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ISSA Standards Manual

Part I - Aeroplanes

Edition 8

IATA

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ISSM Part I - Aeroplanes - Eighth Edition

△ The following tables describe the changes contained in the Edition 8 of the ISSA Standards Manual.

△ The first table, called ISSM Part I Edition 8 Revision Highlights, describes the more significant changes.

△ Subsequent tables describe the changes in each of the sections in relation to the current ISSM Part I Edition 8. Additionally, the number of standards and recommended practices that have been added and eliminated or moved to other section is found in an Added/Eliminated/Moved summary table. All of the added/eliminated/moved provisions are subsequently identified at the beginning of the table for each respective section.

ISSM Part I Edition 8 Revision Highlights
Description of Significant Changes
• See discipline tables

Summary—ISARPs Added/Eliminated/Moved (All Sections)	
Standards Eliminated	• **None**
Standards Added	• **93 (Ninety Three)**
Recommended Practices Eliminated	• **93 (Ninety Three)**
Recommendations upgraded to standard.	• **93 (Ninety Three) ISARPs** • 1 in ORG discipline • 43 in FLT discipline • 16 in DSP discipline • 7 in CAB discipline • 14 in MNT discipline • 9 in GRH discipline • 2 in CGO discipline • 1 in SEC discipline

Introduction	
Area Changed	Description of Change(s)
	• N/A

Section 1 (ORG)	
Area Changed	Description of Change(s)
ORG 1.1.10A and 1.1.10B	• Standards and recommendations for the initial and renewal assessments, respectively
ORG 1.4.2A and 1.4.2B	• Standards and recommendations for the initial and renewal assessments, respectively
ORG 3.1.5A and 3.1.5B	• Standards and recommendations for the initial and renewal assessments, respectively
ORG 1.2.3	• Recommendation was upgraded to standard.

Section 2 (FLT)	
Area Changed	Description of Change(s)
FLT 1.3.6, 1.3.7, 1.5.3, 1.5.4, 1.6.6, 1.7.4, 2.2.7, 2.2.20, 2.2.28, 2.2.42, 2.2.43, 2.3.5, 2.4.1, 2.4.3, 3.1.1, 3.3.1, 3.3.7, 3.3.9, 3.3.10, 3.7.2, 3.8.1, 3.10.4, 3.11.4, 3.11.6, 3.11.7, 3.11.46, 3.11.68, 3.14.1, 3.14.2, 3.14.16, 3.14.17, 3.15.2, 3.15.4, 3.15.5, 4.1.1	• Recommendations were upgraded to standards.
FLT 3.6.4, 3.8.10, 3.12.4	• Recommendations were upgraded to standards and revised for the conditional phase.
FLT 4.3.1 - 4.3.6	• Recommendations were upgraded to standards and revised for the conditional phase.

Section 3 (DSP)	
Area Changed	Description of Change(s)
DSP 1.3.6, 1.3.7, 1.7.2, 1.8.4, 3.2.5, 3.2.7, 3.2.9A, 3.2.9B, 3.2.9C, 3.4.1, 3.7.3, 4.1.1, 4.1.5, 4.2.1, 4.3.2, 4.3.12	• Recommendations were upgraded to standards.

Section 4 (MNT)	
Area Changed	Description of Change(s)
MNT 1.1.2, 1.3.4, 1.7.3, 2.1.2, 2.5.3, 2.12.1, 3.1.4, 4.1.5, 4.2.1, 4.2.2, 4.2.12, 4.4.1, 4.8.1, 4.9.2	• Recommendations were upgraded to standards.

Section 5 (CAB)	
Area Changed	Description of Change(s)
CAB 2.2.12, 3.2.3, 3.2.5, 3.2.8, 3.4.4, 3.4.12, 3.4.15	• Recommendations were upgraded to standards and additionally CAB 3.2.3, 3.2.5 and 3.2.8 were revised for the conditional phase. CAB 3.2.8 revised for better clarification.

Section 6 (GRH)	
Area Changed	Description of Change(s)
GRH 2.2.3, 2.2.5, 3.3.4, 3.4.4, 3.4.5, 3.4.10, 3.4.11, 4.1.2, 4.1.5	• Recommendations were upgraded to standards.

Section 7 (CGO)	
Area Changed	Description of Change(s)
CGO 3.2.2, 3.2.4	• Recommendations were upgraded to standards.

Section 8 (SEC)	
Area Changed	Description of Change(s)
SEC 4.3.2	• Recommendations were upgraded to standards.

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Introduction

△ 1 Purpose

The ISSA Standards Manual (ISSM) Part I - Aeroplanes is published in order to provide the standards, recommended practices (ISARPs), associated guidance material and other supporting information necessary for an operator to successfully prepare for an assessment.

ISSA Standard Manual (ISSM) Part I - Aeroplanes Edition 8 has been approved by Head, IOSA.

The ISSM Part I may also be used as a guide for any operator desiring to structure its operational management and control systems in conformity with the latest industry operational practices.

The ISSM Part I is the sole source of assessment criteria to be utilized by auditors when conducting an assessment against the ISARPs.

2 Structure

The ISSM is organized as follows:

Section 1 → Organization and Management System (ORG);
Section 2 → Flight Operations (FLT);
Section 3 → Operational Control and Flight Dispatch (DSP);
Section 4 → Aircraft Engineering and Maintenance (MNT);
Section 5 → Cabin Operations (CAB);
Section 6 → Ground Handling Operations (GRH);
Section 7 → Cargo Operations (CGO);
Section 8 → Security Management (SEC).

Each section in this Manual has been assigned an associated 3 - letter identifier (in parentheses above). The reference number for every standard or recommended practice within a section will include the specific 3 - letter identifier for that section.

3 Sources for ISSM Part I Standards and Recommended Practices (ISARPs)

The safety and security requirements published in the Annexes to the Convention on International Civil Aviation (ICAO Annexes) are the primary source for specifications contained the ISARPs. Safety and security requirements in the ICAO Annexes used as the basis for ISARPs are those that are applicable either directly or indirectly to the air operator.

4 Applicability of ISARPs

Applicability Guidance

To provide guidance to the operators, an Applicability box is found at the beginning of each section of this manual. Within the box is a general description of the applicability of the ISARPs contained in the section. The applicability of individual standards or recommended practices is always determined by the auditor. As a means to assist with the interpretation of individual application, many ISARPs begin with a *conditional phrase* as described below.

Systemic Applicability

When making a determination as to the applicability of individual ISARPs, it is important to take into account operations (relevant to the individual standard or recommended practice) that are conducted, not only at the home station, but at all stations and other locations throughout the operator's network.

Aircraft Applicability

Note: *The term aircraft as used throughout the ISSM Part I refers to fixed wing aircraft (aeroplane or airplane).*

The ISARPs as published in this version of the ISSM are applicable only for the assessment of an operator that meets the eligibility criteria below:

- Commercial and non-commercial passenger and/or cargo operations;
- Aircraft with one or more turbine powered and/or multiple reciprocating engines;
- One- or two-pilot operations;
- IFR and/or VFR operations;
- Aircraft below 5,700 Kg (12,566 lb) MTOW.

Note: *For commercial operations aircraft above 5,700 Kg (12,566 lb) MTOW will be eligible for one ISSA initial assessment. Aircraft above 5,700 kg MTOW will be assessed as out of scope during next renewal assessment. Aircraft weight category limitations do not apply for non-commercial operations.*

ISARPs may not be applied or used for the assessment of operations that are conducted with:

- Aircraft with single reciprocating engines;
- Helicopters;
- Seaplanes;
- Operators with no aircraft on the AOC (only wet-lease operations).

Note: *For applicability of seaplanes and amphibians refer to ISSM Part II - Seaplanes and Amphibians.*

During an assessment, ISARPs are applied only to those aircraft that are of the type authorized in the Air Operator Certificate (AOC) (or equivalent document) and utilized in commercial and non - commercial passenger and/or cargo operations. Certain ISARPs are also applicable to ferry flights and training flights even though they refer to a non-revenue-generating flight, and such application is indicated in a note that is part of the standard or recommended practice.

Based on the request of the Operator which operates commercially, other owned or leased aircraft that are not of the type authorized in the AOC and/or not utilized in commercial air transport operations will not be evaluated during an assessment. However, the existence of such aircraft will be referenced with an explanation in the ISSA Assessment Report (ISAR).

5 Explanation of ISARPs

ISARPs contained in this manual have been developed solely for use under the ISSA program and contain the operational criteria upon which the assessments are based. ISARPs are not regulations.

ISARPs Identifiers

All ISM provisions (i.e. the ISARPs) are preceded by an identifier that consists of the three-letter section abbreviation and a string of three numbers separated by two decimal points (e.g. ORG 1.1.1). Stabilization of the ISARPs identifiers is an important goal, primarily for facilitating use of the ISARPs by operators, auditors and others, but also for the purpose of ensuring an accurate statistical basis. Therefore, when revising the ISSM, every effort is made to minimize any renumbering of the ISARPs. In certain instances new provisions must be inserted into an existing series of ISARPs. Normally this is done when it is important that the new provision has a logical locational relationship with another existing provision. When this occurs, an additional upper-case letter is attached to the identifier of the applicable provisions as the means of avoiding the renumbering of other ISARPs that follow in the series.

Standards

ISSA Standards are specified systems, policies, programs, processes, procedures, plans, sets of measures, facilities, components, types of equipment or any other aspect of operations under the scope of ISSA that have been determined to be an operational necessity, and with which an operator will be expected to be in conformity at the conclusion of an assessment. Standards always contain the word “shall” (e.g., “The Operator shall have a process…”) in order to denote that conformance by an operator being audited is a requirement for ISSA registration.

During an assessment, determination of nonconformity with specifications contained in an ISSA Standard results in a Finding, which in turn results in the generation of a Corrective Action Report (CAR).

To close a Finding, an operator will develop a Corrective Action Plan (CAP), and then implement corrective action in accordance with the CAP.

Recommended Practices

ISSA Recommended Practices are specified systems, policies, programs, processes, procedures, plans, sets of measures, facilities, components, types of equipment or any other aspects of operations under the assessment scope of ISSA that have been determined to be operationally desirable, but conformity is optional by an operator. Recommended Practices always contain the italicized word “should” (e.g., “The Operator should have a policy…”) to denote conformance is optional.

During an assessment, a determination of nonconformity with specifications contained in an ISSA Recommended Practice results in an Observation, which in turn results in the generation of a CAR.

An operator is not obliged to close an observation with corrective action but, as a minimum, must provide the root cause analysis (RCA) portion of the CAP. However, if an operator chooses to close an Observation, it will require subsequent implementation of corrective action the same as is required to close a Finding.

Conditional Phrase

Certain provisions (i.e. standards or recommended practices, or sub-specifications within certain provisions), begin with a conditional phrase. The conditional phrase states the conditions (one or more) that serve to define the applicability of the provision or sub-specification to the individual operator being assessed. A conditional phrase begins with the words “If the Operator…”.

When assessing an operator against a provision or sub-specification that begins with a conditional phrase, the Auditor will first determine if an operator meets the condition(s) stated in the conditional phrase. If the operator meets the stated condition(s), the provision or sub-specification is applicable to the operator and must be assessed for conformity. If the operator does not meet the condition(s), the provision or sub-specification is not applicable to that operator, and such non-applicability will be recorded as N/A.

Notes and Symbols

An italicized note (Note:) immediately following a provision contains information relevant to the specification(s) in the provision, and is to be considered as part of the provision.

An **[SMS]** symbol in bold text immediately following the last sentence of an ISSA provision indicates the provision specifies one or more of the elements of a safety management system (SMS). (SMS is addressed in subsection 8 below.)

A **(GM**) symbol in bold text following the last sentence of an ISSA provision indicates the existence of associated guidance material. (Guidance Material is addressed in subsection 6 below.)

Special Review Suspension

IATA, upon request from an appropriate industry source, may subject the technical specifications within an ISSA standard to a special review in accordance with the ISSA Standards Special Review Process.

When a special review is conducted, the ISSA standard or certain sub-specifications within the ISSA standard are put under suspension until the special review has been completed.

When a new edition of the ISSM is published while a special review is in progress, the suspended ISSA standard or sub-specification(s) within the ISSA standard will be identified with either of the following, as appropriate:

- ***(This standard is currently suspended in accordance with the ISSA Standards Special Review Process), or***
- ***(This sub-specification is currently suspended in accordance with the ISSA Standards Special Review Process).***

6 Guidance Material

Guidance material is informational in nature and supplements or clarifies the meaning or intent of certain ISARPs. ISARPs that are self-explanatory do not have associated guidance material.

Guidance material is designed to ensure a common interpretation of specifications in ISARPs and provides additional detail that assists an operator to understand what is required in order to achieve conformity. Where applicable, guidance material also presents examples of acceptable alternative means of achieving conformity.

Guidance material associated with an individual standard or recommended practice is co-located with the relevant provision and is preceded by the bold sub-heading **Guidance**.

Additionally, some guidance material relates to an entire ISSM Part I section or to a specific grouping of provisions within a section. Such guidance stands alone in an appropriate location and is preceded by the bold heading **General Guidance**.

Assessment specifications are contained only in the ISARPs, and never in the guidance material.

7 Operational Assessment

During an assessment, an operator is assessed against the ISARPs contained in this manual. To determine conformity with any standard or recommended practice, an auditor will gather evidence to assess the degree to which specifications are documented and implemented by the operator. In making such an assessment, the following information is applicable.

Documented

Documented shall mean the specifications in the ISARPs are published and accurately represented by an operator in a controlled document. A controlled document is subject to processes that provide for positive control of content, revision, publication, distribution, availability and retention.

Documentation is necessary for an operator to ensure systems, programs, policies, processes, procedures and plans are implemented in a standardized manner, and to further ensure such standardized implementation is sustained on an on-going basis. Documentation provides the standards that govern the way personnel perform tasks within the management system and in operations. Such documented standards are necessary for an operator to:

- Provide continuity in the flow of information to personnel;
- Ensure personnel are properly trained;
- Conduct evaluations (e.g. audits, inspections, performance assessments).

Implemented

Implemented shall mean the specification(s) in the ISARPs are established, activated, integrated, incorporated, deployed, installed, maintained and/or made available, as part of the operational system, and is (are) monitored and evaluated, as necessary, for continued effectiveness.

The continuity of implementation is directly linked to documentation. To ensure standardization within the management system and in the conduct of operations, an operator must ensure specified systems, programs, policies, processes, procedures and plans are implemented as published in its controlled documents.

The requirement for specifications to be documented and implemented by an operator is inherent in ISARPs unless indicated otherwise.

Inactive Approved Operations

It is not unusual for an operator to elect not to conduct certain types of operations for which it has regulatory approval (e.g. transport of dangerous goods). In such cases, ISSA provisions with specifications that address such inactive operations would not be applicable to the operator during an assessment if it is stated clearly in a controlled document (e.g. Operations Manual) that the specified operations are not conducted by the operator.

Outsourced Functions

Where an operator has chosen to outsource operational functions specified in ISSA provisions to external service providers, conformity with those provisions will be based on evidence provided by the operator that demonstrates acceptable processes are in place (i.e. processes are documented and implemented) for monitoring such external service providers to ensure fulfillment of applicable operator and regulatory requirements affecting the safety and security of operations. Auditing is recommended as an effective method for an operator to monitor external service providers.

8 Safety Management Systems (SMS)

The components and elements of an SMS for air operators are published in the ICAO Framework for Safety Management Systems (SMS) as published in ICAO in Annex 19. Guidance supporting the Framework may be found in the ICAO Safety Management Manual (SMM), Doc 9859. Most SMS components and elements contained in the ICAO Framework are addressed in the ISARPs.

Specific SMS requirements for an operator will always be mandated by the State in accordance with its individual State Safety Plan (SSP). Not all states will mandate SMS immediately, and some states could take several years before making SMS mandatory for its operators. Additionally, some elements of SMS are quite complex, thus full implementation of an SMS by an operator will typically take several years. Therefore, given these factors, most SMS provisions are initially presented in the ISARPs as recommended practices (i.e. “should”). SMS standards and recommended practices are identified by a bold [SMS] symbol immediately following the last sentence of the provision.

An operator that is assessed and found to be in conformity with all ISARPs (applicable to that operator) identified by the **[SMS]** symbol, is considered to have a baseline SMS in place.

Such baseline SMS might not meet the SMS requirements of all states because certain states, in accordance with their individual SSP, could add requirements above those contained in the ICAO framework. Additionally, some states might mandate operators to implement SMS using a multiphase approach. In either case, having the basic SMS elements implemented in accordance with the ISSA standards should facilitate compliance with individual state SMS requirements.

SMS Upgrades

In accordance with the IATA SMS Strategy, all ISSA SMS recommended practices are being incrementally upgraded to standards such that, with the ISSM revision that will be effective on 1 April 2025, all ISSA SMS provisions will have been upgraded to standards (i.e. “shall”).

9 ISSA Documentation System

The ISSM is used in association with the following related manuals:

- ISSA Program Manual (ISPM);
- IOSA Program Manual (IPM);
- IATA Reference Manual for Audit Programs (IRM);
- IOSA Audit Handbook (IAH).

The ISPM, IPM, IRM and IAH comprise the ISSA documentation system.

10 English Language

English is the official language of the ISSA Program; documents comprising the ISSA Documentation System are written in International English* in accordance with IATA policy.

The ISSA Program Manual requires auditors to ensure the English language version of this ISSM and/or ISSA Checklists is always used as the basis for a final determination of conformity or nonconformity with ISARPs during the conduct of an assessment. Versions of the ISSM or ISSA Checklists that have been translated into another language are subject to misinterpretation; therefore, any translated ISSA document is considered an unofficial reference.

* Refer to the IRM for the definition of *International English*. The official reference for International English in accordance with IATA policy is the online Merriam-Webster Dictionary (http://www.merriam-webster.com).

11 Manual Revisions

The ISSM Part I is normally revised annually. In accordance with IATA policy, a revision to the ISSM Part I will always result in a new edition of the ISSM.

The time period between the issuance of a new edition of the ISSM Part I and the effective date of such new edition is typically four full months.

Should critical issues arise that affect the content of the ISSM Part I, a revision to the current edition of the ISSM Part I will be issued.

Usable Edition

For an ISSA assessment, the Operator normally determines the edition of the ISSM Part I that will be used for an assessment.

The Operator has the option to select either:

- The edition that is effective on the day before the on-site phase of the assessment is scheduled to begin, or
- An edition that has been published prior to the day the on-site phase of the assessment is scheduled to begin, but has not yet become effective.

12 Modification Status

All changes in this document are listed in the revision highlights table. For easier orientation, the following symbols identify any changes made within each section:

☐ Addition of a new item.
△ Change to an item.
⊗ Deletion of an item.

13 Conflicting Information

Manuals within the ISSA documentation system are not revised concurrently, thus creating the possibility of conflicting information in different manuals. If there are inconsistencies between the ISSA documentation, namely the ISSM, ISPM and IAH, IATA should be contacted for clarification and correction.

IATA Dangerous Goods Regulations (DGR)

The DGR is a manual that is published annually and is effective on 1 January of each calendar year.

The ISSM may be published in a different month of the same year, which creates the potential for conflicting DGR - ISSM requirements. In the case of a DGR-ISSM conflict, the requirement contained in the current effective version of the DGR shall be considered valid.

14 Definitions and Abbreviations

The IATA Reference Manual for Audit Programs (IRM) contains the Glossary of Terms and the List of Abbreviations that are associated with the audit programs.

15 ISSA Documents and Forms

ISSA documents and forms that are referenced in this manual are available for download on the ISSA website (http://www.iata.org/issa).

16 Authority

The ISSA Program operates under the authority of the IATA Operations Committee (OPC) with reference to the IATA Board of Governors (BoG).

Section 1 — Organization and Management System (ORG)

Applicability

Section 1 addresses the organization and management system of an operator for the purpose of ensuring the safety and security of aircraft operations.

Individual ORG provisions or sub-specifications within an ORG provision that:

- Begin with a conditional phrase ("If the Operator...") are applicable if the operator meets the condition(s) stated in the phrase.
- Do not begin with a conditional phrase are applicable to all operators unless determined otherwise by the Auditor.

General Guidance

Definitions of technical terms used in this ISSM Part I Section 1, as well as the meaning of abbreviations and acronyms, are found in the IATA Reference Manual for Audit Programs (IRM).

1 Management and Control

1.1 Management System Overview

ORG 1.1.1 The Operator shall have a management system that has continuity throughout the organization and ensures control of operations and management of safety and security outcomes. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** organizational management system structure.
- ☐ **Assessed** status of conformity with all other ORG management system ISSARPs.
- ☐ **Crosschecked** to determine status of conformity with management system standards in all operational areas.
- ☐ **Other Actions** (Specify)

Guidance

Refer to the IRM for the definitions of Operations, Operator, Safety (Operational), Security (Aviation) and State.

A management system is documented in controlled company media at both the corporate and operational levels. Manuals or controlled electronic media are acceptable means of documenting the management system.

Documentation provides a comprehensive description of the scope, structure and functionality of the management system and depicts lines of accountability throughout the organization, as well as authorities, duties, responsibilities and the interrelation of functions and activities within the system for ensuring safe and secure operations.

Acceptable means of documentation include, but are not limited to, organograms (organization charts), job descriptions and other descriptive written material that define and clearly delineate the management system.

Documentation also reflects a functional continuity within the management system that ensures the entire organization works as a system and not as a group of independent or fragmented units (i.e., silo effect).

An effective management system is fully implemented and functional with a clear consistency and unity of purpose between corporate management and management in the operational areas.

The management system ensures compliance with all applicable standards and regulatory requirements. In addition to internal standards and regulations of the State, an operator may also be required to comply with authorities that have jurisdiction over operations that are conducted over the high seas or within a foreign country.

ORG 1.1.2 The Operator shall have a valid Air Operator Certificate (AOC) or equivalent document issued by the State of the Operator (hereinafter, the State) that authorizes the Operator to conduct commercial or non-commercial air transport operations in accordance with specified conditions and limitations. The AOC and/or associated documents shall include:

(i) Operator identification (name and location);
(ii) Date of issue and period of validity;
(iii) Description of types of operations authorized;
(iv) Type(s) of aircraft authorized for use;
(v) Authorized areas of operation or routes;
(vi) Exemptions, deviations and waivers (listed by name);
(vii) Special authorizations, to include, as applicable:
    (a) Low visibility takeoff (LVTO);
    (b) CAT II and/or III approaches;
    (c) Automatic landing, head-up displays (HUD) and enhanced vision systems (EVS, SVS or CVS) operations and associated operational credit(s) granted (if such systems are used to gain operational benefit);
    (d) GPS approaches;
    (e) ETOPS/EDTO, as applicable, including the applicable threshold/maximum diversion times established for each particular aircraft and engine combination;
    (f) RVSM operations;
    (g) MNPS/NAT HLA operations;
    (h) Area of Magnetic Unreliability (AMU);
    (i) Basic RNAV/RNP operations;
    (j) Performance-Based Communication and Surveillance (PBCS) operations;
    (k) AR navigation specifications for PBN operations;
    (l) Transport of dangerous goods as cargo (if AOC authorization is required for the transport of dangerous goods);
    (m) Electronic Flight Bag (EFB) operations (if approval for such operations is required by the Authority). **(GM)**

Note: *"Vision systems" is a generic term referring to the existing systems designed to provide images, such as enhanced vision systems (EVS), synthetic vision systems (SVS) and combined vision systems (CVS).*

Auditor Actions

- ☐ **Identified** the documents that authorize the Operator to conduct commercial or non-commercial air transport operations in accordance with conditions and limitations specified by the State.
- ☐ **Interviewed** responsible manager(s) in flight operations.
- ☐ **Examined** AOC (focus: information is current and relevant to the Operator).
- ☐ **Crosschecked** AOC against OM (focus: authorizations/limitations consistent with operations conducted by Operator).
- ☐ **Other Actions** (Specify)

Guidance

Refer to the IRM for the definitions of Electronic Flight Bag (EFB), EDTO (Extended Diversion Time operations), Enhanced Visual System (EVS), Head-up Display (HUD), Minimum Navigation

Performance Specifications (MNPS), PBN Navigation Specification AR (Authorization Required), Reduced Vertical Separation Minima (RVSM), Required Navigation Performance (RNP) and State.

The specifications of this provision require the conditions and limitations of any State-approved or State-accepted air transport operations, conducted by the operator, to be described in the AOC, AOC equivalents and/or associated documents.

The AOC is produced (by the State) in a manner consistent with local conditions for State approval or acceptance. This should not preclude the operator from describing authorized operations, including conditions and limitations for such operations, in associated documents and in a manner consistent with the specifications of this provision. Such documents typically include the OM or any operational document that describes the conditions and limitations of authorized operations.

The exemptions, deviations, waivers and special authorizations in specifications vi) and vii) may be described in State-approved or State-accepted documents other than the AOC. Operators subject to laws or regulations of the State that prevent the issuance of an AOC consistent with the specifications of this provision and/or prohibit the description of authorized operations in a manner consistent with the specifications of this provision may demonstrate an equivalent method of ensuring the specifications of this provision are satisfied.

The period of validity is designated on the AOC or determined by reference to the dates of issuance and expiration.

The specification in item vii) e) refers to aircraft operated on routes where the diversion time from any point on the route to an en route alternate airport exceeds the threshold time but is within the maximum diversion time as established by the State.

ORG 1.1.3 The Operator shall identify one senior management official as the Accountable Executive (AE) who is accountable for performance of the management system as specified in ORG 1.1.1 and:

(i) Irrespective of other functions, has ultimate responsibility and accountability on behalf of the Operator for the implementation and maintenance of the safety management system (SMS) throughout the organization;

(ii) Has the authority to ensure the allocation of resources necessary to manage safety and security risks to aircraft operations;

(iii) Has overall responsibility and is accountable for ensuring operations are conducted in accordance with conditions and restrictions of the Air Operator Certificate (AOC), and in compliance with applicable regulations and standards of the Operator. **[SMS] (GM)**

Auditor Actions

- ☐ **Identified** senior management official designated as the accountable executive for the conduct of operations.
- ☐ **Examined** management system structure and organizational lines of accountability.
- ☐ **Examined** job description of designated accountable executive to determine if assigned responsibilities are in accordance with the standard.
- ☐ **Interviewed** accountable executive and/or designated management representative(s).
- ☐ **Other Actions** (Specify)

Guidance

Refer to the IRM for the definitions of Accountability, Accountable Executive (AE), Authority, Aircraft Operations, Responsibility, Safety Risk Management and Senior Management.

The requirement for an AE is an element of the Safety Policy and Objectives component of the SMS framework.

The designation of an AE means the accountability for safety and security performance is placed at a level in the organization having the authority to take action to ensure the management system is effective. Therefore, the AE is typically the chief executive officer (CEO), although, depending on the type and structure of the organization, it could be a different senior official (e.g. chairperson/member of the board of directors, company owner).

The AE has the authority, which includes financial control, to make policy decisions, provide adequate resources, resolve operational quality, safety and security issues and, in general, ensure necessary system components are in place and functioning properly.

In an SMS, the AE would typically have:

- Ultimate responsibility and accountability for the safety of the entire operation together with the implementation and maintenance of the SMS;
- Responsibility for ensuring the SMS is properly implemented in all areas of the organization and performing in accordance with specified requirements.

The AE also is responsible for ensuring the organization is in compliance with requirements of applicable authorities (i.e. regulations), as well as its own policies and procedures, which may exceed existing regulations or address areas that are not regulated (e.g. ground handling operations). An operator's policies and procedures are typically published in its Operations Manual (OM).

To ensure that the operator continues to meet applicable requirements, the AE might designate a manager with the responsibility for monitoring compliance. The role of such manager would be to ensure that the activities of the operator are monitored for compliance with the applicable regulatory requirements, as well as any additional requirements as established by the operator, and that these activities are being carried out properly under the supervision of the relevant head of functional area.

Expanded guidance may be found in the ICAO SMM, Document 9859.

ORG 1.1.4 If required by the State of the Operator (hereinafter, the State), the Operator shall have post holders within the management system that are acceptable to the Authority and have the responsibility for ensuring, in their respective defined operational areas:

(i) The management of safety risks and security threats to aircraft operations;

(ii) Operations are conducted in accordance with conditions and restrictions of the Air Operator Certificate (AOC), and in compliance with applicable regulations and standards of the Operator. **(GM)**

Auditor Actions

- ☐ **Identified** post holders accountable for the conduct of operations.
- ☐ **Examined** management system structure and organizational lines of accountability.
- ☐ **Examined** job descriptions of all post holders throughout the organization (focus: accountability/responsibilities are as specified in the standard).
- ☐ **Interviewed** AE and/or designated management representative(s).
- ☐ **Other Actions** (Specify)

Guidance

Refer to the IRM for the definition of Post Holder.

Managers in such positions might be referred to as post holders, directors or another title as specified by each State.

ORG 1.1.5 The Operator shall designate a manager who is responsible for the implementation, maintenance and day-to-day administration of the SMS throughout the organization on behalf of the AE and senior management. **[SMS] (GM)**

Auditor Actions

- ☐ **Identified** safety management system (SMS) structure.
- ☐ **Interviewed** SMS accountable executive and/or designated management representative(s).
- ☐ **Assessed** conformity with all ORG SMS ISARPs.
- ☐ **Other Actions** (Specify)

Guidance

Refer to the IRM for the definitions of Safety Management System (SMS) and State Safety Program (SSP).

The specifications for an operator's SMS in this recommended practice are derived from the SMS Framework, which is published in Annex 19 to the Convention on International Civil Aviation (ICAO Annex 19). The SMS Framework specifies the four major components and 12 elements that make up the basic structure of an SMS.

Where applicable, an SMS is designed and implemented in accordance with the State Safety Program (SSP). The manner in which the elements of SMS are implemented typically reflects the size and complexity of the operator's organization.

In general, an SMS is designed and implemented to:

- Identify safety hazards in operations;
- Ensure remedial action is implemented to control safety risks;
- Provide for ongoing monitoring and assessment of safety performance;
- Make continual improvement to the level of safety in operations.

The specific requirements for each operator's SMS will normally be found in the regulations associated with the SSP. In addition, states would typically publish guidance designed to assist operators in the implementation of SMS.

A description of an operator's SMS is contained in documentation as specified in ORG 2.5.4.

Expanded guidance may be found in the ICAO Safety Management Manual (ICAO SMM), Document 9859.

ORG 1.1.6–1.1.9 (Intentionally open)

△ **ORG 1.1.10A** The Operator shall have an SMS that is implemented and integrated throughout the organization to ensure management of the safety risks associated with aircraft operations. **[SMS] (GM)**

Note 1: *Conformity with this ORG recommended practice is possible only when the Operator is in conformity with all standards and recommended practices that are identified by the* ***[SMS]*** *symbol.*

△ ***Note 2:*** *This provision is only applicable for ISSA registration renewal assessments.*

Auditor Actions

- ☐ **Identified/Assessed** safety management system (SMS) structure.
- ☐ **Interviewed** SMS accountable executive and/or designated management representative(s).
- ☐ **Assessed** conformity with all ORG SMS ISSARPs.
- ☐ **Other Actions** (Specify)

Guidance

Refer to the IRM for the definitions of Safety Management System (SMS) and State Safety Program (SSP).

The specifications for an operator's SMS in this recommended practice are derived from the SMS Framework, which is published in Annex 19 to the Convention on International Civil Aviation (ICAO Annex 19). The SMS Framework specifies the four major components and 12 elements that make up the basic structure of an SMS.

Where applicable, an SMS is designed and implemented in accordance with the State Safety Program (SSP). The manner in which the elements of SMS are implemented typically reflects the size and complexity of the operator's organization.

In general, an SMS is designed and implemented to:

- Identify safety hazards in operations;
- Ensure remedial action is implemented to control safety risks;

- Provide for ongoing monitoring and assessment of safety performance;
- Make continual improvement to the level of safety in operations.

The specific requirements for each operator's SMS will normally be found in the regulations associated with the SSP. In addition, states would typically publish guidance designed to assist operators in the implementation of SMS.

A description of an operator's SMS is contained in documentation as specified in ORG 2.5.4.

Expanded guidance may be found in the ICAO Safety Management Manual (ICAO SMM), Document 9859.

☐ **ORG 1.1.10B** The Operator *should* have an SMS that is implemented and integrated throughout the organization to ensure management of the safety risks associated with aircraft operations. **[SMS] (GM)**

Note 1: *Conformity with this ORG recommended practice is possible only when the Operator is in conformity with all standards and recommended practices that are identified by the **[SMS]** symbol.*

△ ***Note 2:*** *This provision is only applicable for initial ISSA assessments.*

Auditor Actions

- ☐ **Identified/Assessed** safety management system (SMS) structure.
- ☐ **Interviewed** SMS accountable executive and/or designated management representative(s).
- ☐ **Assessed** conformity with all ORG SMS ISSARPs.
- ☐ **Other Actions** (Specify)

Guidance

Refer to Guidance Material of ORG 1.1.10A.

1.2 Management Commitment

ORG 1.2.1 The Operator shall have a corporate safety policy that reflects the organizational commitment regarding safety, including the promotion of a positive safety culture. Such policy shall be communicated throughout the organization and include the following:

(i) A statement about the provision of the necessary resources for the implementation of the safety policy;

(ii) A commitment to the continual improvement of the organization and the management system;

(iii) A commitment to a periodic review of the policy to ensure its continued relevance to the organization. **[SMS] (GM)**

Auditor Actions

- ☐ **Identified/Assessed** corporate safety policy.
- ☐ **Interviewed** SMS manager and/or designated management representative.
- ☐ **Examined** specific examples that verify safety policy is communicated throughout the organization.
- ☐ **Other Actions** (Specify)

Guidance

The requirement for an operator to have a defined safety policy is an element of the Safety Policy and Objectives component of the SMS framework.

The safety policy typically also reflects the commitment of senior management to:

- Compliance with applicable regulations and standards of the Operator;
- Ensuring the management of safety risks to aircraft operations;
- The promotion of safety awareness;
- Continual improvement of operational performance.

The safety policy is typically reviewed periodically to ensure continued relevance to the organization.

Such policy might be documented in the operations manual or other controlled document, and, to enhance effectiveness, is communicated and made visible throughout the organization through dissemination of communiqués, posters, banners and other forms of information in a form and language which can be easily understood. To ensure continuing relevance, the corporate policy is normally reviewed for possible update a minimum of every two years.

Consistent with the structure and complexity of the operator's organization, the corporate safety policy may be issued as a stand-alone policy or combined with the policy specified in ORG 1.2.2.

Expanded guidance may be found in the ICAO SMM, Document 9859.

ORG 1.2.2A The Operator shall have a corporate safety reporting policy that encourages personnel to report hazards to aircraft operations and, in addition, defines the Operator's policy regarding disciplinary action, to include:

(i) Types of operational behaviors that are unacceptable;

(ii) Conditions under which disciplinary action would not apply. **[SMS] (GM)**

Note: *This provision is only applicable for ISSA registration renewal assessments.*

Auditor Actions

- ☐ **Identified/Assessed** corporate safety reporting policy (focus: personnel urged to report operational hazards; definition of disciplinary policy/potential disciplinary actions).
- ☐ **Interviewed** AE and/or designated management representative(s).
- ☐ **Assessed** implementation of safety reporting in all operational areas.
- ☐ **Other Actions** (Specify)

Guidance

The requirement for an operator to have a safety reporting policy is an element of the Safety Policy and Objectives component of the SMS framework.

Safety reporting is a key aspect of SMS hazard identification and risk management.

Such a policy is typically documented in operations manuals or other controlled documents.

Consistent with the structure and complexity of the operator's organization, the safety reporting policy may be issued as a stand-alone policy or combined with the safety policy specified in ORG 1.2.1A.

A safety reporting policy encourages and perhaps even provides incentive for individuals to report hazards and operational deficiencies to management. It also assures personnel that their candid input is highly desired and vital to safe and secure operations.

The safety reporting policy is typically reviewed periodically to ensure continuing relevance to the organization.

Refer to ORG 3.1.2A, which specifies the operational safety reporting system.

ORG 1.2.2B The Operator *should* have a corporate safety reporting policy that encourages personnel to report hazards to aircraft operations and, in addition, defines the Operator's policy regarding disciplinary action, to include:

(i) Types of operational behaviors that are unacceptable;

(ii) Conditions under which disciplinary action would not apply. **[SMS] (GM)**

Note: *This provision is only applicable for initial ISSA assessments.*

Auditor Actions

- ☐ **Identified/Assessed** corporate safety reporting policy (focus: personnel urged to report operational hazards; definition of disciplinary policy/potential disciplinary actions).
- ☐ **Interviewed** AE and/or designated management representative(s).
- ☐ **Assessed** implementation of safety reporting in all operational areas.
- ☐ **Other Actions** (Specify)

Guidance

Refer to Guidance Material of ORG 1.2.2A.

△ **ORG 1.2.3** The Operator shall have a policy that informs operational personnel throughout the organization of their responsibility to comply with the applicable laws, regulations and procedures in all locations where operations are conducted. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** corporate compliance policy (focus: requirement for organizational compliance with applicable laws/regulations/procedures by operational personnel).
- ☐ **Interviewed** AE and/or designated management representative(s).
- ☐ **Coordinated** to verify implementation of compliance policy in all operational areas.
- ☐ **Other Actions** (Specify)

Guidance

It is imperative for the operator to guarantee that all pilots possess thorough familiarity with the laws, regulations, and procedures pertaining to their duties, specifically those prescribed for the areas to be traversed, the aerodromes to be utilized, and the air navigation facilities associated with them. Additionally, the operator must ensure that all other members of the flight crew are equally acquainted with these laws, regulations, and procedures, to the extent that they are relevant to their respective responsibilities in the operation of the airplane. This comprehensive understanding is essential for maintaining safety and efficiency throughout flight operations.

1.3 Roles and Responsibilities

ORG 1.3.1A The Operator shall ensure the management system defines the safety accountabilities, authorities and responsibilities of management and non-management personnel throughout the organization, and specifies:

(i) The levels of management with the authority to make decisions regarding risk tolerability with respect to the safety and/or security of aircraft operations;

(ii) Responsibilities for ensuring operations are conducted in accordance with applicable regulations and standards of the Operator;

(iii) Lines of safety accountability throughout the organization, including direct accountability for safety and/or security on the part of senior management; **[SMS] (GM)**

Note: *This provision is only applicable for ISSA registration renewal assessments.*

Auditor Actions

- ☐ **Identified/Assessed** definition of authorities and responsibilities throughout the organization.
- ☐ **Interviewed** AE and/or designated management representative(s).
- ☐ **Assessed** to verify defined accountability/authorities/responsibilities for management and non-management personnel in all operational areas.
- ☐ **Other Actions** (Specify)

Guidance

The definition of authorities and responsibilities of management and non-management personnel is an element of the Safety Policy and Objectives component of the SMS framework.

In the context of the management system, the following typically apply:

- Accountability is the obligation to accept ultimate responsibility and be answerable for decisions and policies, and for the performance of applicable functions, duties, tasks or actions. Accountability may not be delegated.
- Authority is the delegated power or right to command or direct activities, and to make decisions.

- Responsibility is the obligation to execute or perform assigned functions, duties, tasks and/or actions. Responsibility may be accompanied by an appropriate level of delegated authority.

In the context of an SMS, the assignment of responsibility to individual personnel means such personnel are ultimately accountable for safety performance, whether at the overall SMS level (accountable executive) or at specific product and/or process levels (other applicable members of management). An effective management system ensures that responsibilities, and thus accountability, for safety and security are allocated to relevant management and non-management personnel that perform safety- or security-related functions, or that have a defined role in the SMS.

Responsibilities and accountability are typically defined in the functional job description for such personnel and are designed to flow from corporate senior management into all operational areas of the organization.

Responsibilities and accountability are normally described and communicated in a manner that ensures a clear understanding throughout the organization. Organization charts, or organograms, are typically used to depict the functional reporting system of an organization, and thus are an acceptable means for defining the flow (or “lines” as depicted on an organogram) of responsibilities and accountability within the management system.

Management positions critical to operational safety or security may require enhanced job descriptions or terms of reference that reflect specialized requirements inherent in certain key positions. Such specialized requirements would include any delegation of authority exercised by personnel on behalf of an authority (e.g., designated or authorized flight examiner).

Compliance with regulatory requirements, as well as internal policies and procedures, is an essential element of a safe and secure operational environment. The responsibility for ensuring compliance with both regulatory and internal requirements is specified and assigned within the management system. Job descriptions, terms of reference and operating manuals are examples of appropriate locations for documenting management system responsibilities.

Expanded guidance may be found in the ICAO SMM, Document 9859.

ORG 1.3.1B The Operator *should* ensure the management system defines the safety accountabilities, authorities and responsibilities of management and non-management personnel throughout the organization, and specifies:

(i) The levels of management with the authority to make decisions regarding risk tolerability with respect to the safety and/or security of aircraft operations;

(ii) Responsibilities for ensuring operations are conducted in accordance with applicable regulations and standards of the Operator;

(iii) Lines of safety accountability throughout the organization, including direct accountability for safety and/or security on the part of senior management; **[SMS] (GM)**

Note: *This provision is only applicable for initial ISSA assessments.*

Auditor Actions

☐ **Identified/Assessed** definition of authorities and responsibilities throughout the organization.

☐ **Interviewed** AE and/or designated management representative(s).

☐ **Assessed** to verify defined accountability/authorities/responsibilities for management and non-management personnel in all operational areas.

☐ **Other Actions** (Specify)

Guidance

Refer to Guidance Material of ORG 1.3.1A.

1.4 Safety Performance

ORG 1.4.1A The Operator shall have a process to define safety objectives. Such safety objectives should:

(i) Reflect the Operator's commitment to maintain or continuously improve the overall effectiveness of the SMS;

(ii) Be communicated throughout the organization;

(iii) Be periodically reviewed to ensure they remain relevant and appropriate to the Operator. **[SMS] [GM]**

Note: *This provision is only applicable for ISSA registration renewal assessments.*

Auditor Actions

- ☐ **Identified** organizational program for setting safety objectives.
- ☐ **Interviewed** SMS manager and/or designated management representative(s).
- ☐ **Examined** selected safety objectives currently valid.
- ☐ **Examined** selected records/documents that identify tracking of safety objectives.
- ☐ **Other Actions** (Specify)

Guidance

Refer to the IRM for the definitions of Safety Assurance and Safety Objective.

Safety objectives provide direction to the operator's safety management activities and would therefore be consistent with the safety policy that sets out the organization's high-level safety commitment.

A safety objective is a high-level statement that typically expresses a desired safety outcome that is to be achieved over a defined period of time (e.g. one year).

Expanded guidance may be found in the ICAO SMM, Document 9859.

ORG 1.4.1B The Operator *should* have a process to define safety objectives. Such safety objectives should:

(i) Reflect the Operator's commitment to maintain or continuously improve the overall effectiveness of the SMS;

(ii) Be communicated throughout the organization;

(iii) Be periodically reviewed to ensure they remain relevant and appropriate to the Operator. **[SMS] [GM]**

Note: *This provision is only applicable for initial ISSA assessments.*

Auditor Actions

- ☐ **Identified** organizational program for setting safety objectives.
- ☐ **Interviewed** SMS manager and/or designated management representative(s).
- ☐ **Examined** selected safety objectives currently valid.
- ☐ **Examined** selected records/documents that identify tracking of safety objectives.
- ☐ **Other Actions** (Specify)

Guidance

Refer to Guidance Material of ORG 1.4.1A.

△ **ORG 1.4.2A** The Operator shall have processes for setting safety performance indicators (SPIs) and, as applicable, safety performance targets (SPTs) as means to monitor its safety performance, the achievement of its safety objectives and to validate the effectiveness of safety risk controls. **[SMS] [GM]**

Note: *This provision is only applicable for ISSA registration renewal assessments.*

Auditor Actions

- ☐ **Identified/Assessed** organizational program for setting SPIs and SPTs (focus: program defines/requires development/application of SPIs; measures used to track/monitor operational safety performance/validate safety risk controls).
- ☐ **Interviewed** SMS manager and/or designated management representative(s).
- ☐ **Examined** selected SPIs and SPTs (focus: SPIs/SPTs are aligned with safety objectives and are being used to monitor operational performance).
- ☐ **Examined** selected records/documents that identify tracking of SPIs and SPTs (focus: tracking used to assess/monitor operational safety performance, assess/validate risk control effectiveness).
- ☐ **Other Actions** (Specify)

Guidance

Refer to the IRM for the definition of Safety Performance Indicator (SPI) and Safety Performance Target (SPT).

Setting SPIs in support of the operator's safety objectives is an element of the Safety Assurance component of the SMS framework.

SPIs and SPTs are used by an operator to track and compare its operational performance against the achievement of its safety objectives and to focus attention on the performance of the organization in managing operational risks and maintaining compliance with relevant regulatory requirements.

SPTs define short-term and medium-term safety performance management desired achievements. They act as ‘milestones’ that provide confidence that the organization is on track to achieving its safety objectives and provide a measurable way of verifying the effectiveness of safety performance management activities. The setting of SPTs is normally accomplished after considering what is realistically achievable and, where historical trend data are available, the recent performance of the particular SPI.

In addressing operational performance, meaningful indicators might focus on lower level (i.e. lower consequence) occurrences or conditions that are considered by the operator to be precursors to more serious events. SPIs may be specific to a certain area of operations or may be broad and apply to the entire system.

In addressing compliance, meaningful indicators, as a minimum, would focus on compliance with significant regulatory requirements (as determined by the operator) in all operational areas.

SPIs may be set in almost any operations or maintenance area and are usually expressed as a reduction in the rate or number of specifically identified occurrences or conditions.

Some possible examples of operational occurrences or conditions that could be monitored using SPIs include:

- Flight operations (e.g. takeoff and landing tail strikes, unsatisfactory line or training evaluations, unstabilized approaches, runway incursions/excursions);
- Operational control (e.g., flight diversions due to fuel);
- Engineering and maintenance (in-flight engine shutdowns, aircraft component/equipment failures, diversions due to maintenance errors, damage caused by maintenance);
- Cabin operations (inadvertent slide deployments);
- Ground handling (aircraft damages due to vehicles or equipment);
- Cargo operations (dangerous goods spills);
- Operational security (unauthorized interference or access events).

Expanded guidance may be found in the ICAO SMM, Document 9859.

☐ **ORG 1.4.2B** The Operator *should* have processes for setting safety performance indicators (SPIs) and, as applicable, safety performance targets (SPTs) as means to monitor its safety performance, the achievement of its safety objectives and to validate the effectiveness of safety risk controls. **[SMS] [GM]**

☐ ***Note:*** *This provision is only applicable for initial ISSA assessments.*

Auditor Actions

- ☐ **Identified/Assessed** organizational program for setting SPIs and SPTs (focus: program defines/requires development/application of SPIs; measures used to track/monitor operational safety performance/validate safety risk controls).
- ☐ **Interviewed** SMS manager and/or designated management representative(s).
- ☐ **Examined** selected SPIs and SPTs (focus: SPIs/SPTs are aligned with safety objectives and are being used to monitor operational performance).
- ☐ **Examined** selected records/documents that identify tracking of SPIs and SPTs (focus: tracking used to assess/monitor operational safety performance, assess/validate risk control effectiveness).
- ☐ **Other Actions** (Specify)

Guidance

Refer to Guidance Material of ORG 1.4.2A.

1.5 Resource Management

ORG 1.5.1–1.5.4 (Intentionally open)

ORG 1.5.5 The Operator shall have a policy that addresses the use of psychoactive substances by personnel that perform operational functions and, as a minimum:

(i) Prohibits the exercise of duties while under the influence of psychoactive substances;

(ii) Prohibits the problematic use of psychoactive substances;

(iii) Requires that all personnel who are identified as engaging in any kind of problematic use of psychoactive substances are removed from operational functions;

(iv) Conforms to the requirements of the Authority, if applicable. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** policy that addresses use of psychoactive substances by operational personnel.
- ☐ **Interviewed** responsible manager(s).
- ☐ **Interviewed** operational personnel (focus: familiarity with psychoactive substance policy).
- ☐ **Other Actions** (Specify)

Guidance

Refer to the IRM for the definitions of Biochemical Testing, Psychoactive Substance and Problematic Use of Substances.

Personnel that perform operational safety and security functions as specified in this provision refers to persons in all operational disciplines who perform a function that, if performed improperly, could endanger the safety of aircraft operations. This includes operational personnel in all areas (flight crew, cabin crew, flight dispatch personnel (FOO/FOA), maintenance, ground handling, cargo, security).

Operators subject to laws or regulations of the State that preclude the publication of a psychoactive substance prohibition policy as specified in this provision may demonstrate an equivalent method of ensuring that personnel engaging in any kind of problematic use of psychoactive substance abuse do not exercise their duties and are removed from safety-critical functions.

Re-instatement to safety-critical duties could be possible after cessation of the problematic use and upon determination that continued performance of such duties is unlikely to jeopardize safety.

Examples of other subjects that might be addressed in a comprehensive and proactive policy include:

- Education regarding the use of psychoactive substances;
- Identification, treatment and rehabilitation;
- Employment consequences of problematic use of psychoactive substances;
- Biochemical testing;
- Requirements of ICAO and the Authority.

Additional guidance may be found in the ICAO Manual on Prevention of Problematic use of Substances in the Aviation Workplace (Doc 9654-AN/945).

1.6 Outsourcing Management

ORG 1.6.1 (Intentionally open)

ORG 1.6.2 The Operator shall have processes to ensure a contract or agreement is executed with external service providers that conduct outsourced operational functions for the Operator. Such contract or agreement shall identify specific documented requirements that can be monitored by the Operator to ensure the safety and/or security of operations are being fulfilled by the service provider. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** processes for contract/agreement production/execution with external service providers that conduct outsourced operations, maintenance and/or security functions.
- ☐ **Interviewed** responsible manager(s).
- ☐ **Examined** selected contracts/agreements to verify measurable specifications.
- ☐ **Coordinated** to verify implementation of service provider contract/agreement processes in applicable operational areas.
- ☐ **Other Actions** (Specify)

Guidance

Refer to the IRM for the definitions of Outsourcing and Service Level Agreement.

An operator would always retain full responsibility for ensuring an outsourced function is performed properly by an external provider, even if such provider is the parent organization or an affiliate of the operator.

A contract or agreement is necessary to ensure details of the outsourced functions to be performed by the external service provider are formally documented. The contract or agreement not only sets forth the services the provider is expected to perform, but also describes the application of specific performance indicators or targets (i.e. measurable specifications) that will be monitored (by the operator) in the provider's performance of those services.

Examples of specific documented requirements could include the following:

- Processes or procedures from the operator’s own documentation system (e.g. operational manuals, working instructions) that can be included in the contract by reference.
- Infrastructure, resource or certification requirements (e.g. number of personnel, certification standards for equipment, support equipment standards).
- SPIs that specify a maximum number of occurrences or deviations), which could be based on the operator’s own SPIs in accordance with ORG 1.4.2.

The structure of contracts or agreements will vary with individual operators and, depending on such structure, defined measurable specifications may or may not be contained in any of the contractual documents. When the measurable specifications are not contained in the contract, they may be defined (in technical terms) in a controlled document that is part of the operator's documentation system, and then conveyed to the provider (perhaps periodically) in a manner that ensures understanding.

Note: *For the purpose of this provision, the contract or agreement as specified above may comprise multiple parts, including the basic document that sets forth legal and commercial terms, and, as applicable, other associated documents that state terms or conditions of service (e.g. appendices, addenda, service level agreement).*

1.7 Emergency Response

ORG 1.7.1 The Operator shall have a corporate emergency response plan (ERP) for the central management and coordination of all activities should it be necessary to respond to a major aircraft accident or other type of adverse event that results in fatalities, serious injuries, considerable damage and/or a significant disruption of operations. **[SMS] (GM)**

Auditor Actions

- ☐ **Identified/Assessed** corporate emergency response plan (ERP).
- ☐ **Interviewed** designated ERP manager.
- ☐ **Crosschecked** to verify implementation of ERP in all operational areas.
- ☐ **Other Actions** (Specify)

Guidance

Refer to the IRM for the definition of Emergency Response Plan (ERP).

Emergency response planning is an element of the Safety Policy and Objectives component of the SMS framework.

An emergency (or crisis) response plan is based upon an assessment of risk appropriate to the size and type of operations, and includes consideration of a major aircraft accident and other potential aircraft and/or non-aircraft events that would require a full corporate emergency response.

In some states, emergency or crisis response is assumed by a governmental authority rather than by the operator. In such case, an emergency response plan focuses on and addresses interaction with and/or participation in the governmental response to an emergency or crisis.

As a best practice, an operator might consider defining in its ERP an appropriately coordinated response to a public health emergency.

An effective ERP includes industry best practices and ensure community expectations are addressed. Additionally, an ERP:

- Specifies general conditions for implementation;
- Provides a framework for an orderly implementation;
- Ensures proper coordination with external entities at all potential locations;
- Addresses all potential aspects of an event, including casualties;
- Ensures regulatory requirements associated with specific events are satisfied;
- Provides a scenario for the transition back to normal operations;
- Ensures regular practice exercises as a means to achieve continual improvement.

IATA provides a guide for use by operators in addressing a public health emergency. Such document, titled Emergency Response Plan and Action Checklist, may be found at http://www.iata.org/whatwedo/safety/health/Pages/diseases.aspx.

ORG 1.7.2–1.7.3 (Intentionally open)

ORG 1.7.4A The Operator shall ensure the ERP as specified in ORG 1.7.1 includes provisions for the appropriate coordination with the emergency response plans of other applicable organizations relevant to the particular event or crisis. **[SMS] (GM)**

Note: *This provision is only applicable for ISSA registration renewal assessments.*

Auditor Actions

- ☐ **Identified/Assessed** ERP process for normal-emergency and emergency-normal transitions.
- ☐ **Identified/Assessed** ERP process for normal-emergency and emergency-normal transitions.

- ☐ **Interviewed** designated ERP manager.
- ☐ **Other Actions** (Specify)

Guidance

ERP transition and reporting is an element of the Safety Policy and Objectives component of the SMS framework.

An ERP typically defines:

- Coordination procedures for action by key personnel;
- External entities that will interact with the organization during emergency situations;
- ERPs of external entities that will require coordination;
- Method(s) of establishing coordination with external ERPs.

Expanded guidance may be found in the ICAO SMM, Document 9859.

ORG 1.7.4B The Operator *should* ensure the ERP as specified in ORG 1.7.1 includes provisions for the appropriate coordination with the emergency response plans of other applicable organizations relevant to the particular event or crisis. **[SMS] (GM)**

Note: *This provision is only applicable for initial ISSA assessments.*

Auditor Actions

- ☐ **Identified/Assessed** ERP process for normal-emergency and emergency-normal transitions.
- ☐ **Identified/Assessed** ERP process for normal-emergency and emergency-normal transitions.
- ☐ **Interviewed** designated ERP manager.
- ☐ **Other Actions** (Specify)

Guidance

Refer to Guidance Material of ORG 1.7.4A.

2 Assurance, Monitoring and Documentation Control

2.1 Quality Assurance

ORG 2.1.1 The Operator shall have a quality assurance program that provides for the auditing and evaluation of the management system, and of operations and maintenance functions, to ensure the organization is:

(i) Complying with applicable regulations and standards of the Operator;
(ii) Satisfying stated operational needs;
(iii) Identifying areas requiring improvement;
(iv) Identifying hazards to operations.
(v) Assessing the effectiveness of safety risk controls. **[SMS] (GM)**

Note: *If the quality assurance audit function is performed by an external organization, the Operator, as the AOC holder, shall be responsible for ensuring the quality assurance program is in conformity with the specifications of this provision.*

Auditor Actions

- ☐ **Identified/Assessed** role/organization/structure of quality assurance program.
- ☐ **Interviewed** quality assurance program manager.
- ☐ **Examined** audit program objectives and procedures.
- ☐ **Examined** examples of management/operational areas identified as requiring improvement.
- ☐ **Examined** method(s) used for processing hazards identified through quality assurance audits.
- ☐ **Assessed** implementation of QA audit program in all operational areas.
- ☐ **Other Actions** (Specify)

Guidance

Refer to the IRM for the definition of Quality Assurance.

The quality assurance program comprises two complementary functions: To monitor an operator's compliance with relevant regulations and standards, as well as to evaluate and continually improve operational safety performance. Such functions are elements of the Safety Assurance component of the SMS framework.

In some organizations the quality assurance program may have a different name (e.g. internal audit program, internal evaluation program).

In certain circumstances, an operator may have the quality assurance audit function performed by an external organization. This typically occurs when the operator is affiliated with one or more other organizations in a Group Company. However, an operator might also choose to simply outsource the quality assurance audit function to a qualified external service provider that is not part of or associated with a Group Company. In both cases, the operator, as the AOC holder, has the ultimate responsibility for ensuring the quality assurance program meets the needs of its organization in accordance with the specifications of this standard. A robust program ensures a scope of auditing that encompasses all areas of the organization that impact operational quality in terms of safety and/or security Operational functions include flight operations, operational control/flight dispatch, maintenance operations, cabin operations, ground handling and cargo operations.

This provision is designed to permit flexibility in the implementation of the quality assurance program.

The structure and organization of the program within an operator's management system, whether centralized, non-centralized or a combination thereof, is at the discretion of the operator in accordance with its corporate culture and regulatory environment.

An effective audit program includes:

- Audit initiation, including scope and objectives;
- Planning and preparation, including audit plan and checklist development;
- Observation and gathering of evidence to assess documentation and implementation;
- Analysis, findings, actions;
- Reporting and audit summary;
- Follow-up and close out.

To ensure auditors gather sufficient evidence to produce realistic assessments during an audit, the program typically includes guidance that defines the various sampling techniques that are expected to be used by auditors in the evidence collection phase of the audit.

The audit process typically includes a means whereby the auditor and responsible personnel from the audited area have a comprehensive discussion and reach agreement on the findings and corresponding corrective actions. Clear procedures are established to resolve any disagreement between the auditor and audited area.

All action items require follow-up to ensure closeout within an appropriate period of time.

ORG 2.1.2 The Operator shall have a designated manager with appropriate qualifications, authority and independence that is responsible for:

(i) The performance of the quality assurance program;

(ii) Ensuring communication and coordination with operational managers in the management of operational risk;

(iii) Dissemination of information to management and non-management operational personnel as appropriate to ensure an organizational awareness of relevant quality assurance issues and results. **(GM)**

Note: *If the Operator outsources operational functions to an external service provider, the use of the external service provider's quality assurance program manager for the purpose of conforming to the specifications of this provision shall be considered a conflict of interest, unless the Operator and the external service provider are both affiliates within the same Group Company.*

Auditor Actions

- ☐ **Identified** quality assurance program manager.
- ☐ **Examined** job description of quality assurance program manager (background/duties/responsibilities).
- ☐ **Interviewed** quality assurance program manager.
- ☐ **Other Actions** (Specify)

Guidance

Refer to the IRM for the definition of Quality Assurance Manager.

The designated manager (or multiple managers if an operator does not have a centralized program) is appointed to oversee the implementation of the activities and processes associated with the quality assurance program.

The exact title of the manager(s) designated as responsible for the quality assurance program may vary depending on the organization.

Operational managers have direct responsibility for the safety and security of operations, and therefore always have the authority to develop and implement corrective action as necessary to address audit findings in their respective areas of operations.

The manager of the quality assurance program is “operationally independent” in a manner that ensures objectivity is not subject to bias due to conflicting responsibilities.

To be effective, an individual designated as manager of the quality assurance program has appropriate qualifications for the position, which may include:

- Formal training or certification as a quality auditor;
- Relevant operational and auditing experience;
- Formal training in risk management.

Quality assurance audit activities may be centrally controlled or controlled within each relevant operational function as long as independence is maintained.

Typically, the manager of the quality assurance program has direct lines of communication to senior management to ensure the efficient reporting of safety and security issues, and to ensure such issues are appropriately addressed.

An effective quality assurance program includes the dissemination of appropriate information for the purpose of maintaining an ongoing awareness of quality assurance results that might affect compliance, operational safety or security or identify opportunities for improvement. As an example, such information might include a summary of audit program results such as finding, causation, risk, error trends and opportunities for continuous improvement.

The method of dissemination is commensurate with the target audience and the size of the organization. Typical means could include periodic briefings or presentations, or the issuance of magazines, newsletters or bulletins in either an electronic or paper form.

In certain circumstances, an operator may have the quality assurance audit function performed by an external organization. In such cases, the operator will still ensure its quality assurance program has a manager in accordance with the specifications of this standard.

ORG 2.1.3–ORG 2.1.4 (Intentionally open)

ORG 2.1.5 The Operator shall have an audit planning process and sufficient resources to ensure audits are:

(i) Scheduled at intervals to meet regulatory and management system requirements;

(ii) Conducted within a specified time period. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** planning process quality assurance auditing of the organization (management/operations).

- ☐ **Identified/Assessed** resources (human and physical) allocated and available for quality assurance auditing.
- ☐ **Interviewed** quality assurance program manager.
- ☐ **Crosschecked** audit plan with selected audit reports to verify adherence to plan.
- ☐ **Assessed** implementation of the audit plan in all operational areas.
- ☐ **Other Actions** (Specify)

Guidance

The planning process produces a schedule of all audit modules to be conducted within the planning period (e.g., calendar year) and reflect the status of each audit module, to include the applicable audit interval (e.g., 12, 24, 36 months), the date of the previous audit and the scheduled due date for the next audit.

The planning process would typically include provisions for re-scheduling or deferral of audits in accordance with the operator's program limitations.

ORG 2.1.6 (Intentionally open)

ORG 2.1.7 The Operator shall have a process for addressing findings that result from audits conducted under the quality assurance program, which ensures:

(i) Identification of root cause(s);
(ii) Development of corrective action as appropriate to address findings;
(iii) Implementation of corrective action in appropriate operational area(s);
(iv) Evaluation of corrective action to determine effectiveness. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** process for addressing quality assurance audit findings.
- ☐ **Interviewed** quality assurance program manager.
- ☐ **Examined** selected audit reports (details of root cause analysis, closure of audit findings).
- ☐ **Examined** selected audit reports/records (details of corrective action implemented, evaluated for effectiveness).
- ☐ **Assessed** implementation/evaluation of corrective actions in all operational areas.
- ☐ **Other Actions** (Specify)

Guidance

Certain audit findings might fall under the category of hazards to operations. In such cases, the hazard would be subject to the risk assessment and mitigation process in the development of corrective action.

Refer to the IAH for information relevant to auditing under the quality assurance program.

ORG 2.1.8 The Operator shall ensure the quality assurance program uses auditors that are impartial and functionally independent from the operational activities to be audited. **(GM)**

Note: *If the Operator outsources operational functions to an external service provider and uses auditing as the process to monitor the external service provider as specified in ORG 2.2.1, the use of the external service provider's auditors to perform such auditing shall be considered a conflict of interest, unless the Operator and the external service provider are both affiliates within the same Group Company.*

Auditor Actions

- ☐ **Identified/Assessed** selection and qualification criteria for quality assurance program auditors.
- ☐ **Interviewed** quality assurance program manager.
- ☐ **Crosschecked** selected audit reports to confirm auditors qualified for and independent from activities audited.

- ☐ **Interviewed** quality assurance auditor(s) to verify individual qualifications and functional independence
- ☐ **Other Actions**

Guidance

A quality assurance program is independent in a manner that permits the scheduling and conduct of audits as deemed appropriate for the size and scope of operations. Functional independence ensures auditors are not put in a position where their objectivity may be subject to bias due to conflicting responsibilities.

A code of conduct may be used to enhance the impartiality and independence of auditors. An effective auditor code of ethics would require auditors:

- To act in a strictly trustworthy and unbiased manner in relation to both the organization to which they are employed, contracted or otherwise formally engaged and any other organization involved in an audit performed by them or by personnel under their direct control;
- To disclose to their employer any relationship they may have with the organization to be audited before undertaking any audit function in respect of that organization;
- Not to accept any gift, commission, discount or any other profit from the organization audited, from their representatives, or from any other interested person nor knowingly allow personnel for whom they are responsible to do so;
- Not to disclose the findings, or any part of them, nor to disclose any other information gained in the course of the audit to any third party, unless authorized in writing by both the auditee and the audit organization, if applicable;
- Not to act in any way prejudicial to the reputation or interest of the audit organization; and
- In the event of any alleged breach of this code, to co-operate fully in any formal enquiry procedure.

An auditor may be considered functionally independent from the operational activities to be audited when he/she is not responsible for the activity being audited (at the time of the audit). For example, a flight crew member may audit line flight operations from the flight deck jump seat as an independent observer (supernumerary) but may not do so when functioning as part of the operating crew (or functioning as an augmenting crew member).

Refer to the IAH for information relevant to auditor qualification and independence.

2.2 External Monitoring

ORG 2.2.1 The Operator shall have processes to monitor external service providers that conduct outsourced operational functions for the Operator to ensure requirements that affect the safety and/or security of operations are being fulfilled. **(GM)**

Note: *IOSA, ISSA or ISAGO registration as the only means to monitor is acceptable provided the Operator obtains the latest of the applicable audit report(s) through official program channels and considers the content of such report(s).*

Auditor Actions

- ☐ **Identified/Assessed** processes for monitoring external service providers that conduct outsourced operational functions.
- ☐ **Interviewed** responsible manager(s).
- ☐ **Examined** selected records/reports resulting from monitoring of service providers (focus: monitoring process ensures provider is fulfilling applicable safety/security requirements).
- ☐ **Coordinated** to verify implementation of service provider monitoring in applicable operational areas.
- ☐ **Other Actions** (Specify)

Guidance

An operator has a responsibility to ensure outsourced operational functions are conducted in a manner that meets its own operational safety and security requirements. A monitoring process is necessary to satisfy that responsibility, and such process would be applicable to any external service provider that conducts outsourced operational functions, including the parent organization or a separate affiliate of the operator.

In some regulatory jurisdictions, there may be a regulatory control process that permits certain organizations to meet rigorous standards and become approved to conduct outsourced operations or maintenance for an operator. Such regulatory control process would be an acceptable means for meeting the specification of this provision if it can be demonstrated by the operator that the regulatory control process:

- Includes ongoing monitoring of the approved service providers;
- Such monitoring is sufficiently robust to ensure the approved service providers fulfill the operational requirements of the operator on a continuing basis.

Achieving and maintaining IOSA, ISSA and/or ISAGO registration is a way for an external service provider to demonstrate fulfillment of requirements that affect the safety and/or security of operations. Thus, an operator's process that requires such service providers to maintain IOSA, ISSA and/or ISAGO registration would be acceptable as a method of monitoring when such registration(s) is/are used in conjunction with a risk assessment of the provider.

To ensure effective monitoring, consideration is given to a range of internal and external methods for use in the oversight of external service providers. Methods might include auditing, systematic review and risk assessment of reported hazards and/or occurrences, monitoring of performance output (KPIs), reporting and governance processes; monitoring and analysis of targeted risk areas, as well as the establishment of an effective two-way communication link with the service provider.

Under certain circumstances, operational functions may be involuntarily removed from an operator and conducted by a governmental or quasi-governmental authority that is not under the control of the operator (e.g., passenger or baggage security screening at some airports). Under such circumstances, the operator would have a process to monitor output of the function being conducted by the authority to ascertain desired results are being achieved.

If an operator is part of a Group Company and has management and/or operational functions performed by an affiliate organization that is part of the same Group Company, an operator may demonstrate monitoring of the external organization by processes that ensure functions performed by the affiliate organization for the operator are:

- Subjected to auditing under the quality assurance program of the affiliate organization;
- Continually satisfying the needs of the operator.

2.3–2.4 (Intentionally Open)

2.5 Documentation System

ORG 2.5.1 The Operator shall have a system for the management and control of documentation and/or data used directly in the conduct or support of operations. Such system shall ensure documentation:

(i) Meets all required elements specified in Table 1.1;

(ii) Contains legible and accurate information;

(iii) Is presented in a format appropriate for use in operations. **(GM)**

Auditor Actions

☐ **Identified/Assessed** system(s) for management and control of operational documentation and data as specified in Table 1.1.

☐ **Interviewed** responsible management representative(s).

☐ **Examined** selected examples of documentation and data used in operations.

☐ **Interviewed** persons involved in the documentation management and control process.

Guidance

Refer to the IRM for the definition of Documentation and Electronic Documentation.

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.

Documentation received from external sources would include manuals and other types of relevant documents that contain material that is pertinent to the safety of operations conducted by the operator (e.g. regulations, operating standards, technical information and data).

An electronic system of document management and control is an acceptable means of conformance. Within such a system, document files are typically created, maintained, identified, revised, distributed, accessed, presented, retained and/or deleted using computer systems (e.g. a web-based system). Some systems specify immediate obsolescence for any information or data that is downloaded or otherwise extracted (e.g. printed on paper) from the electronic files.

Document control might include:

- Retention of a master copy;
- Examination and approval prior to issue;
- Review and update, to include an approval process;
- Version control (electronic documents);
- Identification of revision status;
- Identification and retention of revisions as history;
- Identification and retention of background or source references as history;
- Distribution to ensure appropriate availability at points of use;
- Checking of documents to verify they remain legible and readily identifiable;
- As required, identification, update, distribution and retention of documents of external origin;
- As applicable, identification and retention of obsolete documents;
- As applicable, disposal of documents.

Additionally, control of operational manuals might include:

- 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;
- Reference numbers for the content of the manual;
- A defined distribution method and identification of recipients;
- Identification of responsibility for authorizing the manual;
- A record of revisions, both temporary and permanent;
- A list of effective pages within the manual;
- Identification of revised content.

Each “loose” documented procedure that is not held within a manual typically includes:

- A title page that identifies the operational applicability and functionality;
- Identification of the date(s) of issue and date of effectiveness;
- Reference numbers for the content;
- A distribution list;
- Identification of responsibility for authorizing the document.

ORG 2.5.2–2.5.3 (Intentionally open)

ORG 2.5.4A The Operator shall have SMS documentation that includes:

(i) The safety policy and objectives;

(ii) SMS requirements;

(iii) SMS processes and procedures;

(iv) Accountability, authorities and responsibilities for SMS processes and procedures. **(GM) [SMS]**

Note 1: *An SMS manual may be in the form of a stand-alone document or may be integrated with other organizational documents (or documentation) maintained by the Operator.*

Note 2: *This provision is only applicable for ISSA registration renewal assessments.*

Auditor Actions

☐ **Identified/Assessed** management and control system for SMS documentation.

☐ **Interviewed** SMS manager and/or designated management representative(s).

☐ **Examined** SMS documentation.

☐ **Other Actions** (Specify)

Guidance

SMS documentation is an element of the Safety Policy and Objectives component of the SMS framework.

SMS documentation is typically scaled to the size and complexity of the organization, and describes both the corporate and operational areas of safety management to show continuity of the SMS throughout the organization. Typical documentation would include a description of management positions and associated accountabilities, authorities, and responsibilities within the SMS.

To ensure personnel throughout the organization are informed, SMS documentation includes a description of the operator's approach to safety management. Such descriptive information would be contained in a manual and presented in a manner that ensures the SMS information is clearly identifiable. The exact title and structure of such manual will vary with each operator.

Depending on the size, structure and scope of an operator's organization, as well as the complexity of its operations, SMS documentation may be in the form of stand-alone documents or may be integrated into other organizational documents. Requirements for SMS documentation will vary according to the individual state safety program (SSP).

SMS documentation typically addresses:

- Scope of the SMS;
- Safety policy and objectives;
- Safety accountabilities;
- Key safety personnel;
- Documentation control procedures;
- Coordination of emergency response planning;
- Hazard identification and risk management schemes;
- Safety assurance;
- Safety performance monitoring;
- Safety auditing (safety and quality auditing may be combined);
- Management of change;
- Safety promotion;
- Outsourced services.

Expanded guidance may be found in the ICAO SMM, Document 9859.

ORG 2.5.4B The Operator *should* have SMS documentation that includes:

(i) The safety policy and objectives;

(ii) SMS requirements;

(iii) SMS processes and procedures;

(iv) Accountability, authorities and responsibilities for SMS processes and procedures. **(GM) [SMS]**

Note 1: *An SMS manual may be in the form of a stand-alone document or may be integrated with other organizational documents (or documentation) maintained by the Operator.*

Note 2: *This provision is only applicable for initial ISSA assessments.*

Auditor Actions

☐ **Identified/Assessed** management and control system for SMS documentation.

☐ **Interviewed** SMS manager and/or designated management representative(s).

☐ **Examined** SMS documentation.

☐ **Other Actions** (Specify)

Guidance

Refer to Guidance Material of ORG 2.5.4A.

2.6 Records System

ORG 2.6.1 The Operator shall have a system for the management and control of operational records to ensure the content and retention of such records is in accordance with requirements of the Authority, as applicable, and to ensure operational records are subjected to standardized processes for:

(i) Identification;

(ii) Legibility;

(iii) Maintenance;

(iv) Retrieval;

(v) Protection and security;

(vi) Disposal, deletion (electronic records) and archiving. **(GM)**

Note: *The operational records system specified in this standard shall also include the management and control of SMS operational records.*

Auditor Actions

☐ **Identified/Assessed** management and control system for operational records.

☐ **Interviewed** responsible management representative(s).

☐ **Examined** selected examples of operational records.

☐ **Other Actions** (Specify)

Guidance

The system addresses the management and control of all records associated with operations, which includes personnel training records, and also includes any other records that document the fulfillment of operational requirements (e.g. aircraft maintenance, operational control, operational security).

SMS operational records substantiate the ongoing operation of the operator's SMS and may be managed and controlled within either a centralized or standalone records system. SMS operational records typically include or provide a record of the following:

- Hazards register and hazard/safety reports;
- Safety performance indicators (SPIs) and related charts;
- Completed safety risk assessments;

- SMS internal reviews or audits;
- SMS/safety training;
- SMS/safety committee meeting minutes.

3 Risk Management

3.1 Hazard Identification

ORG 3.1.1A The Operator shall have a hazard identification program that is implemented and integrated throughout the organization, to include:

(i) A combination of reactive and proactive methods for safety data collection;

(ii) Processes for safety data analysis that identify existing hazards and predict future hazards to aircraft operations. **[SMS] (GM)**

Note: *This provision is only applicable for ISSA registration renewal assessments.*

Auditor Actions

- ☐ **Identified/Assessed** organizational safety hazard identification program.
- ☐ **Identified/Assessed** method(s) of safety data collection used for hazard identification.
- ☐ **Identified/Assessed** method(s) of safety data analysis used for hazard identification.
- ☐ **Identified/Assessed** process that ensures an organization-wide, cross-discipline integration of the safety hazard identification program.
- ☐ **Interviewed** SMS manager and/or designated management representative(s).
- ☐ **Examined** records/documents that illustrate the integration of the hazard identification program across all disciplines throughout the organization.
- ☐ **Examined** selected examples of hazards to aircraft operations that have been identified through data collection and analysis.
- ☐ **Other Actions** (Specify)

Guidance

Refer to the IRM for the definitions of Hazard (Aircraft Operations) and Safety Risk.

Hazard identification is an element of the Safety Risk Management component of the SMS framework.

The methods used to identify hazards will typically depend on the resources and constraints of each particular organization. Some organizations might deploy comprehensive, technology-intensive hazard identification processes, while organizations with smaller, less complex operations might implement more modest hazard identification processes. Regardless of organizational size or complexity, to ensure all hazards are identified to the extent possible, hazard identification processes are necessarily formalized, coordinated and consistently applied on an on-going basis in all areas of the organization where there is a potential for hazards that could affect aircraft operations.

To be effective, reactive and proactive processes are used to acquire information and data, which are then analyzed to identify existing or predict future (i.e. potential) hazards to aircraft operations.

Examples of processes that typically yield information or data for hazard identification include the list below, in parenthesis the general type of process, although many can be used both reactively and proactively:

- Confidential or other reporting by personnel (proactive);
- Investigation of accidents, incidents, irregularities and other non-normal events (reactive);
- Flight data analysis (proactive);
- Observation of flight crew performance in line operations and training (proactive);
- Quality assurance and/or safety auditing (proactive);
- Safety information gathering or exchange (external sources).

Processes would be designed to identify hazards that might be associated with organizational business changes (e.g. addition of new routes or destinations, acquisition of new aircraft type(s), the introduction of significant outsourcing of operational functions).

Typically hazards are assigned a tracking number and recorded in a log or database. Each log or database entry would normally include a description of the hazard, as well as other information necessary to track associated risk assessment and mitigation activities.

Expanded guidance may be found in the ICAO SMM, Document 9859.

ORG 3.1.1B The Operator *should* have a hazard identification program that is implemented and integrated throughout the organization, to include:

(i) A combination of reactive and proactive methods for safety data collection;

(ii) Processes for safety data analysis that identify existing hazards and predict future hazards to aircraft operations. **[SMS] (GM)**

Note: *This provision is only applicable for initial ISSA assessments.*

Auditor Actions

- ☐ **Identified/Assessed** organizational safety hazard identification program.
- ☐ **Identified/Assessed** method(s) of safety data collection used for hazard identification.
- ☐ **Identified/Assessed** method(s) of safety data analysis used for hazard identification.
- ☐ **Identified/Assessed** process that ensures an organization-wide, cross-discipline integration of the safety hazard identification program.
- ☐ **Interviewed** SMS manager and/or designated management representative(s).
- ☐ **Examined** records/documents that illustrate the integration of the hazard identification program across all disciplines throughout the organization.
- ☐ **Examined** selected examples of hazards to aircraft operations that have been identified through data collection and analysis.
- ☐ **Other Actions** (Specify)

Guidance

Refer to Guidance Material of ORG 3.1.1A.

ORG 3.1.2 The Operator shall have an operational safety reporting system that is implemented throughout the organization in a manner that:

(i) Encourages and facilitates personnel to submit reports that identify safety hazards, expose safety deficiencies and raise safety concerns;

(ii) Ensures mandatory reporting in accordance with applicable regulations;

(iii) Includes analysis and management action as necessary to address safety issues identified through the reporting system. **[SMS] (GM)**

Auditor Actions

- ☐ **Identified/Assessed** organizational operational safety reporting system.
- ☐ **Interviewed** SMS manager and/or designated management representative(s).
- ☐ **Examined** selected records/reports that track safety reporting by operational personnel throughout the organization.
- ☐ **Other Actions** (Specify)

Guidance

Safety reporting id a key aspect of SMS hazard identification and risk management.

Frontline personnel, such as flight or cabin crew members and maintenance technicians, are exposed to hazards and face challenging situations as part of their everyday activities. An operational reporting system provides such personnel with a means to report these hazards or any other safety concerns so they may be brought to the attention of relevant managers.

To build confidence in the reporting process and encourage more reporting, an acknowledgement of receipt is typically provided to each person that submits a report.

An effective system provides for a review and analysis of each report to determine whether a real safety issue exists, and if so, ensure development and implementation of appropriate action by responsible management to correct the situation.

Expanded guidance may be found in the ICAO SMM, Document 9859.

ORG 3.1.3–ORG 3.1.4 (Intentionally open)

△ **ORG 3.1.5A** The Operator shall have a process to identify changes within or external to the organization that have the potential to affect the level of safety risks associated with aircraft operations, and to manage risks that may arise from or are affected by such changes in accordance with ORG 3.1.1 and ORG 3.1.2 **[SMS] (GM)**

Note: *This provision is only applicable for ISSA registration renewal assessments.*

Auditor Actions

- ☐ **Identified/Assessed** organizational change management process (focus: process identifies/assesses internal/external changes to determine operational safety risk).
- ☐ **Interviewed** SMS manager and/or designated management representative(s).
- ☐ **Examined** selected records/documents that show processing of internal/external changes (focus: assessment of changes to determine safety risk; actions taken to implement/revise new/existing risk controls).
- ☐ **Coordinated** to verify implementation of change management process in all operational areas.
- ☐ **Other Actions** (Specify)

Guidance

Refer to the IRM for the definition of Change Management.

Change management is an element of the Safety Assurance component of the SMS framework and is considered a proactive hazard identification activity in an SMS.

Safety risk management requires an operator to have a formal process to identify hazards that may affect aircraft operations. Hazards may exist in ongoing aircraft operations or be inadvertently introduced whenever internal or external changes occur that could affect aircraft operations. In such cases, hazard identification as specified in ORG 3.1.1 and safety risk assessment and mitigation as specified in ORG 3.1.2 (both are repeated in other ISM sections) are integral elements of an operator's change management process.

A change management process is normally designed to ensure risk management is applied to any internal or external change that has the potential to affect an operator's established operational processes, procedures, products, equipment and services.

The change management process typically takes into account the following three considerations:

- *Criticality*. Criticality assessments determine the systems, equipment or activities that are essential to the safe operation of aircraft. While criticality is normally assessed during the system design process, it is also relevant during a situation of change. Systems, equipment and activities that have higher safety criticality are reviewed following change to make sure that corrective actions can be taken to control potentially emerging safety risks.
- *Stability of systems and operational environments*. Changes might be planned and under the direct control of the operator. Examples of such changes include organizational growth or contraction, the expansion of products or services delivered, or the introduction of new

technologies. Changes might also be unplanned and external to the operator, such as changing economic cycles, labor unrest and changes to the political, regulatory or operating environments.

- *Past performance*. Past performance of critical systems and trend analyses in the safety assurance process is typically employed to anticipate and monitor safety performance under situations of change. The monitoring of past performance will also assure the effectiveness of corrective actions taken to address safety deficiencies identified as a result of audits, evaluations, investigations or reports.

Expanded guidance may be found in the ICAO SMM, Document 9859.

☐ **ORG 3.1.5B** The Operator *should* have a process to identify changes within or external to the organization that have the potential to affect the level of safety risks associated with aircraft operations, and to manage risks that may arise from or are affected by such changes in accordance with ORG 3.1.1 and ORG 3.1.2 **[SMS] (GM)**

Note: *This provision is only applicable for initial ISSA assessments.*

Auditor Actions

- ☐ **Identified/Assessed** organizational change management process (focus: process identifies/assesses internal/external changes to determine operational safety risk).
- ☐ **Interviewed** SMS manager and/or designated management representative(s).
- ☐ **Examined** selected records/documents that show processing of internal/external changes (focus: assessment of changes to determine safety risk; actions taken to implement/revise new/existing risk controls).
- ☐ **Coordinated** to verify implementation of change management process in all operational areas.
- ☐ **Other Actions** (Specify)

☐ **Guidance**

Refer to Guidance Material of ORG 3.1.5A.

3.2 Risk Assessment and Mitigation

ORG 3.2.1A The Operator shall have a safety risk assessment and mitigation program that includes processes implemented and integrated throughout the organization to ensure:

(i) Hazards are analyzed to determine corresponding safety risks to aircraft operations;

(ii) Safety risks are assessed to determine the requirement for risk mitigation action(s);

(iii) When required, risk mitigation actions are developed and implemented in operations. **[SMS] (GM)**

Note: *This provision is only applicable for ISSA registration renewal assessments.*

Auditor Actions

- ☐ **Identified/Assessed** organizational safety risk assessment and mitigation program.
- ☐ **Identified/Assessed** process that ensures an organization-wide, cross-discipline integration of the safety risk assessment and mitigation program.
- ☐ **Interviewed** SMS manager and/or designated management representative(s).
- ☐ **Examined** records/documents that illustrate the integration of the risk assessment and mitigation program throughout the organization.
- ☐ **Examined** selected records/documents that provide examples of risk assessment and resulting risk mitigation action(s).
- ☐ **Other Actions** (Specify)

Guidance

Refer to IRM for the definition of Safety Risk Assessment (SRA).

Risk assessment and mitigation is an element of the Safety Risk Management component of the SMS framework.

To be completely effective, a risk assessment and mitigation program would typically be implemented in a manner that:

- Is active in all areas of the organization where there is a potential for hazards that could affect aircraft operations;
- Has some form of central coordination to ensure all existing or potential hazards that have been identified are subjected to risk assessment and, if applicable, mitigation.

The safety risks associated with an identified existing or potential hazard are assessed in the context of the potentially damaging consequences related to the hazard. Safety risks are generally expressed in two components:

- Likelihood of an occurrence;
- Severity of the consequence of an occurrence.

Typically, matrices that quantify safety risk acceptance levels are developed to ensure standardization and consistency in the risk assessment process. Separate matrices with different risk acceptance criteria are sometimes utilized to address long-term versus short-term operations.

A risk register is often employed for the purpose of documenting risk assessment information and monitoring risk mitigation (control) actions.

Expanded guidance may be found in the ICAO SMM, Document 9859.

ORG 3.2.1B The Operator *should* have a safety risk assessment and mitigation program that includes processes implemented and integrated throughout the organization to ensure:

(i) Hazards are analyzed to determine corresponding safety risks to aircraft operations;

(ii) Safety risks are assessed to determine the requirement for risk mitigation action(s);

(iii) When required, risk mitigation actions are developed and implemented in operations. **[SMS] (GM)**

Note: *This provision is only applicable for initial ISSA assessments.*

Auditor Actions

- ☐ **Identified/Assessed** organizational safety risk assessment and mitigation program.
- ☐ **Identified/Assessed** process that ensures an organization-wide, cross-discipline integration of the safety risk assessment and mitigation program.
- ☐ **Interviewed** SMS manager and/or designated management representative(s).
- ☐ **Examined** records/documents that illustrate the integration of the risk assessment and mitigation program throughout the organization.
- ☐ **Examined** selected records/documents that provide examples of risk assessment and resulting risk mitigation action(s).
- ☐ **Other Actions** (Specify)

Guidance

Refer to Guidance Material of ORG 3.2.1A.

3.3 Flight Data Analysis

ORG 3.3.1 The Operator shall have a flight data analysis program that provides for the identification of hazards and the analysis of information and data associated with aircraft operations, to include:

(i) Implementation of systematic processes for identifying and analyzing hazards and potentially hazardous conditions;

(ii) Production of relevant analytical information and data for use by operational managers in the prevention of accidents and incidents. **[SMS] (GM)**

Auditor Actions

- ☐ **Identified/Assessed** role/organization/structure of flight safety analysis program.
- ☐ **Interviewed** SMS manager and/or designated management representative(s).
- ☐ **Interviewed** flight safety analysis program manager.
- ☐ **Interviewed** selected operational managers.
- ☐ **Examined** examples of hazards identified under the flight safety analysis program.
- ☐ **Examined** examples of information/data provided to operational managers for use in the management of safety risk.
- ☐ **Other Actions** (Specify)

Guidance

Refer to the IRM for the definition of Flight Safety Analysis Program.

A primary function of a flight safety analysis program is hazard identification, which is an element of the Safety Risk Management component of the SMS framework.

In many organizations the flight safety analysis program is typically known as the flight safety program.

The flight safety analysis program primarily provides operational hazard identification and data analysis services for use by operational managers.

For some operators the flight data analysis program is part of an independent corporate safety structure, which typically has a direct line of reporting to senior management. This type of structure allows an effective and fully integrated system of prevention and safety across all relevant operational disciplines of the organization.

Other operators choose to have a flight data analysis program reside within an operational unit (e.g., flight operations). In this type of system, to ensure objectivity in addressing safety matters and independence from frontline operational managers, the program manager would not only have a direct reporting line to the head of that operational unit, but also an indirect reporting line to senior management.

Documentation of the program typically includes a description of the structure, individual responsibilities, available resources and core processes associated with the program.

ORG 3.3.2 If the Operator conducts flights with aircraft of a maximum certified takeoff mass in excess of 27,000 kg (59,525 lb), the Operator shall have a flight data analysis (FDA) program applicable to such aircraft that is non-punitive and contains adequate safeguards to protect data sources. The FDA program shall include *either*:

(i) A systematic download and analysis of electronically recorded aircraft flight data, *or*

(ii) A systematic acquisition, correlation and analysis of flight information derived from a combination of some or all of the following sources:

(a) Aircraft flight data recorder (FDR) readouts;

(b) Confidential flight and cabin crew operational safety reports;

(c) Flight and cabin crew interviews;

(d) Quality assurance findings;

(e) Flight and cabin crew evaluation reports;

(f) Aircraft engineering and maintenance reports. **[SMS] (GM)**

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Auditor Actions

- ☐ **Identified/Assessed** flight data analysis (FDA) program (focus: download/analysis of recorded flight data; defined criteria for non-discipline; identification of existing/potential flight safety hazards; production of recommendations to mitigate risk).
- ☐ **Interviewed** responsible manager(s).
- ☐ **Interviewed** FDA analyst(s)

- ☐ **Observed** FDA resources and activities.
- ☐ **Examined** selected FDA program data/reports (focus: analysis of data; identification of flight safety hazards; recommendations to mitigate risk).
- ☐ **Crosschecked** to verify sources of FDA information in applicable operational areas.
- ☐ **Other Actions** (Specify)

Guidance

Refer to the IRM for the definition of Flight Data Analysis (FDA) Program.

Flight data analysis is considered a *reactive* and *proactive* hazard identification activity in an SMS.

A primary purpose of an FDA program is hazard identification, which is an element of the Safety Risk Management component of the SMS framework.

The systematic download and analysis of recorded flight data has been used by international airlines for many years to identify hazards, evaluate the operational environment, validate operating criteria and establish training effectiveness.

As a minimum, an acceptable program for the analysis of recorded aircraft flight data includes the following elements:

- A manager and staff of flight operations experts, commensurate with the size of the operation, to provide verification and analysis of the data collected from the aircraft fleet under the operator's program;
- Aircraft designated within the operator's fleet that provide downloadable flight data from onboard recording systems, such as the flight data recorder (FDR) or quick access recorder (QAR);
- A system for downloading and transferring recorded data from the aircraft to a data analysis system;
- A data analysis system that transforms raw digital data into a usable form of information that can then be verified, processed, categorized and analyzed by flight operations experts for flight safety purposes;
- A process for applying the output from flight data analysis to the management of risk and assessment of flight operations performance;
- A process for management of the data, to include security and retention.

All or certain of the elements could be outsourced to an external party; however, the operator would retain overall responsibility for the maintenance of the program.

The most comprehensive approach to flight data analysis would be a program that includes not only systematic download and analysis of electronically recorded aircraft flight data (as described above), but also acquisition, correlation and analysis of flight information derived from other sources (as described below).

Further guidance may be found in the following source documents:

- CAO Doc 9859, Safety Management Manual, and ICAO Doc 10000, Manual on Flight Data Analysis Programmes (FDAP).
- CASA CAAP SMS-4(0), Guidance on the establishment of a Flight Data Analysis Program (FDAP)–Safety Management Systems (SMS).
- FAA Advisor Circular AC No: 120-82, Flight Operational Quality Assurance.
- UK CAA CAP 739, Flight Data Monitoring.

If an operator does not have a process for the regular download and analysis of recorded flight data, then as an alternative the operator may have a systematic process for acquiring and correlating flight information from other sources that can be analyzed to identify hazards or potential hazards to flight.

Useful information can be derived from external sources to supplement flight data derived internally. Other such sources include:

- Regulatory authorities;
- Investigative bodies;

- Safety organizations;
- Manufacturers;
- Other operators.

Flight information is analyzed collectively to identify hazards, system weaknesses, process breakdowns, regulatory violations and other trends or conditions that could potentially lead to accidents or serious incidents. The process includes a method of risk analysis and prioritization to enable the development and implementation of effective corrective or preventive action.

3.4 (Intentionally Open)

3.5 Occurrence Handling

ORG 3.5.1 The Operator shall have a process for the investigation of aircraft accidents and incidents, to include reporting of events in accordance with requirements of the State. **[SMS] (GM)**

Auditor Actions

- ☐ **Identified/Assessed** accident investigation process, to include compliance with reporting requirements.
- ☐ **Interviewed** responsible manager(s).
- ☐ **Examined** selected accident and incident reports.
- ☐ **Other Actions** (Specify)

Guidance

Accident and incident investigation is considered a *reactive* hazard identification activity in an SMS.

A primary purpose of accident and incident investigation is hazard identification, which is an element of the Safety Risk Management component of the SMS framework.

Investigations typically result in a report that describes the factors that contributed to the event, which is then made available to responsible senior operational managers to permit them to evaluate and implement appropriate corrective or preventive action.

An effective investigation process typically includes:

- Qualified personnel to conduct investigations (commensurate with operation size);
- Procedures for the conduct of investigations;
- A process for reporting investigative results;
- A system for implementing any corrective or preventive action;
- An interface with relevant external investigative authorities (when applicable);
- A process for the dissemination of information derived from investigations.

To ensure awareness among operational personnel, information derived from investigations is disseminated to relevant areas throughout the organization.

In the event of a major accident, an operator responds to and possibly participates in an investigation in accordance with provisions contained in ICAO Annex 13. Such capability requires an operator to maintain an ongoing interface with relevant investigative authorities to ensure preparedness in the event a major accident occurs.

Expanded guidance may be found in the ICAO SMM, Document 9859.

ORG 3.5.2A The Operator shall have a process for identifying and investigating irregularities and other non-routine operational occurrences that might be precursors to an aircraft accident or incident. **[SMS] (GM)**

Note: *This provision is only applicable for ISSA registration renewal assessments.*

Auditor Actions

- ☐ **Identified/Assessed** process for identification/investigation of irregularities/non-routine occurrences (focus: process output includes final report with recommendations).

- ☐ **Interviewed** responsible manager(s).
- ☐ **Examined** selected irregularity/non-routine occurrence reports (focus: process identifies operational safety hazards, produces recommendations to mitigate risk).
- ☐ **Other Actions** (Specify)

Guidance

Investigation of operational irregularities is considered a *reactive* hazard identification activity in an SMS.

A primary purpose of investigating non-routine operational occurrences is hazard identification, which is an element of the Safety Risk Management component of the SMS framework.

The investigation of irregularities or non-routine occurrences is a hazard identification activity. Minor events, irregularities and occurrences occur often during normal operations, many times without noticeable consequences. Identifying and investigating certain irregular operational occurrences can reveal system weaknesses or deficiencies that, if left un-checked, could eventually lead to an accident or serious incident. These types of events are referred to as accident*precursors*.

A process to monitor operations on a regular basis permits the identification and capture of information associated with internal activities and events that could be considered precursors. Such events are then investigated to identify undesirable trends and determine contributory factors.

The monitoring process is typically not limited to occurrences, but also includes a regular review of operational threats and errors that have manifested during normal operations. Monitoring of normal operations can produce data that further serve to identify operational weaknesses and, in turn, assist the organization in developing system solutions.

As with the investigation of accidents and serious incidents, the investigation of minor internal occurrences results in a report that is communicated to relevant operational managers for analysis and the possible development of corrective or preventive action.

Expanded guidance may be found in the ICAO SMM, Document 9859.

ORG 3.5.2B The Operator *should* have a process for identifying and investigating irregularities and other non-routine operational occurrences that might be precursors to an aircraft accident or incident. **[SMS] (GM)**

Note: *This provision is only applicable for initial ISSA assessments.*

Auditor Actions

- ☐ **Identified/Assessed** process for identification/investigation of irregularities/non-routine occurrences (focus: process output includes final report with recommendations).
- ☐ **Interviewed** responsible manager(s).
- ☐ **Examined** selected irregularity/non-routine occurrence reports (focus: process identifies operational safety hazards, produces recommendations to mitigate risk).
- ☐ **Other Actions** (Specify)

Guidance

Refer to Guidance Material of ORG 3.5.2A.

4 Improvement, Promotion and Training

4.1 Management Review

ORG 4.1.1 The Operator shall ensure the management system is reviewed at intervals not exceeding one year to ensure its continuing suitability, adequacy and effectiveness in the management and control of operations and associated risks. The review shall include assessing opportunities for improvement and the need for changes to the system, including, but not limited to:

(i) Organizational structure;

(ii) Defined safety objectives;

(iii) Reporting lines, authorities, responsibilities;
(iv) Policies, processes and procedures;
(v) Allocation of resources;
(vi) Identification of training needs. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** corporate management review process (focus: process identifies organizational opportunities for changes/improvement to management system).
- ☐ **Interviewed** AE and/or designated management representative(s).
- ☐ **Examined** selected records of management review meetings.
- ☐ **Examined** selected examples of output from management review process (focus: changes implemented to improve organizational performance).
- ☐ **Other Actions** (Specify)

Guidance

Management review is a necessary element of a well-managed company that provides a medium through which organizational control and continual improvement can be delivered. To be effective, a formal management review takes place on a regular basis, typically once or more per year. The management review would focus on the entire management system.

The management review would typically be conducted by a strategic committee of senior management officials that are familiar with the workings and objectives of the management system. If the review of the SMS is conducted separately, such committee is typically referred to as a Safety Review Board (SRB), which is a very high level, strategic committee chaired by the AE and composed of senior managers, including senior line managers responsible for functional areas in operations (e.g. flight operations, engineering and maintenance, cabin operations).

To ensure frontline input as part of the review process, an operator would form multiple units of specially selected operational personnel (e.g. managers, supervisors, frontline personnel) that function to oversee safety in areas where operations are conducted. Such units are typically referred to as Safety Action Groups (SAGs), which are tactical committees that function to address implementation issues in frontline operations to satisfy the strategic directives of the SRB.

An appropriate method to satisfy this requirement is a periodic formal meeting of senior executives. The agenda of the meeting would typically include a general assessment of the management system to ensure all defined elements are functioning effectively and producing the desired operational safety outcomes consistent with defined safety objectives.

Senior management ensures deficiencies identified during the management review are addressed through the implementation of organizational changes that will result in improvements to the management system.

Input to the management review process would typically include:

- Results of audits;
- Findings from operational inspections and investigations;
- Operational feedback;
- Incidents and near-miss reports;
- Changes in regulatory policy or civil aviation legislation;
- Process performance and organizational conformance;
- Status of corrective and preventative actions;
- Results from implementation or rehearsal of the emergency response plan (ERP);
- Follow-up actions from previous management reviews;
- Feedback and recommendations for management system improvement;
- Regulatory violations.

Output from the management review process would typically include decisions and actions related to:

- Improvement of the processes throughout the management system;
- Safety and security requirements;
- Resource needs.

The management review is a formal process, which means documentation in the form of meeting schedules, agendas and minutes are produced and retained. Additionally, the output of the management review process would normally include action plans for changes to be implemented within the system where deemed appropriate.

Examples of strategies that might improve the overall effectiveness of the management review process include:

- Integrating the management review meeting into other performance review meetings;
- Scheduling management review meetings frequently enough to ensure any action that might be required is timely;
- Ensuring senior managers understand their responsibilities as part of the review process;
- Ensuring action items resulting from meetings are documented and progress is tracked;
- Ensuring there is always a responsible name associated with action items.

Expanded guidance related to review of the SMS may be found in the ICAO SMM, Document 9859.

ORG 4.1.2 (Intentionally open)

△ **ORG 4.1.3A** The Operator shall processes to monitor and assess its SMS processes in order to maintain or continually improve the overall effectiveness of the SMS. **[SMS] (GM)**

Note: *This provision is only applicable for ISSA registration renewal assessments.*

Auditor Actions

- ☐ **Identified/Assessed** SMS review process (focus: processes for monitoring and assessing SMS to maintain/improve safety performance).
- ☐ **Interviewed** AE and/or designated management representative(s).
- ☐ **Coordinated** selected examples of output from SMS review process (focus: changes implemented to maintain/improve organizational safety performance).
- ☐ **Other Actions** (Specify)

Guidance

Refer to the IRM for the definitions of Safety Assurance, Safety Action Group (SAG) and Safety Review Board (SRB).

Safety performance monitoring and measurement is an element of the Safety Assurance component of the SMS framework.

Monitoring and assessing the effectiveness of SMS processes would normally be the function of a strategic committee of senior management officials that are familiar with the workings and objectives of the SMS. Such committee is typically referred to as a Safety Review Board (SRB), which is a very high-level, strategic committee chaired by the AE and composed of senior managers, including senior line managers responsible for functional areas in operations (e.g. flight operations, engineering and maintenance, cabin operations).

To ensure frontline input as part of the SMS review process, an operator would form multiple units of specially selected operational personnel (e.g. managers, supervisors, frontline personnel) that function to oversee safety in areas where operations are conducted. Such units are typically referred to as Safety Action Groups (SAGs), which are tactical committees that function to address implementation issues in frontline operations to satisfy the strategic directives of the SRB.

Expanded guidance may be found in the ICAO SMM, Document 9859.

☐ **ORG 4.1.3B** The Operator *should* processes to monitor and assess its SMS processes in order to maintain or continually improve the overall effectiveness of the SMS. **[SMS] (GM)**

Note: *This provision is only applicable for initial ISSA assessments.*

Auditor Actions

- ☐ **Identified/Assessed** SMS review process (focus: processes for monitoring and assessing SMS to maintain/improve safety performance).
- ☐ **Interviewed** AE and/or designated management representative(s).
- ☐ **Coordinated** selected examples of output from SMS review process (focus: changes implemented to maintain/improve organizational safety performance).
- ☐ **Other Actions** (Specify)

Guidance

Refer to Guidance Material of ORG 4.1.3A.

4.2 Safety Communication

ORG 4.2.1A The Operator shall have a system that enables effective communication of safety and operational information throughout the management system and in all areas where operations are conducted. Such system shall ensure:

(i) Personnel maintain an awareness of the SMS;

(ii) Safety-critical information is conveyed;

(iii) External service providers are provided with information relevant to operations conducted. **[SMS] (GM)**

Note: *This provision is only applicable for ISSA registration renewal assessments.*

Auditor Actions

- ☐ **Identified/Assessed** corporate system(s) for communicating of safety information throughout the organization.
- ☐ **Interviewed** accountable executive and/or designated management representative(s).
- ☐ **Examined** examples of safety information communication.
- ☐ **Assessed** communication of

Guidance

Safety communication is an element of the Safety Promotion component of the SMS framework.

An effective communication system ensures the exchange of operational and safety-related information throughout all areas of the organization and includes senior managers, operational managers and front-line personnel.

To be totally effective, the communication system would also include external organizations that conduct outsourced operational functions. Communication with external service providers would typically be limited to information that is pertinent and relevant to the provider's services delivered to the operator. It would be at the operator's discretion to define the extent and content of such communication and the delivery method(s) to be used.

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

Specific methods of communication between management and operational personnel could include:

- Email, Internet;
- Safety or operational reporting system;
- Communiqués (e.g. letters, memos, bulletins);
- Publications (e.g. newsletters, magazines).

If email is used as an official medium for communication with operational personnel, the process is typically formalized by the operator to ensure control and effectiveness.

The general intent of safety communication is to foster a positive safety culture in which all employees receive ongoing information on safety issues, safety metrics, specific hazards existing in the workplace and initiatives to address known safety issues. Such communication typically conveys safety-critical information, explains why particular actions are taken to improve safety and why safety procedures are introduced or changed.

Information and issues relevant to safety performance are typically derived from various sources such as, but not limited to, the quality assurance/flight safety analysis programs, operational safety reporting and accident/incident investigations.

Expanded guidance may be found in the ICAO SMM, Document 9859.

ORG 4.2.1B The Operator *should* have a system that enables effective communication of safety and operational information throughout the management system and in all areas where operations are conducted. Such system shall ensure:

(i) Personnel maintain an awareness of the SMS;

(ii) Safety-critical information is conveyed;

(iii) External service providers are provided with information relevant to operations conducted. **[SMS] (GM)**

Note: *This provision is only applicable for initial ISSA assessments.*

Auditor Actions

- ☐ **Identified/Assessed** corporate system(s) for communicating of safety information throughout the organization.
- ☐ **Interviewed** accountable executive and/or designated management representative(s).
- ☐ **Examined** examples of safety information communication.
- ☐ **Assessed** communication of

Guidance

Refer to Guidance Material of ORG 4.2.1A

4.3 Training

ORG 4.3.1A The Operator shall have a program that ensures its personnel are trained to understand SMS responsibilities and competent to perform associated duties. The scope of such training shall be appropriate to each individual's involvement in the SMS. **[SMS] (GM)**

Note 1: *The specifications of this provision are applicable to personnel of the Operator.*

Note 2: *This provision is only applicable for ISSA registration renewal assessments.*

Auditor Actions

- ☐ **Identified/Assessed** SMS training program (focus: program ensures training for the operator’s personnel as appropriate to individual SMS involvement).
- ☐ **Interviewed** SMS manager and/or designated management representative(s).
- ☐ **Examined** selected SMS training curricula/syllabi (focus: personnel are trained to understand SMS responsibilities and to perform associated SMS duties).
- ☐ **Examined** selected management/non-management personnel training records (focus: completion of SMS training relevant to individual involvement in the SMS).
- ☐ **Other Actions** (Specify)

Guidance

SMS training is an element of the Safety Promotion component of the SMS framework.

An SMS typically specifies initial and recurrent safety training standards for personnel that perform operational functions for the operator, to include managers and supervisors, senior managers and the AE.

The content of such training is appropriate to the individual's responsibilities and involvement in the SMS, and typically includes or addresses some or all of the following subject areas:

- Organizational safety policies, goals and objectives;
- Organizational safety roles and responsibilities related to safety;
- Basic safety risk management principles;
- Safety reporting systems;
- Safety management support (including evaluation and audit programs);
- Lines of communication for dissemination of safety information;
- A validation process that measures the effectiveness of training;
- Initial indoctrination and, when applicable, recurrent training requirements.

Expanded guidance may be found in the ICAO SMM, Document 9859.

ORG 4.3.1B The Operator *should* have a program that ensures its personnel are trained to understand SMS responsibilities and competent to perform associated duties. The scope of such training shall be appropriate to each individual's involvement in the SMS. **[SMS] (GM)**

Note 1: *The specifications of this provision are applicable to personnel of the Operator.*

Note 2: *This provision is only applicable for initial ISSA assessments.*

Auditor Actions

- ☐ **Identified/Assessed** SMS training program (focus: program ensures training for the operator's personnel as appropriate to individual SMS involvement).
- ☐ **Interviewed** SMS manager and/or designated management representative(s).
- ☐ **Examined** selected SMS training curricula/syllabi (focus: personnel are trained to understand SMS responsibilities and to perform associated SMS duties).
- ☐ **Examined** selected management/non-management personnel training records (focus: completion of SMS training relevant to individual involvement in the SMS).
- ☐ **Other Actions** (Specify)

Guidance

Refer to Guidance Material of ORG 4.3.1A

Table 1.1–Documentation System Specifications				
ORG 2.5.1 The Operator shall have a system for the management and control of documentation and/or data used directly in the conduct or support of operations. Such system shall comprise the elements specified below. **Note: Refer to the IRM for the definition of Documentation and Electronic Documentation and Paper Documentation.**				
Elements		**Documentation Types**		
		Type 1	**Type 2**	**Type 3**
(i)	Identification of the version and effective date of relevant documents and/or data.	**Recommended**	**Recommended**	**Required–See Note**
(ii)	Identification of the title and, if applicable, sub-titles of relevant documents and/or data.	**Recommended**	**Recommended**	**Required–See Note**
(iii)	Distribution and/or dissemination that ensures all users are provided relevant documents and/or data on or before the effective date: (a) Throughout appropriate areas of the organization; (b) To external service providers that conduct outsourced operational functions.	**Required–See Note**	**Required–See Note**	**Required–See Note**
(iv)	Definition of the specific media type(s) designated for presentation or display of the controlled version of relevant documents and/or data.	**Required–See Note**	**Required–See Note**	**Required–See Note**
(v)	Definition of documentation and/or data that is considered to be reproduced and/or obsolete.	**Required–See Note**	**Required–See Note**	**Required–See Note**
(vi)	Review and revision to maintain the currency of relevant documents and/or data.	**Required–See Note**	**Required–See Note**	**Required–See Note**
(vii)	Retention that ensures access to the content of relevant documents and/or data for a minimum period as defined by the Operator.	**Required–See Note**	**Required–See Note**	**Required–See Note**
(viii)	Provision for a scheduled back up by copying and archiving relevant documents and/or data, to include validation of the documents or data being backed up.	**Required–See Note**	**Required–See Note**	**Required–See Note**
(ix)	Identification and allocation of documentation access/user and modification rights.	**Required–See Note**	**Required–See Note**	**Required–See Note**
(x)	Dissemination and/or accessibility of documentation received from external sources such as regulatory authorities and original equipment manufacturers.	**Required–See Note**	**Required–See Note**	**Required–See Note**
(xi)	Identification of requirement for regulatory approval.	**Required–See Note**	**Required–See Note**	**Required–See Note**
Note: Required for conformity with ORG 2.5.1.				

Section 2 — Flight Operations (FLT)

Applicability

Section 2 addresses safety and security requirements for flight operations of eligible operators. To be eligible, an Operator must meet the following criteria:

- Commercial and non-commercial passenger and/or cargo operations;
- Aircraft with one or more turbine powered and/or multiple reciprocating engines;
- One- or two-pilot operations;
- IFR and/or VFR operations;
- Aircraft below 5,700 Kg (12,566lb) MTOW.

Note: *Aircraft above 5,700 Kg (12,566 lb) MTOW will be eligible only for ISSA initial assessment; thereafter, the operator needs to pursue an IOSA registration or aircraft above 5,700 kg MTOW will be assessed as out of scope during next renewal assessment. Aircraft weight category limitations do not apply for non-commercial operations.*

The standards and recommended practices in Section 2 are applicable only to those aircraft that are of the type authorized in the Air Operator Certificate (AOC) or equivalent document, and are utilized in commercial and non-commercial passenger and/or cargo operations Certain ISARPs are also applicable to ferry flights, test flights and training flights even though they refer to a non-revenue-generating flights, and such application is indicated in a note that is part of the standard or recommended practice.

Individual provisions or sub-specifications within a provision that:

- Do not begin with a conditional phrase are applicable unless determined otherwise by the Auditor.
- Begin with a conditional phrase ("If the Operator...") are applicable if the operator meets the condition(s) stated in the phrase.

General Guidance

The definitions of technical terms used in this ISSM Section 2, as well as the list of abbreviations and acronyms, are found in the IATA Reference Manual for Audit Programs (IRM).

1 Management and Control

1.1–1.2 (Intentionally Open)

1.3 Accountability, Authorities and Responsibilities

FLT 1.3.1–1.3.5 (Intentionally open)

△ **FLT 1.3.6** The Operator shall assign responsibility to the pilot-in-command (PIC) for:

(i) The safety of all crew members, passengers and/or cargo on board the aircraft when the doors are closed;

(ii) The operation and safety of the aircraft from the moment the aircraft is ready to move for the purpose of taking off until the moment it finally comes to rest at the end of the flight and the engine(s) are shut down;

(iii) Ensuring checklists are complied with. **(GM)**

Auditor Actions

☐ **Identified/Assessed** documents that assign responsibilities to the PIC.
☐ **Interviewed** responsible manager(s) in flight operations.
☐ **Interviewed** flight/cabin crew members.
☐ **Other Actions** (Specify)

Guidance

The intent of this provision is to ensure that the specified responsibilities are assigned to the PIC and such assignment is evident in Operator policies or procedures.

Specifications in item i) and ii) may be satisfied by policies documented in, or referenced in, the OM that assign responsibilities to the PIC in a manner consistent with regulations of the State and the intent of the provision. Slight variations in the wording of policies are permissible if the periods of responsibility as specified in each item are addressed by the operator's policies.

For example, an operator could assign responsibility to the PIC for the safety of passengers from the time they board the aircraft until they deplane. Such policy would satisfy this provision because it exceeds the period of PIC responsibility as specified in this provision.

The specification in item iii) may be satisfied by any policy or combination of policies that assign the responsibility for compliance with standard operating procedures to the PIC.

△ **FLT 1.3.7** The Operator shall ensure, for the duration of each flight, one pilot is designated to act as PIC. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** documents that describe flight crew composition and/or succession of command.
- ☐ **Interviewed** responsible manager(s) in flight operations.
- ☐ **Interviewed** flight crew members.
- ☐ **Other Actions** (Specify)

Guidance

The specification of this provision is satisfied if one pilot is designated to act as PIC, regardless of crew configuration or en route crew changes.

1.4 (Intentionally Open)

1.5 Provision of Resources

FLT 1.5.1–1.5.2 (Intentionally open)

△ **FLT 1.5.3** The Operator shall have a process to ensure candidates, prior to being employed as flight crew members, are screened for the purpose of determining if they possess the requisite certifications, skills, competencies and other attributes required by the Operator and/or State. Such process, as a minimum, shall include procedures for reviewing and/or assessing:

(i) Technical and non-technical competencies and skills, to include interpersonal skills;
(ii) Aviation experience;
(iii) Credentials and licenses;
(iv) Medical fitness;
(v) Security background;
(vi) Common language(s) fluency. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** the process/criteria used for pre-employment screening of flight crew member candidates.
- ☐ **Interviewed** responsible manager(s) in flight operations.
- ☐ **Examined** selected flight crew candidate screening records.
- ☐ **Other Actions** (Specify)

Guidance

The specification in:

- Item i) refers to technical competencies and skills that will vary with the requirements of the position in which the flight crew member will be employed. For example, an ab initio pilot will not necessarily have flying skills but will possess other skills and/or attributes necessary to succeed in training.
- Item iii) typically includes verification of authenticity of licenses.
- Item iv) could be assessed by a flight operations management interview, Human Resource interview and/or the conduct of a psychological analysis.
- Item v) is applicable unless such check is performed or prohibited by the State.
- Item vi) refers to aviation English language fluency (where required for Air Traffic Control (ATC) communications) and sufficient fluency in the designated common language(s) necessary for ensuring effective communication (see FLT 3.1.1).

△ **FLT 1.5.4** The Operator shall have a policy that assigns responsibility to the PIC for:

(i) Notifying the appropriate local authority without delay in the event of any emergency situation that necessitated action in violation of local regulations and/or procedures;

(ii) Submitting, if required by the state of occurrence, a report to the appropriate local authority and also to the Authority of the State of the Operator. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** the processes used for screening of candidates for the position of PIC.
- ☐ **Interviewed** responsible manager(s) in flight operations.
- ☐ **Examined** selected flight crew candidate screening records.
- ☐ **Other Actions** (Specify)

Guidance

The specifications of this provision refer to a screening process for direct hire or upgrade to PIC. Such screening occurs prior to a pilot being assigned duties as PIC and typically includes:

- Training records review;
- Management recommendations and/or review board;
- Training department recommendations and/or review board;
- Verification of minimum experience acceptable to the Authority;
- Any other screening requirements in accordance with the needs of the operator or requirements of the Authority.

1.6 Documentation System

FLT 1.6.1–1.6.5 (Intentionally open)

△ **FLT 1.6.6** The Operator shall ensure documents that comprise the onboard library, as specified in Table 2.1, are carried on board the aircraft for each flight and located in a manner that provides for access by the flight crew.

Auditor Actions

- ☐ **Identified/Assessed** the document that describes the onboard library.
- ☐ **Interviewed** responsible manager in flight operations.
- ☐ **Interviewed** person(s) responsible for flight operations documentation management/control process(es).
- ☐ **Other Actions** (Specify)

Guidance

Refer to Table 2.1 for specifications related to accessing performance calculations via telecom systems (e.g. ACARS) in lieu of onboard documentation.

1.7 Operations Manual

FLT 1.7.1 The Operator shall have an Operations Manual (OM) for the use of personnel in the flight operations organization, which may be issued in separate parts, and which contains or references the policies, procedures, checklists and other guidance or information necessary for compliance with applicable regulations, laws, rules and Operator standards. As a minimum, the OM shall be managed and controlled in accordance with ORG 2.5.1 and be in accordance with specifications contained in Table 2.2. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** operational documents that comprise the OM.
- ☐ **Identified** external documents referenced in the OM that contain operational information used by flight crew.
- ☐ **Interviewed** responsible manager(s) in flight operations.
- ☐ **Examined** selected parts of OM (focus: contents in accordance with Table 2.2).
- ☐ **Other Actions** (Specify)

Guidance

The intent of this provision is to ensure the flight crew will find all information necessary to perform its functions within the OM, or within another document that is referenced in the OM. The OM is identified as a source of operational information approved or accepted for the purpose by the operator or the State.

Guidance and procedures in the OM enable the flight crew to comply with the conditions and limitations specified in the AOC.

FLT 1.7.2–1.7.3 (Intentionally open)

△ **FLT 1.7.4** The Operator shall have a process to develop and establish procedures and checklists for use by the flight crew. Such process shall ensure:

(i) Human factors principles are observed in the design of the OM, checklists and associated procedures;

(ii) The specific parts of the OM relevant to flight crew are clearly identified and defined;

(iii) If applicable, any differences from procedures and checklists provided by the manufacturer(s) are based on operational considerations. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** process used to develop flight crew checklists and procedures.
- ☐ **Identified** specific parts of OM relevant to flight crew.
- ☐ **Interviewed** responsible manager(s) in flight operations.
- ☐ **Other Actions** (Specify)

Guidance

Refer to the IRM for the definition of Human Factors Principles.

The intent of this provision is to ensure procedures and checklists are developed in a manner that ensures they are useable, identifiable and consistent with manufacturer specifications. Any deviations from manufacturer procedures or checklists are typically based on operational concerns identified by the operator.

Human factors principles in document design and checklist usage typically address the following:

- Preparation of documentation in a useable format for information presentation, at the appropriate reading level and with the required degree of technical sophistication and clarity.
- Improving user performance through the use of effective and consistent labels, symbols, colors, terms, acronyms, abbreviations, formats and data fields.
- Ensuring the availability and usability of information to the user for specific tasks, when needed, and in a form that is directly usable.
- Designing operational procedures for simplicity, consistency and ease of use.
- Enabling operators to perceive and understand elements of the current situation and project them to future operational situations.
- Minimizing the need for special or unique operator skills, abilities, tools or characteristics.
- Assessing the net demands or impacts upon the physical, cognitive and decision-making resources of the operator, using objective and subjective performance measures.
- The specification in item ii) ensures the relevant sections of the OM are clearly identified as the OM can, in some instances, include sections published for flight operations personnel other than flight crew. As such, all OM sections need not be provided to the flight crew (e.g., training syllabi are usually restricted to training/checking personnel).

2 Training and Qualification

2.1 Training and Evaluation Program

General

FLT 2.1.1 The Operator shall have a training and evaluation program, approved or accepted by the Authority, that consists of ground and flight training and, when applicable, evaluations to ensure flight crew members are competent to perform assigned duties. The program shall address traditional and, if applicable, advanced (or alternative) training and qualification, and ensure training and evaluation is conducted for each type of aircraft in the fleet. Such program shall also, as a minimum, address:

(i) Initial qualification;
(ii) Continuing qualification;
(iii) Re-qualification;
(iv) As applicable, aircraft transition or conversion;
(v) Upgrade to PIC;
(vi) As applicable, other specialized training requirements, including those associated with operations authorized the AOC. **(GM)**

Auditor Actions

☐ **Identified/Assessed** flight crew training/qualification program (focus: program includes each type of aircraft in the fleet).
☐ **Interviewed** responsible manager(s) in flight operations.
☐ **Examined** training/qualification course curriculum for selected aircraft types (focus: inclusion of applicable training/qualification courses for each aircraft type).
☐ **Examined** training/qualification records of selected flight crew members (focus: completion of applicable training/qualification courses).
☐ **Other Actions** (Specify)

Guidance

The intent of this provision is to ensure an operator's training program contains the elements necessary to ensure flight crew members are continuously competent to perform assigned duties.

The initial qualification process provided to newly hired crew members includes company indoctrination and initial endorsement on company aircraft types. This presupposes that the newly hired crew member already holds a commercial flying license.

Initial endorsement training may not be required as part of initial qualification if a newly hired crew member already holds a type endorsement acceptable to both the State and the operator. Company indoctrination training, however, is always considered a part of initial qualification.

Continuing qualification includes recurrent or refresher training and also includes any training necessary to meet recency-of-experience requirements.

Transition (conversion) training refers to an aircraft type qualification training and evaluation program for each type of aircraft in the fleet and is not required when an operator only utilizes one type of aircraft.

Specialized training could include training on a specific type of new equipment (e.g., ACAS) or training for specific operations to meet requirements of the Authority.

Training could be outsourced, in which case services typically range from simple dry lease of a training device to delegation of all training to an external organization (e.g., Authorized Flight Training School).

FLT 2.1.2–2.1.3 (Intentionally open)

FLT 2.1.4 If the Operator uses distance learning and/or distance evaluation in the flight crew training and qualification program, the Operator shall ensure such training and/or evaluation is monitored in accordance with FLT 2.1.28 and, if required, is approved or accepted by the State. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** regulatory approval, process for monitoring/continual improvement of distance learning in flight crew training/evaluation program.
- ☐ **Interviewed** responsible manager(s) in flight operations.
- ☐ **Examined** selected distance learning/qualification course development records (focus: monitoring/continual improvement).
- ☐ **Other Actions** (Specify)

Guidance

Refer to the IRM for the definition of Distance Learning.

Distance learning refers to flight crew training or evaluation that is not conducted in a classroom or face-to-face with an instructor or evaluator, but rather is conducted through the use of distributed printed material or electronic media (e.g., Internet, compact disc, etc.).

Training Manual

FLT 2.1.10 The Operator shall have a Training Manual for the use of flight operations personnel, which may be issued in separate parts, that contains the details of all relevant training programs, policies, procedures, requirements and other guidance or information necessary to administer the Operator's Training Program and the Training Manual shall, as a minimum, be managed and controlled as specified in ORG 2.5.1 and be in accordance with specifications contained in Table 2.2. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** flight crew training manual, regulatory approval, content in accordance with Table 2.2.
- ☐ **Interviewed** the responsible manager(s) in flight operations.
- ☐ **Examined** selected parts of training manual (focus: content includes policies/procedures/ requirements, other guidance/information necessary to administer the training/evaluation program).
- ☐ **Other Actions** (Specify)

Guidance

The training manual typically applies to instructors, evaluators, line–check airmen, flight crew members, training schedulers, simulator operations personnel, administrative support personnel and other applicable flight operations personnel.

The training manual may be split among several publications with the relevant parts made easily accessible to the appropriate personnel.

FLT 2.1.11–2.1.27 (Intentionally open)

FLT 2.1.28 The Operator shall have processes for ensuring continual improvement of the flight crew training and evaluation program, to include, as a minimum, the monitoring, recording and evaluation of results of successful and unsuccessful flight crew evaluations. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** processes for program monitoring, continual improvement of flight crew training/evaluation program.
- ☐ **Interviewed** the responsible manager(s) in flight operations.
- ☐ **Examined** selected records of program monitoring (focus: improvements resulting from monitoring).
- ☐ **Other Actions** (Specify)

Guidance

Flight crew operational non-compliances, training deficiencies and evaluation trends (simulator, aircraft and line operations) are typically used by the training organization for trend analysis and program improvement.

Grading scale criteria (e.g. numerical, letter grade) provides a means to accurately identify areas for improvement.

2.2 Training Elements

FLT 2.2.1–2.2.6 (Intentionally open)

△ **FLT 2.2.7** The Operator shall ensure flight crew members complete Operator familiarization training prior to being assigned to duties in line operations. Such training shall ensure familiarity with:

(i) Duties and responsibilities;
(ii) Relevant state regulations;
(iii) Authorized operations;
(iv) Relevant sections of the OM. **(GM)**

Conformance Applicability			
Specific to Aircraft Type	**Included in Initial/Transition/ Conversion Training**	**Included in Recurrent Training/Continuing Qualification**	**Conformance through AQP/ATQP/EBT**
Yes*	Yes	No	No
* This training may be provided as a complete package included in a company indoctrination course or, if applicable, tailored to address requirements that are different from the individual's previous training.			

Auditor Actions

- ☐ **Identified/Assessed** initial training/qualification course curriculum/syllabus (focus: operator familiarization training; definition of subjects addressed).
- ☐ **Examined** selected flight crew member training/qualification records (focus: completion of operator familiarization training prior to assignment to line duties).
- ☐ **Interviewed** responsible manager(s) in flight operations.
- ☐ **Other Actions** (Specify)

Guidance

This provision and many of the ensuing flight crew training provisions contain a Conformance Applicability (CA) Table. Refer to the General Guidance at the beginning of this Subsection 2, Training and Qualification, for a detailed description of the CA Table.

Training is applicable to all flight crew members.

Many operators refer to this training course as Basic Company Indoctrination.

FLT 2.2.12 If the Operator transports dangerous goods as cargo, the Operator shall ensure flight crew members complete training and an evaluation in dangerous goods during initial ground training and subsequently once during recurrent training within the 24-month period from the previous training in dangerous goods.

Auditor Actions

- ☐ **Identified/Assessed** requirement for training/evaluation in dangerous goods in flight crew training/evaluation program.
- ☐ **Interviewed** responsible manager(s) in flight operations.
- ☐ **Examined** selected initial/recurrent training/qualification course curricula/syllabi (focus: dangerous goods training/evaluation; definition of specific aspects/subjects addressed).
- ☐ **Examined** selected flight crew member training/qualification records (focus: completion of training/evaluation in dangerous goods in initial/recurrent training).
- ☐ **Other Actions** (Specify)

Guidance

Training and evaluation is applicable to all flight crew members.

Recurrent training in dangerous goods is typically completed within a validity period that expires 24 months from the previous training to ensure knowledge is current, unless a shorter period is defined by a competent authority. However, when such recurrent training is completed within the final 3 months of the 24-month validity period, the new validity period may extend from the month on which the recurrent training was completed until 24 months from the expiry month of the current validity period. If such recurrent training is completed *prior* to the final three months (or 90 days) of the validity period, the new validity period would extend 24 months from the month the recurrent training was completed.

The curriculum for dangerous goods training for flight crew members will typically address the following subject areas:

- General philosophy;
- Limitations;
- List of dangerous goods;
- Labeling and marking;
- Recognition of undeclared dangerous goods;
- Storage and loading procedures;

- Pilot's notification;
- Provisions for passengers and crew;
- Emergency procedures.

Guidance may be found in the IATA Dangerous Goods Regulations (DGR) 1.5, Table 1.5.A.

FLT 2.2.13 If the Operator does not transport dangerous goods as cargo, the Operator shall ensure flight crew members complete training and an evaluation in dangerous goods during initial ground training and subsequently once during recurrent training within the 24-month period from the previous training in dangerous goods.

Auditor Actions

- ☐ **Identified/Assessed** requirement for training/evaluation in dangerous goods in flight crew training/evaluation program.
- ☐ **Interviewed** responsible manager(s) in flight operations.
- ☐ **Examined** selected initial/recurrent training/qualification course curricula/syllabi (focus: dangerous goods training/evaluation; definition of aspects/subjects addressed).
- ☐ **Examined** selected flight crew member training/qualification records (focus: completion of training/evaluation in dangerous goods in initial/recurrent training).
- ☐ **Other Actions** (Specify)

Guidance

Training and evaluation is applicable to all flight crew members.

Recurrent training in dangerous goods is typically completed within a validity period that expires 24 months from the previous training to ensure knowledge is current, unless a shorter period is defined by a competent authority. However, when such recurrent training is completed within the final 3 months of the 24-month validity period, the new validity period may extend from the month on which the recurrent training was completed until 24 months from the expiry month of the current validity period. If such recurrent training is completed *prior* to the final three months (or 90 days) of the validity period, the new validity period would extend 24 months from the month the recurrent training was completed.

The curriculum for dangerous goods training for flight crew members is commensurate with responsibilities and will typically address:

- General philosophy;
- Limitations;
- Labeling and marking;
- Recognition of undeclared dangerous goods;
- Provisions for passengers and crew;
- Emergency procedures.

Guidance may be found in DGR 1.5, Table 1.5.B.

FLT 2.2.14–2.2.15 (Intentionally open)

FLT 2.2.16 The Operator shall ensure flight crew members complete training and an evaluation in subjects associated with adverse weather and/or environmental conditions during initial ground training and subsequently during recurrent training once every three (3) calendar years.

(i) Cold weather operations;
(ii) De-/anti-icing policies and procedures;
(iii) Contaminated runway Operations;
(iv) Thunderstorm avoidance. **(GM)**

Note: *Item ii) is applicable if the Operator conducts flights from any airport when conditions are conducive to ground aircraft icing.*

Auditor Actions

- ☐ **Identified/Assessed** requirement for training/evaluation in adverse weather/environmental conditions in flight crew training/evaluation program.
- ☐ **Interviewed** responsible manager(s) in flight operations.
- ☐ **Examined** selected initial/recurrent training/qualification course curricula/syllabi (focus: training/evaluation in adverse weather/environmental conditions; definition of aspects/subjects addressed).
- ☐ **Examined** selected flight crew member training/qualification records (focus: completion of training/evaluation in adverse weather/environmental conditions in initial/recurrent training).
- ☐ **Other Actions** (Specify)

Guidance

Training and evaluation is applicable to all flight crew members.

The specifications in this provision are related to the prevention of runway excursions and in-flight loss of control.

The intent of this provision is to ensure flight crew members receive recurrent training and an evaluation in the subjects associated with the adverse weather or environmental conditions they may encounter in operations.

FLT 2.2.17–2.2.19 (Intentionally open)

△ **FLT 2.2.20** If the Operator conducts flights into areas where English is the primary language of Air Traffic Control (ATC) and whose duties include communication with ATC, the Operator shall require flight crew members to complete an evaluation during initial ground training to demonstrate a sufficient level of English language proficiency that will ensure effective communication during the performance of such duties. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** requirement for English language evaluation for flight crew members that will operate flights/communicate with ATC in areas where the primary language of ATC is English.
- ☐ **Interviewed** responsible manager(s) in flight operations.
- ☐ **Examined** selected flight crew member training/qualification records (focus: completion of demonstration of English language proficiency).
- ☐ **Examined** initial training/qualification course curriculum/syllabus (focus: demonstration of English language proficiency level necessary for effective ATC communications).
- ☐ **Other Actions** (Specify)

Guidance

The intent of this provision is to ensure a pilot who is required to communicate with air traffic control in English demonstrates a sufficient level of English language proficiency to ensure effective communication during the performance of duties.

Such evaluation applies to each operating member of the flight crew, as required by the AFM, whose duties require communication in English with ATC.

English proficiency requirements do not apply to flight engineers or flight navigators unless their duties include air/ground communication in English.

A State requirement, as part of flight crew licensing, for an individual to demonstrate expert English language proficiency may be used to satisfy the specifications of this provision.

FLT 2.2.21–2.2.25 (Intentionally open)

FLT 2.2.26 The Operator shall ensure flight crew members complete training in normal and non-normal procedures and maneuvers during initial training and subsequently during recurrent training once every 12 months.

(i) Pilot Monitoring (PM), Pilot Flying (PF) and other flight crew division of duties (task sharing), if applicable;

(ii) If applicable, positive transfer of aircraft control;

(iii) Consistent checklist philosophy;

(iv) Emphasis on a prioritization of tasks (e.g. “aviate, navigate, communicate”);

(v) Proper use of all levels of flight automation. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** requirement for training in normal/non-normal procedures/maneuvers in flight crew training/evaluation program.
- ☐ **Interviewed** responsible manager(s) in flight operations.
- ☐ **Examined** selected initial/recurrent training/qualification course curricula/syllabi (focus: training in normal/non-normal procedures/maneuvers; definition of specific elements/subjects addressed).
- ☐ **Examined** selected flight crew member training/qualification records (focus: completion of initial/recurrent training in the specified normal/non-normal procedures/maneuvers).
- ☐ **Other Actions** (Specify)

Guidance

Refer to the IRM for the definitions of Pilot Flying (PF) and Pilot Monitoring (PM).

Training is applicable to all flight crew members.

The intent of this provision is to set a training interval for normal and non-normal procedures, and additionally to ensure the training manual, curricula, lesson plans, or other guidance associated with such training addresses the specifications in items (i) through (v).

Division of flight crew duties, transfer of aircraft control, checklist use and prioritization of tasks are in accordance with the operator's policy for task sharing and as specified in FLT 3.11.18.

Elements of training may be accomplished as part of ground, simulator, aircraft or line training.

The term *Pilot Monitoring (PM)* has the same meaning as the term *Pilot Not Flying (PNF)* for the purpose of applying the specifications of this provision to two-pilot operations.

The specification in item iv) refers to the following prioritization of tasks during any normal or abnormal situation or maneuver:

- Aviate: fly the aircraft in accordance with restrictions and limitations set forth in the OM;
- Navigate: guide the aircraft along the intended or appropriate route;
- Communicate: verbalize intentions to other crew members and ATC, as applicable.

The term “abnormal” is used to describe a condition or situation (e.g. abnormal airframe vibration, abnormal landing configuration).

The terms “normal” and “non-normal/emergency” typically refer to AOM checklists, procedures and/or maneuvers. The term “non-normal” includes AOM emergency checklists and/or procedures (i.e. an emergency procedure is a subset of non-normal).

The terms can also be used to describe an event, situation or operation that would be addressed by normal or non-normal/emergency procedures or checklists. When used in this manner, the terms may be separated by forward slash marks (e.g. normal/non-normal/emergency).

The term “emergency” used alone refers to declarations and non-AOM procedures.

FLT 2.2.27 The Operator shall ensure flight crew members complete training and, when applicable, an evaluation, that includes a demonstration of competence in normal and non-normal procedures and maneuvers, to include, as a minimum, rejected takeoff, emergency evacuation,

engine failure. Such training and, when applicable, evaluation shall be accomplished during initial training and subsequently during recurrent training once every 12 months. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** requirement for training/evaluation including a demonstration of competence in normal/non-normal procedures/maneuvers in flight crew training/evaluation program.
- ☐ **Interviewed** responsible manager(s) in flight operations.
- ☐ **Examined** selected initial/recurrent training/qualification course curricula/syllabi (focus: training/evaluation in specified normal/non-normal procedures/maneuvers).
- ☐ **Examined** selected flight crew member training/qualification records (focus: completion of initial/recurrent training/evaluation in the specified normal/non-normal procedures/maneuvers).
- ☐ **Other Actions** (Specify)

Guidance

The intent of this provision is to define the basic initial and subsequent recurrent training and evaluation cycles that ensure flight crew members are competent to perform normal and non-normal procedures and maneuvers. It is understood that competence in all potential normal and non-normal procedures may not be demonstrated annually but in accordance with a schedule that is acceptable to the Authority.

Training and, when applicable, a demonstration of competence in specified normal and non-normal procedures and maneuvers is applicable to all *pilot* crew members.

Training and, when applicable, evaluation is to be accomplished as part of ground, simulator/aircraft and line training.

Line training is in normal procedures/maneuvers only.

Such evaluation of competence in the normal and non-normal procedures and maneuvers specified is applicable when such procedures and/or maneuvers are stipulated by the operator and/or State in conjunction with State-approved or State-accepted training courses that require a method of evaluation. Such courses typically include:

- Type qualification;
- Transition (conversion);
- Upgrade to PIC;
- Re-qualification;
- Recurrent training.

Operators that conduct training flights and cannot safely train/evaluate a non-normal procedure or maneuver in an aircraft or in a representative flight training device may demonstrate an alternative means of conformance**.**

△ **FLT 2.2.28** The Operator shall ensure flight crew members complete practical training exercises:

(i) In the use of emergency and safety equipment required to be on board the aircraft;

(ii) That address emergency evacuation and coordination among flight crew members and, as applicable, cabin crew members and/or supernumeraries required for the safety of operations. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** philosophy/requirements for preparing flight crew members for an evaluation in flight crew training/evaluation program.
- ☐ **Interviewed** responsible manager(s) in flight operations.

- ☐ **Examined** guidance for instructors/evaluators (focus: methodology for providing information to flight crew members in preparation for an evaluation).
- ☐ **Other Actions** (Specify)

Guidance

The specification of this provision is not intended to preclude flight crews from knowing the city pairs to be flown or the general maneuver requirements prior to the evaluation; however, flight crews would typically not be provided with the exact evaluation scenario.

Operators that conduct training flights in an aircraft may divulge as much information about the intended training/evaluation as is necessary to ensure the safety of the planned operation.

FLT 2.2.29 (Intentionally open)

FLT 2.2.30 The Operator shall ensure flight crew members complete training in CRM skills, which may be accomplished as part of simulator, aircraft and/or line training, as applicable. Such training shall be completed during initial training and subsequently during recurrent training once every 12 months. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** requirements for training in CRM skills in flight crew training/evaluation program.
- ☐ **Interviewed** responsible manager(s) in flight operations.
- ☐ **Examined** selected initial/recurrent training/qualification course curricula/syllabi (focus: inclusion of CRM training in simulator/aircraft or during line flight training).
- ☐ **Examined** selected flight crew member training/qualification records (focus: completion of initial/recurrent CRM training).
- ☐ **Other Actions** (Specify)

Guidance

Training is applicable to all flight crew members.

This specification is intended to ensure CRM skills are emphasized during and integrated into simulator or aircraft training, as applicable, and line training.

FLT 2.2.31 (Intentionally open)

FLT 2.2.32 The Operator shall ensure flight crew members complete training and, when applicable, an evaluation that includes a demonstration of competence, in wind shear avoidance and recovery from predictive and actual wind shear. Such training shall be completed during initial ground and simulator training, and subsequently during recurrent simulator training once every 36 months. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** requirement for training/evaluation/demonstration of competence in wind shear avoidance/recovery from predictive/actual wind shear in flight crew training/evaluation program.
- ☐ **Interviewed** responsible manager(s) in flight operations.
- ☐ **Examined** selected initial/recurrent training/qualification course curricula/syllabi (focus: wind shear training/evaluation/demonstration of competence).
- ☐ **Examined** selected flight crew member training/qualification records (focus: completion of initial/recurrent wind shear training/evaluation.
- ☐ **Other Actions** (Specify)

Guidance

Refer to the IRM for the definition of Wind Shear.

The intent of this provision is to ensure training and evaluation occurs, as applicable, in the maneuvers specified within the intervals specified. Such training and evaluation can occur in conjunction with any State-approved or State-accepted training course.

Training and, when applicable, an evaluation in the specified normal and non-normal procedures and maneuvers is applicable to all *pilot* crew members.

Training is accomplished in a representative flight simulator approved for the purpose by the State.

Such evaluation of competence in the normal and non-normal procedures and maneuvers specified is applicable when such procedures and/or maneuvers are stipulated by the operator and/or State in conjunction with State-approved or State-accepted training courses that require a method of evaluation. Such courses typically include:

- Type qualification;
- Transition (conversion);
- Upgrade to PIC;
- Re-qualification;
- Recurrent training.

Operators that cannot conform to the specifications of this provision due to the non-existence of a representative flight training device may demonstrate an alternative means of conforming to these specifications**.**

The additional ground and line training and evaluation used to satisfy the specifications of this provision typically include a review of:

- Conditions conducive to wind shear;
- Effects on aircraft performance;
- Indications of wind shear presence;
- Avoidance and recovery techniques;
- Wind shear case studies or scenarios.

FLT 2.2.33 If the Operator operates the aircraft which is GPWS installed on board, the Operator shall ensure flight crew members complete training and an evaluation, which includes a demonstration of competence in terrain awareness procedures and maneuvers. Such training shall be completed during initial ground and simulator training and subsequently during recurrent simulator training once every 36 months. Such training and evaluation shall include:

(i) Knowledge and conduct of associated procedures;

(ii) Response to GPWS alerts and warnings;

(iii) The avoidance of Controlled Flight Into Terrain (CFIT). **(GM)**

Auditor Actions

☐ **Identified/Assessed** requirement for training/evaluation/demonstration of competence in terrain awareness procedures/maneuvers in flight crew training/evaluation program.

☐ **Interviewed** responsible manager(s) in flight operations.

☐ **Examined** selected initial/recurrent training/qualification course curricula/syllabi (focus: training/evaluation in terrain awareness procedures/maneuvers; definition of subjects addressed).

☐ **Examined** selected flight crew member training/qualification records (focus: completion of initial/recurrent training/evaluation in terrain awareness procedures/maneuvers.

☐ **Other Actions** (Specify)

Guidance

The intent of this provision is to ensure training and evaluation occurs, as applicable, in the maneuvers specified within the intervals specified. Such training and evaluation can occur in conjunction with any State-approved or State-accepted training course.

Training and evaluation in the specified normal and non-normal procedures and maneuvers in a representative flight simulator approved for the purpose by the State is applicable to *pilot* crew members.

Training and evaluation of the non-normal procedures and maneuvers specified in this provision cannot be safely accomplished in an aircraft on a training flight.

Operators that cannot conform to the specifications of this provision due to the non-existence of a representative flight simulator may demonstrate an alternative means of conforming to these specifications**.**

The additional ground and line training and evaluation used to satisfy the specifications of this provision typically includes a review of:

- CFIT avoidance techniques;
- CFIT recovery techniques and maximizing aircraft performance;
- GPWS alerts and warnings;
- CFIT case studies or scenarios.

FLT 2.2.34 If the Operator conducts low visibility operations (LVO), the Operator shall ensure flight crew members complete training and an evaluation that includes a demonstration of competence in such operations, as well as operations with inoperative ground based and/or aircraft equipment. Such training shall be completed during initial ground and simulator training and subsequently during recurrent simulator training once every 12 months. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** requirement for training/evaluation/demonstration of competence in LVO and/or operations with inoperative ground based/aircraft equipment in flight crew training/evaluation program.
- ☐ **Interviewed** responsible manager(s) in flight operations.
- ☐ **Examined** selected initial/recurrent training/qualification course curricula/syllabi (focus: training/evaluation in LVO and/or operations with inoperative ground based/aircraft equipment).
- ☐ **Examined** selected flight crew member training/qualification records (focus: completion of initial/recurrent training/evaluation in LVO and/or operations with inoperative ground based/aircraft equipment.
- ☐ **Other Actions** (Specify)

Guidance

Refer to the IRM for the definitions of Low Visibility Operations (LVO).

Training and evaluation in low visibility operations is applicable to *all* pilot crew members.

For the purposes of this provision, low visibility operations are considered in effect when the Runway Visual Range (RVR) is below
400 m for takeoff and/or below Category I limits for landing.

Operators that conduct training flights and cannot safely train/evaluate the specified procedures in an aircraft or in a representative flight training device may demonstrate an alternative means of conformance.

FLT 2.2.34–2.2.41 (Intentionally open)

△ **FLT 2.2.42** If the Operator transports passengers or supernumeraries, the Operator shall ensure flight crew members complete security training as approved or accepted by the State, and in accordance with the Operator's security training program as specified in SEC 2.1.1 Flight crew security training should address the following subject areas:

(i) Determination of the seriousness of the occurrence;
(ii) Crew communication and coordination;
(iii) Policy and procedures associated with flight deck access;
(iv) Appropriate self-defense responses;

(v) Use of non-lethal protective devices assigned to crew members for use as authorized by the State;

(vi) Understanding the behavior of terrorists so as to facilitate the ability to cope with hijacker behavior and passenger responses;

(vii) Situational training exercises regarding various threat conditions;

(viii) Flight deck procedures to protect the aircraft;

(ix) Aircraft search procedures;

(x) As practicable, guidance on least-risk bomb locations. **(GM)**

Conformance Applicability			
Specific to Aircraft Type	**Included in Initial/Transition/ Conversion Training**	**Included in Recurrent Training/Continuing Qualification**	**Conformance through AQP/ATQP/EBT**
Yes*	Yes	Yes (every 36 months)	Yes
* This training may be provided as a complete package or, if applicable, tailored to address aircraft type or crew position requirements that are different from the individual's previous flight crew security training.			

Auditor Actions

- ☐ **Identified/Assessed** flight crew security training program (focus: approval/acceptance by the State; meets applicable requirements of other states).
- ☐ **Examined** flight crew AQP/ATQP/EBT (if applicable): (focus continuing qualification recurrent schedule for flight crew security training).
- ☐ **Interviewed** responsible manager(s) in flight operations.
- ☐ **Examined** selected initial/recurrent training/qualification course curricula/syllabi (focus: security training is included; required subjects are addressed).
- ☐ **Examined** selected flight crew member training/qualification records (focus: completion of security training).
- ☐ **Other Actions** (Specify)

Guidance

Refer to the IRM for the definitions of Air Operator Security Program (AOSP) and Non-Lethal Protective Device.

Flight crew members are directly involved in the implementation of security measures and thereby require an awareness of obligations to the Security Program of the operator.

Crew security training would normally be in accordance with applicable regulations and/or the civil aviation security program of the State, and where no regulatory guidance exists, in accordance with the policy of the operator.

Security training for flight crew members typically focuses on the need for the flight crew to maintain control of the flight deck.

Specific subject areas included in recurrent security training are typically identified and derived from an analysis of actual or likely situations or trends experienced during line operations.

Fight deck access as specified in item (iii) would typically include persons authorized for flight deck access as well as procedures for flight deck entry/exit.

Flight crew training in self-defense responses as specified in item (iv) typically focuses on ensuring the security of the flight deck and takes into consideration relevant operational factors (e.g. type of operation, phase of flight, aircraft type/configuration, responses by cabin crew members or, if applicable, supernumeraries).

Training as specified in item (vi) typically addresses topics or tactics as appropriate for the operator that might be associated with or could be used to facilitate crew-passenger reaction to or interaction with hijackers (e.g. conflict management, use of passive or non-passive cooperation, understanding Stockholm Syndrome, identification of and response to hijacker types/motives).

Training exercises as specified in item (vii) are typically interactive in nature, and scenarios or situations (e.g. bomb threat, hijacking, unruly passenger) may be presented using various accepted training methods (e.g. live role playing, table top, computer-based training). Training as specified in item (x) is applicable to aircraft types that have designated least-risk bomb locations. Least-risk bomb locations are typically not identified on all-cargo aircraft.

Refer to General Guidance at the beginning of this Subsection 2, Training and Qualification, for explanatory information regarding traditional training program requirements.

△ **FLT 2.2.43** If the Operator conducts passenger flights without cabin crew, the Operator shall ensure flight crew members, complete training and demonstrate competence in the performance of any assigned duties and functions related to passenger cabin safety. **(GM)**

Conformance Applicability			
Specific to Aircraft Type	**Included in Initial/Transition/ Conversion Training**	**Included in Recurrent Training/Continuing Qualification**	**Conformance through AQP/ATQP/EBT**
Yes*	Yes	Yes (every 24 months)	Yes
* This training may be provided as a complete package or, if applicable, tailored to address aircraft type or crew position requirements that are different from the individual's previous training in duties and functions related to passenger cabin safety.			

Auditor Actions

- ☐ **Identified/Assessed** requirement for flight crew training in the performance of assigned duties/functions related to passenger cabin safety.
- ☐ **Interviewed** responsible manager(s) in flight operations.
- ☐ **Examined** selected initial/recurrent training/qualification course curricula/syllabi (focus: training in performance of assigned duties/functions related to passenger cabin safety).
- ☐ **Examined** selected flight crew member training/qualification records (focus: completion of training in performance of assigned duties/functions related to passenger cabin safety).
- ☐ **Other Actions** (Specify)

Guidance

The training specified in the provision is to be accomplished as part of initial ground, simulator/aircraft or line training.

Cabin safety training would typically address:

- Aircraft systems and emergency equipment including:
  Aircraft interior, passenger seats and restraints;
  Aircraft-specific cabin duties and responsibilities;
  Emergency exit locations and operation;
  Emergency equipment locations and operation;
  Slides, rafts, slide/rafts, ramp slide/rafts, life vests and other flotation devices as applicable.
- Cabin safety duties and responsibilities including:
  Mandatory passenger briefings;
  Passenger acceptance and handling;
  The stowage of carry-on baggage;
  The use of personal electronic devices;
  Fueling with passengers on board;
  Cabin safety checks.
- Emergency procedures including:
  Cabin duties assumed in the event of an emergency;

Cabin smoke, fumes and fires;

Emergency landing (land and water);

Planned and unplanned cabin emergency evacuations (land and water);

Oxygen administration

Medical emergencies and first aid.

Cabin safety training elements incorporated into other curricula of the flight crew member training program may satisfy the specifications of this provision.

Refer to General Guidance at the beginning of this Subsection 2, Training and Qualification, for explanatory information regarding traditional training program requirements.

2.3 Line Qualification

FLT 2.3.1 The Operator shall have a line qualification program consisting of line training and, where applicable, evaluations, approved or accepted by the State, which ensures flight crew members are qualified to operate in areas, on routes or route segments and into the airports to be used in operations for the Operator. Such program shall:

(i) Be published in the Training Manual or equivalent documents;

(ii) Ensure each pilot flight crew member has adequate knowledge of the elements specified in Table 2.5, as applicable to the areas, routes and route segments of intended operation;

(iii) Specify qualification requirements for operations in all areas, on all routes or route segments, and into all airports of intended use;

(iv) Ensure line training and evaluation for each pilot crew member is completed during initial qualification.

(v) Ensure line training and evaluation is completed prior to a pilot crew member being used as a PIC in operations. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** flight crew line qualification training/evaluation program, approved/accepted by the State, specifies qualification requirements for operations associated with areas/routes/route segments/airports used in operations.
- ☐ **Interviewed** responsible manager(s) in flight operations.
- ☐ **Examined** flight crew line qualification initial/recurrent curricula/syllabi (focus: line training/evaluation in areas/airports of operations; program elements consistent with specifications in Table 2.5).
- ☐ **Examined** selected flight crew member training/qualification records (focus: completion of initial/recurrent line qualification training/evaluation).
- ☐ **Other Actions** (Specify)

Guidance

The intent of this provision is to ensure flight crew members are qualified to conduct routine operations within each theater of operation as defined by the operator. It does not address the additional and specialized knowledge.

This specification in item v) applies to all candidates for the position of PIC, to include SIC upgrade candidates and pilots hired directly into PIC positions in operations for the operator.

The training and evaluation specified in this provision is accomplished by pilot flight crew members as part of; ground training, simulator/aircraft training or line training.

FLT 2.3.2–2.3.4 (Intentionally open)

△ **FLT 2.3.5** If the Operator conducts single-pilot operations, the Operator shall ensure all pilots-in-command conducting single-pilot operations meet the following requirments:

(i) for operations under IFR or at night, have accumulated at least 50 hours of flight time on the class of aeroplane, of which at least 10 hours shall be as pilot-in-command;

(ii) for operations under IFR, have accumulated at least 25 hours of flight time under IFR on the class of aeroplane;

(iii) for operations at night, have accumulated at least 15 hours of flight time at night, which may form part of the 50 hours of flight time in sub-item i);

(iv) for operations under IFR, have acquired recent experience as a pilot engaged in single-pilot operations under IFR, which includes:

(a) at least five IFR flights, including three instrument approaches carried out during the preceding 90 days on the class of aeroplane in the single-pilot role; *or*

(b) an IFR instrument approach check carried out on such an aeroplane during the preceding 90 days;

(v) for operations at night, have completed at least three take-offs and landings at night on the class of aeroplane in the single-pilot role in the preceding 90 days; *and*

(vi) have successfully completed training programmes that include, passenger briefing with respect to emergency evacuation, autopilot management, and the use of simplified in-flight documentation. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** requirement for PIC.
- ☐ **Examined** records of flight operation.
- ☐ **Interviewed** responsible manager(s) in flight operations.
- ☐ **Other Actions** (Specify)

2.4 Special Qualification

△ **FLT 2.4.1** If the Operator conducts flights in areas or on routes or route segments over difficult terrain and/or into special airports as designated by the State or by the Operator, shall ensure each PIC completes training and, if required, an evaluation in the special skills and/or knowledge required to qualify or requalify for such operations. The content of training shall ensure the PIC has adequate knowledge of the elements specified in Table 2.5 as applicable to the areas, routes, route segments and special airports of intended operation. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** requirement for training to qualify/requalify a PIC in special skills/knowledge needed for operations associated with specific areas/routes/route segments/difficult terrain/airports as designated by State or operator.
- ☐ **Examined** training curriculum/syllabus used to qualify/requalify PIC to operate over/into special routes/areas/airports (focus: training in special skills/knowledge required for certain operations; program elements consistent with specifications in Table 2.5).
- ☐ **Interviewed** responsible manager(s) in flight operations.
- ☐ **Examined** selected PIC training/qualification records (focus: completion of training for operations associated with designated special areas/routes/route segments/terrain/airports).
- ☐ **Other Actions** (Specify)

Guidance

This provision applies to candidates for the position of PIC, to include SIC upgrade candidates and pilots hired directly into PIC positions in operations for the operator.

Training as specified in this provision may include aircraft type-specific elements as applicable to areas of operations, routes, airports, and equipment operated.

The specifications of this provision address the training required to operate over difficult terrain and/or into special airports based on a determination, by the operator and/or State, that pilots require special skills or knowledge for such operations. Such training typically addresses routes and/or airports that are over or in areas:

- With mountainous terrain, including high terrain, rapidly rising terrain or terrain with steep gradients;
- With terrain that contributes to the existence of mountain waves, turbulence, high surface winds, sudden wind changes and/or other atmospheric phenomena that could affect the performance of the aircraft;
- Containing topographical variations such as ridgelines, valleys, ravines, fjords or other areas where downdrafts on the leeward or downwind side can make traversing the area or accomplishing a crosswind landing hazardous;
- Where the airport, runway and/or approach environment is difficult to identify at night due to surrounding lights;
- Where featureless or expansive terrain could contribute to optical illusions during the day or at night;
- That are devoid of lighting where airport, runway and/or approach area identification is difficult at night due to lack of visible landmarks;
- That are devoid of lighting and sole reference to external or visual cues is insufficient for the maintenance of proper aircraft attitude control;
- That require the application of any other specific skills or knowledge, as determined by the operator and/or State.

FLT 2.4.2 (Intentionally open)

△ **FLT 2.4.3** If the Operator uses flight crew members to concurrently operate aircraft of different types, or operate variants within one type, the Operator shall have qualification processes that are approved or accepted by the State and ensure such flight crew members complete training and an evaluation that emphasizes the differences between aircraft types and variants. **(GM)**

Conformance Applicability			
Specific to Aircraft Type	**Included in Initial/Transition/ Conversion Training**	**Included in Recurrent Training/Continuing Qualification**	**Conformance through AQP/ATQP/EBT**
Yes*	Yes	Yes (every 12 months)	Yes
* This training may be provided as a complete package or, if applicable, tailored to address aircraft type or crew position requirements that are different from the individual's previous training in duties and functions related to passenger cabin safety.			

Auditor Actions

- ☐ **Identified/Assessed** requirement for flight crew training/evaluation in differences between aircraft types/variants (as applicable).
- ☐ **Identified/Assessed** flight crew AQP/ATQP/EBT (if applicable): (focus continuing qualification recurrent schedule for training/evaluation in differences between aircraft types/variants).

- ☐ **Interviewed** responsible manager(s) in flight operations.
- ☐ **Examined** flight crew line qualification initial/recurrent curricula/syllabi (focus: training/evaluation in differences between relevant aircraft types/variants).
- ☐ **Examined** selected flight crew training/qualification records (focus: completion of training/evaluation in differences between aircraft types/variants).
- ☐ **Other Actions** (Specify)

Guidance

Refer to the IRM for the definitions of Aircraft Type and Aircraft Variant (within Type).

The intent of this specification is to ensure flight crew members are familiarized with the significant differences in equipment and/or procedures between concurrently operated types or variants. The determination of variant within type is within the domain of the State as part of flight crew licensing.

Qualification processes are applicable to all flight crew members used in such operations and as defined in the IRM.

Refer to General Guidance at the beginning of this Subsection 2, Training and Qualification, for explanatory information regarding traditional training program requirements.

3 Line Operations

3.1 Common Language

△ **FLT 3.1.1** The Operator shall ensure the designation of a common language(s) for use by all flight crew members for communication:

(i) On the flight deck during line operations;

(ii) If the Operator conducts passenger flights with cabin crew, between the flight crew and cabin crew during line operations;

(iii) During flight crew training and evaluation activities. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** requirement for use of common language(s) by flight/cabin crew members.
- ☐ **Interviewed** responsible manager(s) in flight operations.
- ☐ **Interviewed** selected flight/cabin crew members (focus: awareness/use of designated common language in operations).
- ☐ **Other Actions** (Specify)

Guidance

More than one common reference language might be designated.

Communication in the designated common language is applicable to all flight crew members, including foreign nationals and expatriates used as flight crew members, instructors or evaluators by the operator.

The operator is expected to be in compliance with the common language requirements of the State (e.g. mandatory for operations, a condition for employment or a condition for airman certification), if such requirements exist. If no State requirements exist, the operator is expected to designate an appropriate common operational language for use by flight crew members, as specified in this provision.

The existence (and application) of a State common language requirement that satisfies the specifications of this provision relieves the operator of such a designation in operational documentation.

3.2 (Intentionally Open)

3.3 Flight Crew Qualifications

△ **FLT 3.3.1** The Operator shall specify the composition and required number of flight crew members taking into account the type of aircraft, flight crew qualification requirements and flight/duty time limitations.

Auditor Actions

- ☐ **Identified/Assessed** requirement/methodology for determining flight crew composition/number of crew members based on aircraft type/crew qualification/flight-duty time limitations.
- ☐ **Interviewed** responsible manager(s) in flight operations.
- ☐ **Examined** selected flight crew pairing records (focus: crew composition/number consistent with aircraft type/qualifications/limitations).
- ☐ **Observed** flight crew scheduling operations (focus: scheduling complies with defined flight crew composition/number of flight crew members based on mission factors).
- ☐ **Other Actions** (Specify)

Guidance

The intent of this provision is to ensure flight crews are composed of the flight crew members appropriate for the aircraft type and planned operation.

As applicable to an operator, crew composition requirements would typically also address the use of relief pilots and/or augmented crews.

FLT 3.3.2–3.3.3 (Intentionally open)

FLT 3.3.4 The Operator shall ensure flight crew members will not operate an aircraft unless issued a medical assessment in accordance with requirements of the State; such assessment shall not be valid for a period greater than 12 calendar months. **(GM)**

Note: *If authorized by the State, it is permissible to extend the validity beyond 12 months (to preserve the original expiry date) when the medical assessment is renewed up to 45 days prior to its expiry date.*

Auditor Actions

- ☐ **Identified/Assessed** requirement for flight crew members to have valid medical assessment in accordance with requirements of the State, maximum 12 months validity.
- ☐ **Identified/Assessed** tracking/scheduling processes that prevent flight crew members from assignment to flight duty without valid medical assessment.
- ☐ **Interviewed** responsible manager(s) in flight operations.
- ☐ **Examined** selected flight crew training/qualification records (focus: existence of valid medical assessment).
- ☐ **Other Actions** (Specify)

Guidance

Requirements of the State and/or an applicable authority that are associated with medical classifications, aircraft types, flight crew positions and/or licensing could require a more restrictive assessment interval than specified in this provision. An applicable authority is one that has jurisdiction over international operations conducted by an operator over the high seas or the territory of a state that is other than the State of the Operator.

FLT 3.3.5–3.3.6 (Intentionally open)

△ **FLT 3.3.7** The Operator shall have a process to ensure flight crew member recency-of-experience requirements are satisfied as follows:

(i) A pilot does not act as PIC or SIC of an aircraft unless either:

(a) On the same type or variant of aircraft within the preceding 90 days (120 days if under the supervision of an instructor or evaluator), that pilot has operated the flight controls during at least three takeoffs and landings in the aircraft type or in a flight simulator approved for the purpose by the appropriate authority, or

(b) On the same type or variant of aircraft within a time period acceptable to the State and applicable authorities, that pilot has operated the flight controls during the number of takeoffs and landings in the aircraft type or in a flight simulator approved for the purpose by the appropriate authority, necessary to conform to a defined recency of experience schedule approved or accepted by the State and applicable authorities.

(ii) A pilot does not act in the capacity of a cruise relief pilot unless, within the preceding 90 days, that pilot has either:

(a) Operated as PIC, SIC or cruise relief pilot on the same type or variant of aircraft, or

(b) Completed flying skill refresher training to include normal, abnormal and emergency procedures specific to cruise flight on the same type of aircraft or in a flight simulator approved for the purpose, and has practiced approach and landing procedures, where the approach and landing procedure practice may be performed as the PM.

(iii) flight engineer does not perform duties in an aircraft unless either:

(a) Within the preceding 6 months, that individual has had at least 50 hours of flight time as a flight engineer on that aircraft type aircraft, or

(b) Within the preceding 90 days, that individual has operated as a flight engineer on board that aircraft type or in a simulator of the aircraft type.

(iv) A flight navigator or radio operator does not perform duties in an aircraft unless recency-ofexperience requirements of the Operator and the State have been satisfied.

(v) If a flight crew member does not satisfy recency-of-experience requirements in accordance with i), ii), iii) or iv), such flight crew member completes re-qualification in accordance with the Operator's training and evaluation program. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** tracking/scheduling processes that prevent flight crew members from flight duty assignment unless recency-of-experience qualification requirements are met.
- ☐ **Interviewed** responsible manager(s) in flight operations.
- ☐ **Examined** guidance/procedures (focus: definition of recency-of-experience qualification requirements).
- ☐ **Examined** selected flight crew training/qualification records (focus: satisfaction of recency-ofexperience qualification requirements).
- ☐ **Observed** flight crew scheduling operations (focus: scheduling tracks/accounts for flight crew member recency-of-experience qualification requirements).
- ☐ **Other Actions** (Specify)

Guidance

The specification in item i) requires the pilots to operate the flight controls: PM duties do not satisfy recency-of-experience requirements for this specification.

The specifications in item (i) also ensure that newly qualifying pilots have the necessary experience to operate as a required crewmember in the line training qualification program. The process to ensure such pilots meet recency-of-experience requirements may be integral to the line qualification program in accordance with FLT 2.3.1.

The term Pilot Monitoring (PM) has the same meaning as the term Pilot Not Flying (PNF) for the purpose of applying the specifications of this provision.

according to a defined schedule in order to establish an equivalent level of recency experience. Such schedule would not have to adhere exactly to the specification in item i) a) of this provision if the level of recent experience is acceptable to the State and applicable authorities, and the PIC or SIC, as applicable, is required to operate the flight controls in order to satisfy recency-of-experience requirements.

Item v) specifies that a flight crew member whose recency has lapsed for any reason becomes unqualified and must be re-qualified by the operator. The requalification program for such a flight crewmember need not specify the same number of takeoffs and landings as the recency requirements.

Applicable authorities include those authorities that have jurisdiction over international operations conducted by an operator over the high seas or the territory of a state that is other than the State of the Operator.

The term “abnormal” is used to describe a condition or situation (e.g. abnormal airframe vibration, abnormal landing configuration).

The terms “normal” and “non-normal/emergency” typically refer to AOM checklists, procedures and/or maneuvers. The term “non-normal” includes AOM emergency checklists and/or procedures (i.e. an emergency procedure is a subset of non-normal).

The terms can also be used to describe an event, situation or operation that would be addressed by normal or non-normal/emergency procedures or checklists. When used in this manner, the terms may be separated by forward slash marks (e.g. normal/non-normal/emergency).

The term “emergency” used alone refers to declarations and non-AOM procedures.

FLT 3.3.8 (Intentionally open)

△ **FLT 3.3.9** The Operator shall have an airport qualification process that ensures a PIC has made an actual approach and landing at each airport within the Operator's route system accompanied by a pilot, either as a crew member or flight deck observer, that is qualified for that airport, unless:

(i) The approach to the airport is not over difficult terrain and the instrument approach procedures and aids available are similar to those with which the pilot is familiar, and the normal operating minima are adjusted by the addition of a margin of safety that is approved or accepted by the State, or there is reasonable certainty that approach and landing can be made in visual meteorological conditions (VMC), or

(ii) The descent from the initial approach altitude can be made by day in VMC, or

(iii) The Operator has qualified the PIC for operations into the airport by means a pictorial representation that is approved or accepted the Authority, or

(iv) The airport is adjacent to another airport into which the PIC is currently qualified to operate. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** tracking/scheduling/pairing processes for ensuring PICs will meet qualification requirements for airports/areas/routes to be used in operations.
- ☐ **Interviewed** responsible manager(s) in flight operations.
- ☐ **Examined** OM guidance/procedures (focus: definition of crew member qualification criteria for operations into airports/areas/routes used in operations).
- ☐ **Observed** flight crew scheduling operations (focus: scheduling and crew pairing accounts for PIC qualification for operations into airports of intended landing).
- ☐ **Other Actions** (Specify)

Guidance

The specification in item (i) may be satisfied by a process, approved or accepted by the State, that:

- Identifies instrument approach procedures that require the application of margins to operating minima;
- Specifies the operating margin to be applied.

The specification in item (iii) may be satisfied by any pictorial representation approved or accepted for the purpose by the Authority, such as an instrument approach plate or chart.

Refer to FLT 2.4.1 and associated Guidance for additional specifications and information that addresses training for operations associated with special areas, routes, route segments and special airports.

△ **FLT 3.3.10** The Operator shall have a process to ensure a pilot is not used as a PIC in operations that require the application of special skills or knowledge within areas, on routes over difficult terrain and/or into special airports, as designated by the State or by the Operator, unless, within the preceding 12 months, that pilot has either:

(i) Made at least one trip as a pilot flight crew member, line check airman or observer on the flight deck on a route in close proximity and over similar terrain within the specified area(s), on the specified route and/or into the special airport, as applicable, or

(ii) Completed training and an evaluation in the special skills and/or knowledge required to qualify or requalify for such operations. The content of training shall ensure the PIC has adequate knowledge of the elements specified in Table 2.5 as applicable to the areas, routes, route segments and special airports of intended operation. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** tracking/scheduling processes that prevent PICs from flight duty assignment into airports/areas and on routes/route segments that require special skills/knowledge, unless qualification requirements have been satisfied.
- ☐ **Interviewed** responsible manager(s) in flight operations.
- ☐ **Examined** OM guidance/procedures (focus: definition of PIC qualification criteria for operations into airports/areas/routes that require special knowledge/skills).
- ☐ **Observed** flight crew scheduling operations (focus: scheduling tracks/accounts for PIC qualification for routes/airports that require special knowledge/skills).
- ☐ **Other Actions** (Specify)

Guidance

Special airport and/or route/area re-qualification (if applicable) could take the form of pictorial review, simulator training, line check airmen briefing or operation into the airport accompanied by a line check airman or other qualified airman and could include exemptions for VFR operations.

The intent of this provision is to ensure the PIC has a level of knowledge of terrain, minimum safe altitudes, seasonal meteorological conditions, communication and air traffic facilities, services and procedures, search and rescue services and navigational facilities and procedures, including any long-range navigation procedures, required for safe operations.

The specification in item (iii) may be satisfied by any pictorial representation approved or accepted for the purpose by the Authority, such as an instrument approach plate or chart.

Refer to FLT 2.4.1 and associated Guidance for additional specifications and information that addresses training for operations associated with special areas, routes route segments and special airports.

3.4 Flight Crew Scheduling

FLT 3.4.1 The Operator shall have a means to ensure flight crew members are qualified and current prior to accepting and/or being assigned to duty. Such means shall consist of:

- A requirement that prohibits flight crew members from operating an aircraft if not qualified for duty in accordance with requirements contained in Table 2.3;
- A scheduling process that ensures flight crew members, prior to being assigned to duty, are qualified and current in accordance with the applicable flight crew qualification requirements contained in Table 2.3 and, if applicable, additional requirements of the State. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** tracking/scheduling processes that prevent flight crew members from flight duty assignment unless currently qualified in accordance with Table 2.3 or other applicable requirements of the State.
- ☐ **Interviewed** responsible manager(s) in flight operations.
- ☐ **Examined** process for determining additional flight crew qualification requirements of the State.
- ☐ **Examined** selected flight crew duty assignment records (focus: satisfaction of applicable qualification requirements).
- ☐ **Observed** flight crew scheduling operations (focus: scheduling requires flight crew member qualification in accordance with Table 2.3 and requirements of State).
- ☐ **Other Actions** (Specify)

Guidance

The intent of this provision is to ensure flight crew member requirements and related scheduling processes preclude operation of an aircraft by a flight crew member that is not qualified and current in accordance with the specifications of the provision.

FLT 3.4.2 (Intentionally open)

FLT 3.4.3 The Operator shall have a methodology for the purpose of managing fatigue-related safety risks to ensure fatigue occurring in one flight, successive flights or accumulated over a period of time does not impair a flight crew member's alertness and ability to safely operate an aircraft or perform safety-related duties. Such methodology shall consist of flight time, flight duty period, duty period and rest period limitations that are in accordance with the applicable prescriptive fatigue management regulations of the State.

Auditor Actions

- ☐ **Identified/Assessed** requirements/methodology for flight crew fatigue management.
- ☐ **Identified/Assessed** tracking/scheduling processes (focus: processes take into account flight time/flight duty period/duty period/rest period limitations in the duty assignment of flight crew members).
- ☐ **Interviewed** responsible manager(s) in flight operations.
- ☐ **Interviewed** selected scheduling personnel.
- ☐ **Examined** selected flight crew duty assignment records (focus: examples of application of flight crew fatigue management limitations/mitigations).
- ☐ **Other Actions** (Specify)

Guidance

The intent of this provision is to ensure an operator establishes a methodology for the management of crew member fatigue in a manner that:

- Is based upon scientific principles and knowledge;
- Is consistent with the prescriptive fatigue management;
- Precludes fatigue from endangering safety of the flight.

3.5 (Intentionally Open)

3.6 Route and Airport Planning

FLT 3.6.1–3.6.3 (Intentionally open)

△ **FLT 3.6.4** If the Operator is authorized for LVO, the Operator shall have guidance that enables the flight crew to determine Runway Visual Range (RVR) requirements for runways of intended use, to include, as a minimum:

(i) Requirement for the availability of RVR reporting in order for CAT II and CAT III approach and landing operations to be authorized;

(ii) Required minimum RVR values for takeoff and authorized approaches;

(iii) Required minimum RVR values that consider inoperative approach/runway lighting, inoperative transmissometers or inadequate visual reference. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** OM guidance that specifies takeoff/landing runway visual range (RVR) requirements/associated limitations for runways of intended use (focus: availability to flight crew; instructions for use of information in operations)
- ☐ **Interviewed** responsible manager(s) in flight operations.
- ☐ **Other Actions** (Specify)

Guidance

The means of RVR measurement typically varies depending on the State.

The specification in item iii) may be satisfied by a corrections table or manual corrections for inoperative equipment applied to published minima.

3.7 Fuel, Weight/Mass and Balance, Flight Plans

FLT 3.7.1 (Intentionally open)

△ **FLT 3.7.2** The Operator shall delegate the authority to the PIC to ensure:

(i) A flight is not commenced unless the usable fuel required in accordance with DSP 4.3.1 is on board the aircraft and is sufficient to complete the planned flight safely;

(ii) If fuel is consumed during a flight for purposes other than originally intended during pre-flight planning, such flight is not continued without a re-analysis and, if applicable, adjustment of the planned operation to ensure sufficient fuel remains to complete the flight safely. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** OM requirement for PIC to ensure required safe usable fuel on board prior to flight (focus: delegation of authority to PIC; instructions for determination of safe usable fuel).
- ☐ **Interviewed** responsible manager(s) in flight operations.
- ☐ **Other Actions** (Specify)

Guidance

Refer to the IRM for the definition of Discretionary Fuel.

The intent of this provision is for the PIC to have the authority to ensure sufficient fuel is on board the aircraft to commence or continue the planned flight safely, and to be able to authorize the loading of *Discretionary Fuel* if such fuel is required for the safe conduct of the flight and will not cause operating limits to be exceeded

In a shared system of operational control, the PIC and the Flight Dispatcher/Flight Operations Officer share the responsibility to ensure operating limitations are not exceeded and sufficient fuel is on board to commence or continue the planned flight safely

The extent of the re-analysis or adjustment specified in item ii) is commensurate with the scope and complexity of the planned operation.

3.8 Aircraft Preflight and Airworthiness

△ **FLT 3.8.1** The Operator shall have guidance and procedures that describe flight crew duties and responsibilities for the use and/or application of the ATL, MEL and CDL. Such guidance and procedures shall be included in the OM or in other documents that are available to the flight crew during flight preparation and accessible to the flight crew during flight, and shall address, as a minimum, PIC responsibilities for:

(i) Determining the airworthiness status of the aircraft;

(ii) Ensuring, for each flight, a description of known or suspected defects that affect the operation of the aircraft is recorded in the ATL;

(iii) Precluding a flight from departing until any defect affecting airworthiness is processed in accordance with the MEL/CDL;

(iv) Ensuring the aircraft is operated in accordance with any applicable MEL/CDL Operational Procedure. **(GM)**

Auditor Actions

☐ **Identified/Assessed** OM guidance/procedures for flight crew use of ATL/MEL/CDL (focus: availability/accessibility to flight crew prior to/during flight; instructions for use of ATL/MEL/CDL, application of limitations).

☐ **Interviewed** responsible manager(s) in flight operations.

☐ **Other Actions** (Specify)

Guidance

RThe intent of this provision is for the operator to have guidance that ensures the proper use and application of the ATL, MEL and CDL. Such guidance typically addresses:

- Flight crew responsibilities related to a review of the ATL and the application of the MEL/CDL;
- Instructions for when to reference the MEL/CDL regarding a malfunctioning system or component;
- Instructions for the completion of log book entries that ensure defects are properly recorded for the purpose of remediation and processing in accordance with the MEL/CDL, as applicable;
- If applicable, the fault identification codes, trouble codes or other entries that ensure defects are appropriately identified, categorized and tracked for the purposes of remediation and/or to identify chronic or repetitive unserviceable items;
- Flight crew responsibilities related to the repetitive system or component checks that are required to conform to the MEL (e.g. verifying a redundant system is operable in the case of a single system failure);
- Any additional guidance necessary to ensure the ATL, MEL and CDL are used and applied in accordance with operator requirements.

The specifications of this provision also apply to equivalents for the MEL and CDL.

FLT 3.8.2–3.8.9 (Intentionally open)

△ **FLT 3.8.10** If the Operator transports passengers and/or supernumeraries without cabin crew, the Operator shall have procedures to ensure, prior to departure of a flight, passengers and/or supernumeraries, as applicable, have been briefed and are familiar with the location and use of safety equipment, to include:

(i) Seat belts;

(ii) Emergency exits;

(iii) Life jackets (individual flotation devices), if required
(iv) Lifesaving rafts, if required
(v) Oxygen masks;
(vi) Emergency equipment for collective use. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** OM guidance/procedures for preflight briefing for passengers/ supernumeraries; orientation as to location/use of safety equipment (focus: instructions of conduct of briefing; definition of safety equipment to be addressed/included).
- ☐ **Interviewed** responsible manager(s) in flight operations.
- ☐ **Other Actions** (Specify)

Guidance

The briefing related to the specification in item ii) also typically addresses any applicable requirements and restrictions for personnel seated adjacent to cabin emergency exits.

3.9 Ground Handling

FLT 3.9.1 If the Operator conducts passenger flights with or without cabin crew, the Operator shall have a procedure to ensure verification that:

(i) Passenger and crew baggage in the passenger cabin is securely stowed;
(ii) If applicable, cargo packages and/or passenger items being transported in passenger seats are properly secured. **(GM)**

Auditor Actions

- ☐ **Identified** procedure for flight crew or cabin crew to verify cabin security (focus: baggage and cargo packages/passenger items are stowed or properly secured).
- ☐ **Interviewed** responsible manager(s) in flight operations.
- ☐ **Other Actions** (Specify)

Guidance

The intent of this provision is for an operator to have a procedure for verification by the flight crew or cabin crew that all baggage and, if applicable, cargo packages and/or passenger items being transported in passenger seats are stowed or properly secured.

Some operators might transport smaller cargo packages (e.g. mail, COMAT items) secured in cabin passenger seats.

Some operators might transport certain passenger items secured in cabin passenger seats. These types of items are typically large, valuable or fragile articles belonging to passengers that are not conducive to transport as checked baggage or appropriate for stowage in overhead bins/lockers (e.g. large musical instruments, certain electronic equipment, prominent trophies, works of art). Such items might thus be secured and carried in a dedicated cabin passenger seat (which might be purchased by the passenger-owner for the purpose of transporting the item).

FLT 3.9.2–3.9.5 (Intentionally open)

FLT 3.9.6 If the Operator conducts flights from any airport when conditions are conducive to ground aircraft icing, the Operator shall have de-/anti-Icing policies and procedures published in the OM or in other documents that are available to the flight crew during flight preparation and accessible to the flight crew during flight. Such policies and procedures shall address any flight crew duties and responsibilities related to de-/anti-Icing and include:

(i) Holdover Time tables;
(ii) A requirement for a member of the flight crew or qualified ground personnel to perform a visual check of the wings before takeoff, if any contamination is suspected;

(iii) A requirement that takeoff will not commence unless the critical surfaces are clear of any deposits that might adversely affect the performance and/or controllability of the aircraft;

(iv) A statement that delegates authority to the PIC to order De-/Anti-icing whenever deemed necessary. **(GM)**

Note: *The specifications of this provision are also applicable for flights such as ferry, maintenance check/test and training.*

Auditor Actions

- ☐ **Identified/Assessed** OM policy/procedures for aircraft de-/anti-icing of aircraft (focus: availability/accessibility to flight crew prior to/during flight; description of flight crew authority/duties/responsibilities; statement that requires critical surfaces to be clear of ice prior to takeoff).
- ☐ **Interviewed** responsible manager(s) in flight operations.
- ☐ **Other Actions** (Specify)

Guidance

Refer to the IRM for the definitions of De-/Anti-icing Program and Holdover Time.

The intent of this provision is to ensure flight crew members adhere to the clean aircraft concept prior to takeoff anytime there is a potential for the accretion of ice on aircraft critical surfaces during ground operations.

Refer to Guidance associated with GRH 4.2.1 located in ISM Section 6 for specifications and associated guidance related to the establishment and maintenance of a De-/Anti-icing Program.

Qualified ground personnel specified in item (ii) are typically used to perform a visual wing check in instances when the wings are not visible to the flight crew from the interior of the aircraft (e.g., cargo aircraft operations).

The surfaces specified in item (iii) include: wings, flight controls, engine inlets, fuselage surfaces in front of engines or other areas defined in the AOM.

3.10 Airspace Rules

FLT 3.10.1 The Operator *should* require all commercial and non-commercial flights to be conducted under an IFR Flight Plan and in accordance with an IFR clearance. **(GM)**

Note: *Non-commercial flights in this ISARP does not mean ferry flights, test/maintenance check flights or training flights.*

Auditor Actions

- ☐ **Identified/Assessed** OM requirement for all flights to be conducted under IFR flight plan/in accordance with IFR clearance (focus: flight crew filing of IFR flight plan, acceptance of/adherence to IFR clearance).
- ☐ **Interviewed** responsible manager(s) in flight operations.
- ☐ **Other Actions** (Specify)

Guidance

Refer to the IRM for the definition of Instrument Flight Rules (IFR) and Visual Flight Rules (VFR).

The intent of this provision is for an operator to file an IFR flight plan with the appropriate ATS unit and obtain an IFR clearance in order to ensure its flights are afforded all of the air traffic services applicable to aircraft operating under IFR within controlled airspace. Such services typically include:

- Maintenance of minimum separation standards;
- Traffic advisory information;
- Terrain or obstruction alerting;

- Low altitude alerting;
- Strategic route planning;
- Automatic flight plan closure at airports with functioning control towers.

The specifications of this provision do not preclude an operator from:

- Operating certain portions of a commercial or non-commercial flight under VFR (visual flight rules)**;**
- Where possible, identifying portions of flights to be flown under VFR on the ATS flight plan (in lieu of filing a purely IFR Flight Plan);
- Operating flight such as, maintenance, repositioning, trainig under VFR.

FLT 3.10.2–3.10.3 (Intentionally open)

△ **FLT 3.10.4** The Operator shall have guidance that addresses the use of standard radio phraseology when communicating with ATC, the acceptance and readback of ATC clearances and, when necessary, the clarification of such clearances to ensure understanding. Such guidance shall include, as a minimum:

(i) A requirement for the use of the call sign;

(ii) A requirement for at least two flight crew members to monitor and confirm clearances to ensure a mutual (flight crew) understanding of accepted clearances under circumstances, as determined by the operator or flight crew, when a missed or misunderstood clearance could pose a safety risk to the flight;

(iii) A requirement to clarify clearances with ATC whenever any flight crew member is in doubt regarding the clearance or instruction received. **(GM)**

Auditor Actions

☐ **Identified/Assessed** OM requirement/guidance for standard radio phraseology in communication with ATC (focus: instructions/procedures for flight crew communications with ATC; definition/use of standard phraseology).

☐ **Interviewed** responsible manager(s) in flight operations.

☐ **Other Actions** (Specify)

Guidance

The intent of this provision is for an operator to have policies and procedures that ensure:

- The use of standard radio phraseology;
- ATC clearances are clearly understood during times of increased operational risk.

The specification in item ii) refers to situations when a missed or misunderstood clearance could pose a safety risk to the flight (e.g. inadequate terrain clearance, runway incursion, loss of separation). ATC clearances that have the potential to pose such safety risks, if misunderstood by the flight crew, typically include the following:

- Heading, altitude/flight level, assigned route/waypoint changes;
- Frequency changes during critical phases of flight;
- Instructions for any operation on or near a runway.

FLT 3.10.5 (Intentionally open)

FLT 3.10.6 The Operator shall have procedures and/or limitations that address operations into and out of uncontrolled airspace and/or airports, to include, if applicable, a prohibition if such operations are not permitted in accordance with restrictions of the AOC or equivalent documents. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** OM procedures/limitations for operations into/out of uncontrolled airspace/airports (focus: flight crew actions/responsibilities for airspace/airport operations with no ATC).
- ☐ **Interviewed** responsible manager(s) in flight operations.
- ☐ **Other Actions** (Specify)

Guidance

An uncontrolled airport is an airport without an operating control tower.

A controlled airport is an airport with a manned and operating control tower surrounded by controlled airspace.

Procedures and limitations typically include aircraft position radio broadcast procedures, VFR weather requirements and the ability to receive ATC clearance within a specified time/distance from the departure airport.

3.11 In-flight Operations

FLT 3.11.1–3.11.3 (Intentionally open)

△ **FLT 3.11.4** The Operator shall ensure minimum flight altitude information applicable to all phases of a flight, including guidance that specifies when descent below any applicable prescribed minimum altitude is permissible, is made available to the flight crew along with instructions for the use of such information. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** OM guidance that specifies when descent below applicable prescribed minimum altitude is permissible (focus: availability of minimum altitude information to flight crew during flight; instructions/procedures for adherence to/descent below minimum altitudes all phases of flight).
- ☐ **Interviewed** responsible manager(s) in flight operations.
- ☐ **Other Actions** (Specify)

Guidance

Minimum prescribed safety altitudes typically include:

- Minimum Safety Altitude (MSA);
- Minimum Descent Altitude/Height (MDA/H);
- Minimum En route Altitude (MEA);
- Minimum Obstruction Clearance Altitude (MOCA);
- Minimum Off-Route Altitude (MORA);
- Minimum Vectoring Altitude (MVA);
- Any other minimum altitudes prescribed by the Authority.

The specification in item ii) refers to situations when a missed or misunderstood clearance could pose a safety risk to the flight (e.g. inadequate terrain clearance, runway incursion, loss of separation). ATC clearances that have the potential to pose such safety risks, if misunderstood by the flight crew, typically include the following:

- Heading, altitude/flight level, assigned route/waypoint changes;
- Frequency changes during critical phases of flight;
- Instructions for any operation on or near a runway.

FLT 3.11.5 (Intentionally open)

△ **FLT 3.11.6** If the Operator conducts single-pilot operations, the Operator shall ensure the operation is not conducted under IFR or at night by a single pilot unless:

(i) the flight manual does not require a flight crew of more than one;

(ii) the airplane is propeller-driven;

(iii) the maximum approved passenger seating configuration of the aereplane is not more than nine;

(iv) the maximum certificated take-off mass does not exceed 5,700 kg;

(v) the pilot-in-command has satisfied the requirements of experience, training, checking, and recency according to the requirments of the Authority

Auditor Actions

- ☐ **Identified/Assessed** OM requirement for single-pilot operations
- ☐ **Interviewed** responsible manager(s) in flight operations.
- ☐ **Other Actions** (Specify)

△ **FLT 3.11.7** The Operator shall have a policy and/or procedures that require the flight crew to monitor fuel during flight to ensure a fuel quantity upon landing that is not less than final reserve fuel. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** OM requirement/guidance for monitoring en route fuel to ensure landing with not less than final reserve fuel (focus: instructions/procedure for flight crew fuel monitoring to ensure landing with final reserve fuel as specified in DSP 4.3.12).
- ☐ **Interviewed** responsible manager(s) in flight operations.
- ☐ **Other Actions** (Specify)

Guidance

Refer to FLT 3.14.16 and FLT 3.14.17 for actions to be taken by the PIC in the event the final reserve minimum fuel quantity specified in DSP 4.3.12 cannot be protected in flight and preserved upon landing.

FLT 3.11.8–3.11.17 (Intentionally open)

FLT 3.11.18 If the Operator conducts two pilot operations, the Operator shall have policies and guidance that define and address the division of duties related to the performance and prioritization of flight crew member operational tasks, to include, as a minimum:

(i) A requirement and procedures for the use of checklists prior to, during and after all phases of flight, and in abnormal and emergency situations;

(ii) PM/PF duties for all phases of flight, to include normal, abnormal and emergency situations;

(iii) PM/PF actions during manual and automatic flight;

(iv) Flight and cabin crew duties during situations that require coordination, to include, as a minimum, emergency evacuation, medical emergency and incapacitated flight crew member. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** OM policy/requirement/guidance for sharing/prioritization in performance of flight crew operational tasks (focus: guidance that addresses use of checklists; defines PF/PM duties/task sharing; defines flight/cabin crew duties/task sharing).
- ☐ **Interviewed** responsible manager(s) in flight operations.
- ☐ **Other Action** (Specify)

Guidance

The intent of this provision is to ensure flight crew duties are defined and appropriately divided, and that compliance with all applicable checklists contained in the AOM, MEL and CDL occurs in accordance with the operator's task sharing policy.

Elements of task sharing are described in the following table.

Task sharing is observed during most phases of flight and addresses areas such as:

- Philosophy for the use of checklists;
- Performance calculations;
- Automated flight procedures for flight crew;
- Manual flight procedures for flight crew;
- Flight crew briefings;
- Administrative duties at the appropriate times (such as top of descent and prior to commencing approach).

Task sharing is applicable during emergency situations such as:

- Rejected takeoff;
- Engine failure or fire at V1;
- TCAS/ACAS resolution advisory (RA) if applicable;
- GPWS Alert if applicable;
- Emergency descent.

Task sharing is applicable during emergency situations that require coordination with the cabin crew such as:

- Emergency evacuation;
- Medical emergency;
- Flight crew member incapacitation.

The term Pilot Monitoring (PM) has the same meaning as the term Pilot Not Flying (PNF) for the purpose of applying the specifications of this provision.

The term “abnormal” is used to describe a condition or situation (e.g. abnormal airframe vibration, abnormal landing configuration).

The terms “normal” and “non-normal/emergency” typically refer to AOM checklists, procedures and/or maneuvers. The term “non-normal” includes AOM emergency checklists and/or procedures (i.e. an emergency procedure is a subset of non-normal).

The terms can also be used to describe an event, situation or operation that would be addressed by normal or non-normal/emergency procedures or checklists. When used in this manner, the terms may be separated by forward slash marks (e.g. normal/non-normal/emergency).

The term “emergency” used alone refers to declarations and non-AOM procedures.

FLT 3.11.19–3.11.45 (Intentionally open)

△ **FLT 3.11.46** The Operator shall provide, and require compliance with, operating limitations, as defined by the original equipment manufacturer (OEM) and established by the State of Registry for each aircraft type used in operations.

Auditor Actions

- ☐ **Identified/Assessed** OM provision of/requirement for compliance with operating limitations as defined by OEM (focus: guidance/procedures for flight crew compliance with operating limitations).
- ☐ **Interviewed** responsible manager(s) in flight operations.
- ☐ **Other Actions** (Specify)

Guidance

Refer to FLT 3.14.16 and FLT 3.14.17 for actions to be taken by the PIC in the event the final reserve minimum fuel quantity specified in DSP 4.3.12 cannot be protected in flight and preserved upon landing.

FLT 3.11.47–3.11.58 (Intentionally open)

FLT 3.11.59 The Operator shall have a stabilized approach policy with associated guidance, criteria and procedures to ensure the conduct of stabilized approaches. Such policy shall specify:

(i) A minimum height for stabilization not less than 1000 feet AAL for approaches in IMC or not less than 500 ft. AAL for approaches in IMC as designated by the operator and/or State where a lower stabilization height is operationally required;

(ii) A minimum height for stabilization not less than 500 feet AAL for approaches in VMC;

(iii) Aircraft configuration requirements specific to each aircraft type (landing gear, wing flaps, speed brakes);

(iv) Speed and thrust limitations;

(v) Vertical speed limitations;

(vi) Acceptable vertical and lateral displacement from the normal approach path. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** OM policy/guidance/procedures for the conduct of a stabilized approach (focus: flight crew procedures/definition of criteria for stabilized approach).
- ☐ **Interviewed** responsible manager(s) in flight operations.
- ☐ **Examined** selected output from FDA/FDM/FOQA program (if applicable) (focus: data that indicates status of fleet stabilized approach performance).
- ☐ **Examined** relevant safety objectives including SPIs/SPTs (focus: proactive measures in place for identifying and preventing unstabilized approaches).
- ☐ **Other Actions** (Specify)

Guidance

Refer to the IRM for the definition of Flight Data Analysis (FDA) Program, Stabilized Approach and Stabilization Heights.

The intent of this provision is for the operator to implement a stabilized approach policy, as well as have guidance, criteria and procedures that ensure the maintenance of the intended lateral and vertical flight path during visual approaches and/or as depicted in published approach procedures without excessive maneuvering. The parameters to be considered at the 1000 ft. AAL and 500 ft. gates as well as in the definition of a stabilized approach are listed in items iii) through vi) of the provision.

The specifications in item (i) permit an operator, in accordance with operational requirements approved or accepted by the Authority, to establish stabilization criteria for heights lower than 1000 ft. AAL, but no lower than 500 ft. AAL (IMC or VMC), for approaches designated by the operator and/or State where:

- Lower minimum approach stabilization heights are authorized for turbo-propeller aircraft operations (e.g., 500 feet AAL on VMC/IMC approaches), **and/or**
- Maneuvering at a lower height AAL is required to meet instrument or other charted approach constraints (e.g. RNAV/RNP approaches, circling approaches and charted visual approaches), **and/or**
- Aircraft are required to comply with ATC speed constraints on final approach, **and/or**
- Deviations from selected approach stabilization criteria at a height lower than 1000 feet AAL, but above 500 feet AAL, are operationally required, and the operator can demonstrate pilot adherence to its stabilized approach policy via a continually monitored, managed and active flight data analysis (FDA) program.

The criteria used to conform to the specifications in item (vi) also typically address the maneuvering that may be required in accordance with a charted visual or instrument approach procedure.

FLT 3.11.60 The Operator shall have a go-around policy with associated procedures and guidance to ensure, when necessary, flight crews discontinue or go around from an approach in accordance with criteria established by the Operator. Such policy, procedures and guidance shall, as a minimum, address or define:

(i) Management support for flight crew go-around decision making;

(ii) Criteria that require flight crews to discontinue or go around from an approach or a landing (prior to the selection of reverse thrust, if applicable);

(iii) The go-around maneuver;

(iv) Duties and responsibilities of the PF and PM. **(GM)**

Auditor Actions

☐ **Identified/Assessed** OM policy/requirements for execution of a missed approach/go-around when approach not stabilized in accordance with established criteria (focus: flight crew guidance/procedures for execution of a missed approach/go-around).

☐ **Interviewed** responsible manager(s) in flight operations.

☐ **Examined** selected output from FDA/FDM/FOQA program (if applicable) (focus: data that indicates fleet status of missed approach/go-around from unstabilized approach).

☐ **Other Actions** (Specify)

Guidance

The specifications of this provision are directly related to the prevention of approach and landing accidents (ALAs) such as CFIT and runway excursions.

The intent of this provision is to reduce the risk of ALAs by ensuring the flight crew will always discontinue or go around from an approach or landing (prior to the selection of reverse thrust) when a safe landing cannot be assured or a go-around is otherwise required.

The specification in item (i) is intended to foster a culture that supports flight crew go-around decision making. It is typically expressed by senior management in a manner that:

- Promotes the go-around as a normal procedure;
- Encourages go-around preparedness and considers the risk of the go-around maneuver itself;
- Empowers the PM (or the SIC) to call for a go-around at any time during approach and landing until the selection of reverse thrust;
- Ensures that go-around decision making does not affect the PIC's emergency authority in the event of (impending) abnormal or emergency situations;
- Does not inhibit flight crew reporting of go-around related events.

The criteria referred to in item (ii), which would require a go-around or discontinuation of an approach, typically include:

- The visibility or ceiling is below the minimum required for the type of approach at the specified gates (e.g. outer marker, 1,000' AAL or at minimums).
- The appropriate visual references are not obtained or are lost at or below MDA (or minimum descent height) or DA (or decision height) and through flare and touchdown by either pilot.
- Prior to touchdown the wind is above the operational or pre-determined wind limit, or the runway status is below the limit determined by the flight crew's landing performance assessment.
- The criteria for a stable approach are not met at the relevant approach gate(s) or can no longer be maintained until touchdown.
- Technical defects or failures occur during approach that might inhibit a safe continuation of approach, landing or go-around.
- Doubts by either pilot about the aircraft's geographic or spatial position.

- Confusion by either pilot about the use or behavior of the automation.
- It is foreseeable that the go-around routing and path will not be sufficiently clear of adverse weather or restricting traffic.
- If instructed by ATC.
- If required for type-specific reasons as outlined in the respective AOM,
- If required by special considerations associated with a CAT II/III operation.

The specification in item (iii) refers to the aircraft type-specific maneuver(s) for discontinuing a visual approach, an instrument approach or a landing prior to the selection of reverse thrust (i.e. rejected landing).

The specification in item (iv) typically addresses:

- Timely and effective PF briefings.
- PM stabilized approach criteria deviation callouts and compliance checks:
- PF and/or PM go-around callouts and subsequent execution of the go-around maneuver.
- PF/PM go-around-related memory items.
- PM actions in the event of (subtle) PF incapacitation or delayed response to a go-around callout.
- PF/PM actions in the event of destabilization below stabilization height including PM monitoring for possible excessive deviations from flight path, speed, vertical speed, pitch or bank during the approach, during the transition from approach to landing and during flare and touchdown.
- As applicable, the role of additional flight crew members on the flight deck (e.g., augmented crew members).

To support SRM activities an operator would typically:

- Include and monitor aircraft parameters related to CFIT and runway excursions in their flight data analysis (FDA) program in accordance with provisions in ORG sub-section 3.3.
- Monitor go-around policy compliance through their FDA program and establish go-around safety performance indicators (SPIs). In addition to monitoring go-arounds, aircraft operators would also monitor discontinued approaches.
- Include unstable approaches followed by a landing as a reporting event by the flight crew.
- Minimize the need for the flight crew to report a go-around due to an unstable approach unless there is another significant event associated with the go-around (e.g. flap overspeed).

An operator, in accordance with requirements of the Authority and consistent with OEM guidance, typically develops a go-around policy, guidance, criteria and procedures based on one or more of the following source references:

- Global Action Plan for the Prevention of Runway Excursions Coordinated by EUROCONTROL and the Flight Safety Foundation – January 2021;
- Flight Safety Foundation Go-Around Decision-Making and Execution Project Final Report March 2017;
- Flight Safety Foundation Reducing the Risk of Runway Excursions – Report of the Runway Safety Initiative – May 2009;
- BEA Study on Aeroplane State Awareness during Go-Around - August 2013
- Any equivalent reference document approved or accepted by the Authority for the development of flight crew guidance related to the establishment of go-around policy and the prevention of unstable approaches and runway excursions.

FLT 3.11.61 (Intentionally open)

FLT 3.11.62 The Operator shall have a policy and procedures to ensure the flight crew will not continue an instrument approach to land at any airport beyond a point at which the limits of the operating minima specified for the approach in use would be infringed. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** OM policy/procedures that address continuation of an instrument approach to landing beyond limits of specified operating minima (focus: flight crew requirement/procedures for maintaining adherence to operating minima).
- ☐ **Interviewed** responsible manager(s) in flight operations.
- ☐ **Other Actions** (Specify)

Guidance

The intent of this provision is to ensure a transition to the missed approach is initiated at a designated point or height AAL that prevents infringing on the operating minima specified for the approach.

The standard specifies actions required from the flight crew when reaching the limit of the approach, (i.e. when reaching the DA(H) or MDA(H) or equivalent).

FLT 3.11.63–3.11.67 (Intentionally open)

△ **FLT 3.11.68** The Operator shall have a policy and procedures to ensure an approach is not continued below 300 m (1 000 ft) AAL unless the PIC is satisfied that, with the runway surface condition information available, the aircraft landing performance assessment indicates that a safe landing can be made. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** policy/procedures for discontinuing an approach if the runway surface condition would prevent a safe landing.
- ☐ **Interviewed** responsible manager(s) in flight operations.
- ☐ **Interviewed** flight crew members in flight operations.
- ☐ **Other Actions** (Specify)

Guidance

This specifications of this provision are directly related to the prevention of runway excursions.

3.12 Flight Deck Policy and Procedures

△ **FLT 3.12.1** The Operator shall have a corrective lenses policy that addresses the need for flight crew members, who are required to use corrective lenses, to have a spare set of corrective lenses readily available. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** policy/requirement for flight crew members that require use of corrective lenses to have a spare set readily available (focus: flight crew requirement for availability of spare corrective lenses).
- ☐ **Interviewed** responsible manager(s) in flight operations.
- ☐ **Interviewed** flight crew members in flight operations.
- ☐ **Other Actions** (Specify)

Guidance

Corrective lens requirements are typically listed on a medical certificate or license issued by the State.

△ **FLT 3.12.2** The Operator shall have a policy that requires flight crew members to keep their seat belts fastened when at their assigned stations and:

(i) Those flight crew members occupying a pilot's seat to keep their safety harnesses (shoulder straps and seat belts) fastened during the takeoff and landing phases of flight;

(ii) Other flight crew members to keep their safety harnesses fastened during the takeoff and landing phases of flight, unless the shoulder straps interfere with the performance of duties, in which case the shoulder straps may be unfastened but the seat belts shall remain fastened.

Auditor Actions

- ☐ **Identified/Assessed** OM policy/requirements for flight crew use of seat belts/safety harnesses when at their assigned stations (focus: definition of requirements for flight crew members to have seat belts/safety harness fastened).
- ☐ **Interviewed** responsible manager(s) in flight operations.
- ☐ **Interviewed** flight crew members in flight operations.
- ☐ **Other Actions** (Specify)

FLT 3.12.3 (Intentionally open)

△ **FLT 3.12.4** If applicable, the Operator shall have a policy and procedures to ensure flight crew members are only permitted to leave their duty stations during flight in the performance of duties or to meet physiological needs and shall always remain on their stations during take-off and landing. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** OM policy/procedures that address flight crew members leaving duty stations during flight (focus: requirement that flight crew member may leave duty station only for performance of duties/physiological needs).
- ☐ **Interviewed** responsible manager(s) in flight operations.
- ☐ **Interviewed** flight crew members in flight operations.
- ☐ **Other Actions** (Specify)

Guidance

The specifications of this provision do not apply to crew changes that occur in conjunction with relief and/or augmented crews.

3.13 (Intentionally Open)

3.14 Non-Normal/Abnormal and Emergency Operations

△ **FLT 3.14.1** If the Operator utilizes single-engine aircraft, the Operator shall ensure that all single-engine aeroplanes are operated in conditions of weather and light, and over routes and diversions therefrom, that allow for a safe forced landing/ditching to be executed in the event of engine failure.

Auditor Actions

- ☐ **Identified/Assessed** OM procedures of forced landing in the event of engine failure.
- ☐ **Interviewed** responsible manager(s) in flight operations.
- ☐ **Interviewed** flight crew members in flight operations.
- ☐ **Other Actions** (Specify)

△ **FLT 3.14.2** The Operator shall have a policy that prohibits the in-flight simulation of emergencies while passengers and/or cargo are being transported on board the aircraft.

Auditor Actions

- ☐ **Identified/Assessed** OM policy that prohibits in-flight simulated emergencies with passengers/cargo on board the aircraft.
- ☐ **Interviewed** responsible manager(s) in flight operations.
- ☐ **Interviewed** flight crew members in flight operations.
- ☐ **Examined** training/qualification program for instructors/evaluators/line check airmen (focus: prohibition of in-flight simulated emergencies with passengers/cargo on board the aircraft).
- ☐ **Other Actions** (Specify)

FLT 3.14.3–3.14.15 (Intentionally open)

△ **FLT 3.14.16** The Operator shall have an in-flight fuel management policy that requires the PIC to advise ATC of a minimum fuel state:

(i) When, having committed to land at a specific airport, the PIC calculates that any change to the existing clearance to that airport may result in landing with less than planned final reserve fuel;

(ii) By declaring “MINIMUM FUEL”. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** OM policy/procedures for in-flight fuel management (focus: flight crew procedures for monitoring en route fuel usage/identifying trends; requirement for flight crew to declare minimum fuel when minimum fuel for landing at destination airport might be less than planned final reserve fuel).
- ☐ **Interviewed** responsible manager(s) in flight operations.
- ☐ **Interviewed** flight crew members in flight operations.
- ☐ **Other Actions** (Specify)

Guidance

The intent of a “MINIMUM FUEL” declaration is to inform ATC that the flight has committed to land at a specific airport and any change to the existing clearance may result in landing with less than planned final reserve fuel. This is not an emergency situation, but rather an indication that an emergency situation is possible should any additional delay occur.

Guidance on in-flight fuel management, including minimum fuel declarations, is contained in the ICAO Flight Planning and Fuel Management Manual (Doc 9976).

△ **FLT 3.14.17** The Operator shall have an in-flight fuel management policy that requires the PIC to declare a situation of fuel emergency:

(i) When the calculated usable fuel predicted to be available upon landing at the nearest airport where a safe landing can be made is less than the planned final reserve fuel;

(ii) By declaring “MAYDAY, MAYDAY, MAYDAY, FUEL”. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** OM policy/procedures for in-flight fuel management (focus: flight crew procedures for monitoring en route fuel usage/identifying trends; requirement for flight crew to declare an emergency when minimum fuel for landing at nearest airport is calculated to be less than planned final reserve fuel).
- ☐ **Interviewed** responsible manager(s) in flight operations.
- ☐ **Interviewed** flight crew members in flight operations.
- ☐ **Other Actions** (Specify)

Guidance

The intent of this provision is to specify the last procedural step in a series of steps to ensure the safe completion of a flight. The “MAYDAY, MAYDAY, MAYDAY, FUEL” declaration provides the clearest and most urgent expression of an emergency situation brought about by insufficient usable fuel remaining to protect the planned final reserve. It communicates that immediate action must be taken by the PIC and the air traffic control authority to ensure that the aircraft can land as soon as possible. It is used when all opportunities to protect final reserve fuel have been exploited and in the judgment of the PIC, the flight will now land with less than final reserve fuel remaining in the tanks. The word fuel is used as part of the declaration simply to convey the exact nature of the emergency to ATC.

Guidance on in-flight fuel management including emergency fuel declarations is contained in the ICAO Flight Planning and Fuel Management Manual (Doc 9976).

3.15 Flight Crew Reporting Requirements

FLT 3.15.1 (Intentionally open)

△ **FLT 3.15.2** The Operator shall have a policy that requires the PIC to report any hazardous flight condition to the appropriate ATC facility without delay. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** policy for flight crew ATC hazard reporting (focus: flight crew procedures for reporting occurrences that could potentially have adverse effect on safety of flight operations).
- ☐ **Interviewed** responsible manager(s) in flight operations.
- ☐ **Interviewed** selected flight crew members.
- ☐ **Other Actions** (Specify)

Guidance

The intent of this provision is to ensure hazards with the potential to pose safety risks to the reporting aircraft or flight operations are appropriately identified and reported to the applicable ATS unit as soon as possible. Such required reports are typically defined by the State or applicable authorities and may include types of hazards as described in the following table.

Generic Hazard	Report Description
Meteorological Conditions	Un-forecast or severe weather, icing, wind shear, severe turbulence
Geophysical Events	Volcanic ash observed or encountered
Security Breaches	Air Piracy or other hostile acts that threaten the safety of the aircraft or its passengers
Wildlife	Birds or large animals in the vicinity of the airport or runways
Facilities and Infrastructure	Inadequacy of navigational facilities or undesirable navigational aid performance or other irregularity in navigational or ground facilities
Aircraft Performance	Unable to accept or maintain RVSM and reason (e.g. turbulence, mountain wave, wake turbulence, etc.), loss of navigational capability
Lasers	Illumination activities, events or exposure
Dangerous Goods	Dangerous goods on board the aircraft in the case of an in-flight emergency and for the information of airport authorities.
GPS Anomalies	Locations of GPS interference/jamming

Note: *Previously promulgated hazard information (e.g., via NOTAM) would not typically require additional reporting by the PIC.*

FLT 3.15.3 The Operator shall have a policy that assigns responsibility to the PIC for notifying the nearest authority, by the quickest available means, of any accident or serious incident resulting in injury, death, or substantial aircraft damage. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** policy for flight crew accident/incident reporting (focus: flight crew responsibility/procedures for reporting accidents/serious incidents to the nearest authority by the quickest available means).
- ☐ **Interviewed** responsible manager(s) in flight operations.
- ☐ **Interviewed** selected flight crew members.
- ☐ **Other Actions** (Specify)

Guidance

The intent of this provision is to ensure the appropriate authority in the state where an event occurred and any other organization required by such state are expeditiously informed of any accident or serious incident resulting in injury, death, or substantial aircraft damage. Such authority and organization(s) are typically defined in the applicable Aeronautical Information Publication (AIP) and may refer to one or more entities including but not limited to local law enforcement agencies, emergency service providers, the Civil Aviation Authority (CAA) and related air accident branches, safety bureaus or boards (e.g., NTSB).

The PIC, if able, typically reports an applicable event to the operator who then forwards it to the appropriate authority and other relevant organization(s).

△ **FLT 3.15.4** The Operator shall have a policy that assigns responsibility to the PIC for:

(i) Notifying the appropriate local authority without delay in the event of any emergency situation that necessitated action in violation of local regulations and/or procedures;

(ii) Submitting, if required by the state of occurrence, a report to the appropriate local authority and also to the Authority of the State of the Operator. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** policy for flight crew emergency action reporting (focus: flight crew responsibility/procedures for reporting to the appropriate authorities any emergency situation that necessitated action in violation of local regulations and/or procedures).
- ☐ **Interviewed** responsible manager(s) in flight operations.
- ☐ **Interviewed** selected flight crew members.
- ☐ **Other Actions** (Specify)

Guidance

The intent of item (i) is to ensure the appropriate authority, as specified in local instructions, is notified when an in-flight emergency requires the PIC to deviate from a local rule or procedure to the extent required to meet that emergency. Such notifications are typically made through the appropriate air traffic services (ATS) unit and involve a deviation from an assigned clearance or instrument procedure.

The intent of item (ii) is to ensure required occurrence/incident reporting takes place in accordance with local regulations or procedures. This includes reports submitted to the ATS unit concerned for occurrences/incidents specifically related to the provision of air traffic services.

△ **FLT 3.15.5** The Operator shall have a policy that requires the PIC to report the runway braking action special airreport (AIREP) when the runway braking action encountered is not as good as reported. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** OM policy for runway braking action reporting by the flight crew.
- ☐ **Interviewed** responsible manager(s) in flight operations.
- ☐ **Interviewed** selected flight crew members.
- ☐ **Other Actions** (Specify)

Guidance

Refer to the IRM for the definition of Air-report (AIREP).

Refer to ICAO PANS-ATM (Doc 4444), Chapter 4 and Appendix 1, for reporting instructions and guidance that addresses special air-reports regarding runway braking action and the format for transmitting such reports by voice or data link.

Refer to ICAO Circular 355 AN/211 for ATS actions when receiving AIREPs concerning braking action that is not as good as that reported.

4 Operations Engineering Specifications

General Guidance

Refer to the IRM for the definition of Operations Engineering.

4.1 Aircraft Performance

△ **FLT 4.1.1** The Operator shall have a process, performed by Operations Engineering, to determine and maintain guidance, procedures and performance data in the OM, applicable to each aircraft type, for applicable departure, destination and alternate airports. Such guidance and data shall enable the flight crew to determine or compute:

(i) Maximum structural weights (taxi, takeoff, landing);

(ii) Takeoff performance (accelerate - stop, close-in obstacles) that also ensures charting accuracy is accounted for, when necessary, in assessing takeoff performance in the event of a critical power unit failing at any point in the takeoff;

(iii) Maximum brake energy and minimum cooling time if applicable;

(iv) Climb performance (distant obstacles);

(v) Landing performance (minimum landing distance, go-around). **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** OM guidance/procedures/data for flight crew calculation of aircraft performance for taxi/takeoff/climb/landing at departure/destination/alternate airports (focus: performance data provided for all aircraft types; OM contains performance data as specified in standard).
- ☐ **Interviewed** responsible manager(s) in flight operations.
- ☐ **Interviewed** selected operations engineering personnel (focus: process for development of OM performance information/data).
- ☐ **Other Actions** (Specify)

Guidance

The specifications in this provision are related to the prevention of CFIT and runway excursions.

The intent is to ensure the operator has a process or processes to obtain or determine the specified performance data for use by flight crew. Such process(s) also address the maintenance and publication of guidance, procedures, and performance data in the OM.

Data may be tailored for airports of intended use (e.g. runway analysis).

The specifications in items ii) and v) may necessitate the inclusion of guidance and/or patterns to be followed in case of engine failure during takeoff, approach and go-around.

Tailored data is not always available for emergency alternate airports.

△ **FLT 4.1.2** The Operator shall have a process, performed by Operations Engineering, to determine and maintain guidance, data and procedures in the OM, applicable to each aircraft type, that enable the flight crew to determine and/or compute aircraft performance for all phases of flight. Such guidance and data shall ensure the flight crew considers all relevant factors affecting aircraft performance, to include:

(i) Aircraft weight (mass);
(ii) Operating procedures;
(iii) Pressure altitude appropriate to the airport elevation;
(iv) Temperature;
(v) Wind;
(vi) Runway gradient (slope);
(vii) Runway surface condition at the expected time of use;
(viii) Obstacle data;
(ix) NOTAMs (including airport NOTAMs);
(x) As applicable, MEL/CDL information;
(xi) Aircraft configuration (wing flap setting);
(xii) Anti-ice usage and, when applicable, ice accretion;
(xiii) As applicable, runway length used for aircraft alignment prior to takeoff;
(xiv) As applicable, fuel freeze considerations during extended operations. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** OM guidance/procedures/data for flight crew calculation of aircraft performance for all phases of flight (focus: performance data provided for all aircraft types; OM guidance/data incorporates relevant factors/limitations as specified in standard).
- ☐ **Interviewed** responsible manager(s) in flight operations.
- ☐ **Interviewed** selected operations engineering personnel (focus: process for development of OM performance information/data).
- ☐ **Other Actions** (Specify)

Guidance

The specifications in this provision are related to the prevention of CFIT, runway excursions and inflight loss of control.

The intent is to ensure the operator has a process or processes to obtain or determine the specified performance data for use by flight crew. Such process(s) also address the maintenance and publication of guidance, procedures, and performance data in the OM.

The specification in item vii) could be defined by a specific contaminant type/depth (e.g. snow, slush, water, ice) or an equivalent braking action report.

The specifications in xiii) refers to a determination of the length of the runway available, taking into account the loss, if any, of runway length due to alignment of the aircraft prior to takeoff.

The specifications in xiv) apply to considerations regarding the use of standard fuel freeze temperatures, fuel temperature analysis and en route fuel temperature monitoring for the specific fuels used in operations. Such considerations allow the flight crew to determine the actual fuel freeze temperature during extended operations (e.g. polar operations) in order to prevent in-flight freezing of fuel.

△ **FLT 4.1.3** The Operator shall have a process, performed by Operations Engineering, to determine and maintain guidance, data and procedures in the OM, applicable to each aircraft type, that enable the flight crew to determine and/or compute en route aircraft engine-out performance. Such guidance, data and procedures shall include, as a minimum, aircraft engine-out:

(i) Service ceiling;

(ii) Drift down altitudes, as well as specific guidance and procedures that assure terrain clearance along the route to the destination airport or to an en route alternate airport. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** guidance/procedures/data for flight crew calculation of en route aircraft engine-out performance (focus: performance data provided for all aircraft types; OM contains engine-out performance data as specified in standard).
- ☐ **Interviewed** responsible manager(s) in flight operations.
- ☐ **Interviewed** selected operations engineering personnel (focus: process for development of OM performance information/data).
- ☐ **Other Actions** (Specify)

Guidance

The intent of this provision is to ensure an operator has a process or processes to obtain or determine the specified performance data for use by flight crew. Such process(s) also address the maintenance and publication of guidance, procedures, and performance data in the OM.

The specification in item ii) refers to those areas were adequate terrain clearance cannot be assured at the engine-out service ceiling of the aircraft without following specific guidance and procedures for drift down.

4.2 (Intentionally Open)

4.3 Aircraft Systems and Equipment Specifications

△ **FLT 4.3.1** If applicable, the Operator shall ensure all turbine engine aircraft in its fleet with a maximum certificated takeoff mass in excess of 5,700 kg (12,566 lb), or authorized to carry more than nine passengers, are equipped with a ground proximity warning system (GPWS) that automatically provides a warning to the flight crew when the aircraft is in close proximity to the earth's surface and there is:

1. Excessive descent rate;
2. Excessive altitude loss after takeoff or go-around;
3. Unsafe terrain clearance. **(GM)**

Auditor Actions

- ☐ **Identified/Examined** turbine engine aircraft type specifications/system descriptions related to GPWS.
- ☐ **Identified/Examined** method(s) used to ensure turbine engine aircraft are equipped with GPWS.
- ☐ **Other Action** (Specify)

Guidance

Refer to the IRM for the definition of Ground Proximity Warning System (GPWS).

In addition to the above-specified warnings, it is recommended that the GPWS also provide warnings for the following conditions:

- Excessive terrain closure rate;

- Unsafe terrain clearance when not in the landing configuration:
  - Landing gear is not locked down;
  - Flaps are not in the landing position.
- Excessive descent below the instrument glide path.

△ **FLT 4.3.2** If applicable, the Operator *should* ensure all turbine engine aircraft in its fleet with a maximum certificated takeoff mass of 5,700 kg (12,566 lb) or less and authorized to carry more than five passengers are equipped with a GPWS which has a forward–looking terrain avoidance function. **(GM)**

Auditor Actions

☐ **Identified/Examined** turbine engine aircraft type specifications/system descriptions related to GPWS.

☐ **Identified/Examined** method(s) used to ensure turbine engine aircraft are equipped with GPWS.

☐ **Other Action** (Specify)

Guidance

Refer to the IRM for the definition of Ground Proximity Warning System (GPWS) and GPWS with a Forward-Looking Terrain Avoidance (FLTA) Function.

Different systems are available and acceptable as a GPWS with a forward-looking terrain avoidance (FLTA) function, as specified in this provision. The following guidance is an overview only; it is not to be construed as technical specifications for an acceptable system.

A GPWS with a FLTA function could also be known as a predictive terrain awareness and warning system (TAWS), and provides:

- A forward-looking capability and terrain clearance floor;
- The flight crew, by means of visual and aural signals, and a terrain awareness display, with an alerting time necessary to prevent controlled flight into terrain events.

An acceptable system provides a forward-looking capability and terrain clearance floor protection in areas of operations and surrounding airports of intended use. Such systems generally have:

- A navigation system that provides accurate aircraft position (e.g. GPS or equivalent);
- A means of displaying aircraft and terrain information;
- A means of providing visual and aural signals;
- A terrain database(s) for all areas of potential operations and surrounding airports of intended use.

If an obstacle database is commercially available and obstacle detection/display functionality is installed, an obstacle database for all areas of potential operations.

△ **FLT 4.3.3** If applicable, the Operator shall ensure all piston engine aircraft in its fleet with a maximum certificated takeoff mass in excess of 5,700 kg (12,566 lb), or authorized to carry more than nine passengers, are equipped with a GPWS that automatically provides a warning to the flight crew when the aircraft is in close proximity to the earth's surface and there is:

(i) Excessive descent rate;

(ii) Excessive terrain closure rate;

(iii) Excessive altitude loss after takeoff or go-around.

Auditor Actions

☐ **Identified/Assessed** piston engine aircraft type specifications/system descriptions related to GPWS.

☐ **Identified/Assessed** method(s) used to ensure piston engine aircraft are equipped with GPWS.

☐ **Other Actions** (Specify)

△ **FLT 4.3.4** If applicable, the Operator *should* ensure all piston engine aircraft in its fleet with a maximum certificated takeoff mass in excess of 5,700 kg (12,566 lb), or authorized to carry more than nine passengers, are equipped with a GPWS which has a forward–looking terrain avoidance function. **(GM)**

Auditor Actions

- ☐ **Identified/Examined** piston engine aircraft type specifications/system descriptions related to GPWS
- ☐ **Identified/Examined** method(s) used to ensure piston engine aircraft are equipped with GPWS.
- ☐ **Other Action** (Specify)

Guidance

Refer to the IRM for the definition of Ground Proximity Warning System with a Forward-Looking Terrain Avoidance (FLTA) Function.

△ **FLT 4.3.5** If applicable, the Operator shall ensure all turbine engine aircraft in its fleet with a maximum certificated takeoff mass in excess of 5,700 kg (12,566 lb), or authorized to carry more than nine passengers, are equipped with a ground proximity warning system (GPWS) which has a forward–looking terrain avoidance function.

Auditor Actions

- ☐ **Identified/Examined** turbine engine aircraft type specifications/system descriptions related to GPWS
- ☐ **Identified/Examined** method(s) used to ensure turbine engine aircraft are equipped with GPWS.
- ☐ **Other Action** (Specify)

Guidance

Refer to the IRM for the definition of Ground Proximity Warning System (GPWS) and GPWS with a Forward-Looking Terrain Avoidance (FLTA) Function.

Different systems are available and acceptable as a GPWS with a forward-looking terrain avoidance (FLTA) function, as specified in this provision. The following guidance is an overview only; it is not to be construed as technical specifications for an acceptable system.

A GPWS with a FLTA function could also be known as a predictive terrain awareness and warning system (TAWS), and provides:

- A forward-looking capability and terrain clearance floor;
- The flight crew, by means of visual and aural signals, and a terrain awareness display, with an alerting time necessary to prevent controlled flight into terrain events.

An acceptable system provides a forward-looking capability and terrain clearance floor protection in areas of operations and surrounding airports of intended use. Such systems generally have:

- A navigation system that provides accurate aircraft position (e.g. GPS or equivalent);
- A means of displaying aircraft and terrain information;
- A means of providing visual and aural signals;
- A terrain database(s) for all areas of potential operations and surrounding airports of intended use;

If an obstacle database is commercially available and obstacle detection/display functionality is installed, an obstacle database for all areas of potential operations.

△ **FLT 4.3.6** If applicable, the Operator *should* ensure aircraft in its fleet with a maximum certificated takeoff mass in excess of 5700 kg (12,566 lb), or authorized to carry more than nine passengers, are equipped with a forward-looking windshear warning system.

Auditor Actions

- ☐ **Identified/Assessed** aircraft type specifications/system descriptions related to forward-looking windshear warning systems.
- ☐ **Identified/Assessed** method(s) used to ensure aircraft are equipped with a forward-looking windshear warning system.
- ☐ **Other Actions** (Specify)

Guidance

Refer to the IRM for the definition of Forward-Looking Windshear Warning System.

FLT 4.3.7 The Operator shall ensure *all* aircraft in its fleet are equipped with at least one Emergency Locator Transmitter (ELT) of any type, except as required in FLT 4.3.8. **(GM)**

Auditor Actions

- ☐ **Identified/Examined** aircraft type specifications/system descriptions related to ELT.
- ☐ **Identified/Examined** method(s) used to ensure aircraft are equipped with any type of ELT.
- ☐ **Other Action** (Specify)

Guidance

Refer to the IRM for the definition of Emergency Locator Transmitter (ELT) which includes the definitions for the types of ELTs.

The intent of this provision is to ensure all aircraft, regardless of configuration (passenger, cargo, combi), are equipped with an ELT.

FLT 4.3.8 The Operator shall ensure aircraft in its fleet, for which the individual certificate of airworthiness is first issued after 1 July 2008, are equipped with at least one automatic Emergency Locator Transmitter (ELT).

Auditor Actions

- ☐ **Identified/Examined** aircraft type specifications/system descriptions related to automatic ELT.
- ☐ **Identified/Examined** method(s) used to ensure aircraft are equipped with automatic ELT.
- ☐ **Other Action** (Specify)

FLT 4.3.9 The Operator *should* ensure *all* aircraft in its fleet are equipped with at least one automatic Emergency Locator Transmitter (ELT).

Auditor Actions

- ☐ **Identified/Examined** aircraft type specifications/system descriptions related to automatic ELT.
- ☐ **Identified/Examined** method(s) used to ensure aircraft are equipped with automatic ELT.
- ☐ **Other Action** (Specify)

Table 2.1–Onboard Library Specifications	
The following documents shall be included in the Onboard Library:	
General Operating Information	
(i)	General operating information to include: (a) A copy of the air operator certificate (AOC); (b) A copy of the operations specifications relevant to the aircraft; (c) If applicable, a copy of the Article 83 bis agreement summary (including an English version); (d) The Operations Manual (OM). ***Note:*** *Refer to the IRM for the definitions of Article 83 bis, Article 83 bis Agreement and Article 83 bis Agreement Summary*
Aircraft Operating Information	
(ii)	Applicable Aircraft Operating Manual (AOM) and, as a minimum: (a) Normal and Emergency Checklists for each operating flight crew member as required by the AFM; (b) Performance tables or access to performance calculations via telecom systems (e.g. ACARS) is acceptable, if completed with appropriate backup procedures; (c) Takeoff performance deviations (e.g. due to inoperative equipment or abnormal situations).
(iii)	Minimum Equipment List (MEL) and Configuration Deviation List (CDL);
(iv)	Aircraft specific weight/mass and balance instructions/data (including loadsheet);
Areas, Routes and Airport Information	
(v)	Flight Plans (OFP and ATS) for each flight;
(vi)	The applicable departure, navigation and approach charts for use by each operating flight crew member as required by the AFM;
(vii)	Route and airport instructions and information (flight crew member route guide) for each flight to include, as a minimum: (a) Departure airport; (b) Destination airport; (c) En route alternate airports; (d) Emergency airports.
(viii)	If applicable, the escape routes used in case of decompression or engine failure in an area of high terrain.
Other Information	
(ix)	Cabin safety and emergency procedures relevant to the flight crew.
(x)	Dangerous Goods manual or parts relevant to the flight crew, to include information and instructions on the carriage of dangerous goods and action to be taken in the event of an emergency.
(xi)	Security Manual or parts relevant to the flight crew, including bomb search procedures.
(xii)	Ground Handling Manual or parts relevant to the flight crew, if required for flight crew to accomplish assigned duties (recommendation only and only applicable to cargo aircraft operations)

Table 2.2–Operations Manual (OM) Content Specifications			
This table contains the fundamental OM content specifications required to achieve conformance with FLT 1.7.1 and FLT 2.1.10. The table also specifies Section 3 (DSP) provisions that must be addressed in the sections of the OM relevant to flight crew. ***Note:*** *Specific flight crew policies, guidance, data and/or procedures that must also be addressed in the sections of the OM relevant to flight crew can be found in individual Section 2 provisions and are not duplicated in the table.*			
General Information			**DSP ISARP**
(i)	General Operations Manual (GOM), to include:		None
	(a)	Non-aircraft type related and/or standard operating procedures for each phase of flight, policies, procedures, checklists, descriptions, guidelines, emergency procedures and other relevant information;	None
	(b)	Authorities, duties and responsibilities associated with the operational control of flights;	DSP 1.3.4, 1.3.5
	(c)	If applicable, guidance that identifies and defines the common flight documents used by the flight crew, the FOO, FOA and/or other personnel responsible for operational control.	None
Aircraft Operating Information			**DSP ISARP**
(ii)	Aircraft Operating Manual (AOM), to include:		None
	(a)	Normal, abnormal/non-normal and emergency procedures, instructions and checklists;	None
	(b)	Aircraft systems descriptions, limitations and performance data.	None
(iii)	Minimum Equipment List (MEL) and Configuration Deviation List (CDL);		None
(iv)	Aircraft specific weight/mass and balance instructions/data (including loadsheet);		None
(v)	Instructions for the computation of the quantities of fuel and oil (if required) to be carried.		DSP 4.3.1
Areas, Routes and Airport Information			
(vi)	Route and airport instructions and information (departure, destination, en route and destination alternates, to include:		
	(a)	Airway manuals and charts, including information regarding communication facilities and navigation aids;	
	(b)	Airport charts, including the method for determining airport operating minima;	
	(c)	FMS database;	
	(d)	Airport and runway analysis manual or documents;	
	(e)	If applicable, supplemental oxygen requirements;	
	(f)	If applicable, escape routes used in the event of a decompression or engine failure in an area of high terrain;	
	(g)	If applicable, procedures for loss of communication between the aircraft and the FOO;	
	(h)	Instructions for the selection, designation (on the OFP) and protection of departure, en route and destination alternate airports.	
	(i)	Instructions to address departure if current meteorological reports and forecasts indicate that the destination airport or destination alternate will not be at or above operating minima;	
	(j)	Instructions to address the continuation of a flight towards an airport of intended landing if the latest available information indicates a landing cannot be accomplished at that airport or at least one destination alternate;	
	(k)	If applicable, flight monitoring requirements and instructions to ensure the, PIC notifies the operator of en route flight movement or deviations from the OFP;	

Table 2.2–Operations Manual (OM) Content Specifications		
	(l)	If applicable, flight planning considerations that address the continuation of a flight after the failure of the critical engine on a two-engine aircraft and/or the second engine on a three or four engine aircraft;
	(m)	The essential information concerning the search and rescue services in the area over which the aircraft will be flown.
	(n)	Information regarding RFFS capability available at airports of intended use.
Training Information		
(vii)	Training Manual, to include:	
	(a)	Details of all relevant training programs, policies, directives and requirements, including curricula and syllabi, as applicable, for basic operator familiarization, initial qualification, continuing qualification (including recency of experience), re-qualification, aircraft transition or conversion, upgrade to PIC and other specialized training requirements, as applicable;
	(b)	Curricula to include: ground training, simulator training, aircraft training, evaluation and certification, line flying under supervision, and any specialized training;
	(c)	Comprehensive syllabi to include lesson plans, procedures for training and the conduct of evaluations;
	(d)	The training program for the development of knowledge and skills related to human performance (Crew Resource Management/Dispatch Resource Management, CRM/DRM).
Other Information		
(viii)	Cabin safety and emergency procedures relevant to the flight crew.	
(ix)	Dangerous Goods manual or parts relevant to the flight crew, to include information and instructions on the carriage of dangerous goods and action to be taken in the event of an emergency.	
(x)	Security Manual or parts relevant to the flight crew, including bomb search procedures.	
(xi)	Ground Handling Manual or parts relevant to the flight crew, if required for flight crew to accomplish assigned duties (recommendation only and only applicable to cargo aircraft operations)**.**	

Table 2.3–Flight Crew Qualification Requirements
Fulfillment of the following flight crew certifications, qualifications, training and currency requirements shall be recorded and retained in accordance with ORG 2.6.1, and monitored and considered when assigning flight crew members to duty in accordance with FLT 3.4.1.
(i) Licenses/certification, including eligibility to exercise privileges of pilot license/certificate in international operations;
(ii) Specific pilot license/certification limitations (First Officer, relief pilot);
(iii) Specific qualifications (LVP, RVSM, ETOPS/EDTO);
(iv) Equipment qualifications (TCAS/ACAS, GPWS/EGPWS, HGS, HUD/EVS, PBN, PBCS);
(v) Recency-of-experience;
(vi) Medical status, including Medical Certificate;
(vii) Initial training and checking/line check/proficiency check/recurrent training and checking results;
(viii) Right seat qualification;
(ix) Type(s) qualification;
(x) Airport and route competence (including special airports);
(xi) Instructor/evaluator/line check airman qualification;
(xii) CRM/Human Factors training;
(xiii) Dangerous goods training;
(xiv) Security training;
(xv) Accrued flight time, duty time, duty periods and completed rest periods for the purposes of fatigue risk management and compliance with operator or State flight and/or duty time limitations.

Table 2.4–(Intentionally Open)

Table 2.5–Route and Airport Knowledge Requirements
Each pilot crew member, in order to conform to the specifications of FLT 2.3.1, shall have adequate knowledge of the following elements related to areas, routes or route segments, and airports to be used in operations: (i) Terrain and minimum safe altitudes; (ii) Seasonal meteorological conditions; (iii) Meteorological, communication and air traffic facilities, services and procedures; (iv) Search and rescue services for the areas over which the aircraft will be flown; (v) Navigational facilities and procedures, including any long-range navigation procedures associated with the route along which the flight is to take place; (vi) Procedures applicable to flight paths over heavily populated areas and areas of high air traffic density; (vii) Airport obstructions, physical layout, lighting, approach aids and arrival, departure, holding and instrument approach procedures and applicable operating minima. **Note** : That portion of an evaluation relating to arrival, departure, holding and instrument approach procedures may be accomplished in an appropriate training device that is adequate for this purpose.

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Section 3 — Operational Control and Flight Dispatch (DSP)

Applicability

Section 3 addresses the requirements for operational control of flights conducted by single and multi-engine aircraft and is applicable to an operator that conducts such flights, whether operational control functions are conducted by the operator or conducted for the operator by an external organization (outsourced). Specific provisions of this section are applicable to an operator based on the operational system in use, the manner in which authority is delegated by the operator, and the responsibilities, functions, duties or tasks assigned to the personnel involved.

The ISSA standards and recommended practices (ISARPs) in Section 3 are applicable only to those aircraft that are of the type authorized in the Air Operator Certificate (AOC) or equivalent document, and are utilized in commercial and non-commercial passenger and/or cargo operations Certain ISARPs are also applicable to ferry, test and training flights even though they refer to a non-revenue-generating flights, and such application is indicated in a note that is part of the standard or recommended practice.

Table 3.1 categorizes the personnel that are delegated the authority to exercise operational control, assigned the overall responsibility for the overall operational control of a flight, assigned the individual responsibility to carry out one or more functions, duties or tasks related to the operational control of a flight, or assigned the duty to provide administrative support to others with responsibilities related to operational control.

Table 3.5 defines the competencies of operational control personnel appropriate to the assignment of overall responsibility for operational control and/or to carry out one or more operational control functions, duties or tasks according to their specific competencies.

All personnel utilized to perform operational control functions as defined in Table 3.1, *or that act in a manner consistent with the functional categories specified in Table 3.1 and the competencies specified in Table 3.5*, irrespective of management or post holder title, are subject to specified training and qualification provisions in this section relevant to the operational control function performed.

Individual DSP provisions, and/or individual sub-specifications within a DSP provision, that:

- Do not begin with a conditional phrase are applicable to all operators unless determined otherwise by the Auditor.
- Begin with a conditional phrase (“If the Operator...”) are applicable if the operator meets the condition(s) stated in the phrase. The conditional phrase serves to define or limit the applicability of the provision (e.g. “If the operator utilizes…” or “If an FOO or FOA is utilized…”).
- Begin with a conditional phrase that specifies the use of a Flight Operations Officer (FOO) by an operator are applicable when the operator assigns the FOO, as defined in the IRM and delegated authority in accordance with Table 3.1, responsibility to carry out operational control functions, duties or tasks related to *all* of the competencies of operational control as specified in Table 3.5.
- Begin with a conditional phrase that specifies the use of a Flight Operations Assistant (FOA) by an operator are applicable when the operator assigns the FOA, as defined in the IRM, responsibility to carry out operational control functions, duties or tasks related to one or more, *but not all*, competencies of operational control as specified in Table 3.5.
- Are applicable to all systems of operational control, but with differences in application to each system, will have those differences explained in the associated Guidance Material **(GM)**.
- Contain the phrase “personnel responsible for operational control” or “personnel with responsibility for operational control” refer to any suitably qualified personnel with responsibility for operational control as designated by the operator, to include the pilot-in-command (PIC) unless otherwise annotated.
- Contain training and qualification requirements are applicable to personnel, other than the PIC, that are assigned responsibilities related to the operational control of flights. PIC training and qualification requirements for all systems of operational control are specified in ISM Section 2 (FLT).

- Are eligible for conformance using variations, including Operational Variations approved by the Authority, that contain a note referring to the additional SRM and safety monitoring requirements necessary to ensure an acceptable level of safety is maintained

Where operational control functions, duties or tasks are outsourced to external service providers, an operator retains overall responsibility for operational control and will have processes to monitor applicable external service providers in accordance with ORG 2.2.1 located in Section 1 of this manual to ensure requirements that affect operational control are being fulfilled.

General Guidance

Authority and Responsibility

For the purposes of this section *authority* is defined as the delegated power or right to command or direct, to make specific decisions, to grant permission and/or provide approval, or to control or modify a process.

For the purposes of this section *responsibility* is defined as an obligation to perform an assigned function, duty, task or action. An assignment of responsibility typically also requires the delegation of an appropriate level of authority.

Operational Control

Operational control is defined as the exercise of authority to initiate, continue, divert or terminate a flight in the interest of the safety and security of the aircraft and its occupants. An operator may delegate the authority for operational control of a specific flight to qualified individuals, but typically retains overall authority to operate and control the entire operation. An operator may also assign the responsibility to carry out specific operational control functions, duties, or tasks related to the conduct of each flight to identifiable, qualified and knowledgeable individual(s), but always remains responsible (and accountable) for the conduct of the entire operation.

Any individuals delegated the authority to make specific decisions regarding operational control would also be responsible (and accountable) for those decisions. Additionally, individuals assigned the responsibility to carry out specific operational control functions, duties, or tasks related to the conduct of each flight are also responsible (and accountable) for the proper execution of those functions, duties, or tasks. In all cases, the authority and responsibility attributes of operational control personnel are to be clearly defined and documented by the operator, and communicated throughout the organization.

It is important to note that when an operator assigns the responsibility for functions, duties or tasks related to the initiation, continuation, diversion and termination of a flight to employees or external service providers, such operator retains full responsibility (and accountability) for the proper execution of those functions, duties or tasks by ensuring:

- The training and qualification of such personnel meets any regulatory and operator requirements;
- Personnel are performing their duties diligently;
- The provisions of the Operations Manual are being complied with;
- An effective means of oversight is maintained to monitor the actions of such personnel for the purpose of ensuring operator guidance and policy, and regulatory requirements, are complied with.

Authority for the Operational Control of Each Flight

In order to practically exercise operational control of flight operations, an operator typically delegates the authority for the initiation, continuation, diversion or termination of each flight to qualified individuals. Such delegation occurs in conjunction with an operator's overall system of operational control as follows:

- Shared systems, wherein operational control authority is shared between the pilot-in-command (PIC) **and** a flight operations officer/flight dispatcher (FOO) **or** designated member of management, such as the Director of Flight Operations (or other designated post holder);

  For example: *The FOO (or designated member of management, as applicable) has the authority to divert, delay or terminate a flight if in the judgment of the FOO, a designated member of management or the PIC, the flight cannot operate or continue to operate safely as planned or released.*

- Non-shared systems, wherein operational control authority is delegated **only** to the PIC.

  For example: *Only the PIC has the authority to terminate, delay, or divert a flight if in the judgment of the PIC the flight cannot operate or continue to operate safely as planned.*

Responsibility for Operational Control of Each Flight

While an operator always retains full responsibility (and accountability) for the entire operation, the responsibility for the practical operational control of each flight is typically assigned to qualified individuals. As with the delegation of authority, the assignment of responsibility related to the operational control of each flight occurs in conjunction with a system of operational control as follows:

- Shared systems, wherein operational control responsibility for each flight is shared between the PIC and an FOO, or between the PIC and a designated member of management such as the Director of Flight Operations (or other designated post holder). In either shared system, the PIC, FOO or designated member of management, as applicable, may be assisted by other qualified personnel assigned the individual responsibility (by the operator) to carry out specific operational control functions, duties or tasks. Such personnel, however, typically do not share operational control responsibility with the PIC, FOO or designated member of management, as applicable.

  For example: *The FOO (or designated member of management) and the PIC are jointly responsible (and accountable) for the functions, duties or tasks associated with the operational control of a flight, such as pre-flight planning, load planning, weight and balance, delay, dispatch release, diversion, termination, etc. In such systems the FOO (or designated member of management) may carry out such responsibilities unassisted or be assisted by qualified personnel assigned the individual responsibility (by the operator) to carry out specific operational control functions, duties or tasks.*

- Non-shared systems, wherein the PIC is solely responsible for all duties, functions, or tasks regarding operational control of each flight, and may carry out such responsibilities unassisted or be assisted by qualified personnel assigned the individual responsibility (by the operator) to carry out specific operational control functions, duties or tasks.

  For example: *The PIC is solely responsible (and accountable) for the duties, functions, duties or tasks associated with the operational control of a flight, and the PIC either acts unassisted or is assisted by qualified personnel in carrying out functions, duties or tasks such as preflight planning, load planning, weight and balance, delay, dispatch release, diversion, termination, etc.*

Responsibility for Individual Operational Control Functions, Duties, or Tasks

It is important to note that, except for purely non-shared (PIC only) system, and as illustrated by the examples in the previous paragraph, the assignment of responsibilities related to the operational control of each flight can be further subdivided among a number of qualified and specialized personnel. In such cases, the responsibility for individual or specific operational control functions, duties or tasks is typically assigned to FOA personnel who support, brief and/or assist the PIC, FOO personnel and/or designated member(s) of management, as applicable, in the safe conduct of each flight. Examples of such qualified personnel include Weather Analysts, Navigation Analysts/Flight Planning Specialists, Load Agents/Planners, Operations Coordinators/Planners, Maintenance controllers and Air Traffic Specialists.

Note 1: *Some operators might choose to assign the responsibility for specialized operational control functions, such as those described in the example, to fully qualified FOO personnel. In such cases, an FOO, although qualified in all competencies of operational control, would be functionally acting as an FOA. Therefore, for the purpose of an audit, FOO personnel acting in this limited capacity are assessed as FOA personnel.*

Note 2: *Load Agents/Planners/Controllers who perform load control functions within the scope of ground handling operations may not be considered FOAs if trained and qualified in accordance with ISM Section 6 (GRH), Subsection 2.1, Training Program.*

Administrative Support Personnel

FOA personnel are not to be confused with administrative personnel that lack any operational control authority, have very limited operational control responsibilities, and who simply provide, collect or assemble operational documents or data on behalf of the PIC, the FOO, designated member of management or the operator.

Administrative personnel may be present in any system of operational control, are excluded from the initial and continuing qualification provisions of this section, and may be qualified as competent through on-the-job training (OJT), meeting criteria as specified in a job description, or through the mandatory use of written instruments such as task cards, guidelines, or checklists.

Additional Note

For the purposes of this section, continuing qualification includes recurrent or refresher training as well as any training necessary to meet recency-of-experience requirements.

Definitions, Abbreviations, Acronyms

Definitions of technical terms used in this ISSM Section 3, as well as the meaning of abbreviations and acronyms, are found in the IATA Reference Manual for Audit Programs (IRM).

1 Management and Control

1.1–1.2 (Intentionally Open)

1.3 Authorities and Responsibilities

DSP 1.3.1–1.3.3 (Intentionally open)

DSP 1.3.4 The Operator shall delegate the authority for operational control of each flight only to the PIC in a non-shared system of operational control, or to a combination of suitably qualified individuals in a shared system of operational control, to include the PIC and either:

(i) An FOO in a shared system of operational control that requires the use of FOO personnel, or

(ii) A designated member of management or Post Holder in a shared system of operational control that requires the use such management personnel. **(GM)**

Auditor Actions

- ☐ **Identified** specific system for operational control of flights as required by regulations.
- ☐ **Identified/Assessed** operational control system (focus: specific type of shared/non-shared operational control system in accordance with regulatory requirements).
- ☐ **Interviewed** responsible operational control manager(s).
- ☐ **Examined** job description for positions with delegated authority for operational control of flights (focus: authority/responsibilities appropriate for specific type of shared/non-shared system of operational control.
- ☐ **Other Actions** (Specify)

Guidance

Refer to the IRM for the definition of Flight Monitoring.

Refer to General Guidance in the beginning this section for the definition of *Authority* in the context of operational control.

The intent of this provision is to ensure an operator delegates the authority to initiate, continue, divert or terminate a flight in the interest of the safety and security of the aircraft and its occupants (operational control) only to appropriately qualified individuals.

Examples of operational control systems are provided in the following table as a means to identify how authority is typically delegated by an operator.

System of Operational Control	Location	System Description
Shared System (General)	(i), (ii)	Operational control **authority** is shared between the PIC and a flight operations officer/flight dispatcher (FOO) or a designated member of management.
Full Shared System (PIC and FOO)	(i)	The PIC and FOO have **joint authority** over the decisions functions, duties or tasks associated with the operational control of a flight. Such systems are characterized by the use of flight monitoring and a dedicated communications system (voice or electronic) separate from the ATC system in order to maintain shared authority.
Partial Shared System (PIC and FOO)	(i)	The PIC and FOO have **joint authority** over all preflight decisions, functions, duties or tasks associated with the operational control of a flight, but during flight the PIC has sole authority. Such systems typically include an agreed point of transition from joint to sole responsibility (e.g. pushback or throttle advance for takeoff). This point of transition also typically coincides with the point when the MEL is no longer applicable and flight crews transition to inflight procedures. Partial Shared systems are characterized by the use of flight monitoring if required by the Authority or desired by the Operator and typically lack the dedicated communications system necessary to maintain shared authority in flight.
Shared System (PIC and Management)	(ii)	Functionally equivalent to a full-shared system except that the PIC and a designated member of management, often the Director of Flight Operations or any suitably qualified and knowledgeable member of management designated by the operator, have **joint authority** over the decisions, functions, duties or tasks associated with the operational control of a flight.
Non-shared System (General)	Main standard	Operational control **authority** is delegated only to the PIC who may or may not be assisted by other support personnel.
Non-shared System (PIC-only)	Main standard	The PIC has **sole authority** over any and all decisions and completes all tasks (unassisted) related to the operational control of each flight. This does not preclude administrative personnel from providing, collecting or assembling operational documents or data related to each flight on behalf of the PIC and as defined in Table 3.1. Such systems may employ flight monitoring if required by the Authority or desired by the operator.

System of Operational Control	Location	System Description
Non-shared System (PIC-assisted)	Main standard	The PIC has **sole authority** over any and all decisions regarding operational control. However, the PIC is assisted by others (e.g. FOO, FOA or a member of management) that lack operational control authority, but are assigned the responsibility to carry out specific functions, duties or tasks, such as flight planning, flight support, briefing and in-flight monitoring. Such systems employ flight monitoring if required by the Authority or desired by the operator.
***Note** : An FOA can be utilized in combination with FOOs or designated members of management in all systems of operational control. If such personnel are delegated authority in a shared system, however, it would be limited to their specific area of competency.*		

Table 3.1 categorizes operational control personnel, defines their authority, identifies their responsibilities and illustrates the relationship of such responsibilities to the operation as a whole.

DSP 1.3.5 The Operator shall retain the overall responsibility for operational control of each flight and assign the responsibility to carry out functions, duties or tasks related to the operational control of each flight only to the PIC, or to a combination of suitably qualified personnel as defined in Table 3.1, to include the PIC and as applicable to the system of operational control responsibility:

(i) If the Operator has a shared system of operational control responsibility, *either* of the following:

(a) An FOO, who shares overall operational control responsibility with the PIC and/or supports, briefs and/or assists the PIC in the safe conduct of each flight, *or*

(b) A designated member of management or Post Holder who shares overall operational control responsibility with the PIC and/or supports, briefs and/or assists the PIC or FOO in the safe conduct of each flight.

***Note:** FOA and/or administrative personnel can be utilized in combination with FOOs and/or designated members of management in a shared system of operational control, but neither would share operational control responsibility with the PIC, FOO or designated member of management.*

(ii) If the Operator has a non-shared system of operational control responsibility, one or more of the following:

(a) An FOO who supports, briefs and/or assists the PIC in the safe conduct of each flight, or

(b) A designated member of management or Post Holder who supports, briefs and/or assists the PIC or FOO in the safe conduct of each flight, or

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

(d) Administrative personnel who do not support, brief and/or assist the PIC or FOO, but provide, collect or assemble operational documents or data relevant to the conduct of each flight. **(GM)**

***Note:** An operator may choose to assign limited responsibilities to fully qualified FOO personnel, or to utilize them only to carry out individual or specific operational control functions, duties or tasks. In such cases, an FOO would be functionally acting as an FOA.*

Auditor Actions

- ☐ **Identified/Assessed** operational control system (focus: operator has overall responsibility for operational control; responsibilities for individual functions/duties/tasks assigned to positions as specified in Table 3.1.
- ☐ **Interviewed** responsible operational control manager(s).

- ☐ **Examined** job description for positions with responsibility for individual operational control functions/duties/tasks (focus: position responsibilities appropriate for specific type of shared/non-shared system of operational control).
- ☐ **Observed** operational control/flight dispatch operations (focus: responsibilities for individual functions/duties/tasks).
- ☐ **Other Actions** (Specify)

Guidance

Refer to General Guidance in the beginning this section for the definition of *Responsibility* in the context of operational control.

The intent of this provision is to specify the various ways operational control responsibilities can be assigned by an operator and to ensure only suitably trained and qualified individuals, in addition to the PIC, are assigned overall responsibility for operational control or the responsibility to carry out one or more functions, duties or tasks related to the operational control of each flight.

The specifications of this provision apply irrespective of post holder titles or whether personnel positions are described in the OM. If personnel are assigned the responsibility to carry out operational control functions, duties or tasks, and act in a manner consistent with the specifications of this provision or the descriptions found in Table 3.1, the specifications of this provision are applicable, as well as the specifications of ensuing provisions that require such personnel to be trained and qualified for the operational control responsibilities, functions, duties or tasks that they are performing.

Examples of operational control systems are provided in the following table as a means to identify how responsibility is typically assigned by an operator.

System of Operational Control	Item	System Description
Shared Systems (General)	(i) (a), (i) (b)	Operational control responsibility is shared between the PIC and an FOO or designated member of management.
Full Shared System (PIC and FOO)	(i) (a)	The PIC and FOO are **jointly responsible** for the decisions, functions, duties or tasks associated with the operational control of a flight. Such systems are characterized by flight monitoring and a dedicated communications system (voice or electronic) separate from the ATC system in order to maintain joint responsibility.
Partial Shared System (PIC and FOO)	(i) (a)	The PIC and FOO are **jointly responsible** for all preflight decisions, functions, duties or tasks associated with the operational control of a flight, but during flight the PIC has sole responsibility. Such systems are characterized by the use of flight monitoring if required by the Authority or desired by the Operator and typically lack the dedicated communications system necessary to maintain shared responsibility in flight.
Shared System (PIC and Management)	(i) (b)	Functionally equivalent to a full-shared system except that the PIC and a designated member of management, often the Director of Flight Operations or any suitably qualified and knowledgeable member of management designated by the operator are **jointly responsible** for the functions, duties or tasks associated with the operational control of a flight. The responsibility to carry out actual functions, duties or tasks such as flight planning, supporting/briefing the crew or flight monitoring is typically assigned to other non-management personnel (e.g. FOOs and/or FOAs).
Non-shared Systems (General)	(ii) (a) - (d)	Operational control responsibility is assigned only to the PIC who may or may not be assisted by other support personnel.

System of Operational Control	Item	System Description
Non-shared System (PIC-only)	Parent provision and/or (ii) (d)	The PIC is **solely responsible** for completing all tasks (unassisted) related to the operational control of each flight. This does not preclude administrative personnel from providing, collecting or assembling operational documents or data related to each flight on behalf of the PIC as defined in Table 3.1. Such systems employ flight monitoring if required by the Authority or desired by the operator.
Non-shared System (PIC-assisted)	(ii) (a) - (c)	The PIC is **solely responsible** for all decisions regarding operational control. However, the PIC may be assisted by others, such as an FOA, or an FOO or member of management that functions as an FOA, who is assigned the responsibility to carry out specific functions, duties or tasks, such as flight planning, support, briefing and in-flight monitoring. Such systems employ flight monitoring if required by the Authority or desired by the operator.
Note: • *FOOs can be present in shared or non-shared systems of operational control to support, brief and/or assist the PIC or designated member of management in all competencies of operational control.* • *FOAs can be present in any system of operational control except purely non-shared (PIC only) systems, but their responsibilities are limited to their area(s) of expertise.* • *FOAs may be assigned specific flight responsibilities depending on area of expertise or general (non-flight specific) responsibilities in support of other operational control personnel or functions.* • *The responsibilities of administrative personnel utilized in operational control functions are limited to the provision or collection of operational data.*		

Table 3.1 categorizes operational control personnel, defines their authority, identifies their responsibilities and illustrates the relationship of such responsibilities to the operation as a whole.

Table 3.5 defines the competencies of individuals assigned the responsibility for operational control and/or the responsibility to carry out individual operational control functions, duties or tasks.

When operational control functions are outsourced to external service providers, an operator would retain overall responsibility for operational control and would ensure such service providers are subjected to contractual and monitoring processes as specified in ORG 2.2.1.

FOO and/or FOA responsibilities for operational control typically begin when assigned a flight during flight preparation and end after flight termination.

△ **DSP 1.3.6** If an FOO is used in the system of operational control, the Operator shall assign responsibility to such personnel for:

(i) Assisting the PIC in flight preparation and providing required information;

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

(iii) When applicable, signing 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 necessary for the safe conduct of the flight;

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

Note: *An operator may choose to assign responsibility for one or more of the specified functions to an FOA, or the PIC may be assigned the responsibility for filing the flight plan in the case of iv) and/or for obtaining the necessary information in the case of v).*

Auditor Actions

- ☐ **Identified/Assessed** FOO responsibilities in operational control system (focus: definition of individual functions/duties/tasks assigned to FOO in specific type of shared/non-shared system of operational control).
- ☐ **Interviewed** responsible operational control manager(s).
- ☐ **Examined** job description for FOO position (focus: position responsibilities appropriate for assigned functions/duties/tasks in specific type of shared/non-shared system of operational control).
- ☐ **Examined** training/qualification records of selected FOO personnel (focus: qualifications appropriate for assigned responsibilities in operational control system).
- ☐ **Observed** operational control/flight dispatch operations (focus: assignment of functional responsibilities/duties to FOO personnel).
- ☐ **Other Actions** (Specify)

Guidance

Refer to the IRM for the definition of Aircraft Tracking.

The specifications of this provision apply to each FOO qualified in all applicable competencies of operational control, whether licensed or not, who participates in an approved or accepted system of operational control and:

- Is delegated authority in accordance with DSP 1.3.4, and/or
- Is assigned the responsibility in accordance with DSP 1.3.5 to carry out operational control functions, duties or tasks related to all applicable competencies specified in Table 3.5.
- The authority and responsibilities of an FOO are defined in Table 3.1.

The specification in item v) may be satisfied by the PIC if such information is available from other sources that can be accessed while in flight.

△ **DSP 1.3.7** The Operator shall have a process to be used in the event of an emergency situation that endangers the safety of the aircraft or persons, including those situations that become known first to the Operator. Such process shall ensure the FOO, FOA or other delegated person:

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

(ii) Notifies the appropriate authorities, without delay, of the nature of the situation;

(iii) Requests assistance, if required;

(iv) 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 necessary amendments to the flight plan. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** procedure for implementation of emergency procedures/actions (focus: definition of operational control positions/persons with assigned responsibility for initiating emergency procedures/notifying authorities/requesting assistance).
- ☐ **Interviewed** responsible operational control manager(s).
- ☐ **Observed** operational control/flight dispatch operations (focus: preparedness to implement emergency actions).
- ☐ **Other Actions** (Specify)

Guidance

The specification in item ii) refers to notification to the appropriate authorities without delay and/or within a period(s) specified by each applicable authority.

Applicable authorities include those authorities that have jurisdiction over international operations conducted by an operator over the high seas or the territory of a state that is other than the State of the Operator.

Processes used for operational control of flights in the event of an emergency would typically 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 normally 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.

1.4–1.6 (Intentionally Open)

1.7 Operations Manual

DSP 1.7.1 The Operator shall have an Operations Manual (OM) for the use of operational control personnel, which may be issued in separate parts, and which contains or references the policies, procedures and other guidance or information necessary for compliance with applicable regulations, laws, rules and Operator standards. As a minimum, the OM shall:

(i) Be managed and controlled in accordance with ORG 2.5.1;

(ii) Have all parts relevant to operational control personnel clearly identified and defined;

(iii) Be in accordance with the specifications in Table 3.2. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** operational documents that comprise the OM (focus: external documents referenced in OM/used by operational control personnel).
- ☐ **Interviewed** responsible operational control manager(s).
- ☐ **Examined** selected parts of OM (focus: contents in accordance with in Table 3.2).
- ☐ **Other Actions** (Specify)

Guidance

The intent of this provision is to ensure operational control personnel are able to find all information necessary to perform their functions either within the OM or within another document that is referenced in the OM. The OM is normally identified as a source of operational information approved or accepted for the purpose by the operator or the State.

Human factors are considered in the design of the OM to achieve the following:

- Preparation of documentation in a useable format for information presentation, at the appropriate reading level and with the required degree of technical sophistication and clarity.
- Improving user performance through the use of effective and consistent labels, symbols, colors, terms, acronyms, abbreviations, formats and data fields.
- Ensuring the availability and usability of information to the user for specific tasks, when needed, and in a form that is directly usable.
- Designing operational procedures for simplicity, consistency and ease of use.
- Enabling operators to perceive and understand elements of the current situation and project them to future operational situations.
- Minimizing the need for special or unique operator skills, abilities, tools or characteristics.

- Assessing the net demands or impacts upon the physical, cognitive and decision-making resources of the operator, using objective and subjective performance measures.

△ **DSP 1.7.2** The Operator shall have a description of the Operational Flight Plan (OFP) or equivalent document that is published in the OM and includes:

(i) Guidance for use by operational control personnel;

(ii) An outline of the content in accordance with specifications in Table 3.3. **(GM)**

Auditor Actions

☐ **Identified/Assessed** description of OFP in OM.

☐ **Examined** selected OFP(s).

☐ **Other Actions** (Specify)

Guidance

Items readily available in other documentation, obtained from another acceptable source or irrelevant to the type of operation may be omitted from the OFP.

1.8 Records System

DSP 1.8.1–1.8.3 (Intentionally open)

△ **DSP 1.8.4** The Operator shall have a process or procedures to record and retain operational information, communications and data for each flight. As a minimum, such retained flight information and data shall be in accordance with the specifications in Table 3.4 and retained for a period of time determined by the Operator or the Authority. **(GM)**

Auditor Actions

☐ **Identified/Assessed** process or procedures for management/control of records in operational control system (focus: retention of information/data for each flight as specified in Table 3.4).

☐ **Interviewed** responsible operational control manager(s).

☐ **Examined** selected operational control records (focus: information/data for each flight as specified in Table 3.4.)

☐ **Other Actions** (Specify)

Guidance

Operational information and data may be retained by different means (e.g. ACARS logs, paper logs, manually, computer systems).

Fuel and oil consumption records are typically maintained in accordance with MNT 3.1.1.

The communications typically subject to the record keeping specifications of this provision include operational voice, text, or data communications to/from:

- Flights from the period beginning at the originating station when flight crew begins their duties on the flight deck until the flight crew finishes their duties on the flight deck at the terminating station;
- If applicable, the operations control center.

Aircraft tracking data is typically retained only for the purposes of determining an aircraft's position in the event of an accident.

2 Training and Qualification

2.1 Training and Evaluation Program

General

DSP 2.1.1 The Operator shall have a training program, approved or accepted by the Authority, to ensure the operational control personnel specified in Table 3.1, as applicable, are competent to perform any assigned duties relevant to operational control in accordance with the applicable specifications of Table 3.5. Such program shall, as a minimum, address:

(i) Initial qualification;

(ii) Continuing qualification. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** training program for operational control personnel (focus: program addresses initial/continuing qualification for functions specified in Table 3.1).
- ☐ **Interviewed** responsible operational control manager(s).
- ☐ **Examined** training/qualification course curricula for operational control personnel (focus: course content as specified in Table 3.5).
- ☐ **Examined** training/qualification records of selected operational control personnel (focus: completion of initial/recurrent training).
- ☐ **Other Actions** (Specify)

Guidance

Refer to the IRM for the definition of Continuing Qualification, State Acceptance and State Approval.

Not all states require the approval or acceptance of a training program for operational control personnel. In such cases, state acceptance is considered implicit.

A training program for operational control personnel typically addresses:

- For FOO and FOA personnel, initial and recurrent training in accordance with the specifications of Table 3.1 and Table 3.5;
- For FOO and FOA personnel, a method of qualification through written, oral and/or practical evaluation;
- For administrative support personnel as defined in Table 3.1, on-the-job training (OJT), job descriptions, task cards, guidelines, checklists, training materials or other written means to establish competence.

The training curriculum normally specifies minimum training hours for each subject area and also indicates whether it has been mandated by the Authority or operator.

The specifications of this provision apply to FOO or FOA personnel who are delegated authority and/or assigned responsibilities in accordance with DSP 1.3.4 and/or DSP 1.3.5, respectively.

FOO personnel who have completed training programs conducted in accordance with ICAO Doc 7192-AN/857, Part D, Training Manual–Flight Operations Officers/Flight Dispatchers, Second Edition, meet the specifications of this provision.

FOO initial training programs contain all of the competencies in Table 3.5 that are relevant to the operations of the operator.

FOA initial training programs contain the competencies in Table 3.5 that are relevant to their job function as determined by the operator.

Different methods of conducting recurrent training are acceptable, including formal classroom study, home study, computer-based training, seminars and meetings. All recurrent training, regardless of method, is documented and retained in accordance with ORG 2.6.1.

3 Line Operations

DSP 3.1.1 (Intentionally open)

DSP 3.1.2 The Operator shall have a process or procedures to ensure the PIC is provided with all documents, information and data necessary for the safe conduct of the flight. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** operational control process/procedure for provision of documentation to flight crew (focus: definition of required documents/information/data provided to flight crew).
- ☐ **Interviewed** responsible operational control manager(s).
- ☐ **Observed** operational control/flight dispatch operations (focus: PIC provided with documents/information/data necessary for safe conduct of flight).
- ☐ **Other Actions** (Specify)

Guidance

The OM typically specifies the documents required by the PIC for the safe conduct of each flight. This list of required documents may also be replicated on the folder/envelope containing such documents or displayed in the operational control/flight dispatch center/office for reference purposes. Additionally, the process or procedures associated with the provision of flight documents typically includes safeguards to ensure all of the required documents are provided to the PIC prior to each flight.

3.2 Flight Preparation and Planning

DSP 3.2.1–3.2.4 (Intentionally open)

△ **DSP 3.2.5** The Operator shall have guidance and procedures that ensure the original OFP or equivalent document is accepted and signed by the following personnel, using either manuscript or an approved electronic method:

- The PIC for all systems of operational control;
- The FOO for a shared system of operational control;
- Designated member of management or post holder in a shared system of operational control that requires the use of such management personnel. **(GM)**

Auditor Actions

- ☐ **Identified** guidance/procedures for acceptance of OFP (focus: method of signature acceptance for OFP amendments).
- ☐ **Identified/Assessed** guidance/procedures for acceptance of OFP (focus: method of signature acceptance for OFP amendments).
- ☐ **Interviewed** responsible operational control manager(s).
- ☐ **Observed** operational control/flight dispatch operations (focus: acceptance of OFP by PIC and, if applicable, FOO or designated member of management).
- ☐ **Other Actions** (Specify)

Guidance

In a shared system of operational control, the signatures (manuscript or electronic) of both the PIC and the FOO or, if applicable, the designated member of management, are required on the OFP or equivalent document (e.g. dispatch release).

The specification in item iii) refers to a designated member of management in a shared system of operational control (e.g. director of flight operations or other designated post holder). Refer to Table 3.1 for the definitions of authorities and responsibilities associated with operational control personnel.

DSP 3.2.6 (Intentionally open)

△ **DSP 3.2.7** If an FOO or FOA is used in the system of operational control, the Operator shall have a process or procedures to ensure Operator changes in an ATS flight plan are, when practicable, coordinated with the appropriate ATS unit before transmission to the aircraft by the FOO, FOA or other delegated person. **(GM)**

Auditor Actions

- ☐ **Identified** use of FOO/FOA in operational control system (focus: applicable to FOO/FOA functions as defined in Table 3.1).
- ☐ **Identified/Assessed** process/procedures for coordination of ATC flight plan changes (focus: FOO/FOA coordinates changes with ATC prior to flight plan transmission to flight crew).
- ☐ **Interviewed** responsible operational control manager(s).
- ☐ **Observed** operational control/flight dispatch operations (focus: coordination of changes to ATS flight plan by FOO/FOA).
- ☐ **Other Actions** (Specify)

Guidance

The specifications of this provision apply to FOO or FOA personnel who are delegated authority and/or assigned responsibilities in accordance with DSP 1.3.4 and/or DSP 1.3.5 respectively.

The intent of this provision is to ensure ATS flight plan changes that occur prior to departure and/or en route are, when practicable, coordinated with the appropriate ATS unit prior to transmission to the aircraft. When such coordination is not possible, the flight crew remains responsible for obtaining an appropriate clearance from an ATS unit, if applicable, before making a change in flight plan.

DSP 3.2.8 (Intentionally open)

△ **DSP 3.2.9A** If the Operator is authorized to conduct certain portions of a commercial flight under visual flight rules (VFR), the Operator shall have guidance and procedures that:

(i) Specify the type of flight plan to be filed with the appropriate ATS unit;

(ii) Require current meteorological reports, or a combination of current reports and forecasts, to indicate that meteorological conditions along the portion of the flight to be flown under VFR will, at the appropriate time, be such as to make compliance with VFR possible. **(GM)**

Auditor Actions

- ☐ **Identified** authorization for portions of flights to be conducted under VFR.
- ☐ **Identified/Assessed** guidance/procedures applicable to conducting portions of flights under VFR (focus: flight planning accounts for type of flight plan to be filed/required meteorological conditions; determination of expected times when meteorological conditions will permit compliance with VFR).
- ☐ **Interviewed** responsible operational control manager(s).
- ☐ **Observed** operational control/flight dispatch operations (focus: guidance/procedures for control of flights to be conducted under partial VFR, availability of meteorological reports, determination of expected times/conditions that will permit compliance with VFR).
- ☐ **Other Actions** (Specify)

Guidance

The intent of this provision is to ensure:

- Operations that require compliance with VFR are practicable under the anticipated meteorological conditions;
- The operator has guidance and procedures for determining expected times when meteorological conditions will permit compliance with VFR.

The specification in item i) refers to the type of flight plan to be filed in instances where certain portions of a flight will be conducted under VFR. In some cases, it may be possible to identify VFR portions in a predominantly instrument flight rules (IFR) flight plan (e.g. Y and Z designation on an ICAO flight plan).

Guidance related to the filing of a composite ICAO flight plan, and the use of the Y designation for flights initially operated under IFR and Z designation for flights initially operated under VFR, is contained in Amendment 1 to the Procedures for Air Navigation Services–Air Traffic Management (PANS-ATM, Doc 4444).

△ **DSP 3.2.9B** The Operator shall have guidance and procedures to ensure a flight to be conducted in accordance with IFR does not:

(i) Take off from the departure airport unless the meteorological conditions are at or above the operator's established airport takeoff operating minima for that operation; and

(ii) Take off, or continue beyond the point of in-flight re-planning, unless at the airport of intended landing or at each required alternate airport, current meteorological reports or a combination of current reports and forecasts indicate that the meteorological conditions will be, at the estimated time of use (ETU), at or above the operator's established airport operating minima for that operation. **(GM)**

Auditor Actions

- ☐ **Identified** guidance/procedures for the assessment of airport meteorological conditions prior to departure of IFR flights (focus: flight planning determines that conditions at departure/destination/alternate airports meet all applicable requirements).
- ☐ **Identified/Assessed** process/procedures for coordination of ATC flight plan changes (focus: FOO/FOA coordinates changes with ATC prior to flight plan transmission to flight crew).
- ☐ **Interviewed** responsible operational control manager(s).
- ☐ **Observed** operational control/flight dispatch operations office (focus: procedures for monitoring/assessing meteorological conditions for operational airports).
- ☐ **Other Actions** (Specify)

Guidance

Refer to the IRM for the definitions of Alternate Airport, In-flight Re-planning Point and Estimated Time of Use (ETU).

The intent of this provision is to ensure:

- Flights do not take off or continue beyond the point of in-flight re-planning unless the meteorological conditions at each airport specified in i) or ii), are or will be at or above the operator's established airport operating minima for the operation at the ETU;
- The operator has guidance and procedures for determining the ETU.

The ETU specified in (ii) is typically the estimated time of arrival derived from the OFP. However, some operators may apply a time margin as required by the State. The specification in item ii) would require the definition and application of alternate airport planning minima in accordance with DSP 3.2.9C.

△ **DSP 3.2.9C** The Operator shall have guidance and procedures, approved or accepted by the State, for determining whether an approach and landing can be safely conducted at each required alternate airport at the ETU. Such guidance and procedures shall specify the appropriate incremental values for visibility (and ceiling, if required), to be added to the Operator's established airport operating minima. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** guidance/procedures for the application of safety margins in the assessment/selection of planned alternate airports (focus: flight planning takes into account defined additives/margins to alternate airport operating minima/times of arrival to account for forecast uncertainties, determination of ETU).
- ☐ **Interviewed** responsible operational control manager(s).
- ☐ **Observed** operational control/flight dispatch operations (focus: coordination of changes to ATS flight plan by FOO/FOA).
- ☐ **Other Actions** (Specify)

Guidance

The intent of this provision is for the operator to have a means to ensure, with a reasonable degree of certainty, that at the ETU of an alternate airport, the meteorological conditions will be at or above the operator's established operating minima for an instrument approach. This is practically accomplished through guidance and procedures for the definition and application of alternate planning minima and the determination of an ETU.

The specified visibility (and, if required, ceiling) additives are typically dependent on the approach facility configuration and State requirements for a ceiling to be taken into account. The ETU for alternate airports is normally determined in accordance with the type of operational control system and requirements of the State:

- In a non-shared system of operational control, the ETU is typically expressed as a time margin (e.g. one hour before to one hour after the ETA at the alternate airport);
- In a shared system of operational control, the ETU is typically considered to be a specific point in time coupled with a requirement to ensure the alternate airport remains at or above appropriate minima for the duration of the flight.

When determining an ETU, the operator might use a variable time margin based on specific flight parameters that can be monitored after departure by an FOO or FOA and communicated to the PIC.

An operator, in accordance with the requirements of the Authority, typically uses technical guidance for the development or application of alternate airport planning minima. Such guidance might be derived from one or more of the following source references, as applicable:

- ICAO Flight Planning and Fuel Management Manual (Doc 9976).
- Commission Regulation EC No. 965/2012.
- FAR 121.625–Alternate Airport Weather Minima.
- FAR 121.631(b)–Original Dispatch or Flight Release, Redispatch or Amendment of Dispatch or Flight Release.
- FAA OPSPEC C055 Table.
- Any equivalent reference document approved or accepted by the Authority for the development or application of alternate planning minima designed to conform to the specifications of the provision.

3.3 Aircraft Performance and Load Planning

DSP 3.3.1 The Operator shall have guidance and procedures to ensure a planned flight does not exceed:

(i) The maximum performance takeoff, en route and landing weight limits, based upon environmental conditions expected at the times of departure, along the route of flight and at arrival;

(ii) The aircraft structural ramp, takeoff and landing weight limits. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** guidance/procedures for application of aircraft performance data for planned flights (focus: flight planning accounts for aircraft takeoff/en route/landing performance weight limitations).
- ☐ **Interviewed** responsible operational control manager(s).
- ☐ **Coordinated** with FLT auditor (focus: preflight consideration of aircraft performance limitations).
- ☐ **Observed** operational control/flight dispatch operations (focus: guidance/procedures/restrictions that ensure flights do not exceed aircraft performance weight limitations).
- ☐ **Other Actions** (Specify)

Guidance

The intent of this provision is to ensure the presence of guidance and procedures for the calculation of maximum takeoff and landing weights, based on takeoff, en route, landing performance, structural limitations as well as any applicable MEL restrictions. Additionally, such guidance and procedures address the means used to prevent an aircraft from being loaded in a manner that precludes a flight from being operated overweight (e.g. notification of weight restrictions to a Load Control Center/office or equivalent).

3.4 Icing Conditions

△ **DSP 3.4.1** The Operator shall have guidance and procedures to ensure a flight to be operated in known or expected icing conditions shall not be commenced unless the aircraft is certificated and equipped to be operated in such conditions.

Auditor Actions

- ☐ **Identified/Assessed** guidance/procedures for consideration of aircraft type for flights planned into expected in-flight icing conditions (focus: flight planning accounts for aircraft certified/equipped for icing conditions).
- ☐ **Interviewed** responsible operational control manager(s).
- ☐ **Examined** selected flight planning records (focus: aircraft certified/equipped for flight into icing conditions).
- ☐ **Coordinated** with MNT auditor (focus: verification of fleet(s) certified/equipped for in-flight icing conditions; identification of any exceptions).
- ☐ **Other Actions** (Specify)

Guidance

The intent of this provision is to ensure flights planned to operate in known icing conductions are only conducted using appropriately certificated and equipped aircraft, which includes consideration of inoperative items on the Minimum Equipment List (MEL). Additionally, if the operator uses a mixed fleet including aircraft that are and are not suitably equipped for operations in icing conditions, the operator would have a means to preclude unequipped aircraft from being used on flights in known icing conditions.

3.5–3.6 (Intentionally Open)

3.7 Emergency Response

DSP 3.7.1–3.7.2 (Intentionally open)

△ **DSP 3.7.3** If the Operator transports dangerous goods as cargo, the Operator shall ensure FOO, FOA and/or other designated operational control personnel:

(i) Have access to the same information pertaining to dangerous goods carried as cargo on board the aircraft that is provided to the PIC;

(ii) Are assigned the responsibility to provide detailed information without delay about dangerous goods carried as cargo to emergency services responding to an accident or serious incident involving the Operator's aircraft. **(GM)**

Auditor Actions

- ☐ **Identified** authority for transport of dangerous goods as cargo.
- ☐ **Identified/Assessed** guidance/procedures for notification to emergency services responding to an aircraft accident (focus: procedures/responsibility for providing timely dangerous goods information).
- ☐ **Interviewed** responsible operational control manager(s).
- ☐ **Observed** operational control/flight dispatch operations (focus: access to same dangerous goods information as provided to PIC; preparedness to provide dangerous goods information in event of accident).
- ☐ **Other Actions** (Specify)

Guidance

The intent of this provision is to ensure flights planned to operate in known icing conductions are only conducted using appropriately certificated and equipped aircraft, which includes consideration of inoperative items on the Minimum Equipment List (MEL). Additionally, if the operator uses a mixed fleet including aircraft that are and are not suitably equipped for operations in icing conditions, the operator would have a means to preclude unequipped aircraft from being used on flights in known icing conditions.

4 Operational Control Requirements and Specification

4.1 Alternate and Isolated Airports

△ **DSP 4.1.1** The Operator shall have a system, process and/or procedures for alternate airport selection to ensure an appropriate takeoff alternate airport is selected and specified on the OFP whenever:

(i) The meteorological conditions at the airport of departure are below the applicable airport operating landing minima, *and/or*;

(ii) Other operational conditions exist, as defined by the State or the Operator, that would preclude a return to the departure airport. **(GM)**

Note: *The Operator may conform with this provision through Operational Variations approved by the Authority or other variations to takeoff alternate airport selection criteria provided each variation is subjected to the Operator's SRM processes and safety performance monitoring to ensure an acceptable level of safety is maintained.*

Auditor Actions

- ☐ **Identified/Assessed** system/process/procedures for takeoff alternate airport selection (focus: flight planning includes assessment/selection/designation on OFP of takeoff alternate airport when meteorological/other conditions preclude flight return to departure airport).
- ☐ **Examined** selected OFPs (focus: designation of takeoff alternate airport).
- ☐ **Interviewed** responsible operational control manager(s).
- ☐ **Observed** operational control/flight dispatch operations (focus: process for selection of takeoff alternate airports).
- ☐ **Other Actions** (Specify)

Guidance

Refer to the IRM for the definition of Operational Variations.

The intent of this provision is to ensure a methodology exists for the selection and specification of takeoff alternate airports when required. The selection of such airports is typically intended to address an operational condition (e.g. an emergency during or immediately after takeoff) that would require the flight crew to land the aircraft as soon as practicable. Accordingly, the applicable operating landing minima specified in the provision would typically refer to the minimum ceiling and/or visibility/runway visual range for landing with an engine inoperative as established by the operator.

Takeoff alternates are typically selected during the planning stage but may be selected after flight commencement when necessary via radio, ACARS, or any other communication means acceptable to the operator and the State.

An operator may use a system, a process or procedures alone or in any combination in order to fulfill operational requirements related to the selection of takeoff alternate airports. In all cases, however, the robustness of any methodologies used for takeoff alternate airport selection is commensurate with the breadth and complexity of the operation.

A description of the typical relevant organizational and operational capabilities related to the use of variations, including Operational Variations approved by the Authority, can be found in the General Guidance at the beginning of this subsection.

Variations to alternate airport selection are typically approved or accepted by the State.

The subordinate SRM processes of an existing organizational SMS can be applied to variations to ensure the desired level of safety is being achieved. Such SRM processes would typically consider at least the following:

- Capabilities of the operator;
- Overall capability of the aircraft and its systems;
- Available airport 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.

Guidance on safety risk management and performance of safety risk assessments is contained in the ICAO Safety Management Manual (SMM) (Doc 9859).

Examples of variations related to the selection of alternate airports are contained in the ICAO Flight Planning and Fuel Management Manual (Doc 9976).

DSP 4.1.2–4.1.4 (Intentionally open)

△ **DSP 4.1.5** The Operator shall have a system, process and/or procedures for alternate airport selection that takes into account meteorological conditions and relevant operational information to ensure a second destination alternate airport is specified on the OFP and the ATS flight plan under one or more of the following conditions (as approved or accepted by the Authority based on the operations of the Operator):

(i) When, for the destination airport, meteorological conditions at the ETU will be below the Operator's established airport operating minima.

(ii) When, for the destination airport, meteorological information is not available (unless the Authority will not permit the initiation of a flight in the absence of such information). **(GM)**

(iii) If the Operator conducts operations to airports with “marginal” meteorological conditions as defined in the OM, when, for such operations, the meteorological conditions at the ETU of the destination and first alternate airports will be marginal.

(iv) If the Operator conducts extended over-water operations as defined in the OM, when, for such operations, the meteorological conditions at the ETU of the destination airport will be below the Operator's established operating minima for that operation, unless there is a

reasonable certainty that the first alternate airport will be at or above the Operator's established operating minima at the ETU. **(GM)**

Note: *The Operator may conform with this provision through Operational Variations approved by the Authority or other variations to destination alternate airport selection criteria provided each variation is subjected to the Operator's SRM processes and safety performance monitoring to ensure an acceptable level of safety is maintained*

Auditor Actions

- ☐ **Identified/Assessed** system/process/procedures for selection of a second destination alternate airport (focus: flight planning takes into account regulatory/operational conditions/ requirements/factors applicable to the operator/flight; such conditions/requirements/factors that are considered/assessed in the destination alternate airport selection process are defined).
- ☐ **Examined** selected OFPs/ATS flight plans (focus: designation of second destination alternate airport in accordance with relevant factors).
- ☐ **Interviewed** responsible operational control manager(s).
- ☐ **Observed** operational control/flight dispatch operations (focus: system/process for selection/designation of second destination alternate airport)
- ☐ **Other Actions** (Specify)

Guidance

The principal intent of this provision is to address the safety risks associated with lack of weather reporting for the destination airport or its unavailability at the ETU due to the prevailing meteorological conditions. As a practical matter this may be accomplished by the selection and specification of a second alternate in accordance with the technical specifications of the provision and/or to otherwise ensure, to the extent reasonably practicable, that an airport of intended landing will be available to a flight at the ETU.

An operator may conform to a minimum of one of the numbered specifications of the provision and be in overall conformity with the intent of the entire provision. Individual conformity with items i) through iv) is "as applicable to the operator" and dependent on many factors including the regulatory environment and the type of operations conducted.

The specifications in ii) define a condition that triggers the selection and specification of a second destination alternate except in cases when the operator is not authorized to depart in the absence of any destination weather information. In such cases, the Authority may authorize departures without nominating a second destination alternate if, for example:

- The FOO and flight crew obtain and consider those weather reports and forecasts which are available;
- The FOO and flight crew ensure adequate contingency plans (such as extra fuel) are available to deal with an unfavorable change in conditions.

The term "marginal" as used in item (iii) is typically not defined by regulation. This, to some extent, is because the definition of what constitutes "marginal" depends on the nature of the meteorological conditions present, the type of operation being conducted and the capabilities of the airborne and ground-based equipment available. In any case, an operator, in order to conform to item iii) must clearly define the term including the conditions under which a second alternate is required.

The specifications in item iii) are typically applicable to flights conducted between airports within the territories of one nation or country, or between nearby countries as approved or accepted by the applicable authorities.

The specification in item iv) is applicable if the term "extended overwater operations" is defined by regulation of the State and by the operator. Such term is typically defined as an operation over water at a horizontal distance of more than 50 nautical miles from the nearest shoreline.

An operator may use a system, process and/or procedures alone or in any combination in order to fulfill operational requirements related to the selection of alternate airports. In all cases, however, the robustness of any methodologies for destination alternate airport selection is commensurate with the breadth and complexity of the operation.

A description of the typical relevant organizational and operational capabilities related to the use of variations, including Operational Variations approved by the Authority, can be found in the General Guidance at the beginning of this subsection.

Variations to alternate airport selection are typically approved or accepted by the State.

The subordinate SRM processes of an existing organizational SMS can be applied to variations to ensure the desired level of safety is being achieved. Such SRM processes would typically consider at least the following:

- Capabilities of the operator;
- Overall capability of the aircraft and its systems;
- Available airport 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.

Guidance on safety risk management and performance of safety risk assessments is contained in the ICAO Safety Management Manual (SMM) (Doc 9859).

Examples of variations related to the selection of alternate airports are contained in the ICAO Flight Planning and Fuel Management Manual (Doc 9976).

4.2 Minimum Flight Altitudes and En Route Performance

△ **DSP 4.2.1** The Operator shall have guidance and procedures to ensure planned minimum flight altitudes are not less than those established by the applicable authorities. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** guidance/procedures for planning altitudes for all flights (focus: flight planning takes into account and ensures flights meet minimum altitude limitations established by regulation).
- ☐ **Examined** selected OFPs/flight records (focus: planned flight altitudes within minimum altitude limits).
- ☐ **Interviewed** responsible operational control manager(s).
- ☐ **Observed** operational control/flight dispatch operations (focus: flight planning; altitude selection).
- ☐ **Other Actions** (Specify)

Guidance

Operational flight planning includes a review of the route of flight, in conjunction with published aeronautical information, to ensure compliance with minimum flight altitudes. Such review could include:

- Minimum Safety Altitude (MSA);
- Minimum Descent Altitude/Height (MDA/H);
- Minimum En route Altitude (MEA);
- Minimum Obstruction Clearance Altitude (MOCA);
- Minimum Off-Route Altitude (MORA);
- Minimum Vectoring Altitude (MVA);
- Any other minimum altitudes prescribed by the Authority.

Applicable authorities include those authorities that have jurisdiction over international operations conducted by an operator over the high seas or the territory of a state that is other than the State of the Operator.

4.3 Fuel Planning

DSP 4.3.1 The Operator shall have a system, process and/or procedures to ensure an aircraft carries a sufficient amount of usable fuel to complete each planned flight safely and allow for deviations from the planned operation. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** system/process/procedures for fuel planning for all flights (focus: flight planning takes into account possible deviations from planned operation in calculating usable fuel for safe completion of flight).
- ☐ **Interviewed** responsible operational control manager(s).
- ☐ **Examined** selected OFPs (focus: fuel load meets/exceeds minimum required departure/dispatch fuel).
- ☐ **Observed** operational control/flight dispatch operations (focus: process or procedures that ensure sufficient usable fuel for safe flight completion taking into account unplanned deviations).
- ☐ **Coordinated** with flight operations (focus: complementary procedures for assessing minimum required fuel).
- ☐ **Other Actions** (Specify)

Guidance

The intent of this provision is to define the foundation necessary to support the practical implementation of an operator's fuel policy. It also addresses the baseline criteria to be considered in any methodology used in the determination of total usable fuel required to complete each planned flight safely. Simply put, it requires an operator to use system, process and/or procedures alone or in any combination in order to fulfill operational requirements related to the implementation of its fuel policy. In all cases the robustness of any such methodologies is commensurate with the breadth and complexity of the operation and takes into account:

- The aircraft-specific data and operating conditions for the planned operation.
- The following components of usable fuel required in accordance with the respective provisions of this sub-section:
    - Taxi fuel;
    - Trip fuel in;
    - Contingency fuel;
- If required (as applicable to each flight):
    - Destination alternate fuel, or
    - No-alternate fuel or
    - Isolated airport fuel
- Final reserve fuel;
- If required, additional fuel;
- If requested by the PIC, or the PIC and FOO in a shared system of operational control, discretionary fuel.

Some regulatory authorities or operators may classify destination alternate fuel, no alternate fuel and Isolated airport fuel under the common heading of “Alternate Fuel” in regulations and/or flight planning systems.

It is important for operational control personnel and the flight crew to have a clear and common understanding of the terms used in the operator's fuel policy, as such understanding is the key to successful flight planning and completion. Equally important is the notion that differences in terminology may exist from operator to operator. Regardless of the terms used, however, an operator can conform to the provisions of this sub-section if the pre-flight computation of usable fuel is substantially equivalent, allocates fuel in a similar fashion, and has the components that, when combined, result in an equivalent or greater amount of fuel.

Fuel calculations are typically made by a flight crew member, a Flight Operations Officer/Flight Dispatcher (FOO), or both.

Guidance on the organizational and operational systems and processes related to the implementation of fuel policy is contained in the ICAO Flight Planning and Fuel Management Manual (Doc 9976).

△ **DSP 4.3.2** The Operator shall have a system, process and/or procedures to ensure the amount of usable fuel to be carried on an aircraft in accordance with DSP 4.3.1 is, as a minimum, based on the following data and operating conditions for each planned flight:

(i) Current aircraft-specific data derived from a fuel consumption monitoring program, if available, or if current aircraft-specific data is not available, data provided by the aircraft manufacturer;

(ii) The anticipated aircraft mass;

(iii) Notices to Airmen (NOTAM);

(iv) Current meteorological reports, or a combination of current reports and forecasts;

(v) Applicable air traffic services procedures, restrictions and anticipated delays;

(vi) The effects of deferred maintenance items and/or configuration deviations;

(vii) Any other conditions that might cause increased fuel consumption. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** system/process/procedures for planning sufficient usable fuel for safe completion of all flights (focus: flight planning takes into account operating data/conditions that might cause/lead to increased fuel consumption; such operating data/conditions that are considered/assessed in usable fuel calculation process are defined).
- ☐ **Examined** fuel policy (focus: guidance for calculation of minimum required departure/dispatch fuel).
- ☐ **Interviewed** responsible operational control manager(s).
- ☐ **Observed** operational control/flight dispatch operations (focus: process or procedures that ensure planned flight usable fuel is based on all relevant data/operating conditions).
- ☐ **Other Actions** (Specify)

Guidance

Refer to the IRM for the definition of NOTAM (Notice to Airmen).

The intent of this provision is to define the aircraft-specific data, manufacturer data, operating conditions and other factors that would be considered by an Operator during the pre-flight computation of the total usable fuel required for a planned flight. When considered in combination with DSP 4.3.1, this provision helps to form the basic foundation for the means to complete the preflight calculation of usable fuel.

The specification in item i) refers to the process for ensuring actual aircraft fuel use approximates planned fuel use within an acceptable margin of error. This is practically accomplished by comparing the achieved in-flight performance of an aircraft to its predicted performance. Variations between the achieved performance and the predicted performance will result in a variation of the rate of fuel consumption which is typically accounted for by the operator during flight planning and in flight.

An operator may use a system, process and/or procedures alone or in any combination in order to fulfill operational requirements related to the implementation of fuel policy. In all cases, however, the robustness of any such methodologies is commensurate with the breadth and complexity of the operation.

Guidance on fuel planning including guidance related to the creation and maintenance of fuel consumption monitoring programs is contained in the ICAO Flight Planning and Fuel Management Manual (Doc 9976).

DSP 4.3.3–4.3.11 (Intentionally open)

△ **DSP 4.3.12** The Operator shall have a process and/or procedures to ensure the final reserve fuel calculated in accordance with its fuel policy is not less than the amount of fuel required to fly for 30 minutes under speed and altitude conditions specified by the Operator and as approved or accepted by the Authority. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** process/procedures for calculation of final reserve fuel for all flights (focus: planned final reserve fuel is an amount that is not less than fuel to fly for 30 minutes at holding speed at 450 m/1500 ft or fuel to fly 30 minutes under speed/altitude conditions approved/accepted by authority).
- ☐ **Examined** selected OFPs (focus: factors used as basis for final reserve fuel).
- ☐ **Interviewed** responsible operational control manager(s).
- ☐ **Observed** operational control/flight dispatch operations (focus: process or procedures for calculating planned final reserve fuel).
- ☐ **Other Actions** (Specify)

Guidance

The intent of this provision is to ensure the allocation of an amount of fuel to be protected in flight and preserved upon landing at any airport. As such, it represents the last line of defense in a multilayered strategy to ensure safe flight completion.

An operator may define the 30-minute final fuel reserve requirements using speed, altitude and/or other conditions that are in accordance with requirements of the Authority (e.g. 30 minutes at holding speed at 450m/1,500 ft above airport elevation in standard conditions).

Table 3.1–Operational Control Personnel			
This table categorizes operational control personnel, defines the scope of 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) or FOO or designated member of management in the safe conduct of each flight. The terms used in the table to identify operational control personnel are generic and might vary. Personnel, however, employed in operational control functions that are delegated the authority and/or assigned the responsibility to carry out functions, duties or tasks, as outlined in the table, are subject to the training and qualification requirements commensurate with their position.			
Operational Control	**Authority** (DSP 1.3.4)	**Responsibilities, Including the Assignment of Functions, Duties or Tasks** (DSP 1.3.5)	**Training and Qualification** *Operator shall designate responsibilities and ensure personnel are competent to perform the job function.*
Administrative Support Personnel[1] (e.g. gate agent)	**None** Do **not** make recommendations or decisions regarding the operational control of a flight.	Provide, collect or assemble operational documents or data only.	Not subject to initial and recurrent training in the competencies of operational control in Table 3.5 and are 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] (e.g. Weather Analysts, Navigation Analysts/Flight Planning Specialists, Load Agents/Planners, Operations Coordinators/Planners, Maintenance controllers, Air Traffic Specialists, Planners/Controllers unless qualified in accordance with GRH)	**None or limited to area(s) of expertise** May be authorized to make decisions or recommendations in area(s) of expertise.[5] **(** e.g., maintenance controller grounds aircraft.)	Support, brief and/or assist the PIC or FOO. Specializes 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 specialization**[3] Subject to initial and recurrent training in accordance with DSP 2.1.1 **specific** competencies of Table 3.5 relevant to the job function and operations of the Operator.

Table 3.1–Operational Control Personnel			
Flight Dispatcher or Flight Operations Officer (FOO)[4] or **Designated Member of Management** (e.g. Director of Operations or other nominated Post Holder)	**None or limited or shared**[2] May share operational control authority with the PIC.[2] May be authorized to make recommendations or decisions.[5]	May share operational control responsibility 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 DSP 2.1.1 and all competencies of Table 3.5 relevant to the operations of the Operator.
Pilot in Command (PIC)	**Full/shared**[2] Has final authority to ensure the safe operation of the aircraft. May share authority and responsibility for operational control.	**Full/shared**[2] Responsible for safe conduct of the flight. Collect, provide, filter, evaluate and applies operational documents or data relevant to **all** competencies of operational control.[3]	Subject to training and qualification requirements specified in ISM Section 2.
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 and responsibility with the PIC. **3** - The competencies of operational control are contained in Table 3.5. FOA personnel that specialize in one competency of operation control may be referred to as Weather Analysts, Navigation Analysts/Flight Planners, Operations Coordinators/Planners, Maintenance controllers, Air Traffic Specialists and Load Agents/Planners/Controllers unless qualified in accordance with GRH. **4** - The terms used in this table to identify operational personnel are generic and may vary. Personnel utilized in operational control functions and assigned the responsibilities delineated in the table are subject to the relevant qualification and training provisions in this section. **5** - Authority limited in scope to decision making in area of expertise.		

Table 3.2–Operations Manual (OM) Content Specifications		
This table contains the fundamental OM content specifications required to achieve conformity with DSP 1.7.1. It also specifies Section 2 (FLT) provisions that must be addressed in the sections of the OM relevant to personnel with responsibilities related to the operational control of flights. ***Note:*** *Specific policies, guidance, data and/or procedures that must be addressed in the sections of the OM relevant to operational control personnel can be found in individual Section 3 provisions and are not duplicated in the table.*		
General Information		**FLT ISARP**
(i)	General Operations Manual (GOM), to include:	None
	(a) Non-aircraft type related and/or standard operating procedures for each phase of flight, policies, procedures, checklists, descriptions, guidelines, emergency procedures and other relevant information;	None
	(b) Authorities, duties and responsibilities associated with the operational control of flights;	None
	(c) If applicable, the requirement for commercial and non-commercial flights to be conducted under an IFR flight plan and in accordance with an IFR flight plan.	FLT 3.10.1
Aircraft Operating Information		**FLT ISARP**
(ii)	Aircraft Operating Manual (AOM), to include:	None
	(a) Normal, abnormal/non-normal and emergency procedures, instructions and checklists;	None
	(b) Aircraft systems descriptions, limitations and performance data.	None
(iii)	MEL and CDL, to include applicability and a description of the relationship between the Minimum Equipment List (MEL) and the Master Minimum Equipment List (MMEL);	None
(iv)	Aircraft specific weight and balance instructions/data;	None
(v)	Instructions for the conduct and control of ground de/anti-icing operations.	FLT 3.9.6
Areas, Routes and Airport Information		
(vi)	Route and airport instructions and information (departure, destination, en route and destination alternates, to include:	
	(a) Airway manuals and charts, including information regarding communication facilities and navigation aids;	
	(b) Airport charts, including the method for determining airport operating minima, operating minima values for destination and alternate airports and the increase of airport operating minima in case of degradation of approach or airport facilities;	
	(c) Airport and runway analysis manual or documents:	
	(d) If applicable, flight following requirements and instructions to ensure the PIC notifies the operator of en route flight movement or deviations from the OFP including procedures for loss of communication between the aircraft and the FOO;	
	(e) Instructions for the conduct of precision and non-precision approaches, including approach minima;	
	(f) If applicable, procedures for the conduct of long-range navigation;	
	(g) Supplemental oxygen requirements and escape routes in case of decompression in an area of high terrain, if applicable;	
	(h) Regional guidance necessary to comply with local regulations.	

Table 3.2–Operations Manual (OM) Content Specifications	
Training Information	
(vii)	Training Manual, to include:
	(a) Details of all relevant training programs, policies, directives and requirements, including curricula and syllabi, as applicable, for initial qualification, continuing qualification and other specialized training;
	(b) Curricula for ground training, evaluation and certification;
	(c) Comprehensive syllabi to include lesson plans, procedures for training and conduct of evaluations;
	(d) The training program for the development of knowledge and skills related to human performance (Crew Resource Management/Dispatch Resource Management, CRM/DRM).
Other Information	
(viii)	Cabin safety and emergency procedures relevant to operational control personnel.
(ix)	Dangerous Goods manual or parts relevant to operational control personnel, to include information and instructions on the carriage of dangerous goods and action to be taken in the event of an emergency.
(x)	Security Manual or parts relevant to operational control personnel, including bomb search procedures.

Table 3.3–Operational Flight Plan (OFP) Specifications	
The OM contains a description and specifications for the content and use of the OFP or equivalent document. The content of the OFP shall consist of, as a minimum, the following elements:	
(i)	Aircraft registration;
(ii)	Aircraft type and variant;
(iii)	Date of flight and flight identification;
(iv)	Departure airport, STD, STA, destination airport;
(v)	Route and route segments with check points/waypoints, distances and time;
(vi)	Assigned oceanic track and associated information, as applicable;
(vii)	Types of operation (e.g. ETOPS/EDTO, IFR, ferry-flight);
(viii)	Planned cruising speed and flight times between waypoints/check points;
(ix)	Planned altitude and flight levels;
(x)	Fuel calculations;
(xi)	Fuel on board when starting engines;
(xii)	Alternate(s) for destination and, when applicable, takeoff and en route;
(xiii)	Relevant meteorological information.

Table 3.4–Flight Information	
The Operator shall record and retain the following information for each flight:	
(i)	Aircraft registration;
(ii)	Date;
(iii)	Flight number;
(iv)	Flight crew names and duty assignment;
(v)	Fuel on board at departure, en route and arrival;
(vi)	Departure and arrival point;
(vii)	Actual time of departure;
(viii)	Actual time of arrival;
(ix)	Flight time;
(x)	Incidents and observations, if any;
(xi)	Flight weather briefings;
(xii)	Dispatch or flight releases;
(xiii)	Load Sheet;
(xiv)	NOTOC;
(xv)	OFP;
(xvi)	ATS flight plan;
(xvii)	Communications records;
(xviii)	Fuel and oil records (obtained in accordance with MNT 3.1.1;
(xix)	Aircraft tracking data to assist SAR in determining the last known position of the aircraft.
Note: *After an aircraft has landed safely, an operator may discard tracking data.*	

Table 3.5–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 the assignment of responsibility to carry out operational control functions, duties, or tasks, to include, as applicable:	
Competency	**FOA Relevancy Examples**
(i) Air law	• Air Traffic Specialists
(ii) Flight performance	• As relevant to function
(iii) Navigation	• Navigation Analysts • Flight Planning Specialists
(iv) Aircraft General knowledge and instrumentation	• As relevant to function
(v) Meteorology	• Weather Analysts • Meteorologists
(vi) Mass and balance	• Load Agents • Load Planners • Load Controllers
(vii) Operational procedures	• As relevant to function
(viii) Flight planning and monitoring	• Flight Planning Specialists • Flight Followers
Notes	
• FOO personnel that are assigned overall operational control responsibility for specific flights, assigned responsibilities in all competencies of operational control or used in shared systems of operational control demonstrate knowledge and/or proficiency in all applicable competencies in this table. • FOO or FOA personnel assigned the individual responsibility to carry out specific operational control functions, duties or tasks demonstrate knowledge and/or proficiency in competencies relevant to area of expertise or function as determined by the operator or State. • It is important to note that some operators might choose to assign the responsibility for specific operational control functions to fully qualified FOO personnel. In such cases an FOO is acting in a limited capacity and although qualified in all competencies of operational control, would be functionally acting as an FOA.	

Table 3.6–Guidance for Development of Operational Control Competency Course Syllabi		
The Operator typically develops a competency course curriculum and related syllabi for each competency in Table 3.5. Curriculum and associated syllabi development can be based on one or more source references or their equivalent: • ICAO Doc 10106 • ICAO Doc 7192 • 14 CFR § 121.415 and 14 CFR § 121.422 • EASA ORO.GEN.110 and related AMC and GM		
	Competency Course Subjects	**Examples of Syllabus Outlines (ICAO Doc 10106)**
(i)	Air law	To enable operational control personnel to identify the basic requirements for authorization to operate a commercial air transportation service, air law may include topics such as: • Conventions and agreements • National organizations and rulemaking process • Air services and airspace • ATC separation and clearances • Search and rescue (SAR) • Security • ATS flight plan (FPL) • Flight safety, accident and incident
(ii)	Flight performance	To enable the operational control personnel to identify the basic elements of aircraft performance, flight performance may include topics such as: • Certification standards • Influencing variables on performance • Takeoff performance • Accelerate-stop distance • Balanced field length • Takeoff climb • Obstacle limits • Reduced/de-rated thrust • Cruise • Cost index • Driftdown • Landing performance • Quick turnaround limits

Table 3.6–Guidance for Development of Operational Control Competency Course Syllabi		
(iii)	Navigation	To enable the operational control personnel to identify the fundamentals of navigation and equipment utilized in navigation, navigation may include topics such as: • Basics of general navigation • Latitude, longitude • Time and time conversions • Determining sunrise, sunset, civil twilight • Directions • Distance • Charts • Basics of radio navigation • NDB • VOR • DME • ILS • Radar • GPS/GNSS • RNAV • FMS • RNP • Satellite augmentation systems
(iv)	Aircraft General knowledge and instrumentation	To enable the operational control personnel to identify the main components and systems of an aircraft and their basic functions, aircraft general knowledge and instrumentation may include topics such as: • Units and basic definitions • Lift • Drag • Thrust • Weight • Flight mechanics • System design, loads, stresses, maintenance • Hydraulics • Landing gear • Primary and secondary flight controls • Pneumatics • Air conditioning systems • Ice and rain protection • Fuel • Electrics • Engines and APU • Flight management and navigation • Automatic flight

Table 3.6–Guidance for Development of Operational Control Competency Course Syllabi		
		• Communications • Fire protection • Equipment and furnishings • Indicating and recording systems
(v)	Meteorology	To enable the operational control personnel to interpret meteorological information, reports, forecasts and warnings correctly and efficiently, meteorology may include topics such as: • Atmosphere, composition, extent, vertical division • Air temperature, definition and units • Atmospheric pressure and density • International standard atmosphere (ISA) • Altimetry • Wind • Clouds and fog • Precipitation • Air masses and fronts • Pressure systems • Climatology • Icing conditions • Turbulence • Wind shear • Thunderstorms • Flight hazards • Meteorological information
(vi)	Mass and balance	To enable the operational control personnel to identify the basic requirements for load planning, calculation of payload, loadsheet preparation, and aircraft balance, mass and balance may include topics such as: • Importance of structural limitations • Mass terms • Mass limits, structural limitations • Cargo compartment limitations • Mass calculations • Definition of center of gravity (CG) • Load and trim sheet, general considerations

Table 3.6–Guidance for Development of Operational Control Competency Course Syllabi		
(vii)	Operational procedures	To enable the operational control personnel to policies, procedures, guidance, and instructions developed to perform their respective functions, operating procedures may include topics such as: • Operational control responsibilities • SMS • Operating manuals • Aircraft airworthiness • Operational limitations and minima • Duty time limitations and rest requirements • Operational flight plan contents • Anti-icing, de-icing • Security (unlawful events) • Abnormal and emergency procedures • Communication systems and procedures
(viii)	Flight planning and monitoring	To enable the operational control personnel to complete an operational flight plan in accordance with laid-down rules and standards and to apply the skills acquired to effectively maintain a flight watch, and monitor fuel consumption, en route weather including winds, aircraft performance including the limitations imposed by MEL restrictions, in-flight equipment failures, security problems, and the effects of and on hazardous materials, restricted articles, and perishable cargo, flight planning and monitoring may include topics such as: • Weather analysis • AIP/NOTAM analysis • Track selection & flight level • Equipment requirements • Airport suitability • Fuel requirements • Payload planning • ETOPS/EDTO • MEL/CDL • ATC/ATM • Security (unlawful events) • Abnormal and emergency procedures

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Section 4 — Aircraft Engineering and Maintenance (MNT)

Applicability

Section 4 is applicable to all operators, and addresses aircraft engineering and maintenance functions relevant to the airworthiness of the aircraft, engines and components.

Individual provisions or sub-specifications within a provision that:

- Begin with a conditional ("If the Operator...") are applicable if the operator meets the condition(s) stated in the phrase.
- Do not begin with a conditional phrase are applicable unless determined otherwise by the Auditor.

  An operator may choose to have certain functions within the scope of ground handling operations (e.g. aircraft loading, aircraft ground handling) performed by maintenance operations personnel. If this situation exists, the operator must be in conformity with the ISARPs contained in Section 6, Ground Handling Operations (GRH), that are applicable to the ground handling functions performed by maintenance operations personnel.

Where an operator outsources the performance of aircraft engineering and maintenance functions to external organizations, the operator retains overall responsibility for such functions, and must demonstrate processes for monitoring the applicable external organization(s) in accordance with ORG 2.2.1 located in Section 1 of this manual.

General Guidance

Definitions of technical terms used in this ISSM Section 4, as well as the meaning of abbreviations and acronyms, are found in the IATA Reference Manual for Audit Programs (IRM).

Many provisions in this section contain the phrase "organization that performs maintenance (or performs maintenance functions) for the Operator." This phrase is inclusive and refers to any organizations that might perform maintenance on the operator's aircraft, either an external maintenance organization or the operator's own maintenance organization.

The term "maintenance" as used in above-referenced phrase means restoring or maintaining an aircraft, aircraft engine or aircraft component to or in an airworthy and serviceable condition through the performance of functions such as repair, modification, overhaul, inspection, replacement, defect rectification and/or determination of condition.

If a standard or recommended practice requires an operator to ensure that certain provisions (specifically in MNT subsection 4) are satisfied by an organization that performs maintenance or maintenance operational functions for the operator under a maintenance agreement, then the operator monitors such maintenance organization to ensure specifications in the relevant ISARPs are being fulfilled.

If the organization that has a maintenance agreement with the operator subcontracts certain maintenance functions to other maintenance organizations (as agreed between parties), then the operator's monitoring of the contracted maintenance organization would also ensure such organization is performing oversight of all relevant subcontractors. For example, when an operator contracts with an airframe maintenance provider to conduct base maintenance and such maintenance provider then subcontracts certain maintenance activities or functions to one or more of its subcontractors, the operator's monitoring would also ensure the contracted airframe maintenance provider is providing proper oversight of the relevant subcontractors.

1 Management and Control

1.1 Management System Overview

MNT 1.1.1 (Intentionally open)

△ **MNT 1.1.2** The Operator shall have a staff of management personnel suitably matched to the scale and scope of maintenance operations to ensure:

(i) Maintenance of all aircraft is performed in accordance with the Maintenance Program;

(ii) All maintenance is carried out in accordance with policies and procedures contained in the Maintenance Management Manual (MMM). **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** maintenance management structure and individual manager appointments.
- ☐ **Identified** means of ensuring that all maintenance is performed in accordance with the Maintenance Program and the policies and procedures contained in the MMM.
- ☐ **Interviewed** manager(s) of maintenance operations.
- ☐ **Other Actions** (Specify)

Guidance

Refer to the IRM for the definitions of ETOPS, Extended Diversion Time Operations (EDTO), Maintenance Management Manual (MMM) and Maintenance Program.

The management personnel represent the maintenance management structure of the operator and are responsible for all maintenance functions. Dependent on the size of the operation and the organizational set up, the maintenance functions may be divided among individual managers or combined, as applicable to the airline structure

The actual number of persons employed, and their qualifications, are dependent upon the tasks to be performed and thus dependent on the size and complexity of the operation (e.g. route network, line and/or charter operations, ETOPS/EDTO, fleet composition, aircraft complexity and age), number and locations of maintenance facilities and the amount and complexity of maintenance contracts. Consequently, the number of persons needed, and their qualifications, may differ greatly from one operator to another and a simple formula covering the whole range of possibilities is not feasible.

1.2 (Intentionally Open)

1.3 Maintenance Program

MNT 1.3.1 The Operator shall provide, for the use and guidance of relevant maintenance and operational personnel, a Maintenance Program that is, approved by the relevant Authority and contains information and data for each aircraft type/model and configuration in the Operator's fleet in accordance with specifications in Table 4.1. The Maintenance Program shall satisfy:

(i) Requirements of the State of Registry;

(ii) Requirements of the State of Design;

(iii) Requirements of the Operator;

(iv) Maintenance specifications provided by the aircraft, engine and component OEMs. **(GM)**

Auditor Actions

- ☐ **Identified** an approved maintenance program for each aircraft type.
- ☐ **Interviewed** responsible manager(s).
- ☐ **Examined** selected maintenance program(s) (content in accordance with specifications in Table 4.1).
- ☐ **Other Actions** (Specify)

Guidance

Refer to the IRM for the definitions of Approved Maintenance Organization (AMO), State of Design and State of Registry.

An aircraft maintenance program is usually approved by the authority of the State of the Operator. However, when an operator utilizes an aircraft registered in a different state, it is possible that the maintenance program could be approved by the authority of the State of Registry.

An operator's authority typically holds the operator responsible for the definition, the control and the provision of Maintenance Data and an Approved Maintenance Program for use by the operator and its maintenance organization.

The aircraft is maintained under one approved operator's aircraft maintenance program. When an operator wishes to change from one approved operator's aircraft maintenance program to another approved program, a transfer check/inspection may need to be performed, as agreed with the Authority, in order to implement the change.

The operator's aircraft maintenance program contains a preface that defines the maintenance program contents, the inspection standards to be applied, permitted variations to task frequencies and, where applicable, any procedure to escalate established check/inspection intervals.

A reliability program provides an appropriate means of monitoring the effectiveness of the maintenance program. Maintenance program optimization relies on implementation of the reliability program.

Some approved operators' aircraft maintenance programs, not developed from the MRB Process, use reliability programs as the basis of the approval. The purpose of a reliability program is to ensure that the aircraft maintenance program tasks are effective and carried out at appropriate time intervals. Actions resulting from the reliability program may result in the escalation, addition or deletion of maintenance tasks, as deemed necessary.

The maintenance program typically contains the following information:

- The type/model and registration number of the aircraft, engines and, where applicable, auxiliary power units (APUs) and propellers;
- The name and address of the operator;
- The operator's reference identification of the program document, the date of issue and issue number;
- A statement signed by the operator to the effect the specified aircraft is maintained in accordance with the program and that the program is reviewed and updated as required;
- Contents/list of effective pages of the document;
- Check periods that reflect the anticipated utilization of the aircraft and where utilization cannot be anticipated, calendar time limits are included;
- Procedures for the escalation of established check periods, where applicable, and acceptable to the Authority;
- Provision to record date and reference to approved amendments incorporated in the program;
- Details of preflight maintenance tasks accomplished by maintenance personnel and not included in the Operations Manual for action by flight crew;
- The tasks and the periods (intervals/frequencies) at which each part of the aircraft, engines, APUs, propellers, components, accessories, equipment, instruments, electrical and radio apparatus and associated systems and installations are to be inspected, together with the type and degree of inspection;
- The periods when items are checked, cleaned, lubricated, replenished, adjusted and tested;
- Details of specific structural inspections or sampling programs;
- Details of the corrosion control program, when applicable;
- The periods and procedures for the collection of engine health monitoring data;
- The periods when overhauls and/or replacements by new or overhauled parts are to be made;
- A cross-reference to other documents approved by the Authority that contain the details of maintenance tasks related to mandatory life-limitations, Certification Maintenance Requirements (CMRs) and Airworthiness Directives (ADs);

  Note: *To prevent inadvertent variations to such tasks or intervals, these items would not be included in the main portion of the maintenance program document, or any planning control system, without specific identification of their mandatory status.*

- Details of, or cross-reference to, any required Reliability Program or statistical methods of continuous surveillance;
- A statement that practices and procedures to satisfy the program are to the standards specified in the Type Certificate Holder's Maintenance Instructions. When practices and procedures are included in a customized operator's maintenance manual approved by the Authority, the statement refers to this manual;
- Each maintenance task quoted is defined in the definitions section of the program;
- Statements that indicate the maintenance program meets all applicable instructions for continuing airworthiness developed by the Type Certificate Holder as issued or amended by the operator's reliability program, STC holders, DERs, ODAs and/or DOA;
- Statements that indicate changes or deviations from the Type Certificate Holder's Maintenance Instructions or OEM maintenance specifications are made in accordance with the operator's approved procedures.

An operator's approved aircraft maintenance programs are subject to periodic review to ensure they reflect current Type Certificate Holder's recommendations, revisions to the Maintenance Review Board Report and the mandatory requirements and maintenance needs of the aircraft. The operator reviews the detailed requirements at least annually for continued validity in light of the operating experience.

MNT 1.3.2 (Intentionally open)

MNT 1.3.3 The Operator shall ensure amendments to the Maintenance Program:

(i) Are approved by the Authority unless the Operator has been approved to amend the Maintenance Program without requiring approval of the Authority;

(ii) Are furnished to all organizations and/or persons to whom the Maintenance Program has been issued.

Auditor Actions

- ☐ **Identified/Assessed** maintenance program (focus: defines processes for amendment approval and dissemination).
- ☐ **Identified** the organizations and/or persons to which the maintenance program(s) are issued.
- ☐ **Interviewed** responsible manager(s).
- ☐ **Examined** selected records of recent maintenance program amendments (focus: if applicable, approval by Authority; dissemination to all program users).
- ☐ **Other Actions** (Specify)

△ **MNT 1.3.4** If the Operator utilise single-engine turbine-powered aircrafts, the Operator shall establish a system to monitor the engine trends of all single-engine turbine-powered aeroplanes operated at night and/or in IMC.

Note: *Aeroplanes for which the individual certificate of airworthiness is first issued on or after January 1, 2005, should have an automatic trend monitoring system.*

Auditor Actions

- ☐ **Identified/Assessed** the system of monitoring engine trends
- ☐ **Interviewed** responsible manager(s).
- ☐ **Examined** the engine trends monitoring records and/or data
- ☐ **Other Actions** (Specify)

1.4–1.6 (Intentionally Open)

1.7 Maintenance Management Manual (MMM)

MNT 1.7.1 The Operator shall have, for the use and guidance of relevant maintenance and operational personnel, a Maintenance Management Manual that is accepted or approved by the Authority. The MMM may be issued in separate parts and shall contain maintenance policies, procedures and information as specified in Table 4.3. The design of the manual shall observe Human Factors principles. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** the MMM.
- ☐ **Interviewed** responsible manager(s).
- ☐ **Examined** the MMM (regulatory approval/acceptance and content in accordance with specifications in Table 4.3).
- ☐ **Other Actions** (Specify)

Guidance

An MMM is a document that defines how an operator, through its AMO and all contracted AMOs, accomplishes and controls its aircraft maintenance activities. This document sets out:

- The description of the maintenance management system and its senior personnel;
- Each location where maintenance is carried out;
- The Approved Data for accomplishing aircraft maintenance;
- The procedures by which Engineering and Maintenance is managed.

The MMM provides all Engineering and Maintenance personnel with the necessary information to enable them to accomplish their duties and allow the Authority to understand and approve how the operator and its AMO comply with the applicable Airworthiness Requirements.

The MMM can comprise one manual or a suite of manuals. The MMM may have specific sections extracted to form a customized manual for distribution to maintenance contractors, line stations and others, as applicable.

The MMM can be a generic term for the MCM, QPM, MOM, QM, IPM, MME and others. The purpose of the MMM is to set forth the procedures, means and methods of the operator in fulfilling its maintenance responsibilities. Compliance with its contents assures fulfillment of the operator's maintenance responsibilities.

The management section in the MMM may be produced as a stand-alone document and made available to the key personnel required to be familiar with its contents.

Working procedures between the operator and AMO are established and may be produced as any number of separate procedures manuals and cross-referenced from the management part of the MMM. The list of AMO Certifying Personnel may be produced as a separate document.

Personnel from both the operator and the AMO are expected to be familiar with sections of the manuals that are relevant to the work they carry out.

Responsibilities and procedures for revisions to the management part of the MMM and any associated manuals are to be specified.

The Quality Manager of the operator is responsible for monitoring revisions to the MMM unless otherwise agreed by the Authority.

Unless the Authority has agreed via a procedure stated in the amendment section of the MMM that certain defined classes of amendments may be incorporated without prior Authority approval, this process includes monitoring revisions to the associated procedures manuals.

The MMM normally has at least the following four main parts to cover the items in Table 4.3:

- Organization and management;
- Maintenance procedures;

- Quality system procedures;
- Contracted maintenance procedures and paperwork.

The MMM also typically contains:

- An organization chart;
- Procedures to ensure:
  - Each aircraft operated is maintained in an airworthy condition;
  - The operational and emergency equipment necessary for an intended flight is serviceable;
  - The Certificate of Airworthiness of each aircraft operated remains valid.
- A description of the quality system;
- A description of the procedure for receiving, amending and distributing all necessary airworthiness data from the type certificate holder or type design organization;
- A statement signed by the operator confirming the MMM and any incorporated documents identified therein reflect the operator's means of compliance with the Authority requirements;
- A description of the MMM amendment control procedure;
- A means of identifying each page of the MMM. This can be in the form of a list of effective pages with each page numbered and either dated or marked with a revision number;
- A description of the system used to distribute the MMM, including a distribution list; for non-scheduled work, temporary copies of the relevant portions of the MMM, or any incorporated reference, may be sent via facsimile transmission;
- A detailed description of the procedures used to ensure that any maintenance tasks required by the maintenance schedule, airworthiness directives or any task required for the rectification of a defect are completed within the required time constraints;
- A description of the evaluation program required by these standards;
- A description of the defect rectification and control procedures, including details of:
  - The methods used to detect and report recurring defects;
  - The procedures for scheduling the rectification of defects whose repair has been deferred, if these procedures have not been incorporated into the MEL preamble.
- The procedures used to report service difficulties in accordance with these standards;
- A description of the technical dispatch procedures, including procedures for ferry-flight authorizations EDTO (equivalent terms ETOPS, EROPS, LROPS), all weather operation or any other special operation;
- A description of personnel records to be retained;
- A description of the procedure used to ensure the empty weight and balance of each aircraft is recorded in accordance with the applicable State of Registry/Authority requirements;
- Maintenance arrangements and a list of all such arrangements, including the procedure used to communicate to an approved maintenance organization the maintenance requirements for planned and unforeseen maintenance activities, as well as those mandated by airworthiness directives;
- Procedure for revising and maintaining the MMM up to date and current;
- Approval of the Authority through approval of the list of effective pages or, in the case of manuals containing a small number of pages, approval can be identified on each page.

MNT 1.7.2 (Intentionally open)

△ **MNT 1.7.3** The Operator shall ensure the MMM is amended as necessary to keep information contained therein up to date and to address:

(i) Changes to maintenance or airworthiness requirements;

(ii) Changes in the organization or activities;

(iii) Inadequacies identified through internal or external audit;

(iv) Conformity with applicable requirements.

Auditor Actions

- ☐ **Identified/Assessed** the process(es) for amending the MMM.
- ☐ **Interviewed** responsible manager(s).
- ☐ **Examined** the MMM for currency.
- ☐ **Examined** the content of selected amendments to the MMM.
- ☐ **Other Actions** (Specify)

MNT 1.7.6 The Operator shall ensure a copy of the current version of the MMM, or relevant portions thereof, is promptly made available to:

(i) Applicable authorities;
(ii) Each organization or person that performs or certifies maintenance for the Operator;
(iii) All other organizations or persons to whom the MMM has been issued.

Auditor Actions

- ☐ **Identified/Assessed** the process(es) for dissemination of the MMM.
- ☐ **Interviewed** responsible manager(s).
- ☐ **Examined** the distribution list for dissemination of the MMM.
- ☐ **Examined** selected records of MMM and amendment distribution(s) to organizations/persons that perform/certify maintenance.
- ☐ **Other Actions** (Specify)

2 Maintenance Control

2.1 Control System

MNT 2.1.1 The Operator shall have a maintenance control system that is in accordance with procedures acceptable to the Authority and ensures:

(i) Each aircraft is maintained in an airworthy condition;
(ii) Operational and emergency equipment necessary for flight is serviceable;
(iii) The Certificate of Airworthiness of each aircraft remains valid.

Auditor Actions

- ☐ **Identified/Assessed** the system for control of aircraft maintenance.
- ☐ **Identified** the procedures for renewal of certificate of airworthiness (CoA).
- ☐ **Interviewed** responsible manager(s).
- ☐ **Examined** selected individual aircraft records for CoA.
- ☐ **Other Actions** (Specify)

△ **MNT 2.1.2** The Operator shall have guidance and procedures to ascertain if trends for oil consumption are such that an aircraft has sufficient oil to complete each flight. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** guidance/procedures for monitoring aircraft engine oil consumption (focus: oil consumption monitored; trends identified for individual aircraft; consumption trends accounted for prior to each flight to ensure completion)
- ☐ **Interviewed** responsible operational control manager(s)
- ☐ **Examined** selected aircraft oil consumption records (focus: consumption monitored, trends identified and accounted for prior to flights).
- ☐ **Other Actions** (Specify)

Guidance

The designation of a minimum oil quantity is typically provided by the manufacturer, while the determination, monitoring and replenishment of oil supply are the responsibilities of engineering and maintenance and/or the flight crew in accordance with ISSM Section 2 (FLT), Table 2.2, item v).

2.2 Maintenance Planning

MNT 2.2.1 The Operator shall have a system for forecasting and tracking required maintenance activities.

Auditor Actions

- ☐ **Identified/Assessed** the system for forecasting and tracking required maintenance activities.
- ☐ **Interviewed** responsible manager(s).
- ☐ **Interviewed** maintenance scheduling/planning personnel.
- ☐ **Examined** selected scheduled/planned maintenance tasks.
- ☐ **Other Actions** (Specify)

2.3 Parts Installation

MNT 2.3.1 The Operator shall have a process to ensure that no new part is installed on an aeronautical product unless such part meets the standards of airworthiness applicable to the installation of new parts and in addition, meets a minimum any of the following:

(i) The new part has marking identifying it as a part specified in the type design conforming to a recognized national or international standard, or

(ii) The new part has been approved for use on an aeronautical product, in accordance with the type certificate/STC, if the part was originally designed and manufactured for non-aeronautical use, or

(iii) The new part was manufactured under a Parts Manufacturer Approval (PMA), or

(iv) The new part was produced by the Operator using approved procedures for the purpose of maintaining or alerting its own aeronautical product. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** the process for managing and controlling new parts and parts installation.
- ☐ **Interviewed** responsible manager(s).
- ☐ **Examined** selected parts installed on aircraft as new parts.
- ☐ **Observed** aircraft part/component installation/replacement (if applicable) (focus: new part/component being installed meets applicable standards of airworthiness).
- ☐ **Observed** aircraft parts/components management/handling (focus: control process for ensuring new parts meet applicable standards of airworthiness).
- ☐ **Other Actions** (Specify)

Guidance

The operator is responsible for providing an external AMO with approved documentation that contains information about parts allowed to be installed on its aircraft. Such documentation enables the external AMO to validate the airworthy condition of the part and its certification for installation on the aeronautical product being maintained. The “approved documentation” category typically includes as necessary, without being limited to, any of the following: MMM, IPC (including Supplements), AD, SB, Work Order, Repair Order, Form 8130-3/EASA Form 1/or equivalent.

The production of parts by an operator for its own use, as specified in item (iv), is acceptable provided there are approved procedures identified in the MMM.

MNT 2.3.2 The Operator shall have a process to ensure that no used part is installed on an aeronautical product unless such part meets the standards of airworthiness applicable to the installation of used parts and any of the following:

(i) An airworthy part that has been removed from an aircraft for immediate installation on another aircraft, **or**

(ii) An airworthy part that has undergone maintenance for which a maintenance release has been signed by an appropriately rated Approved Maintenance Organization (AMO),**or**

(iii) An airworthy part that has undergone an approved repair or alteration that restored the certificated level of airworthiness to a used part. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** the process for managing and controlling used parts and parts installation.
- ☐ **Interviewed** responsible manager(s).
- ☐ **Examined** selected parts installed on aircraft for certificates.
- ☐ **Observed** aircraft part/component installation/replacement (if applicable) (focus: new part/component being installed meets applicable standards of airworthiness).
- ☐ **Observed** aircraft parts/components management/handling (focus: control process for ensuring new parts meet applicable standards of airworthiness).
- ☐ **Observed** aircraft parts/components management/handling (focus: control process for ensuring used life-limited parts meet applicable standards of airworthiness).
- ☐ **Other Actions** (Specify)

Guidance

The operator is responsible for providing an external AMO with approved documentation that contains information about parts allowed to be installed on its aircraft. Such documentation enables the external AMO to validate the airworthy condition of the part and its certification for installation on the aeronautical product being maintained. The “approved documentation” category typically includes as necessary, without being limited to, any of the following: MMM, IPC (including Supplements), AD, SB, Work Order, Repair Order, Form 8130-3/EASA Form 1/or equivalent.

MNT 2.3.3 The Operator shall have a process to ensure that no used life-limited part is installed on an aeronautical product unless such part meets the standards of airworthiness applicable to the installation of life-limited parts and:

(i) The technical history of the part is available to demonstrate the time in service, as authorized for that part in the type certificate governing the installation, has not been exceeded;

(ii) The technical history referred to in sub-paragraph (i) is incorporated into the technical record for the aeronautical product on which the part is installed. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** the process for managing and controlling used life-limited parts and parts installation.
- ☐ **Interviewed** responsible manager(s).
- ☐ **Interviewed** personnel that execute procedures for tracking life-limited parts.
- ☐ **Traced** the technical history of selected life-limited parts.
- ☐ **Observed** aircraft part/component installation/replacement (if applicable) (focus: part/component being installed newly meets applicable standards of airworthiness).
- ☐ **Other Actions** (Specify)

Guidance

The operator is responsible for providing an external AMO with approved documentation that contains information about parts allowed to be installed on its aircraft.

In general, it is best for an operator to have a fully traceable history for all life-limited parts. Not all parts have a fixed life. The life of some parts might be variable depending on the way the part has been used in the past. For example, load-bearing parts (e.g. landing gear components) that can be installed on different aircraft types (e.g. A319, A320, A321) will have a shorter life if installed on the heavier aircraft (as opposed to the same part installed on a lighter aircraft). Therefore, a complete history of these types of components is critical in knowing exactly when the life of the part will expire.

For parts that have a fixed life (e.g. batteries, slides), traceability to birth is not a requirement. However, in such cases, it is very important that the operator has documentation that shows clearly that the used part has not exceeded its airworthiness life limit.

2.4 Deferred Maintenance

MNT 2.4.1 The Operator shall have a maintenance control function that is responsible for approving, controlling, monitoring and scheduling non-routine and deferred maintenance activities, including MEL/CDL requirements.

Auditor Actions

- ☐ **Identified** the description of the maintenance control center (MCC) (or equivalent).
- ☐ **Interviewed** responsible manager(s).
- ☐ **Interviewed** personnel responsible for selected maintenance control functions.
- ☐ **Examined** maintenance control processes/procedures.
- ☐ **Other Actions** (Specify)

MNT 2.4.2 The Operator shall have a process to ensure deferred maintenance items (defects) are tracked and corrected within the required intervals prescribed by the MEL, CDL or the appropriate maintenance data. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** the process(es) for managing the MEL/CDL.
- ☐ **Interviewed** responsible manager(s).
- ☐ **Interviewed** MCC personnel.
- ☐ **Examined** selected records of MEL/CDL restricted items.
- ☐ **Traced** the tracking and correction of selected MEL/CDL restricted item(s).
- ☐ **Other Actions** (Specify)

Guidance

The intent of this provision is to ensure an operator has a process to rectify all defects affecting the safe operation of the aircraft within the limits prescribed by the approved MEL or CDL. Postponement of any defect rectification cannot typically be permitted without the operator's agreement and in accordance with a procedure approved by the State of Registry/Authority.

2.5 Continuing Airworthiness

MNT 2.5.1 The Operator shall have processes to:

(i) Obtain and assess continuing airworthiness information, including Airworthiness Directives (ADs), Alert Service Bulletins and recommendations from the organizations responsible for aircraft type design, and

(ii) Implement the resulting actions that are mandatory or considered necessary in accordance with procedures acceptable to the Authority. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** the process(es) for obtaining, assessing and implementing ADs and ASBs.
- ☐ **Interviewed** responsible manager(s).
- ☐ **Examined** selected records of AD and SB compliance, including Task Cards.
- ☐ **Traced** selected AD(s) and/or SB(s) from receipt to implementation.
- ☐ **Other Actions** (Specify)

Guidance

Refer to the IRM for the definitions of Authority, Service Bulletin (which includes the definition of Alert Service Bulletin) and Design Approval Holder (DAH).

Continuing airworthiness information and recommendations typically include:

- Airworthiness Directives that are developed by the Authority;
- Alert Service Bulletins, Airworthiness Limitations, maintenance planning and accomplishment instructions that are developed by the Type Design Organization(s) in accordance with their obligations as Design Approval Holder (DAH) for the respective product.

If improvements identified in the assessment process are considered by the operator as necessary to meet its safety and reliability needs, the current planning, accomplishment instructions, and/or airworthiness limitations may need to be adjusted through the implementation process.

MNT 2.5.2 The Operator shall have a process to monitor and assess maintenance and operational experience with respect to continuing airworthiness of aircraft of over 5,700 kg (12,566 lb) maximum certificated takeoff mass, as prescribed by the Authority. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** the process(es) for monitoring/assessing maintenance and operational experience in relation to continuing airworthiness.
- ☐ **Interviewed** responsible manager(s).
- ☐ **Interviewed** personnel that execute procedures that address continuing airworthiness.
- ☐ **Other Actions** (Specify)

Guidance

Aircraft continuing airworthiness is usually prescribed by the authority of the State of Registry. However, it is possible that continuing airworthiness instructions could be affected by the authority of the State of the Operator and/or the State of Design.

△ **MNT 2.5.3** The Operator shall have a program for the management of the minimum equipment lists (MELs) used in its fleet operations. Such program shall ensure MELs:

(i) Are approved by the State of the Operator and/or State of Registry if applicable;

(ii) Include the latest applicable MMEL provisions released by the Type Certificate Holder(s);

(iii) Are relevant to and customized for the type/model of aircraft in the Operator's fleet;

(iv) Identify applicable maintenance procedures called upon by the MEL items and such procedures are readily available for implementation by the appropriate maintenance personnel;

(v) Include, as applicable, aircraft systems and equipment required for operations in conformity with special authorizations. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** the procedure(s) for revising the MEL per the MMEL applicable revision.
- ☐ **Interviewed** responsible manager(s).
- ☐ **Examined** selected records of MEL usage requiring an (M) procedure.

- ☐ **Examined** (focus: MEL revision is in conformity with the latest applicable MMEL provisions and is customized for the type/model of aircraft in operator's fleet, including required equipment for operations in accordance with applicable special authorizations).
- ☐ **Observed** line maintenance operations (focus: MEL is customized for the applicable aircraft type/model).
- ☐ **Other Actions** (Specify)

Guidance

Refer to the IRM for the definitions of Minimum Equipment List (MEL) and Master Minimum Equipment List (MMEL).

The relevance and customization of the MEL is performed by the operator to reflect the configuration particular to each aircraft type in its fleet (e.g. the long-range or extended-range version, the engine type/model, the optional equipment installed etc.). The MEL typically does not include MMEL provisions that are not relevant to the actual configuration of the operated aircraft.

The time frame in which the applicable MMEL revisions released by the type certificate holder (TCH) are incorporated into the MEL is acceptable to the Authority.

The maintenance procedures as specified in (iv) are identified by an (M) symbol in the MEL. The intent is that all maintenance procedures are developed to a sufficient level.

2.6 Repairs and Modifications

MNT 2.6.1 The Operator shall have a process to ensure all modifications and repairs:

(i) Are carried out using approved data;

(ii) Comply with airworthiness requirements of the Authority and State of Registry.

Auditor Actions

- ☐ **Identified/Assessed** the process(es) for managing modifications and repairs.
- ☐ **Identified/Assessed** the procedures for maintaining technical records of modifications and repairs.
- ☐ **Interviewed** responsible manager(s).
- ☐ **Examined** selected records of aircraft modification(s) and/or repair(s).
- ☐ **Observed** aircraft part/component installation/replacement (focus: installation/replacement accomplished using approved data/in accordance with regulations).
- ☐ **Observed** AD/SB management (focus: AD/SB process ensures modifications/repairs accomplished using approved data/in accordance with regulations).
- ☐ **Observed** line maintenance operations (focus: compare the repair status and the physical status of the aircraft/engine(s)/propeller(s) and their repaired components as applicable).
- ☐ **Other Actions** (Specify)

2.7 Defect Recording and Control

MNT 2.7.1 The Operator shall have processes for defect recording and control, including the management of recurring defects, to address:

(i) Tracking chronic or repetitive unserviceable items;

(ii) Documenting troubleshooting history;

(iii) Implementing instructions for corrective action;

(iv) Ensuring rectification takes into account the methodology used in previous repair attempts.

Auditor Actions

- ☐ **Identified/Assessed** the process(es) for tracking and correcting chronic or repetitive unserviceable items.
- ☐ **Interviewed** responsible manager(s).

- ☐ **Interviewed** personnel that execute procedures that address chronic or repetitive unserviceable items.
- ☐ **Examined** corrective action records for selected chronic unserviceable items.
- ☐ **Traced** the process for developing corrective action for chronic unserviceable item(s).
- ☐ **Other Actions** (Specify)

2.8–2.11 (Intentionally Open)

2.12 Reporting to the Authority

△ **MNT 2.12.1** The Operator shall have a procedure to provide the Authority with aircraft in-service information as prescribed by the Authority. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** the procedure(s) for providing continuing airworthiness information to the Authority.
- ☐ **Interviewed** responsible manager(s).
- ☐ **Interviewed** personnel that provide airworthiness information to the Authority.
- ☐ **Examined** selected airworthiness reports to the Authority.
- ☐ **Other Actions** (Specify)

Guidance

Guidance may be found in ICAO Annex 8, Part II, 4.2.4.

3 Technical Records

3.1 Aircraft Maintenance Records

MNT 3.1.1 The Operator shall have a program to ensure the following maintenance records are maintained:

(i) Total time in service (hours, calendar time and cycles, as appropriate,) of the aircraft, engines and all life-limited components;

(ii) Current status of compliance with all mandatory continuing airworthiness information;

(iii) Appropriate details of modifications and repairs;

(iv) Time in service (hours, calendar time and cycles, as appropriate,) since last overhaul of the aircraft, engines or its components subject to a mandatory overhaul life;

(v) Current aircraft status of compliance with the Maintenance Program;

(vi) Detailed maintenance records to show that all requirements for signing of a maintenance release have been met. **(GM)**

Note 1: *Records in sub-paragraphs i) to v) are retained for a minimum period of 90 days after the aircraft, engine and component, to which they refer, has been permanently withdrawn from service;*

Note 2: *Records in sub-paragraph vi) are retained for a minimum period of one year after the signing of the maintenance release.*

Auditor Actions

- ☐ **Identified/Assessed** the maintenance records program.
- ☐ **Identified** the requirements for maintenance records that must be retained.
- ☐ **Interviewed** responsible manager(s).
- ☐ **Examined** selected maintenance records (focus: specified records are retained/maintained).

- ☐ **Observed** AD/SB management (focus: records system includes current status of AD/SB compliance, individual aircraft compliance).
- ☐ **Other Actions** (Specify)

Guidance

Contracted maintenance organizations are required to maintain detailed records, to include certification documents that support the issuance of a maintenance release. Such requirement is typically specified in contractual arrangements, and implementation verified through oversight by the operator.

MNT 3.1.2–3.1.3 (Intentionally open)

△ **MNT 3.1.4** The Operator shall have processes to ensure applicable aircraft maintenance records for aircraft currently listed on the AOC:

(i) In the event of a temporary change of operator, are made available to the new operator;

(ii) In the event of a permanent change of operator, transferred to the new operator.

Auditor Actions

- ☐ **Identified/Assessed** the process(es) for the provision of maintenance records to a new operator.
- ☐ **Interviewed** responsible manager(s).
- ☐ **Interviewed** personnel that execute process(es) for providing maintenance records to a new operator.
- ☐ **Other Actions** (Specify)

3.2 Aircraft Technical Log (ATL)

MNT 3.2.1 The Operator shall have a process to ensure all aircraft have an aircraft technical log (ATL) or approved equivalent that comprises elements specified in Table 4.6.

Auditor Actions

- ☐ **Identified** the process(es) for management of the ATL or approved equivalent.
- ☐ **Interviewed** responsible manager(s).
- ☐ **Examined** a minimum of one ATL (content in accordance with specifications in Table 4.6).
- ☐ **Coordinated** with FLT auditor (verify ATL is maintained for aircraft operations).
- ☐ **Other Actions** (Specify)

MNT 3.2.2 The Operator shall have processes for the management of the ATL or approved equivalent as specified in MNT 3.2.1 to ensure, with respect to the ATL or approved equivalent:

(i) Entries are current and cannot be erased or deleted;

(ii) Descriptions of errors or discrepancies that have been corrected remain readable and identifiable;

(iii) Entries are retained to provide a continuous record of the last six months of operations.

Auditor Actions

- ☐ **Identified/Assessed** the process(es) for management of the ATL or approved equivalent.
- ☐ **Examined** a minimum of one ATL.
- ☐ **Examined** selected ATL(s).
- ☐ **Other Actions** (Specify)

3.3 (Intentionally Open)

3.4 Airworthiness Directives

MNT 3.4.1 The Operator shall maintain records of Airworthiness Directives (ADs) and Service Bulletins (SBs) or equivalents accomplished in accordance with the MMM.

Auditor Actions

- ☐ **Identified** the process(es) for maintaining records of AD and SB accomplishment.
- ☐ **Interviewed** responsible manager(s).
- ☐ **Examined** selected records of ADs and SBs that have been accomplished.
- ☐ **Other Actions** (Specify)

4 Maintenance Organizations

4.1 Approval

MNT 4.1.1 The Operator shall ensure an aircraft is not operated unless it is maintained and released to service by an Approved Maintenance Organization (AMO) that:

(i) Is acceptable to the Authority;

(ii) Has established procedures acceptable to the Authority to ensure maintenance practices are in compliance with all relevant requirements;

(iii) Maintains the validity of its approval through compliance with the requirements for an approved maintenance organization acceptable to the Authority. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** the process(es) for the selection of AMOs.
- ☐ **Interviewed** responsible manager(s).
- ☐ **Examined** selected AMO selection records.
- ☐ **Other Actions** (Specify)

Guidance

Refer to the IRM for the definition of Approved Maintenance Organization (AMO).

MNT 4.1.2 (Intentionally open)

MNT 4.1.3 The Operator shall ensure each maintenance organization that performs maintenance for the Operator has an approval document that contains, as a minimum:

(i) Name and location of the AMO;

(ii) Date of issue and period of validity of the approval;

(iii) Scope of the approval. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** the requirement criteria for regulatory approval in the AMO selection process.
- ☐ **Interviewed** responsible manager(s).
- ☐ **Examined** selected AMO selection records.
- ☐ **Examined** selected AMO oversight/monitoring reports (focus: verifying mandatory information on AMO approval documents).
- ☐ **Other Actions** (Specify)

Guidance

The specification in item (iii) of this provision is satisfied by the operator ensuring that the AMO approval document contains the type and level of work required by the operator.

A repair station or Approved Maintenance Organization certificate is usually delivered with ratings in one or more of the following categories or their equivalents:

- Aircraft;
- Avionics;
- Engine;
- Propeller;
- Structure and Corrosion Protection Control Program;
- Component;
- Welding;
- NDT.

MNT 4.1.4 (Intentionally open)

△ **MNT 4.1.5** If the Operator has maintenance performed outside the State of the Operator by a maintenance organization that does not hold an *approval* document issued by the Authority, the Operator shall have a process to ensure such maintenance organization has been *recognized* by the Authority. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** the requirement criteria for regulatory approval in the AMO selection process.
- ☐ **Interviewed** responsible manager(s).
- ☐ **Examined** selected AMO selection records.
- ☐ **Other Actions** (Specify)

Guidance

It is possible for an operator to enter into an arrangement for primary maintenance with an organization that is not an approved/accepted Maintenance Organization within the State of Registry when the arrangement is in the interest of the operator by simplifying the management of its maintenance. In such a situation, the maintenance organization is normally approved under the laws of a State that has an agreement with the State of Registry of the operator, and the operator applies its own control processes that ensure the existence of and compliance with the provisions MNT sub-section 4.

4.2 Management

△ **MNT 4.2.1** The Operator shall have a process to ensure each maintenance organization that performs maintenance for the Operator has a manager who, if applicable, is acceptable to the relevant Authority and has responsibility for the management and supervision of the maintenance organization.

Auditor Actions

- ☐ **Identified/Assessed** the requirement criteria for management in the AMO selection process.
- ☐ **Interviewed** responsible manager(s).
- ☐ **Examined** selected AMO selection records.
- ☐ **Examined** selected AMO oversight/monitoring reports (focus: verifying responsibilities/regulatory acceptance of AMO managers).
- ☐ **Other Actions** (Specify)

△ **MNT 4.2.2** The Operator shall have a process to ensure each maintenance organization that performs maintenance for the Operator has appropriate post holders with responsibilities for ensuring the maintenance organization is in compliance with the requirements for an approved maintenance organization as accepted by the Authority. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** the requirement criteria for the qualifications of personnel in the AMO selection process.
- ☐ **Interviewed** responsible manager(s).
- ☐ **Examined** selected AMO selection records.
- ☐ **Examined** selected AMO oversight/monitoring reports (focus: verifying qualifications/regulatory acceptance of AMO post holder personnel).
- ☐ **Other Actions** (Specify)

Guidance

The person or persons appointed represent the maintenance management structure of the organization and is/are responsible for all functions specified in the maintenance organization. The specified functions may be subdivided under individual managers within smaller maintenance organizations, ensuring that responsibility for all functions is allocated.

Dependent upon the extent of approval, maintenance organizations typically have, as a minimum, the following personnel: a base maintenance manager, a line maintenance manager, a workshop manager and a quality manager, all of whom report to the accountable executive, if applicable. In small maintenance organizations, subject to approval by the State of Registry/Authority, the accountable executive may also carry responsibility for other managerial positions. Deputies are normally appointed for all managerial positions, and procedures make clear who deputizes for any particular manager in the case of lengthy absence of said manager(s). The length of absence to justify deputizing is the period beyond which the organization or department cannot function properly due to such absence.

The accountable executive is responsible for ensuring that all necessary resources are available to accomplish maintenance to support the organization's maintenance organization approval.

Regardless of the size of the maintenance organization, managers appointed for the combination of the identified functions would indirectly report to the accountable executive through the base maintenance manager, line maintenance manager, workshop manager or quality manager, as appropriate

Certifying personnel may report to any of the managers specified, depending upon which type of control the approved maintenance organization uses: licensed engineers, independent inspection or dual function supervisors. The monitoring of quality compliance remains an independent function.

MNT 4.2.3–4.2.11 (Intentionally open)

△ **MNT 4.2.12** The Operator shall have a procedure for reporting to the applicable authority defects or un-airworthy conditions in accordance with requirements contained in Table 4.4.

Auditor Actions

- ☐ **Identified/Assessed** the process(es) for reporting defects and un-airworthy conditions to the Authority and (if applicable) Type Certificate Holder.
- ☐ **Interviewed** responsible manager(s).
- ☐ **Interviewed** personnel that execute procedures for reporting defects and un-airworthy conditions.
- ☐ **Examined** selected defects and un-airworthy condition reports to the Authority and (if applicable) Type Certificate Holder.
- ☐ **Other Actions** (Specify)

Guidance

The required reporting procedure would specifically identify/name the elements in points (ii), (iii) and (iv) of Table 4.4 while also ensuring that a system is in place for considering additional requirements of the Authority per item (v) of Table 4.4.

The intent of item (i) of Table 4.4 is to ensure that the list of operator-reportable defects or un-airworthy conditions is open to the individual assessment made by the operator for occurrences outside of the 15 cases specifically identified/named in the table.

The existence of a Service Difficulty Reporting (SDR) system, established by the Authority and with which an operator is in compliance, would normally constitute an acceptable basis for conformity with this provision provided that such SDR system addresses the elements of Table 4.4.

When the State of the Operator is different from the State of Registry, the operator would normally report to the airworthiness authorities of both the State of the Operator and the State of Registry.

4.3 Quality Assurance

MNT 4.3.1 The Operator shall ensure each maintenance organization that performs maintenance for the Operator has an independent quality assurance program that:

(i) Meets the specifications and control processes contained in Table 4.7;

(ii) Monitors compliance with applicable regulations, requirements and the Maintenance Procedures Manual (MPM) of the AMO;

(iii) Addresses the specific requirements of the Operator as specified in the maintenance agreement;

(iv) Is under the sole control of the Quality Manager or the person assigned managerial responsibility for the program. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** the requirement criteria for a QA program in the AMO selection process.
- ☐ **Interviewed** responsible manager(s).
- ☐ **Examined** selected AMO selection records.
- ☐ **Examined** selected AMO oversight/monitoring reports. (focus: verifying AMO quality assurance programs meet all applicable requirements).
- ☐ **Other Actions** (Specify)

Guidance

Refer to the IRM for the definition of Maintenance Procedures Manual (MPM).

The primary objectives of the quality system are to enable the AMO to ensure it can deliver a safe product and remain in compliance with all requirements.

An essential element of the quality system is the independent audit. The independent audit is an objective process of routine sample checks of *all* aspects of the approved maintenance organization's ability to carry out all maintenance to the required standards. This process includes:

- Product sampling, as this is the end result of the maintenance process, which represents an objective overview of the complete maintenance-related activities; product sampling is intended to complement the requirement for certifying personnel to be satisfied that all required maintenance has been properly carried out before the issue of the certificate of release to service;
- A percentage of random audits carried out on a sample basis when maintenance is being carried out; random audits include audits done during the night for those organizations that work at night.

Another essential element of the quality system is the quality feedback system. The principal function of the quality feedback system is to ensure all findings resulting from the independent quality audits of the organization are properly investigated and corrected in a timely manner:

- Independent quality audit reports are sent to the relevant department(s) for rectification action proposing target rectification dates;
- Rectification dates are discussed with such department(s) before the quality department or nominated quality auditor confirms dates in the report;
- The relevant department(s) rectifies findings within agreed rectification dates and informs the quality department or nominated quality auditor of the completion of such rectifications.

The accountable executive is kept informed of any safety issues and the extent of compliance with authority requirements. The accountable executive also holds regular meetings with personnel to check progress on rectification. In large organizations such meetings may be delegated on a day-to-day basis to the quality manager, subject to the accountable executive meeting at least twice per year with the senior personnel involved to review the overall performance and receiving at least a half yearly summary report on findings of non-compliance.

All records pertaining to the independent quality audit and the quality feedback system are retained for at least two evaluation cycles after the date of closure of the finding to which they refer, or for such period as to support changes to the audit time periods, whichever is the longer.

Note: *The quality feedback system may not be contracted to outside persons.*

It is not intended that this QA Program be based on a system of end product inspection, but rather upon periodic verifications of all aspects of the systems and practices used for the control of maintenance to ensure compliance with regulations and with the operator's approved procedures.

The aim of the program is to provide an unbiased picture of the AMO's performance to verify that activities comply with the MPM and confirm that the systems and procedures described in the MPM remain effective and are achieving the AMO's requirements.

4.4 Personnel

△ **MNT 4.4.1** The Operator shall have a process to ensure each maintenance organization that performs maintenance for the Operator uses maintenance personnel:

(i) That are appropriately licensed and/or authorized to sign the maintenance release;

(ii) Whose competence has been established in accordance with a procedure and to a level acceptable to the authority granting approval for the maintenance organization. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** the requirement criteria for qualifications of personnel in the AMO selection process.
- ☐ **Interviewed** responsible manager(s).
- ☐ **Examined** selected AMO selection records.
- ☐ **Examined** selected AMO oversight/monitoring reports (focus: process for verifying AMO personnel are licensed/authorized to sign maintenance release).
- ☐ **Observed** aircraft part/component installation/replacement (focus: personnel signing maintenance release are appropriately licensed/authorized).
- ☐ **Observed** line maintenance operations (focus: personnel signing maintenance release are appropriately licensed/authorized).
- ☐ **Other Actions** (Specify)

Guidance

Licensing typically ensures maintenance personnel have met the basic requirements of an applicable authority in terms of age, knowledge, experience and, if required, medical fitness and skill, and have demonstrated the required knowledge and skill in a manner specified by the authority.

Planners, mechanics, specialized services personnel, supervisors and certifying personnel are typically assessed for competence by an on-the-job evaluation and/or examination relevant to their particular job or role within the organization before unsupervised work is permitted.

To assist in the assessment of competence, job descriptions are recommended for each job role in the organization. Basically, the assessment establishes that:

- Planners are able to interpret maintenance requirements into maintenance tasks and have an appreciation that they have no authority to deviate from the maintenance data;
- Mechanics are able to carry out maintenance tasks to any standard specified in the maintenance data and notify supervisors of mistakes requiring rectification to meet required maintenance standards;
- Specialized services personnel are able to carry out specialized maintenance tasks to the standard specified in the maintenance data and will both inform and await instructions from their supervisor in any case where it is impossible to complete the specialized maintenance in accordance with the maintenance data;
- Supervisors are able to ensure that all required maintenance tasks are carried out and where not completed or where it is evident that a particular maintenance task cannot be carried out in accordance with the maintenance data, it is to be reported to the responsible person for appropriate action. In addition, for those supervisors who also carry out maintenance tasks, that they understand such tasks are not to be undertaken when incompatible with their management responsibilities;
- Certifying personnel are able to determine when the aircraft is or is not ready to be released to service.

Knowledge of organizational procedures relevant to each individual's particular role in the organization is important, particularly in the case of planners, specialized services personnel, supervisors and certifying personnel.

4.5 Training Program

MNT 4.5.1 The Operator shall ensure each maintenance organization that performs maintenance for the Operator has a training program that requires all maintenance personnel to receive initial and recurrent training that is appropriate to individually assigned tasks and responsibilities, and provides maintenance personnel with:

(i) Knowledge of regulations, standards and procedures in accordance with requirements in the MMM.

(ii) Knowledge and skills related to human performance, including coordination with other maintenance personnel and/or flight crew. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** the requirement criteria for an overall training program in the AMO selection process.
- ☐ **Interviewed** responsible manager(s).
- ☐ **Examined** selected AMO selection records.
- ☐ **Examined** selected AMO oversight/monitoring reports.
- ☐ **Other Actions** (Specify)

Guidance

Refer to the IRM for the definition of Human Factors Principles and Human Performance.

The intent of this provision is for the operator to ensure appropriate initial and recurrent training for maintenance personnel and to ensure such training takes into account the knowledge and skills specified.

Maintenance personnel receive training in human performance to promote an understanding of the human factors (e.g. human capabilities, limitations, and the interface(s) between human and system components) involved in performing maintenance duties and coordinating with other maintenance personnel and/or flight crew. These human factors are taken into account during training to reduce human error in maintenance activities, including activities performed by an external AMO.

MNT 4.5.2–4.5.6 (Intentionally open)

△ **MNT 4.5.7** If the Operator uses a maintenance organization that has maintenance personnel taxi the Operator's aircraft on the movement area of an airport, the Operator shall have a process to ensure such maintenance personnel are authorized, competent and qualified to conduct aircraft taxi operations.

Auditor Actions

- ☐ **Identified/Assessed** the requirement criteria for the qualifications of personnel that taxi aircraft in the AMO selection process.
- ☐ **Interviewed** responsible manager(s).
- ☐ **Examined** selected AMO selection records.
- ☐ **Examined** selected AMO oversight/monitoring reports (focus: verifying training/qualification of AMO personnel authorized to taxi aircraft, if applicable).
- ☐ **Other Actions** (Specify)

4.6–4.7 (Intentionally Open)

4.8 Medical Supplies and Safety Equipments

△ **MNT 4.8.1** The Operator shall ensure all aircraft in its fleet are equipped with:

(i) accessible and adequate medical supplies;

(ii) portable fire extinguishers of a type which, when discharged, will not cause dangerous contamination of the air within the aeroplane and at least one shall be located in the pilot's compartment and each passenger compartment that is separate from the pilot's compartment and that is not readily accessible to the flight crew;

(iii) a seat belt for each seat and a safety harness for each flight crew seat.

Note: *The specifications of this provisions are also applicable for flights such as ferry, maintenance check/test and training.*

Auditor Actions

- ☐ **Identified/Assessed** the requirement criteria for medical supplies and its accessability
- ☐ **Interviewed** responsible manager(s).
- ☐ **Observed** selected aircraft (focus: verifying the availability of medical supplies, portable fire extinguishers seat belts and safety harnesses for flight crew seat).
- ☐ **Other Actions** (Specify)

Guidance

Refer to Annex 6, 6.2.2

Compliance with aviation regulations necessitates the provision of a fully stocked and accessible adequate medical supplies on all flights.

The first aid kit should include essential medical supplies and equipment according to

Regular inspection and replenishment of the adequate medical supplies are essential to ensure its readiness for use at all times. Ensure that all items are within their expiration dates and replace any items that show signs of wear or deterioration.

The adequate medical supplies should be easily accessible to crew members and passengers in case of an emergency. Consider storing it in a designated and clearly marked location within the aircraft cabin, such as an overhead bin or a dedicated compartment.

By adhering to these guidelines, aircraft operators may ensure that they are adequately prepared to handle medical emergencies that may arise during flights, thereby promoting the safety and security of all onboard personnel.

4.9 Procedures Manual

MNT 4.9.1 The Operator shall ensure each maintenance organization that performs maintenance for the Operator provides for the use and guidance of relevant maintenance personnel a Maintenance Procedures Manual (MPM), which may be issued in separate parts, that contains information, as specified in Table 4.9. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** the requirement criteria for an MPM in the AMO selection process.
- ☐ **Interviewed** responsible manager(s).
- ☐ **Examined** selected AMO selection records.
- ☐ **Examined** selected AMO oversight/monitoring reports.
- ☐ **Examined** MPM (if available).
- ☐ **Other Actions** (Specify)

Guidance

The MPM is a document that defines how an Approved Maintenance Organization accomplishes and controls its aircraft maintenance activities.

The MPM provides all personnel of the AMO with the necessary information to enable them to accomplish their duties and allows the Authority to understand and approve how the AMO complies with the applicable Airworthiness Requirements.

The MPM can comprise one manual or a suite of manuals. The MPM may have specific sections extracted to form a customized manual for distribution to maintenance contractors, line stations and others as applicable.

The purpose of the MPM is to set forth the procedures, means and methods for the AMO to accomplish maintenance. Compliance with its contents assures fulfillment of the AMO's responsibilities.

The management section in the MPM may be produced as a stand-alone document and made available to the key personnel who need to be familiar with its contents. The list of AMO Certifying Personnel may be produced as a separate document.

Responsibilities and procedures for revisions to the management part of the MPM and any associated manuals are to be specified.

The Quality Manager of the AMO is responsible for monitoring revisions of the MPM, unless otherwise agreed by the Authority.

Unless the Authority has agreed via a procedure stated in the amendment section of the MPM that certain defined classes of amendments may be incorporated without prior Authority approval, this process includes monitoring revisions to the associated procedures manuals.

The MPM also normally contains the following information:

- A brief description of the organization that includes:
  - The approximate size of the organization;
  - The geographic location of the office facilities and/or the base of operations, when not co-located;
  - Where necessary to ensure comprehension, a chart depicting the distribution of the functions.
- A statement signed by the maintenance organization confirming the MPM and any incorporated documents identified therein reflect the Organization's means of compliance with the Authority requirements;
- A description of the maintenance procedures and the procedures for completing and signing a maintenance release when maintenance is based on a system other than that of an approved maintenance organization;
- A description of the procedures for monitoring, assessing and reporting maintenance and operational experience;
- A description of procedures for assessing continuing airworthiness information and implementing any resulting actions;
- A description of the procedures for implementing action resulting from mandatory continuing airworthiness information;
- A description of procedures for ensuring that unserviceable items affecting airworthiness are recorded and rectified;
- A description of the procedures for advising the State of Registry/Authority/operator of significant in-service occurrences;
- A table of contents;
- A description of the MPM amendment control procedure;
- A means of identifying each page of the MPM. This can be in the form of a list of effective pages, with each page numbered and either dated or marked with a revision number;
- A description of the system used to distribute the MPM, including a distribution list; for non-scheduled work, temporary copies of the relevant portions of the MPM or any incorporated reference;
- Where the organization uses standards for the performance of elementary work or servicing different from those recommended by the manufacturer, the identification of those standards;
- Procedures to ensure regulatory information and technical data appropriate to the work performed are used in respect of elementary work and servicing;
- Details of the methods used to record the maintenance, elementary work or servicing performed, including the method of recording of defects in the technical record required by these standards;
- A detailed description of the procedures used to ensure that any maintenance tasks required by the maintenance schedule, airworthiness directives or any task required for the rectification of a defect are completed within the required time constraints;
- A description of the evaluation program required by these standards;
- A description of the defect rectification and control procedures, including details of:
  - The methods used to detect and report recurring defects;
  - The procedures for scheduling the rectification of defects whose repair has been deferred.
- The procedures used to report service difficulties in accordance with these standards;
- A description of the technical dispatch procedures, including procedures for ferry-flight authorizations, extended range operations (EDTO, ETOPS, EROPS, LROPS), all weather operation or any other special operation;

- Procedures to ensure that only parts and materials that meet the requirements of the State of Registry/Authority/operator are used in the performance of elementary work or servicing, including details of any spare part pool arrangements that have been entered into;
- A description of the methods used to ensure that the personnel authorized to perform elementary work or servicing are trained as required by the Authority and qualified in accordance with these requirements, as applicable;
- A description of personnel records to be retained;
- Details of the procedures applicable to maintenance arrangements and a list of all such arrangements, including the procedure used to communicate to an approved maintenance organization the maintenance requirements for planned and unforeseen maintenance activities, as well as those mandated by airworthiness directives;
- Procedure for revising and maintaining the MPM up to date and current;
- Approval of the Authority through approval of the list of effective pages or, in the case of manuals containing a small number of pages, approval can be identified on each page;
- Procedures used for the storage and control of petroleum, oil and other lubricants, as required by national regulations.

△ **MNT 4.9.2** The Operator shall ensure:

(i) each maintenance organization that performs maintenance for the Operator has a process to amend the MPM as necessary to keep the information contained therein up to date *and*

(ii) copies of all amendments to the MPM are furnished promptly to all organizations or persons to whom the manual has been issued.

Auditor Actions

- ☐ **Identified/Assessed** the requirement criteria for an MPM amendment process in the AMO selection process.
- ☐ **Interviewed** responsible manager(s).
- ☐ **Examined** selected AMO selection records.
- ☐ **Examined** selected AMO oversight/monitoring reports. (focus: process for verifying acceptable AMO MPM amendment process).
- ☐ **Examined** MPM for currency (if available).
- ☐ **Other Actions** (Specify)

4.10 Maintenance Release

MNT 4.10.1 The Operator shall ensure each maintenance organization that performs maintenance for the Operator produces a completed and signed maintenance release that certifies all maintenance work performed has been completed satisfactorily and in accordance with the approved data and procedures described in the MPM of the maintenance organization. Such maintenance release shall include:

(i) Basic details of the maintenance performed;

(ii) A reference of the approved data used and, if required, the revision status;

(iii) Maintenance tasks that were not accomplished;

(iv) The date maintenance was completed;

(v) When applicable, identity of the approved maintenance organization;

(vi) Identity of the person(s) that sign the release. **(GM)**

Auditor Actions

- ☐ **Identified** the requirement criteria for the production of the maintenance release in the AMO selection process.
- ☐ **Interviewed** responsible manager(s).
- ☐ **Examined** selected AMO selection records.

- ☐ **Examined** selected AMO oversight/monitoring reports.
- ☐ **Other Actions** (Specify)

Guidance

Refer to the IRM for the definition of Maintenance Organization Exposition.

An operator has the option of defining when the revision status of approved data (that was used during the performance of maintenance) must be included in the maintenance release. The process that defines such requirement is typically documented in the operator's MMM.

A requirement for the documented revision status to be part of the maintenance release might depend on the particular approved data that is referenced. For example, if the Aircraft Maintenance Manual that was used for maintenance is distributed online, there would be an online record of the revision that was available at the time of maintenance, which might obviate the need for that information to be documented in the maintenance release. Conversely, the revision status of certain engineering documents and/or drawings might not be found online or be otherwise available, in which case the operator could opt to require the revision status to be included in the maintenance release for the purpose of ensuring traceability.

Aircraft CRS

A Certificate of Release to Service (CRS) is required before flight:

- At the completion of any maintenance package specified by the aircraft operator;
- At the completion of any defect rectification, while the aircraft operates flight services between scheduled maintenance.

The maintenance package may include any one or a combination of the following elements: a check or inspection from the operator's aircraft maintenance program, Airworthiness Directives, overhauls, repairs, modifications, aircraft component replacements and defect rectification.

New defects or incomplete maintenance work orders identified during maintenance are brought to the attention of the operator for the specific purpose of obtaining agreement to rectify such defects or complete the missing elements of the maintenance work order. In the case where the aircraft operator declines to have such maintenance carried out and provided this missing element/defect does not affect the airworthiness of the aircraft, this fact is entered in the aircraft CRS before issue of such certificate.

Component CRS

A CRS is necessary at the completion of any maintenance on an aircraft component while off the aircraft.

The authorized release certificate/airworthiness approval tag constitutes the aircraft component certificate of release to service when one AMO maintains an aircraft component for another AMO.

When an AMO maintains an aircraft component for use by the organization, an authorized release certificate/airworthiness approval tag may or may not be necessary, depending upon the organization's internal release procedures defined in the maintenance organization exposition and approved by the Authority.

4.11 Tooling and Calibration

MNT 4.11.1 The Operator shall have a process to ensure each maintenance organization that performs maintenance for the Operator has procedures to control and document the calibration and records of all tools, including personnel-owned tools, and preventing out-of-service and due-for-calibration tools and equipment from being used, in accordance with specifications in Table 4.10. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** the requirement criteria for the tool calibration in the AMO selection process.
- ☐ **Interviewed** responsible manager(s).
- ☐ **Examined** selected AMO selection records.

- ☐ **Examined** selected AMO oversight/monitoring reports.
- ☐ **Observed** maintenance outsourcing management (focus: process for verifying acceptable AMO tool calibration program).
- ☐ **Other Actions** (Specify)

Guidance

The control of these tools and equipment requires that the organization has a procedure to inspect/service and, where appropriate, calibrate such items on a regular basis and indicate to users that the item is within any inspection or service or calibration time limit. A clear system of labeling of all tooling, equipment and test equipment is therefore necessary, providing information on:

- When the next inspection or service or calibration is due;
- Whether the item is serviceable or unserviceable and the reason for its unserviceability.

A register is maintained for all precision tooling and equipment together with a record of calibrations and standards used.

Inspection, service or calibration of tools and equipment on a regular basis is in accordance with the equipment manufacturer's instructions except where the maintenance organization can justify by means of results that a different time period is appropriate in a particular case.

The procedural approach complies with the applicable standards of the authority (e.g. US Bureau of Standards or a country's approved standards certificate from the testing facility).

Table 4.1–Maintenance Program Specifications
The Operator's Maintenance Program shall contain the following information for each aircraft: (i) Maintenance tasks and the intervals at which these tasks are to be performed, taking into account the anticipated utilization of the aircraft; (ii) When applicable, a continuing structural integrity program; (iii) A system that identifies mandatory maintenance tasks, and their corresponding intervals, for tasks that have been specified as mandatory in the approval of the type design, (i.e. Certification Maintenance Requirements or CMRs); (iv) Procedures for changing or deviating from (i), (ii) and (iii) above; (v) The reliability program and descriptions of any required health monitoring for aircraft, engines, propellers and associated parts where the maintenance program was derived using the Maintenance Review Board process; (vi) The procedure for periodic review of the Maintenance Program to ensure it considers current Type Certificate Holder's recommendations, revisions to the Maintenance Review Board Report, mandatory requirements and other applicable requirements from the Authority.

Table 4.2–(Intentionally Open)

Table 4.3–Maintenance Management Manual Content Specifications
The MMM shall contain the following maintenance policies, procedures and information: (i) A description of the administrative arrangements between the operator and the approved maintenance organization; (ii) Names and duties of the person or persons whose responsibilities are to ensure that maintenance is carried out in accordance with the MMM; (iii) A description of aircraft types and models to which the manual applies; (iv) A description of the maintenance procedures and the procedures for completing and signing a maintenance release when maintenance is based on a system other than that of an approved maintenance organization; (v) A reference to the approved maintenance program; (vi) A description of the methods used for the completion and retention of maintenance records, and including procedures for retaining back-up records; (vii) A description of the procedures for monitoring, assessing and reporting maintenance and operational experience; (viii) A description of the procedures for complying with the service information reporting requirements; (ix) A description of procedures for assessing continuing airworthiness information and implementing any resulting actions; (x) A description of the procedures for implementing action resulting from mandatory continuing airworthiness information; (xi) A description of establishing and maintaining a system of analysis and continued monitoring of the performance and efficiency of the maintenance program, in order to improve and correct any deficiency in that program; (xii) A description of procedures for ensuring that unserviceable items affecting airworthiness are recorded and rectified; (xiii) A description of the procedures for advising the Authority of significant in-service occurrences; (xiv) The scope, structure and functionality of the management system for maintenance operations, to include a description of departments, positions, authorities, duties, responsibilities and the interrelation of functions and activities within the system; (xv) A process to ensure all amendments to the MMM are approved by the Authority and/or Operator, as applicable; (xvi) A description of the procedures to ensure operational and emergency equipment necessary for flight is serviceable; (xvii) A description of the procedures to ensure the Certificate of Airworthiness of each aircraft remains valid; (xviii) A description of the duties, responsibilities and reporting relationships within the Quality Assurance Program, or a reference to a separate quality assurance manual, if such description is found in that manual.

Table 4.4–Operational Flight Plan (OFP) Specifications	
The Operator shall have a procedure for reporting, to the Authority the following defects or un-airworthy conditions:	
(i)	General
	(a) Any failure, malfunction or defect where the safety of operation was or could have been endangered or which could have led to an unsafe condition.
(ii)	Aircraft Structure
	(a) Any failure of aircraft primary structure or a principal structural element;
	(b) Cracks, permanent deformation or corrosion or defect or damage of aircraft primary structure or principal structural element that a repair scheme is not already provided in the manufacturer's repair manual, or that occur after repair;
	(c) Any part of the aircraft that would endanger the aircraft or any person by becoming detached in flight or during operations on the ground;
	(d) Major defect or damage to aircraft structure;
	(e) Defects or damage to aircraft structures, if more than allowed tolerances.
(iii)	Powerplant
	(a) Uncommanded loss of thrust/power, shutdown or failure of any engine;
	(b) Uncontained failure of engine compressor, turbines;
	(c) Inability to feather or un-feather a propeller.
(iv)	Aircraft Systems or Equipment
	(a) Fire or explosion;
	(b) Smoke, toxic or noxious fumes in the aircraft;
	(c) Fuel leakage that results in substantial loss, or is a fire hazard;
	(d) Fuel system malfunction that has significant effect on fuel supply and/or distribution;
	(e) Fire warnings, except those immediately confirmed as false;
	(f) Unwanted landing gear or gear doors extension/retraction;
	(g) Significant loss of braking action.
(v)	If applicable, additional requirements of the Authority.

Table 4.5–(Intentionally Open)

Table 4.6–Aircraft Technical Log (ATL) Specifications
The Operator shall have a process to ensure all aircraft have an aircraft technical log (ATL) or approved equivalent that comprises the following elements: (i) Aircraft nationality and registration; (ii) Date; (iii) Place of departure; (iv) Place of arrival; (v) Time of departure; (vi) Time of arrival; (vii) Hours of flight; (viii) Incidents, observations, as applicable; (ix) Details of defects and rectifications/actions taken; (x) Signature and identity of the person recording the defect; (xi) Signature and identity of the person signing the release following maintenance**.

**The signature and identity shall: (1) be traceable to the individual making the entry; and (2) satisfy the requirements specified in the aircraft release to service procedure of the MMM (i.e. be either a handwritten or electronic signature system or company controlled stamp identity system, as approved by the Authority).

Table 4.7–Quality Assurance Program Specifications and Control Processes
The Operator shall ensure each maintenance organization that performs maintenance for the Operator has an independent Quality Assurance Program that includes the following elements:
(i) An internal audit/evaluation program; (ii) An established audit schedule that ensures all applicable regulations, requirements and technical activities described within the MPM of the AMO are checked on established intervals, as described in the MPM; (iii) A record of audit findings and corrective and/or preventive actions; (iv) Follow-up procedures to ensure necessary corrective/preventive actions (both immediate and long term) implemented by the Maintenance Organization are effective; (v) A record-keeping system to ensure details of evaluation findings, corrective actions, preventive actions and follow-up are recorded, and that the records are retained for two complete evaluation cycles.

Table 4.8–(Intentionally Open)

Table 4.9–Maintenance Procedures Manual Content Specifications
The Operator shall ensure each maintenance organization that performs maintenance for the Operator provides for the use and guidance of relevant maintenance personnel a Maintenance Procedures Manual (MPM), which may be issued in separate parts, that contains the following information: (i) A brief description of the organization that includes: (a) A general description of the scope of work authorized under the organization's terms of approval; (b) A general description of the organization's facilities. (ii) A description of the procedures for implementing changes affecting the approval of the maintenance organization; (iii) A description of the organization procedures and quality or inspection system; (iv) Names and duties of the responsible personnel; (v) Names and duties of the person or persons whose responsibilities are to ensure that maintenance is carried out in accordance with the MPM; (vi) A description of the procedures used to establish the competence of maintenance personnel; (vii) A description of the methods used for the completion and retention of the Operator's maintenance records, including procedures for retaining back-up records; (viii) A description of the procedure for preparing the maintenance release and the circumstances under which the release is to be signed; (ix) The process for authorizing personnel to sign the maintenance release and the scope of their authorization; (x) A description of any additional procedures for complying with the Operator's maintenance procedures and requirements; (xi) A description of the procedures for complying with the service information reporting requirements; (xii) A description of the procedure for receiving, amending and distributing within the maintenance organization, all necessary airworthiness data from the type certificate holder or type design organization. (xiii) A description, when applicable, of contracted activities.

Table 4.10–Tooling and Calibration Program Specifications
The Operator shall ensure each maintenance organization that performs maintenance for the Operator has procedures to control and document the calibration and records of all tools, including personnel-owned tools, and preventing out-of-service and due-for-calibration tools and equipment from being used. The procedures shall include the following elements: (i) Calibration date; (ii) Identity of individual or vendor that performed calibration or check; (iii) Calibration due date; (iv) A calibration certificate for each item calibrated by an outside agency; (v) Details of adjustments and repairs; (vi) Repair history of the tool; (vii) The part number and serial number of the standard used to perform the calibration.

Section 5 — Cabin Operations (CAB)

Applicability

Section 5 addresses the safety and security requirements associated with the passenger cabin. This section is applicable to an operator that conducts passenger flights with or without cabin crew.

Individual CAB provisions or sub-specifications within a CAB provision that:

- Begin with a conditional phrase “If the Operator...” are applicable if the Operator meets the condition(s) stated in the phrase.
- Begin with a conditional phrase “If the Operator conducts passenger flights with or without cabin crew…” are applicable if the Operator conducts passenger flights without cabin crew.
- Begin with a conditional phrase “If the Operator conducts passenger flights with or without cabin crew…” are applicable if the Operator conducts passenger flights without cabin crew.

Where an operator outsources the performance of cabin operations functions to external service providers, the operator retains overall responsibility for such functions, and must demonstrate processes for monitoring applicable external service providers in accordance with ORG 2.2.1 located in Section 1 of this manual.

General Guidance

Definitions of technical terms used in this manual, as well as the meaning of abbreviations and acronyms, are found in the IATA Reference Manual for Audit Programs (IRM).

Refer to the IATA Cabin Operations Best Practices Guide for practical information and guidance related to cabin safety policies and procedures, (http://www.iata.org/publications/Pages/cabin-safety-guide.aspx).

1 Management and Control

1.1–1.5 (Intentionally Open)

1.6 Operations Manual

CAB 1 .6.1 If the Operator conducts passenger flights with cabin crew, the Operator shall have an Operations Manual (OM), which may be issued in separate parts, that contains the policies, procedures and other guidance or information necessary for cabin crew members to perform their duties and be in compliance with applicable regulations, laws, rules and Operator standards. The content of the OM shall be in accordance with specifications in Table 5.1. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** cabin OM or, if applicable, separate documents that comprise the OM.
- ☐ **Interviewed** responsible management representative(s).
- ☐ **Examined** selected sections or parts of the cabin OM.
- ☐ **Other Actions** (Specify)

Guidance

Refer to the IRM for the definition of Practical Manual.

The complete content of the OM for cabin operations may be issued in more than one document or manual. For example, an operator might choose to issue a practical manual, which would be a controlled document and considered part of the OM. A practical manual, which might be referred to as a quick reference handbook (QRH), typically comprises checklists and other selected information and material taken directly from the OM, and is utilized by cabin crew members in performing onboard duties and procedures during normal, abnormal and/or emergency operations.

Likewise, whereas the operational and training areas of cabin operations specified in Table 5.1 are all included in the OM, they are typically issued in separate documents. For example, the cabin crew

training program (item vii) might be outlined in a training document, while policies, procedures, checklists are specified in operational documents.

2 Training and Qualification

2.1 Training Program

CAB 2.1.1 If the Operator conducts passenger flights with cabin crew, the Operator shall have a cabin crew training program, approved or accepted by the Authority that ensures cabin crew members understand their responsibilities and are competent to perform the duties and functions associated with cabin operations. The cabin crew training program shall also, as minimum, address:

(i) Initial qualification;
(ii) Continuing qualification;
(iii) Re-qualification;
(iv) If applicable, aircraft transition or conversion;
(v) If applicable, other specialized training requirements;

Auditor Actions

- ☐ **Identified/Assessed** requirement for specified training/qualification courses applicable to each aircraft type in cabin crew training/evaluation program.
- ☐ **Interviewed** responsible manager(s) in cabin operations.
- ☐ **Examined** training/qualification course curriculum (focus: inclusion of applicable training/qualification courses).
- ☐ **Examined** training/qualification records of selected cabin crew members (focus: completion of applicable training/qualification courses).
- ☐ **Other Actions** (Specify)

CAB 2.1.2 If the Operator conducts passenger flights with cabin crew, the Operator shall ensure all cabin crew members complete an initial training course:

(i) As part of the cabin crew qualification process for individuals who have not previously been qualified as a cabin crew member for the Operator;
(ii) Prior to being assigned duties as a cabin crew member.

Auditor Actions

- ☐ **Identified/Assessed** requirements for completion of initial training by cabin crew members.
- ☐ **Interviewed** responsible manager(s) in cabin operations.
- ☐ **Examined** records of initial training of selected cabin crew members.
- ☐ **Other Actions** (Specify)

CAB 2.1.3 If the Operator conducts passenger flights with cabin crew, the Operator shall ensure all cabin crew members complete a recurrent training course once every 12 months in order to remain qualified to perform duties as a cabin crew member. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** requirements for completion of recurrent training by cabin crew members.
- ☐ **Interviewed** responsible manager(s) in cabin operations.
- ☐ **Examined** records of recurrent training of selected cabin crew members.
- ☐ **Other Actions** (Specify)

Guidance

An operator typically has a process that tracks qualification requirements to ensure cabin crew members complete recurrent training in a timely manner to remain qualified.

The nominal cycle for the completion of the recurrent training course by each cabin crew member is 12 months and, during that period, each cabin crew member receives training in the subject areas applicable to the course for that 12-month period.

As a means of ensuring flexibility in the scheduling process, in some regulatory jurisdictions an operator may be permitted to increase the maximum cycle for the completion of recurrent training by cabin crew members up to 15 months with no change to the original training anniversary date of each cabin crew member. Such flexibility, however, would not alter the requirement for a basic 12-month recurrent training cycle for cabin crew members.

In the event a cabin crew member becomes unqualified for any reason (e.g., extended leave of absence), completion of re-qualification training would establish a new anniversary date (superseding the original anniversary date) upon which recurrent training would be based.

CAB 2.1.4 (Intentionally open)

CAB 2.1.5 If the Operator conducts passenger flights with cabin crew, the Operator shall have aircraft type training, which shall be completed by cabin crew members as part of the process to qualify and remain qualified to perform cabin crew duties on each type of aircraft to which they may be assigned. As a minimum, subjects covered under aircraft type training shall include:

(i) Aircraft systems;
(ii) Exit locations and operation;
(iii) Emergency equipment locations and operation;
(iv) Emergency assignments;
(v) Unique features of the aircraft cabin (as applicable for variants of a common aircraft type). **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** requirements for completion of aircraft type training by cabin crew members.
- ☐ **Interviewed** responsible manager(s) in cabin operations.
- ☐ **Examined** course syllabus for aircraft type training of cabin crew members.
- ☐ **Examined** records of aircraft type training of selected cabin crew members.
- ☐ **Other Actions** (Specify)

Guidance

An aircraft type training course for cabin crew members would include the description, locations and operation of an aircraft and its equipment.

Instruction in aircraft systems typically includes:

- Aircraft interior, passenger seats and restraints;
- Crew member seats and restraints;
- Aircraft-specific duties and responsibilities;
- Galley systems;
- Communication systems;
- Lighting systems;
- Oxygen systems.

Instruction on exit locations and operation addresses the types of exits on an aircraft.

Instruction on emergency equipment locations and operation addresses slides, rafts, slide/rafts, ramp slide/rafts, life jackets and other flotation devices.

Sub-specification (iv): The term “emergency assignments” refers to specific duties assigned to cabin crew members during emergency situations.

A process, in accordance with requirements of the Authority, would be utilized to qualify cabin crew members that concurrently operate aircraft of different types or operate variants within one aircraft type. The qualification process would typically address the differences between variants or types.

2.2 Program Elements

CAB 2.2.1–2.2.11 (Intentionally open)

△ **CAB 2.2.12** The Operator shall ensure cabin crew members complete initial and recurrent security training as approved or accepted by the State, and in accordance with the Operator's security training program as specified in SEC 2.1.1. Cabin crew security training shall address the following subject areas:

(i) Determination of the seriousness of any occurrence;
(ii) Causes of disruptive behavior on board and management of such types of incidents;
(iii) Crew communication and coordination;
(iv) Policy and procedures associated with flight deck access;
(v) Appropriate self-defense responses;
(vi) Use of non-lethal protective devices assigned to crew members for use as authorized by the State;
(vii) Understanding the behavior of terrorists so as to facilitate the ability to cope with hijacker behavior and passenger responses;
(viii) Situational training exercises regarding various threat conditions;
(ix) Flight deck procedures to protect the aircraft;
(x) Aircraft search procedures;
(xi) As practicable, guidance on least-risk bomb locations. **(GM)**

Conformance Applicability			
Specific to Aircraft Type	Included in Initial/Requalification Training	Included in Recurrent Training	Conformance through AQP
No	Yes	Yes (every 36 months)	Yes

Note: *Cabin crew members shall complete initial security training prior to being assigned to operational duties.*

Auditor Actions

- ☐ **Identified/Assessed** cabin crew security training program (focus: approval/acceptance by the State; meets applicable requirements of other states).
- ☐ **Interviewed** responsible manager(s) in cabin operations.
- ☐ **Examined** selected initial/recurrent training/qualification course curricula/syllabi (focus: security training is included; required subjects are addressed).
- ☐ **Examined** selected cabin crew member training/qualification records (focus: completion of security training training).
- ☐ **Other Actions** (Specify)

Guidance

Refer to the IRM for the definition of Security Program.

Cabin crew members are directly involved in the implementation of security measures and thereby require an awareness of obligations to the Security Program of the operator.

Crew security training would normally be in accordance with applicable regulations and/or the civil aviation security program of the State, and where no regulatory guidance exists, in accordance with the policy of the operator.

Specific subject areas included in recurrent security training are typically identified and derived from an analysis of actual or likely situations or trends experienced during line operations.

Fight deck access as specified in item (iv) would typically include persons authorized for flight deck access as well as flight deck entry/exit procedures.

Non-lethal devices as specified in item (vi) typically include handcuffs or restraints.

Training as specified in item (vii) typically addresses topics or tactics as appropriate for the operator that might be associated with or could be used to facilitate crew-passenger reaction to or interaction with hijackers (e.g. conflict management, use of passive or non-passive cooperation, understanding Stockholm Syndrome, identification of and response to hijacker types/motives).

Training exercises as specified in item (viii) are typically interactive in nature, and scenarios or situations (e.g. bomb threat, hijacking, unruly passenger) may be presented using various accepted training methods (e.g. live role playing, table top, computer-based training).

Training as specified in item (xi) is applicable to aircraft types that have designated least-risk bomb locations.

3 Line Operations

3.1 (Intentionally Open)

3.2 Cabin Crew Policies and Procedures

CAB 3.2.1 (Intentionally open)

CAB 3.2.2 If the Operator conducts passenger flights with cabin crew, the Operator shall have procedures to ensure a coordinated and expeditious cabin evacuation during aircraft fueling operations with passengers embarking, on board or disembarking. As a minimum, procedures shall require:

(i) Cabin exits are designated for rapid deplaning or emergency evacuation, and routes to such exits are unobstructed;

(ii) The area outside designated emergency evacuation exits is unobstructed;

(iii) One cabin crew member or other qualified person is positioned by the boarding door(s);

(iv) Means of communication are established among cabin crew members and with passengers;

(v) A suitable method of communication is established between qualified persons in a position to monitor passenger safety and personnel that have responsibility for fueling operations. **(GM)**

Auditor Actions

☐ **Identified** the specified procedures for cabin evacuation during aircraft fueling operations with passengers embarking, on board or disembarking

☐ **Interviewed** responsible manager(s) in cabin operations.

☐ **Interviewed** cabin crew personnel.

☐ **Other Actions** (Specify)

Guidance

During fueling operations with passengers on board the aircraft, the designation of exits for rapid deplaning or evacuation takes into account various factors, which would typically include:

- Aircraft type (e.g. some aircraft types might require the designation of over-wing exits for evacuation);
- Number of cabin crew members on board;
- The method being utilized for passenger boarding and/or deplaning (e.g. boarding bridge, air stairs);

- Exterior obstructions (e.g. catering vehicle) that might render an exit unusable for an emergency evacuation;
- Interior obstructions (e.g. catering trolley) that might block the route to one or more emergency evacuation exits.

Cabin crew procedures ensure a method of communication is established.

- Among cabin crew members positioned throughout the cabin for the purpose of coordination should a passenger evacuation be required (when more than one cabin crew member is required to be onboard);
- Between the cabin crew and passengers (one way) for the purpose of providing instructions should a passenger evacuation be required;
- Between the cabin crew and the flight crew (when the flight crew is onboard) for the purpose of ensuring notification when fueling operations are in progress and when a passenger evacuation is required;
- Between the cabin crew and the flight crew and/or ground handling personnel for the purpose of ensuring notification when fueling operations must be discontinued for any reason.

△ **CAB 3.2.3** If the Operator conducts passenger flights with cabin crew, the Operator shall have a procedure to ensure the cabin crew verifies that:

(i) Passenger and crew baggage in the passenger cabin is securely stowed;

(ii) If applicable, cargo packages and/or passenger items being transported in passenger seats are properly secured. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** procedure for cabin crew to verify cabin security (focus: baggage and cargo packages/passenger items are stowed or properly secured).
- ☐ **Interviewed** responsible manager(s) in cabin operations.
- ☐ **Examined** selected cabin crew member training/qualification records (focus: completion of security training).
- ☐ **Other Actions** (Specify)

Guidance

The intent of this provision is for an operator to have a procedure for verification by the cabin crew that all baggage and, if applicable, cargo packages and/or passenger items being transported in passenger seats are stowed or properly secured.

Some operators might transport smaller cargo packages (e.g. mail, COMAT items) secured in cabin passenger seats.

Some operators might transport certain passenger items secured in cabin passenger seats. These types of items are typically large, valuable or fragile articles belonging to passengers that are not conducive to transport as checked baggage or appropriate for stowage in overhead bins/lockers (e.g. large musical instruments, certain electronic equipment, prominent trophies, works of art). Such items might thus be secured and carried in a dedicated cabin passenger seat (which might be purchased by the passenger-owner for the purpose of transporting the item).

CAB 3.2.4 (Intentionally open)

△ **CAB 3.2.5** If the Operator conducts passenger flights with cabin crew, the Operator shall require cabin crew members to be seated with their safety harness fastened:

(i) During the takeoff and landing phases of flight;

(ii) Whenever the pilot-in-command (PIC) so directs. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** requirements and conditions for cabin crew members to be seated with their safety harness fastened.
- ☐ **Interviewed** responsible manager(s) in cabin operations.
- ☐ **Other Actions** (Specify)

Guidance

The safety harness consists of the seat belt and shoulder straps.

CAB 3.2.6–3.2.7 (Intentionally open)

△ **CAB 3.2.8** If the Operator conducts passenger flights with cabin crew, the Operator shall have procedures for providing passengers with instructions for appropriate action in the case of an in-flight emergency situation.

Auditor Actions

- ☐ **Identified** procedures for providing passengers with instructions for in-flight emergency situations.
- ☐ **Interviewed** responsible manager(s) in cabin operations.
- ☐ **Interviewed** cabin crew personnel.
- ☐ **Other Actions** (Specify)

3.3 (Intentionally Open)

3.4 Cabin Operations Policies and Procedures

CAB 3.4.1–3.4.3 (Intentionally open)

△ **CAB 3.4.4** If the Operator conducts passenger flights with cabin crew, the Operator shall have cabin crew procedures that require all passengers to be seated with their seat belts (or harness or other restraint provided) fastened:

(i) For the taxi, takeoff and landing phases of a flight;

(ii) Prior to and/or during turbulence;

(iii) When the PIC considers it necessary for the safety of the flight. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** procedures that ensure all passengers are seated with seat belts/harnesses fastened during the flight phases specified in the standard.
- ☐ **Interviewed** responsible manager(s) in cabin operations.
- ☐ **Other Actions** (Specify)

Guidance

Procedures for turbulence normally require at least one briefing to passengers.

Briefings may be delivered using a variety of methods including passenger announcement, discussion, demonstration, audio/visual media or automated seat messages where such systems exist. Briefings may be directed to individual passengers, small groups or all passengers simultaneously.

On longer flights where multiple periods of turbulence might occur, operators typically determine a required number and frequency of briefings and/or visual checks by the cabin crew.

CAB 3.4.5–3.4.11 (Intentionally open)

△ **CAB 3.4.12** If the Operator conducts passenger flights with cabin crew, the Operator shall have cabin crew procedures and guidance to ensure passengers are familiar with location and use of:

(i) Seat belts;
(ii) Emergency exits;
(iii) Life jackets (individual flotation devices), if required;
(iv) Oxygen masks, where applicable;
(v) Other emergency equipment provided for individual use, including safety information cards. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** guidance/cabin crew procedures to ensure passengers are familiar with the location and use of the safety and emergency equipment as specified in the standard.
- ☐ **Interviewed** responsible manager(s) in cabin operations.
- ☐ **Examined** documentation of guidelines, PAs, safety video & associated procedure(s).
- ☐ **Other Actions** (Specify)

Guidance

A demonstration video or an announcement on the cabin public address system are methods that ensure passengers are familiar with locations and the use of the specified items.

A safety information card, which is made available to each passenger, is typically used to supplement a demonstration or announcement.

Seat cushions that are designed to float are considered individual flotation devices.

CAB 3.4.13–3.4.14 (Intentionally open)

△ **CAB 3.4.15** If the Operator conducts passenger flights with cabin crew, the Operator shall ensure the immediate availability of procedures and associated checklist(s), applicable to each aircraft type, to be used for an in-flight search or inspection to discover concealed weapons, explosives, or other dangerous devices when sabotage or other type of unlawful interference is suspected. Such procedures shall contain:

(i) Guidance for the course of action to be taken if a bomb or suspicious object is found;
(ii) Least risk location(s) for a bomb or explosives specific to each aircraft type, if so designated by the manufacturer. **(GM)**

Auditor Actions

- ☐ **Identified** procedures the operator uses for onboard bomb search or security inspection when an act of unlawful interference or sabotage is suspected.
- ☐ **Interviewed** responsible manager(s) in cabin operations.
- ☐ **Examined** selected records of completion of security searches, as appropriate.
- ☐ **Other Actions** (Specify)

Guidance

In order to address the need to conduct a timely search or inspection of an aircraft, a checklist or other form of guidance (e.g. Bomb Threat Search Checklist, Aircraft Search Instructions) applicable to each aircraft type is immediately available, either located on board the aircraft or readily accessible through other means, for use by the cabin crew or other qualified personnel. Such checklist or instructions assist qualified personnel in carrying out a systematic search of the flight deck and/or cabin during flight to identify suspected or potentially dangerous devices or explosives. Instructions, which are specific to the aircraft type, specify predetermined structurally safe locations to move, if deemed appropriate, dangerous or potentially explosive articles. (Note: some aircraft types may not have designated least risk locations.)

The capability to undertake a systematic search for such items on board a cargo aircraft may be difficult due to limited access to many parts of the aircraft in flight. Opening containers and accessing pallets of cargo in flight also may not be possible and the availability of flight crew or other trained personnel to undertake such a search may be limited.

Table 5.1–Operations Manual Content Specifications
The content of the Operations Manual shall address the following areas of cabin operations: (i) Compliance or conformity with: (a) Applicable laws, regulations and rules; (b) Standard operating procedures for each phase of flight. (ii) Administration of first aid, to include guidelines for: (a) Life threatening medical emergencies; (b) Cardiopulmonary resuscitation (CPR); (c) Injuries and illnesses; (d) Use of medical equipment (e.g. Automatic External Defibrillator, if applicable). (iii) Response to emergency, abnormal and suspected security situations: (a) Aircraft emergency evacuation; (b) Cabin decompression, if applicable; (c) Onboard fires, smoke and fumes; (d) Emergency landing, ditching; (e) Leakage or spillage of suspected dangerous goods; (f) Suspected bomb or explosives, least risk bomb locations (specific to aircraft type); (g) Cabin search; (h) Hijacking or unlawful intervention. (iv) Use of cabin systems and equipment, to include malfunctions: (a) Oxygen systems, if applicable; (b) Communication systems; (c) Entry and exit doors; (d) Lifesaving equipment; (v) Dangerous goods manual or parts relevant to the cabin crew, to include: (a) Dangerous goods prohibited in passenger and crew baggage; (b) Information/instructions for dangerous goods permitted in passenger and crew baggage; (c) Action to be taken in the event of an emergency. (vi) Use of emergency, survival equipment (vii) Cabin crew training program (a) Abnormal and emergency situations, emergency evacuation; (b) Use of emergency and lifesaving equipment; (c) Lack of oxygen, loss of pressurization (as applicable); (d) Other cabin crew member assignments and functions; (e) Dangerous goods; (f) Human performance. (viii) Limitations pertaining to flight time, flight duty periods and rest periods.

Section 6 — Ground Handling Operations (GRH)

Applicability

Section 6 addresses functions within the scope of ground handling operations and is applicable to an operator that conducts passenger, cargo and/or combi (combined cargo and passenger) aircraft operations.

Individual GRH provisions or sub-specifications within GRH provision that:

- Begin with a conditional phrase ("If the Operator...") are applicable if the operator meets the condition(s) stated in the phrase.
- Do not begin with a conditional phrase are applicable unless determined otherwise by the Auditor.

Functions within the scope of ground handling operations include:

- Passenger handling
- Baggage handling
- Aircraft handling and loading
- Aircraft ground movement
- Load control
- Aircraft fueling
- Aircraft de-/anti-icing

In this section, non-revenue cargo and mail are addressed in the same way as revenue cargo for the purposes of handling, loading, securing and transporting. COMAT is non-revenue cargo.

For the purpose of addressing cargo in this section, mail is considered to be an item of cargo. Therefore, any reference to cargo also includes mail.

Where an operator outsources the performance of functions within the scope of ground handling operations to external service providers, the operator retains overall responsibility for such functions, and must demonstrate processes for monitoring the applicable external service providers in accordance with ORG 2.2.1 located in Section 1 of this manual.

General Guidance

Definitions of technical terms used in this ISSM Section 6, as well as the meaning of abbreviations and acronyms, are found in the IATA Reference Manual for Audit Programs (IRM).

Procedures used in ground operations are defined in the IATA Ground Operations Manual (IGOM), the IATA Airport Handling Manual (AHM), Dangerous Good Regulations (DGR) and in other relevant IATA publications.

Due to revision cycle differences, the IATA documents cited above are typically revised at various times during the effective period of an ISSM edition. Accordingly, when an IATA document is revised, it could render an existing reference to specific information in an IATA document to be in error. In such case, the revised IATA document would have to be searched to find the specific information referenced.

1 Management and Control

1.1–1.5 (Intentionally Open)

1.6 Operational Manuals

GRH 1.6.1 The Operator shall have an Operations Manual, which may be issued in separate parts, that contains the operational policies, processes, procedures and other information necessary for ground handling personnel to perform their duties and be in compliance with applicable regulations, laws, rules and standards of the Operator. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** ground handling OM or, if applicable, separate documents that comprise the OM.
- ☐ **Interviewed** responsible management representative(s).
- ☐ **Examined** selected sections or parts of the ground handling OM (focus: policies, processes, procedures used by ground handling personnel are included).
- ☐ **Other Actions** (Specify)

Guidance

Refer to the IRM for the definition of Operations Manual (OM).

An OM typically includes guidance that addresses areas generic to all functions within the scope of ground handling operations, as well as parts of the manual that are specific to individual operational functions.

Because the scope of ground handling operations is broad and varies by operator, rather than publishing one OM just for ground handling, a smaller operator might choose to incorporate the relevant information into a larger, comprehensive OM.

An operator could also choose to issue the information in separate documents that are each specific to the various ground handling operational functions (e.g. passenger handling, baggage handling, aircraft handling). Each individual document would typically contain generic guidance that is applicable to all ground handling operational functions (e.g., organizational policies, general definitions), as well as guidance that is specific to the particular ground handling function or office location (e.g., process descriptions, standard operating procedures, references to the appropriate regulations and IATA manuals).

The IGOM contains a core set of operations procedures that may be used by operators in the conduct of ground handling operations.

If an operator has external organizations conduct ground handling operations functions, such operator would then be expected to have a monitoring and control process to ensure each external organization either uses the OM of the operator or has its own published OM that fulfills operational safety, security and quality requirements of the operator.

2 Training and Qualification

2.1 Training Program

GRH 2.1.1 The Operator shall have a process to ensure personnel who perform operational duties in functions within the scope of ground handling operations for the Operator, to include personnel of external service providers, complete:

(i) *Initial training* prior to being assigned to perform such operational duties;

(ii) *Recurrent training* on a frequency in accordance with requirements of the regulatory authority but *not less than once during every 36-month period* except recurrent training in dangerous goods as specified in GRH 2.2.1 or GRH 2.2.2;

(iii) Re-qualification training applicable to personnel that become unqualified for any reason, prior to being reassigned to perform operational duties. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** training program for ground handling personnel (focus: ensures completion of initial/recurrent training for personnel in all ground handling functions; includes processes that ensure personnel of external service providers complete initial/recurrent training).
- ☐ **Interviewed** responsible manager(s) in ground handling operations.
- ☐ **Examined** selected initial/recurrent course curricula/syllabi (focus: includes initial and recurrent training programs for all personnel that perform ground handling duties/functions).
- ☐ **Examined** initial and recurrent training records of selected personnel (focus: completion of initial and recurrent training).

- ☐ **Examined** requalification training records of selected personnel (focus: completion of requalification training).
- ☐ **Other Actions** (Specify).

Guidance

Refer to the Applicability box at the beginning of this section for the functions within the scope of ground handling operations.

Requirements for initial and recurrent training apply to all operational ground handling personnel who perform duties within the scope of ground handling operations.

2.2 Program Elements

GRH 2.2.1 If the Operator transports dangerous goods as cargo, the Operator shall have a process to ensure ground handling personnel complete dangerous goods training, to include *initial training* and *recurrent training* within 24 months of previous training in dangerous goods. Such training shall be completed by personnel that perform operational duties in the following functions within the scope of ground handling operations:

(i) Passenger handling;
(ii) Baggage handling;
(iii) Aircraft loading;
(iv) Load control. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** dangerous goods training program (focus: defines DG training requirements for all cargo handling personnel based on specific assigned responsibilities/duty functions).
- ☐ **Interviewed** responsible manager(s) in ground handling operations.
- ☐ **Examined** applicable initial/recurrent dangerous goods training curricula and syllabi (focus: subject areas appropriate for personnel based on specific responsibilities/duty functions).
- ☐ **Examined** training records of selected personnel (focus: completion of required training as appropriate for assigned responsibilities/duty functions).
- ☐ **Other Actions** (Specify)

Guidance

The curriculum for dangerous goods training is determined by the operator and may vary depending on specific responsibilities and duty function(s).

Recurrent training in dangerous goods is completed within a validity period that expires 24 months from the previous training to ensure knowledge is current, unless a shorter period is defined by a competent authority. However, when such recurrent training is completed within the final 3 months of the 24-month validity period, the new validity period may extend from the month on which the recurrent training was completed until 24 months from the expiry month of the current validity period. If such recurrent training is completed prior to the final three months of the validity period, the new validity period would extend 24 months from the month the recurrent training was completed

Refer to DGR 1.5 and Appendix H.6 for guidance that includes adapted task lists for well-defined job functions.

GRH 2.2.2 If the Operator does *not* transport dangerous goods as cargo, the Operator shall have a process to ensure ground handling personnel receive dangerous goods training, to include *initial training* and *recurrent training* within 24 months of previous training in dangerous goods. Such training shall be completed by personnel that perform operational duties in the following functions within the scope of ground handling operations:

(i) Passenger handling;
(ii) Baggage handling;

(iii) Aircraft loading;
(iv) Load control. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** dangerous goods training program: (focus: defines DG training requirements for all cargo handling personnel based on specific assigned responsibilities/duty functions).
- ☐ **Interviewed** responsible manager(s) in ground handling operations.
- ☐ **Examined** selected initial/recurrent training curricula/syllabi (focus: subject areas appropriate for personnel based on specific responsibilities/duty functions).
- ☐ **Examined** training records of selected personnel (focus: completion of required training as appropriate for assigned responsibilities/duty functions).
- ☐ **Other Actions** (Specify)

Guidance

When an operator does not transport dangerous goods as cargo (i.e. a “no-carry” operator), dangerous goods training is still required for ground handling personnel to ensure prohibited dangerous goods are recognized and are not loaded onto an aircraft.

Dangerous goods training would be structured to provide the requisite knowledge to permit ground handling personnel to recognize prohibited dangerous goods (whether labeled or not labeled), ensure such dangerous goods are not inadvertently loaded on an aircraft and apply emergency action in the event of contamination or a spill.

The curriculum for dangerous goods training is determined by the operator and may vary depending on specific responsibilities and duty function(s).

Refer to DGR 1.5 and Appendix H.6 for guidance that includes adapted task lists for well-defined job functions.

△ **GRH 2.2.3** The Operator shall have a process to ensure initial and recurrent training or recurrent assessment completed by applicable ground handling personnel in accordance with GRH 2.1.1 addresses the following areas of operations, as applicable to ground handling duties or function(s) performed:

(i) Passenger services;
(ii) Ramp services;
(iii) Load control;
(iv) Aircraft fueling;
(v) Aircraft ground de-/anti-icing. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** training program for ground handling personnel (focus: training program addresses all specified operational areas).
- ☐ **Interviewed** responsible manager(s) in ground handling operations.
- ☐ **Examined** selected initial/recurrent/requalification training curricula/syllabi (focus: training addresses all specified operational areas).
- ☐ **Examined** initial/recurrent/requalification training records of selected personnel (focus: completion of training appropriate for individual duties/functions performed).
- ☐ **Other Actions** (Specify)

Guidance

For additional guidance refer to AHM 1110, Ground Operations Training Program.

GRH 2.2.4 (Intentionally open)

△ **GRH 2.2.5** The Operator shall have a process to ensure training for ground handling personnel assigned to perform aircraft fueling as specified in GRH 2.2.3 includes the following training elements:

(i) Safe operation of equipment;
(ii) Emergency procedures;
(iii) Fuel spillage avoidance response;
(iv) Aircraft fueling and defueling procedures;
(v) Aircraft-specific training. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** training program for ground handling personnel (focus: program includes the specified training elements associated with aircraft fueling operations).
- ☐ **Interviewed** responsible manager(s) in ground handling operations.
- ☐ **Examined** initial/recurrent/requalification training curricula/syllabi (focus: curricula/syllabi address the specified training elements for aircraft fuelling).
- ☐ **Examined** selected initial/recurrent/requalification training records (focus: personnel have completed training appropriate to operational functions performed).
- ☐ **Other Actions** (Specify)

Guidance

Refer to the IATA Guidance Material on Standard Into-Plane Fuelling Procedures as applicable to functions directly involved in aircraft fuelling operations.

3 Ground Handling Operations

3.1 (Intentionally Open)

3.2 Airside Operations

GRH 3.2.1 (Intentionally open)

GRH 3.2.2 The Operator shall ensure aircraft arrival procedures are in place that are completed prior to aircraft arrival at the assigned parking gate or stand. Such procedures shall ensure:

(i) The ramp area surface is inspected and is free of:
  (a) Debris that could cause foreign object damage (FOD);
  (b) Contamination that could be hazardous to aircraft movement.
(ii) The aircraft movement path is clear of objects and obstacles;
(iii) Personnel not involved in the aircraft arrival are positioned outside the equipment restraint area (ERA);
(iv) Required GSE is available and positioned clear of the ERA;
(v) The aircraft docking guidance system is operational or, if applicable, marshalling personnel are in place;
(vi) If applicable, wing walkers and/or other applicable personnel are present. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** requirement for implementation of safety procedures in the conduct of airside operational activities.
- ☐ **Interviewed** responsible manager(s) in ground handling operations.

- ☐ **Observed** aircraft arrival operations (focus: procedures for aircraft arrival are implemented as published in the OM).
- ☐ **Other Actions** (Specify)

Guidance

Refer to the IRM for the definition of Equipment Restraint Area (ERA) and Foreign Object Debris/Damage (FOD).

As specified in item (i) (b), snow and ice are ramp surface contaminants that can be hazardous to aircraft ground movement.

Documented procedures in accordance with IGOM 4.1.1, 4.1.2.1 and 4.1.3.1 will typically demonstrate documental conformity with the specifications in this provision.

3.3 Load Control

GRH 3.3.1 The Operator shall ensure a Load Control system is in place that provides for:

(i) Aircraft weight and balance conditions that are correct and within limits;

(ii) Aircraft loaded in accordance with applicable regulations and specific loading instructions for the flight;

(iii) Dissemination of dangerous goods and other special load information applicable to each flight;

(iv) Information, to include last minute changes, that is in agreement with the actual load on the aircraft and presented on a final load sheet. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** Load Control system.
- ☐ **Interviewed** responsible manager(s) in load control operations.
- ☐ **Examined** checklists/procedures used in the load control process.
- ☐ **Observed** load control operations (focus: load control system includes functions necessary to address aircraft load, weight/balance calculation, production of final load sheet).
- ☐ **Other Actions** (Specify)

Guidance

Refer to the IRM for the definitions of Load, Load Control, Special Load and Weight and Balance Manual (W&BM).

A load planning system typically entails, as a minimum:

- Assemblage of all data relating to the aircraft load (originating and en route stations);
- Planning of the load for ready accessibility;
- Planning of special loads according to restrictions, maximum quantities, separation and segregation requirements;
- Consideration of center of gravity parameters affecting aircraft fuel consumption.

Guidance may be found in AHM 551 and 590.

GRH 3.3.2–3.3.3 (Intentionally open)

△ **GRH 3.3.4** If the Operator transports dangerous goods as cargo, the Operator shall ensure a process is in place to provide the pilot-in-command (PIC), as soon as practicable prior to departure of the aircraft, with accurate and legible written information pertaining to dangerous goods on board the aircraft to be transported as cargo. Such notification shall include the following:

(i) If applicable, Air Waybill number;

(ii) Proper shipping name and/or UN/ID number;

(iii) Class or division, and subsidiary hazard(s) corresponding to the label(s) applied, and for Class 1, the compatibility group;

(iv) If applicable, packing group;

(v) For non-radioactive material, number of packages, exact loading location and, as required, net quantity or, if applicable, gross weight of each package, except:

a) For UN 1845: carbon dioxide, solid (dry ice), UN number, proper shipping name, classification, total quantity in each aircraft hold and offload airport;

b) For UN 3480 (Lithium-ion batteries) and UN 3090 (lithium-metal batteries), only the UN number, proper shipping name, class, total quantity at each loading location, and whether the package must be carried on a cargo only aircraft need be provided. UN 3480 (Lithium-ion batteries) and UN 3090 (lithium-metal batteries) carried under a State exemption must meet all of the requirements of iv) and v).

(vi) For radioactive material, number and category of packages, overpacks or freight containers, exact loading location and, as applicable, transport index for each package;

(vii) Any restriction for transport on cargo aircraft only;

(viii) Offload airport;

(ix) If applicable, dangerous goods transported under a state exemption;

(x) An indication that aircraft loading personnel observed no evidence of damage to or leakage from packages, or leakage from ULDs, loaded onto the aircraft. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** load control process to provide PIC with information pertaining to onboard dangerous goods as cargo.
- ☐ **Interviewed** responsible manager(s) in load control operations.
- ☐ **Examined** documents (e.g. NOTOC) that confirm dangerous goods information was provided to PIC (focus: use of checklist/form that conforms to the specifications stated in the provision).
- ☐ **Observed** load control operations (focus: load control system includes process/method for providing applicable dangerous goods information to PIC).
- ☐ **Other Actions** (Specify)

Guidance

Refer to the IRM for the definitions of NOTOC (Notification to Captain) and State.

Information pertaining to dangerous goods on board the aircraft is typically presented to the PIC in a notification called the NOTOC (notification to the captain). The NOTOC contains the detailed information (as specified in this provision) relative to all dangerous goods loaded on the aircraft as cargo.

Information contained in the NOTOC may also be used:

- For emergency response to an accident or incident involving dangerous goods on board;
- To provide to air traffic services in the event of an in-flight emergency.

In the event the NOTOC is of such a size as to make in-flight radiotelephony transmission impracticable in an emergency situation, a summary of the information is typically provided to the PIC (NOTOC Summary), which contains at least the quantities and classes or division of dangerous goods in each cargo compartment.

3.4 Aircraft Loading

GRH 3.4.1 The Operator shall have aircraft loading procedures in the OM that ensure:

(i) The cargo hold is inspected before loading to:
  (a) Check for damage
  (b) Ensure it is empty of other than documented transit load items.

(ii) The aircraft is loaded:
  (a) In accordance with written loading instructions;
  (b) In a manner that satisfies weight and balance requirements.

(iii) The load is secure and will not move during the flight;

(iv) If applicable, ULD locks are extended and locked. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** aircraft loading procedures.
- ☐ **Interviewed** responsible manager(s) in ground handling operations.
- ☐ **Examined** examples of documented aircraft loading instructions.
- ☐ **Observed** aircraft loading operations (focus: aircraft loaded in accordance with loading instructions/weight/balance requirements).
- ☐ **Interviewed** personnel that perform aircraft loading.
- ☐ **Other Actions** (Specify)

Guidance

Refer to IGOM 4.5.9, 5.6.1 and 5.6.2, as well as AHM 514 and 590 for additional guidance.

GRH 3.4.2 (Intentionally open)

GRH 3.4.3 If the Operator transports dangerous goods as cargo, the Operator shall ensure procedures are in place for the transportation of dangerous goods to/from an aircraft and the loading and securing of dangerous goods on an aircraft in a manner that:

(i) Prevents damage to packages and containers during aircraft loading and unloading;

(ii) Provides for separation and segregation in accordance with applicable requirements;

(iii) Prevents any movement in the aircraft. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** procedures for the transportation of dangerous goods to/from an aircraft and and the loading/securing of dangerous goods on an aircraft.
- ☐ **Interviewed** responsible manager(s) in ground handling operations.
- ☐ **Observed** transportation of cargo to/from aircraft and the loading and securing of dangerous goods (focus: handling of dangerous goods to prevent damage, prevent movement in the aircraft, and maintain separation).
- ☐ **Interviewed** personnel that perform aircraft loading and securing of cargo shipments.
- ☐ **Other Actions** (Specify)

Guidance

Refer to DGR 9.3 for guidance that addresses the the transportation, loading and securing of dangerous goods, and to DGR 10.9 for guidance that addresses securing and separation of radioactive material.

Refer to IGOM 4.5.7.7 for guidance that addresses securing of dangerous goods

△ **GRH 3.4.4** If the Operator transports dangerous goods as cargo, the Operator shall ensure procedures are in place that assure, when a dangerous goods package or shipment appears to be damaged or leaking:

(i) The package or shipment is prevented from being loaded into an aircraft;

(ii) If already loaded, the package or shipment is removed from an aircraft;

(iii) In the case of leakage, an evaluation is conducted to identify and prevent from transport any baggage, cargo, transport devices or other items that may have become contaminated. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** procedures for handling/addressing leaking/damaged dangerous goods shipments
- ☐ **Interviewed** responsible manager(s) in load control operations.
- ☐ **Examined** records/documents that illustrate handling of leaking/damaged dangerous goods shipments.
- ☐ **Observed** aircraft loading operations (focus: procedures for addressing dangerous goods packages/shipments that appear to be leaking or damaged).
- ☐ **Interviewed** personnel that perform aircraft loading.
- ☐ **Other Actions** (Specify)

Guidance

Refer to DGR 9.3, 9.4 and 10.9, which contain guidance that addresses apparent damage to dangerous goods shipments.

△ **GRH 3.4.5** If the Operator transports dangerous goods as cargo, the Operator shall ensure procedures are in place that require, when an aircraft has been contaminated by dangerous goods leakage:

(i) Hazardous contamination is removed from the aircraft without delay;

(ii) In the case of radioactive contamination, arrangements are made to take the aircraft out of service for evaluation by appropriately qualified personnel.

Auditor Actions

- ☐ **Identified/Assessed** procedures for addressing aircraft contaminated by leakage of dangerous goods.
- ☐ **Interviewed** responsible manager(s) in ground handling operations.
- ☐ **Examined** guidance/checklists used for dealing with an aircraft contaminated by leakage of dangerous goods.
- ☐ **Other Actions** (Specify)

GRH 3.4.6–3.4.10 (Intentionally open)

△ **GRH 3.4.10** If the Operator transports dangerous goods as cargo, the Operator shall ensure procedures are in place that prevent dangerous goods from being carried in an aircraft cabin occupied by passengers, except as permitted by the Authority or the DGR. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** procedure(s) for preventing the transport of dangerous goods in an aircraft cabin occupied by passengers, except as permitted.
- ☐ **Interviewed** responsible manager(s) in load control operations.
- ☐ **Examined** guidance/checklists used to ensure dangerous goods are not transported in an aircraft passenger cabin, except as permitted.
- ☐ **Other Actions** (Specify)

Guidance

In general, dangerous goods are prohibited from being transported in an aircraft cabin occupied by passengers. Limitations and exceptions are specified in DGR Sections 2 and 9.

△ **GRH 3.4.11** If the Operator transports dangerous goods as cargo, the Operator shall ensure procedures are in place that prevent dangerous goods from being carried on the aircraft flight deck, except as permitted by the Authority or the DGR. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** procedure(s) for preventing the carriage of dangerous goods on the aircraft flight deck, except as permitted.
- ☐ **Interviewed** responsible manager(s) in load control operations.
- ☐ **Examined** guidance/checklists used to ensure dangerous goods are not carried on the aircraft flight deck, except as permitted.
- ☐ **Other Actions** (Specify)

Guidance

In general, dangerous goods are prohibited from being transported on the flight deck of an aircraft. Limitations and exceptions are specified in DGR Sections 2 and 9.

4 Special Aircraft Ground Handling Operations

4.1 Aircraft Fueling

GRH 4.1.1 The Operator shall have a process to ensure fuel suppliers are maintaining standards of fuel safety and quality acceptable to the Operator and fuel delivered and loaded onto aircraft is:

(i) Of the correct grade and specification for each aircraft type;

(ii) Free from contamination. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** process for monitoring of fuel quality at all locations where aircraft are refueled.
- ☐ **Interviewed** responsible manager(s) in ground handling operations.
- ☐ **Examined** selected quality control inspection reports (focus: fuel supply quality management).
- ☐ **Other Actions** (Specify)

Guidance

The intend of this standard is to ensures fuel is stored, handled and serviced in accordance with accepted standards.

Approved fuel specifications are contained in each aircraft manual.

To ensure fuel corresponds to the specifications and grade of product necessary for the applicable aircraft type(s), a control process is typically in place at each location where the operator has aircraft fueling operations. Such process ensures the existence of periodic inspections of critical aspects of the fuel supply system at each applicable location, to include, as a minimum:

- Fuel facilities;
- Safety and quality procedures;
- Performance levels of personnel.

Processes for ensuring fuel is of the correct grade and free of contamination may be documented in maintenance, ground operations or flight operations manuals, or in a combination thereof. If the Operator uses biofuels, additional procedures would typically address the related specific requirements (i.e. dedicated infrastructures and blending requirements).

Additional guidance may be found in the IFQP (IATA Fuel Quality Pool) Quality and Safety Procedures, and in the AEA Recommendations for De-icing/Anti-icing of Aircraft on the Ground.

△ **GRH 4.1.2** The Operator shall ensure, during fuelling operations with passengers embarking, on board or disembarking the aircraft, procedures are in place that provide for the designation of a person with responsibility for fueling operations and specify the method(s) by which that responsible person:

(i) Communicates with the flight crew or other qualified personnel on board the aircraft;

(ii) Provides notification to the flight crew or other qualified personnel on board the aircraft when a hazardous condition or situation has been determined to exist;

(iii) Provides notification to the flight crew or other qualified personnel on board the aircraft and other appropriate personnel engaged in aircraft ground handling activities when fueling is about to begin and has been completed. **(GM)**

Note: *Notification when fueling is about to begin and has been completed as in iii. maybe replaced by an equivalent procedural means which ensure the flight crew or other qualified personnel on board the aircraft are aware of fueling operations and are in a position to, if necessary, perform an expeditious evacuation of the aircraft.*

Auditor Actions

- ☐ **Identified/Assessed** procedures for communication between ground and onboard personnel during aircraft fuelling operations.
- ☐ **Interviewed** person(s)/manager(s) responsible for fuelling operations.
- ☐ **Interviewed** selected aircraft fuelling supervisory personnel.
- ☐ **Observed** aircraft ground handling operations (focus: establishment of method for groundaircraft communication during aircraft fuelling operations).
- ☐ **Coordinated** with flight operations and cabin operations to verify complementary procedures for communication with ground personnel during aircraft fuelling operations.
- ☐ **Other Actions** (Specify)

Guidance

Ground handling personnel would typically need to have a clear understanding of all required communication procedures and have the ability to execute such procedures in an expeditious manner should a dangerous situation develop.

The specification in item ii) may be satisfied by *either*:

- Equivalent procedural means, acceptable to the State and applicable authorities, that would permit the flight crew or other qualified persons to be aware of the start and completion of fuelling operations, *or*
- Procedures established by the operator that would ensure qualified personnel on board the aircraft are continuously in a position to perform an expeditious evacuation of the aircraft for any reason, including a fuel spill or fire.

Suitable methods of communication with the flight crew or other qualified personnel on board the aircraft include use of the aircraft inter-communication system, direct person-to-person contact or other methods that ensure direct and timely communication. Use of the aircraft inter-communication system to maintain continuous two-way communication during fuelling operations is not a requirement.

The following roles and main responsibilities of participating personnel typically involve the following:

- Other qualified personnel on board the aircraft remain at a specified location during fuelling operations and are capable of handling emergency procedures associated with fire protection and fire-fighting, and communicating, initiating and directing an evacuation as specified by the operator. Such personnel are qualified by the operator to assume and perform flight crew and/or cabin crew responsibilities and duties during fuelling operations with passengers on board the aircraft.
- Flight crew or other qualified personnel on board the aircraft (e.g. cabin crew) are in a position to perform an expeditious evacuation of the aircraft and are aware of the state of fuelling operations. Such qualified personnel are responsible for two-way communication being established and maintained with personnel that are responsible for fuelling operations.
- A person is responsible for supervising fueling operations and maintaining two-way communication with the flight crew or other qualified personnel on board the aircraft (via the aircraft interphone communication system or other suitable means). Such person ensures an appropriate notification to qualified personnel on board the aircraft when fueling is about to begin, has been completed and when a hazardous condition or situation has been determined to exist. Such person also is responsible for communication with other appropriate personnel engaged in aircraft ground handling activities to ensure safe ramp conditions are maintained during fueling operations with passengers on board.
- Other appropriate personnel engaged in aircraft ground handling activities are responsible for maintaining safe ramp conditions during fueling operations, which includes, but is not limited to:
  - Embarkation or disembarkation path is not obstructed by GSE;
  - Aircraft handling operations do not create a hazard or obstruct emergency exits;
  - Ground areas beneath nominated exit doors are kept clear of any obstructions that would impede an emergency evaluation.

Criteria that identify the commencement of aircraft fueling typically include conditions such as the fueling vehicle being in position and bonded to the aircraft and the fueling hose-end nozzle being connected to the aircraft fuel adapter. Criteria that identify completion of aircraft fueling typically include conditions such as the hose-end nozzle disconnected from the aircraft fuel adapter, the hydrant pit/inlet hose is disconnected (if applicable), bonding cables are detached, the fuel receipt (slip) is processed, there are no leaks or spills identified and the fueling vehicle is ready to leave its position (as applicable based on fueling vehicle operator's walk-around check performed).

Additional guidance may be found in AHM 462 Item 9.5, as well as the ICAO Airport Services Manual, Document 9137 (ASM), Part 1.

GRH 4.1.3–4.1.4 (Intentionally open)

△ **GRH 4.1.5** The Operator shall ensure safety procedures associated with aircraft fueling operations are in place that assure, during fueling operations with passengers on board the aircraft:

(i) The ground area beneath aircraft exit doors that have been designated for rapid deplaning or emergency evacuation is kept clear of obstructions;

(ii) Where a boarding bridge is in use, an interior access path is maintained from the aircraft to the terminal;

(iii) Where a passenger boarding bridge is not in use, aircraft passenger steps or an alternate means of emergency evacuation is in place. **(GM)**

Auditor Actions

☐ **Identified/Assessed** safety procedures for aircraft fueling operations (focus: specifications of this standard are included/addressed in fueling procedures)

☐ **Interviewed** responsible manager(s) in ground handling operations.

☐ **Interviewed** selected aircraft fuelling supervisory personnel.

- ☐ **Observed** aircraft ground handling operations (focus: implementation of safety procedures during aircraft fueling operations).
- ☐ **Other Actions** (Specify)

Guidance

Refer to the IRM for the definition of Integral Airstairs.

When deployed, integral airstairs are acceptable as an alternate means of emergency evacuation. Refer to IGOM 3.2.3 for GSE positioning for aircraft refueling operations. Additional guidance may be found in AHM 462, as well as the ICAO ASM, Part 1.

4.2 Aircraft De-/Anti-icing

GRH 4.2.1 If the Operator conducts flights from any airport when conditions are conducive to ground aircraft icing, the Operator shall have a De-/Anti-icing Program, which, if applicable, is approved by the Authority and, as a minimum:

(i) Ensures adherence to the Clean Aircraft Concept;
(ii) Defines responsibilities within the Program;
(iii) Addresses applicable locations within the route network;
(iv) Defines areas of responsibility;
(v) Specifies technical and operational requirements;
(vi) Specifies training and qualification requirements;
(vii) Is applicable to external service providers that perform de-/anti-icing functions for the Operator. **(GM)**

Note: *The specifications of this provision are also applicable for flights such as ferry, maintenance check/test and training.*

Auditor Actions

- ☐ **Identified/Assessed** approved aircraft de-/anti-icing program. (focus: all applicable locations within the route network are addressed; flight such as: ferry, maintenance check/test and training are accounted for).
- ☐ **Interviewed** responsible manager(s) in ground handling operations.
- ☐ **Examined** de-/anti-icing program at selected airports. (focus: de-/anti-icing program requirements and areas of responsibilities are addressed as per selected airport's local conditions).
- ☐ **Examined** reports that detail past de-/anti-icing operations at selected airports. (focus: de-/anti-icing operations performed by external service providers are continuously reported to the operator).
- ☐ **Other Actions** (Specify)

Guidance

Refer to the IRM for the definitions of De-/Anti-icing Program and Clean Aircraft Concept.

A de-/anti-icing program would address not only commercial and non-commercial operations at an applicable airport but, operations such as positioning flights, test flights, training flights and etc.

The scope and details of a de-/anti-icing program would typically be commensurate with the frequency and complexity of operations at airports with the potential for ground icing conditions.

Additional guidance may be found in ICAO Doc 9640-AN/940, Manual of Aircraft Ground De-icing/Anti-icing Operations, Chapter 3, and in SAE AS6285, Aircraft Ground Deicing/Anti-Icing Program. The latter two are used as the basis for inspections conducted under the IATA De-Icing/Anti-Icing Quality Control Pool (DAQCP).

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Section 7 — Cargo Operations (CGO)

Applicability

Section 7 addresses functions within the scope of cargo handling operations, and is applicable to an operator that transports revenue or non-revenue cargo and/or mail. COMAT (Company Material) is non-revenue cargo.

In this section, non-revenue cargo and mail are addressed in the same way as revenue cargo for the purposes of handling, loading, securing and transporting.

For the purpose of addressing cargo in this section, mail is considered to be an item of cargo. Therefore, any reference to cargo also includes mail.

Individual CGO provisions or sub-specifications within CGO provisions that:

- Do not begin with a conditional phrase are applicable unless determined otherwise by the Auditor.
- Begin with a conditional phrase ("If the Operator...") are applicable if the Operator meets the condition(s) stated in the phrase.

Functions within the scope of cargo handling operations include:

- Cargo and mail acceptance;
- Cargo and mail handling;
- ULD loading/build-up;
- Application of required security measures.

Certain operators, particularly all-cargo operators, might have ground handling operations functions performed by cargo operations personnel (e.g. aircraft loading, airside operations, load control). Where this situation exists, the operator must be in conformity with the ISARPs contained in Section 6, Ground Handling Operations (GRH), that are applicable to the ground handling operations functions performed by cargo operations personnel.

Where an operator outsources the performance of functions within the scope of cargo operations to external service providers, the operator retains overall responsibility for such functions, and must demonstrate processes for monitoring applicable external service providers in accordance with ORG 2.2.1 located in Section 1 of this manual.

General Guidance

Definitions of technical terms used in this ISSM Section 7, as well as the meaning of abbreviations and acronyms, are found in the IATA Reference Manual for Audit Programs (IRM).

1 Management and Control

1.1–1.5 (Intentionally Open)

1.6 Operational Manuals

CGO 1.6.1 If the Operator transports revenue or non-revenue cargo, the Operator shall have an Operations Manual (OM), which may be issued in separate parts, that contains the operational policies, processes, procedures and other information necessary to ensure compliance with applicable regulations, laws, rules and standards of the Operator. The content of the OM shall contain standards and guidance that addresses the acceptance, handling, loading, securing and transporting of cargo as specified in Table 7.1. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** cargo OM or, if applicable, separate documents that comprise the OM.
- ☐ **Interviewed** responsible management representative(s).
- ☐ **Identified** standards and guidance in the OM that address acceptance, handling, loading, securing and transporting of cargo as per Table 7.1.
- ☐ **Other Actions** (Specify)

Guidance

Refer to the IRM for the definition of High-risk Cargo.

This provision is applicable to an operator that transports non-revenue cargo. COMAT is non-revenue cargo.

An OM may include guidance that addresses areas generic to all functions within the scope of cargo operations; other parts of the manual may be specific to individual operational functions.

Because the scope of cargo operations is broad and varies by operator, rather than publishing a separate OM dedicated to cargo operations (e.g. a Cargo Operations Manual), an operator might choose to publish all guidance for cargo operations in a section of an OM that addresses other types of operations (e.g. maintenance management manual for an operator that transports only COMAT).

An operator could also choose to issue the information in separate documents that are each specific to the various cargo operations functions (e.g., safety and security, acceptance, physical handling, documentation, identification, storage and stowage, preparation for flight). Each individual document would typically contain generic guidance that is applicable to all cargo operations functions (e.g., organizational policies, general definitions), as well as guidance that is specific to the particular function or office location (e.g., process descriptions, standard operating procedures, references to the appropriate regulations and IATA manuals).

If an operator has external organizations conduct cargo operations functions, such an operator would then be expected to have a monitoring and control process to ensure each external organization either uses the OM of the operator or has its own published operations manual that fulfills operational safety, security and quality requirements of the operator.

2 Training and Qualification

2.1 Training Program

CGO 2.1.1 If the Operator transports revenue or non-revenue cargo and/or mail, the Operator shall have a process to ensure personnel that perform operational duties in functions within the scope of cargo (revenue or non-revenue) operations for the Operator, to include personnel of external service providers, complete:

(i) *Initial training* prior to being assigned to perform such operational duties;

(ii) *Recurrent training* on a frequency in accordance with requirements of the regulatory authority but *not less than once during every 36-month period*, except for recurrent training in dangerous goods as specified in CGO 2.2.1, CGO 2.2.2.

(iii) *Re-qualification training* applicable to personnel that become unqualified for any reason, prior to being reassigned to perform operational duties. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** processes for ensuring completion of training by cargo operations personnel (focus: includes personnel in all cargo operations functions; includes external service providers).
- ☐ **Interviewed** responsible manager(s) in cargo operations.
- ☐ **Examined** selected initial/recurrent course curricula/syllabi (focus: initial and recurrent training programs address all cargo operations functions).
- ☐ **Examined** initial/recurrent training records of selected personnel (focus: completion of initial and recurrent training).

- ☐ **Examined** requalification training records of selected personnel (focus: completion of requalification training).
- ☐ **Other Actions** (Specify)

Guidance

Refer to the Applicability box at the beginning of this section for the functions within the scope of cargo operations.

Requirements for initial and recurrent training apply to all personnel that perform duties within the scope of cargo handling operations for an operator, both at the main base and all other locations.

2.2 Program Elements

CGO 2.2.1 If the Operator transports dangerous goods as revenue or non-revenue cargo, the Operator shall have a process to ensure personnel assigned the responsibility for accepting dangerous goods complete dangerous goods training, to include *initial training* and *recurrent training*, within 24 months of previous training in dangerous goods.

Auditor Actions

- ☐ **Identified/Assessed** dangerous goods training program: (focus: defines DG training requirements for all cargo handling personnel based on specific assigned responsibilities/duty functions).
- ☐ **Interviewed** responsible manager(s) in cargo operations.
- ☐ **Examined** applicable initial/recurrent dangerous goods training curricula and syllabi (focus: subject areas appropriate for personnel based on specific responsibilities/duty functions).
- ☐ **Examined** initial/recurrent dangerous goods training records of selected personnel (focus: completion of required training as appropriate for assigned responsibilities/duty functions).
- ☐ **Other Actions** (Specify)

Guidance

The curriculum for dangerous goods training for cargo operations personnel is determined by the operator and may vary depending on specific responsibilities and duty function(s).

Recurrent training in dangerous goods is completed within a validity period that expires 24 months from the previous training to ensure knowledge is current, unless a shorter period is defined by a competent authority. However, when such recurrent training is completed within the final 3 months of the 24-month validity period, the new validity period may extend from the month on which the recurrent training was completed until 24 months from the expiry month of the current validity period. If such recurrent training is completed *prior* to the final three months of the validity period, the new validity period would extend 24 months from the month the recurrent training was completed.

Refer to DGR 1.5 and Appendix H.6 for guidance that includes adapted task lists for well-defined job functions.

CGO 2.2.2 If the Operator transports revenue or non-revenue cargo, but does not transport dangerous goods, the Operator shall have a process to ensure cargo operations personnel assigned the responsibility for accepting or handling any cargo complete dangerous goods training, to include *initial training* and *recurrent training* within 24 months of previous training in dangerous goods. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** dangerous goods training program: (focus: defines DG training requirements for personnel with cargo acceptance/handling responsibilities.
- ☐ **Interviewed** responsible manager(s) in cargo operations.
- ☐ **Examined** selected initial/recurrent dangerous goods training curricula/syllabi (focus: subject areas appropriate for personnel with cargo acceptance/handling responsibilities).

- ☐ **Examined** initial/recurrent training records of selected cargo operations personnel (focus: completion of required training as appropriate for assigned responsibilities/duty functions).
- ☐ **Other Actions** (Specify)

Guidance

When an operator does not transport dangerous goods (i.e. a “no-carry” operator), dangerous goods training is still required for cargo operations personnel to ensure declared and undeclared dangerous goods are recognized and prohibited from being carried or loaded onto an aircraft.

Dangerous goods training is structured to provide the requisite knowledge to permit cargo operations personnel to recognize dangerous goods, whether labeled or not labeled, and to prevent such dangerous goods from being inadvertently accepted and/or planned for loading into an aircraft.

The curriculum for dangerous goods training for cargo handling personnel is determined by the operator and may vary depending on specific responsibilities and duty function(s).

Refer to DGR 1.5 and Appendix H.6 for guidance that includes adapted task lists for well-defined job functions.

3 Acceptance and Handling

3.1 General Cargo

CGO 3.1.1 If the Operator transports revenue or non-revenue cargo, the Operator shall have a process to ensure such shipments accepted for transport:

(i) If revenue cargo, are in compliance with standards in the OM as specified in CGO 1.6.1;

(ii) If interline cargo, are in compliance with IATA interline cargo requirements;

(iii) If non-revenue cargo, are in compliance with the OM or equivalent document as specified in CGO 1.6.1. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** process that ensures cargo shipments accepted for transport are in compliance with applicable requirements.
- ☐ **Interviewed** responsible manager(s) in cargo operations.
- ☐ **Examined** selected quality control inspection reports.
- ☐ **Observed** cargo acceptance operations (focus: process for ensuring cargo shipments comply with applicable requirements).
- ☐ **Other Actions** (Specify)

Guidance

Cargo is accepted under the terms of the OM, which typically specifies procedures to ensure acceptance personnel verify the cargo (revenue or non-revenue) has been packed in a manner:

- For safe transport with ordinary care in handling;
- To preclude injury or damage to any person, cargo or property.

Also, interline cargo typically complies with the applicable requirements of the receiving operator(s).

Refer to the IATA Cargo Services Conference Resolution 660 for guidance pertaining to interline cargo.

3.2 Dangerous Goods

CGO 3.2.1 If the Operator transports dangerous goods as revenue or non-revenue cargo, the Operator shall have a Dangerous Goods Acceptance Checklist that:

(i) Reflects applicable requirements contained in the current dangerous goods regulations.

(ii) Once completed, contains information that identifies the person(s) that performed the acceptance check. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** dangerous goods acceptance checklist (focus: contains DGR requirements, information that identifies person that performed acceptance check).
- ☐ **Interviewed** responsible manager(s) in cargo operations
- ☐ **Examined** process(es) for development/maintenance of dangerous goods acceptance checklist.
- ☐ **Observed** cargo acceptance operations (focus: dangerous goods acceptance in accordance with DGR requirements).
- ☐ **Other Actions** (Specify)

Guidance

Sample checklists for non-radioactive shipments, radioactive shipments and dry ice (carbon dioxide, solid) are found in the back of the DGR.

Refer to DGR 9.1.3 for guidance that addresses the Dangerous Goods Acceptance Checklist.

△ **CGO 3.2.2** If the Operator transports dangerous goods as cargo, the Operator shall have procedures to ensure the use of a Dangerous Goods Acceptance Checklist as specified in CGO 3.2.1 to verify:

(i) Package(s), overpack(s) or freight containers, as applicable, are correctly marked and labeled;

(ii) The Shipper's Declaration for Dangerous Goods, if required, or other documentation complies with the requirements of the current edition of the DGR. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** procedures for use of dangerous goods acceptance checklist (focus: checklist is used to verify package marking/labeling, documentation compliance).
- ☐ **Interviewed** responsible manager(s) in cargo operations.
- ☐ **Observed** cargo acceptance operations (focus: use of dangerous goods acceptance checklist to verify package marking/labeling, documentation compliance).
- ☐ **Other Actions** (Specify)

Guidance

Detailed instructions for acceptance and handling of dangerous goods are contained in DGR Section 9 and Subsection 10.9 for radioactive materials. This information is not to be interpreted as requiring an operator to accept or transport a particular article or substance, or as preventing an operator from imposing special requirements on the transport of a particular article or substance.

CGO 3.2.3 (Intentionally open)

△ **CGO 3.2.4** If the Operator transports dangerous goods as cargo, the Operator shall have procedures to ensure any package, overpack, freight container, or ULD containing dangerous goods is inspected and is not accepted, unless:

(i) Properly marked and labeled;

(ii) There is no leakage;

(iii) Its integrity has not been compromised. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** procedures for inspection dangerous goods shipments prior to acceptance for transport.
- ☐ **Interviewed** responsible manager(s) in cargo operations.
- ☐ **Observed** cargo acceptance operations (focus: procedures for inspection of dangerous goods shipments prior to acceptance).
- ☐ **Other Actions** (Specify)

Guidance

Detailed instructions for acceptance and handling of dangerous goods are contained in DGR Section 9 and Subsection 10.9 for radioactive materials. This information is not to be interpreted as requiring an operator to accept or transport a particular article or substance, or as preventing an operator from imposing special requirements on the transport of a particular article or substance.

Table 7.1–Operations Manual Content Specifications
The content of the Operations Manual shall contain standards and guidance that address the acceptance and handling of revenue cargo, to include, as applicable to type(s) of shipments transported by the Operator: (i) Compliance or conformity with: (a) Applicable laws, regulations and rules, including civil aviation cargo security programs; (b) Industry standard operating procedures for each aspect of cargo acceptance and handling. (ii) Response to abnormal or emergency situations: (a) Leakage or spillage of suspected dangerous goods; (b) Suspected bomb or explosives; (c) Damaged or leaking cargo; (d) Other emergencies. (iii) Cargo acceptance and handling, including conditions of carriage: (a) General cargo; (b) Security requirements; (c) Dangerous goods; (d) Live animals; (e) Other special cargo: • Perishable cargo; • Human remains; • Outsized and heavy cargo; • Fragile goods. (f) Mail; (g) Valuable cargo; (iv) Requirements associated with the transport of ULDs.

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Section 8 — Security Management (SEC)

Applicability

Section 8 addresses the management of operational security in accordance with requirements of an Air Operator Security Program (AOSP). This section is applicable to all operators.

Individual provisions or sub-specifications within a provision that:

- Do not begin with a conditional phrase are applicable to all operators unless determined otherwise by the Auditor.
- Begin with a conditional phrase ("If the Operator...") are applicable if the operator meets the condition(s) stated in the phrase.

Where operational security functions are outsourced to external service providers, an operator retains responsibility for the conduct of such functions and will have processes to monitor applicable external service providers in accordance with ORG 2.2.1 located in Section 1 of this manual to ensure requirements that affect the security of operations are being fulfilled.

General Guidance

Definitions of technical terms used in this ISSM Section 8, as well as the meaning of abbreviations and acronyms, are found in the IATA Reference Manual for Audit Programs (IRM).

1 Management and Control

1.1 Management System

1.2 Air Operator Security Program (AOSP)

SEC 1.2.1 The Operator shall have a formal Air Operator Security Program (AOSP) that includes:

(i) The requirements of the civil aviation security program of the State of the Operator (hereinafter, the State);

(ii) Applicable requirements of other states where operations are conducted;

(iii) The security standards of the Operator. **(GM)**

Auditor Actions

☐ **Identified/Assessed** the AOSP.

☐ **Examined** operator-specific security requirements and standards.

☐ **Interviewed** responsible manager(s).

☐ **Other Actions** (Specify)

Guidance

Refer to the IRM for the definitions of Act of Unlawful Interference, State, State Acceptance and State Approval.

An operator is required to have an AOSP in order to:

- Protect customers, personnel and assets from any act of unlawful interference;
- Comply with regulatory requirements.

The name of an operator's security program may vary based on the regulatory jurisdiction. Examples of typical alternative names to AOSP include ACSP (Air Carrier Security Program) and ASP (Airline Security Program).

The Security Program may be structured in accordance with the template provided by the State of the Operator or other relevant state (where operations are conducted).

The State may issue a standard security program with which all operators must comply (operators may apply for exemptions or amendments, as applicable). In such cases, the standard security program of the State is typically recognized as the AOSP of the operator. The AOSP typically also includes other company manuals and procedures that provide carrier-specific details.

A standard security program may be acceptable in meeting security requirements of other states, or the operator may be required to submit individual security programs tailored to meet requirements of other states. An operator must satisfy the security requirements of all applicable states for the purpose of meeting the intent of this standard.

The AOSP may be approved or accepted (i.e. no notice of deficiency or equivalent is issued) by the relevant state.

The AOSP may include security sensitive information as required by the State. In such case, the AOSP would normally include a description of dissemination of security sensitive information in a way that ensures the required level of data protection.

1.3–1.4 (Intentionally Open)

1.5 Provision of Resources

SEC 1.5.1–1.5.2 (Intentionally open)

SEC 1.5.3 If permitted by the State, the Operator shall ensure a process has been established that requires operational security personnel in the organization of the Operator and, if applicable, service providers selected by the Operator to conduct operational security functions, to be subjected to pre-employment and recurring background checks in accordance with requirements of applicable aviation security authorities. The requirement for a background check shall be applicable to personnel who:

(i) Engage in the implementation of security controls;
(ii) Have unescorted access to the security restricted area of an airport;
(iii) Have unescorted access to other security areas and searched aircraft;
(iv) Have access to sensitive aviation security information. **(GM)**

Auditor Actions

☐ **Identified/Assessed** process for the pre-employment and recurring background checks.
☐ **Examined** selected records of personnel background checks.
☐ **Interviewed** responsible manager(s).
☐ **Other Actions** (Specify)

Guidance

Refer to the IRM for the definitions of Security Control and Security Restricted Area.

A background check might include:

- Criminal record check;
- Previous employment history;
- Personal references;
- Education and training.

National legislation on civil liberties and protection of personal information will greatly influence the limits placed on an employer when performing pre-employment background checks. An employer is not permitted to deviate from the laws of the country where the hiring process is taking place.

Escorted access may be provided to an individual that has yet to complete all aspects of the background checking process.

An individual currently permitted unescorted access to a security restricted area, but who subsequently fails to satisfy the criteria to continue to hold an airport identification card or for unescorted access to a security restricted area, will typically have access to security restricted areas, as well as access to sensitive aviation security information, revoked immediately.

The operator's role in the background check process will be determined by the State. In some cases, the entire process will be managed and/or conducted by the State.

1.6 (Intentionally Open)

1.7 Security Manual

SEC 1.7.1 The Operator shall have a Security Manual or equivalent document that provides guidance for the implementation of the AOSP to ensure applicable personnel have the direction necessary to implement security measures. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** security manual, including separate documents where applicable.
- ☐ **Examined** selected contents of the security manual.
- ☐ **Interviewed** responsible manager(s).
- ☐ **Other Actions** (Specify)

Guidance

An operator may have more than one security manual (e.g. where security responsibilities are delegated to various departments or by geographic locations, each with distinct security requirements). All documents comprising an operator's security manual (or equivalent document) are considered controlled documents.

The content of the security manual (or equivalent document) typically addresses the following subject areas, as applicable to the operator's type(s) of operations conducted and specific security requirements:

- Definitions of technical terms associated with the AOSP;
- Authority and applicability of the AOSP;
- Recruitment and training of operational security personnel;
- Security threat assessment;
- Movement of aircraft and evacuation of passengers following bomb alerts;
- Security crisis management plans at airports served;
- Scrutiny of electronic items in the aircraft cabin and in checked baggage (based on threat level);
- Segregation of departing passengers in airport facilities;
- Public awareness of security;
- Detection equipment and technology;
- Passenger risk assessment and enhanced screening;
- Security of checked baggage;
- Screening of checked baggage;
- Security of cargo, express parcels and mail;
- One-stop security;
- Measures for addressing unruly passengers.

2 Training and Qualification

2.1 Training Program

SEC 2.1.1 The Operator shall have a security training program that includes initial and recurrent training, and is in accordance with requirements of all applicable state(s). The security training program shall have a balanced curriculum of theoretical and practical training to ensure:

(i) Personnel, employed by or under the control of the Operator who implement security controls, have the competence to perform their duties;

(ii) Flight and cabin crew members and frontline aircraft ground handling and cargo handling personnel are able to act in the most appropriate manner to minimize the consequences of acts of unlawful interference and/or disruptive passenger behavior. **(GM)**

Note 1: *If permitted by the State, the program shall ensure applicable personnel have completed appropriate security background checks in accordance with SEC 1.5.3 prior to attending any training that contains sensitive or restricted security information.*

Note 2: *Applicable personnel shall complete initial security training prior to being assigned to operational duties*

Auditor Actions

- ☐ **Identified/Assessed** security training program (focus: approval/acceptance by State; meets applicable requirements of other states).
- ☐ **Interviewed** responsible manager(s).
- ☐ **Examined** selected security training program curricula (focus: contain theoretical and practical training elements).
- ☐ **Examined** selected ground/cargo handling personnel training records (focus: completion of initial/recurrent security training).
- ☐ **Other Actions** (Specify)

Guidance

Training may be sub-divided for line managers/supervisors, aircrew, ramp workers, cargo personnel and other personnel who are directly involved in the implementation of security measures and thereby require an awareness of obligations to the AOSP.

The security training program is typically integrated into the normal training curriculum for operational personnel, and need not be stand-alone training.

The proportion of theoretical and practical training is typically based on requirements of the State. For certain functions or duties there may not be a practical component.

The scope of recurrent security training, as well as the specific subject matter included, may vary in accordance with requirements of the applicable authorities and the security policy of the operator.

An existing background check from a previous employer may be acceptable if still time valid.

Different training tools for security awareness and security incident reporting have been developed by states and the Industry. The use of IATA's "See it Report it" training and certification tool is one method for the operator to demonstrate conformity with the relevant specification in this provision. (https://www.iata.org/whatwedo/security/Pages/security-management-system-sems.aspx)

3 Security Operations

3.1–3.3 (Intentionally Open)

3.4 Passengers and Cabin Baggage

SEC 3.4.1 If the Operator conducts passenger flights, the Operator shall have a process to ensure originating passengers and their cabin baggage are subjected to screening prior to boarding a passenger aircraft for;

(i) An international flight;

(ii) As required by the applicable aviation security authority, a domestic flight. **(GM)**

Note: *Supernumeraries that require a flight reservation or passenger name record for transport on the aircraft shall be subjected to the requirements of this provision unless exempted by the State.*

Auditor Actions

- ☐ **Identified/Assessed** process(es) to ensure all passengers and their cabin baggage are screened prior to boarding a passenger aircraft for international flights.
- ☐ **Identified/Assessed** process(es) for the screening of originating passengers and their cabin baggage for domestic flights (if required by the applicable aviation security authority).
- ☐ **Interviewed** responsible manager(s).
- ☐ **Observed** passenger/baggage handling operations (focus: originating passengers/cabin baggage are subjected to screening prior to aircraft boarding).
- ☐ **Other Actions** (Specify)

Guidance

Refer to the IRM for the definition of Domestic Flight.

The effective screening of all passengers and their cabin baggage is recognized as an essential element in achieving a safe and secure operation, and forms part of the passenger handling procedures contained in the AOSP.

Technical equipment used for the screening of persons and baggage has certain limitations. Archway metal detectors and hand-held metal detectors, for example, cannot detect non-metallic weapons and explosives. Even conventional X-ray equipment does not always image or define explosive material effectively. To compensate for such limitations, or to introduce a random element into the selection process, it may be advisable to conduct an additional search of passengers and cabin baggage after they have been screened. The additional screening can be performed by hand or by technical means, such as explosive trace detection (ETD), full-body X-ray, explosive particle or vapor detection portals and/or other approved advanced technological methods.

It is recommended that screening equipment used to assist screening personnel is capable of detecting explosive materials and/or explosive devices that might be carried by passengers either on their person or in cabin baggage.

If the use of explosive detection screening equipment is not continuous, then it is recommended that such equipment be used on a random basis to ensure non-predictability by passengers and others.

Specific guidelines and procedures are developed and training given to personnel, for addressing persons with special needs.

3.5–3.6 (Intentionally Open)

3.7 Cargo Shipments

SEC 3.7.1 If the Operator transports revenue or non-revenue cargo, the Operator shall have a process to ensure cargo shipments for transport on all flights have been subjected to the appropriate security controls, including screening where required, as established by the applicable state(s) prior to being loaded onto an aircraft.

Auditor Actions

- ☐ **Identified/Assessed** process(es) to ensure cargo has been subjected to the appropriate security controls.
- ☐ **Identified/Assessed** process(es) to ensure security controls performed on cargo meet the requirement of the applicable state(s).
- ☐ **Examined** selected records that reflect implementation of cargo security controls.
- ☐ **Interviewed** responsible manager(s).
- ☐ **Other Actions** (Specify)

4 Security Threat and Contingency Management

4.1–4.2 (Intentionally Open)

4.3 Passengers and Cabin Baggage

SEC 4.3.1 (Intentionally open)

△ **SEC 4.3.2** The Operator shall have a process that ensures notification to the applicable aviation security authorities when an act of unlawful interference against the Operator, a reportable security incident and/or a reportable security occurrence has been identified. **(GM)**

Auditor Actions

- ☐ **Identified/Assessed** process(es) used to notify applicable aviation security authorities when an act of unlawful interference against the Operator has occurred.
- ☐ **Interviewed** responsible manager(s) in cargo operations.
- ☐ **Examined** selected notifications of acts of unlawful interference.
- ☐ **Other Actions** (Specify)

Guidance

The intent of this provision is for an operator to have procedures in place to immediately notify local security and civil aviation authorities and to provide information relevant to credible threats and acts of unlawful interference. An operator would typically have contact information and checklists readily available for this purpose. Procedures typically specify an initial verbal notification followed by a written notification.

Procedures typically specify an initial verbal notification followed by a written notification.

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