PART 3

CHAPTER 1—PREPARATION FOR FLIGHT

Contents

WARNING 1: The aircraft assisted escape system is a potential source of danger and inadvertent operation can cause fatal injuries. Safety precautions are to be observed at all times, ie the aircraft is to be left in the 'Safe for Parking'* or 'Safe for Servicing'** condition as applicable.

* Safe for Parking — Safety pins fitted to the face screen firing handle(s), the seat pan firing handle(s) and, in the T Mk 5 only, the canopy jettison sear.

**Safe for Servicing — Safety pins also fitted to the main gun sear(s) and the guillotine unit sear(s).

WARNING 2: The armament safety break key is to be removed by the groundcrew on instruction from the pilot immediately prior to the aircraft taxying, and re-inserted on the pilot's instruction during the **Shutdown Checks.**

External and Internal Checks

1. Carry out the **External, Ejection Seat** and **Internal Checks** as laid down in the FRC, together with the additional **T Mk 5 Checks** where appropriate.

Starting Procedure

2. Start the engines in accordance with the drills in the FRC. The following considerations should be borne in mind:

a. It is preferable that the aircraft is facing into wind.

b. The engine running danger zones are to be clear of ground equipment.

c. If, during starting, the JPT limit is rapidly approached and appears likely to be exceeded, move the throttle to the HP COCK OFF position.

DC Start

3. The aircraft may be started without the use of an external AC electrical supply. If such a start is made, those items in the **Internal Checks** requiring AC power (including the MRG) are to be switched off wherever appropriate. Delay the selection and testing of these items (including the SWP) until the main generator and alternator are on line. Do not test the inverter until the MRG is fully run up.

4. Do not start the aircraft without an external DC supply because the subsequent re-charging of the main battery following an internal start is liable to cause battery boiling with consequent acid spillage.

Failure to Start

5. There are three types of failure to start an engine identifiable by:

a. Failure of combustion of the Avpin starter motor.

b. Normal starter combustion and engine rotation, but failure to achieve engine light-up.

c. Normal starter combustion but failure of the engine to rotate.

6. Having identified the type of failure, carry out the appropriate drill in accordance with the FRC.

WARNING: When normal starter combustion takes place but the engine fails to rotate, no further start is to be attempted, and 60 minutes are to elapse before examination or investigation takes place.

Checks After Starting

7. Carry out the **After Starting Checks** listed in the FRC.

8. After the first engine start of the day, set No 1 engine to 65% RPM and No 2 engine to idle while checking the standby generator.

9. Having closed the canopy, the pilot is to obtain a positive check from the groundcrew that the ejection seat restrictor cable is properly positioned. If prior to take-off or after an intermediate landing the canopy is opened, the restrictor cable is to be checked again by the groundcrew before take-off.

10. On the ground, with one engine at maximum RPM, 80% RPM or above is to be maintained on the other engine to prevent overheating of the slower running engine.

Anti-Icing Procedures

11. If the runways are wet or visible moisture reduces visibility to 1000 metres or less and the OAT is below +5°C, anti-icing is to be switched on immediately after engine start and left on for taxying.

12. Before selecting anti-icing, increase No 2 engine RPM to 70% to ensure that AC remains on line during selection. Once the anti-icing is operating, RPM may be reduced, but AC is likely to come off line at engine speeds below 65% RPM.

Taxying

13. Have the chocks removed and release the wheel-brakes parking catch. Idle/fast idle usually provides sufficient power to start the aircraft moving. Check the brakes as the aircraft moves off. At taxying speed, the aircraft tends to continue accelerating at idle/fast idle and frequent light braking is necessary to prevent excessive speed. Avoid harsh braking and sharp turns, otherwise vented fuel may enter the auxiliary air intakes. High AUW necessitates extra caution during taxying.

14. In conditions of high ambient temperature and/or tailwind, maintain the slower running engine at a minimum of 40% RPM in order to avoid excessive JPT. Whenever an engine is accelerated from idle care is to be taken to avoid exceeding the JPT limitation.

15. The canopy may be left open, but off the top stop, provided the airstream against the canopy does not exceed 65 knots (ie taxying speed plus wind component). If canopy vibration occurs, either close the canopy or reduce speed until the vibration stops. Ensure the ejection seat restrictor cable is re-checked before take-off.

16. Fuel consumption at idle/fast idle is approximately 55 lb/minute.