CIVIL AVIATION DEPARTMENT
Republic of Maldives

AIR SAFETY CIRCULAR

ASC OPS1-1

REQUIREMENTS FOR PERSONNEL INVOLVED IN OPERATIONAL CONTROL

Initial Issue, 06 July 2009

[ISM Section 3 Ed 2 Rev 1, April 2007]

Applicability

This ASC addresses the requirements for personnel other than flight crew, involved in operational control of flights referred to in MCAR OPS 1 Subpart D and the duties of the personnel involved.

MCAR-OPS 1.205 states that, an operator shall ensure that all personnel assigned to, or directly involved in, ground and flight operations are properly instructed, have demonstrated their abilities in their particular duties and are aware of their responsibilities and the relationship of such duties to the operation as a whole.

Abbreviations

A/C Aircraft

AFE Above Field Elevation

AFM Approved Flight Manual

ATC Air Traffic Control

ATS Air Traffic Services

CDL Configuration Deviation List

CRM Crew Resource Management

FAR Federal Aviation Regulation

FL Flight Level

FMS Flight Management System

FOB Fuel on Board

FOD Foreign Object Damage

FOO Flight Operations Officer

GM Guidance Material

ICAO International Civil Aviation Organisation

JAA Joint Aviation Authorities (Europe)

JAR Joint Aviation Requirements

LEP List of Effective Pages

MEL Minimum Equipment List

NOTAM Notice to Airmen

OFP Operational Flight Plan

OM Operations Manual

PIC Pilot-in-Command

PLM Personnel Licensing Manual

1 Management and Control

1.1 Management System

1.1.1 The Operator shall have a management system that ensures supervision and control of all flights, operational control functions and other associated activities in accordance with standards of the Operator and requirements of MCAR OPS1.

1.2 Reserved

1.3 Authorities and Responsibilities

1.3.1 The Operator shall ensure authorities, duties and responsibilities for operational control of all flights are defined and communicated throughout the organisation, to include:
i) the pilot-in-command (PIC);
ii) if applicable, the flight operations officer (FOO) and/or flight operations assistant (FOA) who supports, briefs and/or assists the PIC or FOO in the safe conduct of each flight.

Guidance

The authorities and responsibilities for operational control must be communicated throughout the organisation(s) that are assigned authority for and/or responsibilities related to the operational control of flights. The entities that receive such information are dependent upon the system of operational control but always include the flight operations organisation.

Refer to **Table 3.1** for the definitions, duties and responsibilities of operational control personnel.
PIC roles and responsibilities are specified in MCAR OPS 1.1085
Duties and responsibilities of FOO and/or FOA personnel include a definition of the working relationship with the PIC (e.g., PIC and FOO joint responsibility in a shared system of operational control).

1.3.2 The Operator shall ensure a plan for delegation of duties within the management system for operational control of each flight, in accordance with **1.1.1,** to assure managerial continuity when managers responsible for operational control are absent from the workplace.

Guidance
A documented process that ensures a specific person (or perhaps more than one person) is identified to assume the responsibilities of an operational manager who is or is expected to be away from normal duties meets the intent of this requirement. Such nomination of a temporary replacement for an operational manager may be communicated throughout the management system using email or other suitable communication medium.

The operational managers subject to the specifications of this provision include, as a minimum:

- managerial personnel, as defined by the operator, required to ensure the operational control of each flight;
- nominated post holders as per MCAR OPS1.175.

1.3.3 The Operator shall assign authority and responsibility within the management system for liaison with CAD and other external entities relevant to operational control.

1.3.4 The Operator shall assign authority for operational control of each flight to suitably qualified individual(s), to include **either**:

i) only the PIC and a FOO in a shared system of operational control that requires the use of FOO personnel, **or**

ii) only the PIC in a non-shared system of operational control.

Guidance

Systems of operational control include:

- shared systems in which operational control **authority** is shared between the PIC and a flight operations officer/flight dispatcher (FOO);
- non-shared systems in which operational control **authority** is assigned only to the PIC;

1.3.5 The Operator shall assign responsibilities for operational control of each flight to suitably qualified individuals, to include:

i) only the PIC;

ii) only FOO and/or FOA personnel who support, brief and/or assist the PIC or FOO in the safe conduct of each flight.

Guidance

Refer to **Table 3.1** for the definitions, duties and responsibilities of operational control personnel.
Refer to **Table 3.2** for competencies included in operational control.
FOO and/or FOA responsibilities for operational control normally begin when assigned a flight during flight preparation and end after flight termination.
FOA personnel may have specific flight responsibilities depending on area of expertise or general (non-flight specific) responsibilities in support of other operational control personnel or functions.

1.3.6 If a FOO is utilised in the system of operational control, the Operator shall assign responsibility to such personnel for:

i) assisting the PIC in flight preparation and provide the relevant information required;

ii) assisting the PIC in preparing the operational and ATS flight plans;

iii) signing, when applicable, the operational and ATS flight plans

iv) filing the ATS flight plan with the appropriate ATS unit;

v) furnishing the PIC, while in flight, with appropriate information that may be necessary for the safe conduct of the flight;

vi) in the event of an emergency, initiating relevant procedures as specified in the OM.

Guidance

The authority and responsibilities of a FOO are defined in **Table 3.1**.
One or more of these duties may be delegated to a FOA.
The specification in item v) may be satisfied by the PIC, if access to such information is available from other sources.

1.3.7 The Operator shall ensure, in the event of an emergency situation that endangers the safety of the aircraft or persons, and which becomes known first to the Operator, the FOO, FOA or other delegated person is assigned responsibility for implementation of action in accordance with **1.3.8**,to include, where necessary:

i) initiation of emergency procedures, as outlined in the OM;

ii) notification to the appropriate authorities, without delay, of the nature of the situation;

iii) a request for assistance, if required**.**

Guidance

The specification in item i) refers to notification to the appropriate authorities without delay and/or within a period(s) specified by each applicable authority. Refer to MCAR OPS1.420 for occurrence reporting.

1.3.8 The Operator shall have a process to ensure, in the event of an emergency, the FOO, FOA or other delegated person:

i) initiates procedures as outlined in the OM, while avoiding taking any action that would conflict with ATC procedures;

ii) conveys, by any available means, safety-related information to the PIC that may be necessary for the safe conduct of the flight, including information related to any amendments to the flight plan that become necessary in the course of the flight.

Guidance

Processes used for operational control of flights in the event of an emergency would be compatible with any operating procedures that have been established by the agencies providing system services for air traffic control. Such compatibility is necessary to avoid conflict and ensure an effective exchange of information between the operator and any of the service agencies.

During an operational emergency, the procedures specified in item i) would be designed to not conflict with ATC procedures, such as separation standards, controller instructions, minimum flight altitude assignments or any other restrictions imposed by ATC. During an emergency, however, the PIC may exercise emergency authority and take any action necessary in the interest of the safety of the passengers and aircraft.

It is important for the PIC to convey relevant information to the FOO, FOA or other delegated person during the course of the flight, particularly in the context of emergency situations.

1.4 Communication and Coordination

1.4.1 The Operator shall have a communication system that enables and ensures an effective exchange of operationally relevant information throughout the management system and among operational control personnel.

Guidance

An effective communication system ensures an exchange of relevant operational information throughout all areas of the organisation, to include senior managers, operational managers and front line personnel. To be totally effective, the communication system also includes external organisations that conduct outsourced operational functions.

Methods of communication will vary according to the size and scope of the organisation. However, to be effective, any methods are as uncomplicated and easy to use as is possible, and facilitate the reporting of operational deficiencies, hazards or concerns by operational personnel.

The specifications of this provision may be satisfied by the flight operations organisation and/or other organisation(s) with responsibilities related to the operational control of flights.

This specification also applies to coordination among appropriate managerial personnel associated with supervision of operational control.

1.4.2 The Operator shall have a system that ensures operational control personnel have access to information relevant to the safe conduct of each flight, to include information associated with:

i) the aircraft (MEL, maintenance);

ii) meteorology;

iii) safety (current accident and incident notification procedures);

iv) routes, including over water and critical terrain (NOTAMs, facilities, outages);

v) Air Traffic Services (ATS).

Guidance
The specifications of this provision apply to the PIC, FOO and FOA, whose job functions require access to information in one or more of the areas specified.

1.4.3 The Operator shall have a communication system that ensures the FOO, FOA and/or other person delegated responsibilities in accordance with **1.3.7** and **1.3.8** is provided with current accident and incident notification procedures.

1.5 Provision of Resources

1.5.1 The Operator shall ensure the existence of a physical infrastructure and work environment that satisfies management system and operational control requirements.

Guidance
The management system identifies, provides and maintains the infrastructure necessary to produce safe and secure operations, to include operations and maintenance support facilities, services and equipment appropriate for the area, such as:

- buildings, workspaces and associated utilities;
- facilities for people in the organisation;
- support equipment, including tools, hardware and software;
- support services, including transportation and communication. Likewise, the management system ensures a work environment that has a positive influence on motivation, satisfaction and performance of personnel in order to maximise safe and secure operations. A suitable work environment satisfies human and physical factors and considers:
- safety rules and guidance, including the use of protective equipment;
- workplace location(s);
- workplace temperature, humidity, light, air flow;
- cleanliness, noise or pollution.

The specifications of this provision may be satisfied by the flight operations organisation and/or other organisation(s) with responsibilities related to the operational control of flights.

1.5.2 The Operator shall ensure positions within the organisation relevant to the operational control of flights are filled by personnel on the basis of knowledge, skills, training and experience appropriate for the position.

Guidance
Prerequisite criteria for each position, against which candidates are evaluated, ensure personnel are appropriately qualified for management system positions in areas of the organisation critical to safe and secure operations.
The operational control positions subject to the specifications of this provision include, as a minimum:

- managerial personnel, as defined by the operator, required to ensure control and supervision of flight operations in accordance with **1.1.1**;
- nominated post holders as required by the Authority if applicable;

FOO knowledge, skill and experience requirements are in accordance with **1.5.5, 1.5.6** and**, 1.5.8.**
FOA knowledge, skill and experience requirements are in accordance with **1.5.7 and 1.5.8.**
FOO and FOA training requirements are in accordance with the applicable provisions of Section 3, subsection 2.

PIC knowledge, skill, experience and training requirements are in accordance with the applicable provisions of Section 2, subsection 2.

1.5.3 The Operator shall, in accordance with MCAR OPS 1.025, have a process to ensure applicants hired in operational control functions demonstrate the capability of speaking and reading in a language that will permit communication with other areas within the organisation relevant to operational control.

1.5.4 Reserved

1.5.5 If a FOO is utilised in the system of operational control, the Operator shall ensure such personnel, prior to being assigned to operational control duties:

i) meet minimum age, knowledge, experience and skill requirements of the State, as applicable;
ii) have demonstrated knowledge and/or proficiency in *all* competencies of operational control, as specified in **Table 3.5**;
iii) have demonstrated the ability to analyse weather, create accurate flight plans and provide assistance to flights;
iv) complete an observation flight in accordance with **2.3.4**.

Guidance
The specifications of this provision apply to each FOO, whether licensed or not, who participates in an approved or accepted system of operational control.

1.5.6 If a FOO is utilised in the system of operational control, the Operator shall ensure such personnel hired in operational control functions are not less than 21 years of age and have the experience required under PLM Part 1, 4.5.1.3.

1.5.7 If a FOA is utilised in the system of operational control to support or assist the PIC or FOO in specific areas of competency, the Operator shall ensure such personnel, prior to being assigned duties in an operational control function have received training for their specific area of competency and:

i) meet minimum age and knowledge required under PLM Part 1, 4.5.1.1 and 4.5.1.3 respectively
ii) have demonstrated knowledge and/or proficiency in the competencies of operational control appropriate to any assignment of duties, as specified in **Table 3.5**;
iii) have demonstrated the ability to provide assistance, in their specific area of competency, to the PIC and/or FOO, as applicable.

Guidance
The specifications of this provision apply only to FOA personnel who support or assist the PIC or FOO.
FOA personnel need only demonstrate knowledge and ability to assist flights in their area(s) of competence.

1.5.8 If a FOO or FOA is utilised in the system of operational control, the Operator shall have a process to ensure such personnel, as applicable, prior to being assigned duties in an operational control function;

i) are in the case of FOO trained to the minimum experience required under PLM Part 1, 4.5.1.3 and in the case of FOA trained to a minimum experience level defined in the operations manual;

ii) have demonstrated proficiency in the performance of the applicable operational control function(s) under the supervision of qualified operational control personnel.

Guidance
Newly hired operational control personnel may include individuals who already work for the operator in another area, that have worked in an operational control position or function for another operator, or that are newly trained and newly hired, having never worked in an operational control function.
The minimum amount of time needed to demonstrate proficiency under the supervision of qualified operational control personnel will depend on the operational control function being provided and the requirements of the operator and/or CAD
The operator may use an evaluation or check to determine that knowledge competencies of applicable areas are attained by each individual assigned to an operational control function.
Results of any evaluations are documented and retained in accordance with **1.8.1.**

1.5.9 If a FOO, FOA, or other personnel that support or assist in the operational control of flights are utilised in the system of operational control, the Operator shall have a policy regarding the use of psychoactive substances by such personnel, as applicable, that:

i) prohibits the exercise of duties while under the influence of psychoactive substances;
ii) prohibits the problematic use psychoactive substances;
iii) requires that all personnel who are identified as engaging in any kind of problematic use of psychoactive substances are removed from safety-critical functions;
iv) conforms to the requirements of CAD.

Guidance
See ASC GEN 5 regarding Drug Testing programme.

1.6 Documentation System

1.6.1 The Operator shall have a management and control system for documentation and/or data used directly in the conduct or support of operational control, to include:
i) a means of identifying the version of operational documents;
ii) a distribution process that ensures availability of the current version of the OM to appropriate operational control personnel;
iii) review and revision as necessary, to maintain the currency of information contained in documents;
iv) retention of documents that permits easy reference and accessibility;
v) identification and disposal of obsolete documents;
vi) reception of documentation and/or data from external sources to ensure information is received in time to satisfy operational requirements;
vii) retention and dissemination of documentation received from external sources.

Guidance
The primary purpose of document control is to ensure necessary, accurate and up-to-date documents are available to those personnel required to use them, to include, in the case of outsourced operational functions, employees of external service providers.
Examples of documents that are controlled include, but are not limited to, operations manuals, checklists, quality manuals, training manuals, process standards, policy manuals, and standard operating procedures.
A system of electronic documentation management is acceptable, if controls are in place.
Document control requires the following to be accomplished:

- retention of a master copy;
- examination and approval prior to issue;
- review and update, to include an approval process;
- identification of revision status;
- revisions are identified and retained as history;
- background or source references are identified and retained as history;
- distribution to ensure appropriate availability at points of use;
- documents are checked to verify they remain legible and readily identifiable;
- documents of external origin are identified, updated, distributed and retained;
- obsolete documents are identified and retained as specified
- documents are disposed of as specified.

As a minimum, control of operational manuals includes:

- assignment of an individual with responsibility for approval for contents;
- a title page that generally identifies the operational applicability and functionality;
- a table of contents that identifies parts and sub-parts;
- a preface or introduction outlining the general contents of the manual;

The specifications of this provision may be satisfied by the flight operations organisation documentation management and control system, if used in conjunction with the operator's system of operational control.
Internal documents are subject to management and control.
Refer to **1.6.2** and **1.6.3** for a description of the documents subject to management and/or control. The specifications in:

- items vi) and vii) are managed by the operator and controlled by the issuing entity.
- items vi) and vii) include applicable regulations and associated documents, original manufacturer's manuals and documents and/or data produced externally for the operator.
- Items vi) and vii) may include Dangerous Goods documents, route and airports charts, FMS databases, airport analysis data, weight and balance data and performance data.

This provision refers to the library, which may be any organised system for documentation retention, and which contains current manuals, regulatory publications and other essential documents associated with operational control.

1.6.2 The Operator shall ensure the management and control system for operational control documentation specified in **1.6.1** addresses, as a minimum:
i) the OM;
ii) other documents that are referenced in the OM and contain information and/or guidance relevant to operational control personnel.

Guidance
The specifications of this provision may be satisfied by the flight operations organisation documentation management and control system, if used in conjunction with an operator's system of operational control.
Internal documents are subject to management and control. (See Guidance under **1.6.1**)

1.6.3 The Operator shall ensure the management and control system for operational control documentation specified in **1.6.1** addresses, as a minimum, the following documents from external sources:

i) CAD regulations and other states relevant to operations, as applicable;
ii) ICAO International Standards and Recommended Practices, as applicable;

iii) Airworthiness Directives;
iv) Aeronautical Information Publications, including NOTAMS;
v) State approved or accepted Aircraft Flight Manuals (AFM);
vi) manufacturer's aircraft operating manuals, including performance data, weight and balance data/manuals, checklists and MEL\CDL;
vii) other manufacturer's operational communications, as applicable.

Guidance
The specifications of this provision may be satisfied by the flight operations organisation documentation management and control system, if used in conjunction with the operator's system of operational control.
External documents are managed by the operator in accordance with specifications vi) and vii) of **1.6.1** and controlled by the issuing entity.
The specification in item i) refers to applicable regulations imposed on the operator by other states (e.g., FAR 129).
The specification in item vii) refers to bulletins or directives distributed by the manufacturer for the purposes of amending aircraft technical specifications and/or operating procedures.

1.6.4 The Operator shall have processes to ensure the content of documentation used directly in the conduct or support of operational control:
i) is identifiable and accessible to operational control personnel;
ii) contains information that is clear, legible and accurately represented;
iii) is written in a language(s) understood by operational personnel;
iv) is presented in a useable format that meets the needs of operational control personnel;
v) is accepted or approved by CAD.

Guidance
Documentation used in the support of operations control may:
- exist in electronic form;
- be issued in more than one language.

1.6.5 If the Operator utilises an electronic system for the management and control of documentation, the system shall provide for a scheduled generation of back-up files for documents used directly in the conduct or support of operational control.

Guidance
To preclude the loss of documents due to hardware or software failures, an electronic system is programmed to create back-up files on a schedule that ensures records are never lost. Typically, an electronic system provides for file back-up on a daily basis.
The retention period for electronic documents is in accordance with requirements defined by the operator and/or the relevant authority.
To ensure retrieval of archived documents, applicable hardware and/or software is retained after it has been replaced.
Back-up files are generated on a schedule that meets requirements of the operator.

1.7 Operations Manual

1.7.1 The Operator shall have an Operations Manual (OM) for the use of operational control personnel, which may be issued in separate volumes/parts, that contains the policies, procedures and other guidance or information necessary for compliance with MCAR OPS1 and Operator

standards. As a minimum, the content of the OM shall be in accordance with the specifications in **1.6.4** and MCAR OPS 1.1045

1.7.2 The Operator shall have a description of the Operational Flight Plan (OFP), or an equivalent document in the OM, to include guidance for its use by operational control personnel and an outline of the content in accordance with specifications in MCAR OPS 1.1060.

1.7.3 The Operator shall ensure those parts of the OM relevant to operational control personnel are clearly identified and defined.

1.7.4 If a FOO or FOA is utilised in the system of operational control, the Operator shall have guidance and procedures in the OM to enable such personnel, as applicable, to comply with the conditions and limitations specified in the AOC.

Guidance
The conditions and limitations of the AOC are to be available in documentation available to flight operations officers/flight dispatchers (FOO) and/or flight operations assistant (FOA) if the operator's system of operational control requires their use.

1.8 Records System

1.8.1 The Operator shall have a management and control system for the retention of records that document the fulfilment of requirements associated with operational control, to include the training and qualification requirements of FOO and FOA personnel, as applicable. Such system shall be in accordance with requirements of MCAR OPS 1.1065, as applicable, and provide for the management and control of records to ensure:

i) identification;
ii) legibility;
iii) maintenance;
iv) retention and retrieval;
v) protection and security;
vi) disposal.

1.8.2 The Operator shall ensure the operational control records system specified in **1.8.1** addresses the following information, as a minimum:

i) operational information and data for each flight specified in **1.8.4**
ii) operational control communication records specified in **1.8.5**;
iii) the fulfilment of FOO and/or FOA qualification requirements specified in **1.8.6, 1.8.7, 1.8.8** and **1.8.9**, as applicable;
iv) a signed copy of the OFP, as specified in **3.2.5.**
v) data link communications.

1.8.3 If the Operator utilises an electronic system for the management of records, the system shall provide for a scheduled generation of back-up files for relevant records associated with operational control.

Guidance
Maintaining records in electronic files is a reliable and efficient means of short and long-term storage. The integrity of this type of record-keeping system is ensured through secure, safe storage and "back-up" systems.

To preclude the loss of records due to hardware or software failures, an electronic system is programmed to create back-up files on a schedule that ensures records are never lost. Typically, an electronic system provides for file back-up on a daily basis.
Where necessary, the look and feel of electronic records is similar to that of a paper record.
A retention period for records is defined and, if applicable, is in accordance with any requirements of the Authority.
Hardware and software, when updated or replaced, is retained to enable retrieval of old records.
Back-up files are generated according to a schedule that meets requirements of the operator.

1.8.4 The Operator shall have a process to record and retain, for a period of time as required under MCAR OPS 1.1065, operational information and data for each flight.

1.8.5 Reserved

1.8.6 If a FOO or FOA is utilised in the system of operational control, the Operator shall ensure training records for such personnel, as applicable, are managed in accordance with **1.8.1**, to include records that document completion of:
i) initial qualification;
ii) continuing qualification.

Guidance
Initial training records are retained permanently while an individual is employed by an operator.
Last two training records must be retained to ensure that the subjects required in **2.2.2** have been covered during that time period.

1.8.7 If a FOO or FOA is utilised in the system of operational control, the Operator shall have a process to maintain records that document completion of an annual competency evaluation by such personnel, as applicable, for a period not less than one year.

1.8.8 If the Operator has a flight deck familiarisation programme for FOO personnel in accordance with **2.3.4**, the Operator shall have a process to retain a record of the operational flight deck familiarisation activities completed by each FOO for a period not less than one year.

1.8.9 If a licensed FOO is utilised in the system of operational control, the Operator shall have a process to retain a copy of the license of each FOO for a period of employment.

1.9 Reserved

1.10 Quality Assurance

(OPS 1.035 Quality System refers)

1.10.1 The Operator shall have a quality assurance programme that provides for auditing of operational control functions at planned intervals to ensure the organisation(s) with responsibility for operational control:
i) comply with regulatory and internal requirements;
ii) satisfy stated operational control needs;
iii) produce desired operational control safety and quality outcomes;
iv) identify hazards, undesirable conditions and areas requiring improvement.

Guidance
See TGL 44 (JAA Administrative & Guidance Material Section Four: Operations, Part Three: Temporary Guidance Leaflet (JAR-OPS) LEAFLET No 44)

AMC OPS 1.035 Quality System 44-12

1.10.2 The Operator shall have sufficient resources to ensure audits of operational control functions are:
i) scheduled at intervals that meet management system requirements;
ii) completed within a specified time period.

Guidance
See TGL 44 (JAA Administrative & Guidance Material Section Four: Operations, Part Three: Temporary Guidance Leaflet (JAR-OPS)
LEAFLET No 44)
AMC OPS 1.035 Quality System 44-12

1.10.3 The Operator shall have a process to ensure significant issues arising from quality assurance audits of operational control functions are subject to regular review by senior management of the organisation(s) with responsibility for operational control.

Guidance
See TGL 44 (JAA Administrative & Guidance Material Section Four: Operations, Part Three: Temporary Guidance Leaflet (JAR-OPS)
LEAFLET No 44)
AMC OPS 1.035 Quality System 44-12

1.10.4 The Operator shall have a process to ensure findings that result from audits of operational control functions that ensures:

i) identification of root cause;
ii) development of corrective or preventive action as appropriate to address the finding(s);
iii) implementation of corrective or preventive action in appropriate operational areas;
iii) evaluation of corrective or preventive action to determine effectiveness.

Guidance
See TGL 44 (JAA Administrative & Guidance Material Section Four: Operations, Part Three: Temporary Guidance Leaflet (JAR-OPS) LEAFLET No 44)
AMC OPS 1.035 Quality System 44-12

1.11 Reserved

2 Training and Qualification

2.1 Training and Evaluation Programme

General

2.1.1 The Operator shall have a training programme, approved by CAD, to ensure operational control personnel specified in **Table 3.1**, as applicable, are competent to perform any assigned duties relevant to operational control. Such programme shall, as a minimum, address:

i) initial qualification;
ii) continuing qualification.

Guidance
A training programme for operational control personnel includes, as a minimum:

- initial and recurrent training in accordance with the specifications of **Table 3.1** and **Table 3.2**;
- recurrent human factors training for FOO personnel on an annual basis;
- a process of qualification through written and/or practical evaluation.

2.1.2 If a FOO or FOA is utilised in the system of operational control, the Operator shall ensure the training programme specifies minimum training hours for such personnel.

2.1.3 The Operator shall have a process to ensure course materials used in training programmes for personnel responsible for operational control are periodically evaluated to ensure compliance with the qualification and performance standards of the Operator.

Guidance
Such process provides for:
- continuous improvement and effectiveness;
- incorporation of the latest regulatory and operational changes in a timely manner.

2.1.4 – 2.1.6 Reserved

Instructors and Evaluators

2.1.7 If a FOO or FOA is utilised in the system of operational control, the Operator shall have a process to ensure those individuals designated to train and evaluate the competency of such personnel, as applicable, are current and qualified to conduct such trainings and evaluations.

Guidance
Personnel delegated to evaluate FOO personnel are current and qualified as a FOO in accordance with requirements of the operator. Personnel delegated to evaluate FOA personnel are current and qualified in the applicable competencies of operational control in accordance with requirements of the operator.
The specifications of this provision refer to personnel delegated to evaluate the competency of operational control personnel only. The qualifications for individuals delegated to train operational control personnel must be defined in the Operator's Operations Manual.

2.2 Training Elements

2.2.1 If a FOO or FOA is utilised in the system of operational control, the Operator shall ensure such personnel, prior to being assigned to operational control duties, receive initial training and demonstrate appropriate knowledge and/or proficiency in the applicable competencies of operational control as specified in **Table 3.5**.

Guidance
FOO personnel who have completed training programmes conducted in accordance with ICAO 7192 D-3 meets the specifications of this provision.
FOO initial training programmes contain all of the competencies in **Table 3.2** that are relevant to the operations of the operator.
FOA initial training programmes contain the competencies in **Table 3.2** that are relevant to their job function as determined by the operator.

2.2.2 If a FOO or FOA is utilised in the system of operational control, the Operator shall ensure such personnel receive recurrent training in the applicable competencies of operational control, as

specified in **Table 3.2**. Recurrent training shall be completed on a frequency not less than once during every 36-month period.

Guidance
The recurrent training programme on an annual basis for FOO personnel addresses all of the competencies that are relevant to the operations of the operator as specified in **Table 3.2** at least once every three years.
The recurrent training programme on an annual basis for FOA personnel with addresses each of the competencies relevant to their specific job function and to the operations of the operator as specified in **Table 3.2** at least once every three years;
Different methods of conducting recurrent training are acceptable, including formal classroom study, computer-based training, seminars and meetings. All recurrent training, regardless of method, is documented and retained in accordance with **1.8.1**.

2.2.3 If a FOO is utilised in the system of operational control, the Operator shall ensure such personnel receive training in human factors on a frequency not less than once during every 12-month period.

2.3 Line Qualification

2.3.1 If a FOO or FOA is utilised in the system of operational control, the Operator shall have a programme to ensure such personnel, prior to being assigned to operational control duties, have demonstrated proficiency in the applicable competencies of operational control, as specified in **Table 3.2**.

Guidance
Proficiency is demonstrated annually and recorded in accordance with **1.8.1**.
Competencies of operational control are contained in **Table 3.2** and addressed based on the assigned area(s) of responsibility, to include:

- a proficiency review of an FOO that addresses all competencies relevant to the operations of the operator;
- a proficiency review of an FOA that is customised and addresses competencies specific to the assigned area(s) of responsibility and the operations of the operator.

2.3.2 If a FOO or FOA is utilised in the system of operational control, the Operator shall have a programme to ensure such personnel, prior to being assigned to operational control duties, have demonstrated the ability, as applicable, to:

i) assist the PIC in flight preparation and provide the relevant information required;
ii) plan with the appropriate ATS unit;
iii) furnish the PIC in flight, by appropriate means, with information that may be necessary for the safe conduct of the flight;
iv) initiate, in the event of an emergency, applicable procedures as outlined in the OM.

Guidance
FOO personnel are to demonstrate the capability to perform all duty functions.
FOA personnel are to demonstrate the capability to perform specific duty functions associated with assigned area(s) of responsibility.

2.3.3 If a FOO is utilised in the system of operational control, the Operator shall ensure such personnel who have not performed duties as a FOO for a period of 12 consecutive months are not

assigned to perform FOO duties until re-qualified, by demonstrating knowledge and/or proficiency in accordance with **2.2.1**.

2.3.4 If a FOO is utilised in the system of operational control, the Operator shall ensure such personnel are not assigned to FOO duties unless, within the preceding 12 months, they have observed one familiarisation flight from the flight deck of an aircraft over any route segment where responsibility for operational control will be exercised.

2.4 Special Qualification

2.4.1 If a FOO is utilised in the system of operational control, the Operator shall ensure such personnel receive crew resource management (CRM) training conducted with joint participation by flight crew members.

3 Line Operations

3.6 Flight Monitoring Procedures

3.6.1 If a FOO or FOA is utilised in a shared system of operational control, the Operator shall have procedures in the OM and equipment that ensure effective communication between the:

i) FOO and the PIC;
ii) FOA, if applicable, and the PIC;
iii) FOO, PIC and maintenance.

Guidance
The communications system can be direct voice or electronic, but is reliable, clear and understandable over the entire route of the flight. An effective system performs adequately and appropriate personnel are knowledgeable in its use.

3.6.2 The Operator shall have a system of operational control that includes flight monitoring for the duration of a flight and ensures timely notification to the Operator by the PIC of en-route flight movement and/or significant deviation from the operational flight plan

3.6.3 Reserved

3.6.4 If an Operator has a system of operational control that includes an automated flight monitoring system, the Operator *should* have an adequate back-up method of flight monitoring in case of failure of the automated system.

3.6.5 The Operator shall have a process to ensure that the inadequacy of any facilities observed during the course of flight operations is reported to CAD without undue delay, and to further ensure that information relevant to any such inadequacy is immediately disseminated to applicable operating areas within the Operator's organisation.

Guidance
The specifications of this provision address situations when operational control personnel learn of the inadequacy of facilities (e.g. navigation aid outages, runway closures) from flight crew reports, ATS, airport authorities or other credible sources. Operational control personnel would be expected to convey any safety critical outages to applicable authorities and relevant operational areas within the organisation.

Table 3.1 – Operational Control Personnel

This table categorises operational control personnel, defines their authority, identifies their responsibilities and illustrates the relationship of such responsibilities to the operation as a whole. It shall be used for the purposes of applying relevant Section 3 provisions and is provided to ensure suitably qualified persons are designated, where applicable, to support, brief and/or assist the pilot-in-command (PIC) in the safe conduct of each flight. The terms used in the table to identify operational control personnel are generic and may vary. Personnel, however, employed in operational control functions with duties and responsibilities, as outlined in the table, are subject to the training and qualification requirements commensurate with their position.

Operational Control	**Authority** (1.3.5)	**Responsibility** (1.3.6)	**Training and Qualification** *Operator shall designate responsibilities and ensure personnel are competent to perform the job function.*
Administrative Personnel1	**None**	Provide or collect operational documents or data only.	**Not** subject to initial and recurrent training in the competencies of operational control in Table 3.2 and may be qualified via On the Job Training (OJT), job descriptions, task cards, guidelines, checklists, training materials or other written means to establish competence.
Flight Operations Assistant (FOA)**4**	**None or limited to area(s) of expertise e.g., maintenance controller grounds aircraft.**	Support, brief and/or assist the PIC or FOO. Specialises in one or more of the elements of operational control. **3** Collects, provides filters, evaluates and applies operational documents or data relevant to **specific** elements of operational control. Makes recommendations or decisions in area(s) of expertise.	**For each area of expertise or Specialisation 3:** Subject to initial and recurrent training in accordance with **2.2.1** and **2.2.2** and **specific** competencies of **Table 3.2** relevant to the job function and operations of the Operator.
Flight Dispatcher or Flight Operations Officer (FOO)**4**	**None or limited or shared2**	May share operational control authority with the PIC.**2** Support, brief, and/or assist the PIC. Collects, provides, filters, evaluates and applies operational documents or data relevant to **all** elements of operational control.**3** Makes recommendations or decisions.	Subject to initial and recurrent training in accordance with **2.2.1** and **2.2.2 and all** competencies of **Table 3.2** relevant to the operations of the Operator.
Pilot in Command (PIC)	**Full/shared2**	Has final authority for the safe operation of the aircraft and responsibility for safe conduct of the flight. May share authority and responsibility for operational control	Subject to training and qualification requirements specified in MCAR OPS 1Subpart N
Legend	**1-** Personnel lacking any authority or responsibility for operational control are identified in the table for the purposes of excluding them from the training and qualification provisions of this section. **2-** FOO personnel used in conjunction with a shared system of operational share authority with the PIC. **3-** Elements of operational control are contained in Table 3.2. FOA personnel may be referred to as: Weather Analysts, Navigation Analysts/Flight Planning Specialists, Load Agents, Operations Coordinators/Planners, Maintenance controllers, Air Traffic Specialists. **4-** The terms used in this table to identify operational personnel are generic and may vary. Personnel utilised in operational control functions and delegated the responsibilities delineated in the table are subject to the relevant qualification and training provisions in this section.		

Table 3.2 – Competencies of Operational Control		
The Operator shall ensure FOO or FOA personnel demonstrate knowledge and/or proficiency in the competencies of operational control appropriate to any assignment of duties, to include, as applicable		
Competency	**FOO**	**FOA**
i) contents of the Operations Manual relevant to the operational control of flights;	X3	X3B
ii) radio equipment in the aircraft used;	X3	X3B
iii) aviation indoctrination;	X3	X3B
iv) navigation equipment in the aircraft used, including peculiarities and limitations of that equipment;	X3	X3B
v) seasonal meteorological conditions and hazards;	X3	X3B
vi) source of meteorological information;	X3	X3B
vii) effects of meteorological conditions on radio reception on the aircraft used;	X3	X3B
viii) aircraft mass (weight) balance and control;	X3	X3B
ix) human performance relevant to operations or dispatch duties (CRM/DRM);	X1	
x) operational procedures for the carriage of freight and dangerous goods;	X3	X3B
xi) operational emergency and abnormal procedures;	X3	X3B
xii) security procedures (emergency and abnormal situations);	X3	X3B
xiii) Civil Air Law and regulations;	X3	X3B
xiv) aircraft mass (weight) and performance;	X3	X3B
xv) navigation, special navigation;	X3	X3B
xvi) special airports;	X3A	X3AB
xvii) air traffic management;	X3	X3B
xviii) aircraft systems and MEL/CDL;	X3	X3B
xix) flight planning;	X3	X3B
xx) flight monitoring;	X3	X3B
xxi) communication;	X3	X3B
xxii) fuel supply (aircraft and fuel type requirements);	X3	X3B
xxiii) de-icing/anti-icing procedures;	X3A	X3AB
xxiv) ETOPS procedures, if applicable.	X3A	X3AB
Legend		
X: Shall be completed during training and evaluation 1: Shall be satisfactorily completed during initial training and once every calendar year 3: Shall be satisfactorily completed during initial training and once every three calendar years A: If relevant to the operations of the Operator B: If relevant to area of expertise or job function		

4. EFFECTIVITY

This circular comes into effect from 1st January 2010.

For the Civil Aviation Department
Aminath Solih
DIRECTOR GENERAL