

## Chapter 3    LOADING AND C.G. DATA, WEIGHING, AND FATIGUE INDEX DATA

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## Chapter 3 EMERGENCY CONTROLS, EQUIPMENT, AND EXIT - METHOD OF OPERATION

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**WARNING**

The relevant safety precautions detailed on the LETHAL WARNING marker card must always be observed before entering the cockpit or performing any operations upon the aircraft.

**EMERGENCY CONTROLS AND EQUIPMENT****Alighting gear***Emergency raising*

1. An electrically-operated, pitot-

pressure-controlled, locking device in the UP section of the alighting gear selector switch prevents the selector lever being raised at air speeds below 165 knots. In emergency the locking device may be overridden by twisting the lever knob clockwise as far as it will go, then selecting UP in the normal manner.

*Emergency lowering*

2. Emergency lowering of the alighting

gear is controlled by a T-handle which protrudes through the port console. After depressing the release button marked U/C, the handle must be pulled to its full extent to operate the emergency lowering system. Just prior to full travel the handle will leave its guide and be free to lie horizontally so that it causes no obstruction. If the handle has been disturbed, inspection (and resetting, if necessary) of the emergency lowering mechanism (Sect. 3, Chap. 6) before flight is essential.

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### Ventral tank jettisoning

3. The ventral tank release unit is operated, and the tank jettisoned, by pulling the T-shaped handle, labelled TANK JETN. PULL, positioned below the port instrument panel. The operation can be combined with guided-weapon jettisoning (*para.4*).

### Guided-weapon jettisoning

4. The guided weapons are jettisoned by sideways ejection from their pylons. This operation is initiated by lifting a small flap, labelled WEPN JETN LIFT & PRESS on the ventral tank jettison handle (*para.3*), and depressing the uncovered switch. The operation can be combined with ventral tank jettisoning (*para.3*).

### Cockpit emergency air supply

5. Should a failure occur in the main air supply, or the air in the cockpit become contaminated, fresh air can be introduced under ram pressure through a manually-operated valve fitted in the port side of the fuselage. The valve operating handle marked RAM AIR moves in a gate on the port console; forward for OPEN, backward for CLOSED.

### Warning indicators

6. Indicators which give warning of fire (*para.7*), or of critical failure in the various aircraft systems, are grouped on the standard warning system indicator unit mounted below the port windscreen. Each individual warning is accompanied by the flashing of an attention light and of a light inside the attention cancel switch (C), also by an audio warning in the pilot's head-

set; the attention light is at the side of the light fighter sight and the attention cancel switch is on the indicator unit. Indications of less critical occurrences are grouped on the auxiliary warnings panel mounted below the starboard windscreen. Normally, the auxiliary warnings are not accompanied by the flashing attention light but in certain circumstances this does occur. For details refer to Sect.6, Chap.12.

### Fire warnings and fire extinguishers

7. Warnings of fire or excessive temperature in the engine bays or reheat zones (*Sect.4, Chap.5*) are given by four red indicators, labelled FIRE 1, FIRE 2, RHT.1, and RHT.2 on the standard warning system indicator unit. If a FIRE 1 or FIRE 2 warning appears, the lamp in the associated indicator switch unit at the aft end of the indicator unit will also be illuminated. Pressing the indicator switch unit push-button discharges the contents of both fire extinguishers into both fire zones of the affected engine bay and, if this extinguishes the fire, the warnings will disappear. There is no fire-extinguishing equipment in the reheat zones and if RHT.1 or RHT.2 appears, reheat must be cancelled immediately on both engines; if the warning persists following this action, the associated engine must be shut down.

### Emergency oxygen

8. The emergency oxygen cylinder is mounted on the rear of the ejection seat, and is connected to the pilot's mask through the personal equipment connector. Pulling up the yellow-and-

black striped knob, on the front of the seat pan at the starboard side, makes the emergency supply available. Transfer to the emergency supply is automatic when the seat leaves the aircraft during ejection.

### Emergency lighting

9. In the event of a d.c. power supply failure, amber floodlights provide illumination for the instrument panels, and integral lamps illuminate the emergency compass and the stand-by direction indicator. The lights are supplied from the emergency battery and are controlled by the EMERGENCY LIGHTS switch on the port coaming panel.

### Emergency compass

10. A Type E2B compass is mounted on the windscreen starboard frame member.

### Ejection seat

11. A Mk.4 BSC ejection seat, incorporating a back-type parachute and a survival pack, is fitted in the cockpit. The ejection sequence, which includes jettisoning of the canopy, is initiated by pulling down the face-screen firing handle or by pulling the alternative firing handle in the seat pan. The safety pins, with red warning discs attached, must remain fitted in the head rest and seat pan at all times other than immediately prior to, and during, flight.

### Pressure-head heaters emergency power supply

12. The main and the stand-by pressure-head heaters are controlled by a guarded three-position PITOT HEATER switch on

the starboard leg panel. When NORMAL is selected the heaters are supplied from the a.c. system, but should this supply fail they are supplied from the d.c. system by tripping the guard and selecting STANDBY.

#### ◀ Sonar locator beacon

13. The sonar locator beacon Type 17638 is an emergency locator beacon specifically designed to withstand and operate after the impact of the aircraft crashing into the sea. When submerged, the locator beacon is automatically switched ON, transmitting acoustic signals continuously for at least 240 hours. These signals can be received by shipborne or airborne equipment. The locator beacon derives its power from a two cell Lithium Sulphur Dioxide

battery pack. The beacon can be function tested by pressing the raised area of the diaphragm on the end cap to operate a switch and then listen for the clear acoustic pulses. ▶

### EMERGENCY EXIT

#### Canopy jettisoning

14. The canopy can be jettisoned without actuating the seat-ejecting mechanism by pulling either of two handles, one a spade-grip type mounted on the cockpit floor to the left of the pilot's seat and the other, a T-shaped handle connected to a lever on the external jettisoning control panel (*fig.1*). After depressing the section marked PRESS the external handle must be pulled outboard.

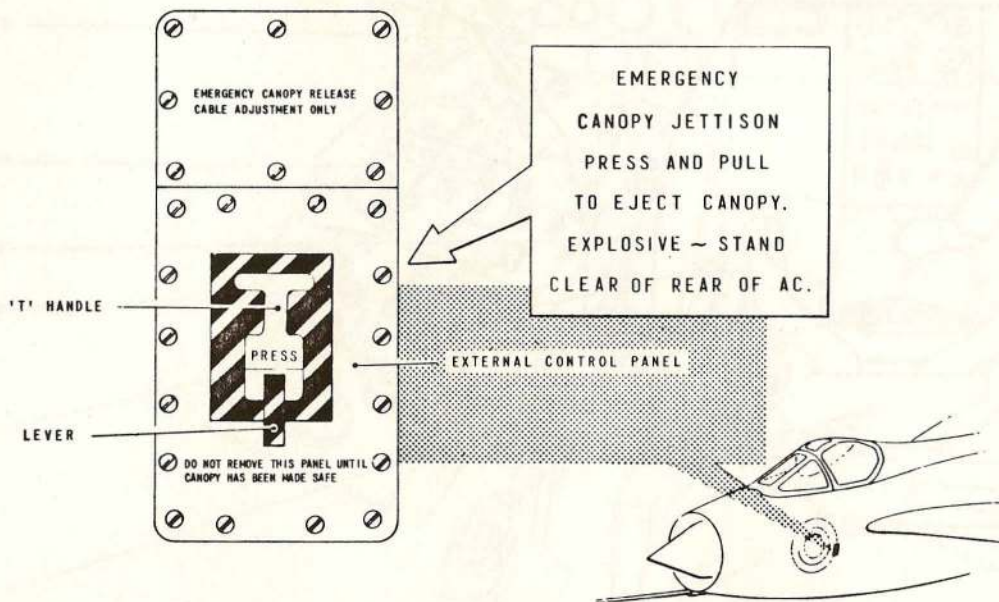


Fig.1. Canopy external jettisoning control

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#### Canopy opening in power failure conditions

15. If electrical or hydraulic failure prevents the canopy being opened normally when the aircraft is on the ground, it can be opened manually. While the canopy remains locked, the jack-end-fitting is released by operating either of two EMERGENCY CANOPY JACK RELEASE levers, one mounted below the top long-eron forward of the windscreen arch, and the other near the external canopy-locking handle; then, after unlocking in the normal manner, the canopy can be pushed or lifted open.

#### Partial opening

16. If an attempt is made to open the canopy in the normal way in conditions of hydraulic or electrical failure, it may open slightly and render the standby and canopy jettisoning systems ineffective. In this case:-

- (1) If the failure is hydraulic, close it (manual assistance may be necessary) by selecting, and holding CLOSED, the OPEN-CLOSED switch. If the failure is electrical, close it by manual means.
- (2) Lock it by pushing down the CANOPY control handle.
- (3) Operate the EMERGENCY CANOPY JACK RELEASE handle.
- (4) Pull the CANOPY control handle upwards, but do not operate the OPEN-CLOSED switch.
- (5) With external assistance, manually raise the canopy.

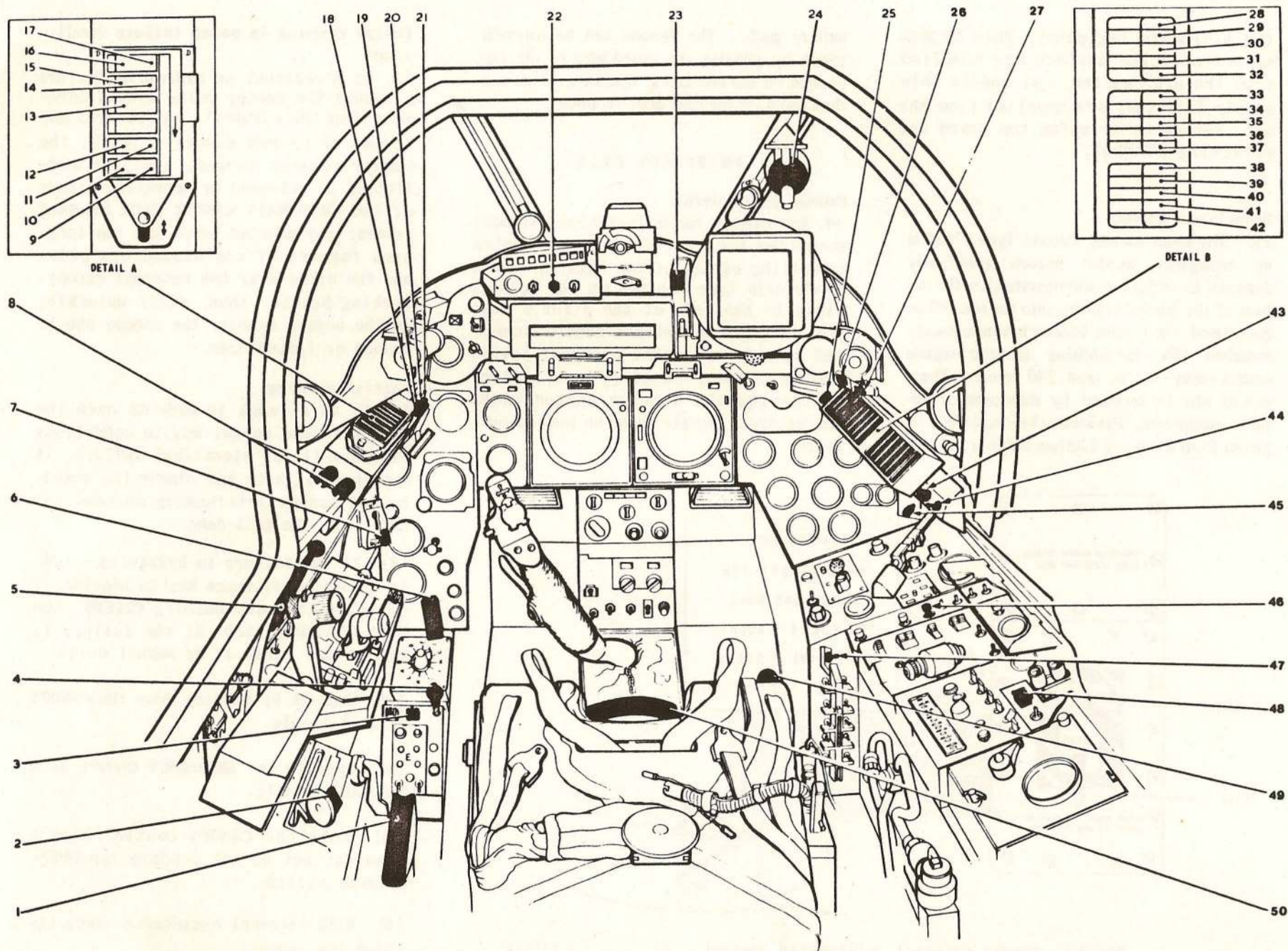


FIG. 2. EMERGENCY CONTROLS AND EQUIPMENT

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