



CIVIL AVIATION SAFETY AUTHORITY OF PNG

PNG

Civil Aviation Rules

Part 100

Safety and Quality Management Systems

Effective 1 May 2017

DESCRIPTION

Part 100 is an important rule as it forms the basis of safety management and quality management systems for the Papua New Guinea aviation environment.

Part 100 applies to all applicants for certificates issued under the following Parts:

- Part 109 - Regulated Air Cargo Agents – Certification.
- Part 119 – Air Operator Certification.
- Part 139 – Aerodrome – Certification and Operation.
- Part 140 – Aviation Security Service Organisations – Certification.
- Part 141 – Aviation Training Organisations – Certification and Operation.
- Part 144 – Supply Organisations – Certification.
- Part 145 – Aircraft Maintenance Organisations – Certification.
- Part 146 – Aircraft Design Organisations – Certification.
- Part 148 – Aircraft Manufacturing Organisations – Certification.
- Part 171 – Aeronautical Telecommunication Service Organisations – Certification.
- Part 172 – Air Traffic Service Organisations - – Certification.
- Part 173 – Air Navigation Service Organisations – Certification.
- Part 174 – Aviation Meteorological Service Organisations – Certification.
- Part 175 – Aeronautical Information service Organisations – Certification.

BULLETIN

This Part first came into force on 1 January 2011 and now incorporates the following amendments:

Amendment	Effective Date
Amendment 1	1 May 2017

Summary of amendments:

Amendment 1:

(Docket CAR/17/100/01)

Rule 100.3 updated to insert new definitions.

New Rule 100.55(b) inserted for safety performance targets and measurement.

Rule 100.77(a)(2) consequential amendments for safety performance targets and measurement.

Schedule

Subpart A — General	5
100.1 Purpose.....	5
100.3 Definitions	5
Subpart B — Safety Management System	6
100.51 Establishment of a safety management system.....	6
100.53 Safety policy	6
100.55 Safety objectives.....	6
100.57 Roles, responsibilities and authorities	6
100.59 Hazard identification	6
100.61 Risk management	7
100.63 Interfaces.....	7
100.65 Change management.....	7
100.67 Internal communication and consultation.	7
100.69 Accident and incident recording, reporting and investigation	8
100.71 Emergency response procedures.....	8
100.73 Safety management system training	8
100.75 Flight data analysis programme.....	9
100.77 Safety performance monitoring and measurement	9
Subpart C — Quality Management System	10
100.101 Establishment of a quality management system	10
100.103 Audits.....	10
100.105 Management review	11
100.107 Continuous improvement.....	11
100.109 Error and non-compliance management procedures	11
100.111 Document control	12
100.113 Record control	12

Subpart A — General

100.1 Purpose

(a) This Part prescribes rules for the safety management system and the quality management required to be established by applicants for certificates issued under the following Parts:

- (1) Part 109 - Regulated Air Cargo Agents – Certification.
- (2) Part 119 – Air Operator Certification.
- (3) Part 139 – Aerodrome – Certification and Operation.
- (4) Part 140 – Aviation Security Service Organisations – Certification.
- (5) Part 141 – Aviation Training Organisations – Certification and Operation.
- (6) Part 144 – Supply Organisations – Certification.
- (7) Part 145 – Aircraft Maintenance Organisations – Certification.
- (8) Part 146 – Aircraft Design Organisations – Certification.
- (9) Part 148 – Aircraft Manufacturing Organisations – Certification.
- (10) Part 171 – Aeronautical Telecommunication Service Organisations – Certification.
- (11) Part 172 – Air Traffic Service Organisations - – Certification.
- (12) Part 173 – Air Navigation Service Organisations – Certification.
- (13) Part 174 – Aviation Meteorological Service Organisations – Certification.
- (14) Part 175 – Aeronautical Information service Organisations – Certification.

100.3 Definitions

Organisational Certificate	A certificate issued under the Parts listed under paragraph (a).
Safety Risk	The predicted probability and severity of the consequences or outcomes of a hazard.
Safety	The state in which risks associated with aviation activities, related to, or in direct

	support of the operation of aircraft are reduced and controlled to an acceptable level.
Safety Performance	An organisational certificate holder's safety achievement as defined by its safety performance targets and safety performance indicators.
Safety Performance Indicator	A data-based parameter used for monitoring and assessing safety.
Safety Performance Target	The planned or intended objective for safety performance indicator(s) over a given period.
Safety Management System	An integrated set of regulations and activities aimed at improving safety.

Subpart B — Safety Management System

100.51 Establishment of a safety management system

An applicant for the grant of an organisational certificate must establish a safety management system to systematically manage safety through a continuing process of hazard identification and risk management.

100.53 Safety policy

- (a) An applicant for the grant of an organisational certificate must establish and maintain a documented safety policy for the organisation.
- (b) The safety policy required by paragraph (a) must include details of the management commitment to, and responsibility for, safety risk management.

100.55 Safety objectives

- (a) An applicant for the grant of an organisational certificate must establish documented safety objectives that are consistent with the organisation's safety policy.
- (b) To demonstrate the extent to which each objective established under 100.55(a) is achieved, the applicant will set safety performance targets and measure performance against those targets using performance indicators.

100.57 Roles, responsibilities and authorities

- (a) An applicant for the grant of an organisational certificate must—
 - (1) define the organisation's structure and lines of reporting by means of an organisational chart or similar; and
 - (2) document the role, responsibilities and authorities of each position in the organisation by means of a position description or similar; and
 - (3) identify key safety positions in the organisation and establish qualification and

experience standards for appointment of personnel to those positions; and

- (4) appoint a safety group assigned responsibility for oversight of safety related issues.

(b) For managers, the position description or similar required by paragraph (a)(2) must include safety accountabilities, including where applicable, participation in the emergency response plan.

100.59 Hazard identification

(a) An applicant for the grant of an organisational certificate must establish and maintain documented procedures for the identification and reporting of hazards to safety.

(b) The procedures required by (a) must include provisions for—

- (1) regular systematic appraisals to assess the level of safety in the operation and to identify safety improvements; and
- (2) employee reporting of potential safety risks which the person becomes aware of.

(c) The procedure required by paragraph (b)(2) must include an obligation for the senior person responsible for the safety management system to reply in writing to every employee who submits a report concerning a safety concern.

100.61 Risk management

(a) An applicant for the grant of an organisational certificate must establish and maintain documented procedures for risk management in the organisation.

(b) The procedures required by paragraph (a) must include:

- (1) identification of the key personnel to be involved in the risk management process; and
- (2) a process for assessing the level of risk in the operation; and
- (3) identification and application of risk mitigators; and
- (4) arrangements for followup on the effectiveness of mitigators.

100.63 Interfaces

(a) An applicant for the grant of an organisational certificate must establish and maintain documented procedures for managing the interfaces between the applicant's organisation and relevant third parties.

(b) The procedures required by paragraph (a) must—

- (1) identify external service providers; and
- (2) define the boundaries of each interface arrangement; and

- (3) identify the means by which each interface is reviewed; and
- (4) identify the scope of data or service provided across the interface; and
- (5) include procedures for identifying potential hazards and applying mitigators across the interface arrangement.

100.65 Change management

(a) An applicant for the grant of an organisational certificate must establish and maintain documented procedures for managing changes to the certificate holder's organisation and operation.

(b) The procedures required by paragraph (a) must—

- (1) define the operation in sufficient detail to provide a baseline for evaluating change; and
- (2) include processes for identifying changes to the organisation and to the operation; and
- (3) procedures for applying risk analysis and risk mitigation to changes; and
- (4) describe the safety management arrangements for implementing changes and on-going safety monitoring; and
- (5) identify the means by which all person affected by a change are notified during the development and implementation of the change.

100.67 Internal communication and consultation

(a) An applicant for the grant of an organisational certificate must establish—

- (1) documented procedures for communicating to all bases of operation and all personnel, information and feedback about the following:
 - (i) safety issues:
 - (ii) hazard reports:
 - (iii) corrective and preventive actions:
 - (iv) the performance of the safety management system:
 - (v) safety systems training:
 - (vi) safety promotion.
- (2) procedures for personnel to report, notify or bring to management's attention

any information, concern, advice, or suggestion in regard to any safety matter.

(3) an accident prevention programme.

(b) The procedures required by paragraph (a)(2) must include a confidential reporting system with appropriate protections.

100.69 Accident and incident recording, reporting and investigation

(a) An applicant for the grant of an organisational certificate which includes in the scope of the certificate aircraft or operation of aircraft must establish procedures for recording, reporting investigating and analysing accidents, serious incidents and incidents.

(b) The procedures required by paragraph (a) must—

- (1) include the obligations of the certificate holder to comply with the requirements of Part 12; and
- (2) have the objective of improving the level of safety; and
- (3) provide for confidential reporting.

100.71 Emergency response procedures

(a) An applicant for the grant of a certificate under Part 119, Part 139 or Part 140 must establish and maintain documented procedures to:

- (1) identify potential accident, incident and emergency situations arising from the operation authorised by the scope of the certificate; and
- (2) respond to those accidents, incidents and emergencies.
- (3) for international operations, provide for the due response from appropriate authorities in sovereign States.

100.73 Safety management system training

(a) An applicant for the grant of an organisational certificate must establish and maintain documented procedures for training personnel on the safety management system.

(b) The procedures required by paragraph (a) must include induction training for personnel joining the organisation and recurrency training for all staff at regular intervals, appropriate to the size and nature of the organisation.

(c) The induction training required under paragraph (b) must provide—

- (1) all staff with a knowledge and understanding of the safety policy of the organisation; and
- (2) managers and supervisors with a knowledge of the objectives of the safety system.

(d) The induction training required by paragraph (c) must be provided at a level consistent

with the person's role in the organisation.

(e) The senior person responsible for the safety management system must ensure recurrency training is planned, properly resourced and sufficiently comprehensive for the role of the personnel being trained.

100.75 Flight data analysis programme

(a) An applicant for the grant of an air operator certificate under Part 119 for the operation of an aircraft with a maximum takeoff-weight exceeding 27,000 kg must establish a flight data analysis programme.

(b) The flight data analysis programme required by paragraph (a) must—

- (1) regularly record and analyse the operational flight data of individual and aggregated operations:
- (2) be integrated into the safety performance monitoring and measuring processes required by rule 100.77:
- (3) be provided by—
 - (i) the holder of the air operator certificate; or
 - (ii) an external service provider if the Director is satisfied that the effectiveness of the programme is not compromised:
- (4) ensure that—
 - (i) the identity of a person who reports data to the programme is protected from disclosure except with the person's written consent or by court order; and
 - (ii) no punitive action may be taken by the holder of the air operator certificate against a person who reports data.

100.77 Safety performance monitoring and measurement

(a) An applicant for the grant of an organisational certificate must establish processes for monitoring and measuring safety performance in regard to the following:

- (1) the safety objectives required by rule 100.55 (a):
- (2) the use of safety targets and safety performance indicators required by rule 100.55(b):
- (3) operation of the safety group required by rule 100.57(a)(4):
- (4) hazard identification and reporting required by rule 100.59:
- (5) risk assessments carried out under rule 100.61:

- (6) management of interfaces under rule 100.63:
- (7) change management in accordance rule 100.65:
- (8) the communication requirements of rule 100.67:
- (9) accident and incident investigating and reporting under rule 100.69:
- (10) training requirements of rule 100.73.
- (11) if applicable, the flight data analysis programme required by rule 100.75.

(b) The monitoring and measurement required by paragraph (a) must be used by the safety group appointed under rule 100.57(a)(4) to ensure continuous improvement of the safety management system.

Subpart C — Quality Management System

100.101 Establishment of a quality management system

(a) An applicant for the grant of an organisational certificate must establish a quality management system to systematically assess the level of compliance with this Part and any other applicable Part.

(b) The quality management system required by paragraph (a) must include the following:

- (1) a documented audit programme:
- (2) procedures for—
 - (i) the conduct of audits:
 - (ii) management review:
 - (iii) continuous improvement, including error and non-compliant analysis:
 - (iv) document control:
 - (v) record control:
 - (vi) communicating quality information to staff.

100.103 Audits

(a) An applicant for the grant of an organisational certificate must establish and maintain—

- (1) a programme which demonstrates that every aspect of the organisation and the operations the organisation is authorised to conduct are audited; and
- (2) except as provided for in rule 100.103(c), a schedule that ensures the audit

programme is accomplished every 12 months; and

- (3) procedures for—
 - (i) appointing auditors, including auditor qualifications and training standards
 - (ii) conducting internal audits; and
 - (iii) auditing suppliers; and
 - (iv) processing audit findings and corrective and preventive actions; and

(b) The applicant's procedures required under paragraph (a)(3)(i) must include the requirement that an internal audit must be conducted by an employee or a person engaged for the purpose, who is familiar with the activities being conducted but who is not directly involved in the area being audited.

(c) A holder of an organisational certificate may reduce the frequency of elements of the audit programme if—

- (1) using the processes required by rule 100.61(b)(2), an analysis of compliance data shows that extension beyond the 12 month frequency required by rule 100.103(a)(2) is not likely to result in an increased risk of non-compliance; and
- (2) the air operator's exposition contains a procedure for—
 - (i) extending the period between audits;
 - (ii) monitoring the level of compliance after an extension has been granted.

100.105 Management review

An applicant for the grant of an organisational certificate must establish a management review process that requires the chief executive and the senior persons to review the effectiveness of the quality management system at regular intervals but not less than once per year.

100.107 Continuous improvement

(a) An applicant for the grant of an organisational certificate must establish plans and management procedures to ensure the continuous improvement of the quality management system.

(b) The plans and management procedures required under paragraph (a) must include the following:

- (1) establishment, monitoring and reporting of quality indicators:
- (2) monitoring of audit results:
- (3) followup of corrective actions:

- (4) followup of preventive actions:
- (5) management reviews:
- (6) identification and analysis of the root causes of non-compliances with the Civil Aviation Act and the Civil Aviation Rules:
- (7) where applicable, quality improvement projects.

100.109 Error and non-compliance management procedures

(a) For the purpose of applying rule 100.107(b)(6) no blame is to be attributed to a person for an error or instance of non-compliance where there is no proof of the person's negligence, recklessness or malicious intent.

(b) An applicant for the grant of an organisational certificate must apply error and non-compliance management procedures under a just culture and provide training to all staff on the application of just culture.

100.111 Document control

(a) An applicant for the grant of an organisational certificate must establish procedures for the control of documents.

(b) The document control procedures required by paragraph (a) must ensure all documents are—

- (1) authorised for use by a person entitled to grant such authorisation; and
- (2) regularly reviewed and updated; and
- (3) readily available to personnel to whom the documents apply.

(c) For the purpose of this rule, **document** means any manual, procedural note, instruction, worksheet, list or checklist, in any form, that is required to be used by personnel within the organisation to ensure functions are performed in a consistently safe manner and in compliance with the requirements of the quality management system.

100.113 Record control

(a) An applicant for the grant of an organisational certificate must establish procedures for the control of records.

(b) The record control procedures required by paragraph (a) must ensure all records are—

- (1) maintained in a form that provides consistent evidence of compliance with the requirements of this and any other applicable Part; and
- (2) completed accurately and fully; and

-
- (3) retained for the period required by the applicable rule.
- (c) For the purpose of this rule, a **record** is a means of providing permanent evidence that the requirements of the Civil Aviation rules and the operator's exposition have been complied with and required activities have been carried out.