

PART 139

Airport Design, Operations and Certification

This part of the Jordanian Civil Aviation Regulations is hereby adopted under the authority and provisions of the Civil Aviation Law No. (41) 2007, and its amendments.



Capt. Haitham Misto
Chief Commissioner/CEO
Civil Aviation Regulatory Commission



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Abbreviations and Symbols

(a) Abbreviations.

ACN:	Aircraft classification number.
AFFF:	Aqueous film forming foam agent.
APAPI:	Abbreviated precision approach path indicator.
ARFF:	Aircraft Rescue and Firefighting.
APRX:	Approximately.
ASDA:	Accelerate-stop distance available.
ATS:	Air traffic services.
AT-VASIS:	Abbreviated T visual approach slope indicator system.
C:	Degree Celsius.
CARC:	Civil Aviation Regulatory Commission.
CBR:	California bearing ratio.
Cd:	Candela.
CIE:	International Commission on Illumination.
Cm:	Centimeter.
DME:	Distance measuring equipment.
DASS:	Directorate of Airport Safety and Standards.
Ft:	Foot.

ILS:	Instrument landing system.
IMC:	Instrument meteorological conditions.
JCAR:	Jordan Civil Aviation Regulation.
K:	Degree Kelvin.
Kg:	Kilogram.
Km:	Kilometer.
km/h:	Kilometer per hour.
kt:	Knot.
L:	Liter.
LDA:	Landing distance available.
m:	Meter.
max:	Maximum.
MLS:	Microwave landing system.
mm:	Millimeter.
mm:	Minimum.
MN:	Mega newton.
MPa:	Mega Pascal.
NM:	Nautical mile.
NU:	Not usable.

OCA/H:	Obstacle clearance altitude/height.
OFZ:	Obstacle free zone.
OLS:	Obstacle limitation surface.
OMGWS:	Outer main gear wheel span
PAPI:	Precision approach path indicator.
PCN:	Pavement classification number.
RESA:	Runway end safety area.
RVR:	Runway visual range.
TODA:	Take-off distance available.
TORA:	Take-off run available.
T-VASIS:	T visual approach slope indicator system.
VMC:	Visual meteorological conditions.
VOR:	Very high frequency omnidirectional radio range.

(b) Symbols.

°	Degree
=	Equals
'	Minute of arc
μ	Friction coefficient
>	Greater than

< Less than

% Percentage

± Plus or minus

SUBPART –A

General

139.1 Applicability.

- (a) This Part prescribes rules governing the certification and operation of land airports which are open for public civilian use in the Hashemite Kingdom of Jordan.

- (b) The specifications, unless otherwise indicated in a particular context, shall apply to all airports open to public use in accordance with the requirements of Article 15 of the Chicago Convention. The specifications of Chapter (3) of AN 14-1 shall apply only to land airports. The specifications of this part shall apply, where appropriate, to heliports but shall not apply to STOLports.

139.3 Definitions.

The following are definitions of terms as used in this part:

Accuracy: a degree of conformance between the estimated or measured value and the true value.

For measured positional data, the accuracy is normally expressed in terms of a distance from a stated position within which there is a defined confidence of the true position falling.

Aerodrome: a defined area on land or water (including any buildings, installations and equipment) intended to be used either wholly or in part for the arrival, departure and surface movement of aircraft.

Aerodrome beacon: aeronautical beacon used to indicate the location of an aerodrome from the air.

Aerodrome elevation: the elevation of the highest point of the landing area.

Aerodrome identification sign: a sign placed on an aerodrome to aid in identifying the aerodrome from the air.

Aerodrome mapping data (AMD): data collected for the purpose of compiling aerodrome mapping information for aeronautical uses.

Aerodrome mapping data are collected for purposes that include the improvement of the user's situational awareness, surface navigation operations, training, charting and planning.

Aerodrome mapping database (AMDB): a collection of aerodrome mapping data organized and arranged as a structured data set.

Aerodrome reference point: the designated geographical location of an aerodrome.

Aeronautical beacon: an aeronautical ground light visible at all azimuths, either continuously or intermittently, to designate a particular point on the surface of the earth.

Aeronautical ground light: any light specially provided as an aid to air navigation, other than a light displayed on an aircraft.

Aero plane reference field length: the minimum field length required for take-off at maximum certificated take-off mass, sea level, standard atmospheric conditions, still air and zero runway slope, as shown in the appropriate aero plane flight manual prescribed by the certificating authority or equivalent data from the aero plane manufacturer. Field length means balanced field length for aero planes, if applicable, or take-off distance in other cases.

Attachment A, Section 2 of Publication AN 14-1 provides information on the concept of balanced field length.

Aircraft classification number (ACN): a number expressing the relative effect of an aircraft on a pavement for a specified standard subgrade category.

The aircraft classification number is calculated with respect to the center of gravity (CG) position which yields the critical loading on the critical gear.

Normally the aft most CG position appropriate to the maximum gross apron (ramp) mass is used to calculate the ACN. In exceptional cases the forward-most CG position may result in the nose gear loading being more critical.

Aircraft stand: a designated area on an apron intended to be used for parking an aircraft.

Airport: An area of land or other hard surface, excluding water, that is used or intended to be used for the landing and takeoff of aircraft, and includes its buildings and facilities, if any.

Airport operating certificate: a certificate issued by the appropriate authority under applicable regulations for the operation of an airport.

Airport traffic density:

- (a) Light: where the number of movements in the mean busy hour is not greater than 15 per runway or typically less than 20 total **airport** movements.
- (b) Medium: where the number of movements in the mean busy hour is of the order of 16 to 25 per runway or typically between 20 to 35 total **airport** movements.
- (c) Heavy: where the number of movements in the mean busy hour is of the order of 26 or more per runway or typically more than 35 total **airport** movements.

The number of movements in the mean busy hour is the arithmetic mean over the year of the number of movements in the daily busiest hour.

Either a take-off or a landing constitutes a movement.

Apron: a defined area, on a land **airport**, intended to accommodate aircraft for purposes of loading or unloading passengers, mail or cargo, fueling, parking or maintenance.

Apron management service: a service provided to regulate the activities and the movement of aircraft and vehicles on an apron.

Arresting System: A system designed to decelerate an aero plane overrunning the runway.

Autonomous runway incursion warning system (ARIWS): A system which provides autonomous detection of a potential incursion or of the occupancy of an active runway and a direct warning to a flight crew or a vehicle operator.

Balked landing: a landing maneuver that is unexpectedly discontinued at any point below the obstacle clearance altitude/height (OCA/H).

Barrette: three or more aeronautical ground lights closely spaced in a transverse line so that from a distance they appear as a short bar of light.

Calendar: discrete temporal reference system that provides the basis for defining temporal position to a resolution of one day (ISO 19108; Geographic information — Temporal schema).

Certified airport: an airport whose operator has been granted an airport certificate.

Clearway: a defined rectangular area on the ground or water under the control of the appropriate authority, selected or prepared as a suitable area over which an aero plane may make a portion of its initial climb to a specified height.

Cyclic redundancy check (CRC): a mathematical algorithm applied to the digital expression of data that provides a level of assurance against loss or alteration of data.

Data quality: a degree or level of confidence that the data provided meet the requirements of the data user in terms of accuracy, resolution , integrity (or equivalent assurance level), traceability, timeliness, completeness and format.

Datum: any quantity or set of quantities that may serve as a reference or basis for the calculation of other quantities (ISO 19104; Geographic information — Terminology).

De-icing/anti-icing facility: a facility where frost, ice or snow is removed (de-icing) from the aero plane to provide clean surfaces, and/or where clean surfaces of the aero plane receive protection (anti-icing) against the formation of frost or ice and accumulation of snow or slush for a limited period of time.

Further guidance is given in the CARC related Guidance Material.

De-icing/anti-icing pad: an area comprising an inner area for the parking of an aeroplane to receive de-icing/anti-icing treatment and an outer area for the maneuvering of two or more mobile de-icing/anti-icing equipment.

Declared distances:

- (a) Take-off run available (TORA): the length of runway declared available and suitable for the ground run of an aero plane taking off.
- (b) Take-off distance available (TODA): the length of the take-off run available plus the length of the clearway, if provided.
- (c) Accelerate-stop distance available (ASDA): the length of the take-off run available plus the length of the stop way, if provided.
- (d) Landing distance available (LDA): the length of runway which is declared available and suitable for the ground run of an aero plane landing.

Dependent parallel approaches: simultaneous approaches to parallel or near-parallel instrument runways where radar separation minima between aircraft on adjacent extended runway center lines are prescribed.

Displaced threshold: a threshold not located at the extremity of a runway.

Effective intensity: the effective intensity of a flashing light is equal to the intensity of a fixed light of the same color which will produce the same visual range under identical conditions of observation.

Ellipsoid height (Geodetic height): the height related to the reference ellipsoid, measured along the ellipsoidal outer normal through the point in question.

Fixed light: a light having constant luminous intensity when observed from a fixed point.

Frangible object: an object of low mass designed to break, distort or yield on impact so as to present the minimum hazard to aircraft.

Guidance on design for frangibility is contained in the CARC related Guidance Material.

Foreign Object Debris (FOD): An inanimate object within the movement area which has no operational or aeronautical function and which has the potential to be a hazard to aircraft operations.

Geodetic datum: a minimum set of parameters required to define location and orientation of the local reference system with respect to the global reference system/frame.

Geoid: the equipotential surface in the gravity field of the earth which coincides with the undisturbed mean sea level (MSL) extended continuously through the continents.

The geoid is irregular in shape because of local gravitational disturbances (wind tides, salinity, current, etc.) and the direction of gravity is perpendicular to the geoid at every point.

Geoid undulation: the distance of the geoid above (positive) or below (negative) the mathematical reference ellipsoid.

In respect to the World Geodetic System — 1984 (WGS-84) defined ellipsoid, the difference between the WGS-84 ellipsoidal height and orthometric height represents WGS-84 geoid undulation.

Gregorian calendar: calendar in general use; first introduced in 1582 to define a year that more closely approximates the tropical year than the Julian calendar (ISO 19108; Geographic information — Temporal schema).

In the Gregorian calendar, common years have 365 days and leap years 366 days divided into twelve sequential months.

Hazard beacon: an aeronautical beacon used to designate a danger to air navigation.

Heliport: 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.

Holding bay: a defined area where aircraft can be held, or bypassed, to facilitate efficient surface movement of aircraft.

Holdover time: the estimated time the anti-icing fluid (treatment) will prevent the formation of ice and frost and the accumulation of snow on the protected (treated) surfaces of an aeroplane.

Hot spot: a location on an **airport** movement area with a history or potential risk of collision or runway incursion, and where heightened attention by pilots/drivers is necessary.

Human Factors principles: principles which apply to aeronautical design, certification, training, operations and maintenance and which seek safe interface between the human and other system components by proper consideration to human performance.

Human performance: human capabilities and limitations which have an impact on the safety and efficiency of aeronautical operations.

Identification beacon: an aeronautical beacon emitting a coded signal by means of which a particular point of reference can be identified.

Independent parallel approaches: simultaneous approaches to parallel or near-parallel instrument runways where radar separation minima between aircraft on adjacent extended runway center lines are not prescribed.

Independent parallel departures: simultaneous departures from parallel or near-parallel instrument runways.

Instrument runway: one of the following types of runways intended for the operation of aircraft using instrument approach procedures:

- (a) Non-precision approach runway: a runway served by visual aids and non-visual aid(s) intended for landing operations following an instrument approach operation type A and a visibility not less than 1 000 m.
- (b) Precision approach runway, category I: a runway served by visual aids and non-visual aid(s) intended for landing operations following an instrument approach operation type B with a decision height (DH) not lower than 60 m (200 ft) and either a visibility not less than 800 m or a runway visual range not less than 550 m.
- (c) Precision approach runway, category II: a runway served by visual aids and non-visual aid(s) intended for landing operations following an instrument approach operation type B with a decision height (DH) lower than 60 m (200 ft) but not lower than 30 m (100 ft) and a runway visual range not less than 300 m.
- (d) Precision approach runway, category III: a runway served by visual aids and non-visual aid(s) intended for landing operations following an instrument approach operation type B to and along the surface of the runway and:
 - (i) Intended for operations with a decision height (DH) lower than 30 m (100 ft), or no decision height and a runway visual range not less than 175 m.
 - (ii) Intended for operations with a decision height (DH) lower than 15 m (50 ft), or no decision height and a runway visual range less than 175 m but not less than 50 m.
 - (iii) Intended for operations with no decision height (DH) and no runway visual range limitations.

Visual aids need not necessarily be matched to the scale of non-visual aids provided. The criterion for the selection of visual aids is the conditions in which operations are intended to be conduct

Integrity (aeronautical data): a degree of assurance that an aeronautical data and its value has not been lost nor altered since the data origination or authorized amendment.

Integrity classification (aeronautical data): classification based upon the potential risk resulting from the use of corrupted data. Aeronautical data is classified as:

- (a) Routine data: there is a very low probability when using corrupted routine data that the continued safe flight and landing of an aircraft would be severely at risk with the potential for catastrophe;
- (b) Essential data: there is a low probability when using corrupted essential data that the continued safe flight and landing of an aircraft would be severely at risk with the potential for catastrophe; and
- (c) Critical data: there is a high probability when using corrupted critical data that the continued safe flight and landing of an aircraft would be severely at risk with the potential for catastrophe.

Intermediate holding position: a designated position intended for traffic control at which taxiing aircraft and vehicles shall stop and hold until further cleared to proceed, when so instructed by the **airport** control tower.

Landing area: that part of a movement area intended for the landing or take-off of aircraft.

Landing direction indicator: a device to indicate visually the direction currently designated for landing and for take-off.

Laser-beam critical flight zone (LCFZ): airspace in the proximity of an **airport** but beyond the LFFZ where the irradiance is restricted to a level unlikely to cause glare effects.

Laser-beam free flight zone (LFFZ): airspace in the immediate proximity of the **airport** where the irradiance is restricted to a level unlikely to cause any visual disruption.

Laser-beam sensitive flight zone (LSFZ): airspace outside, and not necessarily contiguous with, the LFFZ and LCFZ where the irradiance is restricted to a level unlikely to cause flash-blindness or after-image effects.

Lighting system reliability: the probability that the complete installation operates within the specified tolerances and that the system is operationally usable.

Maneuvering area: that part of an **airport** to be used for the take-off, landing and taxiing of aircraft, excluding aprons.

Marker: an object displayed above ground level in order to indicate an obstacle or delineate a boundary.

Marking: a symbol or group of symbols displayed on the surface of the movement area in order to convey aeronautical information.

Movement area: that part of an **airport** to be used for the take-off, landing and taxiing of aircraft, consisting of the maneuvering area and the apron(s).

Near-parallel runways: non-intersecting runways whose extended center lines have an angle of convergence/divergence of 15 degrees or less.

Non-instrument runway: a runway intended for the operation of aircraft using visual approach procedures or an instrument approach procedure to a point beyond which the approach may continue in visual meteorological conditions.

Normal flight zone (NFZ): airspace not defined as LFFZ, LCFZ or LSFZ but which must be protected from laser radiation capable of causing biological damage to the eye.

Obstacle: all fixed (whether temporary or permanent) and mobile objects, or parts thereof, that:

- (a) Are located on an area intended for the surface movement of aircraft;
or
- (b) Extend above a defined surface intended to protect aircraft in flight; or

(d) Stand outside those defined surfaces and that have been assessed as being a hazard to air navigation.

Obstacle free zone (OFZ): the airspace above the inner approach surface, inner transitional surfaces, and balked landing surface and that portion of the strip bounded by these surfaces, which is not penetrated by any fixed obstacle other than a low-mass and frangibly mounted one required for air navigation purposes.

Outer main gear wheel span (OMGWS): the distance between the outside edges of the main gear wheels.

Orthometric height: height of a point related to the geoid, generally presented as an MSL elevation.

Pavement classification number (PCN): a number expressing the bearing strength of a pavement for unrestricted operations.

Precision approach runway, see Instrument runway.

Primary runway(s): runway(s) used in preference to others whenever conditions permit.

Protected flight zones: airspace specifically designated to mitigate the hazardous effects of laser radiation.

Road: an established surface route on the movement area meant for the exclusive use of vehicles.

Road-holding position: a designated position at which vehicles may be required to hold.

Runway: a defined rectangular area on a land **airport** prepared for the landing and take-off of aircraft.

Runway end safety area (RESA): an area symmetrical about the extended runway center line and adjacent to the end of the strip primarily intended to

reduce the risk of damage to an aero plane undershooting or overrunning the runway.

Runway guard lights: a light system intended to caution pilots or vehicle drivers that they are about to enter an active runway.

Runway-holding position: a designated position intended to protect a runway, an obstacle limitation surface, or an ILS/MLS critical/sensitive area at which taxiing aircraft and vehicles shall stop and hold, unless otherwise authorized by the **airport** control tower.

In radiotelephony phraseologies, the expression “holding point” is used to designate the runway-holding position.

Runway strip: a defined area including the runway and stopway, if provided, intended:

- (a) To reduce the risk of damage to aircraft running off a runway; and
- (b) To protect aircraft flying over it during take-off or landing operations.

Runway turn pad: a defined area on a land **airport** adjacent to a runway for the purpose of completing a 180-degree turn on a runway.

Runway visual range (RVR): the range over which the pilot of an aircraft on the centerline of a runway can see the runway surface markings or the lights delineating the runway or identifying its center line.

Safety management system (SMS): a systematic approach to managing safety including the necessary organizational structure, accountabilities, policies and procedures.

Segregated parallel operations: simultaneous operations on parallel or near-parallel instrument runways in which one runway is used exclusively for approaches and the other runway is used exclusively for departures.

Shoulder: an area adjacent to the edge of a pavement so prepared as to provide a transition between the pavement and the adjacent surface.

Sign:

- (a) Fixed message sign: a sign presenting only one message.
- (b) Variable message sign: a sign capable of presenting several predetermined messages or no message, as applicable.

Signal area: an area on an **airport** used for the display of ground signals.

Slush: water-saturated snow which with a heel-and-toe slap-down motion against the ground will be displaced with a splatter; specific gravity: 0.5 up to 0.8.

Combinations of ice, snow and/or standing water may, especially when rain, rain and snow, or snow is falling produce substances with specific gravities in excess of 0.8. These substances, due to their high water/ice content, will have a transparent rather than a cloudy appearance and, at the higher specific gravities, will be readily distinguishable from slush.

Snow (on the ground):

- (a) **Dry snow:** snow which can be blown if loose or, if compacted by hand, will fall apart again upon release; specific gravity: up to but not including 0.35.
- (b) **Wet snow:** snow which, if compacted by hand, will stick together and tend to or form a snowball; specific gravity: 0.35 up to but not including 0.5.
- (c) **Compacted snow:** snow which has been compressed into a solid mass that resists further compression and will hold together or break up into lumps if picked up; specific gravity: 0.5 and over.

Station declination: an alignment variation between the zero degree radial of a VOR and true north, determined at the time the VOR station is calibrated.

Stopway: a defined rectangular area on the ground at the end of take-off run available prepared as a suitable area in which an aircraft can be stopped in the case of an abandoned take-off.

Switch-over time (light): the time required for the actual intensity of a light measured in a given direction to fall from 50 per cent and recover to 50 per cent during a power supply changeover, when the light is being operated at intensities of 25 per cent or above.

Take-off runway: a runway intended for take-off only.

Taxiway: A defined path on a land **airport** established for the taxiing of aircraft and intended to provide a link between one part of the **airport** and another, including:

- (a) **Aircraft stand taxilane.** A portion of an apron designated as a taxiway and intended to provide access to aircraft stands only.
- (b) **Apron taxiway.** A portion of a taxiway system located on an apron and intended to provide a through taxi-route across the apron.
- (c) **Rapid exit taxiway.** A taxiway connected to a runway at an acute angle and designed to allow landing aeroplanes to turn off at higher speeds than are achieved on other exit taxiways thereby minimizing runway occupancy times.

Taxiway intersection: a junction of two or more taxiways.

Taxiway strip: an area including a taxiway intended to protect an aircraft operating on the taxiway and to reduce the risk of damage to an aircraft accidentally running off the taxiway.

Threshold: the beginning of that portion of the runway usable for landing.

Touchdown zone: the portion of a runway, beyond the threshold, where it is intended landing aeroplanes first contact the runway.

Usability factor: the percentage of time during which the use of a runway or system of runways is not restricted because of the crosswind component.

Crosswind component means the surface wind component at right angles to the runway centerline.

139.5 General.

(a) This Part represents the minimum requirements to achieve an acceptable level of safety.

(b) Inspection Authority.

(1) Airport Safety Inspectors are authorized to conduct to conduct safety oversight activities, including announced and unannounced inspections to ensure aviation safety and compliance with:

(i)The Civil Aviation law No. 41 of 2007, as amended; and

(ii) The requirements of this Part.

(2) Airport Safety Inspectors are empowered to address safety-critical findings and the related safety recommendations to ensure compliance with all relevant requirements prescribed in this Part and relevant parts attached in Attachment (B) of AN 14-1 publication.

(c) Compliance.

The airport operator shall comply with the regulations and publications mentioned in Attachment (B) of AN 14-1 publication. The airport operator shall also comply with any conditions that may be endorsed in the Airport Operating Certificate or Airport Authorization.

(d) CARC Airport Safety Inspector Authority.

(1)CARC Credentialed Airport Safety Inspector are empowered to conducting safety oversight activities including but not limited to:

- i. Inspect any part of any airport;
- ii. Investigate and test the effectiveness of airport practices and procedures;
- iii. Require an airport operator, airport accountable manager or occupier of land outside the airport occupied for business purposes

in connection with the airport to provide information deemed necessary to ensure the safety of the airport;

- iv. Enter any land or in any building, access to which is necessary, for the purpose of conducting safety oversight activities;
 - v. Record an operation, procedure or installation in written, photographic or other electronic form; and
- (2) Airport Safety Inspectors are also empowered to conduct safety oversight activities on air navigation installations.
- (3) Airport Safety Inspectors are empowered to take into restricted zones of airport any equipment needed for them to perform their duties, including cameras, video recorders and tape recorders, and to use such equipment as necessary.

139.7-139.99 Reserved

SUBPART –B
Certification

139.101 General Requirements.

(a) All **airports** open for international operations and public civilian use in the Hashemite Kingdom of Jordan shall be certified in accordance with the specifications contained in this Part as well as publication AN 14-1, JCARs Part 150, Part 301, Part 19 and other related Jordan Civil Aviation Regulations and publications.

(b) As part of the certification process, CARC will ensure that an **airport** manual which will include all pertinent information on the **airport** site, facilities, services, equipment, operating procedures, organization and management including a safety management system, is submitted by the applicant for approval/acceptance prior to granting the airport certificate.

139.103 Application for an Airport Operating Certificate.

Each applicant for an airport operating certificate (APOC) shall submit an expression of interest and the relevant formal application as prescribed in Subpart C, including the following:

- (a) Two hard copies of an aerodrome certification manual (ACM) and one soft copy, as appropriate, prepared in accordance with subpart C of this part; and
- (b) A payment of the appropriate application fee prescribed by related regulations;
- (c) Evidence of lawful entitlement to use the place as an airport;
- (d) A plan of the airport and its facilities certified by a registered surveyor.
- (e) Possessing a third party insurance policy acceptable to the Chief Commissioner, or his designee.

139.105 Reserved.

139.107 Issuance of Certificate.

An applicant for an airport operating certificate is entitled to an airport operating certificate if:

- (a) The provisions of paragraph 139.103 of this part are met;

- (b) The applicant is properly and adequately equipped and able to provide a safe airport operating environment in accordance with:
 - (1) This part, and
 - (2) Any limitations which CARC finds necessary in the public interest.

- (c) The Chief Commissioner or his representatives, after inspection, finds that:
 - (1) The applicant and airport staff have the necessary competence and experience to operate and maintain the airport properly;
 - (2) The airport manual contains all relevant information;
 - (3) The airport facilities, services and equipment are in accordance with the standard and practices specified in this part;
 - (4) The airport operating procedures make satisfactory provision for the safety of aircraft; and
 - (5) An acceptable safety management system is in place at the airport.

- (d) CARC approved the airport certification manual;

- (e) The airport has, in effect, a CARC approved airport security manual.

- (f) Airport operating certificate applicant has established an environmental management system in compliance with the related national regulations.

139.109 Duration of Certificate.

An airport operating certificate issued under this part is effective for two years or until it is surrendered by the airport operator; or if it is suspended, or revoked by CARC.

139.111 Exemptions, Limitations and Deviations.**(a) Exemptions.**

(1) An airport operating certificate holder may petition the Chief Commissioner under JCAR Part 11 (General Rule Making), from any requirements of this Part if deemed necessary for the operation of airport providing that equivalent safety measure is ensured or;

(2) The findings of the risk assessment indicate that the existing level of risk is within the acceptable levels that established by CARC.

(3) Each petition filed under this section shall be submitted in duplicate to the CARC in form and manner acceptable to the Chief Commissioner.

(4) An exemption is subject to the airport operating certificate holder complying with conditions and procedures specified by the Chief Commissioner in the airport certificate as being necessary in the interest of safety.

(b) Deviations.

(1) In emergency conditions requiring immediate action for the protection of life or property, involving the transportation of persons by air carriers, the airport operating certificate holder may deviate from any requirement of this part to the extent required to meet that emergency. Each airport operating certificate holder who deviates from a requirement under this paragraph shall, as soon as practicable, but not later than 14 days after the emergency, report in writing to the Chief Commissioner stating the nature, extent, and duration of the deviation.

(2) Any other existing deviations in the airport facilities from the requirements of this part shall be pursued according to the requirements established under paragraph (a) of this section. Such deviations will be set out as an endorsement on the airport operating certificate.

(c) Limitations.

To serve public interest, and to ensure safe aircraft operation at any certified airport, the Chief Commissioner may impose an operational restrictions as well as any limitation on the use of any airport facility.

139.113–139.115 Reserved.

139.117 Amendment of Certificate.

Provided that the requirements of 139.107 and 139.217 have been met, Chief Commissioner may amend an airport operating certificate when:

- (a) There is a change in the use or operation of the airport;
- (b) There is a change in the boundaries of the airport; or
- (c) There is a change in the physical characteristics of the airport; or
- (d) The holder of the airport operating certificate requests an amendment.
- (e) Any other change that is deemed necessary by CRAC.

139.119 Surrender of an Airport Operating Certificate.

(a) If the airport operating certificate holder decides not to renew the airport operating certificate, that operator shall give the Chief Commissioner, not less than 90 days, written notice of the date on which the certificate is to be surrendered in order that suitable promulgation action can be taken.

(b) CARC will cancel the certificate on the date specified in the notice.

139.121 -139.123 Reserved.

139.125 Suspension of an Airport Operating Certificate.

Suspension of an airport operating certificate may be considered if:

- (a) The established safety management system at the certified airport is found to be inadequate;
- (b) It is in the interest of operational safety;
- (c) All other means for timely correction of the unsafe condition or ensuring safe aircraft operations have not yielded the required results;
- (d) The technical proficiency or qualifications of the airport key post holders as specified in Subpart D to perform the duties to meet the critical safety requirements in accordance with the regulations are found inadequate;
- (e) The airport operating certificate holder is incapable to take action to correct or mitigate the condition affecting aviation safety within a timeframe specified or approved by CARC; or
- (f) Airport operating certificate holder wilfully fails to perform an already agreed upon corrective action and suspension of the certificate is the last resort to avoid unsafe operations of airport.

139.127 Revocation of an Airport Operating Certificate.

An airport operating certificate may be revoked if:

- (a) The certificate holder is unwilling to carry out corrective action or has committed/repeated serious violations; or
- (b) The certificate holder has demonstrated a lack of responsibility, such as deliberate and flagrant acts of non-compliance or falsification of records jeopardizing aviation safety; or

(c) It is convincingly clear that the continued operation of the airport will be detrimental to the public interest.

139.129 Renewal of the Airport Operating Certificate.

(a) An application for the renewal of airport operating certificate shall be made in a manner acceptable to the Chief Commissioner and within 60 days before the expiry of the certificate.

(b) Renewal of the certificate shall be in accordance with the requirements prescribed in 139.107.

139.131 -139.199 Reserved.

SUBPART -C

Airport Certification Manual (ACM)

139.201 General Requirements.

(a) An applicant for an airport operating certificate shall prepare, and submit with an application, two hard copies and one soft copy of the airport certification manual for approval by the Chief Commissioner. Only those items addressing subjects required for certification under this Part shall be included in the airport certification manual.

(b) Each airport operating certificate shall comply with an approved airport certification manual that meets the requirements of sections 139.203 and 139.205.

139.203 Preparation of Airport Certification Manual (ACM).

The Airport Certification Manual (ACM) required by this Part shall:

- (a) Be typewritten and signed by the airport operator;
- (b) Be in a form that is easy to revise;
- (c) Has the effective date and issuance status (original/ amendment number on each page);
- (d) Has an approval sheet showing issue number, amendment number and it is effective date;
- (e) Be organized in a manner helpful to the preparation, review, and approval processes; and
- (f) Has a distribution list against signature internally and externally.

139.205 Contents of Airport Certification Manual (ACM).

The ACM as prescribed in AN/14-1 Appendix (6) to this Part shall include the following as applicable:

Part 1: General Information.

Part 2: Particulars of the Airport Site.

Part 3: Particulars of the Airport Required to be Reported to the Aeronautical Information Services (AIS).

Part 4: Particulars of the Airport Operating Procedures Measures.

Part 5: Rescue and Firefighting Requirements.

Part 6: Airport Administration and Safety Management System.

139.207 Maintenance of Airport Certification Manual (ACM).

Each airport operating certificate holder shall:

- (a) Keep the ACM current at all times;
- (b) Maintain a complete copy of the approved ACM at the airport;
- (c) Furnish a copy of the applicable portions of the approved ACM to the airport personnel responsible for their implementation against signature;
- (d) Provide the Chief Commissioner with two complete and current copies of the ACM.
- (e) Make the copy required by paragraph (b) of this section available for inspection by the Chief Commissioner upon request;
- (f) Appoint the safety post holder to be responsible for the maintenance of the ACM.

139.209 Location of the Airport Certification Manual (ACM).

Each airport operating certificate holder shall:

- (a) provide CARC with a complete and current copy of the airport certification manual.
- (b) keep at least one complete and current copy of the airport certification manual at the airport and one copy at the operator's principle place of the business if other than the airport.
- (c) Make the copy available for the inspection by authorized CARC inspectors.
- (d) Distribute a complete and current copy to all stakeholders.

139.211-139.215 Reserved.**139.217 Amendment of Airport Certification Manual (ACM).**

- (a) The amendment of the approved ACM may be initiated either by:
 - (1) The airport operating certificate holder; or
 - (2) The Chief Commissioner; when it is determined that the aviation safety and the public interest require the amendment.
- (b) An applicant for an amendment to its ACM shall notify the Chief Commissioner at least 30 days before the proposed effective date of the amendment, and obtain CARC approval before publishing any changes to the ACM, unless a shorter period of the notification is allowed by the Chief Commissioner for the interest of safety operation.
- (c) At any time within 30 days after receiving a notice of refusal to approve the application for amendment, the airport operating certificate holder may petition the Chief Commissioner to reconsider the refusal to amend.
- (d) In the case of amendments initiated by the Chief Commissioner, CARC will notify the airport operating certificate holder of the proposed amendment, in writing, fixing a reasonable period (but not less than 7 days) within which the airport operator certificate holder may submit written information, views, and arguments on the amendment. After considering all

relevant material presented, the Chief Commissioner notifies the airport operating certificate holder of any amendment adopted or rescinds the notice. The amendment becomes effective not less than 30 days after the airport operating certificate holder receives notice of it, except that prior to the effective date the airport operating certificate holder may petition the Chief Commissioner to reconsider the amendment, in which case its effective date is delayed pending a decision by the Chief Commissioner.

(e) Notwithstanding the provisions of paragraph (d) of this section, if the Chief Commissioner finds that there is an emergency requiring immediate action with respect to aviation safety, the Chief Commissioner may issue an amendment, effective without delay on the date the airport operating certificate holder receives notice of it. In such a case, the Chief Commissioner incorporates the finding of the emergency, and a brief statement of the reasons for the finding, in the notice of the amendment, and the airport operating certificate holder shall immediately amend the ACM and distribute the amendment. Within 30 days after the issuance of such an emergency amendment, the airport operating certificate holder may petition the Chief Commissioner to reconsider either the finding of an emergency or the amendment itself or both. This petition does not automatically delay the effective date of the emergency amendment.

139.219-139.299 Reserved.

SUBPART -D
Operations

139.301 Personnel Requirements.

(a) The airport operator shall nominate post holders, acceptable to CARC, who are responsible for the management and supervision of the following areas:

(1) **Accountable Manager:** The airport operator shall appoint an accountable manager, who has full control of the resources, final authority over operations under the certificate/approval of the organisation and ultimate responsibility and accountability for the establishment, implementation and maintenance of the SMS; safety policies and the resolution of all safety issues (See AN/14-1 Appendix (7), Table A7-1 for Assessment Criteria);

(2) **Operational Services of the Airport:** a senior person who is responsible for ensuring that the airport and its operation comply with the requirements of these regulations (See AN/14-1 Appendix (7), Table A7-3 for Assessment Criteria);

(3) **Maintenance of the Airport:** a senior person who is responsible for ensuring that the airport maintenance programmes for safety critical infrastructure comply with the requirements of these regulations (See AN/14-1 Appendix (7), Table A7-4 for Assessment Criteria);

(4) **Airport Safety:** The airport operator shall nominate a person or group of persons responsible for the development, maintenance and day-to-day management of the safety management system. Those persons shall act independently of other managers within the organisation, shall have direct access to the accountable manager and to appropriate management for safety matters and shall be responsible to the accountable manager (See AN/14-1 Appendix (7), Table A7-2 for Assessment Criteria).

(5) **Airport Quality:** The airport operator shall nominate a person or group of persons responsible for the development, maintenance and day-to-day management of the quality management system. Those persons shall act independently of other managers within the organisation, shall have direct access to the accountable manager and to appropriate management for quality matters and shall be responsible to the accountable manager (See AN/14-1 Appendix (7), Table A7-5 for Assessment Criteria).

(b) The airport operator shall have sufficient and qualified personnel for the planned tasks and activities to be performed in accordance with the applicable requirements.

(c) The airport operator shall assign a sufficient number of personnel supervisors to defined duties and responsibilities, taking into account the structure of the organisation and the number of personnel employed.

(d) The airport operator shall ensure that personnel involved in the operation, maintenance and management of the airport are adequately trained in accordance with the training program.

(e) CARC will assess and accept each nominated Airport Post Holder based on the Assessment Criteria in AN 14-1 Appendix (7), conduct an interview with the nominee and may call for additional evidence of his/her suitability before deciding upon his/her acceptability.

(f) The Airport Operator shall ensure that any changes to Airport Post Holders are accepted by CARC prior to the change.

(g) Deputy Airport Post Holders; when an Airport Post Holder is unavailable for a period not exceeding thirty days, or has left the organization, the airport operator shall ensure the availability of a deputy post holder and notify CARC of a replacement or temporary Airport Post Holder.

(h) Each airport operator shall update its Airport Manual including the organizational structure with respect to the accepted Airport Post Holders.

139.303 Airport Training Requirements.

(a) The airport operator shall establish and implement a training program for personnel involved in the Operation, Maintenance and Safety Management of the airport.

(1) The training program shall cover:

(i) all personnel involved in the operation, maintenance and safety management of the airport (supervisors, managers, senior managers, and the Accountable Manager); and

(ii) all personnel operating unescorted on the movement area, and other operational areas of the airport, and which are related to the airport operator, or other organizations which operate or provide services at the airport, regardless of their level in the organization.

(2) The training of persons mentioned in paragraph (1) shall be completed prior to the initial performance of their duties, or allowing them unescorted access on the Movement Area and other operational areas of the airport, as appropriate.

(3) The training program shall include Safety Management System training whose level of detail shall be appropriate to the individual's responsibility and involvement in the Safety Management System and shall also include human and organizational factors; for those persons referred to in paragraph under (1) (ii) employed by other organizations operating, or providing services at the airport, the Safety Management System training may cover only the necessary elements (e.g. relevant procedures, safety reporting system, airport safety programs, FOD awareness, etc.).

(4) The training program shall consist of the following:

(i) A process to identify training standards, including syllabus and frequency for each type of training and area of activity for the persons mentioned in paragraph (a), including for instructors and assessors, and track completion of required training;

(ii) A validation process that measures the effectiveness of

training;

- (iii) Initial job-specific training;
- (iv) On-the-job training; and
- (v) Recurrent training.

(5) The training program shall identify training responsibilities and contain procedures for training and checking of the trainees

(6) Training contents and syllabus shall comply with the training requirements described in the Airport Manual.

(7) A training file shall be developed for each employee, including management, to assist in identifying and tracking employee training requirements, and verifying that personnel have received the planned training.

(b) The airport operator shall ensure that unescorted persons operating on the movement area or other operational areas of the airport are adequately trained.

(c) Training Records

(1) The airport operator shall maintain records of the training sessions that have been provided, including as a minimum the following:

- (i) Starting date of employment/ending date of employment (if applicable);
- (ii) Area of training and subjects covered;
- (iii) Names of participants/signed list of participants;
- (iv) Date and duration of training; and
- (v) Name of the instructor.

(2) Training Records of Individuals: The training records maintained for each individual shall include as a minimum:

- (i) The name of the trainee;
- (ii) The date(s) and the duration of the training;
- (iii) The place where the training was received;
- (iv) The name of the organization that provided the training;
- (v) The subjects covered, and the methodology of the course;
- (vi) Any comments made by the instructor if applicable;
- (vii) Performance evaluation of the trainee if applicable; and
- (viii) The name and signature of the instructor.

139.305 Paved Areas.

(a) Each airport operator shall employ a maintenance program, including preventive maintenance where appropriate, to maintain the airport facilities in condition does not impair the safety of aircraft operation, and promptly repair the pavement of, each runway, taxiway, loading ramp, and parking area on the airport which is available for air carrier use as follows:

- (1) The pavement edges shall not exceed 7.5 cm difference in elevation between abutting pavement sections and between full strength pavement and abutting shoulders.
- (2) The pavement shall have no hole exceeding 7.5 cm in depth nor any hole the slope of which from any point in the hole to the nearest point at the lip of the hole is 45 degrees or greater as measured from the pavement surface plane, unless, in either case, the entire area of the hole can be covered by a 12.5 cm diameter circle.
- (3) The pavement shall be free of cracks and surface variations which could impair directional control of air carrier aircraft.

(4) Except as provided in paragraph (b) of this section, mud, dirt, and loose aggregate, debris, foreign objects, rubber deposits and other contaminants shall be removed promptly and as completely as practicable.

(5) Except as provided in paragraph (b) of this section, any chemical solvent that is used to clean any pavement area shall be removed as soon as practically possible, consistent with the instructions of the manufacturer of the solvent.

(6) The pavement shall be sufficiently drained and free of depressions to prevent ponding that obscures markings or impairs safe aircraft operations.

Specification of paved areas maintenance is given in the publication AN 14-1, Chapter (10) and CARC related guidance material.

(b) Paragraphs (a)(4) and (a)(5) of this section do not apply to snow and ice accumulations and their control, including the associated use of materials such as sand and deicing solutions.

139.307 Reserved.

139.309 Safety Areas.

Each airport operator shall maintain its safety areas as follows:

(a) Each safety area shall be cleared and graded, and have no potentially hazardous ruts, humps, depressions, or other surface variations.

(b) Each safety area shall be drained by grading or storm sewers to prevent water accumulation and ponding.

(c) Each safety area shall be capable under dry conditions of supporting snow removal equipment, and aircraft rescue and fire-fighting equipment, and supporting the occasional passage of aircraft without causing major damage to the aircraft.

(d) No object may be located in any safety area, except for objects that need to be located in a safety area because of their function. These objects shall be constructed, to the extent practical, on frangible mounted structures of the lowest practical height with the frangible point no higher than 7.5 cm above grade.

Specification of paved areas maintenance is given in the publication AN 14-1, Chapter (10) and CARC related guidance material..

139.311 Marking, Signs and Airfield Lighting.

(a) Each airport operator shall provide and maintain the following marking systems as appropriate for air carrier operations on the airport:

- (1) Runway markings meeting the specifications for the approach with the lowest minimums authorized for each runway.
- (2) Taxiway centerline, edge markings and aprons marking.
- (3) Signs identifying taxiing routes on the movement area.
- (4) Runway holding position markings and signs.
- (5) ILS critical area markings and signs.

(b) Each airport operator shall provide and maintain the following lighting systems as appropriate to meet minimums authorized for each runway:

- (1) Runway lighting meeting the specifications for the approach with the lowest minimums;
- (2) Taxiway and apron lighting systems.
- (3) An airport beacon.
- (4) Approach lighting meeting the specifications for the approach with the lowest minimums authorized for each runway.

(5) Obstruction marking and lighting, as appropriate, on each object within its authority.

(c) Each airport operator shall employ preventive maintenance programs and properly maintain each marking, sign or lighting system installed on the airport which is owned by the airport operator. As used in this section, to "properly maintain" includes:

(1) to clean, replace, or repair any faded, missing, or nonfunctional item of lighting;

(2) to keep each item unobscured and clearly visible;

(3) to ensure that each item provides an accurate reference to the user.

(d) Each airport operator shall ensure that all lighting on the airport, including that for aprons, vehicle parking areas, roadways, fuel storage areas, and buildings, is adequately adjusted or shielded to prevent interference with air traffic control and aircraft operations.

Specifications on marking, signs and airfield lighting maintenance are given in the publication AN 14-1, Chapter (10) and CARC related guidance material.

139.313 Snow and Ice Control.

(a) Each airport operator whose airport is located where snow and icing conditions regularly occur shall prepare, maintain, and carry out a snow and ice control plan.

(b) The snow and ice control plan required by this section shall include instructions and procedures for:

(1) Prompt removal or control as completely as practical of snow, ice, and slush on each movement area;

(2) Positioning snow off of movement area surfaces so that all air carrier aircraft propellers, engine pods, rotors, and wingtips will clear any

snowdrift and snow bank as the aircraft's landing gear traverses any full strength portion of the movement area;

(3) Selection and application of approved materials for snow and ice control to ensure that they adhere to snow and ice sufficiently to minimize engine ingestion;

(4) Timely commencement of snow and ice control operations; and

(5) Prompt notification, in accordance with 139.339, of all air carriers using the airport when any portion of the movement area normally available to them is less than satisfactorily cleared for safe operation by their aircraft.

139.315 Reserved

139.317 Aircraft Rescue and Firefighting.

(a) General.

The principal objective of a rescue and firefighting service is to save lives in the event of an aircraft accident or incident occurring at, or in the immediate vicinity of, an airport. The rescue and firefighting service is provided to create and maintain survivable conditions, to provide egress routes for occupants and to initiate the rescue of those occupants unable to make their escape without direct aid. The rescue may require the use of equipment and personnel other than those assessed primarily for rescue and firefighting purposes.

The most important factors bearing on effective rescue in a survivable aircraft accident are: the training received, the effectiveness of the equipment and the speed with which personnel and equipment designated for rescue and firefighting purposes can be put into use.

Requirements to combat building and fuel farm fires, or to deal with foaming of runways, are not taken into account.

(b) Application.

(1) Rescue and firefighting equipment and services shall be provided at an airport.

Public or private organization suitably located and equipped, may be designated to provide the rescue and firefighting services. It is intended that the fire station housing these organizations be normally located on the airport, although an off- airport location is not precluded provided the response time can be met.

(2) Where an airport is located close to water/swampy areas, or difficult terrain, and where a significant portion of approach or departure operations takes place over these areas, specialist rescue services and firefighting equipment appropriate to the hazard and risk shall be available.

The objective is to plan and deploy the necessary life-saving flotation equipment as expeditiously as possible in a number commensurate with the largest airplane normally using the airport.

(c) Level of Protection to be Provided.

(1) The level of protection provided at an airport for rescue and firefighting shall be equal to the airport category determined using the following principles:

(i) The airport category shall be determined from Table 139.317-1 and shall be based on the longest airplanes normally using the airport and their fuselage width.

To categorize the airplanes using the airport, first evaluate their overall length and second, their fuselage width.

(ii) If, after selecting the category appropriate to the longest airplane's overall length, that airplane's fuselage width is greater than the maximum width in Table 139.317-1, column 3 for that category, then the category for that airplane shall actually be one category higher.

(2) During anticipated periods of reduced activity, the level of protection available shall be no less than that needed for the highest category of airplane planned to use the airport during that time irrespective of the number of movements.

**Table 139.317-1
Aerodrome category for rescue and firefighting**

Aerodrome category	Airplane overall length	Maximum fuselage width
(1)	(2)	(3)
1	0 m up to but not including 9	2 m
2	9 m up to but not including 12 m	2 m
3	12 m up to but not including 18 m	3 m
4	18 m up to but not including 24 m	4 m
5	24 m up to but not including 28 m	4 m
6	28 m up to but not including 39 m	5 m
7	39 m up to but not including 49 m	5 m
8	49 m up to but not including 61 m	7 m
9	61 m up to but not including 76 m	7 m
10	76 m up to but not including 90 m	8 m

(d) Extinguishing Agents.

(1) Both principal and complementary extinguishing agents shall be provided at an airport.

(2) The principal extinguishing agent shall be:

- (i) A foam meeting the minimum performance level A; or
- (ii) A foam meeting the minimum performance level B; or

(iii) A foam meeting the minimum performance Level C; or

(iv) A combination of these agents; except that the principal extinguishing agent for airports in categories 1 to 3 shall preferably meet performance level B or C foam.

(3) The complementary extinguishing agent shall be a dry chemical powder suitable for extinguishing hydrocarbon fires.

When selecting dry chemical powders for use with foam, care shall be exercised to ensure compatibility.

(4) The amounts of water for foam production and the complementary agents to be provided on the rescue and firefighting vehicles shall be in accordance with the airport category determined under 139.317 paragraph (c) (1) and Table 139.317-2, except that for airport categories 1 and 2 up to 100 per cent of the water may be complementary agent.

For the purpose of agent substitution, 1 kg of complementary agent shall be taken as equivalent to 1.0L of water for production of a foam meeting performance level A.

The amounts of water specified for foam production are predicated on an application rate of 8.2 L/min/m² for a foam meeting performance level A, 5.5 L/min/m² for a foam meeting performance level B and 3.75L/min/m² for a foam meeting performance Level C.

When any other complementary agent is used, the substitution ratios need to be checked.

(5) At airports where operations by aeroplanes larger than the average size in a given category are planned, the quantities of water shall be recalculated and the amount of water for foam production and the discharge rates for foam solution shall be increased accordingly.

(6) The quantity of foam concentrates separately provided on vehicles for foam production shall be in proportion to the quantity of water provided and the foam concentrate selected.

(7) The amount of foam concentrate provided on a vehicle shall be sufficient to produce at least two loads of foam solution.

(8) Supplementary water supplies, for the expeditious replenishment of rescue and firefighting vehicles at the scene of an aircraft accident, shall be provided.

(9) When a combination of different, the total amount of water to be provided for foam production shall be calculated for each foam type and the distribution of these quantities shall be documented for each vehicle and applied to the overall rescue and firefighting requirement.

(10) The discharge rate of the foam solution shall not be less than the rates shown in Table 139.317-2.

(11) The complementary agents shall comply with the appropriate specifications of the International Organization for Standardization (ISO).

(12) The discharge rate of complementary agents shall be no less than the rates shown in Table 139.317-2.

(13) Dry chemical powders shall only be substituted with an agent that has equivalent or better firefighting capabilities, for all types of fires where complementary agent is expected to be used.

(14) A reserve supply of foam concentrate, equivalent to 200 per cent of the quantities identified in Table 139.317-2, shall be maintained on the airport for vehicle replenishment purposes.

Foam concentrate carried on fire vehicles in excess of the quantity identified in Table 139.317-2 can contribute to the reserve.

(15) A reserve supply of complementary agent, equivalent to 100 per cent of the quantity identified in Table 139.317-2, shall be maintained on the airport for vehicle replenishment purposes. Sufficient propellant gas shall be included to utilize this reserve complementary agent.

(16) Category 1 and 2 airports that have replaced up to 100 per cent of the water with complementary agent shall hold a reserve supply of complementary agent of 200 per cent.

(17) Where a major delay in the replenishment of the supplies is anticipated, the amount of reserve supply in 139.317 paragraphs (d) (15), (d) (16), and (d) (17) shall be increased as determined by a risk assessment.

(e) Rescue Equipment.

Rescue equipment commensurate with the level of aircraft operations shall be provided on the rescue and firefighting vehicle(s). Specifications on rescue equipment are given in the publication AN 14-1, Chapter (9).

(f) Response Time.

(1) The operational objective of the rescue and firefighting service shall be to achieve a response time not exceeding 2:00 minutes to any point of each operational runway, in optimum visibility and surface conditions.

(2) The operational objective of the rescue and firefighting service shall be to achieve a response time not exceeding 2:45 minutes to any other part of the movement area, in optimum visibility and surface conditions.

Response time is considered to be the time between the initial call to the rescue and firefighting service, and the time when the first responding vehicle(s) is (are) in position to apply foam at a rate of at least 50 percent of the discharge rate specified in Table 139.317-2.

Optimum visibility and surface conditions are defined as daytime, good visibility, no precipitation with normal response route free of surface contamination e.g. water, ice or snow.

(3) To meet the operational objective as nearly as possible in less than optimum conditions of visibility, especially during low visibility operations, suitable guidance, equipment and/or procedures for rescue and firefighting services shall be provided.

(4) Any vehicles, other than the first responding vehicle(s), required to deliver the amounts of extinguishing agents specified in Table 139.317-2 shall ensure continuous agent application and shall arrive no more than 3:30 minutes from the initial call.

(5) A system of preventive maintenance of rescue and firefighting vehicles shall be employed to ensure effectiveness of the equipment and compliance with the specified response time throughout the life of the vehicle.

(g) Emergency Access Roads.

(1) Emergency access roads shall be provided on an airport where terrain conditions permit their construction, so as to facilitate achieving minimum response times. Particular attention shall be given to the provision of ready access to approach areas up to 1000 m from the threshold, or at least within the airport boundary. Where a fence is provided, the need for convenient access to outside areas shall be taken into account.

Airport service roads may serve as emergency access roads when they are suitably located and constructed.

(2) Emergency access roads shall be capable of supporting the heaviest vehicles which will use them, and be usable in all weather conditions. Roads within 90 m of a runway shall be surfaced to prevent surface erosion and the transfer of debris to the runway. Sufficient vertical clearance shall be provided from overhead obstructions for the largest vehicles.

**Table 139.317-2
Minimum usable amounts of extinguishing agents**

Aerodrome Category	Foam meeting performance level A		Foam meeting performance level B		Foam meeting performance level C		Complementary agents	
	Water (L)	Discharge rate foam solution/minute (L)	Water (L)	Discharge rate foam solution/minute (L)	Water (L)	Discharge rate foam solution/minute (L)	Dry Chemical powder (kg)	Discharge Rate Kg/sec
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	350	350	230	230	160	160	45	2.25
2	1000	800	670	550	460	360	90	2.25
3	1800	1300	1200	900	820	630	135	2.25
4	3600	2600	2400	1800	1700	1100	135	2.25
5	8100	4500	5400	3000	3900	2200	180	2.25
6	11800	6000	7900	4000	5800	2900	225	2.25
7	18200	7900	12100	5300	8800	3800	225	2.25
8	27300	10800	18200	7200	12800	5100	450	4.5
9	36400	13500	24300	9000	17100	6300	450	4.5
10	48200	16600	32300	11200	22800	7900	450	4.5

The quantities of water shown in columns 2, 4 and 6 are based on the average overall length of airplanes in a given category.

(3) When the surface of the road is indistinguishable from the surrounding area, or in areas where snow may obscure the location of the roads, edge markers shall be placed at intervals of about 10 m.

(h) Fire Stations.

(1) All rescue and firefighting vehicles shall normally be housed in a fire station. Satellite fire stations shall be provided whenever the response time cannot be achieved from a single fire station.

(2) The fire station shall be located so that the access for rescue and firefighting vehicles into the runway area is direct and clear, requiring a minimum number of turns.

(i) Communication and Alerting Systems.

(1) A discrete communication system shall be provided linking a fire station with the control tower, any other fire station on the airport and the rescue and firefighting vehicles.

(2) An alerting system for rescue and firefighting personnel, capable of being operated from that station, shall be provided at a fire station, any other fire station on the airport and the airport control tower.

(j) Number of Rescue and Firefighting Vehicles.

The minimum number of rescue and firefighting vehicles provided at an airport shall be in accordance with the following tabulation:

**Table 139.317-3
Number of Rescue and Firefighting Vehicles**

Aerodrome category	Rescue and firefighting vehicles
1	1
2	1
3	1
4	1
5	1
6	2

7	2
8	3
9	3
10	3

(k) Personnel

(1) All rescue and firefighting personnel shall be properly trained to perform their duties in an efficient manner and shall participate in live fire drills commensurate with the types of aircraft and type of rescue and firefighting equipment in use at the airport, including pressure-fed fuel fires.

Fires associated with fuel discharged under very high pressure from a ruptured fuel tank are known as “pressure-fed fuel fires”.

(2) The rescue and firefighting personnel training program shall include training in human performance, including team coordination.

Guidance material to design training programs on human performance and team coordination can be found in the CARC related guidance material.

(3) During flight operations, sufficient trained and competent personnel shall be designated to be readily available to ride the rescue and firefighting vehicles and to operate the equipment at maximum capacity. These personnel shall be deployed in a way that ensures that minimum response times can be achieved and that continuous agent application at the appropriate rate can be fully maintained. Consideration shall also be given for personnel to use hand lines, ladders and other rescue and firefighting equipment normally associated with aircraft rescue and firefighting operations.

(4) In determining the number personnel required a task resource analysis should be completed and the level of staffing documented in the Airport Manual.

Guidance on the use of a task resource analysis can be found in the CARC related guidance material.

(5) All responding rescue and firefighting personnel shall be provided with protective clothing and respiratory equipment to enable them to perform their duties in an effective manner.

139.319 Reserved.

139.321 Handling and Storing of Dangerous Goods and Hazardous Substances.

(a) Each airport operator, and any other entity, which acts as a cargo handling agent at the airport shall establish and maintain procedures for the protection of persons and property on the airport during the handling and storing of any material regulated by the Dangerous Goods / Hazardous Materials Regulations, that is, or is intended to be, transported by air, or used on airport facilities. These procedures shall provide for at least the following:

- (1) Designated personnel to receive and handle hazardous substances and materials.
- (2) Assurance from the shipper that the cargo can be handled safely, including any special handling procedures required for safety.
- (3) Special areas for storage of hazardous materials while on the airport.

(b) Each airport operator shall establish and maintain standards acceptable to the Chief Commissioner for protecting against fire and explosions in storing, dispensing, and otherwise handling fuel, lubricants, and oxygen (other than articles and materials that are, or are intended to be, aircraft cargo) on the airport. These standards shall cover facilities, procedures, and personnel training and shall address at least the following:

- (1) Grounding and bonding.
- (2) Public protection.
- (3) Control of access to storage areas.
- (4) Fire safety in fuel farm and storage areas.
- (5) Fire safety in mobile fullers, fueling pits, and fueling cabinets.

(6) The fire code of the public body having jurisdiction over the airport.

(c) Each airport operator shall, as a fueling agent, comply with and, except as provided in paragraph (h) of this section, require all other fueling agents operating on the airport to comply with the standards established under paragraph (b) of this section and shall perform reasonable surveillance of all fueling activities on the airport with respect to those standards.

(d) Each airport operator shall inspect the physical facilities of each airport tenant fueling agent at least once every three months for compliance with paragraph (b) of this section and maintain a record of that inspection for at least 12 months. The airport operator may use an independent organization to perform this inspection if:

(1) It is acceptable by the Chief Commissioner; and

(2) It prepares a record of its inspection sufficiently detailed to assure the airport operator and the CARC that the inspection is adequate.

(e) The training required in paragraph (b)(6) of this section shall include at least the following:

(1) At least one supervisor with each fueling agent shall have completed an aviation fuel training course in fire safety which is acceptable to the Chief Commissioner.

(2) All other employees who fuel aircraft, accept fuel shipments, or otherwise handle fuel shall receive at least on-the-job training in fire safety from the supervisor trained in accordance with paragraph (e)(1) of this section.

(f) Each airport operator shall obtain certification once a year from each airport tenant fueling agent that the training required by paragraph (e) of this section has been accomplished.

(g) Unless otherwise authorized by the Chief Commissioner, each airport operator shall require each tenant fueling agent to take immediate corrective action whenever the airport operator becomes aware of noncompliance with a standard required by paragraph (b) of this section. The airport operator shall

notify the CARC immediately when noncompliance is discovered and corrective action cannot be accomplished within a reasonable period of time.

(h) The airport operator shall also ensure that:

(1) Any entity dealing with hazardous substances shall have an operation manual detailing procedures related to the handling of hazardous substances, storage, disposal as well as training requirements for personnel.

(2) The Dangerous Goods Operation Manual is reviewed and approved by a third party every 2 years.

(3) The procedures set in the Dangerous Goods Operations Manual are implemented.

(4) The substances are stored in appropriate area.

139.323 Reserved

139.325 Airport Emergency Plan.

Each airport operator shall develop and maintain an airport emergency plan designed to minimize the possibility and extent of personal injury and property damage at the airport in an emergency. The plan shall include a set of instructions dealing with the arrangements designed to meet emergency conditions and steps shall be taken to ensure that that the provisions of the instructions are periodically tested. Specification of airport emergency planning is given in the publication AN 14-1, Chapter (9).

(a) The plan shall include:

(1) Procedures for prompt response to all of the emergencies listed in paragraph (b) of this section, including a communications network; and

(2) Sufficient detail to provide adequate guidance to each person who shall implement it.

(3) A system for locating and reaching each accident site in a minimum time, with adequate rescue.

(4) Each airport shall be equipped with fire-fighting and medical equipment.

(5) A detailed grid map(s) shall be available in the emergency plane. The grid maps shall reflect a distance of at least 100 m beyond the threshold and the airport perimeter

(6) The full contacts list of the responsible entities from the airport operator and the parties involved with the plan, full description of the duties of each person shall be illustrated in the plan.

(b) The plan required by this section shall contain instructions but not limited to:

(1) Aircraft incidents and accidents;

(2) Bomb incidents, including designated parking areas for the aircraft involved;

(3) Structural fires;

(4) Natural disaster;

(5) Radiological incidents;

(6) Sabotage, hijack incidents, and other unlawful interference with operations;

(7) Failure of power for movement area lighting; and

(8) Water rescue situations.

(c) The plan required by this section shall address or include:

(1) The extent practicable, provisions for medical services including transportation and medical assistance for the maximum number of

persons that can be carried on the largest air carrier aircraft that the airport reasonably can be expected to serve. The number of ambulances required to be provided on the airport shall be determined taking into considerations.

(i) The criteria set in Table 139.325-1 below.

(ii) The ability of ambulances in terms of numbers and capacity, to carry personnel teams qualified in first aid and medical supplies, which are vital to the success of initial triage in the event of an accident.

(iii) Arrangements are made with local health authorities to provide ambulance services, the airport operator shall ensure their ability to meet within a reasonable time a sudden demand for assistance on the scale envisaged, as well as the suitability of such ambulances for movement on the terrain in the vicinity of the airport.

Table 139.325-1

Aircraft Occupants	Number of casualties (75% of occupants)	20 percent casualties immediate care Priority I	30 % casualties Delayed care Priority	50 % Casualties Minor care
(1)	(2)	(3)	(4)	(5)
500	375	75	113	187
450	338	68	101	169
400	300	60	90	150
350	263	53	79	131
300	225	45	68	112
250	188	38	56	49
200	150	30	45	75
150	113	23	34	56
100	75	15	23	37
50	38	8	11	19

(2) The name, location, telephone number, and emergency capability of each hospital and other medical facility, and the business address and telephone number of medical personnel on the airport or in the communities it serves, agreeing to provide medical assistance or transportation;

- (3) The name, location, and telephone number of each rescue squad, ambulance service, military installation, and government agency on the airport or in the communities it serves, that agrees to provide medical assistance or transportation;
 - (4) An inventory of surface vehicles and aircraft that the facilities, agencies, and personnel included in the plan under paragraphs (c)(2) and (c)(3) of this section will provide to transport injured and deceased persons to locations on the airport and in the communities it serves;
 - (5) Each hangar or other building on the airport or in the communities it serves that will be used to accommodate uninjured, injured, and deceased persons;
 - (6) Crowd control, specifying the name and location of each safety or security agency that agrees to provide assistance for the control of crowds in the event of an emergency on the airport; and
 - (7) The removal of disabled aircraft including to the extent practical the name, location and telephone numbers of agencies with aircraft removal responsibilities or capabilities.
- (d) The plan required by this section shall provide for:
- (1) The marshaling, transportation, and care of ambulatory injured and uninjured accident survivors;
 - (2) The removal of disabled aircraft;
 - (3) Emergency alarm systems; and
 - (4) Coordination of airport and control tower functions relating to emergency actions.
- (e) The plan required by this section shall contain procedures for notifying the facilities, agencies, and personnel who have responsibilities under the plan of the location of an aircraft accident, the number of persons involved in that accident, or any other information necessary to carry out their responsibilities, as soon as that information is available.

(f) The plan required by this section shall contain provisions, to the extent practicable, for the rescue of aircraft accident victims from significant bodies of water or marsh lands adjacent to the airport which are crossed by the approach and departure flight paths of air carriers. A body of water or marsh land is significant if the area exceeds one-quarter square mile and cannot be traversed by conventional land rescue vehicles. To the extent practicable, the plan shall provide for rescue vehicles with a combined capacity for handling the maximum number of persons that can be carried on board the largest air carrier aircraft that the airport reasonably can be expected to serve.

(g) In addition the above, each airport operator shall:

(1) Coordinate its plan with law enforcement agencies, rescue and firefighting agencies, medical personnel and organizations, the principal tenants at the airport, and all other persons who have responsibilities under the plan;

(2) To the extent practicable, provide for participation by all facilities, agencies, and personnel specified in paragraph (g)(1) of this section in the development of the plan;

(3) Ensure that all airport personnel having duties and responsibilities under the plan are familiar with their assignments and are properly trained;

(4) At least once every 12 months, review the plan with all of the parties with whom the plan is coordinated as specified in paragraph (g)(1) of this section, to ensure that all parties know their responsibilities and that all of the information in the plan is current; and

(5) Hold a full-scale airport emergency plan exercise at least once every 2 years.

139.327 Reserved.

139.329 Ground Vehicles.

Each airport operating operator shall:

(a) Limit access to movement areas and safety areas only to those ground vehicles necessary for airport operations;

(b) Establish and implement procedures for the safe and orderly access to (and operation on) the movement area and safety areas by ground vehicles, including provisions identifying the consequences of noncompliance with the procedures by an employee, tenant or contractor;

(c) When an air traffic control tower is in operation, ensure that each ground vehicle operating on the movement area is controlled by one of the following:

(1) Two-way radio communications between each vehicle and the tower.

(2) An escort vehicle with two-way radio communications with the tower to accompany any vehicle without a radio, or

(3) Measures acceptable to the Chief Commissioner for controlling vehicles, such as signs, signals, or guards, when it is not operationally practical to have two-way radio communications with the vehicle or an escort vehicle;

(d) When an air traffic control tower is not in operation, provide adequate procedures to control ground vehicles on the movement area through prearranged signs or signals;

(e) Ensure that each employee, tenant or contractor who operates a ground vehicle on any portion of the airport that has access to the movement area is familiar with the airport's procedures for the operation of ground vehicles and the consequences of noncompliance; and

(f) On request by the Chief Commissioner, make available for inspection any record of accidents or incidents on the movement areas involving air carrier aircraft and/or ground vehicles.

Specification of aerodrome ground movement is given in the publication AN 14-1, Chapter (9) and CARC related guidance material.

139.331 Obstructions.

Each airport operator shall:

(a) Ensure that each object in each area within its authority which exceeds any of the heights or penetrates the imaginary surfaces described in the Civil Aviation Regulations is either removed, marked or lighted. However, removal, marking and lighting is not required if it is determined to be unnecessary by the CARC upon conducting aeronautical study.

(b) Manage the obstructions on the airport shall be the responsibility of the airport operator.

Specification of obstructions is given in the publication AN 14-1, Chapter (6) and CARC related guidance material.

139.333 Protection of NAVAIDs.

Each airport operator shall:

(a) Prevent the construction of facilities on its airport as determined by the Chief Commissioner, that would derogate the operation of an electronic or visual NAVAID and air traffic control facilities in the airport;

(b) Protect or if the owner is other than the airport operator, assist in protecting, all NAVAIDs on its airport against vandalism and theft; and

(c) Prevent, insofar as it is within the airport's authority, interruption of visual and electronic signals of NAVAIDs.

139.335 Expansions on the Movement Area.

Management of expansions on the movement area shall be the responsibility of the airport operator to ensure that the expansions meet the requirements prescribed in this Part, regarding airport physical characteristics, visual aids and operational procedures.

139.337 Wildlife Hazard Management.

(a) Each airport operator shall provide for the conduct of a wildlife hazard assessment, acceptable to the Chief Commissioner, when any of the following events occurs on or near the airport:

- (1) An air carrier aircraft experiences a multiple bird strike.
- (2) An air carrier aircraft experiences substantial damage from striking wildlife. As used in this paragraph, substantial damage means damage or structural failure incurred by an aircraft that adversely affects the structural strength, performance, or flight characteristics of the aircraft and that would normally require major repair or replacement of the affected component.
- (3) An Air carrier experiences an engine ingestion of wildlife.
- (4) Wildlife of a size or in numbers capable of causing an event described in paragraph (a) (1), (2) or (3) of this section is observed to have access to any airport flight pattern or movement area.

(b) The wildlife hazard assessment required in paragraph (a) of this section shall be conducted by a credentialed wildlife management biologist. The assessment shall contain at least the following:

- (1) Analysis of the event or circumstances which prompted the study.
- (2) Identification of the species, numbers, locations, local movements, and daily and seasonal occurrences of wildlife observed.
- (3) Identification and location of features on and near the airport for a radius of 8 Km from ARP which attracts wildlife.
- (4) Description of the wildlife hazard to air carrier operations.
- (5) Recommended actions for reducing identified wildlife hazards to air carrier operations.

(c) The study required by paragraph (a) of this section shall be submitted to the Chief Commissioner for approval and determination on the need for a

wildlife hazard management plan. In reaching this determination, the Chief Commissioner considers:

- (1) The wildlife hazard assessment;
- (2) Actions recommended in the wildlife hazard assessment to reduce wildlife hazards;
- (3) The aeronautical activity at the airport, including the frequency and size of air carrier aircraft.
- (4) The views of the airport operator.
- (5) The views of the airport users; and
- (6) Any other factors bearing on the matter of which the Chief Commissioner is aware.

(d) When the Chief Commissioner determines that a wildlife hazard management plan is needed, the airport operator shall formulate and implement a plan using the wildlife hazard assessment as a basis. The plan shall:

- (1) Be submitted to and approved by the Chief Commissioner prior to implementation; and
- (2) Provide measures to alleviate or eliminate wildlife hazards to air carrier operations; and
- (3) As authorized by the Chief Commissioner, become a part of the Airport Certification Manual.

(e) The plan shall include at least the following:

- (1) The persons who have authority and responsibility for implementing the plan.

(2) Priorities for needed wildlife population management, habitat modification, and changes in land use identified in the wildlife hazard assessment with target dates for initiation and completion.

(3) Requirements for and, where applicable, copies of wildlife control permits.

(4) Identification of resources to be provided by the airport operator for implementation of the plan.

(5) Procedures to be followed during air carrier operations, including at least:

(i) Designation of personnel responsible for implementing the procedures;

(ii) Provision to conduct physical inspections of the movement area and other areas critical to successfully manage known wildlife hazards sufficiently in advance of air carrier operations to allow time for wildlife controls to be effective;

(iii) Wildlife hazard control measures; and

(iv) Ways to communicate effectively between personnel conducting wildlife control or observing wildlife hazards and the air traffic control tower.

(6) Procedures to review and evaluate the wildlife hazard management plan annually or following an event described in paragraphs (a)(1),(2), or (3) of this section, including:

(i) The plan's effectiveness in dealing with known wildlife hazards on, and in the vicinity of, the airport; and

(ii) Aspects of the wildlife hazards described in the wildlife hazard assessment that should be reevaluated.

(7) A training program to provide airport personnel with the knowledge and skills needed to carry out the wildlife hazard management plan required by paragraph (c) and (d) of this section.

(f) Notwithstanding the other requirements of this section, each airport operator shall take immediate measures to alleviate wildlife hazards whenever they are detected.

Specification of the wildlife hazard management is given in publication AN 14-1, Chapter (9) and CARC related guidance materials for more.

139.339 Airport Condition Reporting.

(a) Each airport operator shall provide for the collection and dissemination of airport condition information to air carriers.

(b) In complying with paragraph (a) of this section, the airport operator shall utilize the NOTAM system and, as appropriate, other systems and procedures acceptable to the Chief Commissioner.

(c) In complying with paragraph (a) of this section, the airport operator shall provide information on the following airport conditions which may affect the safe operations of air carriers:

(1) Construction or maintenance activity on movement areas, safety areas, or loading ramps and parking areas.

(2) Surface irregularities on movement areas or loading ramps and parking areas.

(3) Snow, ice, slush, or water on the movement area or loading ramps and parking areas.

(4) Snow piled or drifted on or near movement areas contrary to 139.313.

(5) Objects on the movement area or safety areas contrary to 139.309.

(6) Malfunction of any lighting system required by 139.311.

(7) Unresolved wildlife hazards as identified in accordance with 139.337.

(8) Non-availability of any rescue and firefighting capability required in 139.317 and 139.319.

(9) Any other condition as specified in the airport certification manual or which may otherwise adversely affect the safe operations of air carriers.

139.341 Identifying, Marking, and Reporting Construction and Other Unserviceable, Restricted Areas.

Each airport operator shall:

(1) Mark and, if appropriate, light in a manner acceptable to the Chief Commissioner:

(i) Each construction area and unserviceable area which is on or adjacent to any movement area or any other area of the airport on which air carrier aircraft may be operated;

(ii) Each item of construction equipment and each construction roadway, which may affect the safe movement of aircraft on the airport; and

(iii) Any area adjacent to a NAVAID that, if traversed, could cause derogation of the signal or the failure of the NAVAID.

(2) Provide procedures, such as a review of all appropriate utility plans prior to construction, for avoiding damage to existing utilities, cables, wires, conduits, pipelines, or other underground facilities.

Specifications on Identifying, Marking, and Reporting Construction and Other Unserviceable, Restricted Areas are given in the publication AN 14-1, Chapter (7).

139.343 Disabled Aircraft Removal.

Each airport operator shall establish procedures for removing the disabled aircraft on or adjacent to the movement area, including the following:

- (a) The roles of the airport operator and the holder of the aircraft certificate of registration;
- (b) Arrangements for notifying the holder of the certificate of registration;
- (c) Arrangements for liaising with the air traffic control unit;
- (d) Arrangements for obtaining equipment and personnel to remove the disabled aircraft; and
- (e) The names, role and telephone numbers of persons responsible for arranging for the removal of disabled aircraft.

Specification of disabled aircraft removal is given in the publication AN 14-1, Chapter (9) and CARC related guidance material.

139.345 Apron Management.

Each airport operator shall establish procedures for apron management, including the following:

- (a) Arrangements between air traffic control and the apron management unit;
- (b) Arrangements for allocating aircraft parking positions;
- (c) Arrangements for initiating engine start and ensuring clearance of aircraft push-back;
- (d) Marshaling service;
- (e) Leader (van) service; and
- (f) Visual monitoring of aircraft stand clearance.

139.347 Apron Safety Management.

Each airport operator shall establish procedures for apron safety management, including the following:

- (a) Protection from jet blasts;
- (b) Enforcement of safety precautions during aircraft refueling operations;
- (c) Apron sweeping;
- (d) Apron cleaning;
- (e) Arrangements for reporting incidents and accidents on an apron; and
- (f) Arrangements for auditing the safety compliance of all personnel working on the apron

139.349 Aircraft Ground Servicing.

Each airport operator shall:

- (a) Make readily available during the ground servicing of an aircraft a fire extinguishing equipment suitable for at least initial intervention in the event of a fuel fire, and personal trained its uses.
- (b) When air aircraft refueling operations take place while passengers are embarking on board or disembarking, ground equipment shall be positioned so as to allow:
 - (1) The use of a sufficient number of exits for expeditious evacuation;
 - (2) A ready escape route from each of the exits to be used in an emergency;
 - (3) Fuel Safety zones are clear;
 - (4) Two-way communication shall be established and tested between ground staff and a qualified person on board; and

(5) Fuel spillage procedures are in place.

(c) All employees shall avoid driving equipment under the aircraft wings and fuselage.

(d) Ground servicing equipment are properly maintained and equipped with fire extinguishers.

(e) Aircraft approach procedures are conducting when the ground servicing equipment is required.

139.351 Procedures for Aircraft Operators.

An airport operator shall develop and implement procedures for briefing aircraft operators of the necessary safety and regulatory requirements for aircraft before operation in Amman Flight Information Region (FIR) or from Jordan Territory. The airport briefing shall include but not be limited to at least the following requirements:

(a) Provision of up to date airport information as contained in the AIP to be available to the flight crew;

(b) Requirement for the aircraft operator to follow correct ICAO flight planning principles including the provision of aircraft registration and correct ICAO designators;

(c) Requirement for the aircraft operator to report either flight or ground based incidents to the CARC, including bird or wildlife strikes or near misses; and

(d) Requirement for the aircraft to be adequately equipped in accordance with the rules and regulations governing the airspace in which it will be flying.

139.353 Obligations to Restricted Certain Aircraft.

(a) In respect to 139.351, the airport operator or their agent shall ensure that procedures are developed to negate aircraft operators from operation at their airport when such aircraft operators cannot meet the Jordan regulatory requirements, or are subject to:

- (1) A ban based upon the origin of registry as notified by CARC;
- (2) A cease and desist order as notified by CARC; or
- (3) When the aircraft is subject to a grounding order as notified by CARC.

(b) The procedures above shall include immediate notification to CARC of actions taken against such aircraft or aircraft operators.

(c) The airport operator shall monitor and ensure that third parties at the airport comply with such procedures.

(d) The provision of weigh scales appropriate to the task to random check of aircraft payload shall be immediately available at the airport.

139.355 Accident and Mandatory Occurrence Reporting and Investigation.

Each airport operator shall establish procedure for:

- (a) Report accidents/incidents at the airport premises.
- (b) Remedial, investigation and corrective actions.
- (c) Accidents/incidents recording.

139.357 Low Visibility and Adverse Weather Conditions.

- (a) Each airport operator shall establish
 - (1) Procedures for low visibility operations.
 - (2) Procedures for mitigating the effect of strong winds conditions.
 - (3) Winter operations and apron hazards.
 - (4) A criteria for measurement and reporting of runway visual range (RVR) when required.

(5) A NOTAM shall be issued when RVR is below 550 m.

(6) The availability of guiding the aircraft using follow-me cars when visibility is 550 m.

(b) The names and the telephone numbers of the responsible employees during and after working hours, responsible for measuring the RVR shall be included in the low visibility procedure.

139.359 Safety Management System.

As part of the certification process, an airport certification manual which includes all pertinent information on the airport site, facilities, services, equipment, operating procedures, organization and management including a safety management system, shall be submitted by the applicant for approval/acceptance prior to granting the airport operating certificate.

The intent of a safety management system is to have in place an organized and orderly approach in the management of airport safety by the airport operator.

Specification of an airport safety management system is given in AN/14-1 Appendix (6) to this Part.

139.361 Airport Management - Safety Programs

The Airport Operator shall:

- (1) Establish, lead and implement safety programs to promote safety and the exchange of safety-relevant information; and
- (2) Require the organizations operating or providing services at the airport to be involved in such programs.

Specification of Airport Management Safety Programs is available in AN/14-1 Appendix (8) to this Part.

139.363 Non Compliance Conditions.

Unless otherwise authorized by the CARC, whenever the requirements of subpart-D of this part cannot be met to the extent that unsafe conditions are uncorrected on the airport, the airport operator shall limit air carrier operations to those portions of the airport not rendered unsafe by those conditions.

139.365 Public Protection.

(a) Each airport operator shall establish procedures for public protection, including Fencing, Gates, Terminal gates, Public information, Lighting, Firearms, Access control, Aircraft blast protection and Crowd control.

(b) Each airport operator shall provide:

(1) Safeguards acceptable to CARC to prevent inadvertent entry to the movement area by unauthorized persons or vehicles; and

(2) Protection of persons and property from aircraft blast.

(c) In implementation of the requirement of paragraph (a) of this section, the provided fence shall meet the requirements of the National Security Program.

139.367 Medical Services.

Each airport operator shall provide medical services, including the following:

(a) First aid and medical arrangements.

(b) Scales of medical services to be held at the airport.

(c) First aid activates coordination with Airport Rescue and Firefighting (ARFF).

(d) Assistance with sick or disabled passengers.

SUBPART –E

Obligations of the Airport Operator

The grant of an airport certificate obliges the airport operator to ensure the safety, regularity and efficiency of operations at the airport, to allow CARC-authorized personnel access to the airport to carry out safety audits, inspections, testing and to be responsible for notifying and reporting as prescribed.

139.401 Compliance with Standards and Practices.

The airport operator shall comply with the standards and practices specified in this Part and with any conditions endorsed in the certificate.

139.403 Competence of Operational and Maintenance Personnel.

- (a) The airport operator shall employ an adequate number of qualified and skilled personnel to perform all critical activities for airport operation and maintenance.
- (b) The airport operator shall implement a program to upgrade the competency of the personnel.

139.405 Airport Operation and Maintenance.

- (a) Subject to any directives that CARC may issue, the airport operator shall operate and maintain the airport in accordance with the procedures set out in the airport certification manual.
- (b) To ensure the safety of aircraft, CARC may give written directives to an airport operator to alter the procedures set out in the airport certification manual.
- (c) The airport operator shall ensure proper and efficient maintenance of the airport facilities.
- (d) The airport operator shall coordinate with the ATS provider in order to be satisfied that appropriate air traffic services are available to ensure the

safety of aircraft in the airspace associated with the airport. The coordination shall cover other areas related to safety such as aeronautical information service, air traffic services, designated meteorological authorities, and security.

(e) The airport operator shall inspect and maintain the lighting and marking for any obstacle in the airport or within the vicinity of the airport.

(f) The airport operator shall be responsible for providing the emergency power supply on airports and shall be responsible for the required maintenance for the emergency power supply, in the case of a malfunction in the emergency power supply the airport operator shall notify CARC immediately.

139.407 Airport Operator's Safety Management System

(a) The airport operator shall establish a safety management system in accordance with this Part and SMS guidelines for the airport describing the structure of the organization and the duties, powers and responsibilities of the officials in the organizational structure, with a view to ensuring that operations are carried out in a demonstrably controlled way and are improved where necessary.

(b) The airport operator shall oblige all users of the airport, including fixed-base operators, ground-handling agencies and other organizations that perform activities independently at the airport in relation to flight or aircraft handling, to comply with the requirements laid down by the airport operator with regard to safety at the airport. The airport operator shall monitor such compliance.

(c) The airport operator shall require all users of the airport, including fixed-base operators, ground handling agencies and other organizations, to cooperate in the program to promote safety and the safe use of the airport by immediately informing it of any accidents, incidents, defects and faults which have a bearing on safety.

(d) The airport operator shall provide CARC with a Safety Performance Indicators (SPIs) quarterly during audit of SMS.

- (e) The airport operators shall have a procedure to facilitate transition of aircraft between the apron management unit and ATC TWR.
- (f) Airport operator shall publish an annual airport safety report on the airport operator website and shall provide CARC with a hardcopy of the annual airport safety report.

139.409 Safety Audits and Safety Reporting.

- (a) The airport operator shall arrange for an internal audit of the safety management system, including an inspection of the airport facilities and equipment. The audit shall cover the airport operator's own functions. The airport operator shall also arrange an external audit and inspection program for evaluation of other users including fixed-base operators, ground handling agencies and other organizations working at the airport referred to in 139.359.
- (b) The audits referred to in 139.409 (a) shall be carried out every 12 months or less, as agreed with the Chief Commissioner.
- (c) The airport operator shall arrange for An external audit on its SMS in addition to the aerodrome facilities and equipment. The audit shall cover the aerodrome operator's own functions.
- (d) The audits referred in 139.409 (c) shall be carried out every 36 months or less, as agreed with the Chief Commissioner.
- (e) The airport operator shall ensure that the audit reports including the report on the airport facilities, equipment and services, are prepared by suitably qualified safety experts.
- (f) The airport operator shall retain a copy of the report(s) referred to in regulation 139.409 (c) for a period of three years. The Chief Commissioner may request a copy of the report(s) for its review and reference.
- (g) The report(s) referred to in regulation 139.409 (c) shall be prepared and signed by the persons who carried out the audits and inspections.

139.411 Access to the Airport.

- (a) Personnel so authorized by CARC may inspect and carry out tests on the airport facilities, services and equipment, inspect the airport operator's documents and records and verify the airport operator's safety management system before the airport certificate is granted or renewed and, subsequently, at any other time, for the purpose of ensuring safety at the airport;
- (b) An airport operator shall, at the request of the authorized person, allow access to any part of the airport or any airport facility, including equipment, records, documents and operator personnel, for ensuring safety at the airport;
- (c) The airport operator shall cooperate in conducting the following:
 - (1) Inspect and carry out tests on the airport facilities, services and equipment;
 - (2) Inspect the airport operator's documents and records and verify the airport operator's safety management system.

139.413 Notifying and Reporting.

- (a) An airport operator shall notify and report to the Chief Commissioner, Aeronautical Information Service (AIS) and air traffic control at the airport within the specified time limits required by these regulations.
An airport operator shall establish a quality system procedures to assure that airport related aeronautical data in accordance with the accuracy and integrity requirements set forth in AN/14-1 appendix (5) tables A5-1 to A5-5.
- (b) Notification of inaccuracies in Aeronautical Information Service (AIS) publications:

An airport operator shall review the issues of Aeronautical Information Publication (AIP), AIP Supplements, AIP Amendments, and Notices to Airmen (NOTAM), Pre-flight Information Bulletins and Aeronautical Information Circulars issued by the AIS on initial receipt thereof and at regular intervals thereafter. Immediately after such reviews, an airport operator shall notify AIS of any inaccurate information contained, therein, that pertains to the airport.

(c) Notification of changes in airport facilities, equipment, and level of service planned in advance:

An airport operator shall submit a request for approval from the Chief Commissioner in writing at least three months before any change to the airport facility or equipment or the level of service at the airport that has been planned in advance and that is likely to affect the accuracy of the information contained in any AIS publication referred to in paragraph (b) of this section.

(d) Issues requiring immediate notification: An airport operator shall immediately notify the AIS and air traffic control at the airport the details of any of the following circumstances of which the operator has the knowledge:

(1) Obstacles, obstructions and hazards:

(i) Any projections by an object through an Obstacle Limitation Surface (as approved by the Chief Commissioner) relating to the airport; and

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

(2) Level of service: Reduction in the level of service at the airport as set out in any of the AIS publications referred to in paragraph (b) of this section;

(3) Movement area: Closure of any part of the movement area of the airport; and

(4) Any other condition that could affect aviation safety at the airport and against which precautions are warranted.

139.415 Self-Inspection Program.

(a) Each airport operator shall inspect the airport to assure compliance with this subpart:

- (1) Daily inspection, except as otherwise required by the airport certification manual;
- (2) When required by any unusual condition such as construction activities or meteorological conditions that may affect safe air carrier operations;
- (3) Night inspections including the evaluation and checking for compliance with the standard related to runway, taxiway and apron lighting and signage, pavement marking aerodrome beacons, wind direction indicator lighting, obstacle lighting and the marking and lighting of construction areas; and
- (4) Special Inspections as circumstances require, to ensure aviation safety:
 - (i) Immediately after an accident or incident;
 - (ii) During any period of construction or repair of the airport facilities or equipment that is critical to the safety of aircraft operation; and
 - (iii) At any other time when there are conditions at the airport that could affect aviation safety.

(b) Each airport operator shall provide the following:

- (1) Equipment for use in conducting safety inspections of the airport;
- (2) Procedures, facilities, and equipment for reliable and rapid dissemination of information between airport personnel and its air carriers;
- (3) Procedures to ensure that qualified inspection personnel perform the inspections; and
- (4) A reporting system to ensure prompt correction of unsafe airport conditions during the inspection.

(c) Each airport operator shall prepare and keep for at least 6 months, and make available for inspection by the Chief Commissioner on request, a record of each inspection prescribed by this section, showing the conditions found and all corrective actions taken.

139.417 Warning Notices.

When low flying aircraft, at or near an airport, or taxiing aircraft are likely to be hazardous to people or vehicular traffic, the airport operator shall:

(a) Post hazard warning notices on any public way that is adjacent to the maneuvering area; or

(b) If such a public way is not controlled by the airport operator, inform the authority responsible for posting the notices on the public way that there is a hazard.

139.419-139.499 Reserved.

SUBPART –F

Airport Authorization

139.501 Scope

The Chief Commissioner, for public interest, may authorize any uncertified airport for a specified period of time to operate under the requirements of operations and maintenance as specified in Subpart D and F, and related provisions of this Part.

139.503 Application for an Airport Authorization

(a) An airport operator, who does not meet the complete certification requirements, may apply to Chief Commissioner, for an approved authorization in the CARC related form.

(b) The application shall include airport operations and maintenance procedures; airport layout including visual aids locations and its aeronautical data; aerodrome approach category; aerodrome reference code; aircraft rescue and firefighting category and safety management system in place.

139.505 Grant/Refusal of an Airport Authorization

(a) The Chief Commissioner may grant the authorization, if the requirements in section 139.503 (b) are in accordance with this Part.

(b) The Chief Commissioner will refuse the authorization, if the requirements in section 139.503 (b) are not in accordance with this Part.

139.507 Endorsement of Conditions.

The Chief Commissioner may grant a conditional airport authorization subject to any conditions necessary in the interest of safety.

139.509 Duration of an Airport Authorization.

An airport authorization shall remain in force for 12 months from the date of issuance.

139.511 Surrender of an Airport Authorization.

(a) An airport approval holder shall give CARC not less than 60 days written notice before the date on which the approval is to be surrendered in order that suitable promulgation action can be taken.

(b) The Chief Commissioner will cancel the approval on the date specified on the notice.

139.513 Cancellation or Suspension of an Airport Authorization.

(a) The Chief Commissioner may suspend or cancel an airport authorization if there are reasonable grounds to believe that:

(1) A condition to which the authorization was subjected to, has been breached; or

(2) The airport facilities, operations or maintenance are not of the standards required in the interests of the safety of air operations.

(b) Notice of suspension or cancellation shall enter into effect in accordance within the time prescribed in a written notice that decided by the Chief Commissioner.

139.515 Amendment of an Airport Authorization.

In respect to 139.501 and 139.503, the Chief Commissioner may amend an airport authorization where:

(a) There is a change in the use or operation of the airport;

(b) There is a change in the boundaries of the airport;

(c) The holder of the airport authorization requests the amendment.

139.517 Operation and Maintenance Procedures.

(a) The airport operator shall produce and implement the necessary procedures for the operation and the maintenance of the airport for the safety of the operations.

(b) The airport operator shall provide The Chief Commissioner with a complete and current copy of the airport operation and maintenance procedures for his approval.

139.519 Notification of Changes

An airport operator shall notify the Chief Commissioner for his approval, as soon as practicable, of any major alterations that the operator intends to make to the procedures.