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PART 171

AIR NAVIGATION SERVICES: AERONAUTICAL TELECOMMUNICATION SERVICES

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SUBPART 1 GENERAL**Definitions and interpretation in this Part**

171.01.1 (1) Definitions pertaining to this Part are contained in Document NAM-CATS-ATEL.

(2) For purposes of this Part -

(a) a telecommunication or radio-navigation or surveillance service is provided using one or more facilities at one or more locations, each facility consisting of -

(i) one item of equipment; or

(ii) items of interconnected equipment at a particular location;

(b) a service is interrupted if, during the course of its operation it is

(i) not operating because it has failed or has been suspended; or

(ii) operating outside its technical specification.

(3) In this Part, aeronautical telecommunication service refers to an air navigation service related to the provision of any of the following:

(a) Radio Navigation Aids in accordance with the provisions of Volume I of Annex 10 to the Chicago Convention, as adopted in this Part;

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- (b) Communication Procedures including those with Procedures for Air Navigation Services (PANS) Status and Administrative Provisions in accordance with Volume II of Annex 10 to the Chicago Convention, as adopted in this Part;
 - (c) Communication Systems including digital data communication systems and voice communication systems in accordance with the provisions of Volume III of Annex 10 to the Chicago Convention, as adopted in this Part;
 - (d) Surveillance and Collision Avoidance Systems in accordance with the provisions of Volume IV of Annex 10 to the Chicago Convention, as adopted in this Part;
 - (e) Aeronautical Radio Frequency Spectrum Utilisation in accordance with the provisions of Volume V of Annex 10 to the Chicago Convention, as adopted in this Part;
 - (f) other facilities supporting Air Traffic Services (ATS) provided under Part 172;
 - (g) other facilities supporting Aeronautical Meteorological (A-MET) services provided under Part 174;
 - (h) other facilities supporting Aeronautical Information Services (AIS) provided under Part 175; and
 - (i) other facilities supporting Search And Rescue (SAR) services provided under Part 179.
- (4) In this Part reference to -

“Air Traffic Electronic Safety Personnel (ATSEP)” must be construed as reference to any qualified and certified ATEL personnel performing the installation, commissioning, operation, maintenance and decommissioning of CNS facilities;

“Communications, Navigation and Surveillance (CNS) services or systems” must be construed as reference to the ATEL services as described in subregulation (2); and

“Radio Regulations” must be construed as reference to -

- (a) the Radio Regulations published by the International Telecommunication Union (ITU), as amended from time to time by the decisions embodied in the Final Acts of World Radio Communication Conferences (WRC), as adopted by the Communications Regulatory Authority of Namibia (referred to as “CRAN” in this Part) established by section 4 of the Communications Act, 2009 (Act No. 8 of 2009);
- (b) information on the ITU processes as they relate to aeronautical radio frequency spectrum contained in the Handbook on Radio Frequency Spectrum Requirements for Civil Aviation (Doc 9718).

Applicability

171.01.2 (1) This Part -

- (a) prescribes the -

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- (i) regulatory requirements and standards for the provision, installation, commissioning, operation, maintenance and decommissioning of aeronautical telecommunications (ATEL) services or systems used for air traffic services, and aeronautical radio-navigation (ANAV) services used for air navigation, conjointly referred to as ATEL services; and
 - (ii) operating and technical standards for ATEL services used for air traffic services, and aeronautical radio-navigation services used for air navigation;
- (b) applies to a person, who wishes to become, or is, an ATEL service provider including a person who wishes to provide flight inspection or calibration services.
- (2) This Part does not apply to -
- (a) a person, including a person who is providing an ATEL service in the course of his or her duties for the Namibian Defence Force; or
 - (b) any ATEL service provided by and for the sole use of the Namibian Defence Force.

Standards for provision of ATEL services

171.01.3 (1) An ATEL service provider must provide services in full compliance with the -

- (a) requirements prescribed in Part 170;
- (b) requirements prescribed in this Part;
- (c) standards set out in Document NAM-CATS-ATEL;
- (d) requirements of any other Parts referred to in this Part;
- (e) provisions set out or referred to in ICAO Annex 10;
- (f) standards set out or referred to in any relevant ICAO Documents;
- (g) provisions of any other relevant Authority documents; and
- (h) ATEL provider's manual of procedures.

**SUBPART 2
CERTIFICATION OF ATEL SERVICE PROVIDERS**

Requirement for certification

171.02.1 A person may not install, maintain, repair, modify, calibrate or decommission an ATEL facility used for air navigation or for the provision of air traffic services except, under the authority of, and in accordance with the provisions of a certificate issued under this Part, the requirements prescribed in Part 170, and the standards set out in Document NAM-CATS-ATEL.

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Application for certificate or amendment thereof

171.02.2 An application for the issuing of an ATEL service provider certificate, or an amendment thereof, must be -

- (a) made to the Executive Director in the appropriate set out form set out in Document NAM-CATS-ATEL; and
- (b) accompanied by the -
 - (i) manual of procedures referred to in regulation 171.03.1;
 - (ii) appropriate fee as prescribed in Part 187.

Issue of ATEL service provider certificate

171.02.3 (1) The Executive Director may issue an ATEL service provider certificate, if the Executive Director is satisfied that -

- (a) the applicant meets the requirements prescribed in Part 170 and this Part;
- (b) the applicant's personnel required by this Part are competent to perform their respective duties;
- (c) the applicant's senior personnel have not held a senior position in an organisation whose approval was revoked by the Executive Director; and
- (d) the issuing of the certificate is not contrary to the interests of aviation safety.

(2) The ATEL service provider certificate referred to in subregulation (1) is issued in the appropriate form, and contains the information, set out in Document NAM-CATS-ATEL.

Renewal of ATEL service provider certificate

171.02.4 (1) An application for the renewal of an ATEL service provider certificate, must be -

- (a) made to the Executive Director on the appropriate form set out in Document NAMCATS-ATEL; and
- (b) accompanied by the -
 - (i) manual of procedures referred to in 171.03.1; and
 - (ii) appropriate fee as prescribed in Part 187.

(2) The holder of a certificate must, if it wishes to renew the certificate, at least 90 days immediately preceding the date on which the ATEL service provider certificate expires, apply to the Executive Director for the renewal of such certificate.

Duplicate certificate

171.02.5 (1) An application for a duplicate certificate as contemplated in Part 170 must be -

- (a) made in the appropriate form set out in Document NAM-CATS-ATEL; and (b) accompanied by the appropriate fee as prescribed in Part 187.

(2) A duplicate of the certificate is issued on the appropriate form set out in Document NAM-CATS-ATEL.

Privileges of ATEL service provider certificate holder

171.02.6 The privileges of an ATEL service provider certificate are limited to the services authorised by the certificate and the appropriate specifications set out in Document NAM-CATS-ATEL.

**SUBPART 3
GENERAL REQUIREMENTS FOR PROVISION OF AERONAUTICAL
TELECOMMUNICATION SERVICES**

Manual of procedures

171.03.1 The holder of an ATEL service provider certificate must at all times, maintain a manual of procedures that -

- (a) complies with the requirements of this Part and of Part 170; and
- (b) contains the information set out in Document NAM-CATS-ATEL.

ATEL organisation

171.03.2 An ATEL service provider must, at all times, maintain an appropriate organisation with a sound and effective management structure to enable it to provide, in accordance with requirements prescribed in this Part and the requirements set out in Document NAM-CATSATEL, the aeronautical telecommunication (ATEL) services covered by its certificate.

Personnel requirements

171.03.3 (1) An ATEL service provider must engage, employ or contract sufficient, competent and qualified personnel as required under Part 170, to provide the ATEL services required under this Part.

- (2) In relation to the personnel referred to subregulation (1), an ATEL service provider must -
- (a) provide them with appropriate trainings; and
 - (b) certify them as air traffic electronic safety personnel (ATSEP) with written evidence of the scope of their authorisation before they can exercise their duties.

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(3) An ATEL service provider must engage or contract, competent and qualified personnel as required under Part 170, to perform the installation, commissioning, operation, maintenance and decommissioning of communications, navigation and surveillance (CNS) facilities.

(4) An ATEL service provider must provide in its manual of procedures, an analysis of the ATSEP required to perform the ATEL services listed in its certificate taking into account the duties and workload required.

(5) An ATEL service provider must -

- (a) define a method for determining the required number of ATSEP and the procedure for their recruitment and progression; and
- (b) develop and include in its manual of procedures, job descriptions for ATSEP involved in the provision of ATEL services.

Training and certification of ATEL personnel

171.03.4 (1) An ATEL service provider must ensure that a person does not perform a function related to the installation, commissioning, operation, maintenance or decommissioning of any CNS system unless -

- (a) that person has successfully completed training in the performance of that function;
- (b) the ATEL service provider, with supported documentation, is satisfied that the person is competent in performing that function; and
- (c) that person has been certified as an ATSEP with written evidence of the scope of his or her authorisation before the person can exercise his or her duties

(2) An ATEL service provider must -

- (a) develop an overall training policy, programme and plan for the ATSEP in accordance with regulation 170.05.4; and
- (b) maintain individual training records for each of its ATSEP in accordance with regulation 170.05.4.

(3) An ATEL service provider must develop a training programme with initial qualification and continuation training for certification of the ATSEP personnel to ensure that all those engaged in the installation, commissioning, operation, maintenance, inspection or decommissioning of CNS facilities are appropriately authorised or certified.

ATEL facilities, equipment, tools, material and procedures

171.03.5 Before issuing a certificate to an ATEL service provider, the Executive Director must satisfy himself or herself that the service provider's facilities, equipment, tools, material and procedures meet the requirements of this Part and Subpart 5 of Part 170.

Services records

171.03.6 (1) An ATEL service provider must keep adequate records of all services performed on its facilities and equipment.

- (2) The records referred to in subregulation (1) must
 - (a) indicate the name of each person who performed the work;
 - (b) indicate the name of each person who inspected the work; and
 - (c) be retained for five years from the date on which the facility to which the work relates, was released to service.

(3) An ATEL service provider must provide a copy of each certificate of release to service together with a copy of any specific facility specification used for repairs or modifications carried out, to the operator of the facility.

(4) An ATEL service provider must establish a procedure for recording maintenance details and for the retention of such maintenance records.

ATEL facility requirements

171.03.7 (1) An ATEL service provider must ensure that -

- (a) each aeronautical telecommunication (ATEL) facility listed in its manual of procedures -
 - (i) is designed and installed in accordance with the provisions of Part 139 relating to the siting and construction of equipment and installations on operational areas;
 - (ii) is commissioned to meet the applicable operational specifications for that facility;
 - (iii) conforms to the applicable system characteristics and specifications standards set out in NAM-CATS-ATEL;
 - (iv) is operated, maintained, available and reliable in accordance with the required standards; and
 - (v) has been allocated an identification code or call sign, if a code or call sign is required under this Part;
- (b) information on the operational status of each ATEL facility listed in its manual of procedures, that is essential for the en-route, approach, landing, and take-off phases of flight is provided to meet the operational needs of the service being provided;
- (c) each ATEL facility listed in its manual of procedures is installed with suitable power supplies and means to ensure continuity of operation appropriate to the needs of the air traffic service or radio navigation service being supported;

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- (d) each ATEL facility listed in its manual of procedures is provided with equipment redundancy or increased maintenance staffing to ensure reliability and availability of operation appropriate to the needs of the air traffic service or radio navigation service being supported;
- (e) each ATEL facility listed in its manual of procedures has sufficient and suitable spares to ensure continuity of operation appropriate to the needs of the air traffic service or radio navigation service being supported;
- (f) a security programme required under regulation 170.04.12 is established for each facility to minimise any risk of destruction of, damage to, or interference with the operation of the facility; and
- (g) any critical site area of any ATEL facility listed in its manual of procedures is -
 - (i) clearly identified on the site drawings for the ATEL facilities; 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.

(2) An ATEL service provider who intends to operate a temporary ATEL facility to carry out site tests must establish a procedure for conducting those tests in accordance with regulation 171.04.4.

Documents and records to be maintained

171.03.8 (1) An ATEL service provider must hold and maintain the following documents:

- (a) any technical manual used by the service provider at the facility; and
 - (b) any documents of a kind listed in Document NAM-CATS-ATEL that relate to the provider's service.
- (2) For the purpose of subregulation (1)(a), a technical manual means -
- (a) a document, other than the manual of procedures, that contains technical information about the operation and maintenance of a facility; and
 - (b) document or documents that may have been created by the equipment or facility of the manufacturer.
- (3) An ATEL service provider must ensure that -
- (a) a master copy of each document mentioned in this regulation is kept safely;
 - (b) copies of documents are kept in a form that enables amendments to be made; and
 - (c) any document that has been replaced cannot be used by mistake.

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- (4) An ATEL service provider must retain each document that -
- (a) is given to, or is created by or for, contracted service providers;
 - (b) relates to aviation safety; and
 - (c) provides a history of events that relate to the design, installation, testing, operation, maintenance, modification or repair of, or changes to, each facility.

(5) A “document” for purposes of this Part includes any record of a kind mentioned in this Part and Document NAM-CATS-ATEL that is given to, or created by the ATEL service provider for use in the provision of services.

(6) A document retained under this regulation must be stored so it can be retrieved if needed for the period prescribed in regulation 170.05.6.

(7) An ATEL provider must establish a procedure for the control of the documentation required under this regulation and Part 170.

ATEL facility performance

171.03.9 An ATEL service provider must establish a procedure to ensure that no ATEL facility listed in its manual of procedures is placed into operational service unless -

- (a) the person placing the ATEL facility into operational service is assessed as competent and authorised according to the procedures required under regulations 170.05.4 and 171.03.4;
- (b) the appropriate checks detailed in the operating and maintenance instructions required under this Part have been carried out to verify the performance of the ATEL facility; and
- (c) the ATEL facility record has been completed according to the procedures required under regulation 171.03.8.

Inspection, measuring and test equipment

171.03.10 (1) An ATEL service provider must satisfy the Executive Director that it has the equipment, tools and material necessary to perform adequately the approved scope of work as required by the applicable equipment specifications, its manuals, and the regulations in this Part.

(2) An ATEL service provider must ensure that appropriate inspection tools, measuring and test equipment are available for the ATSEP to maintain the operation of each ATEL facility listed in its manual of procedures.

(3) An ATEL service provider must establish a procedure to control, calibrate, and maintain all the inspection tools, 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.

(4) The procedure required under subregulation (3) must require that each item of test equipment required for the measurement of critical performance parameters is -

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- (a) calibrated before use or at intervals set out in Document NAM-CATS-ATEL or by the Executive Director with the calibration traceable to an appropriate Namibian standard issued under the Standards Act, 2005 (Act No. 18 of 2005);
- (b) identified with a suitable indicator to show its calibration status; and
- (c) controlled to -
 - (i) safeguard against adjustments that would invalidate the calibration setting; and
 - (ii) ensure that the handling, preservation, and storage of the test equipment are such that its accuracy and fitness for use is maintained.

(5) If hardware and software systems are used for the performance testing of any ATEL facility, the procedures under subregulation (3) must require the functions of those testing systems to be checked

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- (a) before being released for use; and
- (b) at intervals set out in Document NAM-CATS-ATEL or as determined by the Executive Director,

to establish that those testing systems are capable of verifying the true performance of the ATEL facility.

Notification of ATEL facility status

171.03.11 (1) A person operating an ATEL facility must, as soon as possible -

- (a) forward to the aeronautical information services (AIS) -
 - (i) information on the operational details of any new ATEL facility, for publication in the aeronautical information publication; and
 - (ii) information concerning any change in the operational status of any existing ATEL facility, for the issue of a NOTAM;
- (b) check and ensure that the information forwarded to the AIS under paragraph (a) has been accurately published; and
- (c) notify the Executive Director, as appropriate, of any incidents affecting the status of published information.

(2) An ATEL service provider must establish a procedure to ensure that the requirements of subregulation (1) are met for each applicable ATEL facility listed in its manual of procedures.

(3) The procedure required under subregulation (2) must include a means to confirm that

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- (a) the operational details of the ATEL facility as notified to the AIS have been accurately published in the AIP; and

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- (b) any change to the operational status of the ATEL facility has been published by a NOTAM.

Interruption to services

171.03.12 An ATEL service provider must -

- (a) establish procedures to be used in the event of interruption to CNS facilities;
- (b) establish procedures to be used when upgrading CNS facilities; and (c) specify an acceptable recovery time for each service.

Periodic maintenance, inspection and testing

171.03.13 (1) An ATEL service provider must establish a procedure for the periodic maintenance, inspection and testing of the ATEL facilities listed in its manual of procedures to verify that each facility meets the applicable operational requirements and performance specifications for that facility.

- (2) The procedure required under subregulation (1) must -
 - (a) include ground maintenance, inspections and tests, and if necessary flight tests;
 - (b) include the criteria for establishing or changing the interval between the periodic tests for each ATEL facility listed in the manual of procedures, having regard to -
 - (i) any applicable information published by the Executive Director;
 - (ii) any applicable reliability data for the ATEL facility; and
 - (iii) information on the proven reliability performance of the ATEL facility, and of other similar aeronautical facilities, and the stability of the ATEL facility's operating environment; and
 - (c) ensure that the grounds for establishing or changing the interval between the periodic tests for each ATEL facility listed in the manual of procedures are documented.
- (3) An ATEL service provider must establish a programme of periodic -
 - (a) ground maintenance, inspections and tests for each ATEL facility listed in its manual of procedures;
 - (b) flight tests for each ATEL facility listed in its manual of procedures; and
 - (c) ground check and flight tests for each radio navigation aid listed in its manual of procedure in accordance with the maximum periodicity requirements specified in subregulation (4).

(4) The maximum periodicity of ground check and flight tests of radio navigation aids referred to in subregulation (3)(c) are as follows:

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- (a) Conventional Very High Frequency Omni-directional Range (CVOR) must be ground-checked once in six months and flight tested once in 12 months;
 - (b) Doppler Very High Frequency Omni-directional Range (DVOR) must be groundchecked once in six months and flight tested once in 12 months;
 - (c) Distance Measuring Equipment (DME) must be ground-checked once in six months and flight tested once in 12 months; and
 - (d) Instrument Landing System (ILS) must be ground-checked once in three months and flight tested once in six months.
- (5) An ATEL service provider must publish a NOTAM and notify the Executive Director of any radio navigation aid that has not undergone the scheduled periodic flight tests.

ATEL facility check after accident or incident

171.03.14 (1) An ATEL service provider must establish a procedure to check and accurately record the operating condition of any ATEL facility operated under its certificate that may have been used by an aircraft, or an air traffic service, that is involved in an accident or incident.

- (2) The procedure required under subregulation (1) must require that
 - (a) a person is designated by the service provider to coordinate the checks; (b) the persons carrying out the checks required in paragraph (a) must not include anyone who was the last person to work on the facility;
 - (c) the checking of the ATEL facility's operating condition is carried out as soon as possible after notification of the accident or incident to the holder of the ATEL service provider certificate;
 - (d) the record of that check, and the recorded history of the ATEL facility, is kept in a secure place for possible use by any subsequent accident or incident investigation; and
 - (e) the records required to be secured under paragraph (d) are retained for 10 years from the date of the last entry made on that record.

Facility malfunction and safety incidents

171.03.15 (1) An ATEL service provider must establish procedures for the reporting, collection, investigation and notification of facility malfunction and safety incidents.

(2) The procedures for notification required by subregulation (1) must include a procedure for notifying the Executive Director, as soon as possible, of any facility malfunction and safety incidents.

(3) The ATEL service provider must periodically compile and review reports of facility malfunctions and safety incidents in accordance with subregulation (1) to -

- (a) determine the cause of the incidents and determine any adverse trends;

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- (b) implement corrective and preventive actions to eliminate the cause of a facility malfunction incident and prevent recurrence of the incidents; and
- (c) implement any measures to improve the safety performance of the CNS systems.

(4) The ATEL service provider must report any serious service failure or safety incident to the Executive Director for investigation in order to understand how and why the incident happened, including possible organisational contributing factors and to recommend actions to prevent a recurrence.

Records maintenance procedures

171.03.16 (1) An ATEL service provider must establish procedures to identify, collect, index, store, maintain, and dispose of the records covering -

- (a) the performance and maintenance history of each ATEL facility;
- (b) the establishment of the periodic test programmes for each ATEL facility;
- (c) each item of test equipment required for the measurement of critical performance parameters;
- (d) each reported or detected ATEL facility malfunction;
- (e) each internal quality assurance review; and
- (f) each person who is authorised to place ATEL facilities into operational service.

(2) The procedures required under subregulation (1) must require that accurate records of the following are maintained:

- (a) for each ATEL facility, a record -
 - (i) documenting the operating performance of the ATEL facility; and
 - (ii) providing a history of the maintenance, and the periodic inspections and tests of the ATEL facility, that are traceable to the person or persons responsible for each of the recorded activities;
- (b) for each ATEL facility, a record of the establishment of, or a change in, the periodic tests required under this Part;
- (c) for each item of test equipment that is used for the measurement of an ATEL facility's critical performance parameters, a record that includes a traceable history of the location, maintenance, and the calibration checks for the item of test equipment;
- (d) for each ATEL facility malfunction incident reported, a record that includes -
 - (i) details of the nature of the malfunction;
 - (ii) the findings of the investigation;

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- (iii) the follow up corrective actions; and
 - (iv) if applicable, a copy of the report submitted to the Executive Director;
- (e) for each person who is authorised in accordance with this Part to place ATEL facilities into operational service, a record that includes details of the person's experience, qualifications, training, competence assessments, and current authorisations.
- (3) The procedures required under subregulation (1) must require -
- (a) all records to be legible and of a permanent nature; and
 - (b) all ATEL facility records required under subregulation (2)(a) to be retained for a period of at least five years.

Quality management system

171.03.17 An ATEL service provider must establish -

- (a) a quality management system in accordance with regulation 170.04.9;
- (b) a quality assurance system for the control, supervision and the management of ATEL services that it provides in accordance regulation 170.04.9.

Security programme

171.03.18 An ATEL provider must, if so required under the Act or these regulations, establish a security programme referred to in regulation 170.04.12, in accordance with the standards set out in Document NAM-CATS-ATEL.

Common reference systems for use in ATEL

171.03.19 Subject to any standard units of measurement prescribed under Part 2, an ATEL service provider must use -

- (a) the Gregorian calendar and Coordinated Universal Time (UTC) expressed in hours' minutes and seconds of the 24-hour day where midnight is designated as 2400 for the end of the day and 0000 for the beginning of the day, as the temporal reference system;
- (b) Mean Sea Level (MSL) as the vertical reference system; and
- (c) World Geodetic System: 1984 (WGS-84) as the horizontal (geodetic) reference system.

**SUBPART 4
OPERATING REQUIREMENTS****Continued compliance**

171.04.1 An ATEL service provider must -

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- (a) continue to meet the standards and comply with the certification requirements prescribed in this Part and Part 170;
- (b) continue to meet the requirements of this Part and the standards for communication, navigation and surveillance systems; and
- (c) comply with all procedures specified in its manual of procedures and associated technical manuals and procedures.

Operating and maintenance instructions

171.04.2 (1) An ATEL service provider must -

- (a) have operating and maintenance instructions that set out the requirements for operating and maintaining each ATEL facility listed in its manual of procedures; and
- (b) provide the operating and maintenance instructions required under paragraph (a) for the use and guidance of its personnel.

(2) The operating and maintenance instructions required under subregulation (1)(a) must include -

- (a) details of the critical performance parameters for each ATEL facility;
- (b) the associated minimum performance levels for those critical performance parameters referred to in paragraph (a);
- (c) details of the test equipment required for the measurement of those critical performance parameters referred to in paragraph (a); and
- (d) details of the mandatory inspection and test procedures for the operation and maintenance of each ATEL facility.

Deviations

171.04.3 (1) If an emergency, including a disruption, necessitates immediate action for the protection of life, property and the environment and the action involves an aircraft operation, the holder of an ATEL service certificate may, subject to limitations of its certificate, deviate from any requirement of this Part.

(2) The holder of an ATEL service certificate who deviates from a requirement of this Part under subregulation (1) must -

- (a) provide a written report to the Executive Director as soon as possible, but in any event not later than 14 days, after the emergency; and
- (b) include in the report required under paragraph (a) the cause, if known, nature, extent, and duration of the deviation.

Temporary ATEL facility

171.04.4 If a temporary ATEL facility is operated for the purpose of a site test, an ATEL service provider is not required to comply with certification requirements of Subpart 3, except that the ATEL service provider must -

- (a) establish procedures for conducting those tests;
- (b) ensure that the operation of the facility does not cause interference with any other operating ATEL facility;
- (c) forward information regarding operation of the temporary facility to the AIS for the issuance of a NOTAM; and
- (d) ensure that an appropriate NOTAM has been published before operating the temporary facility.

Limitations on ATEL service provider

171.04.5 (1) Except for the operation of a temporary ATEL facility for site tests, an ATEL service provider may not permit an ATEL facility to continue in operational service if the provider has any cause to suspect or doubt the integrity of the information being provided by the facility.

(2) An ATEL service provider may not operate a radio transmitting ATEL facility on an aeronautical radio frequency except under a radio apparatus licence granted by CRAN.

(3) Except where a deviation is required under or a site test is carried out according to the procedures required under this Part, an ATEL service provider may not operate an ATEL facility under the authority of that certificate unless -

- (a) the ATEL facility is listed in the service provider's manual of procedures;
- (b) the performance of the ATEL facility meets the applicable information published for that facility under this Part and in Document NAM-CATS-ATEL;
- (c) the performance of the ATEL facility meets the applicable requirements of this Part and of Document NAM-CATS-ATEL;
- (d) any integrity monitoring system for the ATEL facility is fully functional;
- (e) all the periodic maintenance for the ATEL facility are completed according to the programmes established under this Part;
- (f) the ATEL facility is included in the service provider's security programme;
- (g) the destruction, damage, or interference with the ATEL facility is not likely to endanger the safety of an aircraft in flight; and
- (h) where paragraph (f) applies, the requirements of the security programme for the ATEL facility are being complied with.

Interface arrangement for support services

171.04.6 An ATEL service provider must formalise interface arrangements where applicable with external organisations in the form of service level agreements, detailing the following:

- (a) the interface and functional specifications of the support service;
- (b) the service level of the support service such as continuity, availability, accuracy, integrity and recovery time of failure of service; and
- (c) the monitoring and reporting of the operational status of the service to the service provider.

Operation and maintenance plan

171.04.7 (1) An ATEL service provider must establish an overall operation and maintenance programme to ensure continuous operation and monitoring of the ATEL services it provides.

- (2) All ATEL facilities must -
 - (a) be maintained for normal operations on a routine basis;
 - (b) meet the required level of continuity, reliability and availability;
 - (c) provide for the timely and appropriate detection and warning of system failures and degradations;
 - (d) include documentation on the consequences of system, sub-system and equipment failures and degradations; and
 - (e) include measures to control the probability of failures and degradations.
- (3) In addition to the overall operation and maintenance programme, the ATEL service provider must establish an operation and maintenance plan for each facility which must include -
 - (a) a procedure for the periodic maintenance, inspection and testing of each ATEL facility to verify that it meets the operational and performance specifications of that facility;
 - (b) details of any flight test, if necessary, such as the standards and procedures to be used and flight test interval;
 - (c) the interval between the periodic maintenance, inspection and the flight test and the basis for that interval including changes to such interval and the reasons for the changes;
 - (d) the operation and maintenance instructions for each ATEL facility;
 - (e) an analysis of the number of personnel required to operate and maintain each ATEL facility taking into account the workload required;

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- (f) the corrective plan and procedures for each ATEL facility, including, whether the repair of modules and component are undertaken in-house or by equipment manufacturers; and
- (g) the spare support plan for each ATEL facility.

(4) Where the system established by the ATEL service provider allows for continuous monitoring of all CNS systems from a centralised management control room which allows for immediate detection and alerting of malfunctions or deviations from specified performance requirements, the routine ground testing of the ATEL facilities may not be necessary.

Safety case

171.04.8 An ATEL service provider must ensure that a safety case, or equivalent, is conducted for critical systems before commissioning and periodic maintenance in accordance with the requirements set out in Document NAM-CATS-ATEL.

Commissioning of new facilities

171.04.9 (1) An ATEL service provider must ensure that each new ATEL facility is –

- (a) commissioned to meet the specification standards for that facility; and
- (b) installed in compliance with the requirements prescribed in this Part and the specification standards set out in Document NAM-CATS-ATEL before commissioning.

(2) The ATEL service provider must ensure that the system performance of the new ATEL facility has been validated by the necessary tests, and that all parties involved with the operations and maintenance of the ATEL facility, including its maintenance contractors have accepted and are satisfied with the results of the tests.

(3) The ATEL service provider must ensure that procedures include documentation of tests conducted on the ATEL facility prior to the commissioning, including those that test the compliance of the facility with the applicable standards set out in Document NAM-CATS-ATEL and any flight check required in compliance with this Part.

Radio site approval

171.04.10 (1) A person may not install a radio site, unless that person has obtained the prior approval of the Executive Director to do so.

(2) An application to install a radio site must be submitted to the Executive Director in accordance with requirements set out in Document NAM-CATS-ATEL.

(3) The Executive Director must grant a certificate of approval if the Executive Director is satisfied -

- (a) as to the intended purpose of the equipment; and
- (b) that the person or organisation is competent to install or operate the equipment and that the equipment is fit for its intended purpose.

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(4) The person applying for an approval must notify the Executive Director of the type, and availability, of any service which is available for use by any aircraft.

(5) The Executive Director may approve a person or organisation to provide particular services in connection with approved equipment.

(6) The Executive Director may require the flight calibration and commissioning of such equipment by an authorised person or organisation.

(7) The Executive Director may require that the information in subregulation (4) be published in a NOTAM or in the AIP.

Frequencies, identification codes and call signs

171.04.11 (1) A person may not operate -

- (a) a radio navigation aid, unless the radio navigation aid has been assigned an operating frequency and identification code by the Executive Director;
- (b) a radio communication transmitter on an aeronautical radio frequency spectrum, unless it has been assigned an operating frequency and call sign by the Executive Director,

and a radio apparatus licence has been granted by CRAN.

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

Protection of radio sites

171.04.12 (1) A radio site must be protected in accordance with requirements set out in Document NAM-CATS-ATEL.

(2) A person may not allow a structure or object, whether natural or artificial, which has the potential of interfering or degrading radio signals for the purpose of aviation safety, to come in existence or to move or be moved within the surfaces and slopes of radio navigation aids sites.

Interference with radio signals

171.04.13 (1) An ATEL provider must notify the Executive Director as soon as possible, of any electromagnetic interference to any facility providing radio signals, or any source of interference degrading radio signals.

(2) The Executive Director must upon being notified of the interference with radio signals in terms of subregulation (1), require CRAN to investigate, or cause to be investigated, all reports of interference, and may require further action to be taken.

(3) The ATEL service provider must ensure that -

- (a) there is no intentional transmission of unnecessary or anonymous radio signals, messages or data by any of its radio stations;

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- (b) arrangements are made with CRAN to address occurrence of radio frequency interference and for reporting of any frequency interference occurrence; and
- (c) radio frequency interference occurrences are investigated and follow-up actions are taken to prevent recurrence.

Information provided by ATEL facility

171.04.14 A person may not allow a facility providing radio signals for the purpose of aviation safety to continue in operation, if there is any reasonable cause to suspect that the information being provided by that facility is erroneous.

Test transmissions

- 171.04.15** (1) An ATEL service provider may make a test transmission if
- (a) the transmission is necessary to test a service, ATEL facility or equipment; and
 - (b) within a reasonable time before commencing the transmission, the users have been informed about the transmission.
- (2) An ATEL service provider must ensure that -
- (a) no test transmission for the purpose of evaluating a radio site, or the operational viability of an ATEL facility or equipment, for the purpose of aviation safety, is done without the prior approval of the Executive Director;
 - (b) the Executive Director is notified as to the purpose and duration of such test transmission;
 - (c) the test transmission contains information indicating that it is a test transmission and complies with any requirements set out in Document NAM-CATS-ATEL;
 - (d) frequencies allocated for the purpose of testing are valid for the duration of the test only; and
 - (e) the operation of a temporary ATEL facility does not cause any interference with any other operational facility.

Safety management system

171.04.16 An ATEL service provider must establish, implement, and maintain a system for safety management in accordance with Part 170.

Station (site) logs

171.04.17 An ATEL service provider must keep site logs for all facilities used to provide an ATEL service or a radio navigation service as set out in Document NAM-CATS-ATEL.

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**SUBPART 5
STANDARDS FOR ATEL FACILITIES AND SERVICES****Radio navigation aids**

171.05.1 (1) An ATEL service provider must ensure that radio navigation aids used for air navigation comply with the specification standards set out in Document NAM-CATSATEL.

(2) An ATEL service provider must observe human factor principles in the design and certification of radio navigation aids.

Communication procedures including those with PANS status

171.05.2 An ATEL service provider must ensure that communication procedures including those with Procedures for Air Navigation Services (PANS) status comply with the specification standards set out in Document NAM-CATS-ATEL.

Communication systems

171.05.3 (1) An ATEL service provider must ensure that digital data communication systems provided for use in air navigation comply with specifications standards set out in Document NAM-CATS-ATEL.

(2) An ATEL service provider must ensure that voice communication systems provided for air navigation including air-to-ground, ground-to-air and ground-to-ground communication systems comply with specification standards set out in Document NAM-CATS-ATEL.

(3) An ATEL service provider must observe human factor principles in the design and certification of communication systems.

Surveillance and collision avoidance systems

171.05.4 (1) An ATEL service provider must ensure that surveillance and collision avoidance systems provided for air navigation comply with specification standards set out in Document NAM-CATS-ATEL.

(2) An ATEL service provider must observe human factor principles in the design and certification of surveillance and collision avoidance systems.

Aeronautical radio frequency spectrum utilisation

171.05.5 An ATEL service provider must ensure that the utilisation of aeronautical radio frequency spectrum in air navigation complies with specification standards set out in Document NAM-CATS-ATEL.

Other facilities used to provide ATS, MET, AIS, SAR and PANS-OPS

171.05.6 An ATEL service provider must ensure that all facilities used to provide ATS, AIS, SAR, MET and PANS-OPS comply with specification standards set out in Document NAM-CATS-ATEL.