ENR 1.5 HOLDING, APPROACH AND DEPARTURE PROCEDURES

ENR 1.5.1 General

1.1. The holding, approach and departure procedures in use through out the Kathmandu FIR (VNSM) are based in accordance with the criteria contained in ICAO Doc 8168- Procedure for Air Navigation Services-Operation (PANS-OPS).

1.2 The holding and approach procedures in use have been based on the values and factors contained in parts III and IV of Vol.I of the PANS-OPS. The holding patterns shall be entered and flown as indicated on the applicable approach charts.

1.3 An aircraft approaching an aerodrome under IFR for the purpose of making a landing shall conform to the holding and instrument approach procedures for the radio navigational aid employed as prescribed in the appropriate instrument approach charts.

1.4 Pilots will be expected to know the correct holding, approach and departure procedures.

ENR 1.5.2 Arriving flights

2.1. IFR flights entering and landing within a terminal control area/ CTR will be cleared to a specified holding point and instructed to contact approach/ aerodrome control at a specified time, level or position. The terms of this clearance shall be adhered to until further instructions received from approach/ aerodrome control. If the clearance limit is reached before further instructions have been received, holding procedure shall be carried out at the level last authorized.

2.2. Entry to the holding patterns and procedures shall be carried out as precisely as possible. Pilots are advised to inform ATC for any deviation.

2.3. Pilots making instrument approaches at controlled aerodrome shall refer to the procedures in the respective instrument approach charts in part 3 Aerodrome (AD).

2.4. In TIA, arriving VFR aircraft shall be required either to enter and remain within TMA at appropriate level till control zone boundary for further descent below 7500' AMSL or to fly well clear of TMA and enter control zone at a level below 7500' AMSL. Aircraft making VOR/DME Approach must include level while reporting position (Radial/DME). In case the aircraft reports incorrectly against the prescribed procedure, the controller shall alert the aircraft accordingly.

2.5. ***IFR Flights Entering Control Zones.***

2.5.1. a) Aircraft shall establish communication with the aerodrome control tower before entering the control zone and report position, level and flight conditions at the first contact.

b) In case of Tribhuvan International Airport, aircraft shall establish communication with Kathmandu Approach Control before entering control area or control zone.

2.5.2. A clearance up to the aerodrome or to an appropriate holding point shall be issued along with the following instructions by the control tower/ Kathmandu approach,

a) The type of instrument approach to be expected;
b) Expected Approach Time (EAT), if delay exceeds 5 minutes
c) Expected time for onward clearance, if instructions are issued to hold for an indefinite period at a holding point from which instrument approach is not intended,

2.5.3. Control TWR/Approach control will also specify the following information:

a) runway to be used
b) landing information

2.6. ***VFR Flight Entering Control Zone***

2.6.1. a) Aircraft shall establish communication with the aerodrome control tower before entering the control zone and report position, level and flight conditions at the first contact.

b) Incase of Tribhuvan International Airport aircraft shall establish communication with approach control unit before entering control area or control zone.

2.6.2. Approach control /Aerodrome control will provide instructions for progressive descents, changes in route, clearance limits and holding instruction. It will also advise and update necessary details of the runway to be used and other landing information;

2.7. ***Visual Approach***

2.7.1. An IFR flight may be cleared to execute a visual approach provided that the pilot can maintain visual reference to the terrain and;

a) The reported ceiling is at or above the approved initial approach level for the aircraft so cleared; or
b) The pilot reports at the initial approach level or at any time during the instrument approach procedure that the meteorological condition are such that with reasonable assurance a visual approach and landing can be completed.
c) The visibility at the aerodrome is 5 km or more.

2.7.2. Not withstanding Para 2.7.1(b) and (c), if the pilot reports that he has the aerodrome in sight and conduct his approach with visual reference to terrain, the flight may be

cleared for a visual approach/ circle to land. Separation shall be provided between an aircraft cleared to execute a visual approach and other arriving and departing aircraft.

2.8. ***Selection of Runway-in-Use for landing***

2.8.1. The term 'runway-in-use' shall be used to indicate the runway that, at a particular time, is considered by the aerodrome control tower to be the most suitable to be used by the types of aircraft expected to land at the aerodrome.

2.8.2. Normally, an aircraft will land into the wind unless safety, the runway configuration, meteorological conditions and available instrument approach procedure or air traffic conditions determine that a different direction is preferable. In selecting the runway in use, however, the unit providing aerodrome control service shall take into consideration, besides, surface wind speed and direction, other relevant factors such as the aerodrome traffic circuit, the length of runway, and the approach and landing aids available.

Note.– The decision to land on a wet runway or when the presence of birds has been advised, rests solely with the pilot-in-command

2.9. ***Landing***

2.9.1. Irrespective of the clearance received, a pilot-in-command shall not land unless he has received a specific clearance to do so in the terms "CLEAR TO LAND".

2.9.2. Unless specifically permitted, aircraft shall not hold on the runway.

2.10. ***Taxing after Landing***

2.10.1. Unless otherwise authorized by ATC, an aircraft shall promptly vacate the runway and proceed to the normal parking area via the shortest available taxiway. However, an aircraft shall not backtrack on the runway without obtaining a clearance.

2.10.2. A pilot-in-command unfamiliar with the aerodrome shall request for guidance to the terminal. The controller will then issue necessary instructions.

ENR 1.5.3 Departing Flights

3.1. IFR flights departing from controlled aerodromes will receive initial ATC clearance. The clearance limit will normally be the aerodrome of destination. IFR flights departing from un-controlled aerodromes must make prior arrangements.

3.2. The instrument departure procedures are only applicable for aircraft with all engines operating.

3.3. Pilots departing from controlled aerodromes, where standard instrument departure procedures have been published, shall comply accordingly.

3.4. Minimum climb gradient specified in the charts take in to account necessary obstacle clearance requirements.

3.5. VFR flights departing from TIA shall be required either to leave Control Zone at a level below 7500' AMSL and fly well clear of TMA before climbing to en route level or reach at or above 7500' by Control Zone boundary in order to remain within controlled airspace.

3.6. **Engine Starting Procedure**

When operating at controlled aerodromes, the pilot-in-command of an air-craft shall request clearance to start engines. Clearance to start engines will be given by using the phrase "START-UP APPROVED"

Note1.— Once the start-up clearance is issued, it is expected that the pilot-in-command shall start engines within 5 minutes

Note2.— 2 At TIA, surface movement control is provided on 121.9 MHZ to control all ground movement of aircraft other than the movement on the runway

3.7 Procedures for push back and engine start up

a) Aircraft departing shall get permission for push back.

b) To avoid confusion, pilots shall use the correct phraseology when redy for push back.

c) The pilot shall notify ATC when the aircraft is ready to push back within 5 min using the following phraseology:

- callsign;
- destination;
- proposed flight level and alternate level, if any;
- parking position;- and
- ready to push back in 5 minutes.

d) On receipt of the "ready to push back" call, ATC will advise the pilot push back clearance and an ATC clearance may be issued accordingly. If pre-departure coordination with an adjacent centre is required, the pilot will be instructed to standby.

e) By the completion of push back, the departing aircraft must have all engines running and shall be ready for taxi, unless otherwise instructed by ATC.

3.8 Selection of Runway-in-Use for take off

a) The term 'runway-in-use' shall be used to indicate the runway that, at a particular time, is considered by the aerodrome control tower to be the most suitable to be used by the types of aircraft expected to take off at the aerodrome.

b) Normally, an aircraft will take off into the wind unless safety, the runway configuration, meteorological conditions or air traffic conditions determine that a different direction is preferable. In selecting the runway in use, however, the unit provid-ing aerodrome control service shall take into consideration, besides, surface wind speed and direction, other relevant factors such as the aerodrome traffic circuit, the length of runway.

c) If the nominated runway or direction is not suitable for some reason the pilot-in-command shall request for alternative runway or direction prior to taxi.

d) A pilot-in-command shall not hold on the runway in use unless permitted to do so.

Note.— The decision to take off on a wet runway or when the presence of birds has been advised, rests solely with the pilot-in-command

3.9 **Take-Off**

a) Irrespective of other clearances, a pilot-in-command shall not take-off unless he has received a specific clearance in the terms "CLEARED FOR TAKE OFF"

Note.— Whenever practicable, aircraft shall be advised of the expected occurrence of hazards caused by wake turbulence.

b) Unless otherwise instructed by ATC, a pilot-in-command shall establish flight on the departure track as soon as practicable after take-off at a distance not more than 5 miles from the aerodrome.

ENR 1.5.4 Other Relevant Information and Procedure

4.1 Communication Failure Procedure

4.1.1 ***Communication failure.***

If a communication failure precludes compliance with 9.1.1, the aircraft shall comply with the communication failure procedures of Annex 10, Volume II, and with such of the following procedures as are appropriate. The aircraft shall attempt to establish communications with the appropriate air traffic control unit using all other available means. In addition, the aircraft, when forming part of the aerodrome traffic at a controlled aerodrome, shall keep a watch for such instructions as may be issued by visual signals,

4.1.1.1 *If in visual meteorological conditions, the aircraft shall:*

a) continue to fly in visual meteorological conditions; land at the nearest suitable aerodrome; and report its arrival by the most expeditious means to the appropriate air traffic control unit ;
b) if considered advisable, complete an IFR flight in accordance with 9.1.2.

4.1.1.2. *If in instrument meteorological conditions or when the pilot of an IFR flight considers it inadvisable to complete the flight in accordance with 9.1.1 a), the aircraft shall:*

a) in airspace where radar is not used in the provision of air traffic control, maintain the last assigned speed and level, or minimum flight altitude if higher, for a period of 20 minutes following the aircraft's failure to report its position over a compulsory reporting point and thereafter adjust level and speed in accordance with the filed flight plan;
b) in airspace where radar is used in the provision of air traffic control, maintain the last assigned speed and level, or minimum flight altitude if higher, for a period of 7 minutes following:

    1. the time the last assigned level or minimum flight altitude is reached; or
    2. the time the transponder is set to Code 7600; or
    3. the aircraft's failure to report its position over a compulsory reporting point; whichever is later, and thereafter adjust level and speed in accordance with the filed flight plan.

c) when being radar vectored or having been directed by ATC to proceed offset using RNAV without a specified limit, rejoin the current flight plan route no later than the next significant point, taking into consideration the applicable minimum flight altitude;
d) proceed according to the current flight plan route to the appropriate designated navigation aid or fix serving the destination aerodrome and, when required to ensure compliance with e) below, hold over this aid or fix until commencement of descent;
e) commence descent from the navigation aid or fix specified in d) at, or as close as possible to, the expected approach time last received and acknowledged; or, if no expected approach time has been received and acknowledged, at, or as close as possible to, the estimated time of arrival resulting from the current flight plan;

f) complete a normal instrument approach procedure as specified for the designated navigation aid or fix; and
g) land, if possible, within thirty minutes after the estimated time of arrival specified in e) or the last acknowledged expected approach time, whichever is later.

4.1.2. ***Receiver or Transmitter Failure Only***

Aircraft which experience failure of transmitting or receiving facility only, shall proceed in accordance with paragraph 9.1 above, but shall also:

a) In the event of receiver failure, transmit intentions and subsequently transmit position reports etc. on the appropriate frequency; and
b) In the event of transmitter failure, continue to maintain watch on the appropriate ground/air frequency.

4.1.3 ***Action taken by ATC***

4.1.3.1. When unable to maintain two-way communication with an aircraft which has been given ATC clearance to enter a control zone or control area, or when ATC is unable to establish communication with an aircraft in accordance with standard procedures, two-way communication failure will be assumed. ATC will act in the following manner unless it is known that the aircraft is not adhering to the flight plan received:

a) Maintain separation between aircraft on the assumption that aircraft experiencing radio failure will adopt the procedures in paragraph 9.1 above;
b) Transmit on the appropriate air/ground channels the altitude, route and EAT, or ETA, to which it is assumed the aircraft is adhering, and the weather conditions at the destination aerodrome and suitable alternates (When this information is already being transmitted on the appropriate channels either by routine broadcast, or in massages to other aircraft, a special transmission will be made only at the discretion of ATC). If practicable, the weather conditions in the area, or areas, suitable for a descent through cloud will also be transmitted;
c) Endeavour by means of any available ground radar to check whether the aircraft is receiving, and able to comply with instructions from ATC, and subsequently, to give all possible guidance to the aircraft;
d) Inform the operator concerned, or his designated representative; and
e) Inform ATC at the alternate aerodrome, or the appropriate ATC unit of the circumstances; if (by agreement with the operator or his designated representative) instructions to divert are transmitted to the aircraft, transmit the latest weather report and any current unserviceability report of approach aids at the alternate, and request the appropriate ATC unit to attempt to establish communication with the aircraft.

4.1.3.2. Before presuming that the aircraft has proceeded to another area or aerodrome, ATC will allow:

a) A period of 30 minutes after the last acknowledged EAT;
b) If no EAT has been acknowledged, a period of 30 minutes after the last acknowledged ETA; or

c) If no ETA has been acknowledged, a period of 30 minutes after the ETA computed from the last acknowledged position report and the flight plan times for subsequent sectors of the flight.

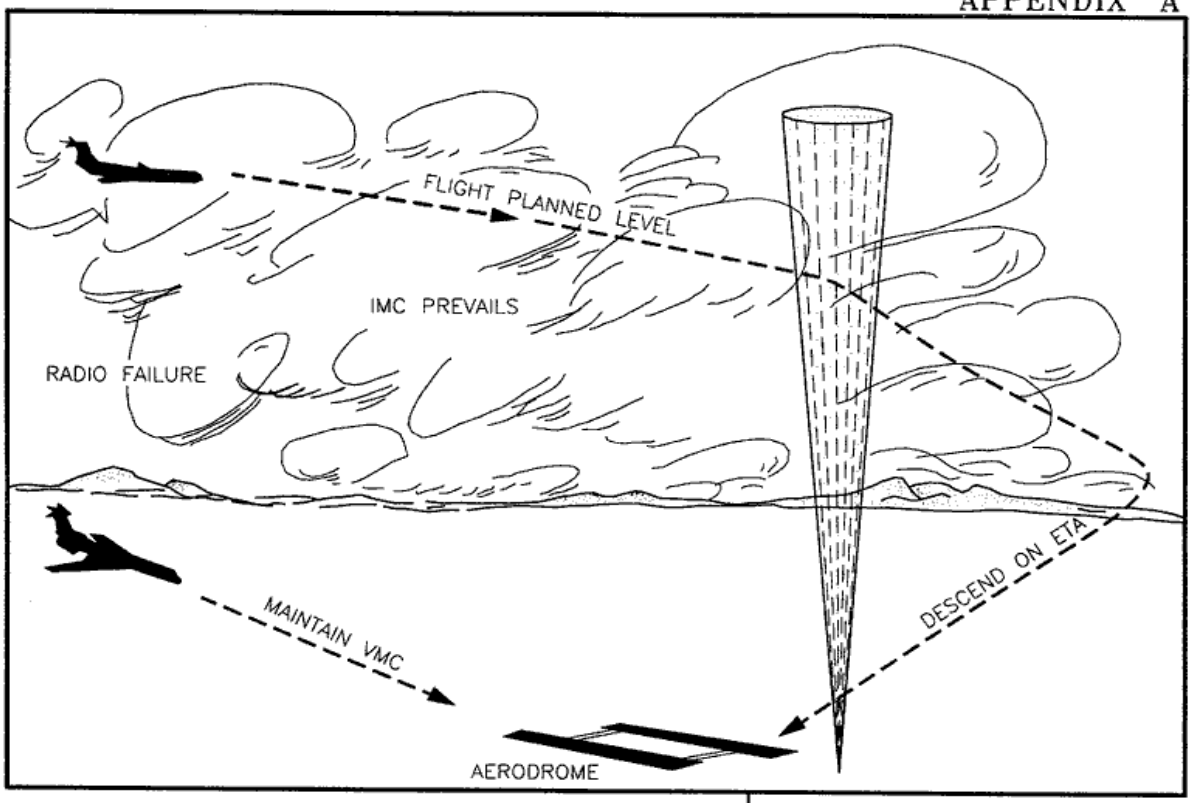
4.1.3.3. If the aircraft has not reported or landed by the end of the appropriate period, alerting action will be initiated and pertinent information concerning the aircraft will be given to the operating agencies and/or the pilots of any other aircraft concerned and normal operations resumed if they so desire, It is the responsibility of the operating agencies and/ or the pilots of aircraft to determine whether they will resume normal operations or take other action.

4.1.3.4. The Period referred to in 9.3.2 above will be reduced when:

a) Through the use of electronic or other aids, ATC can determine the position of the aircraft experiencing the failure, and can determine that action contrary to that prescribed above can be taken without impairing safety ; or
b) It becomes known that the aircraft has landed.

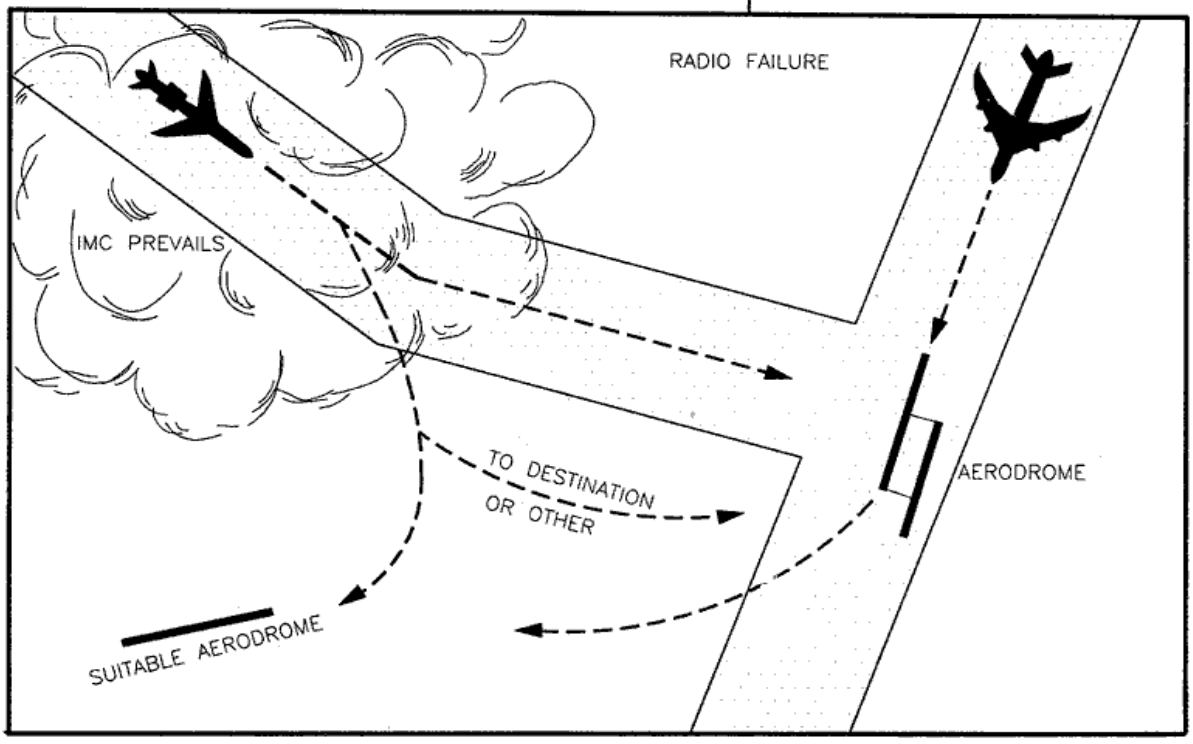
PILOT PROCEDURE FOR RADIO FAILURE

APPENDIX 'A'



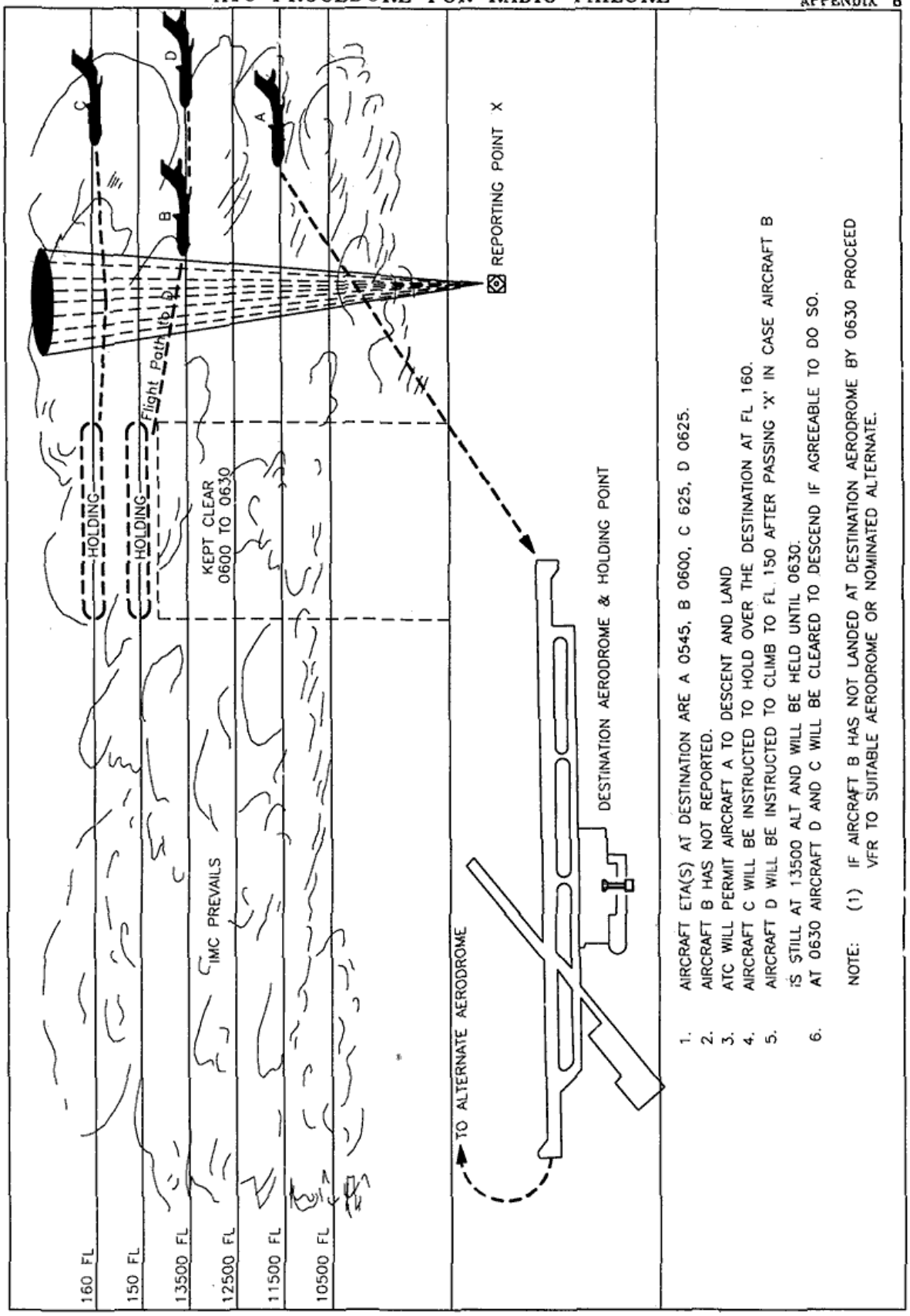
IF IFR, DIVERT OFF AIRWAYS, ESTABLISH VMC AND LAND AT SUITABLE AERODROME OR, PROCEED IN STRICT ACCORDANCE WITH LAST CLEARANCE OR FLIGHT PLAN TO DESTINATION.

IF VFR, MAINTAIN VMC TO DESTINATION OR OTHER SUITABLE AERODROME.



ATC PROCEDURE FOR RADIO FAILURE

APPENDIX 'B'



1. AIRCRAFT ETA(S) AT DESTINATION ARE A 0545, B 0600, C 625, D 0625.
2. AIRCRAFT B HAS NOT REPORTED.
3. ATC WILL PERMIT AIRCRAFT A TO DESCENT AND LAND
4. AIRCRAFT C WILL BE INSTRUCTED TO HOLD OVER THE DESTINATION AT FL 160.
5. AIRCRAFT D WILL BE INSTRUCTED TO CLIMB TO FL 150 AFTER PASSING 'X' IN CASE AIRCRAFT B IS STILL AT 13500 ALT AND WILL BE HELD UNTIL 0630.
6. AT 0630 AIRCRAFT D AND C WILL BE CLEARED TO DESCEND IF AGREEABLE TO DO SO.

NOTE: (1) IF AIRCRAFT B HAS NOT LANDED AT DESTINATION AERODROME BY 0630 PROCEED VFR TO SUITABLE AERODROME OR NOMINATED ALTERNATE.

Appendix B Remove: