



CIVIL AVIATION SAFETY AUTHORITY OF PNG

PNG

Civil Aviation Rules

Part 171

Aeronautical Telecommunication Service Organisations - Certification

Effective 1 May 2016.

DESCRIPTION

Part 171 prescribes the regulatory requirements for persons or organisations providing aeronautical telecommunication services in support of the PNG civil aviation air navigation system. The rule also provides for the organisations to provide support for individual navigation requirements.

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 15/171/1)

Subpart A Rule 171.5(3) is amended to replace PNG Aeronautical Telecommunicateion Authority with the National Information Technology Authority (NICTA).

New Rule 171.17 is inserted to include new provisions for Identification codes and call signs.

New Rule 171.19 is inserted to include requirement to notify Director of aeronautical facility information.

New Rule 171.21 is inserted to provide information on aeronautical facility.

Rule 171.59 (e) is amended to require applicant to notify Director within seven days of any radio navigation aidt that is not subjected to periodic flight tests.

New requirements for records to be retained for 3 years is inserted in Rule 171.67(b)(3).

Provision to notify facility malfunction under Part 12 is inserted into Rule 171.67(a)

New rule 171.73 is inserted to require applicant to establish and implement SMS

Rule 171.75 is amended to include requirement to establish and implement QMS.

Requirements for SMS and QMS is inserted in Rule 171.73 and Rule 171.75 and 171.115 for safety assessment.

New Rule 115 is inserted requiring applicant to carry our Safety Assessments.

New Subpart D is inserted for Facility Specifications and Requirements.

New Rule under Subpart D containing additional specifications and requirements

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Subpart A — General

171.1 Purpose

This Part prescribes rules governing—

- (1) the certification and operation of organisations providing aeronautical telecommunication services in support of IFR flight or an air traffic service; and
- (2) the operating and technical standards for facilities operated by those organisations.

171.3 Definitions

In this Part—

Aeronautical Telecommunication Service means—

- (1) a telecommunication service provided to support the following services as defined in Annex 10, Volume II, Chapter 1:
 - (i) aeronautical broadcasting service:
 - (ii) aeronautical fixed service (AFS):
 - (iii) aeronautical mobile service:
 - (iv) aeronautical radio navigation service; and
- (2) any other telecommunication service provided specifically to support the Papua New Guinea air navigation system:

Annex 10 means Annex 10 to the Convention as amended from time to time:

Critical Performance Parameter means a performance parameter that has a direct effect on the operational integrity of a facility:

Facility means—

- (1) the following types of communication systems for the aeronautical broadcast service (as that service is defined in Annex 10, Volume II, Chapter 1):
 - meteorological information for aircraft in flight (VOLMET):
 - automatic terminal information service (ATIS); and
- (2) the following types of communication systems for the aeronautical fixed service (as that service is defined in Annex 10, Volume II, Chapter 1):
 - ATS direct speech circuits:
 - aeronautical fixed telecommunication network (AFTN):
 - ground-ground data interchange; and

- (3) the ground elements of the following types of communication systems for the aeronautical mobile service (as that service is defined in Annex 10, Volume II, Chapter 1):

HF air-ground communication:

VHF air-ground communication:

UHF air-ground communication:

selective calling system (SELCAL):

air-ground data interchange; and

- (4) the following types of radio navigation aids for the aeronautical radio navigation service (as that service is defined in Annex 10, Volume II, Chapter 1):

Instrument Landing System (ILS):

Microwave Landing System (MLS):

VHF Omni-directional radio range (VOR):

Distance Measuring Equipment (DME):

Non-directional Radio Beacon (NDB):

Precision Approach Radar (PAR):

Secondary Surveillance Radar (SSR):

Primary Surveillance Radar (PSR); and

- (5) the following types of telecommunication systems that support an air traffic service:

flight data processing system (FDPS):

radar data processing system (RDPS):

radar and flight data processing system (RFDPS).

171.5 Requirement for certificate

- (a) Except as provided in paragraph (c), no person shall provide an aeronautical telecommunication service or operate a facility except under the authority of, and in accordance with the provisions of, a telecommunication service certificate issued under this Part.
- (b) The Director may grant a certificate authorising aeronautical telecommunication services varying from the operation of a single private facility to a network of facilities required for the Papua New Guinea air navigation system.
- (c) A person may operate a facility on an aeronautical radio frequency without holding a telecommunication service certificate if—
- (1) the facility—
 - (i) is a radio-communication facility that does not support an air traffic service; or
 - (ii) is a radio navigation aid that does not support IFR flight or an air traffic service; and
 - (2) the facility does not interfere with any other aeronautical telecommunication service or facility; and

- (3) where applicable—
 - (i) the National Information Technology Authority (NICTA) has granted a written radio apparatus licence for the facility; and
 - (ii) the Director has allocated an identification code or call sign for the facility.

171.7 Application for certificate

An applicant for the grant of a telecommunication service certificate shall complete form CAA 171/01 and submit it to the Director with—

- (1) the exposition required by 171.77; and
- (2) a payment of the appropriate application fee prescribed by regulations made under the Act.

171.9 Issue of certificate

An applicant is entitled to a telecommunication service organisation 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 171.51(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.

171.11 Privileges of certificate holder

- (a) A telecommunication service certificate specifies the types of facilities that the certificate holder is authorised to operate.
- (b) Subject to 171.111, the holder of a telecommunication service certificate may operate any of the facility types listed on the holder's certificate provided that—
 - (1) each facility operated is listed in the holder's exposition; or
 - (2) if the facility is not listed in the exposition, its operation is for site test purposes controlled by the procedures required by 171.53(b).

171.13 Duration of certificate

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

171.15 Renewal of certificate

- (a) An application for the renewal of a telecommunication service certificate shall be made on form CAA 171/01.
- (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.

171.17 Identification of codes and call signs

(a) No person may operate-

- (1) a radio navigation aid, unless it has been allocated an identification code by the Director under paragraph (c); or
- (2) a radio communication transmitter on an aeronautical radio frequency other than one operated under 171.5(c), unless it has been allocated a call sign by the Director under paragraph (c).

(b) An applicant for the allocation of an identification code or a call sign under paragraph (a), must complete form CAA 171/02 and submit it to the Director with, if applicable, a payment of the appropriate application fee prescribed by regulations made under the Act.

(c) The Director may allocate an identification code for a radio navigation aid or a call sign for a radio communication transmitting aeronautical facility if the Director is satisfied that the allocation of a code or call sign is not contrary to the interest of aviation safety.

171.19 Notification of aeronautical facility information

A person operating an aeronautical facility must, as soon as practicable-

- (1) forward to the provider of the AIS-
 - (i) information on the operational details of the aeronautical facility, for publication in the PNGAIP; and
 - (ii) information concerning any change in the operational status of the aeronautical facility, for the issue of a NOTAM; and
- (2) check, if applicable, that the information forwarded under paragraph (1) has been accurately published; and
- (3) notify the Director of a promulgated information incident in accordance with Part 12.

171.21 Information provided by an aeronautical facility

A person operating an aeronautical facility must not permit the facility to continue in operational service if that person suspects or has any cause to suspect that the information being provided by that facility is erroneous.

Subpart B — Certification Requirements

171.51 Personnel requirements

- (a) An applicant for the grant of a telecommunication 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 all activities undertaken by the organisation can be financed and carried out to meet applicable 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 inspect, supervise, and maintain the facilities 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 place any of the facilities listed in the applicant's exposition into operational service; 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.

171.53 Facility requirements

- (a) An applicant for the grant of a telecommunication service certificate shall establish procedures to ensure that—
- (1) each facility listed in their exposition—
 - (i) is designed, installed and commissioned to meet the applicable operational specification; and
 - (ii) conforms with the applicable system characteristics and specification standards prescribed in Volume I, III and IV of Annex 10; and
 - (2) information on the operational status of any of the radio navigation aids listed in the applicant's exposition that are essential for the approach, landing and take-off at an aerodrome, is provided without delay—
 - (i) to the aerodrome control tower if that aerodrome has one; and
 - (ii) to the air traffic control unit providing an approach control service for that aerodrome if such a service is being provided; and
 - (3) each facility listed in their exposition is installed with suitable power supplies and means to ensure continuity of operation appropriate to the needs of the operational service being supported; and

- (4) each facility listed in their exposition is installed in accordance with the security programme required by 171.55 to minimise the risk of destruction, damage or interference with the operation of the facility; and
- (5) any critical site area of any facility listed in their exposition is—
 - (i) clearly identified on the site drawings for the facility; and
 - (ii) physically protected by suitable signposts on the site; and
 - (iii) protected by written agreements with the site owner, aerodrome operator and air traffic control unit as appropriate, to ensure that site restrictions are not infringed by buildings, fences, vehicles, machinery or aircraft.
- (b) Where an applicant intends to operate a temporary facility for the purpose of carrying out site tests, the applicant shall establish a procedure for conducting those tests. The procedure shall ensure that there is no possible interference to any other operating facility and that appropriate information is forwarded to the Aeronautical Information Service (AIS) for the issue of a NOTAM or the publication of a Supplement to the Aeronautical Information Publication.

171.55 Security programme

- (a) An applicant for the grant of a telecommunication service certificate shall establish a security programme for the facilities listed in their exposition.
- (b) The security programme required by paragraph (a) shall specify the physical security requirements, practices and procedures that may be necessary —
 - (1) to minimise the risk of destruction, damage, or interference, to the certificate holder's facilities if such an act to a facility is likely to endanger the safety of air navigation; and
 - (2) to prevent unauthorised access to a facility; and
 - (3) for personnel to follow in the event of a bomb threat or other threat of violence at a facility; and
 - (4) to monitor unattended facilities to detect unauthorised intrusion or interference at a facility.
 - (5) To protect critical information and communications technology systems from interference that may jeopardise the safety of air navigation services.
- (c) The security programme required under paragraph (a) shall include procedures to notify, investigate and report security incidents to the Director in accordance with rule Part 12.

171.57 Documentation

- (a) An applicant for the grant of a telecommunication service certificate shall hold copies of relevant equipment manuals, relevant technical standards and practices (including Annex 10) and any other documentation (including technical instructions) that is necessary for the provision and operation of the facilities listed in their exposition.
- (b) An applicant shall establish a procedure to control all the documentation required by paragraph (a). The procedure shall ensure that—
 - (1) all documentation is reviewed and authorised by appropriate personnel before issue; and

- (2) current issues of all relevant documentation are available to staff at all locations where they need access to such documentation for the provision and operation of facilities; and
- (3) all 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.

171.59 Periodic inspection and testing

- (a) An applicant for the grant of a telecommunication service certificate shall establish procedures for the periodic inspection and testing of the facilities listed in their exposition to verify that they meet the applicable operational requirements and performance specifications.
- (b) These procedures shall—
 - (1) cover ground inspections and ground tests, and where necessary flight tests; and
 - (2) include the criteria for establishing or changing the period between the periodic tests for a facility having regard to—
 - (i) any applicable information published by the International Civil Aviation Organisation (ICAO) or any other aeronautical authority; and
 - (ii) any applicable reliability data for the facility; and
 - (iii) information on the proven reliable performance of the facility, the proven performance of other similar facilities, and the stability of the facility's operating environment; and
 - (3) ensure that the grounds for establishing or changing the period between the periodic tests for a facility are documented.
- (c) In addition, the applicant shall establish—
 - (1) a programme of periodic ground inspections for each facility; and
 - (2) a programme of periodic ground tests for each facility; and
 - (3) a programme of periodic flight tests for each radio navigation aid unless the applicant can establish from the criteria in paragraph (b)(2) that periodic ground tests can replace the periodic flight tests for a facility without affecting the safety of air navigation.
- (d) The programmes required by paragraph (c)(2) and (3) for the periodic ground and flight tests shall be based on the criteria in paragraph (b)(2) and shall specify the maximum period between the tests for each facility.
- (e) The applicant shall notify the Director within seven days of any radio navigation aid that is not subjected to periodic flight tests required.

171.61 Certification of facility performance

An applicant for the grant of a telecommunication service certificate shall establish a procedure to ensure that no facility listed in their exposition is placed into operational service unless—

- (1) the person placing the facility into operational service is authorised and is assessed as competent under the procedures required by 171.51(b); and
- (2) the appropriate checks have been carried out to verify the performance of the facility; and
- (3) the facility record has been completed in accordance with the procedures required by 171.71.

171.63 Inspection measuring and test equipment

- (a) An applicant for the grant of a telecommunication service certificate shall ensure that appropriate inspection, measuring and test equipment is available for their personnel to maintain the safe operation of each facility listed in their exposition.
- (b) An applicant shall establish a procedure to control, calibrate and maintain all of the applicant's inspection, measuring and test equipment to ensure that each item of equipment has the precision and accuracy that is necessary for the measurements and tests to be performed.
- (c) The procedure shall ensure that each item of test equipment required for the measurement of critical performance parameters is—
 - (1) calibrated before use and at prescribed intervals against certified equipment having a known valid relationship to nationally recognised standards. Where no such standards exist, the basis used for the calibration shall be documented. Records of such calibrations and the standards used shall be maintained in accordance with the procedures required by 171.71; and
 - (2) identified with a suitable indicator to show its calibration status; and
 - (3) controlled to—
 - (i) safeguard against adjustments that would invalidate the calibration setting; and
 - (ii) ensure that the handling, preservation and storage is such that the accuracy and fitness for use is maintained.
- (d) Where hardware and software systems are used as an alternative form of facility performance testing, the functions of the systems shall be checked before being released for use in order to establish that they are capable of verifying the performance of the facility. These functions shall be checked at prescribed intervals. Records of these checks shall be maintained as evidence and verification of adequate performance of the test system.

171.65 Notification of facility information

- (a) An applicant for the grant of a telecommunication service certificate shall establish a procedure to notify the users of the facilities listed in their exposition of the operational information for each facility and of any changes in the operational status of those facilities.

- (b) The procedure shall ensure that—
- (1) the operational information on any facility that supports an air traffic service or the Papua New Guinea air navigation system is forwarded to the Aeronautical Information Service (AIS) for publication in the Papua New Guinea Aeronautical Information Publication; and
 - (2) the users of a facility are notified without delay of any change in the operational status of a facility if the change may affect the safety of air navigation. For those 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.

171.67 Facility check after accident or incident

- (a) An applicant for the grant of a telecommunication service certificate shall establish a procedure to check and record the operating condition of any facility listed in their exposition that may have been used by an aircraft or an air traffic service involved in an accident or incident.
- (b) The procedure 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) the record of the facility's operating condition as checked and the past recorded history are kept in a secure place for possible use by any subsequent investigation.
 - (3) the records required to be secured under paragraph (b) (2) are retained for 3 years from the date of the last entry made on that record.

171.69 Facility malfunctions

- (a) An applicant for the grant of a telecommunication service certificate shall establish a procedure to notify, investigate, and rectify any detected or reported malfunction of any facility listed in their exposition in accordance with the requirements of rule Part 12.
- (b) The procedure shall ensure that a report is forwarded to the Director whenever a facility malfunction investigation reveals that—
- (1) the facility has been operating outside the allowable tolerances; or
 - (2) the facility had the potential to operate outside the allowable tolerances; or
 - (3) there appears to be a recurring cause for the facility malfunction reports.
- (c) The report required in paragraph (b) shall be forwarded within 10 days of the malfunction being detected or reported and shall include full details of the malfunction, the findings of the investigation and the corrective action taken to prevent a recurrence.

171.71 Records

- (a) An applicant for the grant of a telecommunication service certificate shall establish procedures to identify, collect, index, store, maintain and dispose of the records that are necessary for the safe provision and operation of the facilities listed in their exposition.

- (b) The procedures shall ensure that—
- (1) a record is kept for each facility in order to—
 - (i) document the performance of the facility; and
 - (ii) provide a history of its maintenance and the periodic inspections and tests. The history shall be traceable to the person or persons responsible for each of the recorded activities; and
 - (2) there is a record of the documentation required by 171.59(b)(3) concerning the establishment of, or change in, the periodic tests for a facility; and
 - (3) there is a record for each item of test equipment required for the measurement of critical performance parameters. The record shall provide a traceable history of the location, maintenance, and the calibration checks for such test equipment; and
 - (4) there is a record of each facility malfunction recorded and investigated under the procedures required by 171.69(a). The record shall detail the nature of the malfunction, the findings of the investigation, the follow up corrective actions, or where applicable include a copy of the report forwarded to the Director; and
 - (5) there is a record of each internal audit of the applicant's organisation carried out under the procedures required by 171.77; and
 - (6) there is a record 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, competence assessments and current authorisations; and
 - (7) all records are legible and of a permanent nature; and
 - (8) all facility records are retained for a period of at least 3 years unless a longer period is required to establish a performance history for a facility.

171.73 Safety Management System

An applicant for the grant of an aeronautical telecommunication service organization certificate must establish and implement a safety management system which meets the requirements of CAR Part 100.

171.75 Quality Management System

An applicant for the grant of an aeronautical telecommunication service organization certificate must establish and implement a quality management system which meets the requirements of CAR Part 100.

171.77 Organisation exposition

- (a) An applicant for the grant of a telecommunication 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 171.51(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 have responsibility to 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 extending to each location listed under paragraph (a)(7); and
- (5) a summary of the applicant's staffing structure at each location listed under paragraph (a)(7); and
- (6) a list of the types of facilities to be covered by the certificate; and
- (7) a summary of the scope of activities at each location where personnel are based for the purpose of providing or maintaining the facilities listed under paragraph (a)(8); and
- (8) a list providing the operational details of each facility associated with each location listed under paragraph (a)(7); and
- (9) details of the applicant's security programme required by 171.55; and
- (10) details of the applicant's procedures required by—
 - (i) 171.51(b)(1) and (2) regarding the competence of personnel; and
 - (ii) 171.53(a) regarding the design, installation and commissioning of facilities; and
 - (iii) 171.53(b) regarding operation of temporary facilities for site tests; and
 - (iv) 171.57 regarding the control of documentation; and
 - (v) 171.59 regarding periodic inspections and tests of facilities; and
 - (vi) 171.61 regarding the certification of facility performance; and
 - (vii) 171.63 regarding the control, calibration and maintenance of inspection, measuring and test equipment; and
 - (viii) 171.65 regarding the notification of facility information; and
 - (ix) 171.67 regarding facility checks after notification of an accident or incident; and
 - (x) 171.69 regarding facility malfunctions; and
 - (xi) 171.71 regarding the identification, collection, indexing, storage, maintenance and disposal of records; and
 - (xii) 171.73 regarding safety management system of the organisation; and
 - (xiii) 171.75 regarding quality management system of the organisation; and

(xiv) 171.115 regarding safety assessments; and

(11) procedures to control, amend and distribute the exposition.

(b) The applicant's exposition must be acceptable to the Director.

Subpart C — Operating Requirements

171.101 Continued compliance

The holder of a telecommunication service certificate shall—

- (1) hold at least one complete and current copy of their exposition at each major location specified in their exposition; and
- (2) comply with all procedures 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 171/01 within 28 days of the change.

171.103 Identification codes and call signs

The holder of a telecommunication service certificate requiring an identification code for a radio navigation facility or a call sign for a communications facility shall apply to the Director on form CAA 171/02 with the appropriate details.

171.105 Communication procedures

The holder of a telecommunication service certificate shall ensure that their procedures for operating the facilities listed in their exposition are in accordance with the applicable communication procedures prescribed in Annex 10, Volume II.

171.107 Operating and maintenance instructions

The holder of a telecommunication service certificate shall provide, for the use and guidance of their personnel, operating and maintenance instructions for each facility listed in their exposition. The instructions shall be controlled by the documentation control procedures required by 171.57 and shall set out the requirements for operating and maintaining each facility. The instructions shall include a list of—

- (1) the critical performance parameters; and
- (2) the associated minimum performance levels for those parameters; and
- (3) the test equipment required for the measurement of those parameters; and
- (4) the mandatory check procedures for placing the facility into operational service; and
- (5) the mandatory inspection and test procedures for the operation and maintenance of the facility.

171.109 Deviations

- (a) Subject to compliance with 171.111(a), the holder of a telecommunication service certificate may deviate from any requirement of this Part to meet an emergency situation if there is a need to take immediate action for the protection of life or property involving carriage by air.
- (b) A certificate holder who deviates from a requirement of this Part under paragraph (a) shall provide a written report to the Director as soon as practicable, but in any event not later than 14 days after the emergency. The report shall cover the nature, extent and duration of the deviation.

171.111 Limitations on Certificate Holder

- (a) The holder of a telecommunication service certificate shall not operate a facility (except for site test purposes controlled by the procedures required by 171.53(b)) if there is any cause to suspect the integrity of the information being provided by the facility. A cause to suspect the integrity of the information being provided by a facility includes the infringement of any critical site area of the facility until performance checks on the facility verify that the infringement does not and will not affect the performance of the facility.
- (b) A certificate holder shall not operate a radio transmitting facility on an aeronautical radio frequency except pursuant to a written radio apparatus licence granted by the National InformationTechnology Authority for the facility.
- (c) Except where a deviation under 171.109 is required or a site test is carried out under the procedures required by 171.53(b), a certificate holder shall not operate a facility unless—
 - (1) the facility is listed in the holder's exposition; and
 - (2) the performance of the facility meets the applicable published information; and
 - (3) the performance of the facility meets the applicable facility requirements in 171.53(a); and
 - (4) any integrity monitoring system for the facility is fully functional; and
 - (5) all the periodic tests for the facility are completed in accordance with the programmes established under 171.59(c)(2) and (3); and
 - (6) the facility is included in the holder's airways security programme if the destruction, damage, or interference of the facility is likely to endanger the safety of an aircraft in flight; and
 - (7) the provisions of the holder's airways security programme for the facility are being complied with.

171.113 Changes to certificate holder's organisation

- (a) The holder of a telecommunication service certificate shall ensure that their exposition is amended so as to remain a current description of the holder's organisation and facilities.
- (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 the holder's 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 security programme;
 - (4) The types of facility the holder operates.
- (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 requires 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.

171.115 Safety Assessments

- (a) The holder of an aeronautical telecommunications service certificate must provide a safety assessment report or safety case study to the Director-
 - (1) for any proposed changes to its operations; and
 - (2) relocation of services or facilities and equipment; and
 - (3) implementation of new communications, surveillance or other safety-significant systems and equipment, including those providing new functionality or capabilities.
- (b) The holder of an aeronautical telecommunications service certificate must ensure that users of the services are consulted when carrying out the safety assessment as required under paragraph (a).
- (c) The holder of an aeronautical telecommunications service certificate where appropriate, shall ensure that adequate provision is made for post-implementation monitoring to verify that the defined level of safety continues to be met.

Subpart D — Facility Specifications and Requirements

171.201 Additional Specifications and Requirements

The following specifications and requirements are applicable to the aeronautical facilities referred to in 171.53(a)(1)-

- (1) Each NDB listed in an aeronautical telecommunication service certificate holder's exposition must conform to the following specification standards, in addition to the specification standards prescribed in ICAO Annex 10, Volume I, section 3.4:
 - (i) the radiated signal must be either, an uninterrupted carrier amplitude modulated by the on/off keying of a 1020 Hz plus or minus 50 Hz tone, or an uninterrupted carrier identified by the on/off keying of a second carrier separated 1020 Hz plus or minus 50 Hz from the continuous carrier:
 - (ii) the monitoring functions recommended in paragraphs 3.4.8.2 and 3.4.8.4 of ICAO Annex 10, Volume I are mandatory specification requirements for each NDB aeronautical facility:
 - (iii) the monitoring system for each NDB aeronautical facility must transmit a warning to a control point and switch off the NDB upon detection of any of the conditions detailed in paragraphs 3.4.8.1 and 3.4.8.2 of ICAO Annex 10, Volume I; and
- (2) each UHF DME listed in an aeronautical telecommunication service certificate holder's exposition must conform with the following requirements, in addition to the specifications prescribed in section 3.5 of ICAO Annex 10, Volume I:
 - (iv) the beacon code identity signal prescribed in paragraph 3.5.3.6.3 of ICAO Annex 10, Volume I must be transmitted at least once but not more than twice every 40 seconds with the code groups equally spaced:
 - (v) the monitor function recommended in paragraph 3.5.4.7.2.3 of ICAO Annex 10, Volume I, is a mandatory specification requirement for each DME aeronautical facility; and
- (3) each radio navigation aid listed in an aeronautical telecommunication service certificate holder's exposition must be provided with a monitoring system that will remove the aeronautical facility from operational service and transmit a warning to an appropriate control point upon detection of any of the following conditions:
 - (vi) navigation information outside the prescribed tolerance for the facility:
 - (vii) failure of the identification signal:
 - (viii) failure of the monitoring system.