OVERSEAS TERRITORIES AVIATION REQUIREMENTS (OTARs)

Part 139

CERTIFICATION OF AERODROMES

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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 and other minor editorial changes.
Issue 3	Third issue reflecting amendments to AN(OT)O requirement for certification of aerodromes, incorporation of additional standards of ICAO Annex 14 and minor editorial changes.
Issue 4	Addition of Appendix J Water Aerodromes and associated changes to Subparts A and B. Order of Appendices A & B reversed to improve arrangement.
Issue 5	This issue primarily reflects changes due to Amendment 10 to Annex 14 Vol 1 and Amendment 4 to Annex 14 Vol 2. There are also editorial changes mainly in Subparts B and C to improve readability and in relation to the links to the RFFS requirements in Part 140. Alleviation against certain requirements in Appendix H relating to the siting of non-visual aids has been removed as the compliance date given has passed.
Issue 6	Sixth issue reflects a fundamental revision of the OTAR to reference to the appropriate ICAO Annexes. Additionally, specific requirements applicable to the Territories are set out in 139.29 and Subparts B – E. 139.31 details the basis on which aerodrome reference code is to be calculated. Subpart F – H revises the Water Aerodrome requirements. Subpart I introduces oversight of aviation fuel facilities.
Issue 7	This issue incorporates the requirements for aviation security with effect from 1 April 2015. Inclusion of new Subpart J with requirement for a Runway safety programme.
Issue 8	This issue reflects fundamental revision of the OTAR with editorial and external reference changes. Additionally, Paragraph 139.33 has been edited to mirror Paragraphs in OTARs 140 and 172
Issue 9	This issue reflects revision of the OTAR with editorial changes. It also incorporates the requirements for heliports, aerodrome capacity and Global Reporting Format.
Issue 10	This issue provides clarity on the process for amending the aerodrome certificate. Paragraph 139.39 explains those developments and/or changes which may require the Governor's approval.

Contents

Subpart A – General

139.1 Purpose

(a) This OTAR prescribes the requirements governing the certification, management, operation and maintenance of an aerodrome requiring to be certificated under the Order.

(b) These Requirements are not in themselves Law. Failure to comply may not constitute an offence. However, where the Requirements repeat or reproduce many of the provisions of the Air Navigation (Overseas Territories) Order ("the Order. 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.

(c) The Order details the legal obligations governing the certification of aerodromes but specifies these obligations in rather 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. The Requirements are the means by which the aerodrome operator will be able to satisfy the Governor as to the fulfilment of the obligations in respect of the entitlement to hold and exercise the privileges of an aerodrome certificate.

(d) The issue of a certificate shows only that the holder is considered competent to ensure the safe and secure operation of an aerodrome in accordance with the Aerodrome Manual and, where applicable, the Airport Security Programme. The possession of a certificate, Aerodrome Manual or Airport Security Programme does not relieve the aerodrome certificate holder from the responsibility for compliance with the Order and any other legislation in force. Neither does it relieve them of their responsibility for oversight of any service provider contracted by them to meet the requirements applied to them.

(e) Other OTAR Parts may impinge upon activities conducted under this OTAR. In particular, 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 Overseas Territory Aviation Circulars (OTACs) within it can be viewed on the ASSI website www.airsafety.aero. OTACs relevant to this OTAR can be viewed at: https://www.airsafety.aero/Requirements-and-Policy/OTACs.aspx.

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

139.3 Use of English

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

139.5 Laws, regulations, and procedures

Each holder of a certificate, shall take reasonable care to ensure that all persons employed, engaged, or contracted by the holder to perform aviation-related activities are familiar with the appropriate sections of legislation, the Overseas Territories Aviation Requirements, any applicable conditions on the certificate and the procedures specified in the approval holder's safety assurance documentation or Aerodrome Manual and, where applicable, Airport Security Programme.

139.7 Procedure compliance

Each person performing duties in relation to a certificate shall conform to the applicable procedures specified in the Aerodrome Manual and, where applicable, Airport Security Programme.

139.9 Power to Inspect

(a) The holder of an aerodrome certificate shall ensure that any person authorised by the Governor is allowed access to an aerodrome or place where an aircraft has taken off or landed.

(b) The holder of an aerodrome certificate shall ensure that any person authorised by the Governor shall have access to any documentation pertinent to the certification of the aerodrome. The holder of a certificate shall handle any documentation ensuring that, if requested to do so by an authorised person, it is produced within a reasonable period.

(c) Each aerodrome certificate holder shall comply with any request by the Governor for a practical demonstration or test to verify compliance with the OTARs.

139.11 Definitions

Except where stated, the definitions used throughout OTAR Part 139 are those detailed in OTAR Part 1, ICAO Annex 14, Volumes 1 and 2 (referred to in this OTAR Part as Annex 14) and OTAR Part 178.

Operating staff means those persons, whether or not they are employed by the aerodrome operator, whose duties are concerned either with ensuring safety of aerodrome operations or require them to have access to the aerodrome movement areas and all other areas within the aerodrome perimeter.

Subpart B – Applicability and compliance

139.25 Applicability

This OTAR Part applies to all aerodromes certificated under the Order.

139.27 Certification

(a) The Order defines the type of aircraft operations required to use a certificated notified aerodrome.

(b) OTAR Part 178 defines the type of aerodrome operation that is subject to the requirements of this OTAR Part, including the need for an Airport Security Programme.

(c) An operator of an aerodrome for which an aerodrome certificate is not required may apply for an aerodrome certificate.

(d) A Water Aerodrome will be certificated for use by day in VMC only.

139.29 ICAO compliance

(a) Except as set out in sub paragraphs (b) to (d), the operator of an aerodrome shall comply with:

(1) ICAO Annex 14 and Annex 19 Standards and Recommended Practices including:

(i) Aerodrome data; and

(ii) Physical characteristics; and

(iii) Obstacle restriction and removal; and

(iv) Visual aids for navigation; and

(v) Markings, lights, signs, and markings; and

(vi) Visual aids for denoting obstacles; and

(vii) Visual aids for denoting restricted use areas; and

(viii) Electrical Systems; and

(ix) Aerodrome operational services, equipment, and installations; and

(x) Aerodrome maintenance; and

(xi) Global Reporting Format; or

(2) where there is a difference between an applicable Standard and Recommended Practice, the more stringent shall be applied; and

(3) this OTAR Part; and

(4) where applicable, OTAR Part 178; and

(5) where the requirements of this OTAR Part are inconsistent with those of paragraph 139.29(a)(1), the OTAR requirement shall take precedence.

(b) If an aerodrome operator is unable to achieve compliance or wishes to adopt an alternative means of compliance from that specified in paragraph 139.29(a) it may submit, following consideration through its safety management system, a safety assessment to the Governor in support of its case.

(c) A safety assessment is a study of an aeronautical problem to identify possible solutions and select one that is acceptable without degrading safety. A safety assessment shall:

(1) assess the impact of a proposed deviation from the requirements; and

(2) present alternative means of ensuring the safety of aircraft operations; and

(3) estimate the effectiveness of each alternative and to recommend procedures to compensate for the deviation.

(d) Where ICAO Annex 14 places an obligation on a State, it does not apply to the operator of a certificated aerodrome.

(e) Any agreement or contract between a certificate holder and any service provider or sub-contractor providing services to the certificate holder shall include, as applicable, the specific requirement for compliance with ICAO Annex 14 and Annex 19 and, the relevant parts of OTAR Part 178 if operating on an aerodrome applying an Airport Security Programme.

(f) The additional requirements in Subpart F of this OTAR Part apply to emergency planning and emergency exercises.

Subpart C – Aerodrome certification

139.31 Application for an aerodrome certificate

(a) An applicant for the grant or amendment of an aerodrome certificate shall apply to the Governor, using the appropriate application form. The following shall be included in support of the application:

(1) the Aerodrome Manual required by this Subpart; and

(2) where applicable, the Airport Security Programme; and

(3) evidence that the requirements in paragraph 139.31(b) have been met; and

(4) such other particulars relating to the applicant and the aerodrome as may be required by the Governor; and

(5) any applicable fee.

(b) The applicant for an aerodrome certificate shall satisfy the Governor that:

(1) the applicant and his/her staff have the necessary competence and experience to operate and maintain the aerodrome safely and, where applicable securely, and meet the responsibilities of paragraph 139.77; and

(2) the Aerodrome Manual, and where applicable, the Airport Security Programme, prepared for the aerodrome contains all the relevant information; and

(3) the aerodrome facilities, services and equipment meet the required standards; and

(4) the aerodrome operating procedures ensure the safe, and where applicable secure, operations of aircraft and/or the safety of air navigation; and

(5) acceptable safety and quality management systems are in place to ensure continued compliance with, and the adequacy of, the requirements of this Part and the safe operation of the aerodrome; and

(6) appropriate arrangements are in place for the provision of:

(i) the Air Traffic Services (ATS); and

(ii) the Aeronautical Information Service (AIS); and

(iii) the Meteorological Service (MET); and

(iv) Aeronautical Telecommunications Services; and

(v) Aeronautical Charts.

(7) the Rescue and Fire-Fighting Services provided for the aerodrome meet the requirements of OTAR Part 140.

Note: Guidance on the Certification of Aerodromes is provided in OTACs 139-13, 139-26 and 139-29.

139.33 Safety and Quality Management

(a) An applicant for the grant of an aerodrome certificate shall establish and maintain, to the satisfaction of the Governor, a safety and quality management system (SMS and QMS) which is commensurate with the size of the organisation and the complexity of its operation.

(b) The safety management system shall include:

(1) a safety policy and objectives signed by the Accountable Manager which reflects an organisational commitment towards safety throughout the organisation and sets out:

(i) management commitment; and

(ii) safety accountability and responsibilities within the SMS; and

(iii) appointment of key safety personnel including a safety manager who is responsible for the implementation and maintenance of an effective SMS; and

(iv) SMS documentation; and

(v) coordination of emergency response planning.

(2) provision for safety risk management including:

(i) hazard identification based on reactive and proactive methods; and

(ii) safety reporting and investigation processes; and

(iii) safety risk assessment and mitigation.

(3) provision for safety assurance including:

(i) safety performance monitoring and measurement; and

(ii) the management of change; and

(iii) continuous improvement.

(4) safety promotion including:

(i) training and education, appropriate to each individual's involvement in the SMS, to ensure that personnel are trained and competent to perform their duties; and

(ii) safety communication.

(5) a quality management system, that as a minimum:

(i) identifies applicable requirements, regulations and standards and demonstrate compliance with them; and

(ii) ensures technical manuals, checklists and other documentation is appropriately maintained and incorporates the latest amendments; and

(iii) ensures that training programmes maintain staff proficiency and competency; and

(iv) internal audit programme.

(c) The safety and quality management systems shall be described in the relevant documentation and shall be acceptable to the Governor.

Note: Guidance on Safety Management Systems is provided in OTAC 139-2

139.35 Grant of an aerodrome certificate

(a) Before an aerodrome certificate is granted:

(1) the applicant shall satisfy the Governor that the requirements of paragraph 139.31 and, where applicable, the requirements of OTAR Part 178 have been met; and

(2) the Air Traffic Service Unit, including the Air Traffic Service Engineering Unit, shall have been approved in accordance with the requirements of OTAR Parts 172 and 171; and

(3) where operated, the Instrument Flight Procedures shall have been approved in accordance with the requirements of OTAR Part 176; and

(4) the aerodrome shall have been inspected to the satisfaction of the Governor.

(b) An aerodrome certificate remains in force until it is suspended, varied or revoked, or for the period of time specified by the Governor and will be subject to such conditions as the Governor thinks fit.

139.37 Change of aerodrome certificate holder - individual or organisation

(a) An aerodrome certificate cannot be transferred from one individual or organisation to another individual or organisation. The suitability of an individual or organisation intending to take over a certificated aerodrome will require assessment before the change of operation or ownership is agreed. The process followed is the same, as for the issue of an aerodrome certificate.

(b) The existing certificate is surrendered, revoked and, subject to satisfactory assessment, a new certificate shall be granted to the individual or organisation taking responsibility.

(c) Circumstances that will require issue of a new Aerodrome Certificate are:

(1) the aerodrome operator intends to relinquish aerodrome operations in favour of another person or organisation; or

(2) the aerodrome operator is subject of a takeover.

(d) An aerodrome certificate may be issued to a new operator when:

(1) the current certificate holder or the prospective aerodrome operator notifies the Governor, in writing, at least 90 working days before the proposed changeover of operation; and

(2) the new operator (individual or organisation) has complied with the requirements at paragraph 139.35.

139.39 Amendment of aerodrome certificate

(a) The Governor's approval may be necessary for changes that have a significant impact on management system components and aerodrome operations. If the modifications are not deemed major, the Governor may approve the amendment to an aerodrome certificate. A full application is required if the development is deemed major.

(b) An applicant for the amendment of an aerodrome certificate shall satisfy the Governor that the requirements of paragraph 139.31 have been met.

(c) Defining a change as major or minor is determined by, but not limited to, the following criteria:

(1) The complexity of the development.

(2) The impact on aerodrome operations (level of disruption to normal operations.

(3) Changes required to aerodrome operations resulting from the new facility.

(4) Whether the development would create a new non-conformance that would require detailed evaluation.

Note: Guidance on the aerodrome development projects changes are covered in OTACs 139-26 and 139-29.

Subpart D – The Aerodrome Manual

139.51 Aerodrome Manual requirements

(a) An applicant for the grant of an aerodrome certificate shall provide, for compliance by its personnel, an Aerodrome Manual for the services provided which complies with Appendix A.

(b) An applicant for the grant of an aerodrome certificate which includes air traffic control service or services from more than one location shall provide a manual specific to each location.

(c) The manual shall describe the operational procedures of the aerodrome which shall comply with ICAO Annex 14, and ICAO Document 9981.

(d) The aerodrome certificate holder shall comply with any directive issued by the Governor to the aerodrome certificate holder requiring alteration or amendment of the Manual.

(e) Where the Governor grants the aerodrome certificate holder a deviation from complying with any requirement set out in paragraph 139.35(a), the Aerodrome Manual shall show:

(1) the identifying reference given by the Governor to that deviation; and

(2) reference to the relevant safety assessment to the Governor in support of its case; and

(3) the date that the deviation came into effect; and

(4) any conditions or procedures under which the deviation was granted.

(f) If any prescribed subject is not included in the Aerodrome Manual because it is not applicable to that aerodrome, then the aerodrome certificate holder shall state in the Manual the reason for non-applicability of that subject.

Note: Guidance on Aerodrome Manual is provided in OTAC 139-9.

Subpart E – The Aerodrome Certificate holder

139.75 Personnel requirements

(a) An applicant for the grant of an aerodrome certificate shall nominate:

(1) a senior person to be the Accountable Manager. On behalf of the organisation, the Accountable Manager has full responsibility and accountability for the implementation and maintenance of the SMS and the Airport Security Programme (ASP). The Accountable Manager shall have the authority to ensure that the operation described in the aerodrome manual:

(i) provides a safe and secure environment to aircraft and the aerodrome; and

(ii) can be adequately financed and resourced.

(2) a senior person (or persons) who are responsible for ensuring that the applicant's organisation provides a safe service to aircraft and complies with the requirements of this Part. Such nominated person or persons shall be ultimately responsible to the Accountable Manager.

Note: Guidance on the role of the Accountable Manager is provided in OTAC 139-17.

(b) An applicant for the grant of an aerodrome certificate shall ensure that:

(1) there are enough personnel, at all levels, to manage, support and provide safe aerodrome operations, maintenance and any associated training or assessment listed in the applicant's aerodrome manual.

(2) personnel are trained and competent to perform their duties in accordance with job-specific training programmes, appropriate to each individual's involvement in the aerodrome operations.

(3) operating staff do not work on the movement area:

(i) unless they are familiar with all relevant and current procedures and information; and

(ii) while under the influence of any psychoactive substance; and

(iii) when any decrease in their medical fitness might make them unable safely to carry out their role.

Note: OTAC 139-15 provides general guidance as to what might be expected of persons applying for or holding, an Aerodrome Certificate and for Aerodrome and Airport Operators on the appointment of Aerodrome or Airport Managers and the competencies and experience required of them. Additionally, PANS Aerodromes (Doc 9981 Part II) provides guidance on the training and competency of aerodrome personnel.

139.77 Responsibilities of the aerodrome certificate holder

(a) Where an aerodrome certificate holder proposes to make a change to any of the following, prior notification to the Governor is required:

(1) the Accountable Manager; or

(2) the senior persons listed in the aerodrome manual; or

(3) any aspect of aerodrome that may have an effect on aerodrome operation or physical characteristics.

Note: Guidance on the aerodrome development projects and changes are covered OTACs 139-29 and 139-26.

(b) The aerodrome certificate holder shall:

(1) ensure that all personnel employed requiring a competency certification issued by a competent authority, hold a current and valid certificate;

(2) ensure that the Aerodrome Manual is kept up to date;

(3) operate and maintain the aerodrome in accordance with the procedures set out in the Aerodrome Manual and, where applicable, the Airport Security Programme;

(4) conduct the appropriate aerodrome capacity assessment in conjunction with ATS to confirm the resources and infrastructure provided are sufficient to meet the declared capacity;

(5) maintain a Master Plan for the development of economic feasibility, traffic forecasts and current and future requirements;

Note: OTAC 139-31 provides further guidance on traffic forecasts and aerodrome capacity.

(6) ensure proper and efficient maintenance of the aerodrome facilities;

(7) take all reasonable steps to ensure that each member of the aerodrome operating staff:

(i) is aware of the contents of every part of the Aerodrome Manual which is relevant to his/her duties; and

(ii) undertakes his/her duties, in conformity with the relevant provisions of the Manual.

Note: Documents may be in hardcopy or electronic. Electronic documents must be accessible to all staff requiring access.

(8) ensure that any ATS provision is appropriate for the aerodrome and associated airspace and the maintenance of the safety of aircraft;

(9) ensure that all other aerodrome services related to safety, including those services described in paragraphs 139.31(b)(6) and (7) and 139.35(a)(2) and (3), comply with the OTARs;

(10) establish a relevant aerodrome safety and quality management system describing the structure of the organisation and the duties, powers and responsibilities. The SMS shall include the promotion of a positive safety culture as set out in Annex 19;

(11) ensure that all users of the aerodrome, including fixed-base operators, ground handling agencies and other organisations, comply with the safety and security requirements laid down by the aerodrome certificate holder. The aerodrome certificate holder shall monitor such compliance. Additionally, the aerodrome certificate holder shall require these users to cooperate in any programme to promote safety and security at the aerodrome by immediately reporting any safety- related accidents, incidents, defects or faults;

(12) Any agreement or contract between an aerodrome certificate holder and any service provider or sub-contractor providing services to the certificate holder shall include the specific requirement for compliance with this OTAR Part and/or OTAR Part 140 and/or OTAR Part 178 as appropriate;

(13) arrange for an annual internal audit of the aerodrome safety management system, including an inspection of the aerodrome's facilities and equipment;

(14) arrange for an external audit and inspection programme for the evaluation of contractors, sub-contractors or tenants at the aerodrome;

(15) ensure that any audit report, including the report on the aerodrome facilities, services and equipment, is prepared by a suitably qualified safety expert(s) who shall prepare and sign the report;

(16) allow access to any part of the aerodrome or any aerodrome facility, including equipment, records, documents and personnel, by an authorised person. An aerodrome certificate holder shall co-operate in any associated audit or inspection;

(17) systematically review all Aeronautical Information Publications (AIPs), AIP Supplements, AIP Amendments, Notices to Airmen (NOTAMs), Pre-flight Information Bulletins and Aeronautical Information Circulars issued by AIS about the certificated aerodrome and shall notify AIS of any inaccurate information;

(18) notify AIS and the Governor, in writing, at least 60 working days before effecting any change to the aerodrome facility or equipment or the level of service at the aerodrome that has been planned in advance and which will affect the accuracy of the information contained in any AIS publication;

(19) immediately notify the Governor, in writing, before effecting any change to the aerodrome facility or equipment or the level of service at the aerodrome that will affect the accuracy of the information contained in the Aerodrome Manual;

(20) immediately notify AIS, ATS and any affected aircraft operators and the Governor about:

(i) any projections by an object through an obstacle limitation surface relating to the aerodrome; or

(ii) the existence of any obstruction or hazardous condition affecting aviation safety at or near the aerodrome; or

(iii) any reduction in the level of service at the aerodrome previously promulgated in any of the AIS publications; or

(iv) the closure of any part of the movement area of the aerodrome; or

(v) any other condition that could affect aviation safety at the aerodrome.

(21) ensure relevant ATS or aircraft operator receive a notice of any change of operational significance then the operator must inform pilots, who may be affected by that change, directly and immediately;

(22) shall inspect an aerodrome:

(i) as soon as practicable after any aircraft accident or incident, as defined in ICAO Annex 13; or

(ii) during any period of construction or repair of the aerodrome's facilities or equipment that is critical to the safety of aircraft operation; or

(iii) at any other time when there are prevailing conditions at the aerodrome that could affect aviation safety.

(23) remove any hazardous vehicle or other obstruction from the aerodrome;

(24) in partnership with the ATS provider, develop a Runway Safety Programme as detailed in Subpart K;

(25) post hazard warning notices on any public way that is adjacent to the manoeuvring area.

Note: If the aerodrome certificate holder does not control such a public way, inform the authority responsible for posting such notices that there is a hazard, whenever low-flying or taxiing aircraft are operating in the vicinity.

139.79 Aerodrome availability

(a) Subject to their published conditions of use, aerodromes and their facilities shall be kept continuously available for flight operations during their published hours of operations, irrespective of weather conditions.

(b) Notwithstanding paragraph 139.79(a), nothing shall compel an aerodrome certificate holder to keep an aerodrome open as a result of force majeure or in conditions that put life at risk.

139.81 Notification of aerodrome status

The aerodrome certificate holder shall establish procedures to notify users of its services of relevant operational information and of any changes in the operational status or availability of each facility or service listed in the aerodrome certificate holder's aeronautical information publication.

Subpart F – Emergency planning

139.101 Emergency planning

(a) In addition to the requirements in Annex 14, the aerodrome certificate holder shall:

(1) form an Emergency Planning Committee to develop and implement emergency planning arrangements and produce an aerodrome emergency plan document for responding to and managing, emergencies applicable to the airport's particular characteristics and operations;

(2) ensure that the Emergency Response Plan:

(i) coordinates the response or participation of all existing agencies which could be of assistance in responding to an emergency;

(ii) ensures the ready availability of and coordination with, appropriate specialist rescue services who are able to respond to emergencies at a Water Aerodrome or where a land aerodrome is located close to water and/or swampy areas or difficult terrain and where a significant portion of approach or departure operations takes place over these areas;

(iii) includes, in the case of a Water Aerodrome, water rescue, oil and fuel spillages response and recovery of aircraft from the movement area; and

(iv) is acceptable to the Governor.

(b) The Aerodrome Emergency Plan shall identify an appropriate incident commander to undertake the coordination of those agencies responding to the emergency.

(c) The content of the Aerodrome Emergency Plan should contain the elements defined in Appendix B.

139.103 Aerodrome emergency exercise

(a) In addition to the requirements in Annex 14, at aerodromes where the approach or departure areas have water and/or swampy areas, or difficult terrain, the aerodrome shall make arrangements to test and assess the pre-determined response for the specialist rescue services as set out in paragraph 139.101(a)(2)(ii).

(b) Where an actual incident/accident has occurred to which the response could be said to have tested all parts of the plan, an aerodrome operator can request in writing to the Governor to defer the biennial exercise.

(c) The aerodrome certificate holder shall notify the Governor well in advance of an intention to conduct an exercise.

Note: Guidance on guidance on the requirements for modular emergency exercises and testing is provided in OTAC 139-21.

Subpart G – Water Aerodromes

139.125 Water Aerodrome applicability

(a) The Order defines the type of aircraft operations required to use a certificated aerodrome. This Subpart details the requirements which apply to the certification of water aerodromes in addition to the applicable requirements of Subparts A to F of this OTAR Part.

(b) The operation of a seaplane on the surface of the water shall be subject to the rules and regulations in the relevant maritime, dock/harbour authorities and coastguard legislation. The Water Aerodrome certificate holder shall ensure that all aerodrome operations are compliant with that legislation, where applicable. These requirements cover the area of water utilised by the aircraft and shall be detailed in the Water Aerodrome Manual for all applicable water aerodrome operations.

139.127 Water Aerodrome definitions and units of measurement

(a) In addition to the definitions in OTAR Part 1, the following definitions apply to Subparts G-I:

airside means the area of a water aerodrome consisting of the dockside, of the movement area and its adjacent areas within the aerodrome boundaries, and does not include maintenance of aircraft, or a building and its appurtenances used for the movement of passengers;

airside personnel mean persons that are assigned duties on airside that are either employees of the airport operator or those persons employed by aviation organizations that utilize the airport;

dockside means the area that is part of the airport and includes the area(s), on or adjacent to the water, used for the embarkation or disembarkation of passengers; or the aircraft loading or unloading of cargo;

mooring means an arrangement for securing a vessel to a mooring buoy or a pier;

take-off and landing area mean the area on the surface of the water that is designated for take-off and landing of aircraft;

underway means that a vessel is not at anchor, made fast to the shore, moored or aground;

vessel means every description of watercraft, including non-displacement craft, Wing in Ground Effect (WIGE) craft and seaplanes, used or capable of being used as a means of transportation on water;

Water Aerodrome boundary means the movement area and dockside(s) as described in the Water Aerodrome Operations Manual;

Water Aerodrome elevation means the elevation of the take-off and landing area.

(b) In addition to the requirements for units of measurement in OTAR Part 1, water depths and range of tides or water levels shall be measured and promulgated:

(1) to the nearest foot; or

(2) in metres to the nearest decimal.

139.129 Water Aerodrome Reference Codes

Water Aerodromes shall be coded in accordance with Table 139-1 below. Water Aerodrome codes W1, W2 and W3 can be equated to non-instrument land aerodromes Code 1, 2 and 3 respectively.

Table 139-1 Water Aerodrome Reference Codes

Manoeuvring Area Code	W1	W2	W3
Aircraft MTWA	<2,730 kg	2,730 – 5,700 kg	>5,700 kg
Strip Length	<800 m	800 – 1,199 m	1,200 m+
Strip Width	60 m	80 m	150 m
Strip End	30 m	60 m	60 m
APPS (10º splay)	1:20	1:25	1:30
TOCS	1:20	1:25	1:50
TS	1:5	1:5	1:7
IHS	2,000 m	2,500 m	2,500 m

139.131 Water Aerodrome Reference Point (WARP)

A Water Aerodrome Reference Point (WARP) shall be located at the planned geometric centre of the manoeuvring area or, if there is more than one manoeuvring area, of the main one.

139.133 Water Aerodrome elevations

(a) The Water Aerodrome Reference Elevation (WARE) shall be determined at the WARP in accordance with:

(1) lowest normal tide, where there are tides; or

(2) lowest known water level for that body of water.

(b) This elevation shall be determined from the Chart Height, or from the lowest recorded water level, converted to an elevation in metres above Ordnance Datum.

139.135 Water Aerodrome dimensions and related information

(a) Where possible, the manoeuvring area shall be large enough to provide a choice of take-off and landing direction, dependent upon prevailing water surface and weather conditions. For the purpose of this OTAR Part, this type of manoeuvring area is termed ‘omnidirectional’.

(b) Where it is not possible to provide an omnidirectional manoeuvring area, such as on a river or narrow lake, a manoeuvring area that caters for take-off and landing in one direction and its reciprocal only, in a direction parallel to the longer sides of the manoeuvring area may be provided. This type of manoeuvring area is termed ‘bi-directional’.

(c) The manoeuvring area(s) shall be square, rectangular or rhomboidal in shape, and shall encompass all parts of the water surface intended for the taking off and landing of seaplanes.

(d) For the purpose of providing the appropriate minimum strip width and obstacle limitation surfaces, manoeuvring areas are coded according to the maximum take-off mass, or performance group, of the largest seaplane likely to operate from the water aerodrome, as shown in Table 139-1.

(e) Code W1, W2 and W3 manoeuvring areas shall have a minimum width, at any point, equal to the non-instrument strip width for code numbers 1, 2 and 3 land runways respectively, as described in Annex 14 Chapter 3.

Subpart H – Water Aerodrome obstacle restriction and removal

139.151 Water Aerodromes general

The following criteria define the airspace around a water aerodrome that shall be maintained free from obstacles. This shall be achieved by establishing a series of obstacle limitation surfaces that define the upper limits of permissible objects.

139.153 Water Aerodrome Obstacle Limitation Surfaces

(a) A take-off, climb surface and an approach surface shall be established in the direction of take-off or landing for each manoeuvring area, with the elevation of the inner edges of both surfaces equal to the Aerodrome Reference Elevation (ARE). The inner edges of the take-off climb surface and an approach surface originate at a distance of 30 m from the appropriate edges of a code W1 manoeuvring area, and 60 m from the appropriate edges of code W2 and W3 manoeuvring areas, and slope upwards and outwards until reaching their limiting distance.

(b) The take-off climb surface and an approach surface for a code W1, W2 and W3 omnidirectional manoeuvring area shall form a continuous surface surrounding the manoeuvring area and be equal to the corresponding length and slope dimensions for land-based runway code numbers 1, 2 and 3 respectively.

(c) The dimensions of the take-off climb surface and an approach surface relating to a code W1, W2 and W3 bi-directional manoeuvring area shall correspond to the dimensions for land-based runway code numbers 1, 2 and 3 respectively.

(d) The inner edge of the transitional surface is coincidental with the edge of the manoeuvring area in both elevation and position. It slopes upwards and outwards with distance from the manoeuvring area until it intercepts the plane of the inner horizontal surface. Figure 139.1 illustrates the obstacle limitation surfaces.

(e) A transitional surface is not required for an omnidirectional manoeuvring area.

(f) An inner horizontal surface shall be established at a height of 45 m above the ARE and shall be circular in shape radiating from the WARP to a distance of 2,000 m and 2,500 m for codes W1 and W2 manoeuvring areas respectively.

(g) The conical surface relating to codes W1 and W2 manoeuvring areas slopes upwards and outwards from the periphery of the inner horizontal surface in accordance with the criteria shown in Annex 14 Chapter 3 for the land-based runway code numbers 1 and 2 respectively.

139.155 Water Aerodrome obstacle limitation requirements

New objects or extensions of existing objects shall not be permitted above an approach or transitional surface except when, in the opinion of the Governor, the new object or extension would be shielded by an existing immovable object.

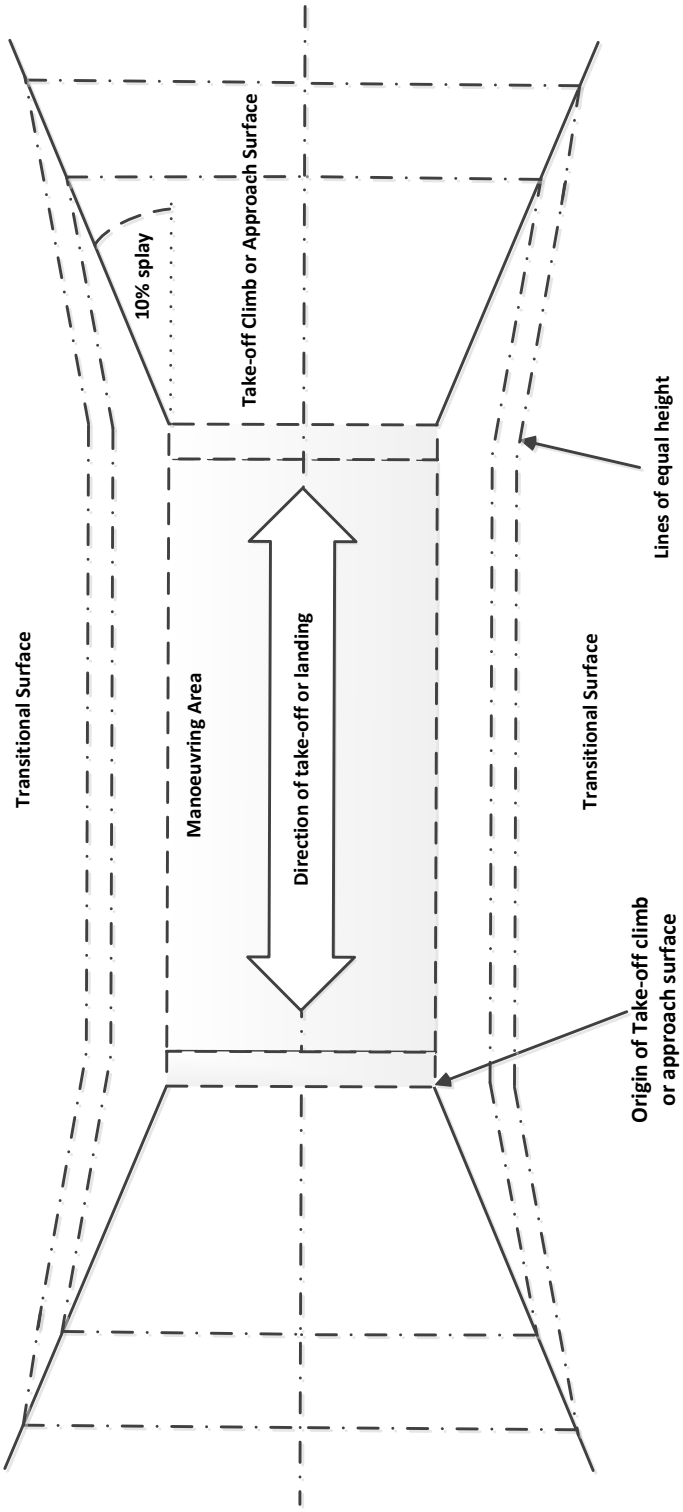

Figure 139.1 Water Aerodrome Take-Off Climb, Approach and Transitional Surfaces for a Bi-directional Manoeuvring Area

Subpart I – Water Aerodrome emergency equipment and Rescue & Fire-Fighting (RFFS)

139.175 Water Aerodrome Rescue and Fire-Fighting Services – General

(a) Procedures for the enhancement of passenger and crew post-accident survival shall be developed and resources in terms of staff and equipment, appropriate to the type of seaplane operations anticipated at the water aerodrome shall be provided. Within the provision of these procedures and resources, account shall be taken of the effect that various environmental conditions could have on the ability of the RFFS to respond rapidly to accidents and incidents.

(b) A rescue vessel shall be provided and be of a design and size that would allow survivors to be brought aboard, or it shall be equipped with an adequate number of floatation devices of a design that would enable survivors to remove themselves from the water.

139.177 Water Aerodrome response times and availability

(a) The RFFS shall achieve a response time not exceeding 5 minutes to any point of the movement area in good visibility and water surface conditions.

(b) For the published hours of the water aerodrome, the RFFS shall be available:

(1) 15 minutes prior to the published hours of the water aerodrome; until

(2) 15 minutes after take-off of the last departing aircraft.

(c) Where the hours of operation are not notified, the RFFS shall be available prior to the engine start of the first departing seaplane, or to the first arriving seaplane commencing its final approach; and until the last arrival is moored, or 15 minutes after take-off of the final seaplane.

139.179 Water Aerodrome RFFS training

The aerodrome operator shall ensure that RFFS personnel:

(a) receive initial and recurrent competence-based training relevant to their role and task, and shall at all times be medically and physically capable of performing the tasks expected of them; and

(b) be provided with appropriate personal protective equipment for Fire-Fighting and seaborne functions.

139.181 Water Aerodrome emergency planning

(a) The objectives of Subpart E Aerodrome Emergency Planning apply to a water aerodrome.

(b) The aerodrome emergency plan shall consider the particular hazards associated with seaplane operations, including:

(1) passenger evacuation into a further life-threatening environment, e.g. deep water; and

(2) the onset of hypothermia, and its associated effects, during and following prolonged immersion in cold water; and

(3) the immediate toxicity and respiratory effects on survivors in the water following the ingestion of floating fuel and oils and their associated vapours, and fire suppressant foams, powders, and gases.

Note: Additional guidance on seaplane accidents in the water is given in Appendix 6 to the ICAO Airport Services Manual (Document 9137) Part 7.

Subpart J – Heliports

139.201 Heliport applicability

The Order defines the type of aircraft operations required to use a certificated aerodrome. This Subpart details the requirements which apply to the certification of heliports in addition to the applicable requirements of Subparts A to F of this OTAR Part.

139.203 Heliport definitions

In addition to the definitions in OTAR Part 1, the following definitions apply to Subparts J-L:

airside personnel mean persons that are assigned duties on airside that are either employees of the heliport operator or those persons employed by aviation organizations that utilize the heliport;

'D' means the largest overall dimension of the helicopter when rotor(s) are turning measured from the most forward position of the main rotor tip path plane to the most rearward position of the tail rotor tip path plane or helicopter structure;

final approach and take-off area (FATO) mean a defined area over which the final phase of the approach manoeuvre to hover or landing is completed and from which the take-off manoeuvre is commenced. Where the FATO is to be used by helicopters operated in performance class 1, the defined area includes the rejected take-off area available;

helicopter clearway means defined area on the ground or water, selected and/or prepared as a suitable area over which a helicopter operated in performance class 1 may accelerate and achieve a specific height;

helicopter stand means a defined area intended to accommodate a helicopter for purposes of: loading or unloading passengers, mail or cargo; fuelling, parking or maintenance; and, where air taxiing operations are contemplated, the TLOF;

helicopter taxiway means a defined path on a heliport intended for the ground movement of helicopters and that may be combined with an air taxi-route to permit both ground and air taxiing;

heliport means an aerodrome or a defined area on a structure intended to be used wholly or in part for the arrival, departure, and surface movement of helicopters;

heliport elevation means the elevation of the highest point of the FATO;

heliport reference point (HRP) means the designated location of a heliport;

protection area means a defined area surrounding a stand intended to reduce the risk of damage from helicopters accidentally diverging from the stand;

safety area means a defined area on a heliport surrounding the FATO which is free of obstacles, other than those required for air navigation purposes, and intended to reduce the risk of damage to helicopters accidentally diverging from the FATO;

touchdown and lift-off area (TLOF) mean an area on which a helicopter may touch down or lift off;

touchdown/positioning circle (TDPC) means a touchdown positioning marking (TDPM) in the form of a circle used for omnidirectional positioning in a TLOF;

touchdown/positioning marking (TDPM) means a marking or set of markings providing visual cues for the positioning of helicopters. Winching area. An area provided for the transfer by helicopter of personnel or stores to or from a ship.

139.205 Heliport Reference Point

A Heliport Reference Point shall be located at the planned geometric centre of the heliport and not collocated with an aerodrome.

139.207 Heliport elevations

(a) The Heliport elevation shall be measured to the accuracy of one-half metre or foot.

(b) The elevation of the TLOF and/or the elevation of each threshold of the FATO (where appropriate) shall be measured to the accuracy of one-half metre or foot.

139.209 Heliport dimensions and related information

The following data shall be measured or described, as appropriate:

(i) heliport type — surface-level, elevated, shipboard or helideck; and

(ii) TLOF — dimensions to the nearest meter or foot, slope, surface type, bearing strength in tones; and

(iii) FATO — type of FATO, true bearing to one-hundredth of a degree, designation number (where appropriate), length and width to the nearest meter or foot, slope, surface type; and

(iv) safety area — length, width, and surface type; and

(v) helicopter taxiway and helicopter taxi-route if applicable — designation, width, surface type; and

(vi) apron — surface type, helicopter stands; and

(vii) clearway — length, ground profile; and

(viii) visual aids for approach procedures, marking and lighting of FATO, TLOF, helicopter taxiways, helicopter taxiroutes and helicopter stands.

Subpart K – Heliport obstacle restriction and removal

139.221 Heliport general

The following criteria define the airspace around a heliport that shall be maintained free from obstacles. This shall be achieved by establishing a series of obstacle limitation surfaces that define the upper limits of permissible objects.

139.223 Heliport Obstacle Limitation Requirements

New objects or extensions of existing objects shall not be permitted above an approach or transitional surface except when, in the opinion of the Governor, the new object or extension would be shielded by an existing immovable object.

(a) A surface-level heliport should have at least two approach and take-off climb surfaces to avoid downwind conditions, minimize crosswind conditions and permit for a balked landing.

(b) The following factors shall be considered when an aeronautical study is undertaken by an appropriate authority:

(1) the area/terrain over which the flight is being conducted; and

(2) the obstacle environment surrounding the heliport and the availability of at least one protected side slope; and

(3) the performance and operating limitations of helicopters intending to use the heliport; and

(4) the local meteorological conditions including the prevailing winds.

Note: see ICAO Annex 14 v. II for detailed information and the Heliport Manual (Doc 9261) for guidance.

Subpart L – Heliport emergency equipment and Rescue & Fire-Fighting Services (RFFS)

139.251 Heliport Rescue and Fire-Fighting Services – General

(a) A heliport emergency plan for rescuing of passenger and crew post-accident survival shall be developed and resourced in terms of staff and equipment, appropriate to the helicopter operations and other activities conducted at the heliport shall be provided. Within the provision of these procedures and resources, account shall be taken of the effect that various environmental conditions could have on the ability of the RFFS to respond to accidents and incidents.

(b) The heliport emergency plan shall identify agencies that could be included in responding to an emergency at or in vicinity of the heliport.

(c) Where an approach/departure path at a heliport is located over water, the plan should identify which agency is responsible for coordinating rescue in the event of a helicopter ditching and indicate how to contact that agency.

Note: The content of Emergency Response Plan is detailed in Appendix B of this OTAR.

139.253 Heliport response times and availability

(a) The RFFS shall achieve a response time not exceeding 2 minutes to any point of the movement area in good visibility and surface conditions.

(b) For the application of primary media, the discharge rate applied over the assumed practical critical area shall be predicated on a requirement to bring any fire which may occur on the heliport under control within one minute, measured from activation of the system at the appropriate discharge rate.

(c) Where the hours of operation are not notified, the RFFS shall be maintained at least 15 minutes after the time of departure of any aircraft requiring the use of a heliport or until the aircraft has reached its destination, whichever is shorter.

139.255 Heliport RFFS training

The aerodrome operator shall ensure that RFFS personnel:

(a) receive initial and recurrent competence-based training relevant to their role and task, and shall at all times be medically and physically capable of performing the tasks expected of them; and

(b) be provided with appropriate personal protective equipment for Fire-Fighting functions.

Subpart M – Aviation fuel

139.271 Aviation fuel management

(a) The operator of a certificated aerodrome with fuel storage and dispensing facilities is required under the Order to satisfy himself that the person who has management of any fuel installation ensures that, throughout the processes of receiving, storing, managing, and distributing fuel, it is fit for use in aircraft.

Note:

(1) The Order does not differentiate between single or multiple installations at an aerodrome, nor does it make distinction as to ownership of the installation(s).

(2) For the purpose of Order the meaning of the term “aviation fuel installation” is any apparatus or container, including a vehicle, designed, manufactured or adapted for the storage of aviation fuel or for the delivery of such fuel to an aircraft.

(b) The Order requires fuel installation managers to satisfy themselves that:

(1) fuel received at an installation is fit for use in aircraft;

(2) the installation and the storage and dispensing processes will not render it unfit;

(3) the fuel storage and delivery system are appropriately labelled;

(4) the fuel is sampled on delivery into the installation; and

(5) the fuel is of the correct grade for the installation.

Note: ICAO Document 9137 Part 1 provides guidance in respect of the aerodrome operator, the aircraft operator, and the fuel supplier responsibilities for safety measures to be taken during aircraft fuelling/de-fuelling operations.

Subpart N – Runway safety

139.301 Runway Safety Programme

(a) In addition to the requirements in Annex 14, aerodrome operators, in partnership with the ATS provider, shall develop a runway safety programme which includes objectives of the runway safety team.

(b) The runway safety programme shall include following provisions:

(1) use of radiotelephony; and

(2) phraseology; and

(3) language proficiency; and

(4) ATS procedures; and

(5) aerodrome lighting and marking; and

(6) aerodrome topography; and

(7) situational awareness and human factors.

(c) The runway safety programme shall include an objective to reduce the risk of both runway incursion and excursion occurrences.

Note: Guidance on runway safety can be found in ICAO Doc 9870 and OTAC 139-11.

Appendix A – Content of the Aerodrome Manual

Content of the Aerodrome Manual (139.51)

The Manual shall include:

(1) the name and status of the person in charge of day to day operation of the aerodrome together with the names and status of other senior aerodrome operating staff (including the persons accountable for the Aerodrome Emergency Plan and the Aerodrome Maintenance Plan) and instructions as to the order and circumstances in which they may be required to act as the person in charge; and

(2) the name and position of the accountable manager and a corporate commitment to compliance with applicable OTARs; and

(3) the system of aeronautical information service available; and

(4) procedures for promulgating information concerning the aerodrome's state; and

(5) procedures for the control of access, vehicles, and work in relation to the aerodrome manoeuvring area and apron; and

(6) procedures for the reporting of accidents/incidents and occurrences; and

(7) procedures for the removal of disabled aircraft including arrangements for designation of accident coordinators; and

(8) procedures for the rapid availability and deployment of salvage and removal equipment between aerodromes; and

(9) procedures for protection of evidence; and

(10) procedures for fuel storage complying with provisions of the Order relating to such matters; and

(11) plans depicting the layout of runways, taxiways and aprons, aerodrome markings, aerodrome lighting if provided and the siting of any navigational aids within the runway strip (a linear scale shall be shown), except that in the case of copies of the manual or extracts from it provided to aerodrome operating staff, the plans shall be of a scale reasonably appropriate for the purposes of paragraph 139.51(d); and

(12) in respect of an aerodrome in relation to which there is a notified instrument approach procedure, survey information sufficient to provide data to produce aeronautical charts relating to that aerodrome; and

(13) description, height, and location of obstacles which infringe standard obstacle limitation surfaces, and whether they are lit; and

(14) data for and method of calculation of declared distances and elevations at the beginning and end of each declared distance; and

(15) method of calculating reduced declared distances and the procedure for their promulgation; and

(16) details of surfaces and bearing strengths of runways, taxiways and aprons; and

(17) the system of management of air traffic in the airspace associated with the aerodrome, including procedures for the co-ordination of traffic with adjacent aerodromes, except any such information or procedures already published in any appropriate manual of air traffic services; and

Content of the Aerodrome Manual (139.51)

(18) operational procedures for the routine and special inspection of the aerodrome manoeuvring area and aprons including the assessment and reporting of the runway surface condition through runway condition code and Global Reporting Format; and

Note: Guidance on Global Reporting Format is provided in OTAC 139-30

(19) if operations are permitted during periods of limited visibility, procedures for the protection of the runways during such periods; and

(20) procedures for the safe integration of all aviation activities undertaken at the aerodrome; and

(21) procedures for wildlife hazard reduction including control the development of facilities likely to attract wildlife on or in the vicinity of an aerodrome; and

(22) procedures for the use and inspection of the aerodrome lighting system, if is provided; and

(23) the on-aerodrome capability for Rescue and Fire-Fighting Service identified by the ICAO category and the hours of provision; and

(24) practical training facilities commensurate with the aerodrome operation and suitable for initial and ongoing maintenance of competence available or sourced externally; and

(25) the service level agreement with the provider of any ancillary service, such as RFFS, AIS or MET, if the service is provided by an organisation separate from the aerodrome organisation; and

(26) the procedures to be adopted in the event of temporary depletion of the Rescue and Fire-Fighting Service.

Appendix B – Content of the Aerodrome Emergency Plan

Content of the Aerodrome Emergency Plan (139.101)

(a) The emergency plan shall be written to make it easy to identify the relevant subject matter for local airport and community responders. The plan, arrangements and procedures shall be as simple as possible and easily understood by all involved in each emergency response.

(b) The Plan shall include:

(1) Arrangements and procedures for the response and management to a range of aircraft emergencies as defined in Appendix C; and

(2) The command, communication, and coordination functions for carrying out the plan; and

(3) The integrated assistance from local support services such as, but not limited to fire departments, police, security, ambulance and medical, care and welfare agencies, harbour patrol or coast guard, civil defence, media, government agencies (including air accident investigators); and

(4) Where necessary, a process to provide fast and efficient lines of communication to enable a “cascade” call system including persons/agencies responsible for “cascade” information (where possible, a 24-hour coverage shall be maintained); and

(5) Arrangements for the availability of a fixed emergency operations centre and a mobile command and control post at the airport for use during an emergency; and

(6) A description of the function of air traffic services (air traffic control service or aerodrome flight information service) relating to emergency actions; and

(7) A description of the roles and responsibilities of all agencies and personnel on or off the airport, who would or could be involved in an emergency affecting the airport.

Note: Additional guidance can be found in ICAO Doc. 9137 Part 7 Airport Emergency Planning and ICAO Doc. 9973 Manual on Assistance to Aircraft Accident victims and their Families.

Appendix C – Emergency categories

The following terms shall be used define aircraft emergencies:

(a) **Aircraft accident/Aircraft accident imminent**

Aircraft accidents that have occurred or are inevitable on, or in the vicinity of, the aerodrome.

(b) **Aircraft ground incident**

Where an aircraft on the ground is known to have an emergency situation, other than an accident, requiring the attendance of emergency services.

(c) **Full emergency**

When it is known that an aircraft is, or is suspected to be, in such trouble that there is a danger of an accident.

(d) **Local standby**

When it is known that an aircraft has, or is suspected to have, developed some defect but the trouble would not normally involve any serious difficulty in effecting a safe landing.

Also used at some units when:

(i) an aircraft has to be searched following a bomb warning; or

(ii) or requires inspecting on the ground by the aerodrome fire service; or

(iii) post maintenance flight checks; or

(iv) VVIP flights.

Note: the above list is not exhaustive, and Aerodrome shall make an assessment of operations that may require local standby.

(e) **Weather standby**

When weather conditions are such as to render a landing difficult or difficult to observe.

(f) **Domestic fire**

The classification ‘Domestic’ is given to any fire:

(1) on the aerodrome not included in the categories above;

(2) outside the aerodrome boundary (other than aircraft accidents) which is liable to constitute a danger to flying or aerodrome property;

(3) which the Aerodrome Fire Service shall attend:

(i) according to an agreement with the Local Fire Brigade; or

(ii) in response to calls from the public or Police on humanitarian grounds.