



Egyptian Air Navigation Circular

(EAC's)

ECAA
Circular

CO-ORDINATION

Air Navigation Circular
No.172.1

COORDINATION

Section 1. GENERAL

1.1 Introduction

- a) Coordination is the art of communication with another with a view of reaching an agreed solution to a common problem.
- b) Coordination is effected when the parties concerned, on the basis of known information and circumstances, agree on a course of action.
- c) Coordination procedures must be carried out in a clear and precise way to avoid misunderstanding. The ability to perform effectively may depend on how well you understand and follow.
- d) Poor coordination techniques can cause delays and will be a direct cause of accidents.
- e) In circumstances where an aircraft is experiencing an emergency or has declared minimum fuel, or in any other situation wherein the safety of the aircraft is not assured, the type of emergency and the circumstances experienced by the aircraft shall be included in the coordination message.
- f) Prior coordination shall take place between ATC units for all flights within controlled airspace.
- g) Ensure that the necessary coordination has been accomplished before you allow an aircraft under your control to enter another controller's area of responsibility.
- h) The responsibility for initiating coordination rests with the transferring controller of who shall comply with any conditions specified by the accepting controller.
- i) Before issuing clearance to change heading, route, speed or level to an aircraft within the area of responsibility of another controller, ensure that coordination has been accomplished first.

1.2 Duties and Responsibilities

- a) Responsibility for obtaining the agreement and for ensuring implementation of the agreed course of action may be vested in one of the controllers involved.
- b) Coordination with other ATS units may be between:
 - 1) ATSUs
 - 2) Air Traffic Controllers (including military personnel)
 - 3) Air / Ground Operators
- c) Controller shall:
 - 1) Recognize and respond to the need for coordination;
 - 2) Correctly initiate appropriate coordination when required;
 - 3) Correctly carry out the agreed coordination;
 - 4) Respond to requests from pilots (received by RTF);
 - 5) Accurately assess the coordination required to fulfill the request;
 - 6) Correctly carry out the required coordination with appropriate ATSUs.
- d) To respond to coordination initiated by other agencies controller shall:
 - 1) Correctly evaluate the request received;
 - 2) Negotiate and agree upon an appropriate course of action;
 - 3) Correctly carry out the agreed course of action.
- e) Promptly initiate any required coordination.

- f) Respond promptly to requests for clearances from other agencies:
 - 1) ATSU's;
 - 2) ATC sectors;
 - 3) Air traffic controllers including military personnel... etc.
- g) Respond to requests from pilots (received by RTF / Telephone):
 - 1) Accurately assess the coordination required to fulfill the request
 - 2) Correctly carry out the required coordination with appropriate agencies

1.3 Revisions

- a) The following changes should be re-coordinated by the transferring controller, and agreement shall be reached before transfer of communication takes place:
 - 1) Flight level,
 - 2) Routing, or
 - 3) Revisions of 3 min or more

1.4 Coordination Methods

- a) Coordination may be achieved by one of the following methods:
 - 1) Direct negotiation and agreement for individual flights (dynamic coordination);
 - 2) Letter of agreements (LOA), standing agreement between ATS units, sectors, neighbouring FIRs... etc.;
 - 3) Use of permanent procedures agreed between national aviation authorities.
 - 4) Coordination is also deemed to have been achieved if an estimate message has been passed and no objection has been raised by the accepting ATC unit.
 - 5) The special arrangements for coordination between military and civil ATS units are to be described in a LOA.

1.5 Penetration of Airspace

- a) Aircraft receiving an ATCS from an ATC unit must not be permitted to penetrate the airspace of another unit without prior coordination.
- b) Coordination must be established before you allow an aircraft under your control to enter another controller's area of responsibility.
- c) No clearance to change heading, route, speed or level to an aircraft within the area of responsibility of another controller without coordination.
- d) The responsibility for initiating coordination rests with the transferring unit.
- e) Transferring unit must comply with any conditions specified by the accepting unit.
- f) Flight plan and flight progress information for flights along routes in close proximity to FIR boundaries shall be provided to the ATS units in charge of the FIRs adjacent to such routes to assist in the identification of strayed or unidentified aircraft and to eliminate or reduce the need for interception.

1.6 Approval Request

- a) If departure aerodrome is too close to the adjacent control area boundary to permit transmission of necessary flight plan and control information after take-off and allow adequate time for reception, analysis and coordination,

the transferring unit shall, prior to clearing the aircraft, forward that information to the accepting unit together with a request for approval;

- b) **The time in a)**, "*aircraft not yet departed*", shall be based upon the ETD as determined by the ATC unit in whose area the departure aerodrome is located.
 - c) If an aircraft in flight, close to the adjacent control area boundary, requiring an initial clearance, the aircraft shall be held within the transferring unit's area until the flight plan and control information has been forwarded together with a request for approval, and coordination effected with the adjacent ATC unit;
 - d) **The time in c)**, shall be based on the EET from the holding fix to the boundary plus the time expected to be needed for coordination.
 - e) An aircraft requesting a change in its CPL, or a transferring unit proposing to change the aircraft's CPL close to the adjacent control area boundary, the revised clearance shall be withheld pending approval of the proposal by the adjacent ATC unit.
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Section 2. TRANSFER OF CONTROL

- a) Transfer of control should take place:
 - 1) At a prescribed or coordinated point, time, fix or level.
 - 2) At the time a radar hand off and frequency change to the receiving controller have been completed.
 - 3) Only after eliminating any potential conflict with other aircraft under the jurisdiction of the transferring controller.

2.1 The accepting/ transferring ATC units' roles

- a) The accepting ATC unit shall notify changes, if any, to be made to the CPL to be accepted;
- b) The accepting ATC unit shall notify the transferring unit when it is able to accept the aircraft concerned under the conditions specified by the transferring unit.
- c) The responsibility for control remains with the ATC unit in whose control area the aircraft is operating until the estimated time of crossing the control area boundary;
- d) The accepting unit which is in contact with an aircraft not yet reached the transfer of control point shall not alter the clearance without prior approval;
- e) The accepting unit shall assume the responsibility for control after the time the aircraft passes transfer of control point.

NOTE. When so agreed between the ATC units concerned, the transfer of control point may be a point other than the control area boundary.

- f) Transferring unit shall notify the accepting unit that the aircraft is in position to be transferred, and the responsibility for control should be assumed either forthwith or at the time passing transfer of control point. An SSR Mode and Code shall be included in such notification.
- g) If transfer of control will be effected prior to the aircraft passing transfer of control point, the transferring unit shall notify the accepting unit accordingly. Any release restrictions that apply shall be specified by the transferring ATC unit.

NOTE. Transfer of radar control procedures are specified in Chapter 6, Section 6.4.4.

2.2 Scope & Limits

2.2.1 Arriving aircraft: Transfer to aerodrome

- a) Transfer to aerodrome should be effected at such a point, level or time that clearance to land or alternative instructions, as well as information on essential local traffic, can be issued in a timely manner.
- b) When the aircraft is in the vicinity of the aerodrome, and
 - 1) It is considered that approach and landing will be completed in visual reference to the ground; or
 - 2) Has reached uninterrupted visual meteorological conditions, or
- c) At a prescribed point or level; or
- d) Has landed, as specified in letters of agreement or ATS unit instructions.

2.2.2 Departing aircraft: Transfer to approach control

Control of a departing aircraft shall be transferred to the unit providing approach control service as follows:

- a) when VMC prevail in the vicinity of the aerodrome:
 - 1) Prior to the time the aircraft leaves the vicinity of the aerodrome,

- 2) Prior to the aircraft entering IMC, or
 - 3) When the aircraft is at a prescribed point or level, as specified in letters of agreement or ATS unit instructions;
- b) when instrument meteorological conditions prevail at the aerodrome:
- 1) Immediately after the aircraft is airborne, or
 - 2) When the aircraft is at a prescribed point or level, as specified in letters of agreement or local instructions.

2.2.3 Approach Control

- c) Shall be responsible for the control of:
- 1) Arriving aircraft that have been released to it by the ACC;
 - 2) Departing aircraft until such aircraft are released to the ACC.
- d) Approach control shall assume control of arriving aircraft, released to it, upon arrival of the aircraft at the point, level or time agreed for transfer of control, and shall maintain control during approach to the aerodrome.

2.2.4 Area control

- a) The responsibility for the control of an aircraft shall be transferred to the ACC in an adjacent control area at the time of crossing the common control area boundary as estimated by the ACC; or
- b) At such other point, level or time as has been agreed between the two units.

2.2.5 Control sectors/positions within the same ATC unit

- The responsibility for the control of an aircraft shall be transferred from one control sector/position to another within the same ATC unit at a point, level or time, as specified in local instructions.

2.3 Termination of Controlled Flight

- a) A flight may cease to be operated as a controlled flight:
- 1) by leaving controlled airspace; or
 - 2) by cancelling its IFR flight and proceeding on VFR in airspace where VFR flights are not controlled
- b) Appropriate information on the flight shall be forwarded to ATS unit(s) responsible for the provision of FIS and alerting service for the remaining portion of the flight, in order to ensure that such services will be provided to the aircraft.
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Section 3. TRANSFER OF COMMUNICATION

- a) When applying non-radar separation, the transfer of air-ground communications of an aircraft from the transferring to the accepting ATC unit shall be made:
 - 1) 5 min before the common control area boundary.
 - 2) Immediately after passing FIR boundary point, or subject to the LOA.
- b) In a radar environment, transfer shall be made immediately after the accepting ATC unit has agreed to assume control.
- c) Transfer of radio communication shall normally be effected before an aircraft enters the accepting controller's area of responsibility, unless:
 - 1) Otherwise coordinated; or
 - 2) Specified by LOA.
- d) When you transfer specify:
 - 1) The unit / facility name.
 - 2) Frequency.
 - 3) Time, fix, level, or specifically when to contact. You may omit this when compliance is expected upon receipt

PHRASEOLOGY. (C/S) CONTACT (unit) (freq.) [NOW], AT/OVER (time/ place or when passing reaching (level)).

- e) Pilots will maintain listening watch on the transferring controller's frequency until the specified time, fix or altitude.
- f) In case of combined sectors using multiple frequencies, and the aircraft will remain under your control specify the following phraseology:
 - 1) *CALL ME ON FREQ....*
 - 2) *CHANGE TO MY FREQ...*
- g) If you don't want the pilot to change frequency while the pilot is expecting so, or may want a frequency change specify the following phraseology:
 - 1) *REMAIN THIS FREQUENCY.*
- h) **Standby on a frequency:** If an ATS unit will initiate communications, the phraseology used is: STAND BY (Frequency) FOR (unit).
- i) **To monitor a frequency:** when information is being broadcast thereon, phraseology will be: MONITOR (unit) (Frequency).
- j) When so required, transferring unit shall notify the accepting ATS unit that aircraft will be/has already been instructed to establish communications.
- k) Accepting unit shall notify transferring unit in the event that communication with aircraft is not established as expected, unless specified otherwise in an LOA.
- l) If aircraft is to traverse a portion of a control area in a limited duration, agreement should be reached to provide for direct transfer of communication between the units responsible for the adjacent control areas, provided that the intermediate unit is fully informed of such traffic;
- m) The intermediate unit shall retain responsibility for coordination and for ensuring that separation is maintained between all traffic within its area of responsibility.

3.1 Transfer to Aerodrome

- a) Transfer of communications to the aerodrome controller shall take place at such a point, level or time that clearance to land or alternative instructions, as well as information on essential local traffic, can be issued in a timely manner.

3.2 Termination of Controlled Flight

- a) If a flight ceases to be operated as a controlled flight, action shall be taken to ensure the continuity of the provision of FIS and Alerting service;
 - b) Appropriate information on the flight shall be forwarded to the concerned ATS unit(s) to ensure the continuity of such service.
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Section 4. COORDINATION IN RESPECT OF THE PROVISION OF ATC SERVICE

4.1 General

- a) The coordination and transfer of control of a flight between successive ATC units and control sectors shall be effected by a process comprising the following stages:
 - 1) Announcement of the flight and the proposed transfer of control conditions;
 - 2) Coordination of and agreement on the transfer of control conditions; and
 - 3) The transfer of control to the accepting ATC unit or control sector.
- b) ATC units should, to the extent possible, establish and apply standardized procedures for the coordination and transfer of control of flights, in order to reduce the need for verbal coordination;
- c) Such coordination procedures shall conform to the applicable procedures, and be specified in letters of agreement and local instructions, as applicable.
- d) Such agreements and instructions shall cover the following as relevant:
 - 1) definition of areas of responsibility and common interest, airspace structure and airspace classification(s);
 - 2) Any delegation of responsibility for the provision of ATS;
 - 3) Procedures for the exchange of flight plan and control data, including use of automated and/or verbal coordination messages;
 - 4) Means of communication;
 - 5) Requirements and procedures for approval requests;
 - 6) Significant points, levels or times for transfer of control;
 - 7) Significant points, levels or times for transfer of communication;
 - 8) Conditions applicable to the transfer and acceptance of control, such as specified altitudes/flight levels, specific separation minima or spacing to be established at the time of transfer, and the use of automated radar handover;
 - 9) Radar coordination procedures and SSR Code assignment procedures;
 - 10) Procedures for departing traffic;
 - 11) Designated holding fixs and procedures for arriving traffic;
 - 12) Applicable contingency procedures; and
 - 13) Any other provisions or information relevant to the coordination and transfer of control of flights.

4.2 Coordination between ATC Units within Contiguous Control Areas

- a) ATC units shall forward from unit to unit, as the flight progresses, necessary flight plan and control information.
 - b) The flight plan and control information shall be transmitted in sufficient time to permit reception and analysis of the data by the receiving unit and necessary coordination between the two units concerned.
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Section 5. COORDINATION BETWEEN THE ACC AND THE APPROACH CONTROL

5.1 Division of control

- a) Except when otherwise specified in LOA or local instructions, approach control may issue clearances to any aircraft released to it without reference to the ACC.
- b) ACC shall coordinate with approach an arriving aircraft which is to be cleared to an aerodrome holding facility or a visual holding fix, instead of the normal holding facility/point;
- c) However, when an approach has been missed the ACC shall, if affected by the missed approach, be advised immediately and subsequent action coordinated between them as necessary.
- d) An ACC may, after coordination with the approach control, release aircraft directly to aerodrome control towers if the entire approach will be made under visual meteorological conditions.

5.2 Take-off and clearance expiry times

- a) Time of take-off shall be specified by the ACC when it is necessary to:
 - 1) Coordinate the departure with traffic not released to the approach control; and
 - 2) Provide en-route separation between departing aircraft following the same route.
- a) ACC may specify a time at which, or a period between two times (a "slot") during which, an aircraft is authorized to take-off. Units at aerodromes shall be advised of any anticipated delay to departing aircraft together with the reason;
- c) If time of take-off is not specified, the approach control shall determine the take-off time when necessary to coordinate the departure with traffic released to it;
- d) A clearance expiry time shall be specified by the ACC if a delayed departure would conflict with traffic not released to the approach control;
- e) If, for traffic reason of its own, approach control has to specify in addition its own clearance expiry time, this shall not be later than that specified by the ACC.

5.3 Exchange of Movement and Control Data

5.3.1 from the Approach Control Units to the ACC

- a) The Approach control units are required to keep the ACC promptly advised of the following data on IFR flights such as:
 - 1) Runway(s)-in-use and expected type of instrument approach procedure;
 - 2) Lowest vacant level at the holding fix available for use by area control;
 - 3) Average time interval between successive approaches;
 - 4) Revisions to EATs when calculations show a variation of 5 minutes or more;
 - 5) ETA over the holding fix if they vary from the estimate by 3 min or more;
 - 6) Cancellations by aircraft of IFR flight, if it affects levels at the holding fix or EATs of other aircraft;
 - 7) Missed approaches when re-routeing is entailed, so that subsequent action is coordinated;
 - 8) Aircraft departure times of aircraft;
 - 9) All information on overdue aircraft.

NOTE 1. The passing of any of this information may be delegated from approach to aerodrome control.

NOTE 2. Any of the above items can be deleted from routine practice by agreement with area control.

5.3.2 from Approach Control Units to ACC

- a) The ACC shall keep the unit providing approach control promptly advised of the following data on IFR flights such as:
 - 1) Aircraft identification, type and SSR code (if applicable);
 - 2) Point of departure;
 - 3) Estimated time and proposed level at the holding facility, or arrival time and level at holding facility if the release is given after the actual arrival;
 - 4) Requested type IFR approach procedures, if different;
 - 5) Expected approach time issued;
 - 6) Contact point.
 - 7) When required, statement that aircraft has been released to the unit providing approach control including, as appropriate, time and conditions of released.
 - 8) Anticipated delay to departing aircraft due to congestion.
- b) Information on arriving aircraft shall be forwarded not less than 15 min before ETA and shall be revised as necessary;
- c) Aircraft released to approach control must be within controlled airspace when the release becomes effective;
- d) All other aircraft at lower levels must also be released or non radar separation provided;
- e) Aircraft released to approach shall not be levelled off, or climbed, above the level at the holding facility passed in the release message without coordination with ACC;
- f) When approach sequencing is in force, ACC shall clear all aircraft to the holding facility, giving, holding instructions and EAT as appropriate;
- g) Aircraft proceeding to an aerodrome outside controlled airspace shall be given a “no traffic reported below” advice, cleared to leave controlled airspace by descent, or on an appropriate track;
- h) ACC may, after coordination with approach control, clear an arriving aircraft to an aerodrome holding facility, or to a visual holding fix, instead of the normal holding facility.

5.4 Release Subject Your Discretion (RSYD)

- a) “RSYD” restriction is intended to facilitate the overall expedition of traffic where approach procedures may offer a more expeditious resolution of the confliction;
- b) Issued outbound clearances may not provide the required separation from either inbound aircraft (not yet passed release points) or from Overflying provided that:
 - 1) Outbound clearance is qualified by RSYD and details of conflicting traffic; and
 - 2) The release message on the inbound or full details of the Overflying traffic, have already been passed.
- c) It is the responsibility of the approach controller to determine whether he can provide the required separation in order to clear the outbound aircraft for departure;

- d) Before the outbound aircraft is transferred to ACC, all conflicts must have been resolved or coordination effected.

5.5 Release Subject

- a) ACC may issue two clearances to approach and request that an airfield separation is applied between the aircraft, (*two departures, same aerodrome in quick succession*);
- b) In such cases the telephone phraseology used would be "... *RELEASE SUBJECT (callsign)*";
- c) Under such circumstances, before transfer of control takes place, the second aircraft to depart shall be separated from the first departure;
- d) In such cases the approach controller must ensure that separation between the two aircraft is constant or increasing;
- e) If the approach controller is unable to achieve this, the ACC must be advised immediately and a new course of action agreed.
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Section 6. COORDINATION BETWEEN APPROACH AND AERODROME CONTROL

6.1 Division of control

- a) Approach shall retain control of arriving aircraft until such aircraft have been transferred to and are in communication with the aerodrome control tower;
- b) Approach control may authorize aerodrome control tower to release an aircraft for take-off subject to the discretion of the control tower with respect to arriving aircraft.
- c) Aerodrome control tower shall obtain approval from the approach control prior to authorizing operation of special VFR flights.

6.2 Exchange of Movement and Control Data

6.2.1 from Aerodrome Control Tower to Approach Control

- a) An aerodrome control tower shall keep the unit providing approach control service promptly advised of the pertinent data on relevant controlled traffic such as:
 - 3) Arrival and departure times;
 - 4) Statement that the first aircraft in the approach sequence is in communication with and sighted by the aerodrome control tower and that reasonable assurance exists that a landing can be accomplished;
 - 5) All available information on overdue aircraft;
 - 6) Information concerning missed approaches;
 - 7) Arriving aircraft which make their first call on the tower frequency (unless they are transferred to approach control);
 - 8) Information concerning aircraft that constitutes essential local traffic to aircraft under the control of the approach.

6.2.2 from Approach Control to Aerodrome Control Tower

- a) A unit providing approach control service shall keep the aerodrome control tower promptly advised of the pertinent data on relevant controlled traffic such as:
 - 1) Estimate time and proposed level of arriving aircraft over the aerodrome 15 min prior to estimate arrival;
 - 2) Statement that an aircraft has been instructed to contact the aerodrome control tower and that control shall be assumed by that unit;
 - 3) Aircraft routeing through the traffic circuit;
 - 4) Arriving aircraft which are to be cleared to visual holding fixes;
 - 5) Anticipated delay to departing aircraft due to congestion.

6.3 Exchange of Movement and Control Data between Control Towers

- a) Aerodrome control shall co-ordinate with adjacent aerodromes to ensure that the traffic circuits do not conflict.
- b) Aerodrome Controller shall coordinate with other agencies:
 - 1) ATSU's
 - 2) Air Traffic Controllers
 - 3) ATS Reporting Office
 - 4) Air/Ground Operators
 - 5) Aerodrome authority

Section 7. COORDINATION BETWEEN CONTROL POSITIONS
WITHIN THE SAME ATC UNIT

- a) Appropriate flight plan and control information shall be exchanged between controlled positions within the same ATC unit, in respect of all aircraft for which responsibility for control:
- 1) Will be transferred from position to another;
 - 2) Has been delegated by procedural controller to a radar controller, as well as other aircraft affected.
- b) Coordination shall be effected for aircraft operating in such proximity to the boundary between control sectors, if control of traffic within an adjacent sector may be affected;
- c) Procedures for coordination and transfer of control between control positions within the same ATC unit shall conform to procedures applicable to ATC unit
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**Section 8. COORDINATION BETWEEN
THE OPERATOR AND ATS**

- a) When so required by the operators, make available to them or their designated representatives such information as may be available to enable them to carry out their responsibilities;
 - b) When so requested by the operators, a message relating to the operation of the aircraft should be provided.
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Section 9. COORDINATION BETWEEN
MILITARY AUTHORITIES AND ATS

- a) Establish and maintain close cooperation with military authorities responsible for activities that may affect flights of civil aircraft;
 - b) Coordination of activities potentially hazardous to civil aircraft shall be effected, early enough, prior to the beginning of such activities;
 - c) A Letter of Agreement shall be established to arrange for coordination of aspects of mutual interests;
 - d) Arrangements shall be made to permit information relevant to the safe and expeditious conduct to be promptly exchanged.
 - e) Exchange of flight plan, control information and other data concerning flights of civil aircraft, shall be effected routinely or on request.
 - f) The ATC shall make available to the military authorities all information regarding changes in the previously exchanged data.
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**Section 10. COORDINATION BETWEEN ATS UNITS AND
AERONAUTICAL TELECOMMUNICATION STATIONS**

- a) ATS units shall ensure that the aeronautical telecommunications stations serving the centres concerned are informed regarding transfers of communications contact by aircraft;
 - b) Information to be made available shall comprise:
 - 1) the identification of the aircraft (including SELCAL code, when necessary);
 - 2) the route or destination (where necessary); and
 - 3) the expected or actual time of communications transfer.
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Section 11

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.

1. INFORMATION TO BE PROVIDED FOR AIR TRAFFIC SERVICES UNITS

1.1 List of information for the aerodrome control tower

The following meteorological information shall be supplied, as necessary, to an aerodrome control tower by its associated aerodrome meteorological office:

- (a) Local routine and special reports, METAR and SPECI, TAF and trend forecasts and amendments thereto, for the aerodrome concerned;
- (b) SIGMET and AIRMET information, wind shear warnings and alerts and aerodrome warnings;
- (c) Any additional meteorological information agreed upon locally, such as forecasts of surface wind for the determination of possible runway changes;
- (d) Information received on volcanic ash cloud, for which a SIGMET has not already been issued, as agreed between the meteorological and ATS authorities concerned; and
- (e) Information received on pre-eruption volcanic activity and/or a volcanic eruption as agreed between the meteorological and ATS authorities concerned.

1.2 List of information for the approach control unit

The following meteorological information shall be supplied, as necessary, to an approach control unit by its associated aerodrome meteorological office:

- (a) Local routine and special reports, METAR and SPECI, TAF and trend forecasts and amendments thereto, for the aerodrome(s) with which the approach control unit is concerned;
- (b) SIGMET and AIRMET information, wind shear warnings and alerts and appropriate special air-reports for the airspace with which the approach control unit is concerned and aerodrome warnings;
- (c) Any additional meteorological information agreed upon locally;
- (d) Information received on volcanic ash cloud, for which a SIGMET has not already been issued, as agreed between the meteorological and ATS authorities concerned; and
- (e) Information received on pre-eruption volcanic activity and/or a volcanic eruption as agreed between the meteorological and ATS authorities concerned.

1.3 List of information for the area control centre and flight information centre

The following meteorological information shall be supplied, as necessary, to an area control centre or a flight information centre by its associated meteorological watch office:

- (a) METAR and SPECI, including current pressure data for aerodromes and other locations, TAF and trend forecasts and amendments thereto, covering the flight information region or the control area and, if required by the flight information centre or area control centre, covering aerodromes in neighboring flight information regions, as determined by regional air navigation agreement;
- (b) Forecasts of upper winds, upper-air temperatures and significant en-route weather phenomena and amendments thereto, particularly those which are likely to make operation under visual flight rules impracticable, SIGMET and AIRMET information and appropriate special air-reports for the flight information region or control area and, if determined by regional air navigation agreement and required by the flight information centre or area control centre, for neighboring flight information regions;
- (c) Any other meteorological information required by the flight information centre or area control centre to meet requests from aircraft in flight; if the information requested is not available in the associated meteorological watch office, that office shall request the assistance of another meteorological office in supplying it;
- (d) Information received on volcanic ash cloud, for which a SIGMET has not already been issued, as agreed between the meteorological and ATS authorities concerned;
- (e) Information received concerning the release of radioactive material into the atmosphere, as agreed between the meteorological and ATS authorities concerned;
- (f) Tropical cyclone advisory information issued by a TCAC in its area of responsibility;
- (g) Volcanic ash advisory information issued by a VAAC in its area of responsibility; and
- (h) Information received on pre-eruption volcanic activity and/or a volcanic eruption as agreed between the meteorological and ATS authorities concerned.

1.4 Supply of information to aeronautical telecommunications stations

Where necessary for flight information purposes, current meteorological reports and forecasts shall be supplied to designated aeronautical telecommunication stations. A copy of such information shall be forwarded, if required, to the flight information centre or the area control center.