Part 172

The Certification and Operation of Organizations Providing Air Traffic Service in the Egyptian Flight Information Region

TABLE OF CONTENTS

Table Of Contents

ITEM	TITLE
SUBPART	**General**
172.1	Applicability
172.3	Definitions and abbreviations
172.5	ICAO references
172.7	Requirement for certificate
172.9	Application for certificate
172.11	Issuance of certificate
172.13	Privileges of certificate
172.15	Duration of certificate
172.17	Renewal of certificate
172.19	Change in level of service
172.21	Withdrawal of service
172.23	Enforcement issues
172.25	Trial operational testing
172.27	Transfer of service
172.29	Display of certificate
172.31	Continued compliance
SUBPART B:	Organization and Administration
172.33	Exposition
172.35	Changes to certificate holder's organization
172.37	Documentation
172.39	Records
172.41	Logbooks and position logs
172.43	Reserved
172.45	Security
172.47	Coordination
SUBPARTC:	**Personnel and Facilities**
172.49	Staffing and qualifications
172.51	Training
172.53	Re-qualification requirements
172.54	Facilities and equipments
SUBPARTD:	Operations
172.55	Operations Manuals
172.57	Responsibility for Control
172.59	Shift administration
172.61	Contingency Plan
172.63	General information requirements
172.65	Notification of Facility Status
172.67	Meteorological information and reporting
172.69	Specifications for Flight Information Regions, Control Areas
172.71	Designation of the Portions of the Airspace and Controlled Aerodromes Where Air Traffic services will be provided
172.73	Area and Approach Control Services
172.75	Aerodrome control Service
172.77	Operational Priorities
172.79	ATS System Capacity and Flow Management
172.81	ATC Clearances
172.83	Determination of the need for air traffic services
172.85	Control of Persons and Vehicles at Aerodromes
172.87	Separation Minima
172.89	Fatigue Risk Management System (FRMS)
172.91	Alerting service

ITEM	TITLE
172.93	Flight Plan
172.95	Deviation from Flight Plan
172.97	Altimeter setting
172.99	Language proficiency
172.101	Radar Service
172.103	Human factor considerations
172.105	Action after serious incident or accident
172.107	Reporting incidents and accidents
172.109	Reporting service disruptions
172.111	Reporting deviations and / or violations
172.113	Occurrences reporting
172.115	Compliance with the rules of the air
172.117	Protection of Persons and Property
172.119	Transfer of Responsibility
172.121	Operation On and In the Vicinity of an Aerodrome
172.123	Position Reports
172.125	Instrument Flights
172.127	Visual Flight Rules
172.129	Safety Management System
172.131	ECAA Inspection Authority
172.133	VMC Visibility and Distance from Cloud Minima
172.135	Signals
172.137	Weather deterioration below the VMC
172.139	Clocks and Time Recording Devices
172.141	GNSS RNAV applications
172.143	Reduced Vertical Separation Minima (RVSM) application
172.145	Establishment and identification of ATS routes
172.147	Flight information service
172.149	Communication with a Provision of Air Traffic Services
172.151	Surface movement Radar (SMR)
172.153	Aircraft meteorological observations and reports
172.155	Determination of the need for air traffic services
172.157	Performance-based navigation (PBN)operations
172.159	Performance-based copmmunication and surveillance (PBCS) operations
172.161	Aircraft Emergencies and Irregular Operation
172.163	Inteception
172.165	**Operations on parallel or near parallel runways**

Subpart A
General

172.1 Applicability

This Part prescribes rules governing:

(a) The certification and operation of organizations providing an air traffic service in the Egyptian flight information region;
(b) The operating and technical standards for the provision of air traffic services operated by those organizations; and
(c) The regulation shall be amended when deemed necessary.

172.3 Definitions and abbreviations

Definitions

When the following terms are used in the Standards and Recommended Practices for Air Traffic Services, they have the following meanings:

Accepting unit. Air traffic control unit next to take control of an aircraft.

Accident. An occurrence associated with the operation of an aircraft which, in the case of a manned aircraft, takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, or in the case of an unmanned aircraft, takes place between the time the aircraft is ready to move with the purpose of flight until such time it comes to rest at the end of the flight and the primary propulsion system is shut down, in which:

(a) a person is fatally or seriously injured as a result of:
  (1) Being in the aircraft, or
  (2) Direct contact with any part of the aircraft, including parts which have become detached from the aircraft, or
  (3) Direct exposure to jet blast, except when the injuries are from natural causes, self-inflicted or inflicted by other persons, or when the injuries are to stowaways hiding outside the areas normally available to the passengers and crew; or

(b) the aircraft sustains damage or structural failure which:
  (1) Adversely affects the structural strength, performance or flight characteristics of the aircraft, and
  (2) Would normally require major repair or replacement of the affected component,
  except for engine failure or damage, when the damage is limited to a single engine, (including its cowlings or accessories), to propellers, wing tips, antennas, probes, vanes, tires, brakes, wheels, fairings, panels, landing gear doors, windscreens, the aircraft skin (such as small dents or puncture holes), or for minor damages to main rotor blades, tail rotor blades, landing gear, and those resulting from hail or bird strike (including holes in the Radom); or

(c) The aircraft is missing or is completely inaccessible.

Note 1.— For statistical uniformity only, an injury resulting in death within thirty days of the date of the accident is classified, by ICAO, as a fatal injury.

Note 2.— An aircraft is considered to be missing when the official search has been terminated and the wreckage has not been located.

Note 3.— The type of unmanned aircraft system to be investigated is addressed in Annex 13, 5.1.

Note 4.— Guidance for the determination of aircraft damage can be found in Annex 13, Attachment F.

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

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

ADS-C agreement. A reporting plan which establishes the conditions of ADS-C data reporting (i.e. data required by the air traffic services unit and frequency of ADS-C reports which have to be agreed to prior to using ADS-C in the provision of air traffic services).

Note.— The terms of the agreement will be exchanged between the ground system and the aircraft by means of a contract, or a series of contracts.

Advisory airspace. An airspace of defined dimensions, or designated route, within which air traffic advisory service is available.

Advisory route. A designated route along which air traffic advisory service is available.

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

Aerodrome control service. Air traffic control service for aerodrome traffic.

Aerodrome control tower. A unit established to provide air traffic control service to aerodrome traffic.

Aerodrome traffic. All traffic on the manoeuvring area of an aerodrome and all aircraft flying in the vicinity of an aerodrome.

Note.— An aircraft is in the vicinity of an aerodrome when it is in, entering or leaving an aerodrome traffic circuit.

Aeronautical fixed service (AFS). A telecommunication service between specified fixed points provided primarily for the safety of air navigation and for the regular, efficient and economical operation of air services.

Aeronautical Information Publication (AIP). A publication issued by or with the authority of a State and containing aeronautical information of a lasting character essential to air navigation.

Aeronautical mobile service (RR S1.32). A mobile service between aeronautical stations and aircraft stations, or between aircraft stations, in which survival craft stations may participate; emergency position-indicating radio beacon stations may also participate in this service on designated distress and emergency frequencies.

Aeronautical telecommunication station. A station in the aeronautical telecommunication service.

Airborne collision avoidance system (ACAS). An aircraft system based on secondary surveillance radar (SSR) transponder signals which operates independently of ground-based equipment to provide advice to the pilot on potential conflicting aircraft that are equipped with SSR transponders.

Air-ground communication. Two-way communication between aircraft and stations or locations on the surface of the earth.

AIRMET information. Information issued by a meteorological watch office concerning the occurrence or expected occurrence of specified en-route weather phenomena which may affect the safety of low-level aircraft operations and which was not already included in the forecast issued for low-level flights in the flight information region concerned or sub-area thereof.

Air-taxiing. Movement of a helicopter/VTOL above the surface of an aerodrome, normally in ground effect and at a ground speed normally less than 37 km/h (20 kt).

Note.— The actual height may vary, and some helicopters may require air-taxiing above 8 m (25 ft) AGL to reduce ground effect turbulence or provide clearance for cargo sling loads.

Air traffic. All aircraft in flight or operating on the maneuvering area of an aerodrome.

Air traffic advisory service. A service provided within advisory airspace to ensure separation, in so far as practical, between aircraft which are operating on IFR flight plans.

Air traffic control clearance. Authorization for an aircraft to proceed under conditions specified by an air traffic control unit.

Note 1.— For convenience, the term "air traffic control clearance" is frequently abbreviated to "clearance" when used in appropriate contexts.

Note 2.— The abbreviated term "clearance" may be prefixed by the words "taxi," "take-off," "departure," "en route," "approach" or "landing" to indicate the particular portion of flight to which the air traffic control clearance relates.

Air traffic control service. A service provided for the purpose of:

(a) Preventing collisions:

(1) Between aircraft, and

(2) On the manoeuvring area between aircraft and obstructions; and

(b) Expediting and maintaining an orderly flow of air traffic.

Air traffic control unit. A generic term meaning variously, area control centre, approach control unit or aerodrome control tower.

Air traffic flow management (ATFM). 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 the appropriate ATS authority

Air traffic service. A generic term meaning variously, flight information service, alerting service, air traffic advisory service, air traffic control service (area control service, approach control service or aerodrome control service).

Air traffic services airspaces. Airspaces of defined dimensions, alphabetically designated, within which specific types of flights may operate and for which air traffic services and rules of operation are specified.

Note.— ATS airspaces are classified as Class A to G.

Air traffic controller schedule. A plan for allocating air traffic controller duty periods and non-duty periods over a period of time, otherwise referred to as a roster.

Air traffic services reporting office. A unit established for the purpose of receiving reports concerning air traffic services and flight plans submitted before departure.

Note.— An air traffic services reporting office may be established as a separate unit or combined with an existing unit, such as another air traffic services unit, or a unit of the aeronautical information service.

Air traffic services unit. A generic term meaning variously, air traffic control unit, flight information centre or air traffic services reporting office.

ALERFA. The code word used to designate an alert phase.

Alerting service. A service provided to notify appropriate organizations regarding aircraft in need of search and rescue aid, and assist such organizations as required.

Alert phase. A situation wherein apprehension exists as to the safety of an aircraft and its occupants.

Alternate aerodrome. An aerodrome to which an aircraft may proceed when it becomes either impossible or inadvisable to proceed to or to land at the aerodrome of intended landing where the necessary services and facilities are available, where aircraft performance requirements can be met and which is operational at the expected time of use. Alternate aerodromes include the following:

Take-off alternate. An alternate aerodrome at which an aircraft would be able to land should this become necessary shortly after take-off and it is not possible to use the aerodrome of departure.

En-route alternate. An alternate aerodrome at which an aircraft would be able to land in the event that a diversion becomes necessary while en route.

Destination alternate. An alternate aerodrome at which an aircraft would be able to land should it become either impossible or inadvisable to land at the aerodrome of intended landing.

Note.— The aerodrome from which a flight departs may also be an en-route or a destination alternate aerodrome for that flight.

Altitude. The vertical distance of a level, a point or an object considered as a point, measured from mean sea level.

Approach control service. Air traffic control service for arriving or departing controlled flights.

Approach control unit. A unit established to provide air traffic control service to controlled flights arriving at, or departing from, one or more aerodromes.

Appropriate ATS authority. The relevant authority designated by the State responsible for providing air traffic services in the airspace concerned.

Apron. A defined area, on a land aerodrome, intended to accommodate aircraft for purposes of loading or unloading passengers, mail or cargo, fuelling, parking or maintenance.

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

Area control centre. A unit established to provide air traffic control service to controlled flights in control areas under its jurisdiction.

Area control service. Air traffic control service for controlled flights in control areas.

Area navigation (RNAV). A method of navigation which permits aircraft operation on any desired flight path within the coverage of ground- or space-based navigation aids or within the limits of the capability of self-contained aids, or a combination of these.

Note.— Area navigation includes performance-based navigation as well as other operations that do not meet the definition of performance-based navigation.

Area navigation route. An ATS route established for the use of aircraft capable of employing area navigation.

ATS route. A specified route designed for channeling the flow of traffic as necessary for the provision of air traffic services.

Note 1.— The term "ATS route" is used to mean variously, airway, advisory route, controlled or uncontrolled route, arrival or departure route, etc.

Note 2.— An ATS route is defined by route specifications which include an ATS route designator, the track to or from significant points (waypoints), distance between significant points, reporting requirements and, as determined by the appropriate ATS authority, the lowest safe altitude.

Automatic dependent surveillance — broadcast (ADS-B). A means by which aircraft, aerodrome vehicles and other objects can automatically transmit and/or receive data such as identification, position and additional data, as appropriate, in a broadcast mode via a data link.

Automatic dependent surveillance — contract (ADS-C). A means by which the terms of an ADS-C agreement will be exchanged between the ground system and the aircraft, via a data link, specifying under what conditions ADS-C reports would be initiated, and what data would be contained in the reports.

Note.— The abbreviated term "ADS contract" is commonly used to refer to ADS event contract, ADS demand contract, ADS periodic contract or an emergency mode.

Automatic terminal information service (ATIS). The automatic provision of current, routine information to arriving and departing aircraft throughout 24 hours or a specified portion thereof:

Data link-automatic terminal information service (D-ATIS). The provision of ATIS via data link.

Voice-automatic terminal information service (Voice-ATIS). The provision of ATIS by means of continuous and repetitive voice broadcasts.

Base turn. A turn executed by the aircraft during the initial approach between the end of the outbound track and the beginning of the intermediate or final approach track. The tracks are not reciprocal.

Note.— Base turns may be designated as being made either in level flight or while descending, according to the circumstances of each individual procedure.

Calendar. Discrete temporal reference system that provides the basis for defining temporal position to a resolution of one day (ISO 19108*).

Change-over point. The point at which an aircraft navigating on an ATS route segment defined by reference to very high frequency omnidirectional radio ranges is expected to transfer its primary navigational reference from the facility behind the aircraft to the next facility ahead of the aircraft.

Note.— Change-over points are established to provide the optimum balance in respect of signal strength and quality between facilities at all levels to be used and to ensure a common source of azimuth guidance for all aircraft operating along the same portion of a route segment.

Clearance limit. The point to which an aircraft is granted an air traffic control clearance.

Conference communications. Communication facilities whereby direct speech conversation may be conducted between three or more locations simultaneously.

Control area. A controlled airspace extending upwards from a specified limit above the earth.

Controlled aerodrome. An aerodrome at which air traffic control service is provided to aerodrome traffic.

Note.— The term "controlled aerodrome" indicates that air traffic control service is provided to aerodrome traffic but does not necessarily imply that a control zone exists.

Controlled airspace. An airspace of defined dimensions within which air traffic control service is provided in accordance with the airspace classification.

Note.— Controlled airspace is a generic term which covers ATS airspace Classes A, B, C, D and E

Controlled flight. Any flight which is subject to an air traffic control clearance.

Controller-pilot data link communications (CPDLC). A means of communication between controller and pilot, using data link for ATC communications.

Control zone. A controlled airspace extending upwards from the surface of the earth to a specified upper limit.

Cruising level. A level maintained during a significant portion of a flight.

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

Danger area. An airspace of defined dimensions within which activities dangerous to the flight of aircraft may exist at specified times.

Data link communications. A form of communication intended for the exchange of messages via a data link.

Data quality. A degree or level of confidence that the data provided meets the requirements of the data user in terms of accuracy, resolution and integrity.

Datum. Any quantity or set of quantities that may serve as a reference or basis for the calculation of other quantities (ISO 19104*).

Declared capacity. A measure of the ability of the ATC system or any of its subsystems or operating positions to provide service to aircraft during normal activities. It is expressed as the number of aircraft entering a specified portion of airspace in a given period of time, taking due account of weather, ATC unit configuration, staff and equipment available, and any other factors that may affect the workload of the controller responsible for the airspace.

DETRESFA. The code word used to designate a distress phase.

Distress phase. A situation wherein there is reasonable certainty that an aircraft and its occupants are threatened by grave and imminent danger or require immediate assistance.

Downstream clearance. A clearance issued to an aircraft by an air traffic control unit that is not the current controlling authority of that aircraft.

Emergency phase. A generic term meaning, as the case may be, uncertainty phase, alert phase or distress phase.

Final approach. That part of an instrument approach procedure which commences at the specified final approach fix or point, or where such a fix or point is not specified,

(a) At the end of the last procedure turn, base turn or inbound turn of a racetrack procedure, if specified; or

(b) At the point of interception of the last track specified in the approach procedure; and

ends at a point in the vicinity of an aerodrome from which:

(1) A landing can be made; or

(2) A missed approach procedure is initiated.

Flight crew member. A licensed crew member charged with duties essential to the operation of an aircraft during a flight duty period.

Flight information centre. A unit established to provide flight information service and alerting service.

Flight information region. An airspace of defined dimensions within which flight information service and alerting service are provided.

Flight information service. A service provided for the purpose of giving advice and information useful for the safe and efficient conduct of flights.

Flight level. A surface of constant atmospheric pressure which is related to a specific pressure datum, 1 013.2 hectopascals (hPa), and is separated from other such surfaces by specific pressure intervals.

Note 1.— A pressure type altimeter calibrated in accordance with the Standard Atmosphere:

(a) When set to a QNH altimeter setting, will indicate altitude;

(b) When set to a QFE altimeter setting, will indicate height above the QFE reference datum;

(c) When set to a pressure of 1 013.2 hPa, may be used to indicate flight levels.

Note 2.— The terms "height" and "altitude", used in Note 1 above, indicate altimetric rather than geometric heights and altitudes.

Flight plan. Specified information provided to air traffic services units, relative to an intended flight or portion of a flight of an aircraft.

Note.— Specifications for flight plans are contained in Annex 2. When the expression "flight plan form" is used it denotes the model flight plan form at Appendix 2 to the PANS-ATM.

Forecast. A statement of expected meteorological conditions for a specified time or period, and for a specified area or portion of airspace.

Height. The vertical distance of a level, a point or an object considered as a point, measured from a specified datum.

IFR. The symbol used to designate the instrument flight rules.

IMC. The symbol used to designate instrument meteorological conditions.

INCERFA. The code word used to designate an uncertainty phase.

Incident. An occurrence, other than an accident, associated with the operation of an aircraft which affects or could affect the safety of operation.

Note.— The types of incidents which are of main interest to the International Civil Aviation Organization for accident prevention studies are listed in Annex 13, Attachment C.

Instrument flight procedure design service. A service established for the design, documentation, validation, maintenance and periodic review of instrument flight procedures necessary for the safety, regularity and efficiency of air navigation.

Instrument meteorological conditions (IMC). Meteorological conditions expressed in terms of visibility, distance from cloud, and ceiling, less than the minima specified for visual meteorological conditions.

Note.— The specified minima for visual meteorological conditions are contained in Annex 2.

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

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

(a) Routine data: there is a very low probability when using corrupted routine data that the continued safe flight and landing of an aircraft would be severely at risk with the potential for catastrophe;

(b) Essential data: there is a low probability when using corrupted essential data that the continued safe flight and landing of an aircraft would be severely at risk with the potential for catastrophe; and

(c) Critical data: there is a high probability when using corrupted critical data that the continued safe flight and landing of an aircraft would be severely at risk with the potential for catastrophe.

International NOTAM office. An office designated by a State for the exchange of NOTAM internationally.

Level. A generic term relating to the vertical position of an aircraft in flight and meaning variously, height, altitude or flight level.

Manoeuvring area. That part of an aerodrome to be used for the take-off, landing and taxiing of aircraft, excluding aprons.

Meteorological office. An office designated to provide meteorological service for international air navigation.

Movement area. That part of an aerodrome to be used for the take-off, landing and taxiing of aircraft, consisting of the manoeuvring area and the apron(s).

Navigation specification. A set of aircraft and flight crew requirements needed to support performance-based navigation operations within a defined airspace. There are two kinds of navigation specifications:

Non-duty period. A continuous and defined period of time, subsequent to and/or prior to duty periods, during which the air traffic controller is free of all duties.

Required navigation performance (RNP) specification. A navigation specification based on area navigation that includes the requirement for performance monitoring and alerting, designated by the prefix RNP, e.g. RNP 4, RNP APCH.

Area navigation (RNAV) specification. A navigation specification based on area navigation that does not include the requirement for performance monitoring and alerting, designated by the prefix RNAV, e.g. RNAV 5, RNAV 1.

Note 1.— The Performance-based Navigation (PBN) Manual (Doc 9613), Volume II contains detailed guidance on navigation specifications.

Note 2.— The term RNP, previously defined as "a statement of the navigation performance necessary for operation within a defined airspace," has been removed from this Annex as the concept of RNP has been overtaken by the concept of PBN. The term RNP in this Annex is now solely used in the context of navigation specifications that require performance monitoring and alerting, e.g. RNP 4 refers to the aircraft and operating requirements, including a 4 NM lateral performance with on-board performance monitoring and alerting that are detailed in Doc 9613.

NOTAM. A notice distributed by means of telecommunication containing information concerning the establishment, condition or change in any aeronautical facility, service,

procedure or hazard, the timely knowledge of which is essential to personnel concerned with flight operations.

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

(a) Are located on an area intended for the surface movement of aircraft; or

(b) Extend above a defined surface intended to protect aircraft in flight; or

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

Operator. A person, organization or enterprise engaged in or offering to engage in an aircraft operation.

Pilot-in-command. The pilot designated by the operator, or in the case of general aviation, the owner, as being in command and charged with the safe conduct of a flight.

Printed communications. Communications which automatically provide a permanent printed record at each terminal of a circuit of all messages which pass over such circuit.

Prohibited area. An airspace of defined dimensions, above the land areas or territorial waters of a State, within which the flight of aircraft is prohibited

Performance-based communication (PBC). Communication based on performance specifications applied to the provision of air traffic services.

Note.— An RCP specification includes communication performance requirements that are allocated to system components in terms of the communication to be provided and associated transaction time, continuity, availability, integrity, safety and functionality needed for the proposed operation in the context of a particular airspace concept.

Performance-based surveillance (PBS). Surveillance based on performance specifications applied to the provision of air traffic services.

Note.— An RSP specification includes surveillance performance requirements that are allocated to system components in terms of the surveillance to be provided and associated data delivery time, continuity, availability, integrity, accuracy of the surveillance data, safety and functionality needed for the proposed operation in the context of a particular airspace concept

Runway. A defined rectangular area on a land aerodrome prepared for the landing and take-off of aircraft.

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

Required surveillance performance (RSP) specification. A set of requirements for air traffic service provision and associated ground equipment, aircraft capability, and operations needed to support performance-based surveillance.

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

SIGMET information. Information issued by a meteorological watch office concerning the occurrence or expected occurrence of specified en-route weather phenomena which may affect the safety of aircraft operations.

Significant point. A specified geographical location used in defining an ATS route or the flight path of an aircraft and for other navigation and ATS purposes.

Note.— There are three categories of significant points: ground-based navigation aid, intersection and waypoint. In the context of this definition, intersection is a significant point expressed as radials, bearings and/or distances from groundbased navigation aids.

Special VFR flight. A VFR flight cleared by air traffic control to operate within a control zone in meteorological conditions below VMC.

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

Taxiing. Movement of an aircraft on the surface of an aerodrome under its own power, excluding take-off and landing.

Terminal control area. A control area normally established at the confluence of ATS routes in the vicinity of one or more major aerodromes.

Time-in-position. The period of time when an air traffic controller is exercising the privileges of the air traffic controller's license at an operational position.

Track. The projection on the earth's surface of the path of an aircraft, the direction of which path at any point is usually expressed in degrees from North (true, magnetic or grid).

Traffic avoidance advice. Advice provided by an air traffic services unit specifying manoeuvres to assist a pilot to avoid a collision.

Traffic information. Information issued by an air traffic services unit to alert a pilot to other known or observed air traffic which may be in proximity to the position or intended route of flight and to help the pilot avoid a collision.

Transfer of control point. A defined point located along the flight path of an aircraft, at which the responsibility for providing air traffic control service to the aircraft is transferred from one control unit or control position to the next.

Transferring unit. Air traffic control unit in the process of transferring the responsibility for providing air traffic control service to an aircraft to the next air traffic control unit along the route of flight.

Uncertainty phase. A situation wherein uncertainty exists as to the safety of an aircraft and its occupants.

VFR. The symbol used to designate the visual flight rules.

VFR flight. A flight conducted in accordance with the visual flight rules.

Visual meteorological conditions (VMC). Meteorological conditions expressed in terms of visibility, distance from cloud, and ceiling, equal to or better than specified minima.

Note.— The specified minima are contained in Annex 2.

VMC. The symbol used to designate visual meteorological conditions.

Waypoint. A specified geographical location used to define an area navigation route or the flight path of an aircraft employing area navigation. Waypoints are identified as either:

Fly-by waypoint**.** A waypoint which requires turn anticipation to allow tangential interception of the next segment of a route or procedure, or

Flyover waypoint. A waypoint at which a turn is initiated in order to join the next segment of a route or procedure

(b) Abbreviations

VFR. The symbol used to designate the visual flight rules.

VFR flight. A flight conducted in accordance with the visual flight rules.

Visual meteorological conditions (VMC). Meteorological conditions expressed in terms of visibility, distance from cloud, and ceiling, equal to or better than specified minima.

VMC. The symbol used to designate visual meteorological conditions.

Voice-automatic terminal information service (Voice-ATIS).

The provision of ATIS by means of continuous and repetitive voice broadcasts

Way point. A specified geographical location used to define an area navigation route or the flight path of an aircraft employing area navigation. Way points are identified as either:

ACC: Area Control Center

ACAS: Airborne collision avoidance system.

AGATSC: Applicant for the Grant of ATS Certificate

AIC: Aeronautical Information Circular

AIP: Aeronautical Information Publication

AIS: Aeronautical Information Service

ATC: Air Traffic Control
ATCL: Air Traffic Controller License
ATS: Air Traffic Services.
CPDLC: Controller- pilot data link communications.
CLT: Cairo Local Time
DOD: Department Of Defense
ECAA: Egyptian Civil Aviation Authority
ECAR: Egyptian Civil Aviation Regulations
FIC: Flight Information Center
FIR: Flight Information Region
IFR: Instrument Flight Rules
QNH: An altimeter sub-scale setting to obtain elevation when on the ground
RCC: Rescue Coordination Center
SOC: Statement of Compliance
SSR: Secondary Surveillance Radar
STO: Standard and Training Officer
TCAS: Traffic Alert and Collision Avoidance System
UTC: Coordinated Universal Time
VFR: Visual Flight Rules

172.5 ICAO references

Annex 2
Annex 11
Document 4444
Document 7030
Document 9432
Document 9426

172.7 Requirement for certificate

(a) No ATS activity shall commence without a ministerial authorization is granted; and
(b) A national registered organization shall provide an air traffic service for the Egyptian FIR including landing areas except under the authority of, and in accordance with the provisions of, an air traffic services certificate issued under this Part.

172.9 Application for certificate

Each applicant for the grant of an air traffic service certificate shall complete and submit appropriate application form to the ECAA with:

(a) The exposition required by 172.33; and
(b) A payment of the appropriate application official fees associated with the documents required..

172.11 Issuance of certificate

An applicant is entitled to an air traffic service certificate if the ECAA is satisfied that: satisfied that:

(a) The applicant meets the requirements of this Part;
(b) The applicant, and the applicant's senior person or persons required by 172.49 (a)1,2 are fit and properly qualified persons; and
(c) The granting of the certificates not contrary to the interests of aviation safety.

172.13 Privileges of certificate

The certificate holder is authorized to provide Air Traffic Services under the terms of authorization granted.

172.15 Duration of certificate

(a) An air traffic service certificate may be granted or renewed for a period of up to 4-years.
(b) An air traffic service certificate remains in force until it expires or is withdrawn, suspended, or revoked.

(c) The holder of an air traffic service certificate that expires-or is revoked shall promptly surrender the certificate to the ECAA.
(d) The holder of an air traffic service certificate that is suspended shall promptly produce the certificate to the ECAA for appropriate endorsement.

172.17 Renewal of certificate

(a) An application for the renewal of an air traffic service certificate shall be made using the appropriate application form.
(b) The application shall be submitted to the ECAA 60-days before the certificate expires.
(c) The certificate holder shall comply with any additional conditions specified by the ECAA to renew the certificate.

172.19 Change in level of service

(a) Each holder of an air traffic service certificate who intends to reduce or increase the hours of operation of an ATS shall provide to the ECAA at least 90-days in advance a notice stating the reason for the proposed increasing or reducing.,
(b) A new schedule of the proposed hours of services for the next 12-months of operation; and
(c) A prior written approval from the ECAA must be received before the certificate holder starts his new schedule.

172.21 Withdrawal of service

(a) Each holder of an ATS certificate who wishes to permanently withdraw an ATS shall give the ECAA at least 90-days notice of the proposal and included in that notice a summary of factors considered in arriving at this decision; and
(b) This outgoing provider of an ATS certificate shall not hinder the preparations and execution of transitional arrangements.

172.23 Enforcement issues

(a) Penalties
  (1) ECAA may impose a penalty (according to the Civil Aaviation Law N.28 item No. 157), or reduce some privileges to the certificate holder if:
    (i) It finds that the certificate holder does not comply with the requirements of this Part and such holder failed to remedy such non-compliance within 60-days after receiving notice in writing from ECAA to do so;
    (ii) Such action is necessary in the interest of safety;
    (iii) Its inspectors are prevented by the provider from carrying out a safety inspections when their reports recommends such actions; and
    (iv) The certificate holder failed to provide the service in the required standard level, which is confirmed to ECAA by receiving reports from the users of the service and proved by a legal investigation.
  (2) When proposing a penalty, ECAA will state the reasons for such action and will furnish them to the certificate holder.
(b) Suspension of certificate this is a subsequent procedure to impose a penalty:
  (1) ECAA may suspend for a defined period, an ATS unit certificate issued under this Part if:
    (i) Subject to item 172.23 Paragraph 1 (a), ECAA is satisfied that the certificate holder still unable to remedy any of these non-compliant areas with the specified time frame of 60-days;
    (ii) The investigation, in case of an accident, proves that it was caused due to the faulty procedures and/or the malfunction or failure of ATC equipment or system;
    (iii) The certificate holder failed to perform the action plan stated in the certificate in the exact period of time if so stated; and
    (iv) Such actions still necessary in the interest of aviation safety.
  (2) When proposing a suspension, the ECAA will state the reasons for such action and furnish them to the certificate holder;
  (3) The certificate holder may appeal against such notice within 30-days or receipt;

(4) The appellant shall furnish to ECAA any documents, records, or other pertinent information supporting the appeal; and
(5) ECAA may confirm, modify or set aside the proposed suspension based on the appeal.

(c) Revocation of certificate this is a subsequent procedure to suspension.
(1) ECAA may permanently revoke an ATS unit certificates issue under this Part if:
(i) It is verified that the certificate holder will not be able termed non-compliant areas; or
(ii) The certificate holder stops providing the service concerned without a convincing argument.
(2) ECAA has decided for the interest of safety to terminate services provided at this aerodrome;
(3) The Ministerial Order issued for the certificate holder is revoked; and
(4) The revoked certificate cannot be renewed, it has to be reissued not less than one year after the revocation date.

(d) Provisional approval
(1) ECAA may, if it is considered in the interest of safety, grant an existing certificate holder a provisional approval to act as a substitute air traffic service provider in respect to a certificate that has been withdrawn suspended or revoked.
(2) The substituting provider shall follow the specified conditions and responsibilities stated in the certificate.

172.25 Trial operational testing

(a) The ECAA may, upon application in writing form the holder of an air traffic service certificate, approve subject to such conditions on that certificate as the ECAA considers necessary in the interests of aviation safety, the conduct of trials regarding:
(1) Separation minima;
(2) Standard phraseology; and
(3) Radar procedures.

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

(c) The ECAA may terminate a trial approved under this Part at any time.

172.27 Transfer of service

Each 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 the application, full details of transitional arrangements endorsed by the air traffic managers of both organizations.

172.29 Display of certificate

Each air traffic service unit certificate holder shall display the certificate in a prominent place. Generally, accessible to the public at the holder's principal place of business, if a copy of the approval is not displayed, then they shall produce the original approval to an ECAA inspector if so requested by such inspector.

172.31 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 those manuals relating solely to a particular location, need only be held at principal locations, and the unit concerned;
(b) Comply with all procedures and standards detailed in its exposition;
(c) Make each applicable part of its exposition available to personnel who require those parts to carry out their duties;
(d) Continue to meet the standards and comply with the requirements prescribed for certification under this Part; and
(e) Promptly notify the ECAA of any change of address for service, telephone number, e-mail or facsimile number.

Subpart B
Organization and Administration

172.33 Exposition

(a) An applicant for the grant of an air traffic service certificate shall provide the ECAA with an exposition containing:
  (1) A statement signed by the senior person who has the authority within the applicant's organization confirming that the exposition and any included manuals define the organization and demonstrate its means and methods for ensuring ongoing compliance with this and any other applicable Part.
  (2) An organizational chart defining the titles, names, duties and responsibilities of the senior person or persons, including matters for which they have responsibility to deal directly with the ECAA on behalf of the organization; showing lines of responsibility of the senior persons, and extending to each location listed under paragraph (a)(4);
  (3) Approved agreements and contracts with external agencies (e.g. military, meteorology,…) if it is necessary;
  (4) In the case of an organization providing air traffic services from more than one ATS unit, a table listing:
    (i) Locations of ATS units;
    (ii) The aerodrome or airspace being serviced; and
    (iii) The services provided;
  (4) Details of the applicant's staffing structure for each ATS unit; and
  (5) Details of the systems, policies, plans, procedures, and programs required in Subparts B, C, and D.

(b) The applicant's exposition must be acceptable to the ECAA.

172.35 Changes to certificate holder's organization

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

(b) The certificate holder shall ensure that any amendments made to the holder's exposition:
  (1) Meet the applicable requirements of this Part; and
  (2) Comply with the amendment procedures contained in the holder's exposition.

(c) The certificate holder shall provide the ECAA with a copy of each amendment to the holder's exposition as soon as practicable after its incorporation into the exposition.

(d) Where a certificate holder proposes to make a change to any of the following, prior notification to and acceptance by the ECAA is required:
  (1) The Air Traffic Manager; or
  (2) The listed senior persons; or
  (3) The air traffic services provided by the holder; or
  (4) Any aspect of ATM that may have an adverse impact on ATS provided by States responsible for adjacent airspace.

(e) ECAA may prescribe conditions under which a certificate holder may operate during or following any of the changes specified in paragraph (d); and

(f) A certificate holder shall comply with any conditions prescribed under paragraph (e);

(g) Where any of the changes referred to in this rule require an amendment to the certificate, the certificate holder shall forward the certificate to the ECAA as soon as practicable; and

(h) The certificate holder shall make such amendments to the holder's exposition, as the ECAA may consider necessary in the interests of aviation safety**.**

172.37 Documentation

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

(b)The applicant shall establish a procedure to control all the documentation required by paragraph (a). To ensure that:

(1) All documentation is reviewed and authorized by appropriate personnel before issue;

(2) Current issues of all relevant documentation are available to staff at all locations where they need access to such documentation for the services listed in their exposition;

(3) All obsolete documentation is promptly removed from all points of issue or use and retained as archives;

(4) Changes to documentation are reviewed and approved by appropriate and authorized personnel; and

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

172.39 Records

(a) Each applicant for the grant of an ATS certificate shall establish systems and procedures acceptable to the ECAA to identify, collect, index, file, store, secure, maintain, access, and dispose of records (either by its own capabilities or by an appropriately approved certificate holder (under ECAR Part 171) necessary for:

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

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

(b) When available, the applicant shall ensure the electronic recording of:

(1) All ATS radio and telephone communications;

(2) All high-frequency air-ground communications;

(3) All relevant data from primary and secondary radar equipment, or obtained through automatic dependent surveillance (ADS), 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.

(5) Provisions related to the non-disclosure of record- ings and transcripts of recordings from air traffic control units are contained in Annex 13, 5.12.

(c) The electronic records required by paragraph (b) shall:

(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).

(d) For the purposes of paragraph (c)(2) the term radar picture includes any visual presentation of aircraft position, however derived;
(e) The option provided by paragraph (c2)(ii) shall apply only to equipment in service on the date this part comes into force;
(f) All records, except where replication is required by paragraph (c)(2)(i), are of sufficient clarity to convey the required information; and
(g) Other records shall include:
  (1) Filed flight plans including standard and repetitive flight plans;
  (2) Flight progress strips;
  (3) Staff duty rosters;
  (4) Meteorological and aeronautical information; and
  (5) A record of each internal quality assurance review carried out and any necessary follow-up corrective and preventive actions
(h) Records referred to in paragraph (b & h) are retained for 30 days from the date of entry,
(i) Except in (g) where the MET and aeronautical information is retained for an equivalent period by a MET or AIS organization.

172.41 Logbooks and position logs

(a) Each applicant for the grant of an ATS certificate shall establish procedures acceptable to the ECAA to ensure that:
  (1) 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;
  (2) The logbook is maintained
    (i) By the senior person on duty, or the person on watch at a nominated operating position; and
    (ii) Throughout the hours of watch of the unit or operations room;
  (3) All entries include the time of entry in UTC
  (4) The person responsible for maintaining a logbook signs On Watch, and effects transfer of responsibility by successive On Watch entries;
  (5) Logbook entries are:
    (i) In chronological sequence and in ink;
    (ii) Without erasure, defacement, or obliteration; and
    (iii) Corrected by drawing a single line through the erroneous information and initialing the correction.
  (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 2 years from the date of final entry.
(b) Each 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); and
(c) The operating position log shall:
  (1) Contain sufficient information to identify:
    (i) When that position was in operation;
    (ii) The services being provided from that position; and
    (iii) The identity of the controller providing the service;
  (2) Is retained for a period of 30 days from the date of filing.

172.43 Reserved

172.45 Security

Each applicant for the grant of an air traffic service certificate shall prepare an ATS security procedures;

(a) ATS security procedures 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 aviation; and

(b) Without limiting the generality of paragraph (a), 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;

(2) To protect personnel on duty;

(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.

172.47 Coordination

(a) An applicant for the grant of an ATS certificate shall establish systems and procedures in accordance with EAC001 to ensure coordination between each ATS unit listed in the applicant's exposition and the following agencies:

(1) Aircraft operator:

(i) ATS units, in carrying out their objectives, shall have due regard for the requirements of the operators consequent on their obligations as specified in annex 6 in ECAR 121 .

(ii) When so requested by an operator, messages received by ATS units and relating to the operator of the aircraft shall be made available immediately to the operator in accordance with locally agreed procedures.

(2) Military authorities;

(i) ATS authorities shall establish and maintain close cooperation with military authorities responsible for activities that may affect flights of civil aircraft.

(ii) Arrangements shall be made to permit information relevant to the safe and expeditious conduct of flights of civil aircraft to be promptly exchanged between ATS units and appropriate military units (e.g. department of defense " DOD ").

(3) Organization or unit conducting activities potentially hazardous to civil aircraft: The arrangements for such activities (whether over the territory of the state or over the high seas) shall be coordinated and effected early enough with the appropriate ATS authorities to permit the initiation and timely promulgation of information regarding the activities in accordance with the provision of annex 15 ECAR part 173.

(4) Meteorological authorities: The arrangements shall be made To ensure that aircraft receive the most up-to-date meteorological information for aircraft operations, arrangements shall be made, where necessary, between meteorological and air traffic services authorities for air traffic Services personnel:

(i) in addition to using indicating instruments, to report, if observed by air traffic services personnel or communicated by aircraft, such other meteorological elements as may be agreed upon;

(ii) to report as soon as possible to the associated meteorological office meteorological phenomena of operational significance, if observed by air traffic services personnel or communicated by aircraft, which have not been included in the aerodrome meteorological report;

(iii) to report as soon as possible to the associated meteorological office pertinent information concerning pre-eruption volcanic activity, volcanic eruptions and information concerning volcanic ash cloud. In addition, area control centers and flight information centers shall report the information to the associated meteorological watch office and volcanic ash advisory centers (VAACs).

(5) Aeronautical information services (AIS) authorities; Arrangements shall be made between AIS and ATS authorities responsible for ATS to report to the responsible AIS unit with minimum delay information on aerodrome conditions, navigation aids (within their area of responsibility) and any other information considered to be of operational significance.

(6) The aerodrome operator

(7) The apron management service;

(8) Search and rescue center;

(9) Other related ATS units and sectors;

(10) The holder of the Telecommunications and radio Air Navigation facilities service of certificate issued under ECAR Part 171 and EAC 172-6 shall adopt procedures to ensure the notification of the information on the operational status of navigation aids to the appropraite air traffic services units. any and no changesin operation statue;

(11) Air Traffic services units shall adopt procedures with CNS to ensure receiving the information depends on regularly check and timely bases

(12) The holder of Aeronautical telecommunication service certificate issued under ECAR Part 174, and

(13) The holder of Aeronautical charts and instrument procedures certificate issued under ECAR Part 311.

(b) The applicant shall provide systems and procedures to facilitate communications between those ATS units having operational requirements to communicate with each other; and

(c) The applicant shall establish procedures to ensure that each ATS letter of agreement is kept current, details such matters are necessary, signed by senior representative and be part of the applicant operation manual.

(d) Electronic aeronautical data sets, shall be protected by the inclusion in the data sets of a 32- bit cyclic redundancy check (CRC) implemented by the application dealing with the data sets. This shall apply to the protection of all integrity levels of data sets as specified in Annex 11 item 2.19.2 .

Note 1: The requirement in 2.19.3 does not apply to the communications systems used for the transfer of data sets.

Note 2: Guidance material on the use of a 32-bit (CRC) algorithm to implement a protection of Electronic aeronautical data sets is contained in the Aeronautical Information Services Manual (DOC 8126) .

SUBPART C

Personnel and Facilities

172.49 Staffing and qualifications

(a) Each applicant for the grant of an air traffic service certificate shall engage, employ, or contract:
  (1) A senior person identified as the air traffic 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.
  (2) A senior person or persons who are responsible for ensuring that the applicant's organization complies with the requirements of this part and that such nominated person or persons shall be ultimately responsible to the air traffic 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.

(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, training and assessment for those services, listed in the applicant's exposition;
  (2) Provide those authorized personnel with written evidence of the scope of their authorization;
  (3) Ensure that those authorized personnel hold appropriate current licenses and ratings issued by ECAA;
  (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;
  (5) Ensure that holders of air traffic control ratings maintain currency by exercising the privileges of that rating within 6 months at the facility or at the operating position to which the rating applies; and
  (6) Ensure, where practicable, that an air traffic controller does 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.

172.51 Training

(a) Each applicant for the grant of an air traffic service certificate shall establish procedures acceptable to the ECAA and follow the approved training programs for air traffic controllers' as follows:
  (1) Qualification training: Each ATCS shall complete the qualification training and be certified to perform associated operational duties within the hours outlined in the facility-training directive.
  (2) Proficiency training: Proficiency training is required for operational personnel to maintain and upgrade the knowledge and skills necessary to apply air traffic procedure in a safe, orderly, and expeditions manner.
  (3) It is emphasized that proficiency training needs will differ from facility to facility and, therefore, should be tailored to meet identified requirements.
  (4) It is divided into three phases
    (i) Refresher training: Each facility shall establish in writing an annual approved refresher-training program for all operational personnel. Supervisors shall stress that the training described is for proficiency improvement, not performance evaluation.
    (ii) Supplemental training: Supplemental approved training is conducted when changes occur pertaining to new / revised procedures, regulations, or

equipment, operational personnel shall complete training prior to the utilization of such changes.

(iii) Remedial training: Remedial training is conducted to correct specific operational deficiencies emphasis shall be on the positive aspects of the training.

(b) An ATS training provided must have, and put into effect a training plan for the training relating to air traffic control.

(c) Personnel giving instructions in an operational working position shall hold appropriate current instructor authorization by the ECAA.
Note: This authorization will be endorsed for personnel who are qualified and have received an instructional technique approved training course (s) and are selected for a specified appointment in connection with training by the applicant.

(d) The applicant shall nominate the qualified personnel carrying out assessment, examiners and trainers to be authorized by the ECAA.

(e) Each of training types mentioned in (a) shall fulfill the training standards requirements listed in Egyptian Civil Aviation Training Standards Handbook (ECATSH).
Note: Human factor training must be taken in consideration in the above mentioned training in accordance with the human factors training standards included in the ECATSH.

(f) Trainers shall take the appropriate measures to ensure that student air traffic controllers do not constitute a hazard to air navigation.

(g) A student air traffic controller shall not be permitted to receive instruction in an operational environment unless that student air traffic controller holds a current Class 3 Medical Assessment.

172.53 Re-qualification requirements

Air traffic controller who has unsuccessfully failed to complete recurrent training competency or familiarization within the appropriate eligibility period or to re-establish an invalid rating shall comply with the following table:

Re-qualification requirements table

Position	From 3- 6 months	From 6-12 months			From12-24 months			More than24 months		
Non Radar	20 hours OJT	S	O	C	S	O	C	S	O	C
		10	20	10	10	25	10	30	50	10
Radar	20 hours OJT	S	O	C	S	O	C	S	O	C
		20	35	15	25	40	15	60	100	20

S … Simulator O … On Job Training C … Class

172.54 Facilities and equipments

Each applicant for the grant of an ATS certificate shall establish the following approved facilities that are appropriate to the ATS listed in the applicant's exposition:

(a) The ATC service: To accomplish objectives (1), (2) and (3) of 172.57(b), this service being divided in three parts as follow:
(1) Area control service (radar or non-radar): The provision of ATC service for controlled flights, in order to accomplish objectives (1) and (3) of 172.57(b);
(2) Approach control service (radar or non-radar): The provision of ATC service for those parts of controlled flights associated with arrival or departure, in order to accomplish objectives (1) and (3) of 172.57(b);
(3) Aerodrome control service: The provision of ATC service for aerodrome traffic, in order to accomplish objectives (1), (2) and (3) of 172.57(b).

(b) In addition to the main facilities mentioned in (a) dedicated training and assessment facilities shall de provided.

(c) Flight information centres shall be established to provide flight information service and alerting service within flight information regions, unless the responsibility of providing such services within a flight information region is assigned to an air traffic control unit having adequate facilities for the discharge of such responsibility,to accomplish objectve(4) of 172.57b)

Note.— This does not preclude delegating to other units the function of providing certain elements of the flight information service.

(d)The alerting service, to accomplish objective (5) of 172.57(b);

(e) Provision of ATC service: shall be provided by the various units as follow:

(1) Area control service:

(i) By an area control center; or

(ii) By the unit providing approach control service in a control zone or in a control area of limited extent which is designated primarily for the provision of approach control service and where no area control center is established.

(2) Approach control service:

(i) By an aerodrome control tower or area control center when it is necessary or desirable to combine under the responsibility of one unit the functions of the approach control service with those of the aerodrome control service or the area control service; or

(ii) By an approach control unit when it is necessary or desirable to establish a separate unit.

(3) Aerodrome control service:

(i) By an aerodrome control tower; or

(ii) Any mobile tower.

(f) Any aerodrome control tower, including any mobile tower, listed in the applicant's exposition, should fulfill the following specifications:

(1) Constructed and situated to provide:

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

(ii) Protection from glare, reflection and noise.

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

(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.

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

(i) Aircraft, in or adjacent to airspace for which the applicant has responsibility;

(ii) The ACC serving the adjacent area for which the aircraft shall be cleared into; and

(iii) Aircraft, vehicles, and persons, on, or adjacent to, the maneuvering area.

(5) Provided with the following minimum equipment:

(i) A display system 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) Logbook;

(vii) Outside temperature indicator;

(viii)QNH display where such value is measured by instrumented means;

(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;

(xii) Visibility and cloud height checkpoints;

(xiii)Voice and, where applicable, data recording equipment;

(xiv) Wind direction and speed display;
(xv) An audible alerting alarm;
(xvi) An AFTN terminal or, where provided for in an ATS letter of agreement, an alternative means of reception and transmission of information normally conveyed by AFTN;
(xvii) If applicable, airfield lighting controls panel; and
(xviii) Data-link and voice information system (DAVIS).

(g) The area control center, and approach control offices should be provided with:
(1) Equipment enabling:
(i) To the fullest extent practical, two-way voice communication; and
(ii) Where applicable, data communication with aircraft in, or adjacent to, airspace for which the applicant has responsibility; and
(2) 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) Logbook;
(vi) Status monitors as appropriate for navigation, approach, and landing aids;
(vii) Telephone communications;
(viii) Voice recording equipment and, where applicable, data recording equipment;
(ix) An AFTN terminal;
(x) For approach control operating positions, an ILS status monitor at the approach control or approach control radar operating position for the aerodrome concerned;
(xi) For approach control operating positions responsible for aircraft on final approach, or aircraft landing or taking-off, a wind direction and speed display and two independent sources of the current altimeter setting fed from the same source as the corresponding equipment in the aerodrome control tower; and
(xii) Data-link And Voice Information System (DAVIS)

(h) The aeronautical telecommunications equipment required by paragraphs (f) and (g) should be installed and maintained in accordance with the requirements of part 171;

(i) The visual display units used by air traffic services shall be positioned with due regard to the relative importance of the information displayed and ease of use by the staff concerned;

(j) The equipment required by paragraphs (f)(4) and (5), and (g)(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;

(k) The status monitors required by paragraph (f)(5)(xi) and paragraphs (g)(2)(vi) and (x) should be fitted with:
(1) An aural signal to indicate a change of status; and
(2) A visual indication of the current status.

SUBPART D
Operations

172.55 Operations manuals

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

(b) A holder certified 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;

(c) The operations manuals must be controlled documents and therefore the amendment process must similarly be controlled;

(d) Operation manual should include at least:
   (1) A statement setting out the air traffic services, and the related functions, that the provided processes to perform;
   (2) The proposed hours of operations of each service;
   (3) The airspace within which each service is to be provided;
   (4) The specific location or locations in case of distributed facility;
   (5) Organization structure including names, qualifications, experience and position of the principles;
   (6) Duties and responsibilities of supervising positions;
   (7) ATS functions and operational staff required;
   (8) Aeronautical charts including maneuvering area, runways, taxiways and parking positions.
   (9) Procedures to control service movement area;
   (10) Emergency plan;
   (11) Security program;
   (12) Operational instructions:
   (13) Separation methods;
   (14) Coordination procedures;
   (15) Phraseology; and
   (16) Records (logbooks, videotapes.) to be kept.

(e) The provider must amend the manual whenever it is necessary to do so to keep it up-to-date and forward these amendments printed to ECAA:
   (1) At least 15 working days in advance of their effective date; and
   (2) Amendments of an urgent or immediate nature, without delay, and no later than the date on which they are effective.

172.57 Responsibility for control

(a) Each applicant for the grant of an ATS certificate in respect of an ATC service shall establish procedures to ensure that:
   (1) Any controlled flight is under the control of only one ATC unit at any given time; and
   (2) Responsibility for the control of all aircraft operating within a given block of airspace is vested in a single unit. Control of an aircraft or groups of aircraft may be delegated to other unit provided that co-ordination between all affected unit is assured;

(b) The objectives of the ATS shall be to:
   (1) Prevent collisions between aircraft;
   (2) Prevent collisions between aircraft on the maneuvering area and obstructions on that area;
   (3) Expedite and maintain an orderly flow of air traffic;
   (4) Provide advice and information useful for the safe and efficient conduct of flights;
   (5) Notify appropriate organizations regarding aircraft in need of search and rescue aid, and assist such organizations as required.

172.59 Shift administration

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

(1) Work shift cycles should be devided into morning shift (6 to 8 hours), late shift (6 to 8 hours) and night shift (8 to 12 hours) based on having at least two consecutive days free per week to be taken after night shift.
(2) Consecutive night shifts are not recommended
(3) Shift systems should not include night work on the same day a morning shift ends
(4) with alternate shifts, there should be no more than three consecutive morning shifts per week.
(5) Adequate time is provided at the beginning and end of each shift, for the performance of those duties required before providing an air traffic service; and after ceasing to provide an air traffic service
(6) A minimum of 5 minutes is provided for each transfer of position responsibility at an ATS operational position.

b) ANSP may apply to ECAA to modify lemitations mentioned in 172.59.a and 172.81 with regard to the following:
(1) The amount, type and complexity of recent and anticipated traffic handled by the unit and position concerned;
(2) The published operational hours of the unit;
(3) The pattern of shifts in operation at the time of any shift involved;
(4) The qualifications and availability of support and supervisory staff;
(5) Exceptional temporary staffing problems;
(6) The equipment in use at the unit;
(7) Exceptional temporary equipment problems;
(8) The type of operating position at the unit;
(9) Factors which may compensate for, or benefits which may arise from, any Modification.

(c) Modification application shall be submitted to ECAA in a written form stating the reasons for modification. ECAA president may grant these modifications if they are rationally justified by ANSP, this grant is submitted to ANSP by ECAA in a written form.

172.61 Contingency plan

(a) ATS authorities shall develop and promulgate contingency plan for implementation in the event of disruption, potential disruption, interruption, or temporary withdrawal of an ATS and related supporting services in the airspace for which they are responsible for the provision of such services.

(b) Such contingency plan shall be developed with the assistance of:
(1) ICAO;
(2) ATS authorities in adjacent portions of airspace; and
(3) Airspace users concerned.

(c) Contingency plans may constitute a temporary deviation from the approved regional air navigation plans; such deviations are approved, as necessary, by the President of the ICAO Council on behalf of the Council.

(d) Time is essential in contingency planning if hazards to air navigation are to be reasonably prevented.

(e) For facilitating timely introduction of contingency arrangements. Such preparatory action should include:
1) Preparation of general contingency plans for introduction in respect of generally foreseeable events such as industrial action or labour unrest affecting the provision of air traffic services and/or supporting services. Inrecognition of the fact that the world aviation community is not party to such disputes, States providing services in airspace over the high seas or of undetermined sovereignty should take appropriate action to ensure that adequate air traffic

services will continue to be provided to international civil aviation operations in non-sovereign airspace. For the same reason, States providing air traffic services in their own airspace or, by delegation, in the airspace of(an)other State(s) should take appropriate action to ensure that adequate air traffic services will continue to be provided to international civil aviation operations concerned, which do not involve landing or take-off in the State(s) affected by industrial action;

2) Assessment of risk to civil air traffic due to military conflict or acts of unlawful interference with civil aviation as well as a review of the likelihood and possible consequences of natural disasters or public health emergencies. Preparatory action should include initial development of special contingency plans in respect of natural disasters,public health emergencies, military conflicts or acts of unlawful interference with civil aviation that are likely to affect the availability of airspace for civil aircraft operations and/or the provision of air traffic services and supporting services. It should be recognized that avoidance of particular portions of airspace on short notice will require special efforts by States responsible for adjacent portions of airspace and by international aircraft operators with regard to planning of alternative routings and services, and the air traffic services authorities of States should therefore, as far as practicable, Endeavour to anticipate the need for such alternative actions;

3) Monitoring of any developments that might lead to events requiring contingency arrangements to be developed and applied. States should consider designating persons/administrative units to undertake such monitoring and, when necessary, to initiate effective follow-up action; and

4) Designation/establishment of a central agency which, in the event of disruption of air traffic services and introduction of contingency arrangements, would be able to provide, 24 hours a day, up-to-date information on the situation and associated contingency measures until the system has returned to normal. A coordinating team should be designated within, or in association with, such a central agency for the purpose of coordinating activities during the disruption.

(f) ATC Contingencies is to prevent controller from communicating with aircraft under control, may be caused by a failure and intended as a general guide to air traffic services personnel, to see more information and for more detailed about ATC contingencies procedures and radio communication contingencies in EAC 172-6

172.63 General information requirements

Each applicant for the grant of an ATS certificate shall establish procedures acceptable to the ECAA to ensure:

(a) The immediate receipt of information concerning release of radioactive materials or toxic chemicals into the atmosphere, when this activity could affect airspace used by flights within the applicants' area of responsibility.

(b) Each ATS unit, as appropriate to the applicant's intended area of responsibility, shall be informed of the operational status of:
   (1) Non-visual navigation aids;
   (2) Visual aids essential for takeoff, departure, approach, and landing procedures; and
   (3) Visual and non-visual aids essential for surface movement.

(c) Aerodrome control unit, approach control unit, or aerodrome AIS unit shall be informed of operationally significant conditions on the movement area including the existence of temporary hazards and the operational status of any associated facilities at the aerodrome.

172.65 Notification of facility status

Each applicant for the grant of an ATS certificate shall establish procedures to notify users of its services of relevant operational information and of any changes in the operational status of each facility or service listed in the applicant's exposition;

(a) The procedures shall ensure that:
  (1) Operational information for each of the applicants ATS is forwarded to the holder of the aeronautical information service certificate issued under ECAR Part 173.151; and
  (2) The users of an air traffic service are notified without delay of any change in operational status of the facility or service that may affect the safety of air navigation, and, except where 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.

(b) Operational information for each of the applicant's air traffic services must give aeronautical information service details about the hours during which the service is available.

172.67 Meteorological information and reporting

Each applicant for the grant of an ATS certificate shall establish systems and procedures acceptable to the ECAA to ensure that:

(a) All meteorological information provided as part of any AIS is supplied by the Egyptian Meteorological Service organization;

(b) Air traffic services units shall be supplied with up-to-date information on existing and forecast meteorological conditions as necessary for the performance of their respective functions. The information shall be supplied in such a form as to require a minimum of interpretation on the part of air traffic services personnel and with a frequency which satisfies the requirements of the air traffic services units concerned.;

(c) Air traffic services units should be supplied with available detailed information on the location, vertical extent, direction and rate of movement of meteorological phenomena in the vicinity of the aerodrome, and particularly in the climb-out and approach areas, which could be hazardous to aircraft operations.

(d) 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;

(e) The information contained in a meteorological bulletin remains unchanged through onward transmission.

(f) Aircraft receive the most up-to-date MET information for aircraft operations, ATS personnel shall
  (1) In addition to using indicating instruments, to report, if observed or communicated by aircraft, such other MET elements as may be agreed upon; and
  (2) Report to the associated MET office meteorological phenomena of operational significance if observed or communicated by aircraft, which have not been included in the aerodrome-MET report.

(g) Where necessary for flight information purposes, current meteorological reports and forecasts shall be supplied to communication stations. A copy of such information shall be forwarded to the flight information centre or the area control centre

172.69 Specifications for Flight Information Regions, Control Areas and Control Zones

Each applicant for the grant of an air traffic service certificate

(a) shall comply with the airspace delineation, which covers the whole of the air route structure and shall comply with agreements made by ECAA in this regard, including control areas and zones. The delineation of airspace, wherein air traffic services are to be provided, should be related to the nature of the route structure and the need for efficient service rather than to national boundaries:
  (1) Agreements to permit the delineation of airspace lying across national

boundaries are advisable when such action will facilitate the provision of air traffic services

(2) Agreements which permit delineation of airspace boundaries by straight lines will, for example, be most convenient where data processing techniques are used by air traffic services units.

(3) Where delineation of airspace is made by reference to national boundaries there is a need for suitably sited transfer points to be mutually agreed upon.

(b) Control areas

(1) Control areas including, inter alia, airways and terminal control areas shall be delineated so as to encompass sufficient airspace to contain the flight paths of those IFR flights or portions thereof to which it is desired to provide the applicable parts of the air traffic control service, taking into account the capabilities of the navigation aids normally used in that area.

(2) A lower limit of a control area shall be established at a height above the ground or water of not less than 200 m (700 ft). This does not imply that the lower limit has to be established uniformly in a given control area (see Figure A-5 of the Air Traffic Services Planning Manual (Doc 9426), Part I, Section 2, Chapter 3).

(3) The lower limit of a control area should, when practicable and desirable in order to allow freedom of action for VFR flights below the control area, be established at a greater height than the minimum specified in b.

(4) When the lower limit of a control area is above 900 m (3 000 ft) MSL it should coincide with a VFR cruising level of the tables in Appendix3 to Annex2.Note.This implies that the selected VFR cruising level be such that expected local atmospheric pressure variations do not result in a lowering of this limit to a height of less than 200 m (700 ft) above ground or water.

(5) An upper limit of a control area shall be established when either

(i) air traffic control service will not be provided above such upper limit; or

(ii) the control area is situated below an upper control area, in which case the upper limit shall coincide with the lower limit of the upper control area.

(iii) When established, such upper limit shall coincide with a VFR cruising level of the tables in Appendix 3 to Annex 2.

(c) Control zones

(1) The lateral limits of control zones shall encompass at least those portions of the airspace, which are not within control areas, containing the paths of IFR flights arriving at and departing from aerodromes to be used under instrument meteorological conditions.Aircraft holding in the vicinity of aerodromes are considered as arriving aircraft.

(2) The lateral limits of a control zone shall extend to at least 9.3 km (5 NM) from the centre of the aerodrome or aerodromes concerned in the directions from which approaches may be made.Note.— A control zone may include two or more aerodromes situated close together.

(3) If a control zone is located within the lateral limits of a control area, it shall extend upwards from the surface of the earth to at least the lower limit of the control area.An upper limit higher than the lower limit of the overlying control area may be established when desired

(4) If a control zone is located outside of the lateral limits of a control area, an upper limit should be established.

(5) If it is desired to establish the upper limit of a control zone at a level higher than the lower limit of the control area established above it, or if the control zone is located outside of the lateral limits of a control area, its upper limit should be established at a level which can easily be identified by pilots. When this limit is above 900 m (3 000 ft) MSL it should coincide with a VFR cruising level of the tables in Appendix 3 to Annex

(d)This implies that, if used, the selected VFR cruising level be such that expected local atmospheric pressure vari- ations do not result in a lowering of this limit to a height of less than 200 m (700 ft) above ground or water.

172.71 Designation of the Portions of the Airspace and Controlled Aerodromes Where Air Traffic services will be provided

Each applicant for the grant of an air traffic services certificate shall establish procedures acceptable to the ECAA for the designation of airspace and controlled aerodromes:

(a) When it has been determined that air traffic services will be provided in particular portions of the airspace or at particular aerodromes, then those portions of the airspace or those aerodromes shall be designated in relation to the air traffic services that are to be provided.

(b) The designation of the particular portions of the airspace or the particular aerodromes shall be as follows:

(1) Flight information regions. Those portions of the airspace where it is determined that flight information service and alerting service will be provided shall be designated as flight information regions.

(2) Control areas and control zones

(i) Those portions of the airspace where it is determined that air traffic control service will be provided to IFR flights shall be designated as control areas or control zones.

Note – The distinction between control areas and control zones is made in 172.71

Those portions of controlled airspace wherein it is determined that air traffic control service will also be provided to VFR flight shall be designated as Classes B, C, or D airspace.

(ii) Where designated within a flight information region, control areas and control zones shall form part of that flight information region.

(iii) Controlled aerodromes. Those aerodromes where it is determined that air traffic control service will be provided to aerodrome traffic shall be designated as controlled aerodromes.

(c) Lateral and vertical limits of Egyptian FIR and Class of Airspace:

(1) Cairo FIR

*Northern border
34 00 00N 024 10 00E – 34 00 00N 027 10 00E – 33 30 00N 030 00 00E
*Eastern border
31 50 00N 033 59 00E _- 31 36 00N 034 30 00E then follow the International border to:
29 30 00N 034 55 00E – 29 30 00N 035 00 00E – 28 06 00N 034 35 00E to 22 00 00N 038 00 00E
*Southern border
22 00 00N 038 00 00E - 22 00 00N 025 00 00E
*Western border
22 00 00N 25 00 00E – 31 40 00N 025 10 00E – 34 00 00N 024 10 00E
UNL
GND

Class of Airspace:

A – Above FL 145
B – At or below FL 145

(2) Cairo TMA

A circle of 40NM radius centered CVO DVOR 300532N 0312318E andthose portions of the airways from CVO DVOR to a distance of 60NM.
Upper Limit: FL 245
Lower Limit:

1) 1000FT AGL FM CVO to a radius of 40NM
2) FL85 BTN 40NM till 60NM along airways

Class of Airspace:

A – Above FL145
B – At or below FL145

172.73Area and Approach Control Services

(a) Each applicant for the grant of an ATS certificate in respect of an area or approach control service shall establish systems and procedures acceptable to the ECAA to:

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

(2) Provide for the issue of ATC clearances, instructions, and information, according to the airspace classification and type of flight, for the purpose of preventing collisions between aircraft under the control of the unit, and expediting and maintaining a safe and efficient flow of traffic;
(3) Coordinate clearances, as necessary, with other ATC units; and
(4) Display, in a manner that permits ready analysis, information on aircraft movements, together with a record of clearances issued.

(b) Classification of airspace: ECAA had selected classes A, B and D of ATS airspace's, which are designated in accordance with the following:
(1) Class A: IFR flights only are permitted; all flights are provided with air traffic control service and are separated from each other;
(2) Class B: IFR and VFR flights are permitted, all flights are provided with air traffic control service and are separated from each other; and
(3) Class D. IFR and VFR flights are permitted and all flights are provided with air traffic control service, IFR flights are separated from other IFR flights and receive traffic information in respect of VFR flights, VFR flights receive traffic information in respect of all other flights.

(c) Application: ATC service shall be provided according to the following table:

Class	Type of	Separation Provided	Service provided	Speed limia tion	Radio communication requirement	Subject to an ATC clearance
A	IFR	All aircraft	Air traffic control service	Not appli cable	Continuous two-way	Yes
B	IFR	All aircraft	Air traffic control service	Not appli cable	Continuous two-way	Yes
	VFR	All aircraft	Air traffic control service	Not appli cable	Continuous two-way	Yes
D	IFR	IFR from IFR	ATC service, traffic information about VFR flights (and traffic avoidance advice on request)	250 kt IAS b 3 050 m (10 000 ft) AMSL	Continuous two-way	Yes
	VFR	Nil	IFR/VFR and VFR/VFR traffic information (and traffic avoidance advice on request)	250 kt IAS below 3 050 m (10 000 ft) AMSL	Continuous two-way	Yes

(d) Identification of air traffic services units and airspaces
(1) An area control centre or flight information centre should be identified by the name of a nearby town or city or geographic feature.
(2) An aerodrome control tower or approach control unit should be identified by the name of the aerodrome at which it is located.
(3) A control zone, control area or flight information region should be identified by the name of the unit having jurisdiction over such airspace.

172.75 Aerodrome control Service

(a) Each applicant for the grant of an ATS certificate in respect of an aerodrome control service shall establish systems and procedures acceptable to the ECAA regarding the following:
(1) Selection of runways;
(2) Wake turbulence hazards;
(3) Meteorological information;
(4) Essential local traffic;
(5) Abnormal aircraft conditions; and
(6) Aerodrome conditions including:
(i)Movement of persons;
(ii)Vehicles;
(iii)Towed aircraft;
(iv)Taxiing aircraft; and
(v)Status of navigational aids equipment.
(b) To be applied to separate and control traffic;
(c) To be followed in case of radio communication is not available by using light signals in accordance with ECAR Part 91.125;
(d) To be applied in low visibility; and
(e) To control the operations of aeronautical ground lights.

172.77 Operational priorities

Each applicant for the grant of an ATS certificate in respect of an ATC service shall establish procedures to ensure that:
(a) Providing safety is not jeopardized, ATC units shall apply the following priorities:
(1) An aircraft known or believed to be in a state of emergency or impaired operation (such as strayed aircraft, unlawful interference, unidentified aircraft, radio communication failure, aircraft malfunctioning or intercepted aircraft) has priority over all other aircraft and shall have the maximum consideration and assistance.
(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 taxiing aircraft.
(b) Where practical, following a request from the pilot, an aircraft involved in, or positioning for, the following activities is granted priority:
(1) Ambulance or mercy missions;
(2) Search and rescue;
(3) Civil defense or police emergencies; and
(4) Carrying head-of-state, heads-of-government, or equivalent dignitaries.
(c) Aircraft at a cruising level shall normally have priority over other aircraft requesting that level;
(d) Regarding priorities to be applied in airspace designated as RNP airspace;
(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) Where priorities are established under paragraphs (d) or (e), relevant information, including details regarding the handling of complaints, is published in ECAA AIP;
(g) 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 that aerodrome; and
(2) Other operations in any control zone associated with that aerodrome.

(h) 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) Give priority to emergency vehicles proceeding to the assistance of an aircraft in distress over all other surface movement traffic;

(j) Ensure that vehicles on the maneuvering area are complied with the following rules:
(1)Vehicles and vehicles towing aircraft shall give way to aircraft, which are landing, taking off or taxiing;
(2)Vehicles shall give way to other vehicles towing aircraft;
(3)Vehicles shall give way to other vehicles in accordance with ATS unit instructions; and

(k) Notwithstanding the provisions of 1), 2) and 3), vehicles and vehicles towing aircraft shall comply with instructions issued by the aerodrome control tower.

(l) Ensure that the provision of an ATC service takes precedence:
(1) Over the provision of a FIS whenever the situation so requires; and
(2) Over the provision of any other non-ATS tasks.

172.79 ATS System Capacity and Flow Management

a) Each applicant for the grant of an ATS certificate in respect of an ATC service shall conduct as a step towards ATS system capacity estimation:

1. Airspace Sector capacity assessment acceptable to ECAA. capacity measurements and calculation methodologies should be in accordance with ICAO SARPs:

- ICAO documents
- Procedures for Air Navigation Services — Air Traffic Management (PANS-ATM, Doc 4444)
- Global Air Traffic Management Operational Concept (Doc 9854)
- Manual on Air Traffic Management System Requirements (Doc 9882)
- Manual on Global Performance of the Air Navigation System (Doc 9883)
- Manual on Flight and Flow — Information for a Collaborative Environment (Doc 9965)
- Civil/Military Cooperation in Air Traffic Management (Cir 330)

Note.- ICAO Doc. 9971 appendix D provides methodology accepted by ECAA for (determining sector capacity.

(i) Sector capacity should be calculated by counting traffic per 1 hour for 12 hours from 08:00 am till 08:00pm CLT (most congested period within Cairo FIR),This process should be repeated for 1 week. These calculations should be presented in ECAA sector capacity template. (see fig. 01)

(ii)Sector capacity calculation results should undergo assessment through real implementation for a period of 6 months to ensure that these results are fitted with controllers' workload and training.

(iii) The ANSP should submit to ECAA a post implementation report after the assessment period (6 months) in order to grant ECAA approval of the final declared capacity.

2. Policies and procedures acceptable for ECAA regarding man power planning and it is essential to ensure that there is always trained staff available to meet the demands of the service.

Future manpower requirements shall be planned for at least 5 years in advance based on comprehensive assessment of the duties to be performed.

Note.- ICAO Doc. 9426 provides an example of a semplified methodology for determining personnel requirements .

b) Each applicant for the grant of an ATS certificate in respect of an ATC service shall establish flow control procedures acceptable to the ECAA, and air traffic flow management (ATFM) shall be implemented for airspace where air traffic demand at

times exceeds, or is expected to exceed, the declared capacity of the air traffic control services concerned.

1. ATFM should be implemented on the basis of regional air navigation agreements or, if appropriate, through multilateral agreements. Such agreements should make provision for common procedures and common methods of capacity determination; and
2. When it becomes apparent to an ATC unit that traffic additional to that already accepted cannot be accommodated within a given period of time at a particular location or in a particular area, or can only be accommodated at a given rate, that unit shall so advise the ATFM unit, when such is established, as well as, when appropriate, ATS units concerned. Flight crews of aircraft destined to the location or area in question and operators concerned shall also be advised of the delays expected or the restrictions that will be applied.

Note.- *Operators concerned will normally be advised, in advance where possible, of restrictions imposed by the air traffic flow management unit*.

3. Each applicant for the grant of an ATS certificate in respect of an ATC service shall establish procedures acceptable to the ECAA regarding the following three phases of ATFM:
   i. (i) Strategic Planning;
   ii. (ii) Pre-tactical planning; and
   iii. (iii) Tactical Operations.

Ministry of civil aviation
Egyptian Civil Aviation Authority ECAA
Central Administration For Air Navigation Safety and Standards

Subject: Sector Capacity calculation template	ANSP concerned:
Date:	Remarks:

Time	Total flight time	Total Aircraft no.	Average flight time per hour
0800- 0859			
0900- 0959			
1000- 1059			
1100- 1159			
1200- 1259			
1300-1359			
1400-1459			
1500- 1559			
1600- 1659			
1700- 1759			
1800- 1859			
1900- 2000			

Note: time is representing Egyptian local time.
Name:
Title:
Signature:

Fig 01 : ECAA sector capacity template

172.81 ATC Clearances

Each applicant for the grant of an air traffic service certificate shall establish systems and procedures for the provision of ATC clearance.

(a) The procedures shall ensure that:
  (1) An ATC clearance shall be based on the requirements for providing the air traffic control services;
  (2) An ATC clearance indicates:
    (i) An aircraft clearance limit;
    (ii) Identification;
    (iii) Route of flight;
    (iv) Level(s) of flight; and
    (v) Any necessary instructions or information on other matters such as approach or departure maneuvers, communications and the clearance expiry time (CE).
  (3) ATC clearance relating to the transonic acceleration phase of a supersonic flight shall extend at least to the end of that phase;
  (4) The ATC clearance relating to the deceleration and descent of an aircraft for supersonic cruise to supersonic flight should provide for uninterrupted descent, at least during the transonic phase;
  (5) Read back of the following items are made by the flight crew:
    (i) ATC route clearance;
    (ii) Clearance and instructions to enter, land on, take off on, hold short of, cross and back track on any runway; and
    (iii) Runway-in-use, altimeter settings, SSR codes, level instructions, heading and speed instructions and whether issued by the controller or contained in ATIS board cast transition levels.
  (6) Other clearances or instructions, including conditional clearances, is read back or acknowledged in a manner to clearly indicate that they have been understood and will be complied with;
  (7) The controller must listen to the read-back to ascertain that the clearance or instructions have been correctly acknowledged by the flight crew and shall take immediate action to correct any discrepancies revealed by the read-back;
  (8) Voice read-back of CPDLC messages is not required;
  (9) An ATC clearance shall be:
    (i) Coordinated between ATC units to cover:
      (A) The entire route of an aircraft to the aerodrome of first intended landing; or
      (B) A specified portion through of, when the previous coordination has not been achieved or is not anticipated, the aircraft shall be cleared only to that point where coordination is reasonably assured, prior to, or at which the aircraft shall receive further clearance, holding instructions being issued as appropriate.
    (ii) When an aircraft intends to depart from an aerodrome within a control area:
      (A) To enter another control area within a period of 30 minutes, or such other specific period of time as has been agreed between the ACC (s) concerned, coordination with the subsequent ACC shall be effected prior to issuance of the departure clearance; or
      (B) For flight outside controlled airspace, and will subsequently reenter the same or another control area, a clearance from point of departure to the aerodrome of first intended landing may be issued.
        (I) A clearance issued as a down-stream clearance is clearly identified as such to the pilot. Down stream clearance does not affect the aircraft's original flight profile.
        (II) Aircraft shall maintain the necessary two-way-communications with the current ATC unit whilst obtaining a downstream clearance.
        (III) An ATC clearance shall be obtained prior to operating a controlled flight.

(b) Deviation from an ATC clearance:
  (1) The applicant shall establish procedures acceptable to the ECAA to ensure that ATC instructions issued to restore any loss of separation do not hinder the responses of a pilot to:
    (i) TCAS or GPWS alerts; or
    (ii) Weather, or other emergency situations, necessitating a deviation from an ATC clearance.
  (2) The procedures required by paragraph (1) shall ensure that, once the emergency situation has been resolved, if any separation has been lost is restored.

172.83 Determination of the need and operation of air traffic control service

Each applicant for the grant of an ATS certificate shall fulfill the following:

(a) The need for the provision of air traffic services shall be determined by consideration of the following:
  (1) The types of air traffic involved;
  (2) The density of air traffic;
  (3) The meteorological conditions; and
  (4) Such other factors as may be relevant.

  Note. — Due to the number of elements involved, it has not been possible to develop specific data to determine the need for air traffic services in a given area or at a given location.

(b) In order to provide ATC service, an ATC unit shall:
  (1) Be provided with information on the intended movement of each aircraft, or variations they're from, and with current information on the actual progress of each aircraft;
  (2) Determine from the information received, the relative positions of known aircraft to each other;
  (3) Issue clearances and information for the purpose of preventing collision between aircraft under its control and of expediting and maintaining an orderly flow of traffic;
  (4) Coordinate clearances as necessary with other units:
    (i) Whenever an aircraft might otherwise conflict with traffic operated under the control of such other units;
    (ii) Before transferring control of an aircraft to such other units.

(c) Information on aircraft movements, together with a record of air traffic control clearances issued to such aircraft, shall be so displayed as to permit ready analysis in order to maintain an efficient flow of air traffic with adequate separation between aircraft;

(d) Clearances issued by air traffic control units shall provide separation:
  (1) Between all flights in airspace Classes A and B;
  (2) Between IFR flights in airspace Class D;
  (3) Between IFR flights and special VFR flights; and
  (4) Between special VFR flights when so prescribed by the ECAA, except that, when requested by an aircraft and if so prescribed in cases listed under b) above in airspace Classes D, a flight may be cleared without separation being so provided in respect of a specific portion of the flight conducted in visual meteorological conditions.

172.85 Control of persons and vehicles at aerodromes

Each applicant for the grant of an air traffic service certificate, in respect of an aerodrome control service, shall establish procedures acceptable to the ECAA to:

(a) Control the movement of persons or vehicles including towed aircraft on the maneuvering area of an aerodrome;

(b) In case of low visibility:
  (1) Restrict the operations of persons and vehicles on the maneuvering area of an aerodrome to the essential minimum; and
  (2) Ensure separation between vehicles and taxiing aircraft.

(c) Ensure those persons and vehicles authorized to operate on the maneuvering area have two-way communication with the aerodrome control tower.

(d) To ensure the safety on the manuvering area all Persons or vichels operating or intend to operate on the maneuvering area shall read back all the instruction given by an aerodrome cotrol tower for taking the permission to enter, cross or to hold short the runway in a clear phersology with an aerodrome control tower

(e) The aerodrome air traffic contoller after giving the permession to Persons or vichels operating or intend to operate on the maneuvering area he shall ensure clear listiening to the read back for taking an immediate action in case of any wrong information

172.87 Separation minima

a) Each applicant for the grant of an air traffic service certificate in respect of air traffic control service shall establish procedures acceptable to the ECAA **as mentioned in EAC 172-2** for achieving separation by an air traffic control unit using the separation minima selected from those prescribed by the provisions of the PANS-ATM and the Regional Supplementary Procedures as applicable under the prevailing circumstances except that, where types of aids are used or circumstances prevail which are not covered by current ICAO provisions, other separation minima shall be established as necessary by:
   (1) the appropriate ATS authority, following consultation with operators, for routes or portions of routes contained within the sovereign airspace of a State;
   (2) regional air navigation agreements for routes or portions of routes contained within airspace over the high seas or over areas of undetermined sovereignty

b) Details of the selected separation minima and of their areas of application shall be notified:
   (1) To the ATS units concerned; and
   (2) To pilots and operators through aeronautical information publications where separation is based on the use by aircraft of specified navigation aids or specified navigation techniques.

172.89 Fatigue Risk Management System (FRMS)

(a) Each applicant for the grant of an air traffic service certificate shall establish policy and procedures acceptable to ECAA to ensure that air traffic controllers are not subjected to fatigue by ensuring that:
   1) The safety objectives of the FRMS responsibility of management, air traffic controllers, and other involved personnel;
   2) The Management commitment to effective safety reporting and the provision of adequate resources for the FRMS
   3) The current FRMS documentation and records of FRMS policy and procedures are kept.
   4) FRMS training programmers, training requirements and attendance records are kept;
   5) Fatigue risk management processes are conducted by Identifying of fatigue-related hazards within current air traffic services operations. the process may be triggered by (fatigue reports; self-reporting of fatigue risks and fatigue surveys;etc..).

   Guidance on the development and implementation of fatigue management regulations is contained in ICAO annex 11 and the manual for the Oversight of Fatigue Management Approaches (Doc 9966).

(b) Air Traffic Controller Duty Hours And Staffing:

Each applicant for the grant of an air traffic service certificate shall establish procedures acceptable to the ECAA to ensure that air traffic controllers are not subject to

fatigue by ensuring that operational working hours and working environment are subject to the following limitations:

1- The duty hours for air traffic controllers shall be limited to ensure so far as is reasonably possible, that controller fatigue does not impair operational safety.

2- An air traffic controller duty hour log shall be maintained at each ATC operational position. Controllers are responsible for ensuring that the entries made in the duty hour log are complete and accurate.

3- Duty Hour Requirements And Working hours limitations shall include the following:

(i) No period of duty shall exceed ten (10) hours in high density of traffic and it may increase to (12) in low density of traffic,

(ii) There shall be interval of not less than (12) hours btween the conclusion of one period of duty and the commmencement of the next Period of Duty . This interval may be reduced by up to 20 minutes solely for the purpose of orderly shift handover,

(iii) ATC Operational Duties shall not normally exceed 2,½ hours, during any 3 hour period consisting of ATC Operationl Duties there shall normally be at least one break not less than 30 minutes duration,

(iv) The ATC Service provider shall maintain an adequate staff of air traffic controllers to provide the type(s) of air traffic control service approved by EACC and during the period(s) promulgated in the AIP,

(v) The ATC Service provider shall satisfy the Authority that the unit maintains sufficient qualified controllers to provide safe air traffic control services.Consideration will be given to the regullarity of the air traffic control service in determining whether a service is safe,

(vi) The numbrer of operational positions, period of operation and limitation of duty hours dictates the minimum number of validated controllers required at a unit.

4- Working environment:

(i) The workplace should offer safety and comfort, as well as protection against weather conditions.

(ii) ATC unit located within an airport requires extensive sound insulation so that noise does not impair the intelligibility of speech.

(iii) The design of the controller’s physical work environment should be as optimum as possible in terms of decoration, lighting, temperature, noise level, visual display, and other requirements according to ICAO Circular 241-an/145.

(iv) The approaches to the workspace and the workspace itself should employ sound absorbing materials for the walls and ceilings, and have carpeted floors, to minimize disturbance to the work by those entering or leaving the workspace.

(v) Tower controllers concerned with aircraft departing or on final approach must be able to see the runways and the aircraft for which they are responsible; this requirement applies to both directions of every runway. A controller’s view must not be impeded by other controllers, by equipment within the tower, by stanchions or other features of the tower structure, or by airport buildings.

(vi) The design of the building housing the ATC workplace should be properly planned from the beginning to meet all system requirements as well as the controllers’ obvious needs.

(vii) The layout of the control rooms and booths should be designed to accommodate all the working staff and possible visitors, with sufficient room to avoid causing distraction and nuisance to controllers.

(viii) Work consoles and boards should be laid out to provide for maximum flight monitoring capacity so as to facilitate access to and the expediting of information, as well as the controllers' ease in getting around without bothering adjacent colleagues.

(ix) Air traffic control units should be provided with well-equipped rest areas in order to reduce the presence of stress-provoking agents. (It is important for these rest areas to be located outside the control units.)

(x) Parking, canteens, rest rooms, toilets should be near the workspaces so that rest breaks do not have to be lengthened significantly to include time to use these amenities.

(xi) In addition to the necessary operational areas, a briefing room and a locker room should also be available.

172.91 Alerting service

Each applicant for the grant of an air traffic service certificate shall establish systems and procedures acceptable to the ECAA to ensure that:

(a) The provision of an alerting service within its areas of responsibility:
  (1) For all aircraft provided with air traffic control service;
  (2) To all other aircraft having filed a flight plan or otherwise known to the air traffic services; and
  (3) To any aircraft known or believed to be subject to unlawful interference.

(b) In the event of a state of emergency described in paragraph (e):
  (1) Immediate declaration of an INCERFA, ALERFA, or DETRESFA is made, in accordance with paragraph (e); and
  (2) The declaration is notified to the ACC responsible, except where the emergency can be dealt with by local emergency organizations.

(c) In the event of a state of emergency, an ACC:
  (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 (b)(1), forwards such information without delay to the RCC.

(d) Notwithstanding paragraph (b), an aerodrome control tower or approach control unit, shall establish procedures to ensure that:
  (1) Whenever the urgency of the situation so requires, those services shall first alert appropriate local emergency organizations
  (2) Immediate notification of the emergency situation shall be made to the FIC or ACC responsible, which shall in turn notify the RCC.

(e) The declaration required by paragraph (b) 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 aircraft within a period of 30 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 earlier; or when;
    (ii) An aircraft fails to arrive within 30 minutes of the estimated time of arrival last notified to, or estimated to, ATS units, whichever is the later; or
    (iii) A VFR aircraft on a flight plan fails to arrive at a destination within a control zone, within 30 minutes of the estimated time of arrival last notified to, or estimated by, ATS, whichever is the later; or
    (iv) A VFR aircraft on a flight plan fails to arrive at its final destination within 30 minutes of the estimated time of arrival last notified to ATS, or estimated by ATS, whichever is the later; or
    (v) A pilot fails to report at the nominated SARTIME and immediate checks have failed to locate the aircraft:

(vi) Except when no doubt exists as to the safety of the aircraft and its occupants.

(2) ALERFA when:

(i) 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

(ii) 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

(iii) 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; or

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

(v) Except when evidence exists that would allay apprehension as to the safety of the aircraft and its occupants.

(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;

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

(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:

(A) 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.

(f) The notification of an emergency situation required by paragraph (b)(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 frequency used;

(6) Last position report and how determined;

(7) Colour and distinctive marks of aircraft;

(8) Dangerous goods carried as a cargo;

(9) Any action taken by the reporting office; and

(10) Other pertinent remarks.

(g) 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.

(h) As necessary, use all available means to establish and maintain communication with, and surveillance of, an aircraft in a state of emergency;

(i) When a state of emergency is considered to exist, the last known position of any aircraft involved is established and recorded;

(j) Area control service shall establish procedures to ensure that:

(1) When an ACC 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 shall, where practical, also be communicated without delay to the aircraft operator.

(k) In communication between ATS units and aircraft in the event of an emergency, human factors principles should be observed.

(l) When it has been established by an ATS unit that an aircraft is in a state of emergency, other aircraft known to be in the vicinity of the aircraft involved shall be informed of the nature of the emergency as soon as practicable, except when an air traffic services unit knows or believes that an aircraft is being subjected to unlawful interference, no reference shall be made in ATS air-ground

communications to the nature of the emergency unless it has first been referred to in communications from the aircraft involved and it is certain that such reference will not aggravate the situation .

172.93 Flight plan

Each applicant for the grant of an ATS certificate shall establish procedures acceptable to the ECAA for the acceptance and action of flight plan in accordance with ECAR 173.201, Appendix 5 and procedures for coordination with AIS certificate holder, if any.

172.95 Deviation from flight plan

Each applicant for the grant of an air traffic service certificate shall establish procedure for the following cases:

(a) Aircraft deviation from its flight plan;
(b) Emergency;
(c) Deviation due to response to a traffic alert; and
(d) Collision avoidance system resolution advisory.

172.97 Altimeter setting

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

(a) Current QNH altimeter settings are in hectopascals rounded down to the nearest whole hectopascal;
(b) The appropriate aerodrome or area QNH setting is provided to all aircraft on initial radio contact, including aircraft that advise having received the current applicable ATIS broadcast; and
(c) ATS units provide to an aircraft, on request, the current applicable aerodrome or area QNH altimeter setting.

172.99 Language proficiency

(a) An air traffic services provider shall ensure that air traffic controllers:
  (1) Speak and understand the language (s) used for radiotelephone communications as specified in annex 1.
  (2) Comply with standards phraseology necessary for the provision of an ATS or that otherwise contribute to safety.
(b) Except when communications between ATC units are conducted in a mutually agreed language, the English language shall be used for such communications.

172.101 Radar service

Each applicant for the grant of an air traffic service certificate shall establish procedures and systems acceptable to the ECAA to ensure that, where radar is used, to support the provision of an air traffic control service. Radar services are provided in accordance with:

(a) Standards procedures;
(b) SSR codes allocation within Egyptian FIR;
(c) Separation regarding radar and non-radar. Refer to EAC 172-2;
(d) Requirements for carriage and operation of pressure altitude reporting transponder with defined portions of airspace;
(e) Radar systems should provide for the display of safety-related alerts and warnings, including conflict alert, conflict prediction, minimum safe altitude warning and unintentionally duplicated SSR codes; and
(f) Comply with the following SSR code table:

Code Family	Label	Allocation	SSR Codes
23	DE	International DEP	2301-2337
27			2701-2737
23	OV	International Over-flights	2340-2377
27			2740-2777
20	AR	INTL ARR from ATHENS FIR	2001-2077
40	AR	INTL ARR from TRIPOLI FIR	4001-4077

56	AR	INTL ARR from NICOSIA FIR	5601-5677
66	AR	INTL ARR from KHARTOUM FIR	6601-6677
07	AR	INTL ARR from AMMAN FIR	0701-0777
64	AR	INTL ARR from TEL AVIV FIR	6401-6477
31	AR	INTL ARR from JEDDAH FIR	3101-3177
35			
61	AR	INTL ARR from JEDDAH FIR	6101-6177
44	NT	CAIRO Domestic DEP	4401-4477
16	NT	CAIRO Domestic ARR	1601-1677
33	NT	Domestic flights other than CAIRO	3301-3377
47	NT	Hurghada Domestic DEP	4741-4777
14	NT	Luxor Domestic DEP	1421-1477
47	NT	Sharm El Sheikh Domestic DEP	4701-4737
20(00)		Aircraft entering CAIRO with SSR code	
70(00)		Instructions uncontrolled flights	
75(00)	HIJ	Hi Jacking	
76(00)	RCF	Radio Communication Failure	
77(00)	EMG	Emergency	

172.103 Human factor considerations

Each applicant for the grant of Air Traffic Service certificate shall take into consideration human factor principles that apply to aeronautical design, certificate, training, operations and maintenance and which seek safe interface between the human and other system components by proper consideration to human performance to facilitate the optimum utilization of aeronautical design, contents, processing and distribution of aeronautical information/data.

172.105 Action after serious incident or accident

Each applicant for the grant of an air traffic service certificate shall establish procedures acceptable to the ECAA 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) Advice the operator of the facility of the occurrence, and that the facility may be implicated.
(c) Assist the operator of the facility with the prompt promulgation of any decision to withdraw the equipment from service;
(d) Impound and preserve all relevant documents, tapes and other records that may be of interest to investigation teams; and
(e) Collect statements by personnel involved.

172.107 Reporting incidents and accidents

Each applicant for the grant of an air traffic service certificate shall establish forms and procedures acceptable to the ECAA for recording and reporting incidents and accidents and forwarding of incident and accident information to the accident/incident investigation department according to what is mentioned in ECAR Part 801.

172.109 Reporting service disruptions

(a) Each applicant for the grant of an air traffic service certificate shall establish procedures acceptable to the ECAA to:
  (1) Advise the ECAA of any planned disruption to the provision of air traffic services that could have an impact on safety;
  (2) Report to the ECAA, the occurrences in accordance with Part 39 subpart (B), including the circumstances surrounding any unplanned disruption to air traffic services when the disruption affected, or could have affected, the safety of air traffic;
  (3) Forward to the applicable aeronautical telecommunications holder any service disruptions affecting, or having the potential to affect, the safe and expeditious operation of flight; and
  (4) Investigate any unplanned disruption to the provision air traffic services.

(b) Disruptions reportable under paragraph (a) shall include, but are not limited to, any:
  (1) Failure to open watch within 15 minutes of the established opening time;
  (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 established off watch time.

172.111 Reporting deviations and / or violations

(a) Each applicant shall establish a policy encouraging the reporting of any deviations or violations (according to ECAR part 39 subpart B) or practices observed by ATC personnel not affecting safety and not intentionally made and not repetitive on a voluntary basis;

(b) Conditions reportable under paragraph (a) may include, but are not limited to:
  (1) Persistent read back errors;
  (2) Persistent failures to read back;
  (3) Misinterpretation of ATC instructions;
  (4) Failure to comply with ATC instructions;
  (5) Significant altitude or airway deviations; and
  (6) Procedural errors or inconsistencies that may affect the safety of flight operations.

172.113 Occurrences reporting

Beside the occurrences mentioned in 172.111 and 172.113 each holder of air traffic service certificate shall report the occurrences existing in Part 39 subpart (B) to the ECAA.

172.115 Compliance with the rules of the air

Each applicant for the grant of an air traffic service certificate shall establish a procedure acceptable to the ECAA to comply with the rules of the air:

(a) The operation of an aircraft either in flight or on the movement area of an aerodrome shall be in compliance with the general rules and, in addition, when in flight, either with:
  (1) The visual flight rules, or
  (2) The instrument flight rules.

(b) Information relevant to the services provided to aircraft operating in accordance with both visual flight rules and instrument flight rules in the Egyptian airspace classes is contained in 172.75(b).

(c) Each applicant for the grant of an air traffic service certificate shall establish procedures acceptable to the ECAA to ensure that no person shall act as an air traffic controller under the influence of any psychoactive substance by reason of which human performance is impaired, no such person shall engage in any kind of problematic use of substance.

172.117 Protection of persons and property

Each applicant for the grant of an air traffic service certificate shall establish a procedure acceptable to the ECAA to protect persons and properties:

(a) Dropping or spraying: Nothing shall be dropped or sprayed from an aircraft in flight except under conditions prescribed by the ECAA and as indicated by relevant information, advice and/or clearance from the appropriate air traffic service unit.

(b) Towing: No aircraft or other object shall be towed by an aircraft, except in accordance with requirements prescribed by the ECAA and as indicated by relevant information, advice and/or clearance from the appropriate air traffic services unit.

(c) Parachute descents: Parachute descents, other than emergency descents, shall not be made except under conditions prescribed by the ECAA and as indicated by relevant information, advice and/or clearance from the appropriate air traffic services unit.

(d) Acrobatic flights: No aircraft shall be flown acrobatically except under conditions prescribed by the ECAA and as indicated by relevant information, advice and/or clearance from the appropriate air traffic services unit.

(e) Formation flights: Aircraft shall not be flown in formation except by pre-arrangement among the pilots-in-command of the aircraft taking part in the flight

and, for formation flight in controlled airspace, in accordance with the conditions prescribed by the appropriate ATS authority. These conditions shall include the following:

(1) The formation operates as a single aircraft with regard to navigation and position reporting;

(2) Separation between aircraft in the flight shall be the responsibility of the flight leader and the pilots-in-command of the other aircraft in the flight and shall include periods of transition when aircraft are maneuvering to attain their own separation within the formation and during join-up and break-away; and

(3) A distance not exceeding 1 km (0.5 NM) laterally and longitudinally and 30-m (100 ft) vertically from the flight leader shall be maintained by each aircraft.

(f) Unmanned free balloons Information on an unmanned free balloon shall be broadcast in such a manner as to minimize hazards to other aircraft.

(g) Prohibited, dangerous and restricted areas: Aircraft shall not be permitted to fly in a prohibited, dangerous or restricted area, the particulars of which are mentioned in ECAR Part 173 Appendix 1, and have been duly published in Egyptian AIP, except in accordance with the conditions of the restrictions or by permission of the appropriate Egyptian Authority having jurisdiction over these areas.

172.119 Transfer of responsibility

Each applicant for the grant of an air traffic service certificate shall establish a procedure acceptable to the ECAA for transfer of responsibility, the procedures required shall include the following:

(a) Letter of agreement:

(1) Transfer of arrangements;

(2) Place or time of transfer;

(3) To be agreed between the ATC units or with the adjacent FIRs by delegation from ECAA; and

(4) Should be published in operation manuals.

(b) An aircraft shall not be transferred from an ATC unit to another without:

(1) Communications with appropriate ATC unit in accordance with current flight plan;

(2) Any relevant control information; and

(3) The consent of the accepting unit.

172.121 Operation on and in the vicinity of an aerodrome

Each applicant for the grant of an air traffic service certificate shall establish procedure acceptable to the ECAA for an aircraft operation on and in the vicinity of an aerodrome so that:

(a) An aircraft shall not be permitted to operate in such proximity to other aircraft as to create a collision hazard;

(b) An aircraft shall not be permitted to fly over congested area settlements unless at or above the minimum height assigned for that area.

172.123 Position reports

Each applicant for the grant of an air traffic service certificate shall establish procedures for controlled flights acceptable to the ECAA to determine:

(a) The designated compulsory reporting points;

(b) Position reports; and

(c) Any additional points.

Note: In the absence of designated reporting points, position reports shall be made at intervals.

172.125 Instrument flights

(a) Each applicant for the grant of an air traffic service certificate shall establish procedure acceptable to the ECAA regarding IFR flights within controlled airspace:

(1) To comply with the provisions of 172.83 when operated in controlled airspace;

(2) To clear an IFR flight operating in cruising flight at one cruising level or, if authorized to employ cruise climb techniques between two levels or above a

level selected from the table of IFR cruising levels indicated in ECAR Part 91.179;

(3) Except as indicated in ATC clearance according to the ATS providers or as specified by the ECAA and mentioned in the AIP.

(b) For more details about other requirements of instrument flights refer to ECAR Part 91.162 through 91.193.

172.127 Visual Flight Rules

(a) Each applicant for the grant of an air traffic service certificate shall establish procedures acceptable to the ECAA for safe operations of VFR with respect of air space classifications;

(b) VFR flights shall be operated in accordance with the conditions prescribed in ECAR Part 91.156, 91.157 and 91.159;

(c) VFR flights shall comply with the provisions of ECAR Part 172.83:

(1) When operated, within classes B and D air space;

(2) When forming part of aerodrome traffic at controlled aerodromes, and

(3) When operated as special VFR flights.

(d) VFR flights shall comply with minima prescribed in ECAR Part 172.135;

(e) VFR flights shall comply with ECAR Part 172.139 when weather deterioration below VMC conditions.

172.129 Safety management system

(a) A certificate holder certified under this part , shall show a complete compliance with ECAR Part 19 , by establishing a safety management system that is acceptable to the ECAA, maintaining it, and completing its implementation as per the chronology mentioned in this regulation.

(b) The provision of AIS, CNS, MET and/or SAR ser- vices, when under the authority of an ATS provider, are subject to the requirements of ECAR172.129(a) When the provision of AIS, CNS, MET and/or SAR services are wholly or partially provided by an entity other than an ATS provider, the requirements under ECAR172.129(a) relate to the services that come under the authority of the ATS provider, or those aspects of the services with direct operational implications

(c) Any significant safety-related change to the ATS system, including the implementation of a reduced separation minimum or a new procedure, shall only be effected after a safety assessment has demonstrated that an acceptable level of safety will be met and users have been consulted. When appropriate, the responsible authority shall ensure that adequate provision is made for post-implementation monitoring to verify that the defined level of safety continues to be met. When, due to the nature of the change, the acceptable level of safety cannot be expressed in quantitative terms, the safety assessment may rely on operational judgment.

(d) The common use by civil and military aviation of airspace and of certain facilities and services shall be:

-Arranged so as to ensure the safety and efficiency of international civil air traffic movement

-coordinated to ensure the safe operation of their aircraft over the high seas to ensure that these operations do not compromise the safety and efficiency of international civil air traffic

(e) The ATS providers shall provide adequate Safety risk assessment as early as practice regarding the activities that may affect the civil air craft and shall also implement the appropriate mitigations for this risks

(f) in case of any changes in military areas or military activities and this shall be by cooperation from both sides military and civil and then after issuing a NOTAM

172.131 ECAA Inspection Authority

(a) Each person holds a certificate under this part (or applied for such certificate) shall grant unrestricted and unlimited access for ECAA inspectors to inspect his personnel, facilities, equipment, documents and records to determine:
(1) Eligibility to continue to hold his certificate.
(2) Compliance with this ECAR part

(b) Failure to comply with paragraph (a) above shall be a basis to suspend, withdraw or revoke any certificate issued under this part.

172.133 VMC visibilities and distance from cloud minima

Each applicant for the grant of an air traffic service certificate shall establish procedure acceptable to the ECAA to comply with minima contained in the following table:

Altitude band	Airspace class	Flight Visibility	Distance from cloud
At and above 3 050m (10 000 ft) AMSL	A***B C D E F G	8 km	1 500 m horizontally 300 m (1 000 ft)vertically
Below 3 050m (10 000ft) AMSL and above 900 m (3 000 ft) AMSL,or above 300 m (1 000 ft) above terrain, whichever is the higher	A***B C D E F G	5 km	1 500 m horizontally 300 m (1 000 ft)vertically
At and below 900 m (3000 ft) AMSL,or 300 m (1 000 ft) above terrain, whichever is the higher	A***B C D E	5 km	1 500 m horizontally 300 m (1 000 ft)vertically
	FG	5Km**	Clear of cloud and with the surface in sight

Note: When the height of the transition altitude is lower than 10000 ft AMSL, FL 100 should be used in lieu of 10000 ft.

** When so prescribed by the appropriate ATS authority:

(a) Lower flight visibility to 1500 m may be permitted for flights operating:
(1) At speeds that, in the prevailing visibility, will give adequate opportunity to observe other traffic or any obstacles in time to avoid collision; or
(2) In circumstances in which the probability of encounters with other traffic would normally be low, e.g. in areas of low volume traffic and for aerial work at low levels.

(b) Helicopters may be permitted to operate in less than 1500-m flight visibility, if maneuvered at a speed that will give adequate opportunity to observe other traffic or any obstacles in time to avoid collision.

** The VMC minima in class A airspace are included for guidance to pilots and do not imply acceptance of VFR flights in class A airspace.

172.135 Signals

Each applicant for the grant of an air traffic service certificate shall establish procedure to ensure that any aerodrome control tower having a light signals to use in controlling traffic as indicated in ECAR Part 91.125.

172.137 Weather deterioration below the VMC

Each applicant for the grant of an air traffic service certificate shall establish procedure for VFR flight operating in weather below the VMC conditions including:

(a) Continuing in VMC to the destination or alternate aerodrome or to leave the airspace;
(b) Operating as a special VFR – within controlled zone; and
(c) Operating as an IFR flight.

172.139 Clocks and time recording devices

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

(a) ATS unit clocks and other time recording devices:
  (1) Use Coordinated Universal Time (UTC) and shall express the time in hours and minutes and, when required, seconds of the 24-hour day beginning at midnight.
  (2) Air traffic services units shall be equipped with clocks indicating the time in hours, minutes and seconds, clearly visible from each operating position in the unit concerned.
  (3) Are checked as necessary to ensure the correct time within plus or minus 30 seconds of UTC as determined by reference to a standard time station or GPS time standard.

(b) Wherever data link communications are utilized, the applicant shall establish a procedure to ensure that all clocks and time-recording devices be checked as necessary to ensure correct time to within 1 second of UTC; and

(c) The correct time, to the nearest half minute, is provided:
  (1) In respect of any aerodrome control 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.

172.141 GNSS RNAV applications

Each applicant for the grant of an air traffic service certificate in respect of air traffic control services units shall establish procedures acceptable to the ECAA to apply the RNAV and RNP type(s) for designated areas, tracks, ATS routes or on instrument approach procedures prescribed by the ECAA.

172.143 Reduced Vertical Separation Minima (RVSM) application

Each applicant for the grant of an air traffic service certificate in respect of an area control service shall establish:

(a) Procedures acceptable to the ECAA to apply the RVSM operations in coordination with the adjacent Firs. according to EACs 91-8 and 91-9; and

(b) A program on a regional basis, for monitoring the height-keeping performance of aircraft operating at levels between FL 290 and FL 410, in order to ensure that the continued application of this vertical separation minimum meets the safety objectives .

(c) The scope of regional monitoring programmes shall be adequate to conduct analyses of aircraft group performance and evaluate the stability of altimetry system error .

(d) Arrangements shall be put in place, through inter-regional agreement, for sharing between region of data from monitoring programmes .
Note :_Guidance material relating to vertical separation monitoring of height-keeping performance is continued in the manual on implementation of a 300m (1000feet) vertical separation minimum between FL 290 and FL 410 inclusive (DOC 9574) ,

172.145 Establishment and identification of ATS routes

Each applicant for the grant of an air traffic service certificate shall establish and identify procedures acceptable to the ECAA to control the relevant:

(a) ATS routes;

(1) When ATS routes are established, a protected airspace along each ATS route and a safe spacing between adjacent ATS routes shall be provided.
(2) When warranted by density, complexity or nature of the traffic, special routes should be established for use by low-level traffic, including helicopters operating to and from helidecks on the high seas. When determining the lateral spacing between such routes, account should be taken of the navigational means available and the navigation equipment carried on board helicopters.
(3) ATS routes shall be identified by designators.
(4) Designators for ATS routes other than standard departure and arrival routes shall be selected in accordance with the principles set forth in Annex11 Appendix 1.
(5) Standard departure and arrival routes and associated procedures shall be identified in accordance with the principles set forth in Annex11Appendix 3.
(i) Guidance material relating to the establishment of ATS routes is contained in he Air Traffic Services tPlanning Manual (Doc 9426).
(ii) Guidance material relating to the establishment of ATS routes defined by VOR is contained in Annex11 Attachment A.
(iii) The spacing between parallel tracks or between parallel ATS route centre lines based on performance-based navigation will be dependent upon the relevant navigation specification required.

(b) Establishment of change -over points;
(1) Change-over points should be established on ATS route segments defined by reference to very high frequency omnidirectional radio ranges where this will assist accurate navigation along the route segments. The establishment of change-over points should be limited to route segments of 110 km (60 NM) or more, except where the complexity of ATS routes, the density of navigation aids or other technical and operational reasons warrant the establishment of change-over points on shorter route segments.
(2) Unless otherwise established in relation to the performance of the navigation aids or frequency protection criteria, the change-over point on a route segment should be the mid-point between the facilities in the case of a straight route segment or the intersection of radials in the case of a route segment which changes direction between the facilities. Guidance on the establishment of change-over points is contained in Annex 11 Attachment A

(c) Establishment and identification of significant points
(1) Significant points shall be established for the purpose of defining an ATS route and/or in relation to the requirements of air traffic services for information regarding the progress of aircraft in flight.
(2) Significant points shall be identified by designators.
(3) Significant points shall be established and identified in accordance with the principles set forth in Appendix 2.

172.147 Flight information service

(a) Each applicant for the grant of an air traffic service certificate shall establish procedures acceptable to the ECAA, to provide flight information service for all aircraft which are likely to be affected by the information and which are:
(1) Provided with air traffic control service; or
(2) Otherwise known to the relevant air traffic services units.
(3) Flight information service does not relieve the pilot-in-command of an aircraft of any responsibilities and the pilot-in-command has to make the final decision regarding any suggested alteration of flight plan
(4) Where air traffic services units provide both flight information service and air traffic control service, the provision of air traffic control service shall have precedence over the provision of flight information service whenever the provision of air traffic control service so requires.It is recognized that in certain circumstances aircraft on final approach, landing, take-off and climb may require to receive without delay essential information other than that pertaining to the provision of air traffic control service.

(b) Information shall include:
(1) Specified SEGMET and AIRMET;
(2) Radio active material;

(3) Toxic chemicals;
(4) Navigation and serviceability;
(5) Aerodrome conditions and associated facilities;
(6) Information on unmanned free balloons;
(7) Collision hazards, to aircraft operating in airspace classes D;
(8) For flight over water areas, in so far as practicable and when requested by a pilot, any available information such as radio call sign, position, true track, speed, of surface vessels in the area;
(9) Weather conditions at:
  (i) Departure aerodrome;
  (ii) Destination aerodrome; and
  (iii) Alternate aerodrome.
  (iv) collision hazards, to aircraft operating in airspace Classes C, D, E, F and G;
  (v) for flight over water areas, in so far as practicable and when requested by a pilot, any available information such as radio call sign, position, true track, speed, etc., of surface vessels in the area.
  (vi) The information in b), including only known aircraft the presence of which might constitute a collision hazard to the aircraft informed, will sometimes be incomplete and air traffic services cannot assume responsibility for its issuance at all times or for its accuracy.
  (vii) When there is a need to supplement collision hazard information provided in compliance with b), or in case of temporary disruption of flight information service, traffic information broadcasts by aircraft may be applied in designated airspaces. Guidance on traffic information broad- casts by aircraft and related operating procedures is contained in Attachment B.
(10) Special air-reports should be transmitted as soon as practicable to:
  (i) Other aircraft concerned;
  (ii) The associated MET office; and
  (iii) Other ATS units concerned.

(c) Flight information service provided to VFR flights shall include, in addition to that outlined in (b) above, the provision of available information concerning traffic and weather conditions along the route of flight that are likely to make operation under the visual flight rules impracticable;
(d) Aerodrome control service should use voice automatic terminal information service broadcast (ATIS) to reduce communication load;
(e) ATIS message, when provided:
(1) Shall be broadcasted on a discrete VHF frequency or on the voice channel of an appropriate terminal NAVAID such as VOR but not ILS.
(2) The information communicated shall relate to a single aerodrome;
(3) The preparation and dissemination of the ATIS message shall be the responsibility of the air traffic services;
(4) Individual ATIS messages shall be identified by a designator in the form of a letter of the ICAO spelling alphabet. Designators assigned to consecutive ATIS messages shall be in alphabetical order;
(5) Shall be broadcasted For arriving and departing aircraft;
(6) Shall be continuous and repetitively for no longer than 30 seconds;
(7) Shall taking into consideration speed of transmission and human performance; Guidance material on human performance can be found in the Human Factors Training Manual (Doc 9683).;
(8) The information communicated shall be updated immediately when a significant change occurs;
(9) Aircraft shall acknowledge receipt of the information upon establishing communication with the ATS unit providing approach control service or the aerodrome control tower, as appropriate;
(10) The appropriate ATS unit shall, when replying to the message in e) above or, in the case of arriving aircraft, at such other time as may be prescribed by the

appropriate ATS authority, provide the aircraft with the current altimeter setting;

(11) The meteorological information shall be extracted from the local meteorological routine or special report.

(12) Shall be broadcasted in English language;and

Containing the following elements of information in the order listed below:

(i) Name of aerodrome;
(ii) Arrival and/or departure indicator;
(iii) Designator;
(iv) Time;
(v) Type of approach to be expected;
(vi) Runway in use, including potential hazards if any, and surface condition;
(vii) Holding delay;
(viii) Transition layer;
(ix) Surface wind direction (in degrees magnetic) and speed (including significant variations) and, if surface wind sensors related specifically to the sections of runway(s) in use are available and the information is required by operators, the indication of the runway and the section of the runway to which the information refers;
(x) Visibility / RVR and, if VIS/RVR sensors related specifically to the sections of runway(s) in use are available and the information is required by operators, the indication of the runway and the section of the runway to which the information refers; These elements are replaced by the term (CAVOK), whenever the conditions as specified in the PANS-ATM (DOC 44440, CHAPTER 11 PREVALL)
(xi) Present weather;
(xii) Clouds;
(xiii) Vertical visibility when available if the sky obscured;
(xiv) Temperature;
(xv) Dew point;
(xvi) Altimeter setting;
(xvii) Any significant meteorological information; and
(xviii) Trend forecast if available.

(13) The information contained in the broadcast shall immediately be made known to the ATS unit concerned. Where the data link-automatic terminal information service (D-ATIS) supplements the existing availability of voice-ATIS then:

(i) The information shall be identical in both content and format to the voice-ATIS broadcast .
(ii) Voice-ATIS and D-ATIS shall be updated simultaneously when required.

(f) When rapidly changing meteorological conditions make it inadvisable to include a weather report in the ATIS, the ATIS messages shall indicate that the relevant weather information will be given on initial contact with the appropriate ATS unit.

(g) Information contained in a current ATIS, the receipt of which has been acknowledged by the aircraft concerned, need not be included in a directed transmission to the aircraft, with the exception of the altimeter setting.

(h) If an aircraft acknowledges receipt of an ATIS that is no longer current, any element of information that needs updating shall be transmitted to the aircraft without delay.

(i) Contents of ATIS should be kept as brief as possible. Information additional to that already available in aeronautical information publications (AIPs) and NOTAM, should only be included when justified in exceptional circumstances.

(j) Requirements for providing flight information services by ATS Units

(k) Flight information centres and area control centres:

(1) Flight information centres and area control centres shall be supplied with SIGMET and AIRMET information, special air-reports, current meteorological reports and forecasts, particular emphasis being given to the occurrence or expected occurrence of deterioration in a weather element as soon as this can be determined. These reports and forecasts shall cover the flight information region or control area and such other areas as may be determined on the basis of regional air navigation agreements.For the purpose of this provision, certain

changes in meteorological conditions are construed as deterioration in a weather element, although they are not ordinarily considered as such. An increase in temperature may, for example, adversely affect the operation of certain types of aircraft.

(2) Flight information centres and area control centres shall be provided, at suitable intervals, with current pressure data for setting altimeters, for locations specified by the flight information centre or area control centre concerned.

(3) Units providing approach control service:

(i) Units providing approach control service shall be supplied with current meteorological reports and forecasts for the airspace and the aerodromes with which they are concerned. Special reports and amendments to forecasts shall be communicated to the units providing approach control service as soon as they are necessary in accordance with established criteria, without waiting for the next routine report or forecast. Where multiple sensors are used, the displays to which they are related shall be clearly marked to identify the runway and section of the runway monitored by each sensor.

(ii) Units providing approach control service shall be provided with current pressure data for setting altimeters, for locations specified by the unit providing approach control service.

(iii) Units providing approach control service for final approach, landing and take-off shall be equipped with surface wind display(s). The display(s) shall be related to the same location(s) of observation and be fed from the same sensor(s) as the corresponding display(s) in the aerodrome control tower and in the meteorological station, where such a station exists.

(iv) Units providing approach control service for final approach, landing and take-off at aerodromes where runway visual range values are assessed by instrumental means shall be equipped with display(s) permitting read-out of the current runway visual range value(s). The dispaly(s) shall be related to the same location(s) of observation and be fed from the same sensor(s) as the corresponding displays in the aerodrome control tower and in the meteorological station, where such a station exists.

(xv) Units providing approach control service for final approach, landing and take-off at aerodromes where the height of cloud base is assessed by instrumental means should be equipped with display(s) permitting read-out of the current value(s) of the height of cloud base. The displays should be related to the same location(s) of observations and be fed from the same sensor(s) as the corresponding display(s) in the aerodrome control tower and in the meteorological station, where such a station exists.

(xvi) Units providing approach control service for final approach, landing and take-off shall be supplied with information on wind shear which could adversely affect aircraft on the approach or take-off paths or during circling approach.Provisions concerning the issuance of wind shear warnings and alerts and ATS requirements for meteoro- logical information are given in Annex 3, Chapter 7 and Appendices 6 and 9.

(3) Aerodrome control towers:

(i) Aerodrome control towers shall be supplied with current meteorological reports and forecasts for the aerodrome with which they are concerned. Special reports and amendments to forecasts shall be communicated to the aerodrome control towers as soon as they are necessary in accordance with established criteria, without waiting for the next routine report or forecast.

(ii) Aerodrome control towers shall be provided with current pressure data for setting altimeters for the aerodrome concerned.

(iii) Aerodrome control towers shall be equipped with surface wind display(s). The display(s) shall be related to the same location(s) of observation and be fed from the same sensor(s) as the corresponding display(s) in the meteorological station, where such a station exists. Where multiple sensors are used, the displays to which they are related shall be clearly marked to identify the runway and section of the runway monitored by each sensor.

(iv) Aerodrome control towers at aerodromes where runway visual range values are measured by instrumental means shall be equipped with display(s) permitting read-out of the current runway visual range value(s). The display(s) shall be related to the same location(s) of observation and be fed from the same sensor(s) as the corresponding display(s) in the meteorological station, where such a station exists.

(xv) Aerodrome control towers at aerodromes where the height of cloud base is assessed by instrumental means should be equipped with display(s) permitting read-out of the current value(s) of the height of cloud base. The displays should be related to the same location(s) of observations and be fed from the same sensor (s) as the corresponding display(s) in the meteorological station, where such a station exists.

(xvi) Aerodrome control towers shall be supplied with information on wind shear which could adversely affect aircraft on the approach or take-off paths or during circling approach and aircraft on the runway during the landing roll or take-off run.

(xvii) Aerodrome control towers and/or other appropriate units should be supplied with aerodrome warnings.The meteorological conditions for which aerodrome warnings are issued are listed in Annex 3, Appendix 6, and 5.1.3.

172.149 Communication with a provision of air traffic services

(a) Each applicant for the grant of an air traffic service certificate in respect of an air traffic service certificate shall establish procedures and systems acceptable to the ECAA to apply communication for the provision of air traffic service. Air traffic control unit shall be provided with:
   (1) Air-ground communication facilities to enable direct, rapid, continuous and static-free two-way communication to take place in between aerodrome, approach or area and appropriate equipped aircraft flying in the area of responsibility to permit direct pilot controller voice communications other by radio telephony and/ or data link.
   (2) Emergency channel (121.5 MHz) or (406 MHz).
   (3) Separate communication channels for the control of traffic operating on maneuvering area should be provided.

(b) Communication within flight information region.
   (1) Communications shall be provided between air traffic service units
      (i) Area control;
      (ii) Approach control;
      (iii) Aerodrome control tower; and
      (iv) AIS reporting offices.
   (2) Air traffic control unit shall have facilities for communication with:
      (i) Appropriate military unit;
      (ii) Meteorological office;
      (iii) Aeronautical telecommunications;
      (iv) Operator's offices;
      (v) Rescue coordination center; and
      (vi) Flight information center.
   (3) Area control center shall have facilities for communication with all adjacent area control centers through regional air navigation agreements.

(c) Description of communication facilities:
   (1) Direct speech with capability for conference communications;
   (2) Data link; and
   (3) Combination with data link:
      (i) For transfer of radar control communication shall be established in instantaneously; and
      (ii) For other purposes within 15 seconds.
   (4) Printed (no longer than 5 minutes);
   (5) Computers and automatic recording should be provided in case of automatic transfer; and
   (6) Video or Audio communication.

172.151 Surface movement radar (SMR)

Each applicant for the grant of an air traffic service certificate in respect of an aerodrome should establish procedures acceptable to the ECAA regarding the use of Surface Movement Radar (SMR), especially in the absence of visual observation of all or part of the manoeuvring area or to supplement visual observation, (surface movement radar (SMR) Provided in accordance with the provisions of Annex 14, Volume I), or other suitable surveillance equipment, should be utilized to:

(a) Monitor the movement of aircraft and vehicles on the manoeuvring area;

(b) Provide directional information to pilots and vehicle drivers as necessary; and

(c) Provide advice and assistance for the safe and efficient movement of aircraft and vehicles on the manoeuvring area.

172.153 Aircraft meteorological observations and reports

In the case of the requirement to report during the climb-out phase, an aircraft shall be designated, at approximately hourly intervals, at each aerodrome to make routine observations in accordance with 121.659(b)

172.155 Determination of the need for air traffic services

Each applicant for the grant of an air traffic service certificate, in respect of an air traffic control service, shall determine the need for ATS.The need for the provision of air traffic services shall be determined by consideration of the following:

1. The types of air traffic involved;
2. The density of air traffic;
3. The meteorological conditions; and
4. Such other factors as may be relevant.

172.157 Performance-based navigation (PBN)operations

In respect of applying performance-based navigation, navi- gation specifications prescribed by State and When applicable the navigation specification(s) for designated areas, tracks or ATS routes Each applicant for the grant of an ATS certificate:

(a) shall be prescribed on the basis of regional air navigation agreements. In designating a navigation specification, limitations may apply as a result of navigation infrastructure constraints or specific navigation functionality requirements.

(b) Performance-based navi- gation operations should be implemented as soon as practicable.

(c) The prescribed navigation specification shall be appropriate to the level of communications, navigation and air traffic services provided in the airspace concerned.

Note.— Applicable guidance on performance-based navi- gation and implementation is published in the Performance- Based Navigation Manual (Doc 9613).

172.159 Performance-based communication and surveillance (PBCS) operations

Each applicant for the grant of an ATS certificate shall ensure that:

1. The RCP and RSP specifications shall be prescribed on the basis of regional air navigation agreements.
2. The prescribed RCP and RSP specifications shall be appropriate to the air traffic services provided.

Note.— Applicable RCP types and associated procedures shall be according to ICAO annex 11 and Performance based Communications and Surveillance Manual **(PBCS)** (Doc 9869)

172.161 Aircraft Emergencies and Irregular Operation

(a) Each applicant for the grant of an air traffic service certificate shall establish procedures acceptable to the ECAA to ensure maximum assistance and priority is given to an aircraft known, or believed to be, in a state of emergency over other aircraft, the following aircraft shall have the priority:

(1) Strayed aircraft;

(2) Unlawful interference;

(3) Unidentified aircraft;

(4) Radio communication failure;

(5) Aircraft malfunctioning; and

(6) Interception of civil aircraft.

For more details refer to EAC 172-3

(b) To indicate that it is in a state of emergency, an aircraft equipped with an appropriate data link capability and/or an SSR transponder might operate the equipment as follows:
  (1) On Mode A, Code 7700; or
  (2) On Mode A, Code 7500, to indicate specifically that it is being subjected to unlawful interference; and/or
  (3) Activate the appropriate emergency and/or urgency capability of ADS-B or ADS-C; and/or
  (4) Transmit the appropriate emergency message via CPDLC.

(c) In communications between ATS units and aircraft in the event of an emergency, Human Factors principles should be observed.

172.163 Inteception:-

Interception of civil aircraft shall be governed by appropriate ecaa regulations and circular 172-3 in compliance with the convention on international civil aviation, and in particular article (3 bis *) under which ecaa undertake, each applicant shall ensure the safety of air navigation regarding the interception of aircraft by :

a) Refraining from resorting to the use of weapons against civil aircraft in flight and that, in case of interception, the lives of persons on board and the safety of aircraft must not be endangered.

b) Requiring the landing at some designated airport of a civil aircraft flying above Egyptian territory without authority or if there are reasonable grounds to conclude that it is being used for any purpose inconsistent with the aims of the CHICAGO Convention; it may also give such aircraft any other instructions to put an end to such violations. For this purpose, EGYPT resort to any appropriate means consistent with relevant rules of international law, including the relevant provisions of Chicago Convention,

c) Establishing all necessary provisions in regulations to· make such compliance mandatory for any civil aircraft registered in the State or operated by an operator who has his principal place of business or permanent residence in that EGYPT shall make any violation of such applicable laws or regulations punishable by severe penalties and shall submit the case to its competent authorities in accordance with its laws or regulations.

172.165 Operations on parallel or near parallel runways

Each applicant for an air traffic service certification where parallel runways are used for simultaneous operations shall ensure that:

a) Aerodrome and approach controllers assigned for simultaneous operations on parallel or near parallel runways have received suitable training including additional training mentioned in (ICAO Doc 9643 ch.6).

b) Requirements and procedures for Operations on parallel or near parallel runways mentioned in (EAC 172-2 ch.6) are met.

Note - for more information see ICAO Doc 9643, ICAO Doc 4444 and ICAO circular 350.