

United Kingdom Overseas Territories Aviation Circular

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Quality Management Systems

See also the OTAC Safety Management Systems

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GENERAL

Overseas Territories Aviation Circulars are issued to provide advice, guidance and information on standards, practices and procedures necessary to support Overseas Territory Aviation Requirements. They are not in themselves law but may amplify a provision of the Air Navigation (Overseas Territories) Order or provide practical guidance on meeting a requirement contained in the Overseas Territories Aviation Requirements.

PURPOSE

This OTAC provides guidance on the key features of a Quality Management System (QMS).

RELATED REQUIREMENTS

This Circular relates to OTAR Parts 39, 61, 63, 65, 66, 119, 121, 125, 135, 139, 140, 145, 171, 172, 173, 174, 175, 176, 177.

CHANGE INFORMATION

Minor editorial changes and updates to abbreviations, website links and formatting.

ENQUIRIES

Enquiries regarding the content of this Circular should be addressed to Air Safety Support International at the address on the ASSI website www.airsafety.aero or to the appropriate Overseas Territory Aviation Authority.

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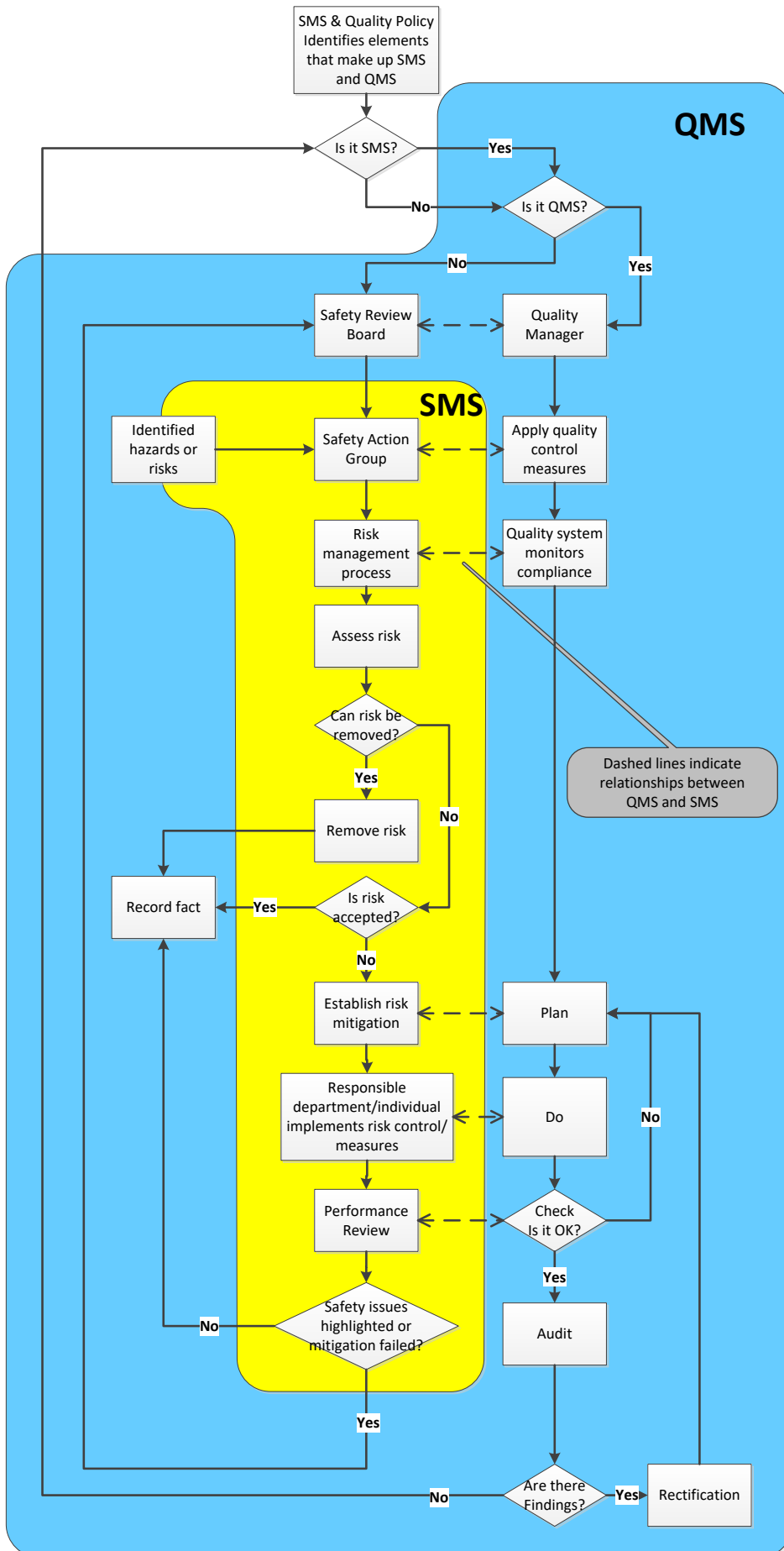
1. Introduction

- 1.1 Organisations seeking certification or approval, should develop, document, implement, and maintain a Quality (Safety) Management System (QMS) with appropriate internal Quality Assurance (QA) procedures. QMS, QA and Quality Control (QC) are explained in the definition section (section 3) of this OTAC.
- 1.2 Figure 1 attempts to illustrate the inter-relationship between a QMS and Safety Management System (SMS) as a single integrated system.
- 1.3 The QA process complements that of Safety Assurance (SA), with each having requirements for analysis, documentation, auditing and management reviews to assure that certain performance criteria are met. While safety assurance specifically monitors the effectiveness of safety risk controls, QA typically focuses on the organisation's compliance with regulatory requirements.
- 1.4 The complementary relationship between SA and QA allows for the integration of certain supporting processes. Therefore, a QMS should be seen as an integral part of the application, management and maintenance of a (SMS), see OTAC SMS-1.
- 1.5 The fundamental objectives of both SMS and QMS may be summarised as:
 - Consistency
 - Error/threat reduction
- 1.6 This OTAC provides guidance on essential elements of a basic QMS.

2. References

ICAO Doc9859 Edition 3 – Safety Management Manual Chapter 2.9, Table 5-1.
ICAO Doc9906 - Quality Assurance Manual for Flight Procedure Design

Figure 1 – The inter-relationship between QMS and SMS



3. Definitions

3.1 The following key terms and phrases are defined to ensure a standard interpretation and understanding of the QMS and internal QA procedures.

3.1.1 Concern

A concern is a derived conclusion, supported by objective evidence that may become a Finding. A concern may generate a Preventive Action.

3.1.2 Controls

Controls are management and operational techniques, activities, and procedures that monitor the satisfactory performance of the organisation's operating processes and procedures.

3.1.3 Evidence

Evidence is a documented statement of fact that is based on observations, measurements, or tests that can be verified in a physical way, e.g. copies of documents or parts of documents, images showing the issue, signed file note or statement of circumstances, etc.

3.1.4 Finding

A finding is a conclusion, supported by objective evidence that demonstrates non-compliance with a specific procedure, requirement or standard. A finding will generate a Corrective or Preventive Action.

3.1.5 Inspection

An inspection is the act of observing, measuring, testing, or gauging one or more characteristics of a particular event or action. This is to ensure that correct procedures and requirements are followed during the accomplishment of that event, or action.

3.1.6 Quality Control (QC)

QC are procedures to ensure a manufactured product or service complies to a defined set of quality criteria or meets the requirements of the client or end-user.

3.1.7 Quality Assurance (QA)

QA ensures a number of products or services meet consistently the specified requirements.

3.1.8 Quality Management System (QMS)

The QMS is the glue that bonds all the following together:

- The organizational structure
- The procedures
- The processes
- The resources

All of which are needed to implement a successful QMS.

3.1.9 Root cause

The root cause is the underlying organisational or technical system cause, or causes, of any finding or concern.

4. Components of a Quality Management System

4.1 The following summarises the main elements needed for a QMS to be developed where required under the Overseas Territories Aviation Requirements (OTARs). There are many similarities with the content and structure of a safety management system. Wherever possible the systems should be integrated, see OTAC SMS-1 for comparison.

4.2 The relationship between SMS and QMS, as described by ICAO, is provided in Table 1.

Table 1. Summary comparison of QMS and SMS

QMS	SMS
Quality	Safety
Quality Assurance	Safety assurance
Quality Control	Hazard identification and risk control
Quality Culture	Safety culture
Compliance with requirements	Acceptable level of safety performance
Prescriptive	Performance-based
Standards and specifications	Organizational and human factors
Reactive greater than Proactive	Proactive greater than Predictive

Source: ICAO Doc 9859 (edition 3) Safety Management Manual Table 5-1

4.2.1 Quality Policy

A clear statement of the organisation's policy, management principles and intentions, for a continuous process of improvement to the safety performance.

4.2.2 Roles and Responsibilities

Defined in writing for all personnel; and a process for ensuring that everyone is aware of their responsibilities.

4.2.3 Non-compliance, Error or Deviation

Proactive - an initial hazard identification process; a reporting scheme; and assessments conducted at regular intervals, and whenever changes are planned.

Reactive - collating information from failed or unsafe condition/error reports and accident and incident reports and ensuring that the requirements of relevant OTARs are met.

4.2.4 Rectification and Mitigation

A method for the analysis of risks and deciding how these will be mitigated; and ensuring implementation, communication and feedback to staff.

4.2.5 Monitoring and Evaluation

Conducting reviews or audits of the organisation’s processes, and applying conventional QA principles, ensuring that remedial actions have been implemented as planned and that the organisation’s systems remain effective and relevant to the operation. Reports made to the Accountable Manager to enable management review.

4.2.6 Objectives for Improvement

Planning the quality objectives and choosing effective methods for quality performance measurement.

4.2.7 Documentation

Documenting all the QMS processes - either as a component of existing manuals or in a separate QMS manual. Include a description of each component of the system and describe the interrelationships between each of these components; and co-ordination with external service providers and contactors, if necessary. Detailed local procedures in other documents can be cross-referenced, so the QMS manual is likely to be thin.

Documenting the regulations, standards and exemptions by which the organisation is regulated.

Training provisions for all staff, including QMS training.

The components of the QMS can be seen to form a continuous cycle of improvement, as illustrated in Figure 2 below.

Figure 2 – The Quality and Safety Management Cycle

