Chapter 6

PROCEDURES / SEPARATION IN THE VICINITY OF AERODROMES

6.1 ESSENTIAL LOCAL TRAFFIC

6.1.1 Information on essential local traffic known to the controller shall be transmitted without delay to departing and arriving aircraft concerned.

Note 1.— Essential local traffic in this context consists of any aircraft, vehicle or personnel on or near the runway to be used, or traffic in the take-off and climb-out area or the final approach area, which may constitute a collision hazard to a departing or arriving aircraft.

6.1.2 Essential local traffic shall be described so as to be easily identified.

6.2 PROCEDURES FOR DEPARTING AIRCRAFT

6.2.1 General

6.2.1.1 Clearances for departing aircraft shall specify, when necessary for the separation of aircraft, direction of takeoff and turn after take-off; heading or track to be made good before taking up the cleared departure track; level to maintain before continuing climb to assigned level; time, point and/or rate at which a level change shall be made; and any other necessary manoeuvre consistent with safe operation of the aircraft.

6.2.1.2 At aerodromes where standard instrument departures (SIDs) have been established, departing aircraft should normally be cleared to follow the appropriate SID.

6.2.2 Departure sequence

6.2.2.1 Departing aircraft may be expedited by suggesting a take-off direction which is not into the wind. It is the responsibility of the pilot-in-command of an aircraft to decide between making such a take-off or waiting for take-off in a preferred direction.

6.2.2.2 If departures are delayed, the delayed flights shall normally be cleared in an order based on their estimated time of departure, except that deviation from this order may be made to:

a) facilitate the maximum number of departures with the least average delay;
b) accommodate requests by an operator in respect of that operator's flights to the extent practicable.

6.2.2.3 Air traffic control units should when practicable advise aircraft operators or their designated representatives when anticipated delays are expected to exceed 30 minutes.

6.3 INFORMATION FOR DEPARTING AIRCRAFT

6.3.1 Meteorological conditions

Information regarding significant changes in the meteorological conditions in the take-off or climb-out area, obtained by the unit providing approach control service after a departing aircraft has established communication with such unit, shall be transmitted to the aircraft without delay, except when it is known that the aircraft already has received the information.

Note.— Significant changes in this context include those relating to surface wind direction or speed, visibility, runway visual range or air temperature (for turbine-engined aircraft), and the occurrence of thunderstorm or cumulonimbus, moderate or severe turbulence, wind shear, hail, moderate or severe icing, severe squall line, freezing precipitation, severe mountain waves, sand storm, dust storm, blowing snow, tornado or waterspout.

6.3.2 Operational status of visual or non-visual aids

Information regarding changes in the operational status of visual or non-visual aids essential for take-off and climb shall be transmitted without delay to a departing aircraft, except when it is known that the aircraft already has received the information.

6.4 PROCEDURES FOR ARRIVING AIRCRAFT

6.4.1 General

6.4.1.1 When it becomes evident that delays will be encountered by arriving aircraft, operators or designated representatives shall, to the extent practicable, be notified and kept currently informed of any changes in such expected delays.

6.4.1.2 The controller may request an arriving aircraft to report when leaving or passing a significant point or navigation aid, or when starting procedure turn or base turn, or any other information, to expedite departing and arriving aircraft.

6.4.1.3 An IFR flight shall not be cleared for an initial approach below the Minimum Sector Altitude (MSA) or Minimum Holding Altitude (MHA) whichever is higher, nor to descend below that altitude unless:

a) the pilot has reported passing an appropriate point defined by a navigation aid or as a waypoint; or
b) the pilot reports that the aerodrome is and can be maintained in sight; or
c) the aircraft is conducting a visual approach; or
d) the aircraft's position has been determined by the use of radar, and a lower minimum altitude has been specified for use when providing radar services.

6.4.1.4 At aerodromes where standard instrument arrivals (STARs) have been established, arriving aircraft should normally be cleared to follow the appropriate STAR. The aircraft shall be informed of the type of approach to expect and runway-in-use as early as possible.

6.4.1.5 After coordination with the approach control unit, the ACC may clear the first arriving aircraft for approach rather than to a holding point.

6.4.2 Visual Approach:

6.4.2.1 An approach by an **IFR** flight when either part or all of an instrument approach procedure is not completed and the approach is executed in visual reference to terrain.

6.4.2.2 Clearance for an IFR flight to execute a visual approach may be requested by the pilot or initiated by the controller.

6.4.2.3 If the controller has initiated the visual approach and it is not acceptable to the pilot, the pilot shall advise to the controller that visual approach not acceptable.

6.4.2.4 Visual approach by a flight crew:

6.4.2.4.1 A flight crew may request visual approach if he has runway in sight subject to the following conditions only:

a) the pilot can maintain visual reference to terrain and the reported ceiling is above initial approach level i.e. minimum holding altitude at the facility associated with the instrument approach procedure;

or

the pilot finds at the initial approach level or at any time during the instrument approach procedure that the meteorological conditions are such that with reasonable assurance

a visual approach and landing can be completed;

b) the ground visibility is not below the 'Aerodrome Operating Minima' of non precision approach available at the aerodrome and which aircraft is capable of carrying out at the time visual approach is requested, or

if visual approach is requested for a runway which has only circling approach , the ground visibility is not less than 5 km.

6.4.2.4.2 The pilot at the time of requesting for visual approach should give position report.

6.4.2.4.3 The pilot shall advise the controller immediately when

a) weather has deteriorated and unable to keep the terrain in sight; or
b) unable to continue flight following the preceding aircraft; or
c) additional spacing is required from preceding aircraft.

6.4.2.5 *Visual approach initiated by a procedural controller:*

6.4.2.5.1 The procedural controller may initiate visual approach during daytime subject to following conditions

a) ground visibility is 5 km or more,
b) clearance to execute visual approach is acceptable to flight crew, and
c) MET report does not indicate any cloud at or below the initial approach level i.e. minimum holding altitude at the facility associated with the instrument approach procedure

6.4.2.5.2 Clearance for visual approach shall be issued only after the pilot has reported the runway in sight and aircraft is at or below the initial approach altitude.

Phraseologies: CONFIRM VISUAL APPROACH ACCEPTABLE

- ✓ *EXPECT VISUAL APPROACH RUNWAY (number), REPORT RUNWAY IN SIGHT*
- ✓ *CLEARED VISUAL APPROACH RUNWAY (number), REPORT (position in the traffic circuit)*

6.4.2.6 *Visual approach initiated by a radar controller:*

6.4.2.6.1 The radar controller may initiate visual approach during daytime subject to following conditions

a) ground visibility is 5 km or more,
b) clearance to execute visual approach is acceptable to flight crew, and
c) MET report does not indicate any cloud at or below the minimum altitude applicable to radar vectoring.

6.4.2.6.2 When radar vectoring is being done for visual approach, clearance for visual approach shall be issued only after the pilot has reported the runway in sight, at which time radar vectoring would normally be terminated.

Phraseologies:

- ✓ *CONFIRM VISUAL APPROACH ACCEPTABLE*
- ✓ *(vectoring instruction) VECTORING FOR VISUAL APPROACH RUNWAY (number), REPORT RUNWAY IN SIGHT*
- ✓ *(vectoring instruction) VECTORING FOR) (position in the traffic circuit), REPORT RUNWAY IN SIGHT*
- ✓ *CLEARED VISUAL APPROACH RUNWAY (number), REPORT (position in the traffic circuit)*

6.4.2.6.3 If the pilot does not sight the runway, the aircraft will either be vectored for pilot interpreted final approach aid / surveillance radar approach or the aircraft will be climbed to minimum holding altitude associated with landing nav-aid and cleared for IAL procedure of the nav-aid.

6.4.2.7 When clearance to execute visual approach has been issued, it shall be the responsibility of pilot to maintain terrain clearance.

6.4.2.8 The controller shall also take into consideration of prevailing traffic.

When an aircraft requests visual approach and traffic condition does not permit it, pilot shall be informed.
Phraseology: UNABLE TO APPROVE VISUAL APPROACH DUE TRAFFIC

6.4.2.9 The controller shall not initiate a visual approach when there is reason to believe that the pilot is not familiar with the aerodrome and surrounding terrain.

6.4.2.10 The aircraft may be cleared for direct final if there is reasonable assurance that visual approach and landing can be completed.

6.4.2.11 Separation shall be provided between an aircraft cleared to execute a visual approach and other arriving and departing aircraft.

6.4.2.12 *Successive visual approaches:*

6.4.2.12.1 For successive visual approaches, radar or non-radar separation shall be maintained until the pilot of a succeeding aircraft reports having the preceding aircraft in sight. The aircraft shall then be instructed to follow and maintain own separation from the preceding aircraft and report runway in sight.
Phraseologies:
- ✓ *REPORT NUMBER (number) (aircraft type and position) IN SIGHT*
- ✓ *FOLLOW NUMBER (number) AND MAINTAIN OWN SEPARATION*
- ✓ *REPORT RUNWAY IN SIGHT*

6.4.2.12.2 When both aircraft are of a heavy wake turbulence category, or the preceding aircraft is of heavier wake turbulence category than the following, and the distance between the aircraft is less than the appropriate wake turbulence minimum, the controller shall issue caution of possible wake turbulence.
Phraseology: CAUTION WAKE TURBULANCE

6.4.2.12.3 The pilot-in-command of the aircraft concerned shall be responsible for ensuring that the spacing from a preceding aircraft of a heavier wake turbulence category is acceptable. If it is determined that additional spacing is required, the flight crew shall inform the ATC unit accordingly, stating their requirements.

6.4.2.13 Transfer of communication to the Aerodrome controller should be effected at such a point or time that information on essential local traffic, if applicable, and clearance to land or alternative instruction can be issued to the aircraft in a timely manner.

6.4.2.14 The aerodrome controller should endeavour to sight the aircraft and upon sighting should inform the pilot so. The landing clearance should be issued by the controller only after sighting the aircraft.

6.4.3 Instrument approach

6.4.3.1 The approach control unit shall specify the instrument approach procedure to be used by arriving aircraft. A flight crew may request an alternative procedure and, if circumstances permit, should be cleared accordingly.

6.4.3.2 If a pilot reports or it is clearly apparent to the ATC unit that the pilot is not familiar with an instrument approach procedure, the initial approach level, the point (in minutes from the appropriate reporting point) at which base turn or procedure turn will be started, the level at which the procedure turn shall be carried out and the final approach track shall be specified, except that only the last-mentioned need be specified if the aircraft is to be cleared for a straight-in approach. The frequency(ies) of the navigation aid(s) to be used as well as the missed approach procedure shall also be specified when deemed necessary.

6.4.3.3 If visual reference to terrain is established before completion of the approach procedure, the entire procedure

must nevertheless be executed unless the aircraft requests & is cleared for a visual approach.

6.4.4 Holding

6.4.4.1 In the event of extended delays, aircraft should be advised of the anticipated delay as early as possible and, when practicable, be instructed or given the option to reduce speed en route in order to absorb delay.

6.4.4.2 When delay is expected, the ACC shall normally be responsible for clearing aircraft to the holding point, and for including holding instructions, and expected approach time or onward clearance time, as applicable, in such clearances.

6.4.4.3 After coordination with the approach control unit, the ACC may clear arriving aircraft to visual holding points to hold until further advised by the approach control unit.

6.4.4.4 After coordination with the aerodrome control tower, the approach control unit may clear arriving aircraft to visual holding points to hold until further advised by the aerodrome control tower.

6.4.4.5 Holding and holding pattern entry shall be accomplished in accordance with published procedures. If entry and holding procedures have not been published or if the procedures are not known to a flight crew, the appropriate air traffic control unit shall specify the designator of the location or aid to be used, the inbound track, radial or bearing, direction of turn in the holding pattern as well as the time of the outbound leg or the distances between which to hold.

6.4.4.6 Aircraft should normally be held at a designated holding point. The required minimum vertical, lateral or longitudinal separation from other aircraft shall be provided. Criteria and procedures for the simultaneous use of adjacent holding patterns shall be prescribed in local instructions.

6.4.4.7 Levels at holding points shall as far as practicable be assigned in a manner that will facilitate clearing each aircraft to approach in its proper priority. Normally, the first aircraft to arrive over a holding point should be at the lowest level, with following aircraft at successively higher levels.

6.4.4.8 When extended holding is anticipated, turbojet aircraft should, when practicable, be permitted to hold at higher levels in order to conserve fuel, whilst retaining their order in the approach sequence.

6.4.4.9 If an aircraft is unable to comply with the published or cleared holding procedure, alternative instructions shall be issued.

6.4.4.10 For the purpose of maintaining a safe and orderly flow of traffic, an aircraft may be instructed to orbit at its present or at any other position, provided the required obstacle clearance is ensured.

6.4.5 Approach sequence

6.4.5.1 *General*

The following procedures shall be applied whenever approaches are in progress.

6.4.5.1.1 The approach sequence shall be established in a manner which will facilitate arrival of the maximum number of aircraft with the least average delay. Priority shall be given to:

a) an aircraft which anticipates being compelled to land because of factors affecting the safe operation of the aircraft (engine failure, shortage of fuel, etc.);

b) hospital aircraft or aircraft carrying any sick or seriously injured person requiring urgent medical attention;
c) aircraft engaged in search and rescue operations; and
d) VIP I (President), VIP II (Vice President), VIP III (Prime Minister) and VIP V (Foreign Heads of State/Govt.) aircraft.

6.4.5.1.2 Succeeding aircraft shall be cleared for approach:
a) when the preceding aircraft has reported that it is able to complete its approach without encountering instrument meteorological conditions; or
b) when the preceding aircraft is in communication with and sighted by the aerodrome control tower and reasonable assurance exists that a normal landing can be accomplished, or
c) when timed approaches are used, the preceding aircraft has passed the defined point inbound and reasonable assurance exists that a normal landing can be accomplished;
d) when the required longitudinal spacing between succeeding aircraft, as observed by radar, has been established.

6.4.5.1.3 In establishing the approach sequence, the need for increased longitudinal spacing between arriving aircraft due to wake turbulence shall be taken into account.

6.4.5.1.4 If the pilot of an aircraft in an approach sequence has indicated an intention to hold for weather improvement, or for other reasons, such action shall be approved. However, when other holding aircraft indicate intention to continue their approach-to-land, the pilot desiring to hold will be cleared to an adjacent fix for holding awaiting weather change or re-routing. Alternatively, the aircraft should be given a clearance to place it at the top of the approach sequence so that other holding aircraft may be permitted to land. Coordination shall be effected with any adjacent ATC unit or control sector, when required, to avoid conflict with the traffic under the jurisdiction of that unit or sector.

6.4.5.1.5 When establishing the approach sequence, an aircraft which has been authorized to absorb a specified period of notified terminal delay by cruising at a reduced speed en route, should, in so far as practicable, be credited with the time absorbed en route.

6.4.6 Expected approach time

6.4.6.1 An expected approach time shall be determined for an arriving aircraft that will be subjected to a delay of 10 minutes or more. The expected approach time shall be transmitted to the aircraft as soon as practicable and preferably not later than at the commencement of its initial descent from cruising level. A revised expected approach time shall be transmitted to the aircraft without delay whenever it differs from that previously transmitted by 5 minutes or more, or such lesser period of time as agreed between the ATS units concerned.

6.4.6.2 An expected approach time shall be transmitted to the aircraft by the most expeditious means whenever it is anticipated that the aircraft will be required to hold for 30 minutes or more.

6.4.6.3 The holding point to which an expected approach time relates shall be identified together with the expected approach time whenever circumstances are such that this would not otherwise be evident to the pilot.

6.4.7 Onward clearance time

In the event an aircraft is held en route or at a location or aid other than the initial approach fix, the aircraft concerned shall,

as soon as practicable, be given an expected onward clearance time from the holding point. The aircraft shall also be advised if further holding at subsequent holding points is expected.

Note.— "Onward clearance time" is the time at which an aircraft can expect to leave the point at which it is being held.

6.5 INFORMATION FOR ARRIVING AIRCRAFT

6.5.1 As early as practicable after an aircraft has established communication with the unit providing approach control service, the following elements of information, in the order listed, shall be transmitted to the aircraft, with the exception of such elements which it is known the aircraft has already received:

a) type of approach and runway-in-use;
b) meteorological information, as follows:
   i) surface wind direction and speed, including significant variations;
   ii) visibility and, when applicable, runway visual range (RVR);
   iii) present weather;
   iv) cloud below 5 000 ft or below the highest minimum sector altitude, whichever is greater; cumulonimbus;
   v) air temperature;
   vi) dew point temperature;
   vii) altimeter setting(s);
   viii) any available information on significant meteorological phenomena in the approach area; and
   ix) trend-type landing forecast, when available.
c) current runway surface conditions, in case of precipitants or other temporary hazards;
d) changes in the operational status of visual and non visual aids essential for approach and landing.

6.5.2 If it becomes necessary or operationally desirable that an arriving aircraft follow an instrument approach procedure or use a runway other than that initially stated, the flight crew shall be advised without delay.

6.5.3 At the commencement of final approach, the following information shall be transmitted to aircraft:

a) significant changes in the mean surface wind direction and speed;

Note.— If the controller possesses wind information in the form of components, the significant changes are:

- ✓ *Mean head-wind component: 10 kt*
- ✓ *Mean tail-wind component: 2 kt*
- ✓ *Mean cross-wind component: 5 kt*

b) the latest information, if any, on wind shear and/or turbulence in the final approach area;
c) the current visibility representative of the direction of approach and landing or, when provided, the current runway visual range value(s) and the trend, if practicable, supplemented by slant visual range value(s), if provided.

6.5.5 During final approach, the following information shall be transmitted without delay:

a) the sudden occurrence of hazards (e.g. unauthorized traffic on the runway);
b) significant variations in the current surface wind, expressed in terms of minimum and maximum values;
c) significant changes in runway surface conditions;
d) changes in the operational status of required visual or non-visual aids;
e) changes in observed RVR value(s), in accordance with the reported scale in use, or changes in the visibility representative of the direction of approach and landing.