

STATE OF LIBYA  
MINISTRY OF TRANSPORT  
CIVIL AVIATION AUTHORITY



دولة ليبيا  
وزارة المواصلات  
مصلحة الطيران المدني

# Libyan Civil Aviation Regulations

## Part Air Traffic Services

### LYCAR – ATS

Amendment 1 - August 2017

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## Libyan Civil Aviation Regulations - Part Air Traffic Services

### Foreword

1. The regulations contained herein are adopted under the provision of Article No.(5) of Libyan Civil Aviation Law No.(6) of 2005, and issued and signed up by the Director General of Civil Aviation by virtue of powers vested from the Minister of Transport under the resolution No.(154) issued on 13/05/2015.
2. The Libyan Civil Aviation Regulations - Part Air Traffic Services (LYCAR – Part ATS) describes the requirement for Air Traffic Services.
3. LYCAR – Part ATS is the second of series parts related to the requirements and process of authorising different functions applied for by an applicant for ANSP certificate.
4. LYCAA in development of these regulations has adopted ICAO standards and other international principles and practices.
5. This version (Amendment 1) has the appendix 1 related to training of ATCO removed due to the inclusion of such requirement in the newly published Part – ATCL which includes all related ATCOs training material.
6. The information contained herein is subject to constant review in the light of changing regulations and requirements. No subscriber or other reader should act on the basis of any such information without also referring to the applicable laws and regulations and/or without taking appropriate professional advice when/as indicated/required. Although, every effort has been made to ensure accuracy, the Libyan Civil Aviation Authority, shall not be held responsible for loss or damage caused by errors, omissions, misprints or misinterpretation of the contents hereof.
7. Copies of this publication can be downloaded from: [www.caa.gov.ly](http://www.caa.gov.ly)

Issued on 6<sup>th</sup> August, 2017 , and signed by



**Capt. Nasereddin Shaebelain**  
Director General

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## Libyan Civil Aviation Regulation – - Part Air Traffic Services

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## AMENDMENT 1 HIGHLIGHTS

1. APPENDIX 1: AIR TRAFFIC SERVICE TRAINING .....Removed



## **Subpart A - General**

### **ATS.GEN.005 - Requirement for approval as ATS providers**

1. No person or organisation, shall provide air traffic services in Libyan airspace and aerodromes unless such person or organisation belongs to any of the under mentioned categories and holds a certificate issued by the Authority in accordance with LYCAA related Regulation:
  - a. the organisation is established as a designated ATS provider ; or
  - b. the person or organisation has a co-operation arrangement with a designated ATS provider ; or
  - c. there is a commercial agreement with a designated ATS provider.
2. An application for approval as an ATS provider shall be made in the form specified in Appendix 1. of Part ANSP.
3. On application for issue and renewal of an ATS provider certificate, the applicant shall provide sufficient information to the Libyan Civil Aviation Authority so that the Authority can assess and determine that the information required is included in the applicant's Manual of Operations.
4. To assist applicants the following is a guideline to ensure that applicants include the information required.
5. An applicant for an approval shall provide the Authority with a Manual of Operations containing:
  - a. a statement signed by the accountable officer, on behalf of the applicant's organization confirming that :
    - i. the Manual of Operations defines the organisation and demonstrates its means and methods for ensuring ongoing compliance with the Regulation ;
    - ii. the Manual of Operations and Manual of Standards and appropriate operational documentation, shall be complied with by the organisation's personnel at all times ;
  - b. the titles and names of the senior person or persons ;
  - c. the duties and responsibilities of the senior person or persons in b. including matters for which they have responsibility to deal directly with the Authority on behalf of the organisation ;
  - d. an organisation chart showing lines of responsibility of the senior persons in b. and covering each location listed under f. ;
  - e. a summary of the organisation's staffing structure at each location listed under f.;
  - f. a list of each type of air traffic service and the duration of that service to be operated under the authority of the air traffic service provider approval ;
  - g. the airspace in which each service will be provided ;
  - h. the aerodrome for which the service will be provided ;
  - i. procedures and a plan to undertake checking and training of staff in the positions for which they will provide a service ;
  - j. the detailed procedures required regarding internal quality assurance and safety management system
  - k. a contingency plan for implementation in the event of a disruption to services provided ;
  - l.
  - m. a security programme that details protection for facilities, services and personnel;
  - n. m. a summary of the operational details of each aeronautical facility associated with each location listed under f. and g. ;
  - o. procedures to control, amend, and distribute documentation and retain records;

- p. Aeronautical search and rescue Manual.
6. The Authority may not grant an approval unless it is satisfied that the applicant's Manual of Operation complies with this Part.

### **ATS.GEN.010 - Responsibility of holder of certificate for ATS**

The holder of an Air Traffic Services provider certificate shall:

1. provide the services listed in its Manual of Operations, in accordance with the procedures as prescribed in these Regulations ;
2. the service provider's Manual of Operations shall include the following information in its manual of operations :
  - a. personnel requirements and the responsibilities of personnel.
  - b. training and checking of staff and how that information is tracked ;
  - c. Quality Assurance/Safety Management System ;
  - d. Contingency plans developed for part or total system failure for which the organisation provides the service ;
  - e. Security plan ;
  - f. Facilities and equipment and how those facilities are maintained ;
  - g. Fault and Defect reporting ;
  - h. Maintenance of documents and records ;
  - i. Aeronautical search and rescue responsibilities and co-ordination ;
  - j. procedures for aerodrome surface movement guidance and control ;
  - k. any other information requested by the Authority.
3. an approval to operate as a Service Provider shall include in its manual of operations, any letters of agreement that the service provider has entered into ;
4. hold at least one complete and current copy of its Manual of Operations at each air traffic service unit specified in its Manual of Operations ;
5. comply with all procedures detailed in its Manual of Operations ;
6. comply with the Manual of Standards, prescribed by the Authority, for the provision of Air Traffic Services;
7. make each applicable part of the Manual of Operations available to the personnel who require those parts to carry out their duties ;
8. continue to comply with the appropriate requirements prescribed in these Regulations ;
9. keep the records of all regular internal inspections for a period of five years from the date of each inspection
10. furnish the Authority with the enroute facility financial data and enroute facility traffic statistics
11. replace or upgrade any obsolete installation ;
12. keep the Authority informed of its plans for the development and modernisation of its facilities.

### **ATS.GEN.015 - Objectives of the air traffic services**

The objectives of the air traffic services shall be to:

1. prevent collisions between aircraft;
2. prevent collisions between aircraft on the manoeuvring 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 organisations regarding aircraft in need of search and rescue aid, and assist such organizations as required.

### **ATS.GEN.020 - Divisions of the air traffic services**

The air traffic services shall comprise three services identified as follows.

1. The air traffic control service, to accomplish objectives 1., 2. and 3. Of ATS.GEN.015 this service being divided into three parts as follows:
  - a. Area control service: the provision of air traffic control service for controlled flights, except for those parts of such flights described in b. and c., in order to accomplish objectives in paragraph ATS.GEN.015 1. and 3.
  - b. Approach control service: the provision of air traffic control service for those parts of controlled flights associated with arrival or departure, in order to accomplish objectives in paragraph ATS.GEN.015 1. and 3. ;
  - c.
  - d. Aerodrome control service: the provision of air traffic control service for aerodrome traffic, except for those parts of flights described in ATS.GEN.020, b. in order to accomplish objectives in paragraph ATS.GEN.015 1., 2. and 3..
2. The flight information service, to accomplish objective in paragraph of ATS.GEN.015 4.
3. The alerting service, to accomplish objective in paragraph ATS.GEN.015 5.

#### **ATS.GEN.025 - Determination of the need for air traffic services**

1. The need for the provision of air traffic services shall be determined by consideration of the following:
  - a. the types of air traffic involved;
  - b. the density of air traffic
  - c. the meteorological conditions;
  - d. such other factors as may be relevant.
2. The carriage of airborne collision avoidance systems (ACAS) by aircraft in a given area shall not be a factor in determining the need for air traffic services in that area.

#### **ATS.GEN.030 - Designation of the portions of the airspace and controlled aerodromes where air traffic services will be provided**

1. 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.
2. The designation of the particular portions of the airspace or the particular aerodromes shall be as follows:
  - a. 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.
  - b. 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.
    - ii. Those portions of controlled airspace wherein it is determined that air traffic control service will also be provided to VFR flights shall be designated as Classes B, C, or D airspace.
    - iii. Where designated within a flight information region, control areas and control zones shall form part of that flight information region.
  - c. 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.

#### **ATS.GEN.035 - Classification of airspaces**

1. ATS airspaces shall be classified and designated in accordance with the following:

**Class A:** IFR flights only are permitted, all flights are provided with air traffic control service and are separated from each other.

**Class B:** IFR and VFR flights are permitted; all flights are provided with air traffic control service and are separated from each other.

**Class C:** IFR and VFR flights are permitted, all flights are provided with air traffic control service and IFR flights are separated from other IFR flights and from VFR flights. VFR flights are separated from IFR flights and receive traffic information in respect of other VFR flights.

**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.

**Class E:** IFR and VFR flights are permitted; IFR flights are provided with air traffic control service and are separated from other IFR flights. All flights receive traffic information as far as is practical. Class E shall not be used for control zones.

**Class F:** IFR and VFR flights are permitted, all participating IFR flights receive an air traffic advisory service and all flights receive flight information service if requested.

*Note: Where air traffic advisory service is implemented, this is considered normally as a temporary measure only until such time as it can be replaced by air traffic control.*

**Class G:** IFR and VFR flights are permitted and receive flight information service if requested.

2. LYCAA shall select those airspace classes appropriate to its needs.
3. The requirements for flights within each class of airspace shall be shown in the Manual Of Standards (MOS).

#### **ATS.GEN.040- Performance-based navigation (PBN) operations**

1. In applying performance-based navigation, navigation specifications shall be prescribed by LYCAA. When applicable, the navigation specification(s) for designated areas, tracks or ATS routes 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.
2. The prescribed navigation specification shall be appropriate to the level of communications, navigation and air traffic services provided in the airspace concerned.

#### **ATS.GEN.045 - Required communication performance (RCP)**

Applicable RCP and associated procedures will be published in the Manual on Required Communication Performance (RCP) (ICAO Doc 9869 which is in preparation).

#### **ATS.GEN.050 - Establishment and designation of the units providing air traffic services**

The air traffic services shall be provided by units established and designated as follows:

1. Flight information centers 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.
2. Air traffic control units shall be established to provide air traffic control service, flight information service and alerting service within control areas, control zones and at controlled aerodromes.

#### **ATS.GEN.055 - Specifications for flight information regions, control areas and control 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. Flight information regions
  - a. Flight information regions shall be delineated as required to cover the whole of the air route structure to be served by such regions.
  - b. A flight information region shall include all airspace within its lateral limits, except as limited by an upper flight information region.

- c. Where a flight information region is limited by an upper flight information region, the lower limit specified for the upper flight information region shall constitute the upper vertical limit of the flight information region and shall coincide with a VFR cruising level of the tables in MOSSs.
2. Control areas
    - a. Control areas including 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.
    - b. 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).
    - c. 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. When established, such upper limit shall coincide with a VFR cruising level of the tables in the MOSSs.
  3. Control zones
    - a. 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.
    - b. The lateral limits of a control zone shall extend to at least 9.3 km (5 NM) from the center of the aerodrome or aerodromes concerned in the directions from which approaches may be made
    - c. 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.

#### **ATS.GEN.060 - Establishment and identification of significant points**

1. Significant points shall be established for the purpose of defining an ATS route or instrument approach procedure 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.

#### **ATS.GEN.065 - Establishment and identification of 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. ATS routes shall be identified by designators.

#### **ATS.GEN.070- Coordination between the operator and air traffic services**

1. Air traffic services units, in carrying out their objectives, shall have due regard for the requirements of the operators consequent on their obligations and, if so required by the operators, shall make available to them or their designated representatives such information as may be available to enable them or their designated representatives to carry out their responsibilities.
2. When so requested by an operator, messages (including position reports) received by air traffic services units and relating to the operation of the aircraft for which operational control service is provided by that operator shall, so far as practicable, be made available immediately to the operator or a designated representative in accordance with locally agreed procedures.

#### **ATS.GEN.075 - Coordination between military authorities and air traffic services**

1. Air traffic services authorities shall establish and maintain close cooperation with military authorities responsible for activities that may affect flights of civil aircraft.

2. Coordination of activities potentially hazardous to civil aircraft shall be effected in accordance with ATS.GEN.080.
3. Arrangements shall be made to permit information relevant to the safe and expeditious conduct of flights of civil aircraft to be promptly exchanged between air traffic services units and appropriate military units.
4. Air traffic services units shall, either routinely or on request, in accordance with locally agreed procedures, provide appropriate military units with pertinent flight plan and other data concerning flights of civil aircraft. In order to eliminate or reduce the need for interceptions, air traffic services authorities shall designate any areas or routes where the requirements of concerning flight plans, two-way communications and position reporting apply to all flights to ensure that all pertinent data is available in appropriate air traffic services units specifically for the purpose of facilitating identification of civil aircraft.
5. Special procedures shall be established in order to ensure that:
  - a. air traffic services units are notified if a military unit observes that an aircraft which is, or might be, a civil aircraft is approaching, or has entered, any area in which interception might become necessary;
  - b. all possible efforts are made to confirm the identity of the aircraft and to provide it with the navigational guidance necessary to avoid the need for interception.

#### **ATS.GEN.080 - Coordination of activities potentially hazardous to civil aircraft**

1. The arrangements for activities potentially hazardous to civil aircraft, whether over the territory of the State of Libya or over the high seas, shall be coordinated with the appropriate air traffic services authorities. The coordination shall be effected early enough to permit timely promulgation of information regarding the activities.
2. The objective of the coordination shall be to achieve the best arrangements which will avoid hazards to civil aircraft and minimize interference with the normal operations of such aircraft.
3. The appropriate ATS authorities shall be responsible for initiating the promulgation of information regarding the activities.
4. Adequate steps shall be taken to prevent emission of laser beams from adversely affecting flight operations.

#### **ATS.GEN.085 - Aeronautical data**

1. Determination and reporting of air traffic services related aeronautical data shall be in accordance with the accuracy and integrity requirements while taking into account the established quality system procedures. Accuracy requirements for aeronautical data are based upon a 95 per cent confidence level, and in that respect three types of positional data shall be identified: surveyed points (e.g. navigation aids positions), calculated points (mathematical calculations from the known surveyed points of points in space/fixes) and declared points (e.g. flight information region boundary points).
2. The ANSP shall ensure that integrity of aeronautical data is maintained throughout the data process from survey/origin to the next intended user. Based on the applicable integrity classification, the validation and verification procedures shall:
  - a. for routine data: avoid corruption throughout the processing of the data;
  - b. for essential data: assure corruption does not occur at any stage of the entire process and may include additional processes as needed to address potential risks in the overall system architecture to further assure data integrity at this level; and
  - c. for critical data: assure corruption does not occur at any stage of the entire process and include additional integrity assurance procedures to fully mitigate the effects of faults identified by thorough analysis of the overall system architecture as potential data integrity risks.
3. Protection of electronic aeronautical data while stored or in transit shall be totally monitored by the cyclic redundancy check (CRC). To achieve protection of the integrity level of critical and essential aeronautical data as classified in 2. a., a 32 or 24-bit CRC algorithm shall apply respectively.

4. Geographical coordinates indicating latitude and longitude shall be determined and reported to the aeronautical information services authority in terms of the World Geodetic System – 1984 (WGS-84) geodetic reference datum, identifying those geographical coordinates which have been transformed into WGS-84 coordinates by mathematical means.
5. The order of accuracy of the field work and determinations and calculations derived there from shall be such that the resulting operational navigation data for the phases of flight will be within the maximum deviations, with respect to an appropriate reference frame.

#### **ATS.GEN.090 - Coordination between meteorological and air traffic services providers**

1. 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:
  - a. 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;
  - b. 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;
  - c. 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).
2. Close coordination shall be maintained between area control centers, flight information centers and associated meteorological watch offices to ensure that information on volcanic ash included in NOTAM and SIGMET messages is consistent.

#### **ATS.GEN.095 - Coordination between aeronautical information services and air traffic services providers**

1. To ensure that aeronautical information services units obtain information to enable them to provide up-to-date pre-flight information and to meet the need for in-flight information, arrangements shall be made between aeronautical information services and air traffic services authorities responsible for air traffic services to report to the responsible aeronautical information services unit, with a minimum of delay:
  - a. information on aerodrome conditions;
  - b. the operational status of associated facilities, services and navigation aids within their area of responsibility;
  - c. the occurrence of volcanic activity observed by air traffic services personnel or reported by aircraft; and
  - d. any other information considered to be of operational significance.
2. Before introducing changes to the air navigation system, due account shall be taken by the services responsible for such changes of the time needed by the aeronautical information service for the preparation, production and issuance of relevant material for promulgation. To ensure timely provision of the information to the aeronautical information service, close coordination between those services concerned is therefore required.
3. Of particular importance are changes to aeronautical information that affect charts and/or computer-based navigation systems which qualify to be notified by the Aeronautical Information Regulation and Control (AIRAC) system. The predetermined, internationally agreed AIRAC effective dates in addition to 14 days postage time shall be observed by the responsible air traffic services when submitting the raw information/data to aeronautical information services.

4. The air traffic services responsible for the provision of raw aeronautical information/data to the aeronautical information services shall do so while taking into account accuracy and integrity requirements for aeronautical data.

#### **ATS.GEN.100 - Minimum flight altitudes**

Minimum flight altitudes shall be determined and promulgated by the ANSP for each ATS route and control area over its territory. The minimum flight altitudes determined shall provide a minimum clearance above the controlling obstacle located within the areas concerned.

#### **ATS.GEN.105 - Service to aircraft in the event of an emergency**

1. An aircraft known or believed to be in a state of emergency, including being subjected to unlawful interference, shall be given maximum consideration, assistance and priority over other aircraft as may be necessitated by the circumstances.

**Note:** 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:

- on Mode A, Code 7700; or
  - on Mode A, Code 7500, to indicate specifically that it is being subjected to unlawful interference; and/or
  - activate the appropriate emergency and/or urgency capability of ADS-B or ADS-C; and/or
  - transmit the appropriate emergency message via CPDLC.
2. In communications between ATS units and aircraft in the event of an emergency, Human Factors principles should be observed.
  3. When an occurrence of unlawful interference with an aircraft takes place or is suspected, ATS units shall attend promptly to requests by the aircraft. Information pertinent to the safe conduct of the flight shall continue to be transmitted and necessary action shall be taken to expedite the conduct of all phases of the flight, especially the safe landing of the aircraft.
  4. When an occurrence of unlawful interference with an aircraft takes place or is suspected, ATS units shall, in accordance with locally agreed procedures, immediately inform the appropriate authority designated by LYCAA and exchange necessary information with the operator or its designated representative.

#### **ATS.GEN.110 - In-flight contingencies**

1. Strayed or unidentified aircraft

Strayed aircraft. An aircraft which has deviated significantly from its intended track or which reports that it is lost.

Unidentified aircraft. An aircraft which has been observed or reported to be operating in a given area but whose identity has not been established.

- a. As soon as an air traffic services unit becomes aware of a strayed aircraft, it shall take all necessary steps as outlined in b. and c. below, to assist the aircraft and to safeguard its flight.
- b. If the aircraft's position is not known, the air traffic services unit shall:
  - i. attempt to establish two-way communication with the aircraft, unless such communication already exists;
  - ii. use all available means to determine its position;
  - iii. inform other ATS units into whose area the aircraft may have strayed or may stray, taking into account all the factors which may have affected the navigation of the aircraft in the circumstances;
  - iv. inform, in accordance with locally agreed procedures, appropriate military units and provide them with pertinent flight plan and other data concerning strayed aircraft;
  - v. request from the units referred to in c) and d) and from other aircraft in flight every assistance in establishing communication with the aircraft and determining its position.



- c. When the aircraft's position is established, the air traffic services unit shall:
    - i. advise the aircraft of its position and corrective action to be taken; and
    - ii. provide, as necessary, other ATS units and appropriate military units with relevant information concerning the strayed aircraft and any advice given to that aircraft.
  - d. As soon as an air traffic services unit becomes aware of an unidentified aircraft in its area, it shall endeavor to establish the identity of the aircraft whenever this is necessary for the provision of air traffic services or required by the appropriate military authorities in accordance with locally agreed procedures. To this end, the air traffic services unit shall take such of the following steps as are appropriate in the circumstances:
    - i. attempt to establish two-way communication with the aircraft;
    - ii. inquire of other air traffic services units within the flight information region about the flight and request their assistance in establishing two-way communication with the aircraft;
    - iii. inquire of air traffic services units serving the adjacent flight information regions about the flight and request their assistance in establishing two-way communication with the aircraft;
    - iv. attempt to obtain information from other aircraft in the area.
  - e. The air traffic services unit shall, as necessary, inform the appropriate military unit as soon as the identity of the aircraft has been established.
  - f. Should the ATS unit consider that a strayed or unidentified aircraft may be the subject of unlawful interference, the appropriate authority designated by the State of Libya shall immediately be informed, in accordance with locally agreed procedures.
2. Interception of civil aircraft
- a. As soon as an air traffic services unit learns that an aircraft is being intercepted in its area of responsibility, it shall take such of the following steps as are appropriate in the circumstances:
    - i. attempt to establish two-way communication with the intercepted aircraft via any means available, including the emergency radio frequency 121.5 MHz, unless such communication already exists;
    - ii. inform the pilot of the intercepted aircraft of the interception;
    - iii. establish contact with the intercept control unit maintaining two-way communication with the intercepting aircraft and provide it with available information concerning the aircraft;
    - iv. relay messages between the intercepting aircraft or the intercept control unit and the intercepted aircraft, as necessary;
    - v. in close coordination with the intercept control unit take all necessary steps to ensure the safety of the intercepted aircraft;
    - vi. inform ATS units serving adjacent flight information regions if it appears that the aircraft has strayed from such adjacent flight information regions.
  - b. As soon as an air traffic services unit learns that an aircraft is being intercepted outside its area of responsibility, it shall take such of the following steps as are appropriate in the circumstances:
    - i. inform the ATS unit serving the airspace in which the interception is taking place, providing this unit with available information that will assist in identifying the aircraft and requesting it to take action in accordance with paragraph a. ;
    - ii. relay messages between the intercepted aircraft and the appropriate ATS unit, the intercept control unit or the intercepting aircraft.

**ATS.GEN.115 - Time in Air Traffic Services**

1. Air traffic services units shall 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. Air traffic services unit clocks and other time recording devices shall be checked as necessary to ensure correct time to within plus or minus 30 seconds of UTC. Wherever data link communications are utilized by an air traffic services unit, clocks and other time-recording devices shall be checked as necessary to ensure correct time to within 1 second of UTC.
4. The correct time shall be obtained from a standard time station or, if not possible, from another unit which has obtained the correct time from such station.
5. Aerodrome control towers shall, prior to an aircraft taxiing for take-off, provide the pilot with the correct time, unless arrangements have been made for the pilot to obtain it from other sources. Air traffic services units shall, in addition, provide aircraft with the correct time on request. Time checks shall be given to the nearest half minute.

**ATS.GEN.120 - Establishment of requirements for carriage and operation of pressure-altitude reporting transponders**

LYCAA shall establish requirements for carriage and operation of pressure-altitude reporting transponders within defined portions of airspace.

**ATS.GEN.125 - Common reference systems**

1. Horizontal reference system World Geodetic System – 1984 (WGS-84) shall be used as the horizontal (geodetic) reference system for air navigation. Reported aeronautical geographical coordinates (indicating latitude and longitude) shall be expressed in terms of the WGS-84 geodetic reference datum.
2. Vertical reference system Mean Sea Level (MSL) datum, which gives the relationship of gravity-related height (elevation) to a surface known as the geoid, shall be used as the vertical reference system for air navigation.
3. Temporal reference system
  - a. The Gregorian calendar and Coordinated Universal Time (UTC) shall be used as the temporal reference system for air navigation.
  - b. When a different temporal reference system is used, this shall be indicated in the Aeronautical Information Publication (AIP) part GEN 2.1.2.

**ATS.GEN.130 - Language proficiency**

1. An air traffic services provider shall ensure that air traffic controllers have attained a level of language proficiency in accordance with the provision of ICAO Annex 1 Chapter 1.2.9.
2. Except when communications between air traffic control units are conducted in a mutually agreed language, the English language shall be used for such communications.

**ATS.GEN.135 - Contingency arrangements**

Air traffic services providers shall develop and promulgate contingency plans for implementation in the event of disruption, or potential disruption, of air traffic services and related supporting services in the airspace for which they are responsible for the provision of such services. Such contingency plans shall be developed in close coordination with the air traffic services authorities responsible for the provision of services in adjacent portions of airspace and with airspace users concerned.

**ATS.GEN.140 - Duty Hours and Staffing**

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 and efficiency.

*Note- When reference is made to air traffic controllers in this regulation it shall also mean student air traffic controllers.*

2. ATS units shall establish procedures for the management of fatigue related issues.
3. Air traffic controllers shall be responsible for obtaining sufficient rest and sleep prior to attending operational duties.
4. Sleeping or napping at operational positions shall not be permitted.
5. Adherence to the rules within these regulations and fatigue-related issues shall be taken into account before shift changes are implemented.
6. For the purposes of this Part, air traffic control officers having, prior to commencing operational duty, performed unlicensed duties such as, but not limited to, office, administration, training, courses, seminars, and workshops, shall have the time periods for unlicensed duties counted toward duty period limits.

*Note: As far as reasonably practicable, the provisions of this regulation should also apply to air traffic control assistants interacting with air traffic controllers.*

7. Unless operating under a fatigue management regime approved by the Authority, or a written variation from the Authority, duty hour requirements shall include the following:
  - a. No Period of Duty shall exceed 10 hours;
  - b. There shall be an interval of not less than 10 hours between the conclusion of one Period of Duty and the commencement of the next Period of Duty. This interval may be reduced by up to 20 minutes solely for the purpose of orderly shift handover;
  - c. Not more than 2 Night Duties may be worked in immediate succession; however this may be increased by 1 additional night duty in the event of an unplanned call-out to cover a Night duty, or at the request of, or with the consent of the ATCO concerned, provided that ATCO does not perform any Duty for 48 hours succeeding the end of that third consecutive Night Duty. Not more than 3 Night duties shall be worked within 264 consecutive hours (11 days);
  - d. Within 40 consecutive hours the aggregate of Periods of Duty shall not exceed 20 hours;
  - e. Within 720 consecutive hours (30 days) the aggregate of Periods of Duty and Standby Duties shall not exceed 300 hours, provided that Periods of Duty do not exceed 200 hours. For the purpose of this limitation, Standby Duty is calculated at 50 per cent of duty time;
  - f. Within 720 consecutive hours (30 days) the sum of hours of exactly 3 separate Off Duty Periods shall total more than 168hrs;
  - g. Upon the conclusion of seven Periods of Duty within 168 consecutive hours (seven days), or upon Periods of Duty within 168 consecutive hours reaching a total of 55 hours, whichever is the earlier, there shall be an interval of a minimum of 60 hours before the commencement of the next Period of Duty;
  - h. ATC Operational Duties shall not normally exceed 2½ continuous hours. After any 2 ½ hour period consisting of continuous ATC Operational Duties there shall be at least one Break not less than 30 minutes in duration immediately prior to the resumption of operational duties. Frequent break periods shall be considered during heavy or complex traffic situations, low visibility conditions (for air traffic control officers performing aerodrome control) and particularly between the hours of 00:00 and 07:00.
  - i. The Air Navigation Service Provider may, for limited periods where unforeseen and unusual circumstances warrant, increase the Operational Duty period stated in h. to a maximum of 4 hours.
8. Unit management shall have a process in place so that, in the event that an air traffic control officer will or has worked outside the duty hour restrictions, additional resources can be employed as soon as practicable until the normal duty hours and break requirements can be met.
9. During any calendar year there shall be not fewer than 30 calendar days of total holiday entitlement. The employee must be afforded the opportunity to take one leave period of not

less than 20 consecutive days, however at least one leave period shall be not less than 10 consecutive days.

## Subpart B - Air Traffic Control Service

### ATS.ATC.005 - Application

Air traffic control service shall be provided:

1. to all IFR flights in airspace Classes A, B, C, D and E;
2. to all VFR flights in airspace Classes B, C and D;
3. to all special VFR flights;
4. to all aerodrome traffic at controlled aerodromes.

### ATS.ATC.010 - Provision of air traffic control service

The parts of air traffic control service described in ATS.GEN.020 shall be provided by the various units as follows:

1. Area control service:
  - a. by an area control center; or
  - b. 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:
  - a. 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;
  - b. by an approach control unit when it is necessary or desirable to establish a separate unit.
3. Aerodrome control service:
  - a. by an aerodrome control tower.

### ATS.ATC.015 - Operation of air traffic control service

1. In order to provide air traffic control service, an air traffic control unit shall:
  - a. be provided with information on the intended movement of each aircraft, or variations therefrom, and with current information on the actual progress of each aircraft;
  - b. determine from the information received, the relative positions of known aircraft to each other;
  - c. 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;
  - d. 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.
2. 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.
3. Air traffic control units should be equipped with devices that record background communication and the aural environment at air traffic controller work stations, capable of retaining the information recorded during at least the last twenty-four hours of operation.
4. Clearances issued by air traffic control units shall provide separation:
  - a. between all flights in airspace Classes A and B;
  - b. between IFR flights in airspace Classes C, D and E;
  - c. between IFR flights and VFR flights in airspace Class C;
  - d. between IFR flights and special VFR flights;

- e. between special VFR flights when so prescribed by the appropriate ATS authority, except that, when requested by an aircraft and if so prescribed by the appropriate ATS authority for the cases listed under b) above in airspace Classes D and E, a flight may be cleared without separation being so provided in respect of a specific portion of the flight conducted in visual meteorological conditions.
5. Separation by an air traffic control unit shall be obtained by at least one of the following:
- a. vertical separation, obtained by assigning different levels selected from:
    - i. the appropriate table of cruising levels in MOSs or,
    - ii. a modified table of cruising levels, when so prescribed.
  - b. horizontal separation, obtained by providing:
    - i. longitudinal separation, by maintaining an interval between aircraft operating along the same, converging or reciprocal tracks, expressed in time or distance; or
    - ii. lateral separation, by maintaining aircraft on different routes or in different geographical areas;
  - c. composite separation, consisting of a combination of vertical separation and one of the other forms of separation contained in b) above, using minima for each which may be lower than, but not less than half of, those used for each of the combined elements when applied individually. Composite separation shall only be applied on the basis of regional air navigation agreements.
6. For all airspace where a reduced vertical separation minimum (RVSM) of 300 m (1000 ft) is applied between FL 290 and FL 410 inclusive, a regional programme should be instituted for monitoring the height-keeping performance of aircraft operating at these levels, in order to ensure that the implementation and continued application of this vertical separation minimum meets the safety objectives. The coverage of the height-monitoring facilities provided under this programme shall be adequate to permit monitoring of the relevant aircraft types of all operators that operate in RVSM airspace.
7. Inter-regional arrangements shall be put in place for the sharing between regions of data from monitoring programmes.

#### **ATS.ATC.020 - Separation minima**

1. The selection of separation minima for application within a given portion of airspace shall be as follows:
- a. the separation minima shall be selected from those prescribed by the provisions of ATS MOSs and Regional Supplementary Procedures as applicable under the prevailing circumstances except that, where types of aids are used or circumstances prevail, other separation minima shall be established as necessary by:
    - i. the appropriate ATS authority, following consultation with operators, for routes or portions of routes contained within the sovereign airspace of the State of Libya;
    - ii. regional air navigation agreements for routes or portions of routes contained within airspace over the high seas or over areas of undetermined sovereignty.
  - b. the selection of separation minima shall be made in consultation between the appropriate ATS authorities responsible for the provision of air traffic services in neighboring airspace when:
    - i. traffic will pass from one into the other of the neighboring airspaces;
    - ii. routes are closer to the common boundary of the neighboring airspaces than the separation minima applicable in the circumstances.
2. Details of the selected separation minima and of their areas of application shall be notified:
- a. to the ATS units concerned; and

- b. 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.

#### **ATS.ATC.025 - Responsibility for control**

1. A controlled flight shall be under the control of only one air traffic control unit at any given time.
2. Responsibility for the control of all aircraft operating within a given block of airspace shall be vested in a single air traffic control unit. However, control of an aircraft or groups of aircraft may be delegated to other air traffic control units provided that coordination between all air traffic control units concerned is assured.

#### **ATS.ATC.030 - Transfer of responsibility for control**

1. The responsibility for the control of an aircraft shall be transferred from one air traffic control unit to another as follows:
  - a. Between two units providing area control service.

The responsibility for the control of an aircraft shall be transferred from a unit providing area control service in a control area to the unit providing area control service in an adjacent control area at the time of crossing the common control area boundary as estimated by the area control center having control of the aircraft or at such other point or time as has been agreed between the two units.
  - b. Between a unit providing area control service and a unit providing approach control service:
2. The responsibility for the control of an aircraft shall be transferred from a unit providing area control service to a unit providing approach control service, and vice versa, at a point or time agreed between the two units.
  - a. Between a unit providing approach control service and an aerodrome control tower:
    - i. **Arriving aircraft.** The responsibility for the control of an arriving aircraft shall be transferred from the unit providing approach control service to the aerodrome control tower, when the aircraft:
      1. is in the vicinity of the aerodrome, and:
        - a. it is considered that approach and landing will be completed in visual reference to the ground, or
        - b. it has reached uninterrupted visual meteorological conditions, or
      2. is at a prescribed point or level, as specified in letters of agreement or ATS unit instructions; or
      3. has landed.
    - ii. **Departing aircraft.** The responsibility for control of a departing aircraft shall be transferred from the aerodrome control tower to the unit providing approach control service:
      1. when visual meteorological conditions prevail in the vicinity of the aerodrome:
        - a. prior to the time the aircraft leaves the vicinity of the aerodrome, or
        - b. prior to the aircraft entering instrument meteorological conditions, or
        - c. at a prescribed point or level, as specified in letters of agreement or ATS unit instructions;
      2. when instrument meteorological conditions prevail at the aerodrome:
        - a. immediately after the aircraft is airborne, or

- b. at a prescribed point or level, as specified in letters of agreement or ATS unit instructions.
3. Between control sectors/positions within the same air traffic control unit.

The responsibility for control of an aircraft shall be transferred from one control sector/position to another control sector/position within the same air traffic control unit at a point, level or time, as specified in ATS unit instructions.
4. Responsibility for control of an aircraft shall not be transferred from one air traffic control unit to another without the consent of the accepting control unit, which shall be obtained in accordance with 5, 6, 7, and 8.
5. The transferring control unit shall communicate to the accepting control unit the appropriate parts of the current flight plan and any control information pertinent to the transfer requested.
6. Where transfer of control is to be effected using radar or ADS-B data, the control information pertinent to the transfer shall include information regarding the position and, if required, the track and speed of the aircraft, as observed by radar or ADS-B immediately prior to the transfer.
7. Where transfer of control is to be effected using ADS-C data, the control information pertinent to the transfer shall include the four-dimensional position and other information as necessary.
8. The accepting control unit shall:
  - a. indicate its ability to accept control of the aircraft on the terms specified by the transferring control unit, unless by prior agreement between the two units concerned, the absence of any such indication is understood to signify acceptance of the terms specified, or indicate any necessary changes thereto; and
  - b. specify any other information or clearance for a subsequent portion of the flight, which it requires the aircraft to have at the time of transfer.
9. The accepting control unit shall notify the transferring control unit when it has established two-way voice and/or data link communications with and assumed control of the aircraft concerned, unless otherwise specified by agreement between the two control units concerned.
10. Applicable coordination procedures, including transfer of control points, shall be specified in letters of agreement and ATS unit instructions as appropriate.

#### **ATS.ATC.035 - Air traffic control clearances**

Air traffic control clearances shall be based solely on the requirements for providing air traffic control service.

1. Contents of clearances
  - a. An air traffic control clearance shall indicate:
    - i. aircraft identification as shown in the flight plan;
    - ii. clearance limit;
    - iii. route of flight;
    - iv. level(s) of flight for the entire route or part thereof and changes of levels if required;



- v. any necessary instructions or information on other matters such as approach or departure maneuvers, communications and the time of expiry of the clearance.
- b. Clearances for transonic flight  
The air traffic control clearance relating to the transonic acceleration phase of a supersonic flight shall extend at least to the end of that phase.
- c. Read-back of clearances and safety-related information  
The flight crew shall read back to the air traffic controller safety-related parts of ATC clearances and instructions which are transmitted by voice. The following items shall always be read back:
  - i. ATC route clearances;
  - ii. clearances and instructions to enter, land on, take off from, hold short of, cross and backtrack 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 broadcasts, transition levels.
  - iv. Other clearances or instructions, including conditional clearances, shall be read back or acknowledged in a manner to clearly indicate that they have been understood and will be complied with.
- d. The controller shall listen to the read-back to ascertain that the clearance or instruction has been correctly acknowledged by the flight crew and shall take immediate action to correct any discrepancies revealed by the read-back.

## 2. Coordination of clearances

An air traffic control clearance shall be coordinated between air traffic control units to cover the entire route of an aircraft or a specified portion thereof as follows:

- a. An aircraft shall be cleared for the entire route to the aerodrome of first intended landing:
  - i. when it has been possible, prior to departure, to coordinate the clearance between all the units under whose control the aircraft will come; or
  - ii. when there is reasonable assurance that prior coordination will be effected between those units under whose control the aircraft will subsequently come.
- b. When coordination as in a. has not been achieved or is not anticipated, the aircraft shall be cleared only to that point where coordination is reasonably assured; prior to reaching such point, or at such point, the aircraft shall receive further clearance, holding instructions being issued as appropriate.
- c. When prescribed by the appropriate ATS authority, aircraft shall contact a downstream air traffic control unit, for the purpose of receiving a downstream clearance prior to the transfer of control point.
- d. Aircraft shall maintain the necessary two-way communication with the current air traffic control unit whilst obtaining a downstream clearance.
- e. A clearance issued as a downstream clearance shall be clearly identifiable as such to the pilot.
- f. Unless coordinated, downstream clearances shall not affect the aircraft's original flight profile in any airspace, other than that of the air traffic control unit responsible for the delivery of the downstream clearance.
- g. Where practicable, and where data link communications are used to facilitate downstream clearance delivery, two-way voice communications between the pilot and the air traffic control unit providing the downstream clearance should be available.
- h. When an aircraft intends to depart from an aerodrome within a control area to enter another control area within a period of thirty minutes, or such other specific period of time as has been agreed between the area control centers concerned, coordination

with the subsequent area control center shall be effected prior to issuance of the departure clearance.

- i. When an aircraft intends to leave a control area for flight outside controlled airspace, and will subsequently re-enter the same or another control area, a clearance from point of departure to the aerodrome of first intended landing may be issued. Such clearance or revisions thereto shall apply only to those portions of the flight conducted within controlled airspace.
3. Air traffic flow management.
- a. 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.
  - b. 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.

#### **ATS.ATC.040 - Control of persons and vehicles at aerodromes**

1. The movement of persons or vehicles including towed aircraft on the maneuvering area of an aerodrome shall be controlled by the aerodrome control tower as necessary to avoid hazard to them or to aircraft landing, taxiing or taking off.
2. In conditions where low visibility procedures are in operation:
  - a. persons and vehicles operating on the maneuvering area of an aerodrome shall be restricted to the essential minimum, and particular regard shall be given to the requirements to protect the ILS/MLS sensitive area(s) when Category II or Category III precision instrument operations are in progress;
  - b. subject to the provisions in d., the minimum separation between vehicles and taxiing aircraft shall be as prescribed by the appropriate ATS authority taking into account the aids available;
  - c. Emergency vehicles proceeding to the assistance of an aircraft in distress shall be afforded priority over all other surface movement traffic.
  - d. Subject to the provisions in d., vehicles on the maneuvering area shall be required to comply with the following rules:
    - i. vehicles and vehicles towing aircraft shall give way to aircraft which are landing, taking off or taxiing;
    - ii. vehicles shall give way to other vehicles towing aircraft;
    - iii. vehicles shall give way to other vehicles in accordance with ATS unit instructions;
    - iv. notwithstanding the provisions of a., b. and c., vehicles and vehicles towing aircraft shall comply with instructions issued by the aerodrome control tower.

## Subpart C - Flight Information Service (FIS)

### ATS.FIS.005 - Application

1. Flight information service shall be provided to all aircraft which are likely to be affected by the information and which are:
  - a. provided with air traffic control service; or
  - b. otherwise known to the relevant air traffic services units.
2. 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.

### ATS.FIS.010 - Scope of flight information service

1. Flight information service shall include the provision of pertinent:
  - a. SIGMET and AIRMET information;
  - b. information concerning pre-eruption volcanic activity, volcanic eruptions and volcanic ash clouds;
  - c. information concerning the release into the atmosphere of radioactive materials or toxic chemicals;
  - d. information on changes in the availability of radio navigation services;
  - e. information on changes in condition of aerodromes and associated facilities, including information on the state of the aerodrome movement areas when they are affected by contaminants or significant depth of water;
  - f. information on unmanned free balloons; and of any other information likely to affect safety.
2. Flight information service provided to flights shall include, in addition to that outlined in 1., the provision of information concerning:
  - a. weather conditions reported or forecast at departure, destination and alternate aerodromes;
  - b. collision hazards, to aircraft operating in airspace Classes C, D, E, F and G;
  - c. 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.
3. Flight information service provided to VFR flights shall include, in addition to that outlined in 1., 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.

### ATS.FIS.015 - Operational flight information service broadcasts

The meteorological information and operational information concerning radio navigation services and aerodromes included in the flight information service shall, when they become available, be provided in an operationally integrated form.

### ATS.FIS.020 - Voice-automatic terminal information service (Voice-ATIS) broadcasts

1. Voice-automatic terminal information service (Voice-ATIS) broadcasts shall be provided at aerodromes where there is a requirement to reduce the communication load on the ATS VHF air-ground communication channels. The information shall comprise:
  - a. one broadcast serving arriving aircraft; or
  - b. one broadcast serving departing aircraft; or
  - c. one broadcast serving both arriving and departing aircraft; or
  - d. two broadcasts serving arriving and departing aircraft respectively at those aerodromes where the length of a broadcast serving both arriving and departing aircraft would be excessively long.
2. A discrete VHF frequency shall, whenever practicable, be used for Voice-ATIS broadcasts. If a discrete frequency is not available, the transmission may be made on the voice channel(s) of the most appropriate terminal navigation aid(s), preferably a VOR,

provided the range and readability are adequate and the identification of the navigation aid is sequenced with the broadcast so that the latter is not obliterated.

3. Voice-ATIS broadcasts shall not be transmitted on the voice channel of an ILS.
4. Whenever Voice-ATIS is provided, the broadcast shall be continuous and repetitive.
5. The information contained in the current broadcast shall immediately be made known to the ATS unit(s) concerned with the provision to aircraft of information relating to approach, landing and take-off, whenever the message has not been prepared by that (those) unit(s).
6. Voice-ATIS broadcasts provided at designated aerodromes for use by international air services shall be available in the English language as a minimum.

#### **ATS.FIS.025 - Data link-automatic terminal information service (D-ATIS)**

1. Where a D-ATIS supplements the existing availability of Voice-ATIS, the information shall be identical in both content and format to the applicable Voice-ATIS broadcast.
2. Where real-time meteorological information is included but the data remains within the parameters of the significant change criteria, the content, for the purpose of maintaining the same designator, shall be considered identical.
3. Where a D-ATIS supplements the existing availability of Voice-ATIS and the ATIS requires updating, Voice-ATIS and D-ATIS shall be updated simultaneously.

#### **ATS.FIS.030 - Automatic terminal information service (voice and/or data link)**

1. Whenever Voice-ATIS and/or D-ATIS is provided:
  - a. the information communicated shall relate to a single aerodrome;
  - b. the information communicated shall be updated immediately a significant change occurs;
  - c. the preparation and dissemination of the ATIS message shall be the responsibility of the air traffic services;
  - d. 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;
  - e. 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;
  - f. the appropriate ATS unit shall, when relying 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; and
  - g. the meteorological information shall be extracted from the local meteorological routine or special report.
2. 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.
3. 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, which shall be provided in accordance with 1. f..
4. 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.
5. Contents of ATIS should be kept as brief as possible, for example information already available in aeronautical information publications (AIPs) and NOTAM, should only be included when justified in exceptional circumstances.

#### **ATS.FIS.035 - ATIS for arriving and departing aircraft**

ATIS messages containing both arrival and departure information shall contain the following elements of information in the order listed:

1. name of aerodrome;

2. arrival and/or departure indicator;
3. contract type, if communication is via D-ATIS;
4. designator;
5. time of observation, if appropriate;
6. type of approach(es) to be expected;
7. the runway(s) in use; status of arresting system constituting a potential hazard, if any;
8. significant runway surface conditions and, if appropriate, braking action;
9. holding delay, if appropriate;
10. transition level, if applicable;
11. other essential operational information;
12. surface wind direction 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;
13. \* visibility and, when applicable, RVR;
14. \*present weather;
15. \*cloud below 5 000 ft or below the highest minimum sector altitude, whichever is greater; cumulonimbus; if the sky is obscured, vertical visibility when available;
16. air temperature;
17. # dew point temperature;
18. altimeter setting(s);
19. any available information on significant meteorological phenomena in the approach and climb-out areas including wind shear, and information on recent weather of operational significance;
20. trend forecast, when available; and
21. specific ATIS instructions.

*\* These elements are replaced by the term “CAVOK”, whenever the conditions at the time of the observation are : visibility 10 km or more, no cloud below 5000 ft. and no weather of significance to aviation prevail.*

*# As determined on the basis of regional air navigation agreements.*

#### **ATS.FIS.040 - ATIS for arriving aircraft**

ATIS messages containing arrival information shall contain only the following elements of information in the order listed:

1. name of aerodrome;
2. arrival indicator;
3. contract type, if communication is via D-ATIS;
4. designator;
5. time of observation, if appropriate;
6. type of approach(es) to be expected;
7. main landing runway(s); status of arresting system constituting a potential hazard, if any;
8. significant runway surface conditions and, if appropriate, braking action;
9. holding delay, if appropriate;
10. transition level, if applicable;
11. other essential operational information;
12. surface wind direction 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;
13. \* visibility and, when applicable, RVR;

14. \* present weather;
15. \*cloud below 5000 ft or below the highest minimum sector altitude, whichever is greater; cumulonimbus; if the sky is obscured, vertical visibility when available;
16. # air temperature;
17. #dew point temperature;
18. altimeter setting(s);
19. any available information on significant meteorological phenomena in the approach area including wind shear, and information on recent weather of operational significance;
20. trend forecast, when available; and
21. specific ATIS instructions.

*\* These elements are replaced by the term “CAVOK”, whenever the conditions at the time of the observation are : visibility 10 km or more, no cloud below 5000 ft. and no weather of significance to aviation prevail.*

*# As determined on the basis of regional air navigation agreements.*

### **ATS.FIS.045 - ATIS for departing aircraft**

ATIS messages containing departure information shall contain only the following elements of information in the order listed:

1. name of aerodrome;
2. departure indicator;
3. contract type, if communication is via D-ATIS;
4. designator;
5. time of observation, if appropriate;
6. runway(s) to be used for take-off; status of arresting system constituting a potential hazard, if any;
7. significant surface conditions of runway(s) to be used for take-off and, if appropriate, braking action;
8. departure delay, if appropriate;
9. transition level, if applicable;
10. other essential operational information;
11. surface wind direction 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;
12. \*visibility and, when applicable, RVR;
13. \* present weather;
14. \* cloud below 5 000 ft or below the highest minimum sector altitude, whichever is greater; cumulonimbus; if the sky is obscured, vertical visibility when available;
15. air temperature;
16. #dew point temperature;
17. altimeter setting(s);
18. any available information on significant meteorological phenomena in the climb-out area including wind shear;
19. trend forecast, when available; and
20. specific ATIS instructions.

*\* These elements are replaced by the term “CAVOK”, whenever the conditions at the time of the observation are : visibility 10 km or more, no cloud below 5000 ft and no weather of significance to aviation prevail.*

*# As determined on the basis of regional air navigation agreements.*

## Subpart D - Alerting Service (ALRS)

### ATS.ALRS.005 - Application

1. Alerting service shall be provided:
  - a. for all aircraft provided with air traffic control service;
  - b. in so far as practicable, to all other aircraft having filed a flight plan or
  - c. to any aircraft known or believed to be the subject of unlawful interference.
2. Flight information centers or area control centers shall serve as the central point for collecting all information relevant to a state of emergency of an aircraft operating within the flight information region (FIR) and forwarding such information to the appropriate rescue coordination center (RCC).
3. In the event of a state of emergency arising to an aircraft while it is under the control of an aerodrome control tower, approach control unit or area control center such unit shall notify immediately the RCC who will in turn notify the rescue center or other appropriate agencies. Notification should also be made to the appropriate adjacent Area Control Centers, except that such notification shall not be required when the nature of the emergency is such that the notification would be superfluous.
4. Nevertheless, whenever the urgency of the situation so requires, the aerodrome control tower or approach control unit responsible shall first alert and take other necessary steps to set in motion all appropriate local rescue and emergency organisations which can give the immediate assistance required.

### ATS.ALRS.010 - Notification of RCC

1. Without prejudice to any other circumstances that may render such notification advisable, air traffic services units shall, except as prescribed in ATS.ALRS-025, notify appropriate agencies as listed in Local instructions immediately an aircraft is considered to be in a state of emergency in accordance with the following:
  - a. Uncertainty phase when:
    - i. no communication has been received from an aircraft within a period of thirty minutes after the time a communication should have been received, or from the time an unsuccessful attempt to establish communication with such aircraft was first made, whichever is the earlier, or when
    - ii. an aircraft fails to arrive within thirty minutes of the estimated time of arrival last notified to or estimated by air traffic services units, whichever is the later, except when no doubt exists as to the safety of the aircraft and its occupants.
  - b. Alert phase 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 when
    - 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 when
    - iii. information has been received which indicates that the operating efficiency of the aircraft has been impaired, but not to the extent that a forced landing is likely, except when evidence exists that would allay apprehension as to the safety of the aircraft and its occupants, or when
    - iv. an aircraft is known or believed to be the subject of unlawful interference.
  - c. Distress phase when:
    - i. following the alert phase, further unsuccessful attempts to establish communication with the aircraft and more widespread unsuccessful inquiries point to the probability that the aircraft is in distress, or when

- ii. the fuel on board is considered to be exhausted, or to be insufficient to enable the aircraft to reach safety, or when
  - iii. information is received which indicates that the operating efficiency of the aircraft has been impaired to the extent that a forced landing is likely, or when
  - iv. information is received or it is reasonably certain that the aircraft is about to make or has made a forced landing, except when there is reasonable certainty that the aircraft and its occupants are not threatened by grave and imminent danger and do not require immediate assistance.
2. The notification shall contain such of the following information as is available in the order listed:
  - a. INCERFA, ALERFA or DETRESFA, as appropriate to the phase of the emergency;
  - b. agency and person calling;
  - c. nature of the emergency;
  - d. significant information from the flight plan;
  - e. unit which made last contact, time and means used;
  - f. last position report and how determined;
  - g. color and distinctive marks of aircraft;
  - h. dangerous goods carried as cargo;
  - i. any action taken by reporting office; and
  - j. other pertinent remarks.
3. Further to the notification in 1, the rescue coordination center shall, without delay, be furnished with:
  - a. any useful additional information, especially on the development of the state of emergency through subsequent phases; or
  - b. information that the emergency situation no longer exists.

#### **ATS.ALRS.015 - Use of communication facilities**

Air traffic services units shall, as necessary, use all available communication facilities to endeavour to establish and maintain communication with an aircraft in a state of emergency, and to request news of the aircraft.

#### **ATS.ALRS.020 - Plotting aircraft in a state of emergency**

When a state of emergency is considered to exist, the flight of the aircraft involved shall be plotted on a chart in order to determine the probable future position of the aircraft and its maximum range of action from its last known position. The flights of other aircraft known to be operating in the vicinity of the aircraft involved shall also be plotted in order to determine their probable future positions and maximum endurance.

#### **ATS.ALRS.025 - Information to the operator**

1. When it has been ascertained that that an aircraft is in the uncertainty or the alert phase, it shall, when practicable, advise the operator prior to notifying the rescue coordination center.
2. All relevant information notified to appropriate rescue coordination agencies by an air traffic services unit shall, whenever practicable, also be communicated, without delay, to the operator.

#### **ATS.ALRS.030 - Information to aircraft operating in the vicinity of an aircraft in a state of emergency**

1. When it has been established by an air traffic services unit that an aircraft is in a state of emergency, other aircraft known to be in the vicinity of the aircraft involved shall, except as provided in 2., be informed of the nature of the emergency as soon as practicable.
2. 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.

## Subpart E - Air Traffic Services Requirements for Communication

### ATS.COM.005 - Aeronautical Mobile Service (air-ground communications)

1. Radiotelephony and/or data link shall be used in air-ground communications for air traffic services purposes.
2. Where Required Communication Performance (RCP) types have been prescribed by LYCAA for ATM functions, ATS units shall, in addition to the requirements specified in 1., be provided with communication equipment which will enable them to provide ATS in accordance with the prescribed RCP type(s).
3. When direct pilot-controller two-way radiotelephony or data link communications are used for the provision of air traffic control service, recording facilities shall be provided on all such air-ground communication channels.
4. Recordings of communications channels as required in paragraph 3. shall be retained for a period of at least thirty days.
5. Air-ground communication facilities shall enable two-way communications to take place between a unit providing flight information service and appropriately equipped aircraft flying anywhere within the flight information region.
6. Air-ground communication facilities shall enable two-way communications to take place between a unit providing area control service and appropriately equipped aircraft flying anywhere within the control area(s).
7. Air-ground communication facilities shall enable direct, rapid, continuous and static-free two-way communications to take place between the unit providing approach control service and appropriately equipped aircraft under its control.
8. Where the unit providing approach control service functions as a separate unit, air/ground communications shall be conducted over communication channels provided for its exclusive use.
9. Air-ground communication facilities shall enable direct, rapid, continuous and static-free two-way communications to take place between an aerodrome control tower and appropriately equipped aircraft operating at any distance within 45 km (25 NM) of the aerodrome concerned.

### ATS.COM.010 - Aeronautical fixed service (ground-ground communications)

1. Direct-speech and/or data link communications shall be used in ground-ground communications for air traffic services purposes.
2. Where RCP types have been prescribed by LYCAA for ATM functions, ATS units shall, in addition to the requirements specified in 1., be provided with communication equipment which will enable them to provide ATS in accordance with the prescribed RCP type(s).

### ATS.COM.015 - Communications within a flight information region

1. Communications between air traffic services units
  - a. A flight information center, shall have facilities for communications with the following units providing a service within its area of responsibility:
    - i. the area control center, unless collocated;
    - ii. approach control units;
    - iii. aerodrome control towers.
  - b. An area control center, in addition to being connected to the flight information center as prescribed in a., shall have facilities for communications with the following units providing a service within its area of responsibility:
    - i. approach control units;
    - ii. aerodrome control towers;
    - iii. air traffic services reporting offices, when separately established.
  - c. An approach control unit, in addition to being connected to the flight information center and the area control center as prescribed in a. and b., shall have facilities for

communications with the associated aerodrome control tower(s) and, when separately established, the associated air traffic services reporting office(s).

- d. An aerodrome control tower, in addition to being connected to the flight information center, the area control center and the approach control unit as prescribed in a., b. and c., shall have facilities for communications with the associated air traffic services reporting office, when separately established.
2. Communications between air traffic services units and other units:
    - a. A flight information center and an area control center shall have facilities for communications with the following units providing a service within their respective area of responsibility:
      - i. appropriate military units;
      - ii. the meteorological office serving the center;
      - iii. the aeronautical telecommunications station serving the center;
      - iv. appropriate operator's offices;
      - v. the rescue coordination center or, in the absence of such center, any other appropriate emergency service;
      - vi. the international NOTAM office serving the center.
    - b. An approach control unit and an aerodrome control tower shall have facilities for communications with the following units providing a service within their respective area of responsibility:
      - i. appropriate military units;
      - ii. rescue and emergency services (including ambulance, fire, etc.);
      - iii. the meteorological office serving the unit concerned;
      - iv. the aeronautical telecommunications station serving the unit concerned;
      - v. the unit providing apron management service, when separately established.
    - c. The communication facilities required under 2., a., i and 2.,b.,i. shall include provisions for rapid and reliable communications between the air traffic services unit concerned and the military unit(s) responsible for control of interception operations within the area of responsibility of the air traffic services unit.
  3. Description of communication facilities:
    - a. The communication facilities shall include provisions for:
      - i. communications by direct speech alone, or in combination with data link communications, whereby for the purpose of transfer of control using radar or ADS-B, the communications can be established instantaneously and for other purposes the communications can normally be established within fifteen seconds; and
      - ii. printed communications, when a written record is required; the message transit time for such communications being no longer than five minutes.
    - b. The communication facilities shall include provisions for communications by direct speech arranged for conference communications.
    - c. All facilities for direct-speech or data link communications between air traffic services units and between air traffic services units and other units shall be provided with automatic recording.
    - d. Recordings of data and communications shall be retained for a period of at least thirty days.
  4. Communications between flight information regions
    - a. Flight information centers and area control centers shall have facilities for communications with all adjacent flight information centers and area control centers.
    - b. These communication facilities shall in all cases include provisions for messages in a form suitable for retention as a permanent record, and delivery in accordance with transit times specified by regional air navigation agreements.

- c. Unless otherwise prescribed on the basis of regional air navigation agreements, facilities for communications between area control centers serving contiguous control areas shall, in addition, include provisions for direct speech and, where applicable, data link communications, with automatic recording, whereby for the purpose of transfer of control using radar, ADS-B or ADS-C data, the communications can be established instantaneously and for other purposes the communications can normally be established within fifteen seconds.
- d. When so required by agreement between the States concerned in order to eliminate or reduce the need for interceptions in the event of deviations from assigned track, facilities for communications between adjacent flight information centers or area control centers other than those mentioned in c. shall include provisions for direct speech alone, or in combination with data link communications. The communication facilities shall be provided with automatic recording.

**ATS.COM.020 - Surface movement control service**

1. Communications for the control of vehicles other than aircraft on manoeuvring areas at controlled aerodromes
2. Two-way radiotelephony communication facilities shall be provided for aerodrome control service for the control of vehicles on the manoeuvring area, except where communication by a system of visual signals is deemed to be adequate.

## **Subpart F - Air Traffic Services Requirements for Information**

### **ATS.INF.005 - Meteorological information**

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.

### **ATS.INF.010 - Flight information centers and area control centers**

1. Flight information centers and area control centers shall be supplied with SIGMET and AIRMET information, special air-report, current meteorological reports and forecast, particular emphasis being given to the occurrence or expected occurrence of weather deterioration 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.
2. Flight information centers and area control centers shall be provided, at suitable intervals, with current pressure data for setting altimeters, for locations specified by the flight information center or area control center concerned.

### **ATS.INF.015 - Units providing approach control service**

1. Units providing approach control service shall be supplied with current meteorological reports and forecast 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 anemometers are used, the indicators to which they are related shall be clearly marked to identify the runway and section of the runway monitored by each anemometer.
2. 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.
3. 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.
4. 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 display(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.
5. 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.

### **ATS.INF.020 - Aerodrome control towers**

1. Aerodrome control towers shall be supplied with current meteorological reports and forecast 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.
2. Aerodrome control towers shall be provided with current pressure data for setting altimeters for the aerodrome concerned.
3. 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 sensor(s) 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.

4. 4. 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.
5. 5. 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.

#### **ATS.INF.025 - Communication stations**

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.

#### **ATS.INF.030 - Information on aerodrome conditions and the operational status of associated facilities**

Aerodrome control towers and units providing approach control service shall be kept currently informed of the operationally significant conditions of the movement area, including the existence of temporary hazards, and the operational status of any associated facilities at the aerodrome(s) with which they are concerned.

#### **ATS.INF.035 - Information on the operational status of navigation services**

ATS units shall be kept currently informed of the operational status of radio navigation services and visual aids essential for take-off, departure, approach and landing procedures within their area of responsibility and those radio navigation services and visual aids essential for surface movement.

#### **ATS.INF.040 - Information on unmanned free balloons**

Operators of unmanned free balloons shall keep the appropriate air traffic services units informed of details of flights of unmanned free balloons in accordance with the provisions contained in LYCAR Part 101.

#### **ATS.INF.045 - Information concerning volcanic activity**

1. ATS units shall be informed, in accordance with local agreement, of pre-eruption volcanic activity, volcanic eruptions and volcanic ash cloud which could affect airspace used by flights within their area of responsibility.
2. Area control centers and flight information centers shall be provided with volcanic ash advisory information issued by any associated Volcanic Ash Advisory Centre (VAAC).

#### **ATS.INF.050 - Information concerning radioactive materials and toxic chemical “clouds”**

ATS units shall be informed, in accordance with local agreement, of the release into the atmosphere of radioactive materials or toxic chemicals which could affect airspace used by flights within their area of responsibility.