Part 172
Air Navigation Services Standards

This part of Jordanian Civil Aviation Regulations is hereby issued under the authority and provisions of Article 12-B of the Civil Aviation Law No. (41) dated 2007, as amended.

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

Record of Revisions

Amendment No.	Effective date	Subpart	Paragraph
Original	August 2006	All	All
1	Dec. 2012		172.5 (a), (c)(2), (3), (5) 172.19 172.21
Re-issue	Sep. 1st, 2013	All	All
1	March 1st, 2017	D	172.167 (a), 172.173 (e) & (f)
2	Nov. 21st, 2022	D	172.167 – 172.175
Issue 3	October 1st, 2025	All	All

Table of Contents

SUBPART- A
General

172.1 Scope.

Within the scope of air navigation organization, operation and certification, this part concerns the provision of air navigation services with the view to establish common requirements for the safe and efficient provision of air navigation services in Jordan.

(a) This Part applies to the provision of air navigation services for general air traffic;

(b) Air navigation service provider means any public or private entity providing air navigation services for general air traffic. Air navigation service includes:

(1) Air Traffic Services;

(2) Communication, navigation and surveillance services;

(3) Aeronautical Information and Aeronautical charts Services;

Prescribed by JCAR Part 175

(4) Meteorological Service for International Air Navigation.

(5) Search and Rescue Services;

(c) This Part shall not apply to Air Navigation Services operated by and under the control of the Minister for Defense.

(d) This Part prescribes the certification and operations requirements for organizations providing an Air Navigation Service in the Amman Flight Information Region.

172.2 National Supervisory Authority.

(a) CARC as the National Supervisor Authority (NSA) is responsible for the function of certification and audit and inspection over the Air Navigation Service Providers (ANSPs) in order to assume the tasks assigned under this Part.

(b) NSA shall be independent of air navigation service providers. This

independence shall be achieved through adequate separation, at the functional level at least, between the national supervisory authority and such providers.

(c) The NSA shall exercise its powers impartially, independently and transparently. This shall be achieved by applying appropriate management and control mechanisms, including within the Jordanian administration. However, this shall not prevent the NSA its tasks within the rules of organization of CARC or any other public bodies;

(d) The NSA shall have the necessary resources and capabilities to carry out the tasks assigned to them under this Regulation in an efficient and timely manner;

172.3 General Requirement for the Provision of Air Navigation Services.

(a) CARC shall designate an air navigation service provider holding a valid certificate separated from CARC as minimum at functional level, to ensure the provision of air navigation services on an exclusive basis within Amman FIR.

(b) Technical and Operation Competence and Capability.
An air navigation service provider shall be able to provide services in a safe, efficient, continuous and sustainable manner consistent with any reasonable level of overall demand for a given airspace. To this end, it shall develop and maintain policy and procedures to determine the capacity of the ATS system including the number of staff that is adequate for technical and operational capacity and expertise.

Note: Where a certified air navigation service provider does not comply any longer with the applicable requirements or with the conditions attached to the certificate, CARC shall take a decision within a time period not exceeding one month. By this decision, CARC shall require the air navigation service provider to take corrective action.

(c) Organizational Structure and Management.

(1) Organizational structure:
An air navigation service provider shall set up and manage its organization according to a structure that supports the safe, efficient and continuous provision of services, the organizational structure shall define:

(i) The authority, duties and responsibilities of the nominated post holders, in particular of the management personnel in charge of safety, quality, security, finance and human resources related functions;
(ii) The relationship and reporting lines between different parts and processes of the organization.
(iii) Job description for all its ANSPs staff specifying the duties and responsibilities.

(2) Organizational management:

(i) An air navigation service provider shall produce a business plan covering a minimum period of two years. The business plan shall:

1. Set out the overall aims and goals of the air navigation service provider and its strategy towards achieving them in consistency with any overall longer term plan of the provider and with relevant CARC requirements relevant for the development of infrastructure or other technology;

2. Contain appropriate performance objectives in terms of quality and level of service, safety and cost- effectiveness.

(ii) An air navigation service provider shall produce an annual plan covering the forthcoming year which shall specify further the features of the business plan and describe any changes to it.

(3) The annual plan shall cover the following provisions on the level and quality of service such as the expected level of capacity, safety and delays to flights incurred as well as on financial arrangements:

(i) Information on the implementation of new infrastructure or other developments and a statement how they will contribute to improving the level and quality of services;

(ii) Indicators of performance against which the level and quality of service may be reasonably assessed;

(4) The service provider's expected short-term financial position as well as any changes to or impacts on the business plan.

(d) Safety and Quality Management.

(1) Safety management.
An air navigation service provider shall manage the safety of all its services. In doing so, it shall establish formal interfaces with all stakeholders which may influence directly the safety of its services.

(2) Quality management system.
An air navigation service provider shall have in place at the latest two years after entry into force of this Regulation a quality management system which covers all air navigation services it provides according to the following principles, it shall:

(i) Define the quality policy in such a way as to meet the needs of different users as closely as possible;

(ii) Set up a quality assurance program that contains procedures designed to verify that all operations are being conducted in accordance with applicable requirements, standards and procedures;

(iii) Provide evidence of the functioning of the quality system by means of manuals and monitoring documents;

(3) Appoint management representatives to monitor compliance with, and adequacy of, procedures to ensure safe and efficient operational practices;

(4) Perform reviews of the quality system in place and take remedial actions, as appropriate. An ISO 9001 certificate, issued by an appropriately accredited organization, covering the air navigation services of the provider shall be considered as a sufficient means of compliance. The air navigation service provider shall accept the disclosure of the documentation related to the certification to CARC upon the latter's request.

(e) Operations manuals
An air navigation service provider shall provide and keep up-to-date operations manuals relating to the provision of its services for the use and guidance of operations personnel. It shall ensure that:

(1) Operations manuals contain instructions and information required by

the operations personnel to perform their duties;

(2) Relevant parts of the operations manuals are accessible to the personnel concerned;

(3) The operations personnel are expeditiously informed of the amendments to the operations manual applying to their duties as well as of their entry into force.

(f) Security
An air navigation service provider shall establish a security management system to ensure:

(1) The security of its facilities and personnel so as to prevent unlawful interference with the provision of services;

(2) The security of operational data it receives or produces or otherwise employs, so that access to it is restricted only to those authorized.

(3) The security management system shall define:

(i) The procedures relating to security risk assessment and mitigation, security monitoring and improvement, security reviews and lesson dissemination;
(ii) The means designed to detect security breaches and to alert personnel with appropriate security warnings;
(iii) The means of containing the effects of security breaches and to identify recovery action and mitigation procedures to prevent re-occurrence.

(4) An air navigation service provider shall ensure the security clearance of its personnel, if appropriate, and coordinate with the relevant civil and military authorities to ensure the security of its facilities, personnel and data.

(g) Human Resources**.**
An air navigation service provider shall employ appropriately skilled personnel to ensure the provision of its service in a safe, efficient, continuous and sustainable manner. In this context, it shall establish policies and procedures for the recruitment, retention and training of personnel.

(h) Financial Strength.

(1) Economic and financial capacity.
An air navigation service provider shall be able to meet its financial obligations, such as fixed and variable costs of operation or capital investment costs. It shall use the international accounting standards. It shall demonstrate its ability through the annual plan as referred to in (c) 2 (i) of this subpart as well as through balance sheets and accounts as practicable under its legal statute.

(2) Financial audit.
Air navigation service providers, whatever their system of ownership or legal form, shall draw up, submit to audit and publish their financial accounts In accordance with Civil Aviation Law 41\2007.

(i) Liability and Insurance Cover.
An air navigation service provider shall have in place arrangements to cover its liabilities arising from Civil Aviation Law 41\2007. The method employed to provide the cover shall be appropriate to the potential loss and damage in question, taking into account the legal status of the air navigation service provider and the level of commercial insurance cover available.
Note: An air navigation service provider which avails it of services of another air navigation service provider shall ensure that the agreements cover the allocation of liability between them.

(j) Quality of Services.

(a) Open and transparent provision of services.
An air navigation service provider shall provide its services in an open and transparent manner. It shall publish the conditions of access to its services and establish a formal consultation process with the users of its services on a regular basis, either individually or collectively, and at least once a year. An air navigation service provider shall not discriminate on grounds of nationality or identity of the user or the class of users in accordance with Civil Aviation Law 41\ 2007.

(k) Reporting Requirements.
An air navigation service provider shall be able to provide an annual report of its activities to CARC. This report shall cover its financial results without prejudice to Civil Aviation Law 41\2007 as well as its operational performance and any other significant activities and developments in

particular in the area of safety. The annual report shall include as a minimum:

(1) An assessment of the level and quality of service generated and of the level of safety provided,

(2) The performance of the air navigation service provider compared to the performance objectives established in the business plan, reconciling actual performance against the annual plan by using the indicators of performance established in the annual plan,

(3) Developments in operations and infrastructure,

(4) The financial results, as long as they are not separately published.

(5) Information about the formal consultation process with the users of its services,

(6) Information about the human resources policy. The air navigation service provider shall make the content of the annual report available to the public under conditions set by CARC in accordance with Civil Aviation Law 41\2007.

SUBPART –B
Air Traffic Service

172.7 General.

(a) The provision of air traffic service within Jordan FIR shall be subject to certification by CARC.

(b) CARC shall designate an air traffic service provider holding a valid certificate.

(c) CARC has discretionary powers in choosing a service provider, on condition that the latter fulfils the requirements and conditions referred to this Part.

172.9 Applicability.

This Subpart prescribes rules governing the certification and operation of organizations providing an air traffic service in Jordan FIR that include;

(a) Any aerodrome control service.

(b) Any area control service:

(c) Any approach control service:

(d) Any flight information service:

(e) Any aerodrome flight information service:

(f) Any alerting service:

(g) Any other air traffic service considered by CARC to be necessary or desirable for the safe and efficient operation of the civil aviation system.

172.11 Application for certificate.

An applicant for the grant of an air traffic service certificate shall;

(a) Complete CARC form 172/2001as amended which shall require the following information:

(1) The applicant's name and address for service in Jordan; and

(2) The specific air traffic service or services to be provided; and

(3) The aerodrome location or airspace designation at, or within which, the service will be provided; and

(4) Such other particulars relating to the applicant and the intended service as may be required by CARC as indicated on the form; and

(b) Submit the completed form to CARC with;

(1) The exposition required by 172.125; and

(2) Payment of the appropriate application fees prescribed by CARC.

172.13 Issue of certificate.

(a) Subject to paragraph (b) below, an applicant is entitled to an air traffic service certificate if CARC is satisfied that;

(1) The applicant meets the requirements of Subpart C; and

(2) The applicant, and the applicant's senior person or persons required by 172.51, are fit and proper persons; and

(3) The granting of the certificate is not contrary to the interests of aviation safety.

(b) CARC shall ensure, in the interests of aviation safety that only one certificate for the same air traffic service is current at any time.

172.15 Privileges of certificate

(a) An air traffic service certificate specifies which of the following air traffic services, and which training and assessment for such services, the certificate holder is authorized to provide:

(1) Area control service:

(2) Approach control service:

(3) Aerodrome control service:

(4) Flight information service:

(5) Aerodrome flight information service:

(6) Alerting service:

(7) Any other service provided in accordance with Subpart E.

(b) An air traffic service certificate;

(1) States the aerodrome or airspace at or within which the service is provided; and

(2) May include such conditions as CARC considers appropriate.

172.17 Duration of certificate

(a) An air traffic service certificate may be granted or renewed for period of up to (2) years.

(b) An air traffic service certificate remains in force until it expires or is suspended or revoked.

(c) The holder of an air traffic service certificate that expires or is revoked shall forthwith surrender the certificate to the CARC.

(d) The holder of an air traffic service certificate that is suspended shall forthwith produce the certificate to the CARC for appropriate endorsement.

172.19 Renewal of certificate

(a) An application for the renewal of an air traffic service certificate shall be made on form CARC 172/2001.

(b) The application shall be submitted to CARC before the application renewal date specified on the certificate or, if no such date is specified, not less than 30 days before the certificate expires.

SUBPART- C
Certification Requirements

172.51 Personnel requirements

(a) An applicant for the grant of an air traffic service certificate shall assign:

(1) A countable manager who has the authority within the applicant's organization to ensure that each air traffic service listed in its exposition;

(i) Can be financed; and

(ii) Is provided in accordance with the requirements prescribed by this Part; and

(2) A person or persons who are responsible for ensuring that the applicant's organization complies with the requirements of this Part. Such nominated person or persons shall be ultimately responsible to the accountable manager; and

(3) Sufficient personnel to manage, support, and provide the air traffic services and any associated training or assessment listed in the applicant's exposition

(4) The applicant for ATS shall develop job description for its ATS staff.

(b) The applicant shall establish procedures to;

(1) Ensure the competence of those personnel who are authorized by the applicant to provide the air traffic services, and training and assessment for those services listed in the applicant's exposition; and

(2) Provide those authorized personnel with written evidence of the scope of their authorization; and

(3) Ensure that those authorized personnel hold appropriate current licenses and ratings issued under Part 65; and

(4) Ensure, where practicable, that authorized personnel only exercise the privileges of their rating or ratings if they are familiar with all relevant and current information; and

(5) Facilitate, for rated air traffic service license holders, compliance with the recent experience requirements of Part 65; and

(6) Ensure, where practicable, that an air traffic controller shall not exercise the privileges of their rating or ratings;

(i) Unless they comply with any endorsements on their medical certificate; and

(ii) When any decrease in their medical fitness might render them unable to safely exercise these privileges.

(7) Ensure, policies and procedures for the recruitment, retention and training of appropriately qualified and experienced ATS staff.

172.53 ATS training

(a) An applicant for the grant of an air traffic service certificate shall establish procedures and programs for the training, training records and assessment to ensure the continued competency of the following personnel:

(1) Air traffic controllers:

(2) Flight information service operator.

(3) Personnel directly involved in the provision of an VHF aeronautical telecommunication service.

(4) Personnel directly involved in activities supporting;

(i) Rated air traffic controllers; and

(ii) Flight information service operators.

(b) The applicant shall establish procedures to ensure that personnel giving

instruction in an operational environment hold an appropriate current ATS instructor rating issued under Part 65.

(c) The applicant shall establish procedures to ensure that personnel carrying out assessment for the issue of licenses, or the issue or validation of ratings, hold an appropriate current ATS instructor or examiner rating issued under Part 65.

172.57 Facility requirements

(a) An applicant for the grant of an air traffic service certificate shall establish the following facilities that are appropriate to the air traffic services listed in the applicant's exposition:

(1) Aerodrome control towers.

(2) Approach control offices.

(3) Area control centers.

(4) Aerodrome flight information offices.

(5) Flight information centers.

(6) Dedicated training and assessment facilities.

(b) Except as provided in paragraph (h), an applicant for an aerodrome control service, or an aerodrome flight information service, shall establish procedures to ensure that any aerodrome control tower or aerodrome flight information office, including any temporary tower or office, listed in the applicant's exposition, is;

(1) Constructed and situated to provide;

(i) The maximum practicable visibility of aerodrome traffic; and

(ii) Protection from glare and reflection; and

(iii) Protection from noise; and

(2) Safeguarded from any development that would affect the requirements of paragraph (b) (1); and

(3) At solo watch locations, provided with;

(i) Toilet facilities that ensure the minimum possible

interruption to, or degradation of, air traffic services; and

(ii) Storage and preparation facilities for food and drink in the visual control room; and

(4) Provided with equipment for two-way voice communication with;

(i) Any aircraft, in or adjacent to airspace for which the applicant has responsibility; and
(ii) Any aircraft, vehicle, and person, on, or adjacent to, the maneuvering area; and

(5) Provided with the following minimum equipment:

(i) A display or systems designed to show the disposition of current and pending aerodrome traffic together with ancillary information for individual aircraft:

(ii) A power supply:

(iii) Appropriate and current maps and charts:

(iv) Binoculars:

(v) Clocks:

(vi) Log keeping system:

(vii) Outside temperature indicator:

(viii) QNH display:

(ix) Signal lamp with green, red, and white functions:

(x) Telephone communications:

(xi) Status monitors for approach and landing aids and any road or rail signaling equipment affecting the use of a runway taxiways:

(xii) Visibility, RVR and cloud height checkpoints:

(xiii) Voice and, data recording equipment:

(xiv) Wind direction and wind speed display:

(xv) An audible emergency alerting system:

(xvi) AN AFTN/ AMHS terminal or, if provided for in an ATS letter of agreement, an alternative means of reception and transmission of information normally conveyed by AFTN/AMHS:

(xvii) Airfield lighting controls panel; and

(6) Provided with 2 independent sources of the current altimeter setting, at least 1 of which shall be an aneroid barometer or barometric altimeter situated in the visual control room.

(c) The applicant shall establish procedures to ensure that an area control centre, a flight information centre, and an approach control office are;

(1) provided with equipment enabling;

(i) To the fullest extent practical, two-way voice communication; and

(ii) If applicable, data communication with any aircraft in, or adjacent to, airspace for which the applicant has responsibility; and

(2) Provided with the following minimum equipment:

(i) A display system or systems designed to show the disposition of current and pending flights together with ancillary information for individual aircraft.

(ii) A power supply.

(iii) Appropriate and current maps and charts.

(iv) Clocks.

(v) Log keeping system.

(vi) Status monitors as appropriate for navigation, weather monitor, approach and landing aids.

(vii) Telephone communications.

(viii) Voice recording equipment and, if applicable, data recording equipment.

(ix) AN AFTN/AMHS terminal.

(x) For an approach control operating position, an ILS/MLS Status monitor at the approach control or approach control radar operating position for the aerodrome concerned.

(xi) For an approach control operating position responsible for aircraft on final approach, or aircraft landing or taking off, a wind direction and wind speed display fed from the same source as the corresponding equipment in the aerodrome control tower.

(d) The applicant shall establish procedures to ensure that the aeronautical telecommunications equipment required by paragraphs (b) and

(e) Are operated in accordance with the requirements of Part 171.

(f) The applicant shall establish procedures to ensure that any visual display unit used by an air traffic service is positioned with due regard to the relative importance of the information displayed and ease of use by the staff concerned.

(g) The equipment required by paragraphs (b)(4) and (5), and (c)(1) and (2), shall have a level of reliability, availability, and redundancy, that minimizes the possibility of failure, non-availability, or significant degradation of performance.

(h) The applicant shall establish procedures to ensure that the status monitors required are fitted with:

(1) An aural signal to indicate a change of status; and

(2) A visual indication of the current status.

(I) A temporary aerodrome control tower and a temporary aerodrome flight information office are not required to be provided with the equipment required if it is impracticable to do so and other appropriate measures are taken, as the case may be, to:

(1) Provide the person providing the air traffic service from the temporary tower or office with the information that would be available from the equipment required; and

(2) Control the airfield lighting if applicable.

172.59 Establishment and transfer of service

(a) An applicant for the grant of an air traffic service certificate shall include with its application for each aerodrome and airspace, a schedule of the proposed hours of service for the first 12 months of operation; and

(b) An applicant for the grant of an air traffic service certificate intending to assume responsibility for providing any air traffic service from an existing certificate holder, shall include with its application, full details of transitional arrangements endorsed by the accountable manager of both organizations.

172.61 Shift administration.

An applicant for the grant of an air traffic service certificate shall establish a procedure to ensure that:

(a) Adequate time is provided at the beginning and end of each shift, for the performance of those duties required:

(1) Before providing an air traffic service; and

(2) After ceasing to provide an air traffic service; and

(b) A minimum of 10 minutes is provided for each transfer of watch at an ATS operational position.

172.63 Documentation.

(a) An applicant for the grant of an air traffic service certificate shall have a technical library to hold copies of the relevant technical manuals, and all other documents, necessary for the provision and operation of the services listed in its exposition.

(b) The applicant shall establish a procedure to control all the documentation

required by paragraph (a). The procedure shall ensure that:

(1) All incoming documentation is reviewed, and actioned as required, by authorized personnel; and

(2) All documentation is reviewed and authorized before issue; and

(3) Current issues of all relevant documentation are available to personnel at all locations where they need access to such documentation for the provision and operation of air traffic services; and

(4) All obsolete documentation is promptly removed from all points of issue or use; and

(5) Any obsolete documents retained as archives are suitably identified as obsolete; and

(6) Changes to documentation are reviewed and approved by authorized personnel who shall have access to pertinent background information upon which to base their review and approval; and

(7) The current version of each item of documentation can be identified to preclude the use of out-of-date editions.

172.65 Contingency plan.

(a) An applicant for the grant of an air traffic service certificate shall establish a contingency plan providing for the safe and orderly flow of traffic in the event of a disruption, interruption, or temporary withdrawal of an air traffic service or related supporting service.

(b) In addition to the requirement in paragraph (a), an applicant for the grant of an air traffic service certificate to provide services in the FIR shall detail in its plan provisions for the continuation of the safe and orderly flow of international traffic not landing in Jordan.

(c) An applicant for the grant of an air traffic service certificate shall establish a contingency plan; the contingency plan shall include at least procedures and mechanism for but not limited to:

(1) Radio communication failure contingencies.

(2) Emergency Separation.

(3) Short-Term Conflict Alert (STCA).

(4) Minimum Safe Altitude Warning (MSAW).

172.67 Co-ordination requirements

(a) An applicant for the grant of an air traffic service certificate shall establish system and procedures for ensuring, if applicable, co-ordination between each ATS unit listed in the applicant's exposition and the following agencies:

(1) Each holder of an aeronautical telecommunication service certificate issued in accordance with Part 171; and

(2) Each holder of an instrument flight procedure service certificate issued in accordance with this part; and

(3) Each holder of a meteorological service certificate; and

(4) Each holder of an aeronautical information service certificate issued in accordance with Part 175; and

(5) Aircraft operators; and

(6) The Jordan Civil Defense Force; and

(7) Search and rescue authorities; and

(8) If the listed ATS unit is an aerodrome control or aerodrome flight information service:

(i) The aerodrome operator; and

(ii) The apron management service (ground operations).

(b) An applicant shall establish procedures for ensuring that an ATS letter of agreement is in place between each ATS unit listed in the applicant's exposition and

(1) Each ATS unit responsible for adjoining airspace, and

(2) Any other ATS unit with which regular operational co- ordination is required.

(c) An applicant shall establish procedures for ensuring that each ATS letter of agreement:

(1) Details matters that are necessary for effective co-ordination between the units party to the agreement; and

(2) Is kept current; and

(3) Is signed by ATM Director of the participating units; and

(4) Is part of the applicant's operations manual.

(d) An applicant shall provide systems and procedures for facilitating communications between those ATS units that have an operational requirement to communicate with each other.

(e) An applicant shall provide systems and procedures for ensuring that ATS units, aircraft operators, and aviation meteorological service providers, if they require the information, are provided, through the exchange of ATS messages, with details of:

(1) The intended movement of each aircraft for which a flight plan has been filed, and any amendments to the flight plan; and

(2) Current information on the actual progress of the flight.

(f) An applicant shall establish procedures for ensuring that ATS messages are prepared and transmitted in accordance with procedures detailed and cross-referenced in Document 4444 (Part IX – Air Traffic Services Messages).

172.69 Notification of facility status

(a) An applicant for the grant of an air traffic service certificate shall establish procedures to notify the users of its air traffic services of relevant operational information and of any changes in the operational status of each facility or service listed in the applicant's exposition.

(b) The applicant shall ensure that procedures established under paragraph (a) require:

(1) Operational information for each of the applicant's air traffic services to be forwarded to the holder of the aeronautical information service certificate issued in accordance with this part for the AIP service; and

(2) The users of the applicant's air traffic services to be notified without delay of any change in operational status of a facility or service that may affect the safety of air navigation, and, except if the change is temporary in nature, information concerning any change in operational status is forwarded to the holder of the aeronautical information service certificate for the NOTAM service.

172.71 General requirements

(a) An applicant for the grant of an air traffic service certificate shall establish procedures for the receipt of information on the following activities when the activity could affect airspace used by flights within the applicant's area of responsibility:

(1) Pre earthquake activity; and

(2) Water flooding; and

(3) Release into the atmosphere of radioactive materials or toxic chemicals.

(4) Pre-eruption volcanic activity; and

(5) Volcanic eruptions; and

(6) Volcanic ash-cloud; and

(b) The applicant shall establish systems and procedures to ensure that each ATS unit as appropriate to the applicant's intended area of responsibility is kept informed of the operational status of:

(1) Non-visual navigation aids; and

(2) Visual aids essential for take-off, departure, approach, and landing procedures; and

(3) Visual and non-visual aids essential for surface movement.

(c) An applicant for the grant of an air traffic service certificate for an:

(1) Aerodrome control unit; or

(2) Approach control unit; or

(3) Aerodrome flight information service shall establish procedures to ensure the unit is kept informed of operationally significant conditions on the movement area. The information shall include the existence of temporary hazards and the operational status of any associated facilities at the aerodrome.

172.73 Meteorological information and reporting

(a) An applicant for the grant of an air traffic service certificate shall establish systems and procedures to ensure that all meteorological information provided as part of any flight information service is:

(1) Supplied by the holder of an aviation meteorological service organization certificate; or

(2) Issued as a basic weather report in accordance with subpart **G** of this part.

(b) The applicant shall establish systems and procedures to ensure that ATS units are supplied with the meteorological information necessary for the performance of their respective functions, in a form that requires a minimum of interpretation by ATS personnel.

(c) The applicant shall establish procedures to ensure that equipment used in the compilation of basic weather reports:

(1) Supplies data representative of the area for which the measurements are required; and

(2) Where that equipment consists of multiple wind direction and speed indicators, identifies the runway, or section of the runway, monitored by each instrument.

(d) The applicant shall establish a procedure to ensure that the information contained in a meteorological bulletin remains unchanged through onward transmission.

172.75 Area and approach control services

(a) An applicant for the grant of an air traffic service certificate in respect of an area or approach control service shall establish systems and procedures to:

(1) Determine from information received, the positions of known aircraft relative to each other; and

(2) Provide for the issue of ATC clearances, instructions, and information in accordance with the airspace

(3) classification and type of flight for the purpose of preventing collisions between aircraft under the control of the unit, and for expediting and maintaining a safe and efficient flow of traffic; and

(3) Co-ordinate clearances with other ATC units as necessary; and

(4) Display information on aircraft movements together with a record of clearances issued, in a manner that permits ready analysis of such information.

(b) Except as provided in paragraph (d) and rule 172.91, the procedures required by paragraph (a) (2) shall specify that vertical or horizontal or composite separation in accordance with paragraph (c) shall be provided between:

(1) All flights in Class A airspace; and

(2) IFR flights and VFR flights in Class C airspace; and

(c) The separation required by paragraph (b) shall be in accordance with the applicable criteria and minima prescribed by:

(1) Annex 11; or

(2) Document 4444; or

(3) Document 7030.

172.77 Aerodrome control service

(a) An applicant for the grant of an air traffic service certificate in respect of an aerodrome control service shall establish systems and procedures to:

(1) Determine, from information received and visual observation, the

relative positions of known aircraft to each other; and

(2) Provide for the issue of ATC clearances, instructions, and information, for the purpose of preventing collisions between:
   (i) Aircraft flying in the vicinity of an aerodrome; and
   (ii) Aircraft landing and taking off; and
   (iii) Aircraft operating on the maneuvering area; and
   (iv) Aircraft, vehicles, and persons, operating on the maneuvering area; and
   (v) Aircraft on the maneuvering area and obstructions on that area; and

(3) Provide for the issue of ATC clearances, instructions, and information, for the purpose of expediting and maintaining a safe and efficient flow of traffic; and

(4) Except as provided in 172.91 provide runway and wake turbulence separation in accordance with criteria and minima prescribed by:
   (i) Annex 11; or
   (ii) Document 4444; or
   (iii) Document 7030; or; and

(5) Ensure that emergency vehicles responding to an aircraft emergency are given priority over all other surface movement traffic; and

(6) provide for the control of the movement of persons or vehicles, including towed aircraft, on the maneuvering area, as necessary to avoid hazard to them or to aircraft landing, taxiing, or taking off; and

(7) Co-ordinate as necessary with other ATS units; and

(8) Display, at operating positions, continuously updated information on aircraft movements.

(b) The applicant shall establish a procedure to ensure that, when radio communication is not available, basic clearances, instructions, and

information required by paragraph (a) (2) can be conveyed by the use of the light signals described in 91.243.

(c) The applicant shall establish procedures to ensure that when required by either the weather, or category of approach, or both:

(1) Aircraft on an ILS approach are informed of ILS critical area incursions, or the imminent possibility of an incursion; or

(2) The applicable ILS critical areas are protected from incursion when an aircraft is on an ILS approach, or has reached a point on the approach from which protection from incursion is necessary.

(d) The applicant shall establish a procedure to ensure that, except as provided in 172.91 and subject to authorization by the applicable approach control unit, aerodrome control units provide separation between:

(1) IFR flights and Special VFR flights; and

(2) Special VFR flights when the flight visibility is reported to be less than 5 km.

(e) The applicant shall establish a procedure to ensure that, when authority has been delegated by, and accepted from, the applicable area or approach control unit, aerodrome control units provide separation between controlled flights in accordance with the delegation.

(f) The separation required by paragraphs (d) and (e) shall be obtained by the use of vertical or horizontal or composite separation, in accordance with criteria and minima prescribed by:

(1) Annex 11; or

(2) Document 4444; or

(3) Document 7030; or

172.79 Special use of airspace

An applicant for the grant of an air traffic service certificate in respect of an air traffic control service shall establish systems and procedures to ensure that separation is provided between controlled flights and active special use airspace

designated under Part 73, except when:

(a) The pilot has approval by CARC to operate in the airspace; or

(b) In the case of a danger area, the pilot has notified an express intention to operate in the danger area or as the case may be; or

(c) It is known, or reasonably believed, that the pilot of a VFR flight or an IFR flight navigating by visual reference is aware that the airspace is active; or

(d) On a request by the pilot, the flight is cleared to maintain its own separation from the airspace.

(e) An applicant for the grant of ATS shall have process and procedure to ensure the approval status of aircraft operating within Amman FIR and intending to operate in RVSM airspace.

(f) An applicant for the grant of ATS shall have process and procedure to ensure monitoring mechanisms for the establishing and implementation of RVSM and shall ensure the effective implementation.

(g) An applicant for the grant of ATS shall ensure that a process has been established and implemented for verifying that aircraft is approved for operation in RVSM airspace.

(h) An applicant for the grant of ATS shall have process and procedure to ensure that Performance Based Navigation (PBN) is the prescribed navigation specifications appropriate to the level of communications, navigation and air traffic services.

172.80 Flexible use of airspace

(a) The concept of 'flexible use of airspace' shall be governed by the following principles:

(1) Coordination between civil and military authorities shall be organized at the strategic, pre-tactical and tactical levels of airspace management through the establishment of agreements and procedures in order to increase safety and airspace capacity, and to improve the efficiency and flexibility of aircraft operations;

(2) Consistency between airspace management, air traffic flow

management and air traffic services shall be established and maintained at the three levels of airspace management enumerated in point (a) in order to ensure, for the benefit of all users, efficiency in airspace planning, allocation and use;

(3) the airspace reservation for exclusive or specific use of categories of users shall be of a temporary nature, applied only during limited periods of time based on actual use and released as soon as the activity having caused its establishment ceases;

(4) ANSPs shall develop cooperation for the efficient and consistent application of the concept of flexible use of airspace across national borders and/or the boundaries of flight information regions, and shall in particular address cross-border activities; this cooperation shall cover all relevant legal, operational and technical issues;

(5) Air traffic services units and users shall make the best use of the available airspace.

(b) Strategic airspace management
An applicant for the grant of an air traffic service certificate shall perform the following tasks:

(1) Ensure the overall application of the flexible use of airspace concept at a strategic, pre-tactical and tactical level;

(2) Regularly review users' requirements**;**

(3) Approve the activities which require airspace reservation or restriction;

(4) Define temporary airspace structures and procedures to offer multiple airspace reservation and route options;

(5) establish criteria and procedures providing for the creation and the use of adjustable lateral and vertical limits of the airspace required for accommodating diverse variations of flight paths and short-term changes of flights;

(6) Assess the national airspace structures and route network with the aim of planning for flexible airspace structures and procedures;

(7) Define the specific conditions under which the responsibility for

separation between civil and military flights rests on the air traffic services units or controlling military units;

(8) Develop cross-border airspace use with neighboring States where needed by the traffic flows and users' activities;

(9) Coordinate their airspace management policy with those of neighboring States to jointly address use of airspace across national borders and/or the boundaries of flight information regions;

(10) Establish and make available airspace structures to users in close cooperation and coordination with neighboring States where the airspace structures concerned have a significant impact on the traffic across national borders and/or the boundaries of flight information regions, with a view to ensuring optimum use of airspace for all users;

(11) Establish with neighboring States one common set of standards for separation between civil and military flights for cross-border activities if applicable;

(12) Set up consultation mechanisms between the persons or organizations as referred to all relevant partners and organizations to ensure that users' requirements are properly addressed;

(13) Assess and review airspace procedures and performance of flexible use of airspace operations;

(14) Establish mechanisms to archive data on the requests, allocation and actual use of airspace structures for further analysis and planning activities. The conditions referred to in point (g) shall be documented and taken into account in the safety assessment.

(c) Pre-tactical airspace management

(1) ANSPs shall appoint or establish an airspace management cell to allocate airspace in accordance with the conditions and procedures defined in 2 above;

Note: As both civil and military authorities are responsible for or involved in airspace management, this cell shall take the form of a joint civil military cell.

(2) ANSPs shall ensure that adequate supporting systems are put in place to enable the airspace management cell to manage airspace allocation and to communicate in good time the airspace availability to all affected users, airspace management cells, air traffic service providers and all relevant partners and organizations.

(d) Tactical airspace management (level 3**)**

(1) ANSPs shall ensure the establishment of civil military coordination procedures and communication facilities between appropriate air traffic service units and controlling military units permitting mutual provision of airspace data to allow the real-time activation, deactivation or reallocation of the airspace allocated at pre-tactical level.

(2) ANSPs shall ensure that the relevant controlling military units and air traffic services units exchange any modification of the planned activation of airspace in a timely and effective manner and notify to all affected users the current status of the airspace.

(3) ANSPs shall ensure the establishment of coordination procedures and the establishment of supporting systems between air traffic service units and controlling military units in order to ensure safety when managing interactions between civil and military flights.

(4) ANSPs shall ensure that coordination procedures are established between civil and military air traffic service units so as to permit direct communication of relevant information to resolve specific traffic situations.

(5) Where cross-border activities take place, ANSPs shall ensure that a common set of procedures to manage specific traffic situations and to enhance real time airspace management is agreed between civil air traffic services units and military.

(e) Safety assessment.

ANSPs shall, in order to maintain or enhance existing safety levels, ensure that within the context of a safety management process, a safety assessment, including hazard identification, risk assessment and mitigation, is conducted, before they introduce any changes to the operations of the flexible use of airspace.

172.81 Responsibility of control

(a) An applicant for the grant of an air traffic service certificate in respect of an air traffic control service shall establish procedures to ensure that any controlled flight is under the control of only one ATC operating position at any given time.

(b) The applicant shall establish procedures to ensure that responsibility for the control of all aircraft operating within a given block of airspace is vested in a single operating position. Control of an aircraft or groups of aircraft may be delegated to other operating positions provided that coordination between all affected operating positions is assured.

(c) The applicant shall establish procedures for the transfer of responsibility for the control of an aircraft.

(d) The procedures required by paragraph (c) shall ensure that:

(1) Transfer arrangements are:

(i) Agreed between ATC units responsible for adjacent airspaces and published in ATS letters of agreement; and

(ii) In place for separate operating positions within an ATC unit and promulgated in the holder's operations manual; and

(2) Responsibility for control of an aircraft is not transferred from one ATC unit to another without:

(i) Communication of appropriate parts of the current flight plan; and

(ii) Any relevant control information; and

(iii) The consent of the accepting unit.

172.83 Priorities

(a) An applicant for the grant of an air traffic service certificate in respect of an air traffic control service shall establish procedures to ensure that, providing safety is not jeopardized, ATC units apply the following priorities:

(1) An aircraft known or believed to be in a state of emergency or impaired

operation has priority over other aircraft:

(2) An aircraft landing, or in the final stages of an approach to land, has priority over a departing aircraft:

(3) An aircraft landing or taking off has priority over a taxiing aircraft.

(b) The applicant shall establish procedures to ensure that, where practical, following a request from a pilot, an aircraft involved in, or positioning for, the following activities is granted priority:

(1) Ambulance or mercy mission:

(2) Search and rescue:

(3) Civil defense or police emergency:

(4) Carriage of head-of-State, head-of-government, or equivalent dignitary.

(c) The applicant shall establish procedures to ensure that an aircraft at a cruising level generally has priority over other aircraft requesting that level.

(d) An applicant for an air traffic service certificate in respect of an area control service may establish procedures regarding priorities to be applied in airspace designated as RNAV and VOR airspace under Part 73.

(e) Subject to the requirements of paragraphs (a) and (b), an applicant may put in place schemes for the determination of priorities for arriving and departing flights, provided that consultation with interested parties is undertaken prior to implementing the scheme.

(f) The applicant shall establish procedures to ensure that, if priorities are established under paragraphs (d) or (e), relevant information including details regarding the handling of complaints, is published in the AIP.

(g) The applicant shall establish procedures to ensure that, providing safety is not jeopardized, due regard is given to those priorities determined in conjunction with the aerodrome operator for:

(1) Aircraft arriving and departing the aerodrome; and

(2) Other operations in a control zone associated with the aerodrome.

(h) The applicant shall establish procedures to ensure that, except when applying priority in accordance with other provisions of this rule, priority for arriving and departing flights is allocated on a first-come first-served basis.

(i) the applicant shall establish procedures to ensure that the provision of an ATC service takes precedence:

(1) Over the provision of a flight information service whenever the situation so requires; and

(2) Over the performance of any other non-ATS tasks.

172.85 Flow control

(a) Purpose and Scope

(1) This paragraph establishes the framework for the implementation of Air Traffic Flow Management (ATFM) within The Hashemite Kingdome of Jordan to ensure the safe, efficient, and orderly flow of air traffic.

(2) This framework applies to all Air Navigation Service Providers (ANSPs), airspace users, and airports operating within Jordan.

(3) This framework aligns with ICAO Annex 11 (Air Traffic Services), ICAO Doc 9971 (Manual on Collaborative ATFM), ICAO Doc 4444 PANS-ATM and the MID Region ATFM Implementation Guidelines (MID Doc.014 v0.2).

(b) ATFM Definition and Description

A service established with the objective of contributing to a safe, orderly and expeditious flow of air traffic by ensuring that ATC capacity is utilized to the maximum extent possible, and that the traffic volume is compatible with the capacities declared by Jordan Air Navigation Services (JANS)/ANSP Administration and accepted by CARC.

The objective of ATFM is to ensure optimal traffic flow when demand is expected to exceed the available capacity of the ATC system. It comprises activities related to traffic organization and handling in a way that is safe,

orderly, expeditious and kept within the capacity. ATC capacity reflects the ability of the system to provide service, and is expressed in numbers of aircraft entering a specified portion of the airspace in a given period of time.

(c) ATFM Objectives

(1) Ensure the safe and efficient management of air traffic flows within AMMAN FIR and in coordination with adjacent Flight Information Regions (FIRs).

(2) Minimize delays and disruptions while maximizing the utilization of available airspace and airport capacity.

(3) Enhance collaboration among all stakeholders through the implementation of Collaborative Decision Making (CDM).

(d) Institutional Framework

(1) ATFM Unit (ATFMU):

- The ATFMU shall be established within the main ANSP body as the central authority responsible for ATFM implementation.
- The ATFMU shall coordinate with regional and international ATFM entities, including the ICAO MID Region ATFM Network.
- The ATFMU shall carry out and coordinate the four phases of ATFM execution; strategic, pre-tactical, tactical and Post-Operation Review.
- ATFMU shall establish and update operational manuals and procedures in line with ICAO SARPs. These manuals shall be accepted by CARC.
- ATFMU structure and Operational Staff Job Descriptions;

The job descriptions of staff operating an ATFM facility will depend on the ANSP local organizational structure. Responsibilities may be delegated or not, and functions may be combined or subdivided.

- ATFM Unit Operations Manager
- ATFM Unit Supervisor
- ATFM Unit Planner
- ATFM Unit Office (executive)
- ATFMU Support Assistant
- ATFMU CDM partner

The main tasks of a service provided by an ATFMU include:

- Receive and analyze all ATFM data and associated parameters;
- Plan and coordinate capacity adjustment for next day's operation;
- Plan and coordinate ATFM Daily Plan for the next day's operation;

- Manage proper execution of ATFM Measures on day of operation based on ATFM Daily Plan;
- Coordinate tactical capacity adjustment on ATM resources with the local ATC Supervisors;
- Monitor and execute ATFM Measures on day of operation as required based on ATFM Daily Plan;
- Ensure proper integration of traffic demand inputs;
- Ensure proper configuration of ATFM automation support systems;
- Ensure optimization of resources through an efficient CDM process;
- Provide focus and specialist expertise for planning, coordinating and implementing measures for capacity management and contingency operations;
- Conduct post operations analysis of previous days ATFM operation.

(2) ATFM Stakeholders:
- ANSPs
- Airspace Users (Airlines, General Aviation, etc.)
- Airport Operators
- Meteorological Service Providers
- Military

(e) ATFM Measures

(1) Demand and Capacity Balancing (DCB):
- The ATFMU shall implement DCB measures to align air traffic demand with available capacity.
- DCB measures may include ground delays, rerouting, or slot allocation…etc.

(2) ATFM Slots:
- ATFM slots shall be assigned to flights to manage demand at congested airports or airspace sectors.
- Slot adherence shall be monitored, and non-compliance shall be reported to the ATFMU.

(3) Rerouting:
- Rerouting may be implemented to avoid congested airspace or adverse weather conditions.

(4) Ground Delay Programs (GDP):
- GDPs shall be implemented to manage airport arrival rates during periods of reduced capacity; however, more measurements could be included in the ATFM operational manual.

(5) Some flights may be granted exemption from flow control measures, e.g.:
- flights in a state of emergency, including unlawful interference
- humanitarian flights;
- medical flights;
- flights on search and rescue missions;
- state flights. There may be occasions when it will be necessary to restrict such aircraft in order to ensure safety.

(f) Collaborative Decision Making (CDM)

(1) All stakeholders shall participate in the CDM process to ensure the effective implementation of ATFM measures. Focal points shall be appointed.

(2) The ATFMU shall establish a CDM platform for real-time information sharing and decision-making.

(3) Stakeholders shall provide accurate and timely data to support ATFM operations, including flight plans, airport capacities, and weather information.

(g) ATFM Coordination

(1) The ATFMU shall coordinate with adjacent FIRs and regional ATFM networks to ensure harmonized ATFM operations.

(2) Cross-border ATFM measures shall be implemented in accordance with ICAO Doc 9971 and regional agreements.

(3) ATFM instructions and arrangements shall be reflected in all Letters of Agreement L.O.As with adjacent and concerned unites.

(h) Performance Monitoring and Reporting

(1) The ATFMU shall establish performance indicators to monitor the effectiveness of ATFM measures.

(2) Regular reports shall be submitted to the Civil Aviation Authority (CAA) and shared with stakeholders.

(3) Continuous improvement of ATFM processes shall be pursued based on performance data and stakeholder feedback.

(i) Training and Awareness

(1) The ATFMU shall provide training programs for ATFM personnel and

stakeholders.

(2) Awareness campaigns shall be conducted to promote understanding of ATFM principles and benefits.

(j) Compliance and Enforcement

(1) Compliance with this regulation is mandatory for all stakeholders.

(2) Non-compliance with ATFM measures, including slot adherence, may result in penalties as determined by CARC.

(k) Entry into Force

Transitional arrangements shall be established to facilitate the implementation of ATFM measures.

172.87 ATC clearances

An applicant for the grant of an air traffic service certificate in respect of an air traffic control service shall establish procedures for the provision of ATC clearances to ensure that:

(a) No person knowingly issues an ATC clearance or instruction that requires or invites a pilot to violate the provisions of any other rule; and

(b) Clearances and instructions contain positive and concise data and are, where practicable, phrased in a standard manner; and

(c) If a pilot advises that a clearance or instruction is unsuitable, an amended clearance or instruction is, if practicable, issued; and

(d) An ATC clearance for an en-route flight consists of:

(1) The aircraft identification as shown in the flight plan or, where similarity with another flight might cause confusion, an alternative identification provided by ATC; and

(2) The clearance limit; and

(3) The route of flight; and

(4) The level(s) of flight for the entire route, or part thereof, and changes of level if required; and

(5) Any necessary instructions or information on other matters such as approach or departure maneuvers, communications, and the time of validity or expiry of the clearance; and

An ATC clearance for a local flight, a flight operating in defined areas, or a flight operating in a random manner, includes those elements detailed in paragraph (d) that are appropriate; and

(e) An ATC clearance for a transonic flight:

(1) Extends at least to the end of the transonic acceleration phase; and

(2) Provides for uninterrupted descent during deceleration from supersonic cruise to subsonic flight.

(f) Establish mechanism to ensure the effective implementation of the read back procedures.

172.89 Cruising levels

(a) An applicant for the grant of an air traffic service certificate in respect of an air traffic control service shall establish procedures to ensure that cruising levels allocated within the FIR are selected in accordance with Annex 2 Annex 11 and Doc 8168 except that, within controlled airspace:

(1) For both IFR and VFR flights, correlation of cruising level with track need not apply; and

(2) VFR flights may be allocated IFR levels.

(b) An applicant for an air traffic service certificate for the provision of an area control service in Jordan FIR shall establish procedures to ensure that cruising levels are allocated in accordance with Annex 2, except that correlation of cruising level with track need not apply.

172.91 Deviation from an ATC clearance

(a) Subject to paragraph (b), an applicant for the grant of an air traffic service certificate in respect of an air traffic control service shall establish

procedures to ensure that instructions issued by ATC to restore a loss of separation do not hinder the responses of a pilot to:

(1) An ACAS resolution advisory; or

(2) A GPWS or TAWS alert; or

(3) A Weather, or other emergency situation that necessitates a deviation from an ATC clearance.

(b) The procedures required by paragraph (a) shall specify that if any separation has been lost it is restored once the emergency situation has been resolved.

172.93 Flight information service

(a) An applicant for the grant of an air traffic service certificate shall establish procedures to ensure that a flight information service is provided to the following:

(1) Each aircraft being provided with an ATC service that is likely to be affected by the information in paragraph (b).

(2) Each aircraft being provided with an aerodrome flight information service that is likely to be affected by the information in paragraph (b).

(3) Each aircraft operating IFR that is likely to be affected by the information in paragraph (b).

(4) Any aircraft operating VFR for which the pilot has submitted a VFR flight plan to an ATS unit.

(5) Any aircraft operating VFR if the pilot makes a specific request to an ATS unit for flight information.

(b) The applicant shall ensure that the procedures required by paragraph (a) for the provision of the flight information service includes the provision of available and relevant:

(1) SIGMET information; and

(2) Information on weather conditions reported or forecast at departure, destination, and alternate aerodromes; and

(3) Information concerning the release into the atmosphere of radioactive materials or toxic chemicals; and

(4) Information on changes in the serviceability of navigation aids; and

(5) Information on changes in the condition of aerodromes and associated facilities, including information on the state of the aerodrome movement areas when they are affected by snow, ice, or water; and

(6) Information on unmanned free balloons; and

(7) Other information likely to affect safety.

(c) An applicant for the grant of an air traffic service certificate for an aerodrome control service or aerodrome flight information service shall establish procedures to ensure that, whenever water is present on a runway, a description of the runway surface conditions on the centre half of the width of the runway is made available using one of the following terms:

(1) WET – the surface is soaked but there is no standing water:

(2) WATER PATCHES – significant patches of standing water are visible:

(3) FLOODED – extensive standing water is visible.

(d) An applicant for the grant of an air traffic service certificate for an aerodrome control service, approach control service, or aerodrome flight information service shall establish procedures to ensure that, if practical, local aircraft operators likely to be affected by the information are advised of short-notice changes to published hours of service if they are unlikely to have the information from any other source.

(e) An applicant for the grant of an air traffic service certificate for an air traffic control service shall establish procedures to ensure that essential traffic information is passed to all affected traffic.

(f) An applicant for the grant of an air traffic service certificate shall establish procedures to ensure that each ATS unit operating under that certificate provides traffic information to flights that are known to the ATS unit and are likely to be affected by the information as follows:

(1) In class C airspace, between VFR flights, together with traffic avoidance advice on request:

(2) In class C airspace, between IFR and VFR flights, and between VFR flights, together with traffic avoidance advice on request:

(3) In class G airspace, between IFR flights, and, if practical, between other flights on request.

172.95 Aerodrome flight information service

(a) An applicant for the grant of an air traffic service certificate in respect of an aerodrome flight information service shall establish systems and procedures to:

(1) Determine, from information received and visual observation, the relative positions of known aircraft to each other; and

(2) Provide for the issue of advice and information, including the designation of a preferred runway, for the purpose of the safe and efficient operation of:

(i) Aircraft flying in the vicinity of an aerodrome; and

(ii) Aircraft operating on the maneuvering area; and

(iii) Aircraft landing and taking off; and

(iv) Aircraft, vehicles, and persons, on the maneuvering area; and

(v) Aircraft on the maneuvering area and obstructions on that area.

(b) The applicant shall establish procedures to ensure that the designated preferred runway is that most suitable for the particular operation.

(c) The applicant for the grant of an air traffic service certificate shall establish and implement a runway safety program.

172.97 Alerting service

(a) In this Rule;

(1) ALERFA means the Alert phase.

(2) DETRESFA means the Distress phase.

(3) INCERFA means the Uncertainty phase.

(4) RCC means the rescue co-ordination centre established by the CARC under Civil Aviation law 41/ 2007 article 35.

(b) An applicant for the grant of an air traffic service certificate shall establish systems and procedures to ensure the provision of an alerting service within its areas of responsibility:

(1) For all aerodrome traffic when an aerodrome control service or aerodrome flight information service is being provided; and

(2) For all aircraft:

(i) Operating under a flight plan submitted in accordance with JCAR Part (91.169 and Doc 4444; or

(ii) Otherwise known by any air traffic service to be in need of assistance; or

(iii) Known or believed to be the subject of unlawful interference.

(d) An applicant for the grant of an air traffic service certificate in respect of an area control service or flight information service shall establish procedures to ensure that, in the event of a state of emergency, a TACC or RCC:

(1) Serves as the central point within the FIR concerned for collecting all information relevant to the state of emergency; and

(2) Except as prescribed in paragraph (l), forwards such information without delay to the RCC.

(e) Notwithstanding paragraph (c), an applicant for an air traffic service certificate for an aerodrome control service, approach control service, or aerodrome flight information service, shall establish procedures to ensure that whenever the urgency of the situation so requires, those services shall first alert appropriate local emergency organizations.

(f) The declaration required by paragraph (c) shall be made in the following circumstances, and in any other circumstances that warrant such a declaration:

(1) INCERFA when:

(i) No communication has been received from an IFR or controlled VFR aircraft within a period of 15 minutes after the time a communication should have been received, or from the time an unsuccessful attempt to establish communication with the aircraft was first made, whichever is the earlier; or

(ii) A pilot fails to terminate the flight plan or amend the nominated SAR time and immediate checks have failed to locate the aircraft; or

(iii) A VFR aircraft on a VFR flight plan for which a SAR time has not been provided fails to arrive within 30 minutes of the estimated time of arrival except when no doubt exists as to the safety of the aircraft and its occupants; or

(2) ALERFA when:

(i) An aircraft is known or believed to be subject to unlawful interference; or

(ii) Following the uncertainty phase, subsequent attempts to establish communication with the aircraft or inquiries to other relevant sources have failed to reveal any news of the aircraft; or

(iii) an aircraft has been cleared to land, and fails to land within five minutes of the estimated time of landing, and communication has not been re-established with the aircraft; or

(iv) Information has been received that indicates that the operating efficiency of the aircraft has been impaired, but not to the extent that a forced landing is likely, except, in the case of subparagraphs (ii), (iii), and (iv), when evidence exists that would allay apprehension as to the safety of the aircraft and its occupants; or

(3) DETRESFA when:

(i) Following the alert phase further unsuccessful attempts to establish communication with the aircraft and more widespread unsuccessful inquiries point to the probability that the aircraft is in distress; or

(ii) The fuel on board is considered to be exhausted, or to be insufficient to enable the aircraft to reach safety; or

(iii) Information is received that indicates that the operating efficiency of the aircraft has been impaired to the extent that a forced landing is likely; or

(iv) Information has been received that, or it is reasonably certain that, the aircraft is about to make or has made a forced landing, except when there is reasonable certainty that the aircraft and its occupants are not threatened by grave and imminent danger and do not require immediate assistance.

(g) An applicant for the grant of an air traffic service certificate shall establish procedures to ensure the notification of an emergency situation required by paragraph (c)(2) includes such of the following information as is available, in the order listed:

(1) INCERFA, ALERFA, or DETRESFA as appropriate to the phase of the emergency.

(2) Agency and person calling.

(3) Nature of the emergency.

(4) Significant information from the flight plan.

(5) Unit that made last contact, time, and radio frequency used.

(6) Last position report and how determined.

(7) Color and distinctive marks of aircraft.

(8) Any action taken by the reporting office.

(h) An applicant for the grant of an air traffic service certificate shall establish procedures to ensure that, following the notification of an emergency situation, the RCC is provided, without delay, with:

(1) Any useful additional information; and

(2) Notification when the emergency situation no longer exists.

(I) an applicant for the grant of an air traffic service certificate shall establish procedures to ensure, as necessary, the use of all available means to establish and maintain communication with, and surveillance of, an aircraft in a state of emergency.

(j) An applicant for the grant of an air traffic service certificate shall establish procedures to ensure that, when a state of emergency is considered to exist, the last known position of any aircraft involved is established and recorded.

(k) An applicant for the grant of an air traffic service certificate for the provision of an area control service or flight information service within the FIR shall establish procedures to ensure that, when a state of emergency is considered to exist, the position and track of other aircraft known to be operating in the vicinity are established to determine those most suitable to provide assistance.

(l) An applicant for the grant of an air traffic service certificate in respect of an area control service or flight information service shall establish procedures to ensure that:

(1) When an ACC or FIC declares an INCERFA or ALERFA it shall, where practical, advise the aircraft operator prior to notifying the RCC; and

(2) All information notified to the RCC by an ACC or FIC shall, where practical, also be communicated without delay to the aircraft operator.

172.99 Flight plans

(a) An applicant for the grant of an air traffic service certificate shall establish procedures for the acceptance and auctioning of flight plans.

(b) An applicant shall ensure that the acceptance procedures required by paragraph (a) include, for the first ATS unit receiving a filed flight plan:

(1) A check for compliance with any prescribed flight plan format and data conventions; and

(2) A check for completeness, and to the extent practical, for accuracy; and

(3) Provision for any action necessary to make the plan acceptable to ATS.

(c) Any applicant intending to provide air traffic services from more than one location may nominate a single ATS unit within the applicant's organization to accept filed flight plans on behalf of any or every unit.

(d) An applicant for the grant of an air traffic service certificate intending to operate a centralized flight planning office shall ensure the office is equipped with:

(1) AFTN/AMHS, and computer data-link connection facilities, for the acceptance of flight plans from aircraft operators and any other ATS unit; and

(2) Facilities for the advance filing, retention, and activation of standard or repetitive elements of flight plan information.

172.101 Time

(a) An applicant for the grant of an air traffic service certificate shall establish a procedure to ensure that ATS unit clocks and other time recording devices:

(1) Use Co-coordinated Universal Time and express that time in hours and minutes of the 24-hour day beginning at 0000 UTC; and

(2) are correct to within 5 seconds of UTC as determined by reference to a standard time station or GPS time standard.

(b) The applicant shall establish a procedure to ensure that the correct time, to the nearest half minute, is provided:

(1) In respect of any aerodrome control service or aerodrome flight information service, to IFR aircraft prior to taxiing for take-off unless arrangements have been made for the pilot to obtain it from other sources; and

(2) To any aircraft on request.

172.103 Altimeter setting procedures

An applicant for the grant of an air traffic service certificate shall establish a procedure to ensure that:

(a) QNH altimeter settings are in hectopascals rounded down to the nearest whole hectopascal; and

(b) The appropriate aerodrome QNH altimeter setting or area QNH zone altimeter setting is provided to all aircraft on initial radio contact, including aircraft that advise having received the current applicable ATIS broadcast, except when it is known the aircraft has already received the information; and

(c) ATS units provide to an aircraft on request, the current applicable aerodrome QNH altimeter setting or area QNH zone altimeter setting.

172.105 Radio and telephone procedures

(a) An applicant for the grant of an air traffic service certificate shall establish systems and procedures to ensure that:

(1) The standard telephony and radiotelephony phraseology prescribed in paragraph (b) is used; and

(2) In all radiotelephony communications discipline is observed, by transmitting only those messages that are necessary for the provision of an air traffic service, or that otherwise contribute to safety; and

(3) Communications procedures are in accordance with the applicable communication procedures prescribed in Annex 10 Volume II.

(b) The applicant shall establish procedures to ensure that, for the purposes of paragraph (a), the standard phraseology, and the circumstances in which it is used, is that published in:

(1) Annex 10; or

(2) Document 4444; or

(3) Document 9432.

(c) An applicant for the grant of an air traffic service certificate shall establish systems and procedures for radio communication failure and to ensure that

the aircraft shall comply with the voice communication failure procedures of Annex 10, Volume II, and with such procedures as are appropriate.

(d) An applicant for the grant of an air traffic service certificate shall establish mechanism to ensure the effective implementation of radio communication failure procedure.

172.107 Radar services

An applicant for the grant of an air traffic service certificate shall establish procedures to ensure that, where radar is used to support the provision of an air traffic service:

(a) All radar services are provided in accordance with procedures published in:

(1) Document 4444; or

(2) Document 7030.

(b) SSR code allocation for international flights is in accordance with the code assignment system published in the applicable ICAO Air Navigation Plan; and

(c) An SSR code management plan is in place for domestic flights that:

(1) Conforms to the applicable principles contained in Document 4444; and

(2) Does not conflict with the SSR code allocation tables of MATC 2; and

(d) Full information is made available to pilots and aircraft operators on:

(1) The nature and extent of the radar services provided; and

(2) Any significant limitations regarding such radar services; and

(e) The information displayed at individual radar operating positions is that required for the air traffic services to be provided.

172.109 Aircraft emergencies and irregular operation

(a) An applicant for the grant of an air traffic service certificate shall establish procedures to ensure maximum assistance and priority is given to an aircraft known, or believed to be, in a state of emergency.

(b) An applicant shall, where appropriate, establish procedures to assist strayed aircraft, unidentified aircraft, and aircraft subject to military interception.

172.111 Action after serious incident or accident

An applicant for the grant of an air traffic service certificate shall establish procedures regarding a serious incident or accident to:

(a) Determine if any air navigation facilities have contributed to the event; and

(b) Ensure immediate action is taken to:

(1) Warn other aircraft that may be using or intending to use the facilities; and

(2) Advise the operator of the facility of the occurrence, and that the facility may be implicated; and

(c) Assist the operator of the facility with the prompt promulgation of any decision to withdraw the equipment from service; and

(d) Ensure that any facility identified in paragraph (1) is not used in the provision of separation to IFR aircraft until cleared for use by the relevant holder of an aeronautical telecommunications service certificate issued by CARC.

172.113 Incidents

An applicant for the grant of an air traffic service certificate shall establish procedures for:

(a) The notification, investigation, and reporting of incidents in accordance with this part; and

(b) The forwarding of facility malfunction reports required by JCAR Part 171.

172.115 Records

(a) An applicant for the grant of an air traffic service certificate shall establish systems and procedures to identify, collect, index, file, store, secure, maintain, access, and dispose of, records necessary for:

(1) The operational provision of air traffic services; and

(2) The purpose of assisting with any accident or incident investigation.

(b) The records shall include:

(1) Telephone communications; and

(2) Radio broadcasts and communications; and

(3) Air-ground digital data exchanges; and

(4) Radar information; and

(5) Filed flight plans including standard and repetitive plans; and

(6) Flight progress strips; and

(7) Staff duty rosters; and

(8) Appropriate meteorological and aeronautical information, except where the information is retained for an equivalent period by a meteorological or AIS organization; and

(9) A record of each internal quality assurance review carried out under the procedures required by 172.123. The record shall detail the activities reviewed and any necessary follow-up corrective and preventive actions.

(c) The applicant shall establish systems and procedures to ensure the electronic recording of:

(1) All ATS radio and telephone communications; and

(2) All air-ground communications; and

(3) All relevant data from primary and secondary radar equipment, or

obtained through automatic dependent surveillance (ADS) and MLAT system, used in providing or supporting an ATC service; and

(4) For any equipment coming into service after the date this Part comes into force, any transfer and acceptance of control process not conducted by telephone.

(d) The applicant shall establish systems and procedures to ensure that electronic records required by paragraph (c):

(1) Include time recording, correct to within 5 seconds of UTC, as determined by reference to a standard time station or GPS time standard; and

(2) Either

(i) Replicate the voice communications, and, if applicable, the radar picture, applying at the particular operating position; or

(ii) Are accompanied by a statement fully describing the differences between the recording supplied and a recording in accordance with subparagraph (I).

(e) For the purposes of paragraph (d) (2) the term radar picture includes any visual presentation of aircraft position, however derived.

(f) The option provided by paragraph (d) (2) (ii) shall apply only to equipment in service on the date this Part comes into force.

(g) The applicant shall establish systems and procedures to ensure that all records, except where replication is required by paragraph (d) (2) (I), are of sufficient clarity to convey the required information.

(h) The applicant shall establish procedures to ensure that the records referred to in paragraph (b) are retained for 31 days from the date of entry, except for:

(1) Staff duty rosters; and

(2) Written records associated with the requirements of 172.81.

172.117 Logbooks and position logs

(a) An applicant for the grant of an air traffic service certificate shall establish procedures to ensure that a logbook, with sequentially numbered pages, is kept at each ATS unit, and, where a unit has physically separate operations areas, at each such location within the unit.

(b) The procedure shall ensure that:

(1) The logbook is maintained by the senior person on duty, or the person on watch at a nominated operating position; and

(2) The logbook is maintained throughout the hours of watch of the unit or operations room; and

(3) All entries include the time of entry; and

(4) The person responsible for maintaining a logbook signs on watch, and effects transfer of responsibility by successive on watch entries; and

(5) Logbook entries are:

(i) In chronological sequence and in ink; and

(ii) Without erasure, defacement, or obliteration; and

(iii) Corrected by drawing a single line through the erroneous information and initialing the correction; and

(6) actual times of opening and closing watch are recorded in the logbook, together with the reason for every variation from published hours of service; and

(7) Logbooks are retained for a period of 5 years from the date of final entry.

(c) An applicant shall establish a procedure to ensure the keeping of an operating position log, when such information is not available in the logbook required by paragraph (a).

(d) The procedure shall ensure that the operating position log:

(1) Contains sufficient information to identify:

(i) When that position was in operation; and

(ii) The services being provided from that position; and

(iii) The identity of the individual providing the service; and

(2) Is retained for a period of 31 days from the date of filing.

172.119 Security

(a) An applicant for the grant of an air traffic service certificate shall prepare an ATS security program approved by CARC.

(b) Each ATS security program shall specify the physical security requirements, practices, and procedures to be followed for the purposes of minimizing the risk of destruction of, damage to, or interference with the operation of, any ATS unit operated by the applicant where such destruction, damage, or interference is likely to endanger the safety of aircraft.

(c) Without limiting the generality of paragraph (b), the security program shall specify such physical security requirements, practices, and procedures as may be necessary:

(1) To ensure that entrances to permanent ATS facilities operated by the applicant are subject to positive access control at all times, so as to prevent unauthorized entry; and

(2) To protect personnel on duty; and

(3) To be followed in the event of a bomb threat or other threat of violence against an ATS unit; and

(4) To monitor unattended ATS unit buildings to ensure that any intrusion or interference is detected.

172.121 Service disruptions

(a) An applicant for the grant of an air traffic service certificate shall establish procedures, in addition to any requirements in Part 172 to:

(1) Advise the CARC of any planned disruption to the provision of air traffic services that could have an impact on safety; and

(2) Investigate any unplanned disruption to the provision air traffic services; and

(3) Report to the CARC, within 48 hours of the occurrence, the circumstances surrounding any unplanned disruption to air traffic services when the disruption affected, or could have affected, the safety of air traffic.

(b) Disruptions reportable under paragraph (a) shall include, but are not limited to, any:

(1) Failure to open watch within 15 minutes of the promulgated opening time; and

(2) Any interruption, of greater than 10 minutes, to the normal provision of an air traffic service; and

(3) Curtailment of watch, by greater than 30 minutes, from the promulgated off watch time.

172.123 Internal quality assurance

(a) An applicant for the grant of an air traffic service certificate shall establish an internal quality assurance system to ensure compliance with, and the adequacy of, the procedures required by this Part.

(b) The internal quality assurance system shall include:

(1) A safety policy and safety policy procedures; and

(2) A procedure to ensure quality indicators, including samples of radio and telephone records, defect and incident reports, and personnel and customer feedback, are monitored to identify existing problems or potential causes of problems within the system; and

(3) A procedure for corrective action to ensure existing problems that have been identified within the system are corrected; and

(4) A procedure for preventive action to ensure that potential causes of

problems that have been identified within the system are remedied; and

(5) An internal audit program to audit the applicant's organization for conformity with its safety policy; and

(6) Management review procedures to ensure the continuing suitability and effectiveness of the internal quality assurance system in satisfying the requirements of this Part.

(c) The safety policy procedures shall ensure that the safety policy is understood, implemented, and maintained at all levels of the organization.

(d) The procedure for corrective action shall specify how:

(1) To correct an existing problem; and

(2) To follow up a corrective action to ensure the action is effective; and

(3) To amend any procedure required by this Part as a result of a corrective action; and

(4) Management will measure the effectiveness of any corrective action taken.

(e) The procedure for preventive action shall specify how:

(1) To correct a potential problem; and

(2) To follow-up a preventive action to ensure the action is effective; and

(3) To amend any procedure required by this Part as a result of a preventive action; and

(4) Management will measure the effectiveness of any preventive action taken.

(f) The internal quality audit program shall:

(1) Specify the frequency and location of the audits taking into account the nature of the activity to be audited; and

(2) Ensure audits are performed by trained auditing personnel who are

independent of those having direct responsibility for the activity being audited; and

(3) Ensure the results of audits are reported to the personnel responsible for the activity being audited and the manager responsible for internal audits; and

(4) Require preventive or corrective action to be taken by the personnel responsible for the activity being Fed if problems are found by the audit; and

(5) Ensure follow up audits to review the effectiveness of any preventive or corrective action taken.

(g) The procedure for management review shall:

(1) Specify the frequency of management reviews of the quality assurance system taking into account the need for the continuing effectiveness of the system; and

(2) Identify the responsible manager who shall review the quality assurance system; and

(3) Ensure the results of the review are evaluated and recorded.

(h) The senior person who has the responsibility for internal quality assurance shall have direct access to the accountable manager on matters affecting the safe provision of any air traffic service listed in the exposition.

172.125 Organization Exposition

(a) An applicant for the grant of an air traffic service certificate shall provide CARC with an exposition containing:

(1) A statement signed by the accountable manager on behalf of the applicant's organization confirming that the exposition and any included manuals:

(i) Define the organization and demonstrate its means and methods for ensuring ongoing compliance with this and any other applicable Part; and

(ii) Are required to be complied with by its personnel at all times; and

(2) The titles and names of the senior person or persons required by rule 172.51(a) (1) and (2); and

(3) The duties and responsibilities of the senior person or persons specified in paragraph 172.51 (a)(2), including matters for which they have responsibility to deal directly with CARC on behalf of the organization; and

(4) An organization chart showing lines of responsibility of the senior persons specified in paragraph172.51 (a)(2), and extending to each location listed under paragraph 172.51 (a)(5)(I); and

(5) In the case of an organization providing air traffic services from more than 1 ATS unit, a table listing:

(i) Locations of ATS units; and

(ii) The aerodrome or airspace being serviced; and

(iii) The services provided; and

(6) Details of the applicant's staffing structure for each ATS unit; and

(7) Details of procedures required by 172.51(b) regarding the, competency, qualifications, maintenance of current operating practice, and fitness of personnel; and

(8) Details of procedures required by 172.53 regarding the training and assessment of ATS personnel, and regarding the qualifications of ATS training personnel; and

(9) A description of the display systems to be used in meeting the requirements of 172.57(b) (5) (I) and 172.57(c) (2) (I); and

(10) The information required by 172.59 regarding hours of service, the establishment of an air traffic service, and any transitional arrangements; and

(11) Procedures regarding shift administration required by rule 172.61; and

(12) Details of the procedures required by 172.63 regarding the control of documentation; and

(13) The contingency plan required by rule 172.65; and

(14) Details of the systems and procedures required by 172.67 regarding co-ordination requirements; and

(15) Details of the procedures required by 172.69 regarding the notification of facility status; and

(16) Details of the systems and procedures required by 172.71 regarding general information requirements; and

(17) Details of the systems and procedures required by 172.73 regarding meteorological information and reporting; and

(18) Details of systems and procedures required by 172.75 regarding the provision of area control and approach control services; and

(19) Details of systems and procedures required by 172.77 regarding the provision of aerodrome control service; and

(20) Details of systems and procedures required by 172.79 regarding the separation of controlled flights and active special use airspace; and

(21) Details of the procedures required by 172.81 regarding responsibility for control; and

(22) Details of the procedures required by 172.83 regarding the application of priorities; and

(23) Details of the procedures required by 172.85 regarding flow control; and

(24) Details of the procedures required by 172.87 regarding ATC clearances; and

(25) Details of the procedures required by 172.89 regarding the allocation of cruising levels; and

(26) Details of the procedures required by 172.91 regarding deviations from

an ATC clearance; and

(27) Details of systems and procedures required by 172.93 regarding the provision of flight information service; and

(28) Details of systems and procedures required by 172.95 regarding the provision of aerodrome flight information service; and

(29) Details of systems and procedures required by 172.97 regarding the provision of alerting service; and

(30) Details of the procedures required by 172.99 regarding the processing of flight plans; and

(31) Details of the procedures required by 172.101 regarding time; and

(32) Details of altimeter setting procedures required by 172.103; and

(33) Details of the radio and telephone procedures required by 172.105; and

(34) Details of the procedures required by 172.107 regarding the provision of radar services; and

(35) Details of the procedures required by 172.109 regarding aircraft emergencies and irregular operation; and

(36) Details required by 172.111 regarding procedures following a serious incident or accident; and

(37) Details of the procedures required by 172.113 regarding incidents; and

(38) Detailsof systems and procedures required by 172.115 regarding the gathering and management of records; and

(39) Details of the procedures required by 172.117 regarding the keeping of logbooks and position logs; and

(40) Details of the program required by 172.119 regarding security arrangements; and

(41) Details of the procedures required by 172.121 regarding disruptions to service; and

(42) Details of the systems, procedures, and programs required by 172.123 regarding internal quality assurance; and

(43) Procedures to control amend and distribute the exposition.

(b) The applicant's exposition shall be acceptable to the CARC.

SUBPART -D
Operating Requirements

172.151 Continued compliance

Each holder of an air traffic service certificate shall:

(a) Hold at least one complete and current copy of its exposition at each ATS unit listed in its exposition, except that manuals relating solely to a particular location need only be held at principal locations and the unit concerned ; and

(b) Comply with all procedures and standards detailed in its exposition; and

(c) Make each applicable part of its exposition available to personnel who require those parts to carry out their duties; and

(d) Continue to meet the standards and comply with the requirements of Subpart B prescribed for certification under this Part; and

(e) Promptly notify CARC of any change of address for service, telephone number, or facsimile number, required by form CARC 172/2001

Note: Where a certified air Traffic service provider does not comply any longer with the applicable requirements or with the conditions attached to the certificate, CARC shall take a decision within a time period not exceeding one month. By this decision, CARC shall require the air navigation service provider to take corrective action.

172.153 Operation manuals

(a) Each holder of an air traffic service certificate shall provide, for compliance by its personnel, an operation manuals or system of manuals for the services listed in its exposition.

(b) A holder certificated to provide more than one air traffic service, or an air traffic service or services from more than one location, may publish a core manual together with manual supplements specific to each service or location.

172.155 Trials

(a) CARC may, upon application in writing from the holder of an air traffic service certificate, approve, subject to such conditions on that approval as CARC considers necessary in the interests of aviation safety, the conduct of trials regarding:

(1) Separation minima; or

(2) Standard phraseology; or

(3) Radar procedures.

(b) A trial may be approved by CARC for a single period of no longer than 3 months, and upon further application in writing by the certificate holder, be extended by CARC for a single period of no longer than 3 months.

(c) A trial approved under this part may be terminated by CARC at any time.

172.157 Denial of ATC clearance

(a) The holder of an air traffic service certificate in respect of an aerodrome control service shall not deny the pilot of an aircraft an ATC clearance on the basis of non-payment of charges owed to the certificate holder unless:

(1) The aircraft is on the ground; and

(2) That clearance is for entry onto the maneuvering area.

(b) The certificate holder shall continue to provide normal ATC service for any aircraft entering the maneuvering area without an ATC clearance.

172.159 Suspension of VFR operations

Each holder of an air traffic service certificate for an approach control service or aerodrome control service may, when appropriate for safety reasons, suspend any or all controlled VFR operations within a control zone.

172.161 Changes to certificate holder's organization.

(a) A holder of an air traffic service certificate shall ensure that the holder's exposition is amended so as to remain a current description of the holder's organization and services.

(b) The holder of an air traffic service certificate shall ensure that any amendment made to the holder's exposition:

(1) Meets the applicable requirements of this Part; and

(2) Complies with the amendment procedures contained in the holder's exposition.

(c) The holder of an air traffic service certificate shall provide CARC with a copy of each amendment to the holder's exposition as soon as practicable after its incorporation into the exposition, except that, for the holder's operational manual or manuals, the holder shall forward to CARC:

(1) A copy of each amendment, at least 15 working days in advance of the effective date; and

(2) An amendment of an urgent or immediate nature, without delay, and no later than the date on which it is effective.

(d) If the holder of an air traffic service certificate proposes to make a change to any of the following, prior notification to and acceptance by the CARC is required:

(1) The accountable manager; or

(2) The listed senior persons; or

(3) Any aspect of air traffic management that may have an adverse impact on air traffic services provided.

(e) The CARC may specify conditions under which the holder of an air traffic service certificate may operate during or following any of the changes specified in paragraph (d).

(f) The holder of an air traffic service certificate shall comply with any condition specified under paragraph (e).

(g) If any of the changes referred to in this part require an amendment to the certificate, the holder of the air traffic service certificate shall forward the certificate to CARC as soon as practicable.

(h) The holder of an air traffic service certificate shall make amendments to the holder's exposition as CARC considers necessary in the interests of aviation safety.

172.163 Withdrawal or transfer of service

(a) Each holder of an air traffic service certificate who wishes to permanently withdraw an air traffic service shall give CARC at least 90 days notice of the proposal and include in that notice a summary of factors considered in arriving at the decision to withdraw the service.

(b) Each holder of an air traffic service certificate who intends to permanently reduce the hours of operation of an air traffic service shall provide to CARC at least 60 days advance notice of, and the reasons for, the proposed reduction.

(c) Each holder of an air traffic service certificate who is the outgoing provider

of an air traffic service shall not hinder the preparation and execution of the transitional arrangements required by 172.59(b).

172.164 Familiarization Flights

(a) A holder of an air traffic service certificate shall ensure that the familiarization flights is to provide an opportunity for controllers, supervisors and ATS management personnel to observe, at first hand, the working environment of pilots of large commercial aircraft and the methods and procedures used in the departure, en-route and arrival phase, including navigation techniques used. Familiarization flights also provide the opportunity to listen to air-ground communications and to assess how they affect a pilot's workload as well as the opportunity to monitor how well ATS units are performing.

(b) ATS authorities should make arrangements for controllers to undertake familiarization flights aboard both scheduled and nonscheduled commercial aircraft. As these flights require entry into the cockpit of the aircraft, permission to do so should be obtained from the operator concerned prior to the flight.

(c) Where familiarization flights are considered an operational requirement, they should be carried out in duty hours and taken as part of on-the-job training. Their frequency should be dictated by operational considerations.

(d) A holder of an air traffic service certificate shall ensure that the personnel carrying out the familiarization flight, a familiarization flight program for ATC operating personnel may be as follows:

(1) Aerodrome controller or approach controller – Familiarization with the geographical features, significant points of his area of responsibility and standard instrument approaches to the aerodrome located in the area of responsibility. Liaison visits to neighboring aerodromes;

(2) Area controller - Flight on a controlled ATS route in the area for which his ACC is providing service; familiarization with geographical features and significant points. Liaison visits to important aerodromes located in this area of responsibilities.

(e) A familiarization flight program for supervisory personnel may be as follows:

(1) Directors of air traffic control - Flight along ATS routes or areas where special requirements exist or may exist;

(2) Headquarters' chiefs and supervisors; ATC instructors at a training school Flight along ATS routes or in areas where special requirements exist;

(f) Regional senior supervisors, training and evaluation specialists - Flight along at least one main domestic ATS route of operational concern to the FIR should be made every 12 months. In addition a flight should be made on any ATS route on which a major change occurs in the route structure, including a flight on the flight deck.

172.165 Audit and Inspection.

(a) Safety regulatory audits

ANS inspectors (CARC) shall have unrestricted access to the facilities, installations, records and documents of the air navigation services provider and the air navigation meteorological service provider, AIS & Cartography services provider search & rescue and PANS – OPS procedure design provider to determine compliance with these regulations and ;

(b) Corrective actions.

The ANSPs shall initiate the corrective actions accepted by CARC these corrective actions and the subsequent follow-up process shall be completed within the time period accepted by CARC.

(c) Safety directives

(1) CARC shall issue a safety directive when it has determined the existence of an unsafe condition in a functional system requiring immediate action.

(2) A safety directive shall be forwarded to ANSPs and contain, as a minimum, the following information:

(i) The identification of the unsafe condition;

(ii) The identification of the affected functional system;

(iii) The actions required and their rationale;

(iv) The time limit for compliance of the required actions with the safety directive;

(v) Its date of entry into force.

172.167 Safety Management System

(a) The applicant shall have in place a safety management system as per the requirements of JCAR Part 19 for the control and supervision of the Management of Air Navigation Services Standards.

172.169 Fatigue management for air traffic controllers

(a) Fatigue means a physiological state of reduced mental or physical performance capability resulting from sleep loss, extended wakefulness, circadian phase, or workload (mental or physical activity, or both), that can impair a person's alertness and ability to perform safety related operational duties.

(b) For managing fatigue-related safety risks, JANS/ANSP shall implement and maintain a Fatigue Management Program (FMP).
The established FMP shall:

(1) Develop a roster that is appropriate with the air traffic control service provided, that specifies:

(i) The scheduling limits, which shall be in accordance with the scheduling limits authorized by CARC.
(ii) Any variation to the scheduling limits that is authorized by CARC.

(2) Include procedures for registering evidence to be submitted to CARC to demonstrate compliance with the scheduling limits mentioned.

(3) Include procedures to familiarize Air Traffic Control Officers (ATCOs)' with the principles of fatigue management and JANS/ANSP policies about fatigue management.

(4) Include procedures for assigning unscheduled duties that ensure that air traffic controllers can avoid extended periods of being awake.

(5) Include procedures to deviate from the scheduling limits mentioned to address any additional risks associated with sudden and unforeseen operational circumstances.

(c) JANS/ANSP shall provide the following information to CARC within 24 hours of making a deviation from the authorized scheduling limits:

(1) The reason for the deviation.

(2) The extent to which the deviation has been made.

(3) When the deviation will take place.

(4) The mitigation measures to be carried out to attain an equivalent level of safety after the deviation takes place.

(d) JANS/ANSP shall submit the FMP established under paragraph (b) for the approval of CARC which may approve the FMP subject to such conditions as considers necessary.

(e) JANS/ANSP shall make amendments, as may be approved by CARC, to the FMP as may be necessary to maintain the accuracy of the information in the FMP and keep its contents up to date; Furthermore, where required by CARC, JANS/ANSP shall make the amendments to the FMP within such time as CARC may specify, for the purpose of maintaining the accuracy of the FMP; or managing any fatigue-related risks in the provision of air traffic control.

(f) JANS/ANSP shall not vary the scheduling limits specified in the FMP to address strategic operational needs unless it has obtained the approval of CARC.

(g) A request for approval to vary a scheduling limit specified in the FMP shall contain the following details:

(a) The information set out in (c).

(b) An implementation plan to demonstrate how JANS/ANSP intends to implement the variation during the period in which the variation will be effective.
(c) The procedures to document and record the variation.

(h) CARC may approve an application to vary a scheduling limit in the FMP

subject to such conditions as CARC considers appropriate.

(i) scheduling limits for fatigue management:
JANS/ANSP shall ensure that the roster mentioned in paragraph A for normal operations is planned in accordance with the following scheduling limits:

(1) The number of hours of duty of each air traffic controller shall not exceed 12 hours in respect of 24 hours period.

(2) The number of consecutive workdays of each air traffic controller shall not exceed 6 days.

(3) The total duration of duty to be performed by each air traffic controller in respect of each period of 30 days shall not exceed 196 hours.

(4) Each time-in-position at any time during a duty period shall not exceed 2 hours, except during periods of medium-to-low traffic when the time-in-position may be up to 4 hours.

(5) The minimum duration of a non-duty period (between the end of one duty period and the start of the next duty period) of each air traffic controller is 8 hours.

(6) The minimum duration of each break between each period of time-in-position in any duty period is 30 minutes.

(7) The minimum number of non-duty days is 8 days, respectively for a period of 30 days.

SUBPART - E
Procedures for Air Navigation Services Operations PANS-OPS

172.177 Provision of PANS – OPS

Subpart E is applied to the provider of air navigation services (ANSP) within the Hashemite Kingdom of Jordan Flight Information Region who is engaged in the design, maintenance and promulgation of instrument flight procedures **and/or** an

outsourced airspace design service provider (a specialized consultancy firm), distinct from the Air Navigation Service Provider (ANSP), to ensure compliance with national and international standards and optimize operational efficiency.

172.179 Instrument Flight Procedure Operations Manual

(a) JANS/ANSP shall establish and maintain an instrument flight procedure operations manual which shall include the following:
   (1) The organizational structure of the instrument flight procedure design office.
   (2) A job description of each of the personnel involved with the instrument flight procedure design process which shall contain the job function and responsibilities.
   (3) The qualifications and training requirements of personnel responsible for instrument flight procedure designs.
   (4) The criteria used for the design of instrument flight procedure.
   (5) The documentation required for the design of instrument flight procedure.
   (6) The instrument flight procedure design process.
   (7) A system maintained by the ANSP's instrument flight procedure design office for keeping documents and records relating to the instrument flight procedure design process.
   (8) The quality assurance program established.
   (9) The procedures to control, amend and distribute the operations manual, including the distribution of the initial copy and all subsequent amendments made to the operations manual.

(b) JANS/ANSP shall notify CARC of any changes to the instrument flight procedure operations manual in a timely manner.

(c) JANS/ANSP shall take all reasonably practicable measures and develop and apply appropriate procedures to ensure that the instrument flight procedure operations manual being used by all its personnel contains current information.

(d) JANS/ANSP shall update, amend or add to the instrument flight procedure operations manual as CARC may require for ensuring:
   (1) The accuracy of the instrument flight procedure operations manual.
   (2) The safety, efficiency or regularity of air navigation.

172.181 Use of the Instrument Flight Procedure Operations Manual

(a) JANS/ANSP shall design every instrument flight procedure in accordance with the instrument flight procedure operations manual established.

(b) JANS/ANSP shall ensure that the instrument flight procedure operations manual is readily available to all personnel concerned with the instrument flight procedure design process.

172.183 Management of Instrument Flight Procedure life cycle

(a) JANS/ANSP shall establish, implement and maintain a process for the management of the life cycle of an instrument flight procedure, including:
   (1) The design stage.
   (2) The updating of and maintaining the instrument flight procedure.
   (3) The withdrawal of an instrument flight procedure when that procedure has become irrelevant or obsolete.

(b) JANS/ANSP shall establish and maintain a quality assurance program for the management of the life cycle of an instrument flight procedure which consists of all the components and elements stipulated in Chapter 6 of Volume 1 of ICAO Doc 9906.

179.185 Design process

(a) Every instrument flight procedure shall be designed in accordance with a process established by JANS/ANSP.

(b) The process of designing an instrument flight procedure shall:
   (2) Meet the applicable requirements in this Subpart; and
   (3) Specify the means or methods for the following:
      - The acquisition, compilation and verification of data and any other information that is relevant to the design of the instrument flight procedure.
      - The design of the instrument flight procedure.
      - The validation of the instrument flight procedure.
      - The conduct of a safety risk assessment of the instrument flight procedure; and
      - The publication and promulgation of the instrument flight procedure.

(c) Each instrument flight procedure design shall be accompanied by an explanatory statement, in such form (for example, text or chart) as would sufficiently describe the content and purpose of that instrument flight procedure.

(d) JANS/ANSP shall ensure that instrument flight procedure design activities are carried out by a person who is qualified in instrument flight procedure design.

172.187 Information acquisition

(a) JANS/ANSP shall establish, implement and maintain a process for the acquisition of relevant survey data and information for the purpose of designing each instrument flight procedure.

(b) The process mentioned in paragraph (a) shall ensure that the survey data and information used in the design of every instrument flight procedure are up-

to-date and verified by the designer of the instrument flight procedure for accuracy prior commencing the design or a review of the instrument flight procedure, or throughout the life cycle of the instrument flight procedure.

(c) The acquisition of survey data and information shall:
   (1) Take into consideration all obstacles (for example, buildings, terrain and trees) that define the airspace around the aerodrome.
   (2) Take into consideration the requirements in relation to charting accuracy stipulated in Chapter 1 of Volume II of PANS-OPS (Doc 8168).
   (3) Satisfy with the aeronautical data quality requirements.

(d) JANS/ANSP shall ensure that the following information acquired through the process established under paragraph (a) is assessed for its relevance to the design of an instrument flight procedure by the person who is responsible for the design of that instrument flight procedure:
   (1) Airport, navigation aid, obstacle, terrain coordinates and elevation data, based on verified surveys and in accordance with Annex 11, Annex 14 and Annex 15 to the Chicago Convention.
   (2) Airspace requirements.
   (3) User requirements.
   (4) Airport infrastructure such as runway classification, lighting, communications, runway markings, and availability of local altimeter setting.
   (5) Environmental considerations.

172.189 Design criteria

(a) JANS/ANSP shall ensure that every instrument flight procedure is designed in accordance with the appropriate design criteria specified in Volume I and II of PANS-OPS (Doc 8168) and such other documents that are issued by ICAO and relevant to flight instrument procedure design.

(b) JANS/ANSP shall design every Required Navigation Performance Authorization Required Approach procedure in accordance with the appropriate design criteria specified in ICAO Doc 9905 and the relevant provisions in PANS-OPS (Doc 8168).

(c) JANS/ANSP shall ensure that the design of the instrument flight procedure is compatible with any air traffic service and associated procedure that is provided within the area or areas of airspace where the instrument flight procedure is intended to be established.

(d) JANS/ANSP shall ensure that every new or revised instrument flight

procedure design is verified to meet the design criteria mentioned in paragraph (a).

(e) The verification conducted under paragraph (4) shall be made by a person who is qualified in instrument flight procedure design and independent from the person directly responsible for the design of the new or revised instrument flight procedure that is being verified.

(f) JANS/ANSP shall ensure that every instrument flight procedure that is published is reviewed within a period of not more than 5 years from the date of its publication to ensure that the instrument flight procedure continues to meet user requirements and updates to the design criteria specified in Chapter 7 of Volume 1 of ICAO Doc 9906.

172.191 Ground and flight validation

(a) JANS/ANSP shall conduct ground validation in accordance with Volume 5 of ICAO Doc 9906 to verify the accuracy and completeness of all obstacle and navigation data considered in the flight instrument procedure design and any other factors normally considered in the flight, prior to promulgating an instrument flight procedure.

(b) If JANS/ANSP is not able to verify the accuracy and completeness of the data mentioned in paragraph (a) by a ground validation, the JANS/ANSP shall conduct a flight validation in accordance with Volume 5 of ICAO Doc 9906 to validate the relevant data and assess if the instrument flight procedure is safe for flight.

(c) A ground or flight validation and/or flight evaluation shall be conducted by a person who has received the requisite training and knowledge in instrument flight procedure design and ground or flight validation and/or evaluation.

172.193 Safety risk assessment

(a) JANS/ANSP shall conduct a safety risk assessment in respect of every proposal for a new instrument flight procedure or a significant change to an instrument flight procedure in accordance with its safety management system.

(b) JANS/ANSP shall not promulgate a new instrument flight procedure or make a significant change to an instrument flight procedure unless a safety

risk assessment shows that an acceptable level of safety will be met by the aircraft operator when using that instrument flight procedure.

(c) The safety risk assessment shall consider as a minimum identification of hazards, ensure the implementation of remedial action to address the safety risks of the consequences of hazards, continuous maintenance and periodic review of instrument flight procedure implemented, and continuous improvement of the overall performance of the safety management system.

(d) JANS/ANSP shall ensure that all safety management activities of a new or changed flight procedure are documented.

172.195 Instrument flight procedure design documentation

(a) JANS/ANSP shall provide the following documents at the request of CARC:

(1) Documentation that is required to be published in the Aeronautical Information Publication in accordance with Annex 4 and Annex 15 to the Chicago Convention.

(2) Documentation required to maintain transparency concerning the details and assumptions used by the person responsible for the design of the instrument flight procedure, which should include supporting information or data used in the design, such as:

- Controlling obstacles for each segment of the instrument flight procedure, where applicable.

- Effect of environmental considerations on the design of the instrument flight procedure.

- Infrastructure assessment.

- Airspace constraints.

- Modifications or amendments to the existing instrument flight procedure, including the reasons; therefore, and

- The reasons for any deviation from the existing design criteria specified previously, and details of the mitigation measures applied to ensure continued safe operations.

(4) Any other documentation may be required to facilitate validation of the instrument flight procedure.

(b) JANS/ANSP shall present all calculations and results of calculations of the instrument flight procedure design in a form and manner that clearly sets out the logic and resultant design.

(c) JANS/ANSP shall take all reasonably practicable measures and develop and apply appropriate procedures to ensure that every instrument flight procedure design documentation is verified by another qualified person for accuracy and completeness prior to validation and publication of that instrument flight procedure.

172.197 Automating the application of PANS-OPS criteria in instrument flight procedure Design

(a) JANS/ANSP shall ensure that all automation tools or software used in the design of an instrument flight procedure are in accordance with Volume 3 of ICAO Doc 9906.

(b) JANS/ANSP shall take all reasonably practicable measures and develop and apply appropriate procedures to ensure that all equipment, including software, used in the design of every instrument flight procedure, are operated in accordance with the manufacturer's operating instructions and manuals.

172.199 Publication of instrument flight procedure

(a) JANS/ANSP shall take all reasonably practicable measures and develop and apply appropriate procedures for the timely provision to the Aeronautical Information Services provider of a new instrument flight procedure or a change to an existing instrument flight procedure including the design, charts and accompanying narratives for publication in the Aeronautical Information Publication.

(b) JANS/ANSP shall ensure that the intended effective date for operational use of the instrument flight procedure is included in the document narrative.

172.201 Resources and Requirements

JANS/ANSP shall acquire and maintain resources necessary for the instrument

flight procedure design process, including:

(1) Appropriate equipment for the design, design verification, validation of instrument flight procedure and maintenance of the types of instrument flight procedure.

(2) Relevant and up-to-date data including aeronautical data and obstacle data for the design, design verification, validation of instrument flight procedure and maintenance of the instrument flight procedure.

(3) Copies of relevant documentation, including technical standards, practices, and instructions.

(4) Any other documentation that may be necessary for the design, design verification, validation of instrument flight procedure and maintenance of the types of instrument flight procedure; and

(5) People who are qualified in instrument flight procedure design.

172.203 Personnel qualifications and training

(a) JANS/ANSP shall ensure that every person responsible for its instrument flight procedure design ("IFP designer") satisfies the minimum standards and possesses the training and qualifications specified in this paragraph.

(b) JANS/ANSP shall ensure that such an IFP designer undergoes initial training that includes at least the following elements:

(1) Completion of an ICAO PANS-OPS instrument procedures design course as specified by CARC (Regulator), for the design of instrument flight procedure; and

(2) An overview of relevant ICAO Standards and Recommended Practices.

(c) JANS/ANSP shall ensure that every of its new IFP designers undergoes on-the-job training and is assessed to be competent in instrument flight procedure design in accordance with the instrument flight procedure operations manual and under the supervision of a qualified IFP designer.

(d) JANS/ANSP shall ensure that every of its IFP designers maintains the required competency level for instrument flight procedure design through

training in accordance with JANS/ANSP instrument flight procedure operations manual.

(e) JANS/ANSP shall ensure that the interval between the initial training and the first recurrent training, and subsequent recurrent training for each of its IFP designers does not exceed 3 years.

172.205 Required Training for IFP Designer:

(a) Basic IFP Design Course (Initial Training) to contribute to IFP design under supervision, and the contents include:

(1) ICAO Doc 8168 Volume II criteria (PANS-OPS)

(2) Annexes 4, 11, 14, and 15 relevance

(3) Types of procedures: SID, STAR, ILS, RNAV, RNP, circling, etc.

(4) Obstacle evaluation and protection areas

(5) Use of terrain and obstacle data (e.g., ICAO Annex 15 and Doc 9906)

(6) Aircraft performance basics

(7) ICAO charting and design documentation

(b) Advanced or Specialized Modules for full qualification in various areas of procedure design:

(1) Advanced **Part One** (Non-Precision and Precision Approaches).
(2) Advanced **Part Two PBN** (RNAV/RNP Procedures) (RNAV GNSS, RNP APCH, RNP AR APCH RNP 1/0.3 SID/STAR design, Radius to Fix (RF) leg design, Path terminators coding and ARINC 424).

(c) Refresher or Recurrent Training (as mentioned in paragraph 5).

(d) Quality Assurance and Validation Training.

172.207 Control of data and documentation

(a) JANS/ANSP shall take all reasonably practicable measures to ensure the accuracy of all data and documentation required under this sub-part relating

to the design of an instrument flight procedure.

(b) JANS/ANSP shall develop and apply appropriate policies and procedures to ensure that all the data and documentation be retained as long as an instrument flight procedure is in use and for at least 5 years after the associated instrument flight procedure is permanently withdrawn from use.

(c) JANS/ANSP shall review (in a timely manner) and update all data and documentation.

(d) JANS/ANSP shall develop and apply appropriate policies and procedures to ensure that amendments to the data and documentation are approved by an appropriate person before issue, and the reasons for the amendment are documented.

(e) JANS/ANSP shall develop and apply appropriate policies and procedures to ensure that up-to-date versions of all relevant data and documents are accessible to the personnel of instrument flight procedure design office at all locations where the personnel require access to such documentation.

(f) JANS/ANSP shall develop and apply appropriate policies and procedures to ensure that the current version of each data and document is identifiable such that the use of obsolete material is precluded.

(g) JANS/ANSP shall develop and apply appropriate policies and procedures to ensure that documentation of the safety risk assessment is maintained throughout the life cycle of the instrument flight procedure.

(h) JANS/ANSP shall develop and apply appropriate policies and procedures to ensure that all obsolete data and documentation are clearly marked and promptly removed from circulation.

(i) JANS/ANSP shall (at CARC request) make up-to-date versions of its data and documentation available in a timely manner.

172.209 Control of personnel records

(a) JANS/ANSP shall keep and maintain an accurate and up-to-date record of every personnel responsible for instrument flight procedure design in its instrument flight procedure design office.

(b) The records mentioned in paragraph (1) shall contain the following

information:

(1) The person's full name.

(2) Documentation demonstrating the person's qualifications and training records.

SUBPART- F
Search and Rescue

172.211 Provision of Search and Rescue Services.

(a) This subpart formalizes the requirements for authorization to provide Search and Rescue services.

(b) The Civil Aviation Regulatory Commission shall organize, provide and arrange for the provision of Search and Rescue Services in Jordan in accordance to article 35 of Jordan aviation law 41| 2007. However, Royal Jordanian Air Force is delegated the responsibility to provide search and rescue operations.

172.213 Applicability

(a) This Subpart applies to the provider of air navigation services within the Hashemite Kingdom of Jordan Flight Information Region and such other area as the Minister for Transport may authorize in its provision of search and rescue services within Jordan search and rescue region.

(b) Search and Rescue Services shall be provided to Jordan air traffic and foreign aircraft operating within Jordan FIR in accordance with:

(1) Jordan Civil Aviation Law 41\ 2007 Article 35.

(2) The standards specified in the latest edition of Annex 12 to the convention (Search and Rescue) and its amendments; and

(3) The Recommended Practices of Annex 12 as are required pursuant to a direction under this section.

(4) Such procedures as are specified in the manual of air traffic services, incorporating the standards and recommended Practices specified above, in respect of that place.

(c) JANS/ANSP-SAR shall establish and manage the Rescue Coordination Center (RCC) to prepare detailed plans of operation for the conduct of SAR operations and to facilitate the provision of Search and rescue for all aircraft who appear to be in state of emergency and shall designate SAR point of contact for the receipt of data related to the operation of SAR.

(d) The (RCC) shall be staffed 24 hours a day by trained and qualified personnel proficient in the use of the language used for radiotelephony communications and shall, as far as its primary function permits, assist in other emergencies.

(e) JANS/ANSP-SAR shall develop written job descriptions for each of RCC Technical staff.

(f) JANS/ANSP-SAR shall establish a training program for their RCC Technical staff to ensure that they are regularly trained, and the appropriate SAR exercises are arranged.

(g) JANS/ANSP-SAR shall keep their RCC Technical staff training records.

(h) JANS/ANSP-SAR shall ensure that RCC personnel involved in conduct of radiotelephone communications are proficient in the use of English language.

(i) JANS/ANSP-SAR shall arrange for the establishment and provision of search and rescue services, by itself or in cooperation with other States, for the portions of high seas or areas of undetermined sovereignty for which the ANSP has accepted responsibility to provide such services under any regional air navigation agreement.

(j) Where separate aeronautical and maritime rescue coordination centers serve the same area, JANS/ANSP shall take all reasonably practicable measures to ensure the closest practicable coordination between such centers.

172.215 Search and rescue communications

JANS/ANSP shall ensure that the rescue coordination center established under this subpart has means for rapid and reliable two-way communication with:

(a) Associated air traffic services units.

(b) Appropriate direction-finding and position-fixing stations.

(c) Where appropriate, coastal radio stations capable of alerting and communicating with surface vessels in the search and rescue region.

(d) The headquarters of search and rescue units in the search and rescue region (if any).

(e) All maritime rescue coordination centers in the search and rescue region and aeronautical, maritime or joint rescue coordination centers in adjacent search and rescue regions.

(f) A designated meteorological office or meteorological watch office.

(g) Search and rescue units.

(h) Alerting posts; and

(i) The Cospas-Sarsat Mission Control Centre servicing the search and rescue region (if any).

172.217 Search and rescue units

(a) JANS/ANSP shall designate as search and rescue units such public or private service providers who are suitably located and equipped for search and rescue operations.
(b) JANS/ANSP shall establish arrangements for the provision of search and rescue services with each search and rescue unit designated under paragraph (a).
(c) As part of the search and rescue plan of operation, JANS/ANSP shall designate, and establish arrangements with, such other public or private service providers that do not qualify as search and rescue units but are able to participate in a search and rescue operation.

172.219 Search and Rescue Operations Manual

(a) JANS/ANSP shall establish and maintain a search and rescue operations manual, which demonstrates the means and methods for ensuring continuous compliance with the requirements in this sub-part.

(b) The operations manual established for the purposes of paragraph (a) shall include the following:
- A job description of each search and rescue personnel which shall contain the job function and responsibilities.
- The procedures to control, amend and distribute the operations manual, including the distribution of the initial and all subsequent amendments made to the operations manual.
- The procedures are necessary to ensure compliance with this sub-part and JCAR 172.

(c) JANS/ANSP shall notify CARC of any changes made to the operations

manual in a timely manner.

(d) JANS/ANSP shall ensure that the operations manual is readily available to all personnel concerned with search and rescue.

(e) JANS/ANSP shall ensure that the operations manual being used by all search and rescue personnel contains current information.

(f) JANS/ANSP shall submit a copy of the current version of the operations manual to CARC.

(g) JANS/ANSP shall update, amend or add to the operations manual as CARC may require for ensuring:
- The accuracy of the operations manual.
- The safety, efficiency or regularity of air navigation.

172.221 Cooperation with other States

(a) JANS/ANSP shall establish arrangements for the coordination of search and rescue with the search and rescue organizations of neighboring States.

(b) JANS/ANSP shall permit immediate entry into its territory of search and rescue units of other States for the purpose of searching for the site of aircraft accidents and rescuing survivors of such accidents, subject to the provisions of any search and rescue agreement that had been concluded between the Authority and the search and rescue organizations of those other States.

(c) JANS/ANSP in preparation for its search and rescue units to enter the territory of any State for search and rescue purposes, shall transmit a request, with full details of the projected mission and the need for that mission, to the rescue coordination center of that State or to such other authority as had been designated by that State.

(d) When JANS/ANSP receives a request from another State for that State's search and rescue units to enter Jordanian's territory for search and rescue purposes, JANS/ANSP shall immediately acknowledge the receipt of such a request; and as soon as possible, indicate the conditions, if any, under which the projected mission may be undertaken.

(e) JANS/ANSP's rescue coordination center shall provide instructions to the control which will be exercised on entry of aircraft or personnel from other States in accordance with the standing plan for the conduct of search and rescue in the area.

(f) JANS/ANSP shall develop and apply appropriate procedures for its rescue coordination center to request from other rescue coordination centers such assistance, including aircraft, vessels, persons or equipment, as may be needed.

(g) JANS/ANSP shall develop and apply appropriate procedures for its rescue coordination center to grant any necessary permission for the entry of such aircraft, vessels, people or equipment into its territory.

(h) JANS/ANSP shall develop and apply appropriate procedures for its rescue coordination center to make the necessary arrangements with the appropriate customs, immigration or other authorities with a view to expediting such entry.

(i) JANS/ANSP shall develop and apply appropriate procedures for its rescue coordination center to facilitate, when requested, assistance to other rescue coordination centers, including assistance in the form of aircraft, vessels, persons or equipment.

(j) JANS/ANSP shall plan for joint training exercises involving its search and rescue units, with those of States and operators, to promote search and rescue efficiency.

172.223 Cooperation with other services

(a) JANS/ANSP shall establish arrangements for all aircraft, vessels and local services and facilities which do not form part of JANS/ANSP to cooperate fully with the ANSP in search and rescue and to extend any possible assistance to the survivors of aircraft accidents.

(b) JANS/ANSP shall ensure that its search and rescue services cooperate with the investigation of an accident, and any person responsible for the care of the victims of the accident.

(c) JANS/ANSP shall designate a search and rescue point of contact for the receipt of Cospas-Sarsat distress data.

172.225 Dissemination of information

(a) JANS/ANSP shall publish and disseminate all information necessary for the entry of search and rescue units of other States into its territory or alternatively, include this information in search and rescue service arrangements.

172.227 Preparatory Measures

(a) JANS/ANSP rescue coordination center shall have always readily available and up-to-date information concerning the Search and Rescue units and alerting posts within its region, air traffic services, means of communication that may be used in search and rescue operations, addresses and telephone numbers of all operators, or their designated representatives, engaged in operations in the region; and any other public and private resources including medical and transportation facilities that are likely to be useful in search and rescue.

(b) JANS/ANSP rescue coordination center shall prepare plans for the conduct of its operations within Jordan's search and rescue region.

(c) The plans prepared under paragraph (1) shall specify arrangements for the servicing and refueling, as far as reasonably practicable, of aircraft, vessels and vehicles employed in search and rescue operations, including those made available by other States, and contain details regarding actions to be taken by people engaged in search and rescue, including:
- The way search and rescue operations are to be conducted in the search and rescue region.
- The use of available communication systems and facilities.
- The actions to be taken jointly with other rescue coordination centers.
- The methods of alerting en-route aircraft and ships at sea.
- The duties and rights of people are assigned to search and rescue.
- The possible redeployment of equipment may be necessitated by meteorological or other conditions.
- The methods for obtaining essential information relevant to search and rescue operations, including weather reports and forecasts, appropriate NOTAM.
- The methods for obtaining, from other rescue coordination centers, such assistance, including aircraft, vessels, persons or equipment, as may be needed.
- The methods for assisting distressed aircraft being compelled to ditch to rendezvous with surface craft.
- The methods for assisting search and rescue or other aircraft to proceed to aircraft in distress.
- Cooperative actions to be taken in conjunction with air traffic service units and other authorities concerned to assist aircraft known or believed to be subject to unlawful interference.

172.229 Readiness of search and rescue units

(a) JANS/ANSP shall develop and apply appropriate procedures to ensure that each of its search and rescue units is aware of all parts of the plans of operation specified, for the effective conduct of its duties, and keep the rescue coordination center informed of its preparedness in relation to the suitability of its location, availability and equipment for search and rescue operations.

(b) JANS/ANSP shall establish arrangements to maintain in readiness the required number of search and rescue facilities, and maintain adequate supplies of rations, medical stores, signaling devices and other survival and rescue equipment.

172.301 Training and exercises

(a) JANS/ANSP shall ensure that its search and rescue personnel are regularly trained and participate in appropriate search and rescue exercises to enable such personnel to achieve and maintain maximum efficiency in search and rescue.

(b) The training in aeronautical search and rescue provided by the JANS/ANSP shall consist of theoretical and practical knowledge of aeronautical search and rescue operations.

(c) JANS/ANSP shall ensure that its search and rescue personnel maintain their competency by undergoing refresher training that includes knowledge about updates of ICAO provisions and other provisions pertaining to search and rescue.

(d) JANS/ANSP shall maintain training records for its search and rescue personnel.

172.303 Contingency arrangements

(a) JANS/ANSP shall develop and implement contingency plans to ensure minimum disruption to the provision of search and rescue services, and those plans shall be reviewed during each 24-hour period.

(b) JANS/ANSP shall conduct regular exercises to ensure that the contingency plans mentioned in paragraph (1) continue to be relevant and that the search and rescue personnel continue to be familiar with these contingency plans.

172.305 Operating Procedures

(a) If JANS/ANSP reasonably believes that an aircraft is in an emergency, the ANSP shall ensure that the appropriate unit will immediately pass all available information to its rescue coordination center.

(b) JANS/ANSP rescue coordination center shall, immediately upon receipt of information concerning an aircraft in emergency, evaluate such information and assess the extent of the operation required.

(c) When information concerning aircraft in emergency is received from sources other than the ANSP air traffic services units, the rescue coordination center shall determine to which emergency phase the situation corresponds and shall apply the procedures applicable to that phase.

172.307 Procedures for rescue coordination center during emergency phases

(a) Upon the occurrence of an **uncertainty phase**, JANS/ANSP rescue coordination center shall coordinate with air traffic service units and other appropriate agencies and services to ensure that the rescue coordination center is able to receive and expeditiously evaluate up-to-date information and reports on the possible location of the aircraft.

(b) Upon the occurrence of an **alert phase**, JANS/ANSP rescue coordination center shall immediately alert all units concerned and initiate any necessary action.

(c) Upon the occurrence of a **distress phase**, JANS/ANSP rescue coordination center shall take the following actions **in the following order, unless circumstances dictate otherwise:**

- Immediately initiate action by search and rescue units in accordance with the appropriate plan of operation.
- Ascertain the position of the aircraft, estimate the degree of uncertainty of this position, and based on this information and the circumstances, determine the extent of the area to be searched.
- Notify the operator where possible, and keep the operator informed of developments.
- Notify such rescue coordination centers from whom assistance may be required, or which may be concerned in the operation.
- Notify the associated air traffic services unit when the information on the emergency has been received from another source.
- Request for assistance at an early stage from such aircraft, vessels, coastal stations and other services not specifically included in the

appropriate plan of operation to maintain a listening watch for transmissions from the aircraft in distress, survival radio equipment or an emergency locator transmitter (ELT) and assist the aircraft in distress as far as practicable.

- From the information available, draw up a detailed plan of action for the conduct of the search and rescue operation required and communicate that plan for the guidance of CARC immediately.
- Amend as necessary, in the light of evolving circumstances, the detailed plan of action.
- notify the appropriate accident investigation authorities.
- Notify the State of Registry of the aircraft.

(5) If an emergency phase is declared by JANS/ANSP air traffic services unit in respect of an aircraft whose position is unknown or may be in one of two or more search and rescue regions, the ANSP's rescue coordination center shall do the following:

- when the rescue coordination center is notified of the existence of an emergency phase and is unaware of other neighboring rescue coordination centers taking appropriate action, the rescue coordination center shall assume responsibility for initiating suitable action in accordance with paragraphs (a), (b) and (c); and consult with neighboring rescue coordination centers with the objective of designating one rescue coordination center to assume responsibility for search and rescue operations immediately.
- Unless otherwise decided by common agreement with other rescue coordination centers, JANS/ANSP rescue coordination center shall coordinate search and rescue action if it is responsible for:
  - The region in which the aircraft last reported its position.
  - The region to which the aircraft were proceeding when its last reported position was on the line separating two search and rescue regions.
  - The region to which the aircraft were destined when it was not equipped with suitable two-way radio communication or not under obligation to maintain radio communication.
  - The region in which the distress site is located as identified by the Cospas Sarsat system.
- After declaration of the distress phase, JANS/ANSP rescue coordination center is responsible for coordinating the search and rescue action, the rescue coordination center shall:

  - Notify all other rescue coordination centers that may become

involved in the operation of all the circumstances of the emergency and subsequent developments.

- provide the rescue coordination center that has overall responsibility for the search and rescue action with anyinformation pertaining to the emergency that it becomes aware of.

172.309 Procedures where responsibility for operations extends to two or more States

Where the conduct of operations over the entire search and rescue region is the responsibility of more than one State, JANS/ANSP shall act in accordance with the relevant plan of operations when requested by the rescue coordination center of the region (if any).

172.311 Procedures for rescue coordination centers – termination and suspension of operations

(a) JANS/ANSP rescue coordination center shall continue its search and rescue operations, when practicable, until all survivors are delivered to a place of safety or until all reasonable hopes of rescuing survivors have passed.

(b) If JANS/ANSP rescue coordination center is responsible for coordinating the search and rescue action, it may determine when to discontinue search and rescue operations **after** taking into consideration the views of other States or rescue coordination centers involved in the search and rescue operations (if any).

(c) Despite paragraph (b), the ANSP's rescue coordination center shall terminate the search and rescue operation and cancel the emergency phase:

- When a search and rescue operation has been successful; or
- When it is informed, that an emergency no longer exists.

(d) JANS/ANSP rescue coordination center shall promptly inform every authority, facility or service that has been activated or notified of the search and rescue operation of the termination of the search and rescue operation.

(e) If a search and rescue operation become impracticable and JANS/ANSP rescue coordination center concludes that there might still be survivors, the rescue coordination center shall:

- Temporarily suspend on-scene activities pending further developments.

- Promptly inform any authority, facility or service which has been activated or notified of the search and rescue operation of the suspension of the on-scene activities.
- Evaluate any relevant information subsequently received for justification and practicability to resume search and rescue operations.

172.313 Procedures in the field

(a) JANS/ANSP shall establish an arrangement with the authority of each search and rescue unit involved in the search and rescue operations to enable the authority immediately directing the conduct of operations or any part thereof to:

- Give instructions to the units under their direction and notify the rescue coordination center of such instructions; and
- Keep the rescue coordination center informed of developments.

(b) When multiple facilities are engaged in search and rescue operations at the scene of the accident, JANS/ANSP rescue coordination center shall designate one or more units at the scene to coordinate all actions to help ensure the safety and effectiveness of air and surface operations, considering facility capabilities and operational requirements.

172.315 Procedures for a pilot of an aircraft

JANS/ANSP shall notify, by means of the Aeronautical Information Publication, a pilot of an aircraft of the procedures to follow:

(a) When the pilot observes that another aircraft or a surface craft is in distress.

(b) Whenever the pilot intercepts a distress transmission.

(c) When the pilot observes any of the search and rescue signals contained in Annex 12 of the Chicago Convention.

SUBPART- G
Meteorological Service for International Air Navigation

172.317 Provision of Meteorological Service for International Air Navigation.

(a) A holder of Meteorological Service certificate shall ensure that;

(1) Has engaged, employ, or contract a senior person identified as the Director who has the authority within the applicant's organization to ensure that each meteorological service listed in its exposition;

(i) Can be financed; and

(ii) Is provided in accordance with the requirements prescribed by this Part; and

(iii) A senior person or persons who are responsible for ensuring that the applicant's organization complies with the requirements of this Part. Such nominated person or persons shall be ultimately responsible to the accountable manager; and

(2) Sufficient personnel to manage, support, and provide the meteorological services and any associated training or assessment listed in the applicant's exposition.

(b) The applicant shall establish procedures to;

(1) Ensure the competence of those personnel who are authorized by the applicant to provide the meteorological services, and training and assessment for those services listed in the applicant's exposition;

(2) That periodic training plan detailing and prioritizing what type of training will be provided during the established period and to maintain the training records.

(c) A provider of meteorological services shall be able to demonstrate that its working methods and operating procedures are compliant with the standards in the following annexes / Documents to the Convention on International Civil Aviation as far as they are relevant for the provision of meteorological services in the airspace concerned:

(1) Annex 3 on meteorological service for international air navigation as amended.

(2) Annex 11 on air traffic services as amended.

(3) Annex 14 on aerodromes as amended.

(4) PANS-MET Doc 10157.

(d) The technical and Operational Competence and Capability**.**

(1) A provider of meteorological services shall ensure that meteorological information, necessary for the performance of their respective functions and in a form suitable for users as METAR, SPECI,TAF, SIGMET messages and wind shear warning to aerodromes is made available to:

(i) Operators and flight crew members for pre-flight and in- flight planning,

(ii) Providers of air traffic services and flight information services,

(iii) Search and rescue services units, and

(iv) Airports.

(2) A provider of meteorological services shall confirm the level of attainable accuracy of the information distributed for operations,

including the source of such information, whilst also ensuring that such information is distributed in a sufficiently timely manner, and updated as required.

172.319 Quality assurance and use of meteorological information

A holder of air traffic service certificate shall ensure that;

(a) In order to meet the objective of meteorological service for international air navigation, the Meteorological Department shall establish and implement a properly organized quality system comprising procedures, processes and resources necessary to provide for the quality management of the meteorological information to be supplied to the users.

(b) The quality system established in accordance with paragraph (a) above should be in conformity with the (ISO 9000, 2000) series of quality assurance standards, and certified by an approved organization.

(c) The quality system should provide the users with assurance that the meteorological information supplied complies with the stated requirements in terms of the geographical and spatial coverage, format and content, time and frequency of issuance and period of validity, as well as the accuracy of measurements, observations and forecasts. Where the quality system indicates that meteorological information to be supplied to the users does not comply with the stated requirements, and automatic error correction procedures are not appropriate, such information should not be supplied to the users unless it is validated with the originator.

(d) In regard to the exchange of meteorological information for operational purposes, the quality system should include verification, validation procedures and resources for monitoring adherence to the prescribed transmission schedules for individual messages and / or bulletins required to be exchanged, and the times of their filing for transmission. The quality system should be capable of detecting excessive transit times of messages and bulletins received.

(e) Demonstration of compliance of the quality system applied should be by audit. If non-conformity of the system is identified, action shall be initiated to determine and correct the cause. All audit observations should be evidenced and properly documented.

(f) The meteorological information supplied to the users shall be consistent

with Human Factors principles and shall be in forms which require a minimum of interpretation by these users.