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CHAPTER 7 MAIN BASE AUDIT



7.1 BACKGROUND AND OBJECTIVES

A main base audit shall be performed at the operator's principal base of operations and the purpose of the inspection is to assess the suitability of the operator's organization, management, facilities, equipment, manuals, personnel and training records. The operations portion of main base audit will be accomplished in six increments as follows:

- operations manual;
- operational control;
- operations and flight (trip) records;
- flight and duty time records;
- training programme; and
- training and qualification records.

7.2 GENERAL INSPECTION GUIDELINES

7.2.1 Inspectors shall contact the operator well in advance to make appropriate arrangements for inspecting elements of the main base audit. Unlike many types of operations inspections which are most effective when conducted on short notice (such as ramp inspections and inflight inspections) elements of the main base operation are not subject to rapid adjustments on the part of the operator in anticipation of the inspection and the inspections are most productive following adequate notice and coordination. Advance notice is important to ensure that key company personnel will be present during the course of the inspections to provide information and answer questions. The required company presence will vary according to the type of inspection. During the initial contact, the operator shall be briefed in detail regarding the scope of the audit, the areas to be inspected, and theapproximate duration of the audit. For example, when evaluating operational control procedures and operations, the inspector will require almost constant contact with personnel who are responsible for each functional area. In contrast, the inspection of flight and duty time records requires very little company involvement except to make records available and



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answer any initial questions the inspector may have about the operator's record keeping system.

7.2.2 Before commencing each type of inspection listed in 7.1 above, inspectors should familiarize themselves to the maximum extent possible with the operator's manuals, policies and instructions regarding the area to be inspected. In developing an annual work programme, it is therefore sound practice to schedule an operations manual inspection in advance of the other types of inspections contained in this chapter. This will provide the inspector with an overview of the operator's instructions and policies prior to evaluating their effectiveness in day to day practice. Before performing the individual inspections contained in chapters which follow, inspectors should review for a second time and in greater depth those portions of the operator's manual which pertain to the specific area to be evaluated. In that sense, all inspections which are conducted by operations inspectors become an extension of the formal evaluation of the operator's manual, because unsatisfactory performance in operational areas can often be traced to inadequate planning, guidance, and training.

7.2.3 Upon arriving at the site where the inspection is to be conducted, inspectors shall introduce themselves and present their identification to the operator's representatives, if not personally known to them. The inspector shall review with the operator the scope of the audit to be conducted, and assemble key company personnel who are to be available to answer questions during the course of the audit. The inspector shall coordinate with the operator the time and place at the conclusion of the audit to review the findings. These will be reported in writing to the operator.

7.3 SPECIFIC INSPECTION PROCEDURES AND PRACTICES

Detailed guidance regarding the conduct of the six types of inspections listed in 7.1 above, along with inspection checklists/report forms, are contained in Chapter 4, Part II and Chapters 8 through 12 of this volume.

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CHAPTER 8 OPERATIONAL CONTROL INSPECTION



DSA.AOC.CHKL.012

8.1 BACKGROUND AND OBJECTIVES

8.1.1 Operational control refers to the exercise, by the operator, of responsibility for the initiation, continuation, termination or diversion of a flight. "Instruction N°00270/CCAA/DNA du 30 Juin 2005 relative au manuel d'exploitation des entreprises de transport aérien commercial" require air operators to have an approved system for the control and supervision of flight operations. Responsibility for operational control is delegated to the pilot-in-command, or jointly to the pilot-in-command and the flight dispatcher if the operator's approved method of control and supervision of flight operations requires the use of flight operations officer/flight dispatcher personnel.

8.1.2 To make an evaluation of the overall effectiveness of the operational control organization, the FOI must evaluate the following factors:

- responsibility for operational control is clearly defined;
- an adequate number of operational personnel are provided for the approved method of control and supervision;
- applicable manuals contain adequate policy and guidance for the method of control and supervision of flight operations to allow operational personnel to carry out their duties efficiently, effectively and with a high degree of safety;
- operational control personnel are adequately trained, knowledgeable and competent in the performance of their duties;
- operational control personnel have been provided with the necessary information for the safe planning, control and conduct of all flights;



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- the operator provides adequate facilities for implementing the approved method of control and supervision of flight operations;
- the operator performs all operational control functions required by the regulations;
- the operator performs all functions necessary to provide adequate operational control in the environment in which operations are conducted;
- adequate emergency procedures and contingency plans have been formulated.

8.2 GENERAL INSPECTION PRACTICES AND PROCEDURES

8.2.1 Inspectors conduct operational control inspections through systematic manual reviews, records inspections, observations and interviews.

- a) Inspector preparation and manual review. Before starting an operational control inspection, the inspector must become familiar with the operational control provisions contained in the operations manual. This manual review is both the first step in the inspection process and preparation for subsequent steps. Its purpose is to examine operations control policy and guidance in depth in order to ensure that approved procedures are being followed. The operations manual shall specify the following:
- 1) The responsibilities and functions assigned to operational personnel related to the approved method of control and supervision of flight operations; and
- 2) The procedures for the provision of assistance to the pilot-in-command in flight preparation; completion of operational and ATS flight plans; liaison with the air traffic, meteorological and communication services; and the provision to the pilotin-command during flight of information necessary for the safe and efficient conduct of the flight. It shall be understood that the pilot-in-command is the person ultimately responsible for the safety of the flight.
- b) Observations, interviews and records checks. The inspector shall establish with the operator a mutually convenient time for conducting the interviews and records checks and for observing operational control functions:
- Inspectors shall conduct interviews with both management and working level personnel to meet inspection objectives. Inspectors shall plan these interviews so that the required information can be obtained without unduly distracting personnel from their duties and responsibilities;



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2) Inspectors shall observe actual flight preparation. Before beginning these observations, an inspector should request a tour of the operator's facility for general orientation. During this time, he may observe operational control personnel performing a variety of job functions. If possible, these observations should be made during periods of peak activity, adverse weather, or during non-routine operations;

<u>Note</u>.— Detailed guidance concerning operations (trip) records, fatigue management records and training and qualifications records is contained in Chapters 9, 10 and 11 of this volume. Each type of records inspection has its own checklist and report form. These areas may be examined separately or in conjunction with the remainder of the operational control inspection areas.

8.3 SPECIFIC INSPECTION PRACTICES AND PROCEDURES

8.3.1 The Air Operator Operational Control Checklist **DSA.AOC.CHKL.012** attached at the end of this section contains a list of specific inspection items of the carrier's operations control organization, functions, and guidance. It will serve as both a checklist of items to be covered and as a means of recording the results of the inspection. The following inspection areas will be evaluated to verify compliance with *"Arrêté 606, Chapter 4"* and the air operators approve system for operational control.

8.3.1.1 Policies and procedures

- a) Authorized operations :
 - The type of operations that may and may not be conducted shall be clearly specified in manuals and other instructions (VFR, IFR, CAT II, etc.).
 - Applicable regulations and the operator's policies applicable to each type of operation shall be clearly stated.
 - Geographic areas and destinations to which extended overwater flights or EDTO may be conducted shall be clearly specified.





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b) Manuals:

- the operations manual shall contain the policy and guidance for operational control.
- If the operator conducts extended overwater or EDTO, a section of the operations manual shall contain key considerations regarding these types of operations.
- the applicable section(s) of the operations manual shall be readily available to operational control personnel while they perform their duties.
- c) Pre-departure functions. The responsibility and procedures for accomplishing the following functions shall be clearly defined and properly executed:
 - crew assignment;
 - load planning;
 - aircraft routing;
 - flight planning;
 - release of the aircraft from maintenance;
 - control of MEL and CDL limitations. Required instruments and equipment shall be installed and operational;
 - compliance with flight operations limitations;
 - mass and balance;
 - performance planning, including consideration of mass, elevation, temperature, wind, obstacles, etc.;
 - the operator shall have a means for the PIC, and dispatcher if the operator's approved method of control and supervision of flight operations requires the use of flight operations officer/flight dispatcher personnel, to ensure that each of these functions has been satisfactorily accomplished before the aircraft departs.
- d) Original operational flight plan:
 - The conditions under which a flight may and may not be dispatched (type of operation, weather, crew compliment, load, etc.) shall be clearly defined.
 - The conditions under which a flight must be re-routed, delayed, or canceled shall be defined.
 - The operational flight plan shall contain all the necessary elements as required by [State Civil aviation regulation].
 - A written copy of weather reports, forecasts and NOTAMS shall be attached to the operational flight plan and available to the flight-crew.



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- Flight shall not commence unless it is ascertained by every reasonable means that aerodromes to be used are adequate for the operation.
- e) Dispatcher briefing (only if the operator's approved method of control and supervision of flight operations requires the use of flight operations officer/flight dispatcher personnel):
 - The operator's procedures shall provide for briefing of the PIC by the dispatcher.
 - The minimum content of the briefing shall be specified and adequate.
 - Dual responsibility (only if the operator's approved method of control and supervision of flight operations requires the use of flight operations officer/flight dispatcher personnel):
 - The signatures of both the PIC and the Dispatcher shall be required on the operational flight plan.
 - The PIC's obligation to operate the flight according to the operational flight plan, or to obtain an amended release, shall be clearly stated.
- f) Flight following (only if the operator's approved method of control and supervision of flight operations requires the use of flight operations officer/flight dispatcher personnel):
 - The dispatcher's flight following requirements and procedures shall be clearly identified.
 - Policy and guidance shall be provided to flight crews and dispatchers for monitoring fuel en-route.
 - Flight-crew reporting requirements and procedures shall be clearly stated.
 - There shall be specified procedures for dispatchers to follow when a required report is not received.
 - The operator shall maintain a record of communications between the dispatcher and the flight.
 - Procedures shall be established to notify flights en route concerning hazardous conditions relating to aerodromes, navigation aids, etc., and to report changes in forecast weather.

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g) Inability to proceed as released (only if the operator's approved method of control and supervision of flight operations requires the use of flight operations officer/flight dispatcher

personnel):

• Policy concerning the PIC's latitude to deviate from the operational flight plan without obtaining a new release shall be stated.

Specific and adequate direction and guidance shall be provided to PIC's and dispatchers for the actions to take when a flight cannot be completed as planned (such as destinations or alternates below minimums, runways closed or restricted).

Procedures to follow in case of diversion or holding shall be specifically and clearly stated.

Procedures to be followed in case of an emergency procedure which results in deviation from local regulations or procedures shall be clearly stated.

- h) Meteorology:
 - If the applicant has established a meteorological department, determine that it will be provided with adequate staff and facilities.
 - Determine whether adequate procedures have been established to ensure the availability of weather forecasts and reports needed by the operator for flight planning purposes.
 - Determine that the operator has procedures to utilize all useful weather information pertinent to the area with which the operational control is concerned.
 - Determine that the operator has provided the means whereby the pilots, and the flight dispatchers if the operator's approved method of control and supervision of flight operations requires the use of flight operations officer/flight dispatcher personnel, are provided with timely information pertaining to clear air turbulence, thunderstorms, icing conditions and volcanic ash, as well as to the best routes and altitudes for avoiding such occurrences.
 - Give particular attention to procedures to be employed for disseminating information pertaining to clear air turbulence, thunderstorms, volcanic ash, icing conditions and other significant weather phenomena.
 - Determine that the necessary procedures have been established for providing adequate weather information to the pilot-in-command at en-route stops.
 - Determine the adequacy of the procedures to be employed throughout the applicant's system with respect to in-flight meteorological reporting.
- i) Aerodrome operating minima :
 - IFR departure minimums shall be consistent with regulations and specific CCAA



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approvals.

- Take-off alternates shall be named in the operational flight plan when flights are released with the departure aerodrome below landing minimums, and shall meet the requirements of regulations.
- Destination weather minimums shall be clearly defined.
- Destination alternates shall be named in the operational flight plan.
- Flights shall not be continued toward the aerodrome of intended landing unless the latest available information indicates that operating minima can be complied with.
- j) Minimum en-route altitudes. The operator shall establish minimum en-route altitudes for routes flown, which shall not be lower than those established by the regulations.
- k) Selection of alternates:
 - Policy, direction, and guidance shall be provided for the selection of takeoff, enroute, and destination alternates.
 - Terrain and engine out performance shall be considered in selecting an alternate.
- I) NOTAMS :
 - NOTAM information shall be available and utilized.

m) Information :

- The operator shall make adequate provisions for supplying aerodrome and navigation information to pilots and, if applicable, dispatchers.
- n) Fuel and oil supplies :
 - All increments of fuel required by CCAA regulations (start and taxi, take-off to arrival

at destination, approach and landing, missed approach, alternate fuel if applicable, final reserve and contingency) shall be provided.

- If aircraft are dispatched without an alternate, adequate contingency fuel shall be carried for un-forecast winds, terminal area delays, runway closures, and other contingencies.
- Minimum fuel procedures shall be specified and shall be adequate for the environment in which operations are conducted





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- o) Engine-out performance considerations:
 - The operator shall take into account engine out performance rules when applicable to specific routes and types of operations.
 - Engine out performance analysis shall be complete and accurate.
 - When possible, multiple ETP's shall be provided for overwater flights and EDTO operations.
 - Adequate guidance shall be available for drift down computations and fuel dump requirements.
- p) Emergency procedures:
 - Emergency action procedures and checklists shall be published and readily available for the following emergencies:
 - i. in-flight emergency;
 - ii. crash;
 - iii. overdue or missing aircraft;
 - iv. bomb threat;
 - v. hijacking.
 - Operator shall have available lists containing information on the emergency and survival equipment carried aboard its airplanes.
- q) Change-over procedures (only if the operator's approved method of control and supervision of flight operations requires the use of flight operations officer/flight dispatcher personnel):
 - During shift changes, an adequate overlap shall be provided for dispatchers to brief their oncoming counterparts,
- r) Communications and reports. Provisions shall be made concerning the following:
 - the procedures to be used to notify the PIC regarding hazardous conditions relating to aerodromes or navigation aids, etc. are adequate;
 - notices to airmen (NOTAMs) will be made available to flight crew personnel in a timely manner; emergency communications procedures and facilities are adequate;



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- if the operator's approved method of control and supervision of flight operations requires the use of flight operations officer/flight dispatcher personnel, flight dispatchers are able to establish rapid and reliable voice communications with the flight crew at the gate;
- communications between the operational control centre and appropriate ATS facilities are adequate if the operator's approved method of control and supervision of flight operations requires the use of flight operations officer/flight dispatcher personnel;
- air-ground communications used for flight safety messages are adequate to ensure rapid and reliable communications throughout the geographical area of operations;
- flight dispatchers are familiar with all facets of operations within their geographical areas of responsibility and are properly authorized and qualified in the use of all communications channels required by the approved method of control and supervision of flight operations;
- the necessary emphasis is placed on the timely receipt of messages both in the aircraft and at the operational control centre or en-route stations; and
- facilities for the communication of weather information to en-route stations and to aircraft are adequate.

8.3.1.2 Dispatchers Qualifications. Dispatchers shall be current, qualified and if required, licensed in accordance with Cameroon regulations.

8.3.1.3 Facilities and staff

- a) Physical :
 - Working space shall be adequate for the number of people working in the dispatch center.
 - Temperature, lighting, and noise levels shall be conducive to effective performance by operations personnel.
 - Access to the facilities shall be controlled.



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b) Information :

- Dispatchers shall be supplied with all the information they require (such as on flight status, maintenance status, load, weather, facilities).
- Information shall be effectively disseminated and displayed; and it must be quickly and accurately located.
- Timely weather information shall be available for adverse weather avoidance.

c) Management :

- Overall responsibility for operations in progress shall be assigned by the operator to one individual who can coordinate the activities of dispatchers.
- Adequate internal communications links to flow control type facilities and to high level management officials shall be established.

d) Workload:

- The operator shall assign sufficient personnel to adequately handle the workload during periods of both normal and non-routine operations.
- Dispatchers shall have sufficient time to effectively perform both dispatch and flight following duties.
- Dispatchers shall not be used to perform other functions such as clerks, maintenance officers, etc., to the detriment of their primary function.

8.3.1.4 Facilities for flight preparation

Appropriate facilities shall be provided to the flight crew for flight preparation.

Attachment CCAA AIR OPERATOR OPERATIONAL CONTROL INSPECTION CHECKLIST/REPORT

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