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### **CHAPTER - 1**

### **PREPARATION FOR FLIGHT**

## **Introduction**

1. Transport aircraft operation is teamwork. Because of its mere size and complexity, it is humanly impossible to handle a modern transport aircraft single handed. To achieve the best results and to ensure safety of the flight—each and every crew has to do his bit of the job and also cross check others. The first and foremost require for an effective transport operation mission is a thorough and detailed preparation in the planning stage by each crew.

# **General Preparation**

2. Flight planning is to be done for every mission. The Captain is to brief each crew on the specific require of the mission beforehand. He is to supervise preparation of flight plans, maps and charts and calculate the fuel required to complete the mission. Co-pilot is to prepare his maps, log sheets, route profiles and plan the fuel-load combination. He is also to ensure that the aircraft is ready to undertake the mission envisaged. Load Master (LOAD MASTER) is to plan the loading & lashing of cargoes, management of passengers and position of C of G depending on the nature of load and mission.

## 3. Equipment / Publications:

- a. The following equipment/publications are to be carried for all flights. Captain and Copilot is to ensure:
  - (1) Check list.
  - (2) Flight manual.
  - (3) SOP
  - (4) Let down charts
  - (5) I Pad
  - (6) Jeppesen Manual
  - (7) Relevant maps, charts and forms.
  - b. The following additional items are to be carried and ensured by Ground Crew whenever an out station landing is involved:
    - (1) F-781 (Traveling copy)
    - (2) Pliers
    - (3) Common screw driver
    - (4) Phillips screw driver

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- (5) Tyre pressure gauge
- (6) Locking wires and cleaning materials
- (7) Chocks
- (8) Covers blanks
- c. The Load Master is to ensure:
  - (1) Trim sheet
  - (2) Take off/ landing data form
  - (3) Cargo / passenger manifest
  - (4) Vomiting bag
  - (5) First aid box.
- 4. <u>Pre-Flight Fuel Planning</u>. The Co-pilot is to calculate the total fuel required for the mission by consulting the performance graph given in the flight manual plus fuel required to proceed to the farthest alternate plus 0:45 hours of reserve for normal cruise flying. For GF & IF mission involving local flying planned fuel will be the fuel required for the duration plus 400 kg reserve.
- 5. Flight briefing will be conducted in the following manner:
  - a. Mission specifics to all crew Captain.
  - b. Prevailing and forecast weather, time and distance to be flown Co-pilot.
  - c. Post flight de-brief to all crew Captain.
  - d. Post flight Weather report to Met Squadron Co-pilot.
  - e. Take off brief and Landing brief Captain/Co-pilot.
  - f. Briefing to pilot for solo flights OC/Flight Commander (Operation)/Instrument clearing the solo.

### Power on checks

6. Power on of aircraft and engine sys are to be carried out before the commencement of day's flying by Ground Crew.

#### Load plan & Trim sheet

7. The load and trim sheet are to be prepared by the Load Master for all commitment mission. The Load Master is to raise it in duplicate, co-pilot is to check the accuracy and captain or co-pilot on his behalf is to countersign. A copy is to be given to the air movement

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section. Other copy is to be on board. Co-pilot is also to calculate  $V_1$ ,  $V_R$ ,  $V_2$  & Single engine climbing speed (Vse) etc by consulting the checklist and Flight Manual.