Calculations Question Checked as "No."

Name:…….
EFB Administrator

Signature:……

Date:……

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

Electronic Flight Bag Operational Evaluation

FORM: O-OPS 011B

This Form contains a list of questions for operator consideration during an operational evaluation of the Electronic Flight Bag (EFB), its documentation, procedures, and training. Item 1-91 contain questions that can be answered in a training or operational environment by pilots, instructor/evaluators, or other operational personnel. Item 92-107 contain sample crew performance questions that can be addressed in a simulation environment. The form is designed such that any question answered as "No" requires a comment that in some cases may be "Not Applicable."

After the operator has completed this form, the operations inspector will review the results with the operator.

S/N	Information	Yes	No
	General EFB Hardware		
1.	Is there a backup source in the flight deck for EFB information?		
2.	Is the EFB display readable under all typical flight-deck lighting conditions?		
3	Does each type of EFB failure have minimum impact to crew tasks and workload?		
4	Is the EFB installation appropriate for use in high workload phases of flight?		
5	Are there appropriate Master Minimum Equipment List (MMEL)/minimum equipment list (MEL) items to handle EFB failures?		
6	Have EFB failure items been incorporated into FAA-approved checklists?		
7	Does the EFB mount allow appropriate access to flight controls and displays?		
8	Does the EFB mount allow appropriate access to the emergency egress path?		
9	Are crews able to adjust and lock the EFB for optimal viewing?		
10	Is there appropriate access to all flight controls during both ground and in-flight operations when the EFB is positioned for optimal viewing?		
11	Is there appropriate room to manipulate the EFB controls and to view its display?		
12	Are all EFB hardware components that are routinely used easy to access?		
13	Are the EFB hardware components usable and suitably durable for the flight deck?		

Provide the Number and a Comment for Each General EFB Hardware Question Checked as "No."

	Stowage (If Applicable)		
14.	Is there a stowage area for the EFB?		
15.	Is the stowage securing mechanism simple to operate?		
16.	Is the stowage securing mechanism unobtrusive when not in use?		
17.	Does the stowage system allow appropriate access to flight controls/displays and egress routes?		
18.	Is the design of the stowage area acceptable?		
19	Can the EFB be moved easily to and from the stowage area without blocking access to flight displays/controls?		
20.	Are the device and/or the stowage area unlikely to be damaged under normal use?		
	Unsecured EFB (If Applicable)		
21.	Is there appropriate access to flight controls/displays when the unsecured EFB is in use?		
22.	Is there an acceptable place to put an unsecured EFB when in use?		
23.	Is there an acceptable place to put an unsecured EFB when not in use?		
24.	Can the kneeboard EFB be positioned such that the pilot has full control authority		
25.	Is the kneeboard EFB comfortable for the pilot to wear under normal conditions		
Provide the Number and a Comment for Each Stowage and Unsecured EFB Question Checked as "No."			
	General User Interface		
26.	Is the workload using the EFB the same or less than the current process?		
27	Is the workload acceptable when there is an EFB failure?		
28.	Are other than critical EFB messages inhibited during high workload phases of flight?		
29.	Is the EFB user interface consistent with other flight deck systems?		
30	Does the EFB use terms, icons, colors and symbols consistent with other flight deck systems?		
	Software Applications		
31.	Is the workload acceptable when configuring electronic charts while flying a procedure?		
32	Does using the electronic checklist (ECL) produce the same crew actions that using the paper		
	equivalent would?		
Provide the Number and a Comment for Each User Interface and Application Question Checked as "No."			
	EFB Procedures		
33.	Are there procedures for starting up and shutting down the EFB?		
34.	Are there appropriate procedures for all the EFB failure modes?		

35.	Are there EFB procedures for when other aircraft system failures could render the EFB unusable?		
36	Are there procedures for using EFB backup information?		
37.	Are there procedures to mitigate EFB workload?		
38.	Are there procedures for establishing which source of information is primary?		
39.	Are there appropriate procedures for using EFB in high workload phases of flight?		
40	Are there procedures that specify what data to use when data is redundant or different form the EFB?		
41.	Are there procedures for removal of a kneeboard EFB during emergency landing or egress (If Applicable)?		
Provide the Number and a Comment for Each EFB Procedures Question Checked as "No."			
	Procedures for Keeping EFB Content/Data Current		
42.	Are there procedures to ensure data is accurate and current for each software application?		
43.	Are changes to content/data appropriately documented?		
44	Are there procedures to notify crews of EFB updates?		
45.	Are there procedures to ensure that the correct information is installed when EFBs use information that is specific to the aircraft type or tail number?		
46.	Are operational control procedures consistent with regulations concerning preventative maintenance?		
47.	Is there a procedure to avoid corruption/errors during changes to the EFB device?		
48	Is there a procedure to ensure that all EFBs have the appropriate content/data installed when		
	there are multiple EFBs on the flight deck?		
49.	Is there a procedure to ensure that EFB data in use is approved for use in flight?		
50.	Is there a procedure for when the database is not approved for use in flight?		
51.	Is there a procedure to ensure that all customized values are cleared from the EFB?		
	Procedures for User Feedback		
52.	Is there a procedure for EFB users to provide feedback?		
53.	Is there a procedure for the operator to monitor feedback, correct EFB deficiencies, and/or notify the EFB manufacturer?		
54.	Are there procedures or built-in limits that prevent defining customized color schemes that conflict with flight deck color conventions?		
55.	Is there a policy regarding the use of supplemental audio and/or video in flight?		
56.	Is the EFB audio set to minimize any interference with higher priority communications?		
	Procedures for Specific Applications (If Applicable)		
57	Are there specific policy/procedures for using the electronic charts application?		
58.	Does the policy specify what other EFB applications can be used while a procedure using the electronic charts is actively being flown?		

59.	Are there procedures on how to use the electronic charts when the EFB uses aircraft status data to configure chart elements?		
60.	Are there procedures to ensure that navigation/approach charts required for the flight are		
	installed and available?		
61.	Is there a procedure to identify the controlling copy of Weight and Balance (W&B)?		
62.	Is there a procedure to establish responsibility for completion of W&B software?		
63	Are there procedures to maintain required W&B records?		
64	Is there a procedure to ensure that EFB performance data can be stored outside the EFB?		
Provide the Number and a Comment for Each of the above EFB Procedure Question Checked as "No."			
	EFB TRAINING		
65.	Are there appropriate EFB training, checking, and currency requirements?		
66.	Does the EFB training program address all EFB intended functions and applications?		
67.	Is there training on how to use unique features of the software applications?		
68	Are crews proficient on the EFB at the completion of EFB training?		
69.	Is EFB training customized for new users?		
70.	Is the manufacturer's EFB documentation sufficient?		
71	Does the EFB training device provide an appropriate degree of fidelity when the actual EFB is not used?		
72.	Does the EFB training device simulate the key aspects of the task?		
73.	Does the EFB training appropriately address the meaning of icons and symbols?		
	Training for Charts (If Applicable)		
74.	Is training on the use of electronic charts appropriate?		
75.	Is there training on unique features of the electronic charts?		
76.	Is there training on differences in map scale, orientation, and data quality between the electronic charts and other flight deck displays?		
77.	Is there training on the limitations of own aircraft position when it is displayed?		
78.	Is there training on policies pertaining to use of the electronic charts?		
79.	Can crews use the electronic charts as well as paper charts?		
80.	Can crews use the electronic charts to orient themselves and track their progress as they fly required procedures?		
	Training for ECL Systems (If Applicable)		
81.	Is there appropriate training on how to use ECLs?		
82.	Is there training on how to use unique features of the ECLs (e.g., how the EFB indicates that a checklist item has been deferred)?		
83	Is there training on which checklists are supported electronically and which are not?		
84.	Is there training on the limitations of ECL automation when it uses aircraft status data?		

	Training for Flight Performance Calculations (If Applicable)		
85.	Is there appropriate training on how and when to use the flight performance application?		
86.	Is there training on critical performance calculation assumptions (e.g., runway length, W&B) ?		
87.	Is there training to review default values for aircraft status and environmental conditions?		
88.	Is there training on how to enter information required by the performance software?		
89.	Is there training on how to interpret and use results of the flight performance calculations?		
90	Is there training on where to obtain values when their normal sources are not available?		
91.	Is there training on coordinating the roles of dispatchers and flight crews?		

Provide the Number and a Comment for Each Training Question Checked as "No."

	Crew Performance: Preflight Planning		
	Do crews with the EFB perform as well or better than crews with paper documents when—		
92	Calculating aircraft W&B, takeoff, climb, and maneuvering speeds?		
93.	Crews maintain critical data for immediate reference?		
94.	There is a runway change and a need to reference deicing fluid requirements or an MEL item?		
	Crew Performance: Preflight Planning		
	Do crews with the EFB perform as well or better than crews with paper documents when—		
95.	There are time critical adjustments prior to block out/taxi and takeoff?		
	Crew Performance: Takeoff		
	Do crews with the EFB perform as well or better than crews with paper documents when—		
96.	There is a takeoff on a runway that requires briefing a special operator engine-out procedure?		
97.	There is complex Standard Instrument Departure (SID) with an abnormal or an emergency		
	during the departure climb-out?		
98.	There is an emergency that requires a return to the departure or alternate departure airport?		
99.	One EFB fails, requiring one pilot to rely on the EFB of the other pilot immediately after takeoff?		

Provide the Number and a Comment for Each Preflight and Takeoff Question Checked as "No."

	Crew Performance: Cruise		
	Do crews with the EFB perform as well or better than crews with paper documents when—		
100.	There is an engine failure/fire with possible condition of destination below weather minimums?		
	There is electrical smoke in the cockpit requiring use of smoke mask/goggles while		

101.	completing checklists or using EFB for approach briefing?		
	Crew Performance: Descent		
	Do crews with the EFB perform as well or better than crews with paper documents when—		
102.	There are conditions that require reference to Surface Movement Guidance and Control System (SMGCS) taxi routing or a complex clearance?		
103.	Reported runway conditions require reference to operational limitations?		
	Crew Performance: Approach/Landing		
	Do crews with the EFB perform as well or better than crews with paper documents when—		
104.	There is runway change or the need to re-compute landing weight and V speeds during approach?		
105.	There are poor weather conditions or airports with complex taxi routes?		
106.	There is a request for a specific taxiway turn during rollout after landing?		
	Crew Performance: Destination Ground Operations		
	Do crews with the EFB perform as well or better than crews with paper documents when—		
107.	There is an EFB partial failure or erroneous output requiring maintenance discrepancy to be entered?		

Provide the Number and a Comment for Each Crew Performance Question Checked as "No."

Name:…….
EFB Administrator

Signature:……

Date:……

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

FOREIGN AIR OPERATOR'S APPLICATION FORM

FORM: O-OPS 013

Application Form for Commercial Air Transport Operations by a Foreign Operator
(To be completed by a foreign air operator for an approval to conduct operations in Nigeria)

SECTION 1A. TO BE COMPLETED BY ALL APPLICANTS

1. Company registered name and trading name if different. Address of Company: mailing address; telephone; fax; and e-mail	2. Address of the principal place of business including: telephone; fax and e-mail
3. Proposed start date of operations (dd/mm/yyy):	4. ICAO 3-letter designator for aircraft operating agency:

5. Operational Management Personnel

Name	Title	Telephone, Fax and E-mail

SECTION 1B. TYPE OF APPROVAL REQUESTED – *To be completed by all applicants, checking applicable boxes*

6. 1. ☐ Air operator intends to conduct commercial flights to and from aerodromes in Nigeria.

2. ☐ Air operator intends to only conduct over flights and technical stops in Nigeria.

7. Air operator proposed types of operation:	8. Geographic areas of intended operations and proposed route structure:
☐ Passengers and cargo ☐ Cargo only ☐ Scheduled operations ☐ Charter flight operations ☐ Dangerous Goods	

SECTION 1C – *To be completed by air operator*

9. To provide location on board or provide separate documentation where individual aircraft nationality and registration marks are listed as part of the aircraft fleet operated under the air operator certificate:

Provide following information:

Aircraft type (make, model and series, or master series)	RVSM Approval	ETOPS	Noise certification	Remarks

Attach copies of:

- Proof of Economic Authority;
- Air Operator Certificate and associated Operations Specifications;
- Insurance Certificate;
- In case of wet-lease of aircraft: approval of CAA of the State of the Operator, with identification of the operator that exercises operational control on the aircraft; and
- Document authorizing the specific traffic rights, issued by [Department of Commerce] or resulting from a bilateral air transport agreement (if required by the State to which the operator is flying to).

SECTION 2 – *To be completed by the CAA*

Signature:	Date (dd/mm/yyyy):	Name and Title:

Evaluated by (name and office):	CAA decision: ☐ Approval granted ☐ Not approved
Remarks:	
Signature of CAA representative:	Date (dd/mm/yyy):

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

Air Operator Evacuation and Ditching Demonstration Job-Aid

JA-EVAC

FORM: O-OPS014

The Evacuation and Ditching exercise(s) is conducted for the Authority before any aircraft type or model may be used in commercial air transport passenger carrying operations, as required by regulation 9.2.3.5(c) or (d), as applicable, of Nigeria Civil Aviation Regulations (Nig. CARs).

The primary aim of the Evacuation Demonstration is for the air operator to demonstrate that its available personnel, procedures and equipment could provide sufficient open exits [see IS 9.2.3.5 (d)(1)] for evacuation as provided by Nig. CARs 9.2.3.5(a) and (b). Evacuation Demonstration entails the simulation of unplanned accident occurring on take-off at night.

The purpose of the Ditching Demonstration is to evaluate the operator's ability to safely prepare the passengers, aeroplane and ditching equipment for a planned water landing within the allotted timeframe [IS 9.2.3.5(e)(2)].

Ditching Demonstration entails the simulation of a plan ditching occurring during day-light hours.

The Evacuation and Ditching Demonstration test the following:

1. The Operator’s emergency training programe and crew member competency;
2. The Operator emergency evacuation and ditching procedures
3. The reliability and capability of the emergency equipment on the airplane.

An evacuation demonstration is required only when the operator needs to:

1. Place in its service a new type and model of airplane [TGM-OPS 14.3.3.1].

2. Significantly change the number of cabin crew members, their seating locations, evacuation duties or emergency procedures [TGM-OPS 14.3.3.2] and
3. Significantly change the number, location, type and operating mechanism of emergency exits [TGM-OPS 14.3.4].

The Authority/Manufacturer determine if the change is considered to be significant.

A ditching demonstration is required if the proposed type and model of land plane is to be used in extended over water operations as contained in Nig. CARs 1.5 (216). This is to ensure that the operator has the ability and equipment to efficiently carry out its ditching procedures.

I. Purpose

The Air Operator Evacuation Job-Aid (JA-EVAC) is inspector guidance intended for use throughout the air carrier evacuation demonstration process. The JA-EVAC is a project management, record-keeping and communications tool used to:

1. Track the evacuation and demonstration progress of an air carrier applicant,
2. Provide references for the activities, participation, contribution and observations of NCAA inspectors,
   Help assure that action required to bestow an AOC upon an applicant is accomplished in a timely manner,
3. Provide a reference to corresponding documentation in the file, thus ensuring complete and appropriate records are maintained, and
4. Inform the AOC Applicant and NCAA leadership upon the accomplishment of key phases of the evacuation demonstration process.

Instructions in the JA-EVAC are not a replacement for requirements described in the Nigeria Civil Aviation Regulations (Nig. CARs). Should there be an apparent conflict between information contained in the JA-EVAC and Nig. CARs, the Nig. CARs take precedence. Nig. CARs supersede instructions contained in the JA-EVAC and any other guidance material that may apply.

II. Contents

1. Five (5) Phase Completion-Validation and Communication pages.
2. Five (5) ADF Application-Tracking Lists

Phase I	Request for Evacuation Demonstration
Phase 2	Test Plan Submission and Cursory Review

Phase 3	In-depth Analysis and Evaluation
Phase 4	Evaluate Evacuation Demonstration
Phase 5	Recommendation and Approval

III. Description

1. The JA-EVAC is comprised of five (5) "Completion-Validation and Communication" (CVC) signature pages that must be signed at the beginning of each phase followed by a series of lists, as necessary, corresponding to each of five phases comprising the Nigerian Civil Aviation Authority Air Operator Evacuation & Ditching Demonstration process.

A. CVC cover pages provide space for-
   a. Validating each phase of the EVAC process,
   b. Entry of information corresponding to completion of each phase of the Evacuation and Demonstration process, as well as a
   c. Standard format for communicating the accomplishment of each phase internally-hierarchically, within the NCAA, as well as externally - with the AOC applicant.

B. Job-Aid (JA) pages are comprised of tables as described below.
   a. The first row of each JA-EVAC page contains a list of headers describing information contained in the columns below; for example -
      i. Nig. CARs and other information related to each task, if applicable
      ii. Responsible Person
      iii. A condensed textual description of each activity where appropriate
      iv. Inspector Initials
      v. Aircraft Type
      vi. Date Submitted
      vii. Date Accomplished
      viii. Rating: "Satisfactory" (S), or "Unsatisfactory" (U), or “Not Applicable” (N/A) as applicable
      ix. Remarks

IV. Instructions

In consultation with the Chairman, Flight Standards Group, the CPM assigns NCAA inspectors to AOC-EVAC tasks in accordance with their specific discipline in the art and practice of aviation, and the corresponding level of skill, experience, knowledge and ability they bring to the project. Depending on the needs of the NCAA, the complexity of the application, and the qualifications of the personnel involved, there may be more than one inspector assigned to each discipline. When there is more than one inspector

assigned to each discipline, then one inspector will be designated as the "Lead" inspector for that discipline and thereby assumes accountability to the CPM for all related tasks in that phase.

When assigning the allocation of evacuation/ditching demonstration tasks to specific NCAA personnel, the following abbreviations apply -

- CPM – Certification Project Manager
- DTL – Demonstration Team Leader
- O – Flight Operations Inspector
- C – Cabin Safety Inspector
- A – Airworthiness Safety Inspector (A & C) and (X & R)
- G – Ground Operations Inspector
- L - Licensing
- TL- Team Leader
- TM-Team Members

Note: CPM and DTL may be the same person

As columns and rows comprising the JA-EVAC depict specific action steps corresponding to the evaluation of an application for evacuation/ditching demonstration, each must contain information corresponding to the particular aircraft type and model.

After completing assigned tasks, inspectors shall identify it as Satisfactory (S) or Unsatisfactory (U) or Not Applicable (N/A).

The "Remarks" section should be used to record relevant details. For example, when discrepancies are noted, a "U" is assigned, and the reasons recorded in the remarks section of the JA-EVAC.

Thereafter, the CPM must obtain a corrective action plan from the AOC Applicant and revise the evacuation/ditching demonstration plan accordingly. Each discrepancy and corrective action must be fully documented and recorded in the certification file (see TGM-GEN 3.3.6.6).

Each item in each phase must be addressed satisfactorily for the evacuation / ditching plan to proceed and to culminate in certification.

Evacuation demonstrations must comply with NCAA- AC-OPS-001, specifically Appendix 3: Air Operator Certification Job Aid and Schedule of Events for Commercial

Air Transport Operators. Refer to Chapter 14.9 of the Technical Guidance Material (TGM) - Operations Inspector's Handbook for additional information.

V. Other Coordination Required

The CPM is responsible for coordination of NCAA personnel, departments and procedures necessary to confer an AOC; for example, Flight Operations, Airworthiness, Licensing and the Document Tracking System. The CPM is responsible to ensure that information pertaining to tasks described in the JA-EVAC have been completed by the designated members of the Certification Team. The CPM is also responsible for entire coordination between the various parties involved in the exercise, for example, Operators Management, Security Agency, Fire Department, Airport Authority, Air Traffic Control etc.

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

PHASE ONE (1)

AIR OPERATOR CERTIFICATE AIR OPERATOR EVACUATION and DITCHING DEMONSTRATION (AOC-EVAC) CHECKLIST

(COMMERCIAL AIR TRANSPORT OPERATOR)

<table>
<tr><td colspan="2">Name and mailing address of company (including business name if different from company name)</td><td colspan="2">AIRCRAFT TYPE</td></tr>
<tr><td colspan="2">MAILING ADDRESS (If different from the principal (Main) base of operation)</td><td colspan="2">NCAA Reference Number</td></tr>
<tr><td colspan="2">TYPE OF INSPECTION
____ Full Emergency Evacuation Demonstration
____ Partial Emergency Evacuation Demonstration
____ Ditching Demonstration</td><td colspan="2">CERTIFICATION PROJECT COORDINATOR / DEMONSTRATION TEAM LEADER</td></tr>
<tr><td>FLIGHT OPERATIONS INSPECTOR(s)</td><td>CABIN SAFETY INSPECTOR(s)</td><td>GROUND OPS INSPECTOR(S)</td><td>AIRWORTHINESS SAFETY INSPECTOR(s)</td></tr>
</table>

*** Assignments:**

CPM - Certification Project Manager
O - Flight Operations Inspector
C- Cabin Safety Inspector
A - Airworthiness Safety Inspector
G – Ground Operations Safety Inspector
TL – Team Leader
TM – Team Members

PHASE ONE (1)

Phase One of the evacuation demonstration process begins when an applicant requests authorisation from the Authority to conduct an operation for which evacuation demonstration is required. The term, "applicant," as used in this section, means either an operator applying for an air operator certificate or a certificate holder requesting additional operating authority.

When an applicant requests or requires either evacuation or ditching demonstration, the following steps apply:

a) The Authority Demonstration Team.

The person responsible for Safety Oversight shall organise the demonstration team:

(i) Team Leader. The team leader should be responsible for the conduct, coordination, and evaluation of the test. In addition, the team leader will be the spokesperson for the Authority on all matters pertaining to the test;

(ii) Team Personnel. The demonstration team should include the following personnel, as required:

a) The Team Leader;

b) All assigned inspectors;

c) An Operations inspector qualified on the equipment.

d) Airworthiness inspectors trained on the installed equipment;

(iii) Familiarisation. All members of the Authority inspection team must become familiar with the pertinent procedures and policies from the applicant's operations manual and maintenance control manual.

b) Preliminary Co-ordination. The demonstration team and the applicant must reach a common understanding of what the applicant must do, what role the Authority will play, and what reports and documents must be prepared during the testing process. Both the team and the applicant must research applicable regulatory and advisory material.

☐ I have reviewed the completion of tasks corresponding to this phase of the AOC-EVAC process, verified conformity to the appropriate Nig. CARs, and, by my signature below, declare Phase 1 of the AOC-EVAC process complete.

CPM's Name: _____

Signature: _____

Date: _____

Protocol / AOC Number:_____

Document Distribution: DG, DOT, DAWS, Operator Rep

PHASE 1

Ref #	Resp. Person	Request For Evacuation or Ditching Demonstration	Insp. Initials	Date Submitted	Date Accomplished	S/U/NA (if U, action must be taken)	Remarks
1 Nig. CARs 9.2.3.5 (a) IS 9.2.3.5 (b)		Applicant initial enquiry (verbal or written) for Evacuation or Ditching Demonstration					
2 TMG-OPS 14.4.3		Briefing the Operator on Demonstration Requirements (e.g. Full or Partial Demonstration)					
3 TGM-OPS 14.4.4.1 thru 14.4.4.9 TGM-OPS 14.10.3.4 (d)		Operators plan for evacuation / ditching demonstration. Plan must include: (1) Copies of the operator's manual relating to crewmember emergency evacuation/ditching duties and responsibilities. (2) A description of applicable emergency equipment used for evacuation and ditching including the type and model of aircraft. e.g Life rafts/slide rafts; Survival radios; Pyrotechnic signaling devices; Passenger/crew member life preservers or individual floatation devices). (3) Passenger Safety Information Card.					
END							

PHASE TWO (2)

☐ I have reviewed the completion of tasks corresponding to this phase of the AOC-ADF process, confirmed conformity to the appropriate Nig. CARs, and, by my signature below, declare Phase 2 of the AOC-ADF process complete.

CPM's Name: _____

Signature: _____

Date: _____

AOC Number: _____

Document Distribution: DG, DOT, DAWS, Operator Rep

Phase two is initiated when the applicant submits the test plan to the Authority for evaluation. During this phase, the team leader must ensure that the plan is complete and in an acceptable format for the completion of the cursory review in a timely manner.

PHASE 2

Ref #	Resp. Person	Text Plan Submission and Cursory Review	Insp. Initials	Date Submitted	Date Accomplished	S/U/NA (if U, action must be taken)	Remarks
4 IS 9.2.3.5(b) TGM-OPS 14.5.1 TGM-OPS 14.10.3.4		Evac. or Ditching Plan Submission & Cursory Review for Required Information					
5 Nig. CARs 9.2.3.5(b) (1)(2) IS 9.2.3.5(a)		If partial evacuation or ditching is required, confirm petition for deviation is justified.					
6 IS 9.2.3.5(c) TGM-OPS 14.10.1.2 (a) – (d)		Crewmember Training Adequate and Complete					
END							

PHASE THREE (3)

Phase Three

Phase three is initiated when the team starts an in-depth review and analysis of the applicant's test plan for regulatory compliance, safe operating practices, logic of sequence, and other areas (such as training programmes, flight crew and flight operations officer qualifications, acceptable participants, and schedules). During this phase, the Authority must plan to co-ordinate its activities with the demonstrations that the applicant will conduct during phase four.

Phase Three must comply with the requirements in TGM-OPS Chapter 14.

Team Leader. The team leader's responsibilities include the following:

a) Notifying the Authority of evacuation demonstration dates, times, and locations;
b) Assigning appropriate sections of the test plan to inspectors for review and comment;
c) Facilitating the development of test scenarios for the demonstration flights.

Team Members. Team members are responsible for performing assigned tasks, keeping the team leader informed of all actions, and ensuring that the team leader concurs with all agreements made with the applicant. In addition, team members are responsible for recording each activity accurately and completely in their reports.

☐ I have reviewed the completion of tasks corresponding to this phase of the AOC-EVAC process, confirmed conformity to the appropriate Nig. CARs, and, by my signature below, declare Phase 3 of the AOC-EVAC process complete.

CPM's Name: _____

Signature: _____

Date: _____

Protocol / AOC Number:_____
Document Distribution: DG, DOT, DAWS, Operator Rep

Phase 3

Ref #	Resp. Person	In-depth Analysis and Evaluation	Insp. Initials	Date Submitted	Date Accomplished	S/U/NA (if U, action must be taken)	Remarks
7 TGM-OPS 14.6.1 TGM-OPS 14.10.3		Conduct a thorough analysis and evaluation of the operator's plan.					
8 TGM-OPS 14.6.2.1		The operator's emergency training program has been approved by the Authority					
9 TGM-OPS 14.6.2.2 TGM-OPS 14.10.3.3		Evacuation procedures in the operator's manuals, including individual crew member assignments, are realistic and can be practically accomplished					
10 TGM-OPS 14.6.2.3		The passenger information card is understandable and consistent with the type and model of aeroplane to be demonstrated;					

Ref #	Resp. Person	In-depth Analysis and Evaluation	Insp. Initials	Date Submitted	Date Accomplished	S/U/NA (if U, action must be taken)	Remarks
11 TGM-OPS 14.6.2.4 TGM-OPS 14.10.3.3		The amount, type and location of emergency equipment acceptable for the type of aircraft and proposed operation.					
12 TGM-OPS 14.6.3 TGM-OPS 14.10.3.1		The inspector should evaluate site for adequacy. Determine that the operator has made, or is making, provisions for participant safety during the demonstration					
13 TGM-OPS 14.6.4 TGM-OPS 14.11.2		Deficiencies noted during this analysis and review must be resolved with the operator's evacuation demonstration coordinator					
END							

PHASE FOUR (4)

☐ I have reviewed the completion of tasks corresponding to this phase of the AOC-EVAC certification process, confirmed conformity to the appropriate Nig. CARs, and, by my signature below, declare Phase 4 of the AOC-EVAC certification process complete.

CPM's Name: _____

Signature: _____

Date: _____

Protocol / AOC Number:_____

Document Distribution: DG, DOT, DAWS, Operator Rep

Phase Four:
Phase four is the major phase of the test process. During phase four, the Authority plans, observes, and evaluates the operator's aborted takeoff emergency evacuation demonstration. The planning segment of this phase is particularly important and normally requires thorough co-ordination and clear instruction and guidance for both the Authority and operator participants to ensure that the demonstration is conducted and evaluated objectively.

Phase Four must comply with the requirements in TGM-OPS Chapter 14.9.

Phase I – **Ground Activities**; simulate cabin crew members boarding, preflight equipment inspection passenger boarding, briefing, cabin security, cabin crew assume jump seats and notify Pilot-in-Command that cabin is ready for take-off.

Phase II: In-Flight – This phase timed approximate 6 minutes from time the senior cabin crew member is notified by Pilot-in-Command that they will have to ditch. The timing ends once the cabin crew members complete their passenger briefing, securing the cabin, and are secured in their jump seats – shouting their BRACE COMMAND/Remain Seated.

Phase III – Landing On Water:

- Cabin Crew members Assess outside conditions (water level below window and floor level exit sills) and free of fire and debris.
- Cabin Crew members open safe exit(s) and deploy raft or slide raft.

- Simulate passenger boarding raft or slide raft

For the exercise – Cabin crew members can either separate raft or slide raft from aircraft or remove, secure to aircraft and deploy stowed raft with the assistance of abled-bodied passengers (ABP's) only if procedures calls for ABP's. The crew members should board raft and NCAA Inspector should quiz each crew member on all of the raft equipment location and purpose.

Phase four is concluded when the demonstration team is satisfied that all test objectives have been achieved or that the applicant is unable to complete them satisfactorily.

Phase Four

Ref #	Resp. Person	Evaluate Evacuation / Ditching Demonstration	Insp. Initials	Date Submitted	Date Accomplished	S/U/NA (if U, action must be taken)	Remarks
14 TGM-OPS 14.9.2.2, 14.9.2.2 (c)		Pre-Demonstration Meeting with Operator Review method & signals for initiating demonstration and timing criteria. Discus purpose and conduct of exercise.					
15 TGM-OPS 14.9.3		Authority Team Planning					
16 TGM-OPS 14.9.4		Selecting Exits					
17 TGM-OPS 14.9.5		Blocking Exits					
18 TGM-OPS 14.9.6 TGM-OPS 14.10.2.2(a)		Initiation Signal [Ditching: prepare cabin w/in 6 minutes]					
19 TGM-OPS 14.10.2.2(b)		Ditching: Remove each life raft from storage; one must be inflated and properly launched.					
20 TGM-OPS 14.10.2.2 (d)		Raft shall contain required emergency equipment					

Ref #	Resp. Person	Evaluate Evacuation / Ditching Demonstration	A/C Type	Insp. Initials	Date Submitted	Date Accomplished	S/U/NA (if U, action must be taken)	Remarks
21 TGM-OPS 14.9.7		Participants						
22 TGM-OPS 14.10.2.2(c) & (e)		Crew members for ditching demonstration						
23 TGM-OPS 14.9.8		Pre-Demonstration Inspection						
24 TGM-OPS 14.9.9		Pre-Demonstration Briefings						
25 TGM-OPS 14.9.10 TGM-OPS 14.10.2.2(a)		Conducting the Demonstration						
END								

PHASE FIVE (5)

☐ I have reviewed the completion of tasks corresponding to this phase of the AOC-EVAC certification process, confirmed conformity to the appropriate Nig. CARs, and, by my signature below, declare Phase 5 of the AOC-EVAC certification process complete.

CPM's Name: _____

Signature: _____

Date: _____

Protocol / AOC Number:_____

Document Distribution: DG, DOT, DAWS, Operator Rep

Upon successful completion of an aborted takeoff emergency evacuation demonstration, the operator shall be immediately notified at the site of the demonstration.

The aircraft make, model, minimum required crew members and the maximum demonstrated passenger-seating capacity must be listed and approved in the operations specifications.

Phase Five

Ref #	Resp. Person	Recommendation and Approval	A/C Type	Insp. Initials	Date Submitted	Date Accomplished	S/U/NA (if U, action must be taken)	Remarks
26 TGM-OPS 14.8.1 TGM-OPS 14.12.1.1		Recommend approval and issue the appropriate operation specifications, or recommend a letter of disapproval be sent to the applicant. In either case, the team leader's final action is to complete the report.						
27 TGM-OPS 14.12.0 CL: O-OPS014		Complete evacuation / ditching demonstration report (ensure all attachments in TGM-OPS 14.12.1.2 are included)						
END								

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

"Air Operator Demonstration Flight Job-Aid"

NCAA Ops Specs

FORM: O-OPS 015

I. Purpose

The Air Operator Demonstration Flight Job-Aid (JA-ADF) is inspector guidance intended for use throughout the air carrier flight demonstration process. The JA-ADF is a project management, record-keeping and communications tool used to -

1. Track the Demonstration Flight progress of an air carrier applicant,

2. Provide references for the activities, participation, contribution and observations of NCAA inspectors,

3. Help assure that action required to bestow an AOC upon an applicant is accomplished in a timely manner,

4. Provide a reference to corresponding documentation in the file, thus ensuring complete and appropriate records are maintained, and

5. Inform the AOC Applicant and NCAA leadership upon the accomplishment of key phases of the Demonstration Flight process.

Instructions in the JA-ADF are not a replacement for requirements described in the Nigeria Civil Aviation Regulations (Nig. CARs). Should there be an apparent conflict between information contained in the JA-ADF and Nig. CARs, the Nig. CARs take precedence. Nig. CARs supersede instructions contained in the JA-ADF and any other guidance material that may apply.

II. Contents

1. Five (5) Phase Completion-Validation and Communication pages.

2. Five (5) ADF Application-Tracking Lists

Phase 1	Request for Demonstration Flights
Phase 2	Test Plan Submission & Evaluation
Phase 3	Review and Analysis
Phase 4	Flight Demonstration and Inspection
Phase 5	Recommendation & Approval

III. Description

1. The JA-ADF is comprised of five (5) "Completion-Validation and Communication" (CVC) cover pages at the beginning of each phase followed by a series of lists, as necessary, corresponding to each of five phases comprising the Nigerian Civil Aviation Authority Air Operator Certification process.

A. CVC cover pages provide space for-

a. Validating each phase of the ADF process,

b. Entry of information corresponding to completion of each phase of the Demonstration Flight process, as well as a

c. Standard format for communicating the accomplishment of each phase internally-hierarchically, within the NCAA, as well as externally - with the AOC applicant.

B. Job-Aid (JA) pages are comprised of tables as described below.

a. The first row of each JA-ADF page contains a list of headers describing information contained in the columns below; for example -

i. Nig. CARs related to each task, if applicable

ii. Flight Leg (To/From)

iii. Flight Hours (Leg Time and Total Time)

iv. A condensed textual description of each activity where appropriate

v. Date information received and/or date accomplished

vi. Rating: "Satisfactory" (S), or "Unsatisfactory" (U), or Not Applicable (N/A) as applicable

vii. Remarks

IV. Instructions

In consultation with the Chairman, Flight Standards Group, the CPM assigns NCAA inspectors to AOC-ADF tasks in accordance with their specific discipline in the art and practice of aviation, and the corresponding level of skill, experience, knowledge and ability they bring to the project. Depending on the needs of the NCAA, the complexity of the application, and the qualifications of the personnel involved, there may be more than one inspector assigned to each discipline. When there is more than one inspector assigned to each discipline, then one inspector will be designated as the "Lead" inspector for that discipline and thereby assumes accountability to the CPM for all related tasks in that phase.

When assigning the allocation of AOC tasks to specific NCAA personnel, the following abbreviations apply -

- CPM - Certification Project Manager
- O – Flight Operations Inspector
- C – Cabin Safety Inspector
- A – Airworthiness Safety Inspector (A & C) and (X & R)
- G – Ground Operations Inspector
- L - Licensing
- TL – Team Leader
- TM – Team Members

As columns and rows comprising the JA-ADF depict specific action steps corresponding to the evaluation of an application for AOC, each must contain information corresponding to the particular operator.

After completing assigned tasks, inspectors shall identify it as Satisfactory (S) or Unsatisfactory (U).

The "Remarks" section should be used to record relevant details. For example, when discrepancies are noted, a "U" is assigned, and the reasons recorded in the remarks section of the JA-ADF.

Thereafter, the CPM must obtain a corrective action plan from the AOC Applicant and revise the schedule of events accordingly. Each discrepancy and corrective action must be fully documented and recorded in the certification file (see TGM-GEN 3.3.6.6).

Each item in each phase must be addressed satisfactorily for the AOC application to proceed and to culminate in certification.

Demonstration Flights must comply with AC OPS 001. Refer to Chapter 15 of the Aviation Safety Inspector’s Handbook for additional information.

V. Other Coordination Required

The CPM is responsible for coordination of NCAA personnel, departments and procedures necessary to confer an AOC; for example, Flight Operations, Airworthiness, Licensing and the Document Tracking System. The CPM is responsible to ensure that information pertaining to tasks described in the JA-ADF have been completed by the designated members of the Certification Team.

VI. Renewal or Variation of AOCs

The identical process applies to AOC Renewal or Variation.

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

PHASE ONE (1)

AIR OPERATOR CERTIFICATE AIR OPERATOR DEMONSTRATION FLIGHT (AOC-ADF) CHECKLIST

(COMMERCIAL AIR TRANSPORT OPERATOR)

<table>
<tr><td colspan="2">NAME AND MAILING ADDRESS OF COMPANY (including business name if different from company name)</td><td colspan="2">ADDRESS OF THE PRINCIPAL (Main) Base where operations will be conducted</td></tr>
<tr><td colspan="2">MAILING ADDRESS (If different from the principal (Main) base of operation)</td><td colspan="2">NCAA Reference Number</td></tr>
<tr><td colspan="2">TYPE OF INSPECTION
_____ Initial Certification
____ Re-Certification
_____ Variation</td><td colspan="2">CERTIFICATION PROJECT MANAGER</td></tr>
<tr><td>FLIGHT OPERATIONS INSPECTOR(s)</td><td>CABIN SAFETY INSPECTOR(s)</td><td>GROUND OPS INSPECTOR(S)</td><td>AIRWORTHINESS SAFETY INSPECTOR(s)</td></tr>
</table>

*** Assignments:**
CPM - Certification Project Manager
O - Flight Operations Inspector
C- Cabin Safety Inspector
A - Airworthiness Safety Inspector
G – Ground Operations Safety Inspector

**** Legend:**
S – Satisfactory
U – Unsatisfactory
NA – Not Applicable

Phase One of the demonstrations and special-demonstration flight process begins when an applicant requests authorisation from the Authority to conduct an operation for which demonstration or special-demonstration is required. The term, "applicant," as used in this section, means either an operator applying for an air operator certificate or a certificate holder requesting additional operating authority.

When an applicant's request requires demonstration or a special demonstration, the following steps apply:

a) The Authority Demonstration Team. The person responsible for Safety Oversight shall organise the demonstration team:

(i) Team Leader. The team leader should be responsible for the conduct, coordination, and evaluation of the test. In addition, the team leader will be the spokesperson for the Authority on all matters pertaining to the test;

(ii) Team Personnel. The demonstration team should include the following personnel, as required:

a) The team leader;

b) All assigned inspectors;

c) An Operations inspector qualified on the equipment.

d) Airworthiness inspectors trained on the installed equipment;

(iii) Familiarisation. All members of the Authority inspection team must become familiar with the pertinent procedures and policies from the applicant's operations manual and maintenance control manual.

b) Preliminary Co-ordination. The demonstration team and the applicant must reach a common understanding of what the applicant must do, what role the Authority will play, and what reports and documents must be prepared during the testing process. Both the team and the applicant must research applicable regulatory and advisory material.

☐ I have reviewed the completion of tasks corresponding to this phase of the AOC-ADF process, confirmed conformity to the appropriate Nig. CARs, and, by my signature below, declare Phase 1 of the AOC-ADF process complete.

CPM's Name: _____

Signature: _____

Date: _____

AOC Number: _____

Document Distribution: DG, DOT, DAWS, Operator Rep
Phase One

Ref #	RESP. POS.	Request for Demonstration Flights	Insp. Initials	Date Received/ Accomplished	*S/U/NA (if U, action must be taken)	Date Returned for Changes	Remarks
(1) TGM-OPS 15.7.1.1		Applicant initial enquiry* (verbal or written) (Form AC-OPS 001)					
(2) TGM-OPS 15.7.1.2		Select Certification Team					
(3) TGM-OPS 15.7.1.2.b)		Conduct Pre-demonstration Meeting with the AOC Applicant.					
TGM-OPS 15.7.1.2.b)		a. Review Demonstration process, i.e. Civil Aviation Regulations, Compliance statement and other applicable issues with AOC Applicant.					
TGM-OPS 15.7.1.2.b)		b. Provide the applicant with AOC-ADF Package as applicable:					

Phase One Cont'd

Ref #	RESP. POS.	Request for Demonstration Flights	Insp. Initials	Date Received/ Accomplished	*S/U/NA (if U, action must be taken)	Date Returned for Changes	Remarks
TGM-OPS 15.7.1.2.b)		c. Discuss other applicable publications and documents.					
TGM-OPS 15.7.1.2.b)		d. Discuss Form, content and documents required for formal application.					
END							

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AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

PHASE TWO (2)

☐ I have reviewed the completion of tasks corresponding to this phase of the AOC-ADF process, confirmed conformity to the appropriate Nig. CARs, and, by my signature below, declare Phase 2 of the AOC-ADF process complete.

CPM's Name: _____

Signature: _____

Date: _____

AOC Number: _____

Phase two is initiated when the applicant submits the test plan to the Authority for evaluation. During this phase, the team leader must ensure that the plan is complete and in an acceptable format before a thorough review and analysis can be conducted.

Phase Two

Ref #	RESP. POS.	Test Plan Submission and Evaluation	Insp. Initials	Date Received/ Accomplished	*S/U/NA (if U, action must be taken)	Date Returned for Changes	Remarks
(4) IS 9.2.3.6 TGM-OPS 15.7.2		Receive formal application					
(5) IS 9.2.3.6 TGM-OPS 15.7.2		Evaluate the AOC-ADF package as appropriate					
(6) IS 9.2.3.6 TGM-OPS 15.7.2		Conduct an application meeting – initial table top exercise					
IS 9.2.3.6 TGM-OPS 15.9.3.2		a. Review the applicant's plan initially to determine if the appropriate documentation has been submitted. Plan must contain a realistic proposal that will permit the Authority to adequately observe and evaluate the applicant's overall abilities. This review should be accomplished within 5 working days after receipt of the applicant's plan.					
END							

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

PHASE THREE (3)

☐ I have reviewed the completion of tasks corresponding to this phase of the AOC-ADF certification process, confirmed conformity to the appropriate Nig. CARs, and, by my signature below, declare Phase 3 of the AOC-ADF certification process complete.

CPM's Name: _____

Signature: _____

Date: _____

AOC Number: _____

Document Distribution: DG, DOT, DAWS, Operator Rep

Phase Three

Phase three is initiated when the team starts an in-depth review and analysis of the applicant's test plan for regulatory compliance, safe operating practices, logic of sequence, and other areas (such as training programmes, flight crew and flight operations officer qualifications, acceptable participants, and schedules). During this phase, the Authority must plan to co-ordinate its activities with the demonstrations that the applicant will conduct during phase four.

Phase Three must comply with the requirements in TGM-OPS Chapter 15; specifically Section 9.6.

Team Leader. The team leader's responsibilities include the following:

a) Notifying the Authority of demonstration flight dates, times, and locations;
b) Assigning appropriate sections of the test plan to inspectors for review and comment;
c) Coordinating with aviation security (as necessary) to obtain security inspector assistance for evaluating specific areas, such as dangerous goods and passenger screening;
d) Ensuring that administrative requirements such as visas and diplomatic clearances are obtained in a timely manner e.g. travel arrangements, meals;
e) Facilitating the development of test scenarios for the demonstration flights.

Team Members. Team members are responsible for performing assigned tasks, keeping the team leader informed of all actions, and ensuring that the team leader concurs with all agreements made with the applicant. In addition, team members are responsible for recording each activity accurately and completely in their reports.

Phase Three

Ref #	RESP. POS.	Review and Analysis	Insp. Initials	Date Received/ Accomplished	*S/U/NA (if U, action must be taken)	Date Returned for Changes	Remarks
(7) TGM-OPS 15.7.3.2.a		a. Notify Authority of demonstration flight dates, times, and locations					
TGM-OPS 15.7.3.2.b		b. Assign appropriate sections of the test plan to inspectors for review and comment					
TGM-OPS 15.7.3.2.c		c. Co-ordinate with aviation security (as necessary) to obtain security inspector assistance for evaluating specific areas, such as dangerous goods and passenger screening					
TGM-OPS 15.7.3.2.d		d. Ensure that administrative requirements such as visas and diplomatic clearances are obtained in a timely manner; e.g. travel arrangements, meals					
TGM-OPS 15.7.3.2.e		e. Facilitate the development of test scenarios for the demonstration flights. (See Phase 4 of this JA)					
(8) TGM-OPS 15.7.3.3		Team members are responsible for performing assigned tasks, keeping the team leader informed of all actions, and ensuring that the team leader concurs with all agreements made with the applicant. In addition, team members are responsible for recording each activity accurately and completely in their reports.					

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

PHASE FOUR (4)

FLIGHT DEMONSTRATION AND INSPECTION

☐ I have reviewed the completion of tasks corresponding to this phase of the AOC-ADF certification process, confirmed conformity to the appropriate Nig. CARs, and, by my signature below, declare Phase 4 of the AOC-ADF certification process complete.

CPM's Name: _____

Signature: _____

Date: _____

AOC Number: _____

Document Distribution: DG, DOT, DAWS, Operator Rep

Phase Four:
Phase four is the major phase of the test process. For demonstration flights, the applicant will conduct the en-route flight segment and the maintenance test portion of the demonstration plan. In the case of special-demonstration flights, the applicant will conduct specific operations to collect data for either special-demonstration or the Authority observation purposes. *Phase Four must comply with the requirements in TGM-OPS Chapter 15, Chapter 10.*

Phase four is concluded when the demonstration team is satisfied that all test objectives have been achieved or that the applicant is unable to complete them satisfactorily.

Ref #	RESP. POS.	Review and Analysis	Insp. Initials	Date Received/ Accomplished	*S/U/NA (if U, action must be taken)	Date Returned for Changes	Remarks
(9) TGM-OPS 15.7.4.1 & 10.2		The applicant will conduct the en-route flight segment and the maintenance test portion of the demonstration plan					
(10) TGM-OPS 15.8.1.2 a & 10.2.1		Representative en-route flights are conducted in compliance with Part 8 and Part 9 of the Nigeria Civil Aviation Regulations including rules applicable to AOC security and dangerous goods requirements. Before an applicant may conduct these flights, the demonstration team must be satisfied that the phase three review of the applicant's plan has been completed					
(11) TGM-OPS 15.8.1.2 b & 10.3.1		Ferry flights conducted under Part 8 of the Nigeria Civil Aviation Regulations and approved by the Authority may be credited towards demonstration flight requirements. To obtain the approval, the applicant must show that no feature, characteristic, or condition of the aircraft would make it unsafe when operated in accordance with Part 8 of the Nigeria Civil Aviation Regulations					
(12) TGM-OPS 15.8.1.2 c & 10.3		Training flights may be credited towards demonstration flight requirements, provided that the Authority inspector observes each flight					

Event/ Flight #	From/To A/C Type	Leg Flight Time	Cumulative flight Time	Scenarios	Insp. Initials	Date Accomplished	S/U/NA (if U, action must be taken)	Remarks
				Check for Documentation				
				FMS Data expired & inaccurate				
				Source OFF				
				Air Rage				
				Passenger on seat # 22 is choking				
				Incapacitated passenger				
				Right Main wheel (#4 tyre) flat on walk around				

Event/ Flight #	From/To A/C Type	Leg Flight Time	Cumulative Flight Time	Scenarios	Insp. Initials	Date Accomplished	S/U/NA (if U, action must be taken)	Remarks
				Loss of Hydraulic System A & B				
				Fwd toilet fire				
				GPS Datacard expired and inaccurate				
				Smoke in cockpit				
				Diversion				
				On walk around, found bird ingestion				
				Top up depleted oxygen bottle				

Event/ Flight #	To/From A/C Type	Leg Flight Time	Cumulative Flight Time	Scenarios	Insp. Initials	Date Accomplished	S/U/NA (if U, action must be taken)	Remarks
				Conclude Smoke in cockpit.				
				Normal Hold before approach				
				Flap Asymmetry				
				Engine #1 flame out				
				One engine inoperative landing				
				RH Landing Gear Oleo leaking and collapsed				

Event/ Flight #	To/From A/C Type	Leg Flight Time	Cumulative Flight Time	Scenarios	Insp. Initials	Date Accomplished	S/U/NA (if U, action must be taken)	Remarks
				Cockpit smoke				
				Antiskid-inop light on in flight				
				Low visibility wx- Landing at DNMM				
				APU fire on ground DNMM				
				ETC.,				
				ETC.,				
				ETC.,				

Flight #	To/From A/C Type	Leg Flight Time	Cumulative Flight Time	Scenarios	Insp. Initials	Date Accomplished	S/U/NA (if U, action must be taken)	Remarks

Flight #	To/From	Leg Flight Time	Cummulative Flight Time	Scenarios	Insp. Initials	Date Accomplished	S/U/NA (if U, action must be taken)	Remarks

NIGERIAN CIVIL AVIATION AUTHORITY
AVIATION HOUSE
P. M. B. 21029, 21038, Ikeja, Lagos, Nigeria

PHASE FIVE (5)

☐ I have reviewed the completion of tasks corresponding to this phase of the AOC-ADF certification process, confirmed conformity to the appropriate Nig. CARs, and, by my signature below, declare Phase 1 of the AOC-ADF certification process complete.

CPM's Name: _____

Signature: _____

Date: _____

AOC Number: _____

Document Distribution: DG, DOT, DAWS, Operator Rep.

Phase five is accomplished after the successful completion or termination of the demonstration or special-demonstration flights. In this phase, the Authority demonstration team recommends the granting of approval and issues the appropriate operation specifications, or recommends that a letter of disapproval be sent to the applicant. In either case, the team leader's final action is to complete the report.

Phase Five

Ref. #	RESP. POS.	Recommendation and Approval	Inspectors Initials	Date Received/ Accomplished	*S/U/NA (if U, action must be taken)	Date Returned for Changes	Remarks
(14) TGM-OPS 15.7.5 IS 9.2.3.6 Nig. CAR 9.2.3.6		Recommend approval and issues the appropriate operation specifications, **or** recommend a letter of disapproval be sent to the applicant. In either case, the team leader's final action is to complete the report.					
END							

FLIGHT TIME LOG & ANALYSIS

Flight #	From	To	Leg Flight Time	Total Flight Time	Inspector Initials	REMARKS

Flight #	From	To	Leg Flight Time	Total Flight Time	Inspector Initials	REMARKS
			TOTAL FLIGHT TIME			