



CIVIL AVIATION SAFETY AUTHORITY OF PNG

**PNG
Civil Aviation Rules
Part 174**

Aviation Meteorological Service Organisations — Certification

Effective 1 May 2016.

DESCRIPTION

Part 174 prescribes the regulatory requirements for persons or organisations providing meteorological services in support of the PNG civil aviation air navigation system. The rule also provides for the organisations to provide support to enable PNG's obligations under the ICAO Regional Air Navigation Plans to be discharged.

Bulletin

This Part first came into force on 1 January 2004 and now incorporates the following amendments:

Amendment	Effective Date
Amendment 1	1 May 2016

Summary of amendments:

Amendment 1:

(Docket 15/174/1)

Subpart A Rule 174.7(1) is amended to reflect the correct exposition rule reference within the rule.

Rule 174.11(b) is amended to make reference to 174.105 in respect to the certificate holder's privileges.

Subpart B Rule 174.51(a)(3), the word "sufficient" has been inserted.

Rule 174.73(a) has been amended to insert the words 'identify' and 'notify' and 174.73(b)(4) has also been changed to included the notification period.

Rule 174.75 (b) (7) is amended to included safety management system.

New rule 174.75(b)(8) is inserted to prescribe the requirements of quality management system and the referral to the correct rule provisions within the rule.

Rule 174.77 is amended to require applicant to establish and implement Safety Management System required under Part 100.

New Rule 174.79 is inserted to require applicant to establish and implement a quality management system required under Part 100.

Rule 174.79 is renumbered to 174.81 to accommodate Organisation exposition requirements and requirements to have SMS, QMS and the coordination requirements.

Rule 174.80 is renumbered to 174.83 to accommodate the new requirements for coordination between several agencies.

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Subpart A — General

174.1 Purpose

This Part prescribes—

- (1) rules governing the certification and operation of organisations providing meteorological services for aviation; and
- (2) requirements governing the provision of basic weather reports for aviation.

174.3 Definitions

In this Part:

Basic weather report means a verbal comment describing any of the following current weather conditions observed at a particular place or airspace:

- (1) measure of actual wind direction and strength:
- (2) mean sea level air pressure:
- (3) air temperature:
- (4) weather conditions and cloud cover:

Certificate holder means the holder of a meteorological service certificate issued under this Part:

Erroneous meteorological information means any meteorological information that is or has the potential to be significantly outside the allowable accuracy or tolerance for that information:

Facility means any system or equipment which provides an automatic function that supports a meteorological office or provides meteorological information, and includes any system or equipment for the following:

- (1) electronic data analysis and forecast production:
- (2) remote weather sensing:
- (3) electronic or automatic meteorological information delivery:

Meteorological information means any meteorological report, analysis or forecast, and any other statement relating to existing or expected meteorological conditions:

Meteorological office means an office providing or supporting a meteorological service or an office where meteorological information is compiled, derived, or disseminated to users:

Meteorological report means a statement of observed meteorological conditions related to a specific time and location:

Meteorological service means any of the following services that provide meteorological information in support of aviation:

- (1) climatology service: a service for the development and supply of climatological information for a specific place or airspace:

- (2) forecast service: a service for the supply of forecast meteorological information for a specific area or portion of airspace:
- (3) information dissemination service: a service for the collection and dissemination of meteorological information:
- (4) meteorological briefing service: a service for the supply of written and oral meteorological information on existing and expected meteorological conditions:
- (5) meteorological reporting service: a service for the supply of routine meteorological reports:
- (6) meteorological watch service: a service for maintaining a watch over meteorological conditions affecting aircraft operations in a specific area.

Promulgated information incident means an incident that involves significantly incorrect, inadequate, or misleading information promulgated in any information publication, map, or chart.

174.5 Requirement for certificate

- (a) Except as provided in 174.6, no person shall provide a meteorological service except under the authority of, and in accordance with the provisions of, a meteorological service certificate issued under this Part.
- (b) The Director may grant a certificate authorising the provision of meteorological services varying from a single meteorological service to a range of meteorological services supported by a network of meteorological offices intended for the Papua New Guinea air navigation system.

174.6 Basic weather reporting

- (a) Notwithstanding 174.5, a person may provide a basic weather report without being a certificate holder providing that person—
 - (1) utilises equipment that is suitable for the observations being made; and
 - (2) employs a system for checking that equipment; and
 - (3) is trained to provide accurate basic weather reports.
- (b) The equipment, system of checking and training required under paragraph (a) must be acceptable to the Director.

174.7 Application for certificate

An applicant for the grant of a meteorological service certificate shall complete form CAA 174/01 and submit it to the Director with—

- (1) the exposition required by 174.81; and
- (2) a payment of the appropriate application fee prescribed by regulations made under the Act.

174.9 Issue of certificate

An applicant is entitled to a meteorological service certificate if the Director is satisfied that—

- (1) the applicant meets the requirements of Subpart B; and
- (2) the applicant, and the applicant's senior person or persons required by 174.51(a)(1) and (2) are fit and proper persons; and
- (3) the granting of the certificate is not contrary to the interests of aviation safety.

174.11 Privileges of certificate holder

- (a) A meteorological service certificate specifies the types of facilities that the certificate holder is authorised to operate.
- (b) Subject to 174.105, the holder of a meteorological service certificate may provide the meteorological services listed on the holder's certificate provided that each meteorological service, and the meteorological information supplied for each meteorological service, and the location and airspace covered by each meteorological service is listed in the certificate holder's exposition.

174.13 Duration of certificate

- (a) A meteorological service certificate may be granted or renewed for a period of up to 5 years.
- (b) A meteorological service certificate remains in force until it expires or is suspended or revoked.
- (c) The holder of a meteorological service certificate that expires or is revoked shall forthwith surrender the certificate to the Director.
- (d) The holder of a meteorological service certificate that is suspended, shall forthwith produce the certificate to the Director for appropriate endorsement.

174.15 Notification of termination of service

The holder of an aviation meteorological service certificate that terminates its service shall notify the Director of termination in writing not less than 30 days prior to the date of termination.

174.17 Renewal of certificate

- (a) An application for the renewal of a meteorological service certificate shall be made on form CAA 174/01.
- (b) The application shall be submitted to the Director before the application renewal date specified on the certificate or, if no such date is specified, not less than 30 days before the certificate expires.

Subpart B — Certification Requirements

174.51 Personnel requirements

- (a) An applicant for the grant of a meteorological service certificate shall engage, employ or contract:
 - (1) A senior person identified as the Chief Executive who has the authority within the applicant's organisation to ensure that each meteorological service listed in their exposition can be financed and carried out to meet the operational requirements, and in accordance with the requirements prescribed by this Part:

- (2) A senior person or group of senior persons who are responsible for ensuring that the applicant's organisation complies with the requirements of this Part. Such nominated person or persons shall be ultimately responsible to the Chief Executive:
 - (3) Sufficient personnel to plan, operate, supervise, inspect, and certify the meteorological offices and facilities and provide the meteorological services listed in the applicant's exposition.
- (b) The applicant shall—
- (1) establish a procedure to assess the competence of those personnel who are authorised by the applicant to—
 - (i) place facilities listed in the applicant's exposition into operational service; and
 - (ii) supervise the production and release of meteorological information; and
 - (2) establish a procedure to maintain the competence of those authorised personnel; and
 - (3) provide those authorised personnel with written evidence of the scope of their authorisation.

174.53 Site requirements

An applicant for the grant of a meteorological service certificate shall establish procedures to ensure that—

- (1) each of the meteorological offices and facilities listed in their exposition is—
 - (i) sited and configured in accordance with security measures designed to prevent unlawful or accidental interference; and
 - (ii) provided with suitable power supplies and means to ensure appropriate continuity of service; and
- (2) each of the remote weather sensing facilities listed in their exposition is installed and maintained in a technically appropriate position to ensure that the facility provides an accurate representation of the local meteorological conditions.

174.55 Communication requirements

- (a) An applicant for the grant of a meteorological service certificate shall establish communication systems and procedures to ensure that each of the meteorological offices and facilities listed in the applicant's exposition can provide the meteorological information to the applicable recipients.
- (b) The communication systems and procedures must be able to handle the volume and nature of the meteorological information being communicated so that no meteorological information is delayed to the extent that the information becomes out-of-date.

174.57 Input requirements

- (a) An applicant for the grant of a meteorological service certificate shall establish procedures to obtain input meteorological information appropriate for the meteorological services being provided.
- (b) The procedures shall ensure that—

- (1) each meteorological office and facility listed in the applicant's exposition that provides a forecast service has continuing access to appropriate historical, real-time, and other meteorological information for the applicant's forecast areas; and
- (2) each meteorological office and facility listed in the applicant's exposition that provides a meteorological briefing service in person or by any other interactive visual means, has adequate display and briefing resources available for the briefings; and
- (3) each meteorological office and facility listed in the applicant's exposition that provides a meteorological reporting service has adequate observing systems to supply adequate, accurate and timely meteorological reports; and
- (4) each meteorological office listed in the applicant's exposition that provides a meteorological watch service has adequate meteorological information to supply an adequate, accurate and timely meteorological watch service; and
- (5) each meteorological office and facility listed in the applicant's exposition that provides a climatology service has adequate meteorological information for the preparation of climatological information.

174.59 Output requirements

- (a) An applicant for the grant of a meteorological service certificate shall—
 - (1) identify the output meteorological information provided by each meteorological service listed in their exposition; and
 - (2) determine the standards and formats for that output meteorological information.
- (b) The applicant shall establish procedures to ensure that the meteorological information supplied by each meteorological office and facility listed in their exposition complies with the standards and formats determined under paragraph (a)(2).

174.61 Facility requirements

An applicant for the grant of a meteorological service certificate shall establish procedures to ensure that all electronic data processing facilities used in the acquisition, compilation, computing, access or dissemination of meteorological information are of a nature, configuration and capability to ensure the adequacy, accuracy and timeliness of that meteorological and related information.

174.63 Documentation

- (a) An applicant for the grant of a meteorological service certificate shall hold copies of meteorological office manuals, facility manuals, technical standards and practices, procedures manuals, and any other documentation that is necessary for the provision of the meteorological services listed in their exposition.
- (b) The applicant shall establish a procedure to control the documentation required by paragraph (a), to ensure that—
 - (1) the documentation is reviewed and authorised by appropriate personnel before issue; and
 - (2) current issues of relevant documentation are available to personnel at all locations where they need access to such documentation for the provision of the meteorological services listed in the applicant's exposition; and

- (3) obsolete documentation is promptly removed from all points of issue or use; and
- (4) changes to documentation are reviewed and approved by appropriate personnel; and
- (5) the current version of each item of documentation can be identified to preclude the use of out-of-date editions.

174.65 Verification, periodic inspection, testing and calibration

- (a) An applicant for the grant of a meteorological service certificate shall establish procedures for—
 - (1) the routine verification of meteorological information obtained and provided by the applicant; and
 - (2) the periodic inspection of each meteorological office listed in the applicant's exposition; and
 - (3) the periodic inspection, testing and calibration of each facility listed in the applicant's exposition.
- (b) The procedures shall ensure that—
 - (1) the systems required for the routine verification of meteorological information have the capability and integrity necessary for verifying the meteorological information; and
 - (2) appropriate inspection equipment and systems are available to personnel for the inspection of each meteorological office; and
 - (3) appropriate inspection, measuring and test equipment and systems are available to personnel for the inspection, testing and calibration of each facility; and
 - (4) the inspection, measuring and test equipment and systems have the precision and accuracy necessary for the inspections, measurements and tests being carried out; and
 - (5) all meteorological sensing facilities are calibrated and configured so that the environmental sensors fitted or incorporated produce, as far as possible, reliable, accurate and representative meteorological information.

174.67 Release of meteorological information

- (a) An applicant for the grant of a meteorological service certificate shall establish procedures for—
 - (1) the release of meteorological information from each meteorological office listed in their exposition; and
 - (2) the placing of facilities listed in their exposition into operational service.
- (b) The procedures shall ensure that persons authorised to supervise the production and release of meteorological information and persons authorised to place meteorological facilities into operational service have been assessed as competent under the procedures required by 174.51(b).

174.69 Notification of meteorological office and facility status

- (a) An applicant for the grant of a meteorological service certificate shall establish procedures to notify users of the applicant's meteorological services of relevant operational information and of any changes in the operational status of each meteorological office or facility listed in the applicant's exposition.
- (b) The procedures shall ensure that—
 - (1) the operational information for each of the applicant's meteorological services that support the Papua New Guinea air navigation system or an air traffic service is forwarded to the Aeronautical Information Service for publication in the Papua New Guinea Aeronautical Information Publication; and
 - (2) the users of a meteorological office or facility are notified without delay of any change in the operational status of the meteorological office or facility if the change may effect the safety of air navigation. For those meteorological offices and facilities published in the Papua New Guinea Aeronautical Information Publication, the information concerning any change to their operational status shall be forwarded to the Aeronautical Information Service for the issue of a NOTAM.

174.71 Meteorological information check after accident or incident

- (a) An applicant for the grant of a meteorological service certificate shall establish procedures for checking the adequacy, accuracy and timeliness of any of their meteorological information that may have been used by an aircraft or an air traffic service involved in an accident or incident.
- (b) The procedures shall ensure that—
 - (1) the checks are carried out as soon as practicable after notification to the applicant's organisation of such an accident or incident; and
 - (2) copies of the meteorological information are kept in a secure place for possible use by any subsequent investigation.

174.73 Malfunction and erroneous information

- (a) An applicant for the grant of a meteorological service certificate shall establish procedures to identify, record, notify, investigate, rectify, and report any—
 - (1) report of erroneous meteorological information; and
 - (2) detected malfunction in the facilities and meteorological services listed in their exposition that may result in the supply of erroneous meteorological information.
- (b) The procedures shall ensure that—
 - (1) the erroneous information is corrected by the most appropriate means relative to the operational significance of that information; and
 - (2) all users that have received the erroneous meteorological information are notified without delay; and
 - (3) the source of the erroneous information or the malfunction is identified and, where possible, eliminated; and

- (4) the Director is notified within 12 hours of a promulgated information incident in accordance with Part 12, and within 72 hours of those malfunction that cannot be remedied.

174.75 Records

- (a) An applicant for the grant of a meteorological service certificate shall establish procedures to identify, collect, index, store, maintain and dispose of the records that are necessary for the supply of the meteorological services listed in their exposition.
- (b) The procedures shall ensure that—
 - (1) there is a record of the input meteorological information obtained under the procedures required by 174.57; and
 - (2) there is a record of all output meteorological information identified under 174.59; and
 - (3) the records specified in paragraph (b)(1) and (2) are retained for a period of at least 60 days or for such longer period as may be required by the Director; and
 - (4) there is a record for each meteorological office and facility listed in the applicant's exposition, in order to document the performance of each meteorological office and facility and to provide a traceable history of its maintenance, service and product quality, its periodic inspections, and the persons responsible for each of these activities; and
 - (5) there is a record of the equipment and systems used for verification, inspection, testing and calibration under the procedures required by 174.65. The record shall provide a traceable history of the location, maintenance, and calibration checks for the equipment and systems; and
 - (6) there is a record of each occurrence of erroneous meteorological information and of each malfunction detected under the procedures required by 174.73. The record shall detail the nature of the erroneous meteorological information or malfunction and the findings of the investigation and the follow-up corrective actions; and
 - (7) there is a record of each safety management system review of the applicant's organisation carried out under the procedures required by 174.77. The record shall detail the part or activity of the organisation that was reviewed, the findings of the review and any necessary follow-up corrective actions; and
 - (8) there is a record of each quality management system review of the applicant's organisation carried out under the procedures required by 174.79. The record shall detail the part or activity of the organisation that was reviewed, the findings of the review and any necessary follow-up corrective actions; and
 - (9) there is a record for each person who is authorised by the applicant to supervise the production and release of meteorological information and for each person who is authorised by the applicant to place facilities into operational service. The record shall include details of their experience, qualifications, training and current authorisations; and
 - (10) all records are legible, and of a permanent nature; and

- (11) all records other than those required by paragraph (b)(1) and (2) are retained for at least one year, or for such longer period as may be required by the Director, in order to establish a history of the performance of the meteorological services.

174.77 Safety Management System

An applicant for the grant of an aviation meteorological service organisation certificate shall establish and implement a safety management system which meets the requirements of CAR Part 100.

174.79 Quality Management System

An applicant for the grant of an aviation meteorological service organisation certificate shall establish and implement a quality management system which meets the requirements of CAR Part 100.

174.81 Organisation exposition

- (a) An applicant for the grant of a meteorological service certificate shall provide the Director with an exposition which shall contain—
- (1) a statement signed by the Chief Executive on behalf of the applicant's organisation confirming that the exposition and any included manuals—
 - (i) define the organisation and demonstrate its means and methods for ensuring ongoing compliance with this Part; and
 - (ii) will be complied with at all times; and
 - (2) the titles and names of the senior person or persons required by 174.51(a)(1) and (2); and
 - (3) the duties and responsibilities of the senior person or persons specified in paragraph (a)(2) including matters for which they deal directly with the Director or the Authority on behalf of the organisation; and
 - (4) an organisation chart showing lines of responsibility of the senior persons specified in paragraph (a)(2); and
 - (5) a summary of the applicant's staffing structure at each meteorological office listed under paragraph (a)(7)(i); and
 - (6) a list of the meteorological services to be covered by the certificate; and
 - (7) a list providing—
 - (i) the location of each meteorological office operated by the applicant; and
 - (ii) the location of each facility operated by the applicant that provides meteorological information directly to the users; and
 - (iii) the meteorological services provided by each of those meteorological offices and facilities; and
 - (iv) the locations and airspace covered by such meteorological services; and

- (8) details of the applicant's output meteorological information identified under 174.59(a)(1) and the standards and formats for that information determined under 174.59(a)(2); and
 - (9) details of the applicant's procedures and systems required by—
 - (i) 174.51(b) regarding competence of personnel; and
 - (ii) 174.53 regarding site requirements; and
 - (iii) 174.55 regarding communication requirements; and
 - (iv) 174.57 regarding meteorological service input requirements; and
 - (v) 174.59 regarding meteorological service output requirements; and
 - (vi) 174.61 regarding facility requirements; and
 - (vii) 174.63 (b) regarding control of documentation; and
 - (viii) 174.65 regarding verifications, inspections, tests and calibrations; and
 - (ix) 174.67 regarding release of meteorological information and the placing of facilities into operational service; and
 - (x) 174.69 regarding notification of meteorological office and facility status; and
 - (xi) 174.71 regarding meteorological information checks after notification of an accident or incident; and
 - (xii) 174.73 regarding malfunctions and erroneous information; and
 - (xiii) 174.75 regarding identification, collection, indexing, storage, maintenance and disposal of records; and
 - (xiv) 174.77 regarding safety management system of the organisation; and
 - (xv) 174.79 regarding quality management system of the organisation; and
 - (xvi) 174.83 regarding coordination requirements; and
 - (10) procedures to control, amend and distribute the exposition.
- (b) The applicant's exposition must be acceptable to the Director.

174.83 Coordination Requirement

- (a) Each applicant for the grant of a meteorological service certificate shall establish systems and procedures to ensure, where applicable, co-ordination between the following agencies—
 - (1) a holder of an air traffic service organisation certificate issued under Part 172; and
 - (2) a holder of an aeronautical information service organisation certificate issued under Part 175; and
 - (3) a holder of an aerodrome operations certificate issued under Part 139; and

- (4) search and rescue authorities; and
 - (5) aircraft operators; and
 - (6) the Papua New Guinea Defence Force; and
 - (7) Any other authorities and organisations that is necessary for the provision of meteorological information for air navigation;
- (b) The applicant shall establish procedures to ensure each MET letter of agreement—
- (1) details such matters as are necessary for effective co-ordination between the organisations party to the agreement; and
 - (2) is kept current; and
 - (3) is signed by senior representatives of the participating organisations; and
 - (4) is part of the applicant's operations manual.

Subpart C — Operating Requirements

174.101 Continued compliance

The certificate holder shall—

- (1) hold at least one complete and current copy of their exposition at each meteorological office specified in their exposition; and
- (2) comply with all procedures and systems detailed in their exposition; and
- (3) make each applicable part of their exposition available to personnel who require those parts to carry out their duties; and
- (4) continue to meet the standards and comply with the requirements of Subpart B prescribed for certification under this Part; and
- (5) notify the Director of any change of address for service, telephone number, or facsimile number required by form CAA 174/01 within 28 days of the change.

174.103 Operations manual

The certificate holder shall provide an operations manual for each meteorological office listed in their exposition. The manual shall set out the procedures for the operation and maintenance of the meteorological office and associated facilities and shall include a list of—

- (1) the meteorological information and meteorological services provided; and
- (2) the minimum acceptable operating parameters and standards for facilities; and
- (3) the minimum meteorological inputs required; and
- (4) the minimum performance and quality levels for output meteorological information and meteorological services provided; and
- (5) the test equipment and systems required for the measurement of the minimum levels listed under subparagraph (4); and

- (6) any mandatory check procedures for releasing meteorological information.

174.105 Limitations on certificate holder

The certificate holder shall not—

- (1) provide meteorological information where the meteorological input information required to provide that meteorological information is not available; or
- (2) provide meteorological information where the operational performance of the meteorological office or facility producing that meteorological information does not meet the applicable requirements; or
- (3) provide meteorological information where any integrity monitoring system associated with that meteorological information is not fully functional; or
- (4) provide meteorological information where any required verification, inspection, test or calibration relating to that meteorological information has not been completed; or
- (5) provide meteorological information where there is any cause whatsoever to suspect the integrity of that meteorological information.

174.107 Changes to certificate holder's organisation

- (a) The certificate holder shall ensure that their exposition is amended so as to remain a current description of the holder's organisation and meteorological services provided.
- (b) The certificate holder shall ensure that any amendments made to the holder's exposition meet the applicable requirements of this Part and comply with the amendment procedures contained in the holder's exposition.
- (c) The certificate holder shall provide the Director with a copy of each amendment to their exposition as soon as practicable after its incorporation into the exposition.
- (d) Where a certificate holder proposes to make a change to any of the following, prior notification to and acceptance by the Director is required:
 - (1) the Chief Executive;
 - (2) the listed senior persons;
 - (3) the meteorological services the holder provides;
 - (4) the locations and airspace covered by each of the meteorological services the holder provides.
- (e) The Director may prescribe conditions under which a certificate holder may operate during or following any of the changes specified in paragraph (d).
- (f) A certificate holder shall comply with any conditions prescribed under paragraph (e).
- (g) Where any of the changes referred to in this rule require an amendment to the certificate, the certificate holder shall forward the certificate to the Director as soon as practicable.
- (h) The certificate holder shall make such amendments to the holder's exposition as the Director may consider necessary in the interests of aviation safety.