OVERSEAS TERRITORIES AVIATION REQUIREMENTS (OTARs)

Part 171

AERONAUTICAL TELECOMMUNICATION SERVICES

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Revisions

OTAR Issue	Subject
Issue 1	First issue published for information.
Issue 2	Second issue released for gazetting, with minor amendment to introductory text.
Issue 3	Change to 171.1 to clarify applicability where Territory is subject to AN(OT)O 1989. Amplification of maintaining recordings of RTF messages.
Issue 4	Updating of references to legislation in Subpart A, including removal of reference to Gibraltar, and additional requirements for compliance with ICAO Annex 10 in 171.59. Amplification of the Safety Management System requirement. Minor editorial changes and correction of error in sense of 171.67.
Issue 5	This issue incorporates the requirements for aviation security with effect from 1 April 2015, plus an amendment to 171.9 regarding practical demonstrations and tests.
Issue 6	Complete rewrite to re-align to ICAO Standards and Recommended Practices (SARPs) and ASSI policy.

Contents

Subpart A — General

171.1 Purpose

(a) These requirements are not in themselves Law. Failure to comply may not constitute an offence. However, the Requirements repeat or reproduce many of the provisions of the Air Navigation (Overseas Territories) Order ("the Order"), including the Rules of the Air set out in the Order. Therefore, failure to comply with these Requirements may:

(1) constitute a breach of the Order; and

(2) result in proceedings for breaches of the Order; or

(3) result in the refusal of an application for renewal of a certificate or licence; or

(4) result in action to suspend or revoke a certificate or licence.

(b) The Order details the legal obligations governing the provision of aeronautical telecommunication services. The Order specifies these obligations in general terms, therefore there is a provision in the Order which requires the Governor to publish Requirements to augment, amplify and detail more precisely the manner in which these obligations shall be met.

(c) The issue of an approval does not relieve the provider from the responsibility for compliance with the Order and any other legislation in force.

(d) Other OTAR Parts may impinge upon activities conducted under this Part. Part 1 contains definitions which apply, unless otherwise stated, to all Parts. A full list of OTAR Parts, a description of the legislative structure and the place of OTARs and OTACs within it can be viewed on the ASSI website www.airsafety.aero.

(e) References to the Governor in this OTAR Part mean the regulator designated by the Governor of the Territory to exercise his functions under the Order.

(f) An applicant may use third parties to partially meet the Requirements of this Part. In such cases it becomes a legal obligation upon the applicant to satisfy himself as to compliance with the Requirements of this Part and are subject to audit and acceptance by the Governor.

171.3 Use of English

All documentation, written communications and data (electronic or otherwise) for submission to the Governor in support of an application for an approval shall be provided in English.

171.5 Laws, regulations and procedures

(a) An approval holder shall ensure that all persons employed, engaged, or contracted by the holder to perform safety-related activities, are familiar with the appropriate sections of legislation, the Overseas Territories Aviation Requirements, any applicable conditions on the approval and the procedures specified in the approval holder's exposition.

(b) The Governor shall possess the aeronautical telecommunication exposition in force and shall be notified of any planned changes that will impact on contents of exposition for acceptance before being put into effect.

171.7 Procedure compliance

A person performing duties in relation to an approval shall conform with the approval holder's exposition.

171.9 Power to inspect

(a) An approval holder shall ensure that any person authorised by the Governor is allowed on an aerodrome.

(b) An approval holder shall ensure that any person authorised by the Governor shall have access to any documentation relating to compliance with this part within a reasonable period of time.

(c) On request by the Governor an aerodrome certificate holder or operator and aeronautical telecommunication service provider approval holder within a reasonable time shall conduct a practical demonstration or test to verify compliance with the OTARs.

171.11 Application for approval

The organisation seeking Approval as an aeronautical telecommunication service provider shall apply to the Governor with an Aeronautical Telecommunications Service Exposition.

171.13 Privileges

An Approval holder may provide the aeronautical telecommunication service/s specified by and in accordance with the Approval without recourse to the Governor.

171.15 Duration of approval

The approval remains in force unless it is suspended or revoked.

171.19 Exceptions

A person operating aeronautical telecommunication equipment on a test basis is exempt from holding an approval providing:

(1) it is not used in relation to any air traffic service or interacts with any operational aeronautical system; and

(2) it complies with subpart 171.59 (Radio Spectrum); and

(3) the intent and period are accepted and notified to the Governor.

Subpart B — Approval Requirements

171.51 Aeronautical telecommunications exposition

(a) An aeronautical telecommunication exposition is a single and comprehensive testimony of compliance with this Part valid for the duration of Approval.

(b) The aeronautical telecommunications exposition shall be readily accessible to all persons whose duties relate to compliance with this Part.

171.53 Accountable person

A person shall be appointed with whom there is documented, traceable and verifiable accountability to all points of action relating to this Part with specific:

(1) accountability to the Governor in relation to compliance with this Part; and

(2) authority to manage organisation/s relating to the provision of aeronautical telecommunication services; and

(3) controls to ensure the personnel and equipment necessary for compliance with this part; and

(4) duty to ensure continued compliance with this Part; and

(5) duty to ensure that all staff have the freedom to escalate any issue relating to compliance and or safety; and

(6) duty to ensure that maintenance, repair, modification or otherwise are prioritised in the interests of compliance with this Part; and

(7) authority for service status determination; and

(8) accountability to human factors engineering; and

(9) responsibility to ensure that all personnel are committed to air traffic safety notwithstanding the functions of the Safety Management System.

171.55 Operational requirements

(a) An operational requirement shall be produced to establish the functions and performances that the aeronautical telecommunication system/s must continually meet.

(b) The operational requirement shall comprise the air traffic service functions and where relevant metrics to scale those functions. This may include the necessity to define other systems or services that it is necessary to interface or be compatible with. An operational requirement may include, but is not limited to: hours of operation; movement rates; aircraft types (eg medium, heavy, light); aviation operations (eg private, commercial, pleasure); radio telephony services (eg Approach, Tower, Ground, etc); IFPs (eg routes, STARs, SIDs, APCH); operational redundancy (eg VOR

and RNP); airspace/service volume and density (eg movement rate); Air Traffic Service Type and Providing Organisation; staff availability; environment (eg working temps, humidity, etc).

(c) All safety hazards in the operational domain (also terms generic hazard or top-level hazard) attributable to the air traffic service/s cited in OTAR Subpart 171.55(a) shall be established and collated for the purposes of equipment causal risk analysis under OTAR Subpart 171.57(c).

(d) There shall be an account of how the aeronautical telecommunication system/s meet the operational requirement with regards to function and configuration The operational performance criteria for aeronautical telecommunication system/s, notwithstanding those cited in OTAR Subpart 171.57(b), eg functions, channels, availability, continuity, integrity, range, number of channels, resourcing, single mode failure avoidance, etc.

171.57 System performance

(a) There shall be a document uniquely identifying all aeronautical telecommunication equipment and, where applicable, accompanied with evidence of compliance with ICAO Annex 10 standards and recommended practices.

(b) There shall be a document providing evidence that the aeronautical telecommunication service composition and architecture meets the operational requirement (OTAR Subpart 171.55) including a diagram of interconnected functional blocks with third party inputs and ownerships identified (eg power, information, communication, etc).

(c) A risk analysis shall be conducted and maintained to continually demonstrate that (under OTAR Subpart 171.75) all aeronautical telecommunication service (including systems, processes, maintenance) failure modes that could cause the hazards derived under OTAR Subpart 171.55 (b) are addressed and safety critical components identified. ICAO Annex 10 Volume 1 Attachment F Guidance provides guidance on deriving reliability and availability.

(d) All aeronautical telecommunication system, configuration, installation and testing reference documentation shall remain available and be managed under the Quality Management System.

(e) The build state and modification of all equipment comprising the Aeronautical Telecommunication systems shall be managed by the Quality Management System.

(f) Human factors engineering shall be applied in the total system design stage to ensure that human operations can be conducted and are maintained in a safe, comfortable and effective manner. This shall include a regard to:

(1) workable procedures; and

(2) equipment layout; and

(3) environment; and

(4) information; and

(5) human error resistance.

(g) Measures shall be implemented to address security threats identified under Subpart 171.69.

(h) Where aeronautical telecommunications performance can be changed by the presence of objects in relation to the site (ie critical, sensitive areas; vehicular traffic, buildings, foliage), obstacle preventative management shall be established and implemented.

(i) Any system modification shall require validation against every part of this OTAR and the instigation of changes as necessary.

(j) Where a system or parts thereof are activated for test only purposes the requirements of this part shall be complied with as far as is reasonably practicable as agreed by the Governor and applicable provision are made to prohibit operational use and or interference with operational services.

171.59 Designators

Where the site of an aeronautical telecommunication station is an air traffic service significant point, application shall be made to the Governor for the prescription of a designator (ICAO Annex 11, Chapter 2, Paragraph 2.14).

171.61 Radio Spectrum

(a) A licence granted by the regional Radiocommunication Agency shall be held for the frequency allocated by the Governor and there shall be no deviation from the radiation characteristics prescribed with the allocation nor the utilisation standards in ICAO Annex 10, Volume 5.

(b) There shall be procedures for the capture, analysis and elimination or mitigation of electromagnetic interference impacting on or caused by aeronautical telecommunication service performance and shall subsequently be reported to the Governor.

171.65 Organisation

(a) The operation and/or maintenance of aeronautical telecommunication equipment shall be managed through an organisation clearly described with regards to number of personnel, reporting chains, scope of organisational responsibilities, resources and facilities.

(b) There shall be a documented method for ensuring that the availability of authorised staff responsible for the installation, operation and maintenance of aeronautical telecommunication equipment does not fall below a level necessary to meet the performance requirements of OTAR Subpart 171.57.

(c) There shall be a method for:

(1) ensuring that staff are qualified, trained and experienced to discharge functions relating to this Part; and

(2) prescribing explicit authorisations to staff that specify the scope permitted functions and any conditions or restrictions; and

(3) maintaining records of staff qualifications, training and experience; and

(4) ensuring continued competence through regular assessment.

(d) Initial and recurrent personnel training shall include a detailed explanation of operation and maintenance procedures and their effect on system integrity and a proficiency in safety management systems, quality management systems and human factors.

(e) Operational ATC personnel shall not be able to interfere with the operation of the original an automatic voice recorder nor the records accumulated therein.

171.63 Maintenance Management System

(a) A maintenance management system shall be established to secure, validate, apply and monitor the resources necessary for the lifecycle compliance of the Aeronautical Telecommunication System with service requirements.

(b) In complying with Subpart 171.63(a), the maintenance management system shall include:

(1) Identification of the scope of maintenance undertaken by the applicant organisation and separately for any third parties citing the arrangements if so (eg flight testing, calibration, etc); and

(2) Processes to ensure the management of spares including:

(i) suitable environmental conditions; and

(ii) control of spares having a limited lifetime, requiring regular maintenance or calibration; and

(iii) procedures for the installation of modules and return to service; and

(iv) procedures identifying which modules may be repaired on-site and which should be returned to the manufacturer or repair facility.

(3) the identification of tests, measurements and tolerances, measured from ground or air, complying as applicable with:

(i) ICAO Doc 8071; and

(ii) manufacturer’s requirements; and

(iii) those criteria derived specifically for the service and equipment under this Part.

(4) the identification and management of all equipment necessary for the measurement and test of the criteria established under Subpart 171.63(b)(3) including the method for:

(i) storage and use of test equipment in a suitable environment; and

(ii) ensuring the availability of test equipment; and

(iii) managing calibration of test equipment including periodicity and marking.

(5) the establishment of preventative maintenance intervals for equipment consolidated into a preventative maintenance schedule that ensures compliance with the operational requirement and equipment performance requirements.

(6) the instructions for the safe and consistent administration of preventative and corrective maintenance in accordance with this part.

(7) the process for managing corrective maintenance, modification and replacement with regards to triggers, prioritisation, testing, operational status and record keeping.

(8) the process for the capture, retention and analysis of maintenance data and subsequent analysis identifying any degradation of system performance.

(9) the identification of equipment where repair, adjustment, modification or replacement will require special maintenance and potential flight testing prior returning it to service.

(10) the application of human factor engineering to prevent system induced human errors and to ensure the best use of generic human factors, including regard to:

(i) individual workload; and

(ii) interpersonal communication; and

(iii) layout to provide adequate space around operational equipment for maintenance access; and

(iv) workstation design and environment.

(b) a designated workstation and general tools shall be available to enable efficient discharge of the maintenance management system in compliance with this Part.

(c) Any flight checking organisation used in relation to maintenance of aeronautical telecommunications shall be approved by the Governor.

171.67 User Notification

(a) The accountable person shall ensure correct and timely information concerning aeronautical telecommunication systems is promulgated in an Aeronautical Information Publication (AIP) in accordance with Annex 15 (Aeronautical Information Services), and if used in charts, Annex 4 (Aeronautical Charts).

(b) There shall be process for coordinating system status changes with the accountable air traffic service authority in advance for planned maintenance and immediately for unplanned status changes so that it may be promulgated to users directly and/or by NOTAM. Status shall be promptly and efficiently advertised as:

(1) Usable – Unrestricted; or

(2) Usable – Restricted (and conditions stated): or

(3) Unusable.

171.69 Security

The applicant shall establish potential security and cybersecurity threats that negatively impact the operational performance requirements of Subpart 171.57 and implement preventative measures and/or monitors, including those applicable requirements of OTAR Part 178.

171.71 Accidents and Incidents

(a) Where aeronautical telecommunication equipment is proximate to or provides evidence in relation to an accident or incident, all related records must be preserved and protected for a minimum of 90 days unless notified otherwise by the Governor.

(b) Where aeronautical telecommunication equipment is damaged and/or fully or partially causal to an occurrence, evidence shall be gathered through extraordinary means such as special maintenance, retained defective parts, photographs, statements which shall be preserved and protected for a minimum of 90 days unless notified otherwise by the Governor.

(c) When a chronicle of data is beneficial to investigations, or if requested, evidence applicable to the equipment status for a reasonable period before and after the occurrence shall be provided.

(d) Access to aeronautical radiocommunication equipment sites shall be granted to persons investigating accidents or incidents as authorised by the Governor.

171.73 Documentation

(a) All documents shall be accurate and legible.

(b) All standards, requirements, procedures and documents related to this Part shall be controlled so that the correct version can be easily identified and used.

(c) Maintenance records retained for a period, but no less than a year, to permit trend analysis and identification of fault conditions or leading indicators of performance degradation before safety hazards develop.

(d) The build state of all equipment, including test equipment, shall be recorded and the updated whenever modifications or changes are made.

(e) Manuals, commissioning records and system modification records should be kept for the entire life cycle of the aeronautical telecommunication equipment.

(f) Staff records relating to competence shall be maintained and retained for such period that they apply to staff discharging functions.

171.75 Management of quality

(a) The organisational functions that relate to the assurance of safety shall be systematically managed using documented procedures and policies including, but not limited to:

(1) establishment of all job accountabilities and responsibilities traceable to the accountable person;

(2) regular periodic internal audit verifying compliance and knowledge of the aeronautical telecommunication Exposition;

(3) the processes for configuration management in respect of procedures, records, manuals and equipment;

(4) a document control system that applies to all those documents referred in OTAR subpart 171.73 (Documentation) and the aeronautical telecommunication exposition.

171.77 Safety management system

(a) The applicant shall establish a documented safety management system appropriate to the size and complexity of the operation, for the proactive management of safety, that:

(1) integrates the management of operations and technical systems with financial and human resource management and that reflects quality assurance principles; and

(2) includes policy and objectives for continuous improvement to the organisation’s overall safety performance; and

(3) defines clear lines of safety accountability throughout the operator's organisation, including direct accountability for safety on the part of senior management.

(b) The documented safety management system specified in paragraph 171.81(a) shall include:

(1) processes to identify actual and potential safety hazards and assess the associated risks; and

(2) processes to develop and implement remedial action necessary to maintain agreed safety performance; and

(3) provision for continuous monitoring and regular assessment of the appropriateness and effectiveness of the safety performance; and

(4) recurring processes for continuous improvement of the performance of the safety management system.