

CHAPTER – 18

FLYING IN ADVERSE WEATHER

General

1. Before commencing flight in adverse weather study the radio aids of alt air fields and air fields of destination as well as the minimum descent altitude (MDA) in clouds and minimum horizontal vis at app. Before entering in to weather thoroughly check the flight/navigator equipment for sat condition on proper functioning of ice protection system.

Wind Shield Wipers

2. Wherever the vis from the cockpit is impaired due to rain, drizzle or snow, wind shield wiper is to be used. It is prohibited to actuate the same where the wind shield is dry.

Flying in Icing Conditions

3. Wind shield heating is to be switch to II position from T/O to landing if the ambient temp is +5⁰ C or less. In case of rain, drizzling, mist, snow and intense icing, it is to be put to 'HI' mode. It is to be put to I position for minimum 5 min before taken to II position.

Flying Through Weather

4. As a general rule thick/large Cu or Cb cloud is to be avoided either visually or with the help of radar by at least 15 km or climb at least 1500' over the top of cloud. The distance will depend on the intensity of the cloud, Flight Level of aircraft and the type of return being emanated by the cloud to be avoided. While operation in the vicinity of such clouds, radar should be operation in Weather/Contour mode. If for any reason the cloud is to be penetrated the following guidelines are to be following

- a. Find out the weakest area of the thunderstorm cloud.
- b. Before entering compare the display of the FDI & Gyro horizon with the actual att relative to the natural horizon.
- c. Cross the clouds at the right angles.
- d. Fly on radar.

5. Before taking any decision to fly through a thunderstorm cloud, the pilot is to consult with the Weather Radar image meticulously and formulate the best course of actions. Once in the thunderstorm cloud the pilot not control is to provide the heading and altitude depending on the Weather Radar picture and visual condition. In case of turbulent weather condition, speed should be maintained below 143 Kts.

Flying into a severely Turbulent Area

6. The following actions are to be taken when flying into a severely turbulent area:

- a. Fasten seat belt light-ON
- b. Call tighten seat belts'
- c. Disengage auto-pilot
- d. Maintain speed below 143 kts
- e. Fly the airplane trying to avoid abrupt deflections of elevator and ailerons, and execute turns with a bank not exceeding more than 20°.
- f. During landing maintain 10 - 20 kts higher than the one specified for the landing weight.
- g. Go round immediately if Engine rating Increase upto max continuous power is required to hold the aircraft on the glide slope (GS) down to 300ft.

Radio Alert (RA)

7. Radio Alt is to be kept on at safety altitude or at a pre-selected altitude while flying through adverse weather. Specially over the mountain or sea.