

Chapter 2

CONTROLS AND EQUIPMENT AT
CREW STATIONS

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ADDENDA

Addendum 1 - Phase 1

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1. For convenience of description, controls and equipment are divided between crew stations. Fig.1 provides a general picture of the layout of the complete aircraft interior and the remaining illustrations are concerned with the various crew stations with the exception of those for the pilots which are covered in Chapter 1.

AIR BOMBER'S STATION (fig.2)

2. This is located in the nose of the aircraft and is provided with windows giving a forward and downward view. A general guide to the location of the controls and equipment is provided by the illustration. The twin air bomber's panels

are illustrated in Section 7.

Flare chutes

3. These are described and illustrated in Sect.7 and are not shown in the illustration. The stores for which they are provided are carried in multiple strap stowages, at each side of the nose.

RESTRICTED

NOTE:
CONTROLS AND EQUIPMENT
AT CREW STATIONS IS SHOWN
ON THE ILLUSTRATIONS OF
CREW STATIONS

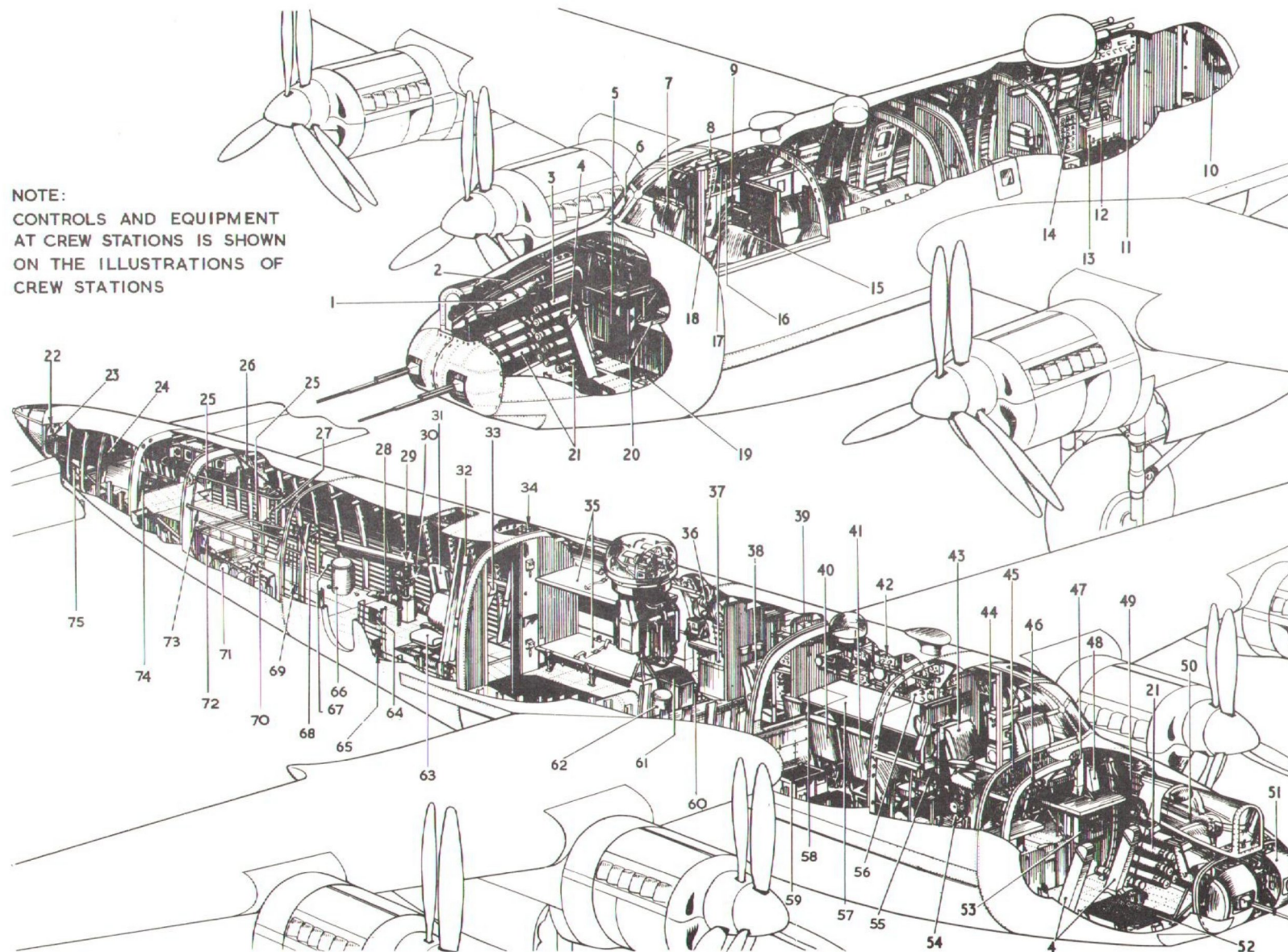


Fig.1. Crew stations and general equipment

RESTRICTED

KEY TO FIG.1

- | | | |
|---|---|--|
| 1. NO.1 HEATER | 25. CONTROL GUARD RAIL | 53. A.C. SUPPLIES PANEL |
| 2. AMMUNITION SYSTEM (port and starboard) | 26. RUDDER LOCKING SYSTEM | 54. TRIM CONTROL BOX |
| 3. MARINE MARKER STOWAGES | 27. FLYING CONTROLS | 55. ALDIS LAMP STOWAGE
(aft of second pilot's seat) |
| 4. FLARE CHUTE | 28. NO.3 HEATER | 56. NAVIGATOR'S PANEL |
| 5. PRE-SELECTOR PANEL | 29. FLYING CONTROL GUARD | 57. NAVIGATOR'S PLOTTING TABLE |
| 6. WINDSCREEN WIPER | 30. MOUNTING FOR B.3 DRIFT METER | 58. ASTRO-COMPASS MOUNTINGS |
| 7. SECOND PILOT'S SEAT | 31. OBSERVER'S SEAT (port) | 59. STEP |
| 8. CONTROL BOX IN CANOPY | 32. RETRACTABLE SCANNER | 60. VACUUM FLASK STOWAGES |
| 9. FLIGHT ENGINEER'S SEAT | 33. FLARE CHUTE (rear) | 61. TURRET STEP |
| 10. FLAME FLOAT STOWAGES | 34. PHOTOFLASH DISCHARGER | 62. REFUSE BIN |
| 11. SIGNAL DISCHARGER CONTROL PANEL | 35. CREW REST BUNKS | 63. OBSERVER'S SEAT (starboard) |
| 12. SIGNAL DISCHARGERS (4) | 36. NO.2 HEATER | 64. BINOCULARS STOWAGE |
| 13. EMPTY CARTRIDGE STOWAGE BAG | 37. GALLEY | 65. HAND CAMERA STOWAGE |
| 14. ILLUMINATING CARTRIDGE STOWAGE (169 cartridges) | 38. RADAR OPERATOR'S SEAT | 66. ELSAN |
| 15. FIRST PILOT'S SEAT | 39. SEXTANT STOWAGE | NOTE... |
| 16. DRIFT RECORDER | 40. NAVIGATOR'S RISING SEAT | Refer to fig.18 for the effect of Mod.359. |
| 17. AIR THERMOMETER | 41. ROUTINE NAVIGATOR'S SEAT | 67. FIRST-AID KIT |
| 18. SIGNAL PISTOL CARTRIDGE STOWAGE | 42. RADAR AND A.D.R.I.S. EQUIPMENT | 68. STOWAGES FOR CONTROL LOCKING PINS |
| 19. WINDSCREEN GLYCOL TANK | 43. WIRELESS OPERATOR'S SEAT | 69. DIPSTICK STOWAGES |
| 20. PILOT'S FLOOR | 44. WIRELESS OPERATOR'S STATION | 70. EMERGENCY PACK |
| 21. SPECIAL STORES STOWAGES (refer to text) | 45. PILOT'S INSTRUMENT PANEL | 71. NITROGEN BOTTLES |
| 22. WANDER LIGHT | 46. RUDDER CONTROLS | 72. ACCESS LADDER |
| 23. REAR ASTRO-COMPASS MOUNTING | 47. CONTROL COLUMN | 73. HANDRAIL |
| 24. REAR OBSERVER'S CUSHIONS | 48. ENGINE CONTROL PEDESTAL | 74. VERTICAL CAMERA COMPARTMENT |
| | 49. AMMUNITION BOX (port and starboard) | 75. OBLIQUE CAMERA COMPARTMENT |
| | 50. FRONT GUNNER'S SEAT | NOTE... |
| | 51. GUN MOUNTING | Controls and equipment at crew stations are shown on the illustrations of crew and panels. |
| | 52. AIR BOMBER'S CUSHIONS | |

RESTRICTED

FRONT GUNNER'S STATION (fig.3)

4. A Type N front gun mounting is installed in the nose above the forward portion of the air bomber's station. The main controls are covered by the illustration and reference should be made to A.P.2796N, Vol.1 and 5, for a detailed description of the mounting.

Front gunner's seat (Sect.3, Chap.16)

5. This is shown in both fig.2 and 3 and is fitted with a swivelling and sliding mechanism controlled by a handle which projects from under the seat base. When this handle is right forward, relative to the individual occupying the seat, the seat is locked; when it is pulled partially back, the seat is free to slide and when the handle is pulled right back, the seat is free to rotate.

FLIGHT ENGINEER'S STATION (fig.4)

6. A table with a hinged flap, which provides access to a recess below the table top, is secured to the bulkhead aft of the second pilot's station. On this bulkhead above the table is the main instrument and control panel and at the side is the auxiliary panel. The seat, which swivels on a pedestal, is provided with a locking handle. This is illustrated in Sect.3, Chap.16.

Main and auxiliary panels

7. Refer to fig.5 and 6 and their associated keys.

WIRELESS OPERATOR'S STATION (fig.7)

8. This is situated behind the bulkhead aft of the first pilot's station. A signal pistol, which is not shown in the illustration, is stowed in a holder secured to the floor under the seat. A firing adapter, into which the pistol can be inserted, is fitted to the fuselage roof over the flight engineer's seat.

Main panel

9. Mounted on this panel are the I.F.F. control units and the equipment is mounted between formers 16 and 18 as described in Book 2, Sect.6, Chap.1.

NAVIGATOR'S STATION (fig.8)

10. Three seats are provided at this station, two being together on a common base with independent rising and falling seat backs controlled each by a handle at the side of the associated seat. The third seat is fitted to a base which can be raised or lowered. In the high position it is used as a platform to give access to the astrodome. These seats are described and illustrated in Sect.3, Chap.16.

◀ Aircraft with Mod.674 embodied have the navigator's swinging seat replaced by a single swivelling seat as shown in Sect.3, Chap.16, fig.11.

Navigator's table and panels

◀ 11. The construction of the table is illustrated in Sect.3, Chap.16. The panels are illustrated in fig.9 and 10 with the equipment on the table together with the instruments, A.D.R.I.S. and radar equipment, described in Book 2, Sect.5, and 6 off this Volume.

Astrodome

12. An intercom. callbox and mic/tel. socket are located immediately aft of the astrodome and an astro-compass mounting bar can be fitted towards either side of the dome. Two mounting spigots are provided on the bar to enable four different mounting positions to be utilised for the instrument. When the instrument is not in use, it is stowed on a mounting spigot secured to the navigator's top shelf level with the dome. At the top of the dome is a swivelling lug for supporting a sextant.

S.B. OPERATOR'S STATION (fig.11)

13. The navigator's table extends aft over the front spar, the extended position incorporating a hinged flap to allow entry to the operator's seat. The flap also allows the seat to be slid further towards the table when the crash stations aft of the spar are to be used. The controls on the navigator's panel opposite this station are illustrated in fig.9.

RADAR OPERATOR'S STATION (fig.12)

◀ 14. Located behind a bulkhead at the aft end of the S.B. operator's station is a table above which is mounted A.S.V. radar

equipment. The controls for the retractable scanner are mounted on a panel at the port end of the lower shelf above the table.

GALLEY (fig.13)

15. The galley equipment is situated aft of a bulkhead behind the radar operator's station. All controls and facilities provided are shown in the illustration.

ILLUMINATING FLARE DISCHARGERS (fig.14)

16. Four six-barrel 1.75 in. signal cartridge dischargers are fitted, pointing in an upward and outward direction, to the starboard side of the fuselage between formers 20 and 22. A control panel and cartridge stowage are shown in the illustration. Details of the control panel are to be found in Book 2, Sect.7, Chap.1 of this Volume.

NOTE...

The cartridge stowage accommodates 169 cartridges.

PHOTOFLASH DISCHARGER (fig.15)

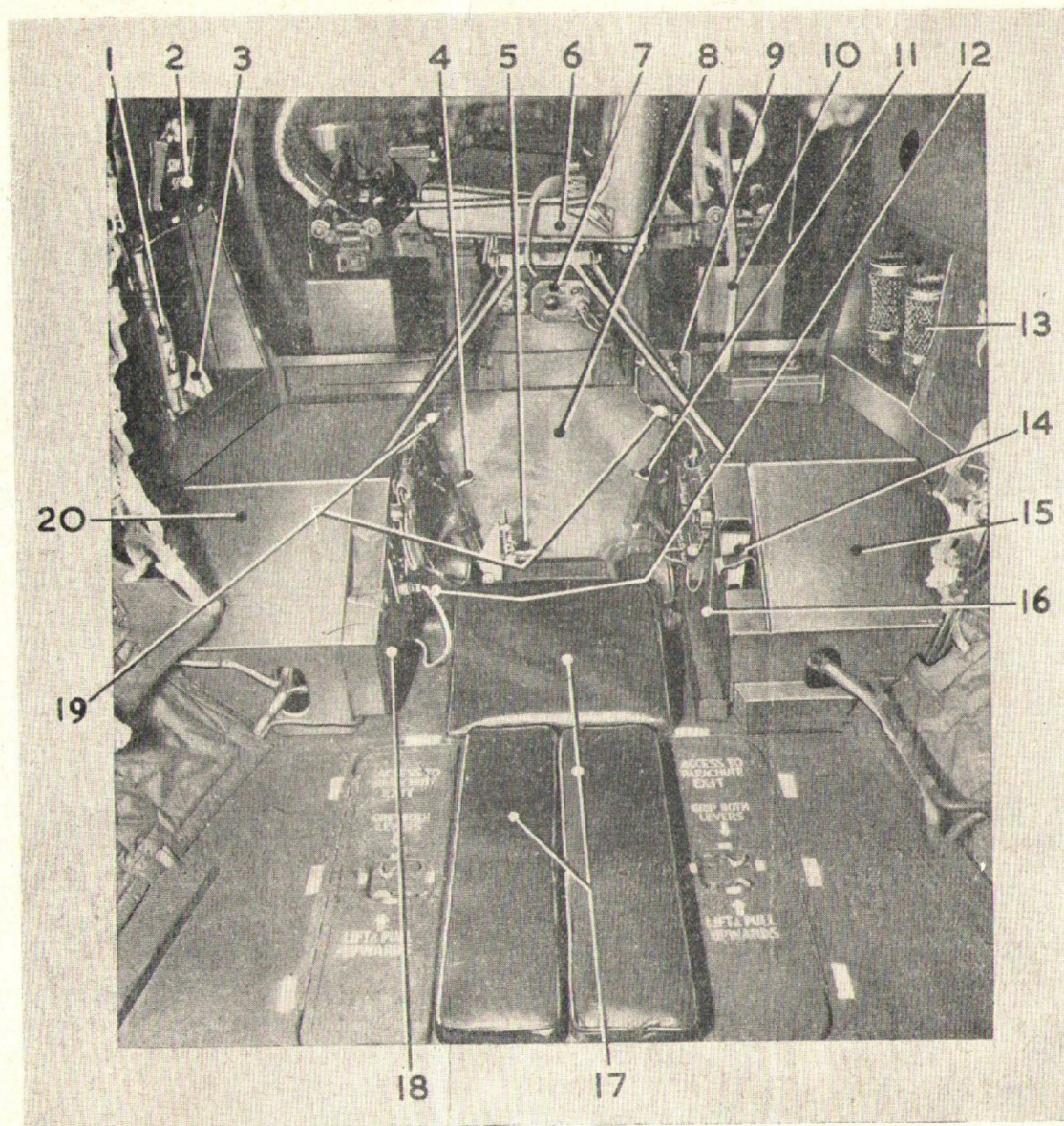
◀ 17. In the fuselage roof, immediately aft of former 22 and to port centre, is a single six-barrel 1.75 in. signal cartridge discharger. This is controlled in conjunction with the signal dischargers mentioned in the previous paragraph.

OBSERVER'S STATIONS (fig.17, 18 and 19)

18. Three stations are located in the fuselage, one on the starboard side at formers 25 and 26, another on the port side at formers 27 and 28 and one at the extreme end of the fuselage rear section. Seats are provided at the two beam stations and body cushions at the aft station. With the embodiment of Mod.382, sockets for a signalling lamp lead plug are fitted to the roof, one for the port observer at former 27, and another for the starboard observer at former 26. The equipment at each station is detailed in the keys to the illustrations.

SEATS, FITTINGS AND TRIMMINGS

19. These are described in Sect.3, Chap.16 of this Volume



- 1 FIRE EXTINGUISHER
- 2 SUN BLIND STOWAGE (GUNNER'S CANOPY)
- 3 GUN COCKING HANDLE (GUNNER), ALSO BREECH STOPPAGE AND GUN ELEVATING LEVER IN ADJACENT STOWAGES
- 4 PORT STOP FOR WINDSCREEN WIPER
- 5 BOMB-SIGHT MOUNTING
- 6 GUNNER'S SEAT
- 7 BOMB-SIGHT LIGHTING CONTROL PANEL
- 8 AIR BOMBER'S WINDOW
- 9 OXYGEN CUT-OFF POINT AND FLOW INDICATOR
- 10 OXYGEN TUBE
- 11 STARBOARD STOP FOR WINDSCREEN WIPER
- 12 AIR BOMBER'S ELBOW CUSHIONS
- 13 STOWAGES FOR TWO PORTABLE OXYGEN SETS
- 14 STOWAGE FOR BOMB DISTRIBUTOR COVER
- 15 STARBOARD EMPTY CARTRIDGE BOX
- 16 AIR BOMBER'S STARBOARD PANEL
- 17 AIR BOMBER'S BODY CUSHIONS
- 18 AIR BOMBER'S PORT PANEL
- 19 PANEL LAMP
- 20 PORT EMPTY CARTRIDGE BOX

Fig. 2. Air bomber's and front gunner's stations—I

- 1 DIMMER SWITCH—CONTROLS FOR ITEM 5
 - 2 GUN FIRING BUTTON
 - 3 RED WARNING LIGHT—INDICATES POWER SWITCH IS ON
 - 4 GUN SIGHT
 - 5 PANEL LAMP
 - 6 GUN SIGHT DIMMER SWITCH
 - 7 POWER SUPPLY SWITCHES
L.H.—OFF } Forward
R.H.—ON }
 - 8 GUN MASTER SWITCH
Forward—FIRE
Back—SAFE
 - 9 CAMERA SWITCH
Forward—ON
Back—OFF
 - 10 OXYGEN CUT-OFF VALVE AND FLOW INDICATOR
 - 11 WARNING LABEL :—
USE EXTERNAL POWER SUPPLY FOR GROUND
TEST UNLESS ENGINE GENERATOR IS CHARGING
 - 12 WARNING LABEL :—
ELECTRIC MOTOR MUST BE RUNNING BEFORE
MOVING CONTROL HANDLE
 - 13 ELEVATION LEVER
Engaged (up)/Free
ALSO AZIMUTH LEVER
Free (up)/Engaged
 - 14 MANUAL ELEVATION GEAR
Operated by item 13
 - 15 MANUAL GEAR OPERATED BY RATCHET LEVER
Refer item 3, fig. 2
 - 16 PORT GUN MOUNTING CRADLE
 - 17 EMERGENCY CALL SWITCH—TO PILOT
 - 18 GUN CONTROL HANDLE (refer to 12)
 - 19 INTERCOMM. CONTROL UNIT
 - 20 MIC./TEL. SOCKET
- REFER ALSO TO FIG. 2

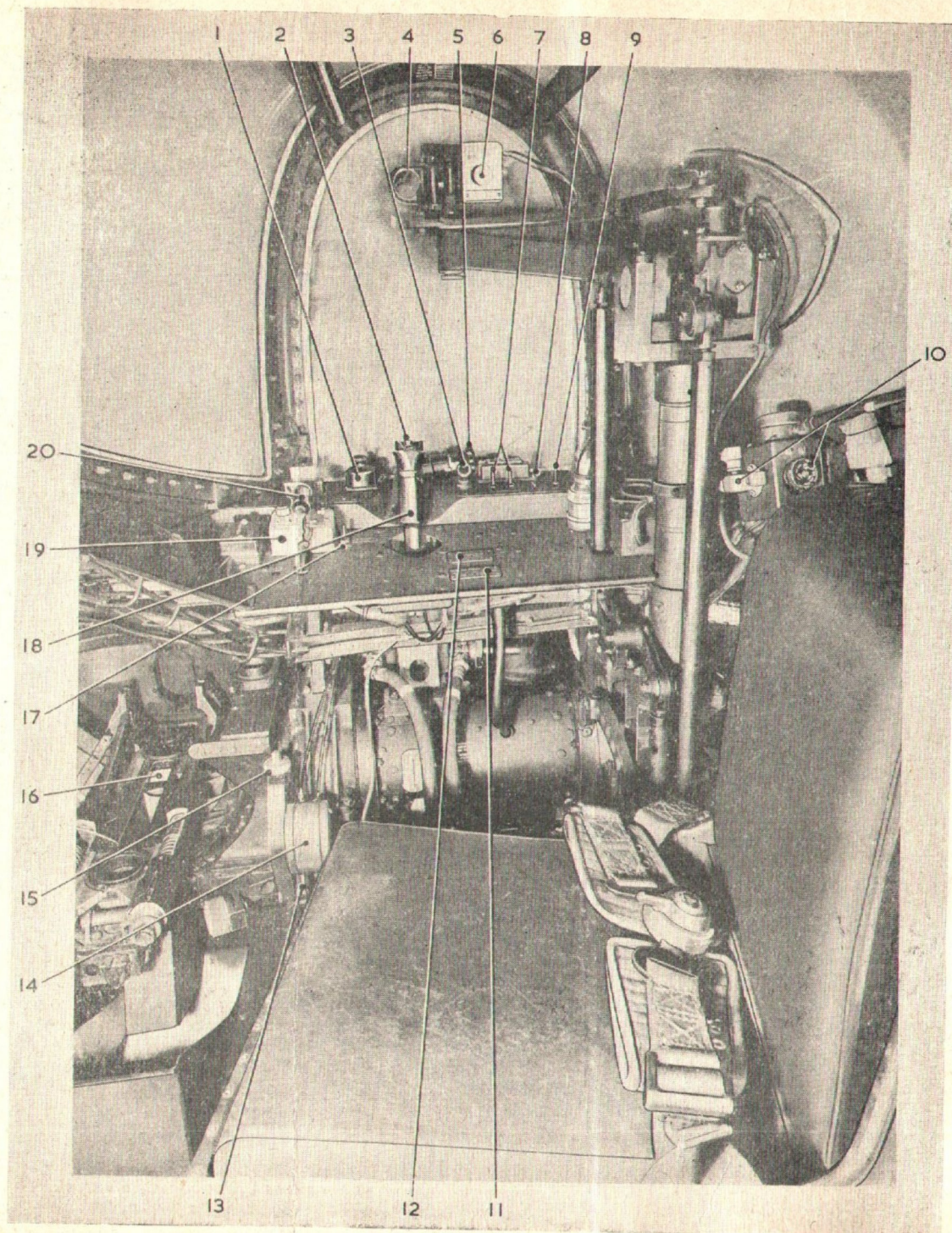


Fig. 3. Air bomber's and front gunner's stations—2

RESTRICTED

1 AUTOMATIC PILOT AMPLIFIER UNIT

2 ANGLEPOISE LAMP

3 INTER-COM. STATION BOX

4 ANGLEPOISE LAMP DIMMER-SWITCH

5 SIGNAL CARTRIDGE STOWAGE

6 AUXILIARY PANEL

7 OXYGEN CUT-OFF POINT

8 MIC./TEL. SOCKET

9 OXYGEN TUBE

10 TABLE WITH HINGE FLAP

11 OXYGEN REGULATOR

In aircraft embodying Mod. 484, the regulator is located at the top of the forward face of the flight engineer's bulkhead.

12 LAMP FOR OXYGEN REGULATOR

13 MAIN PANEL

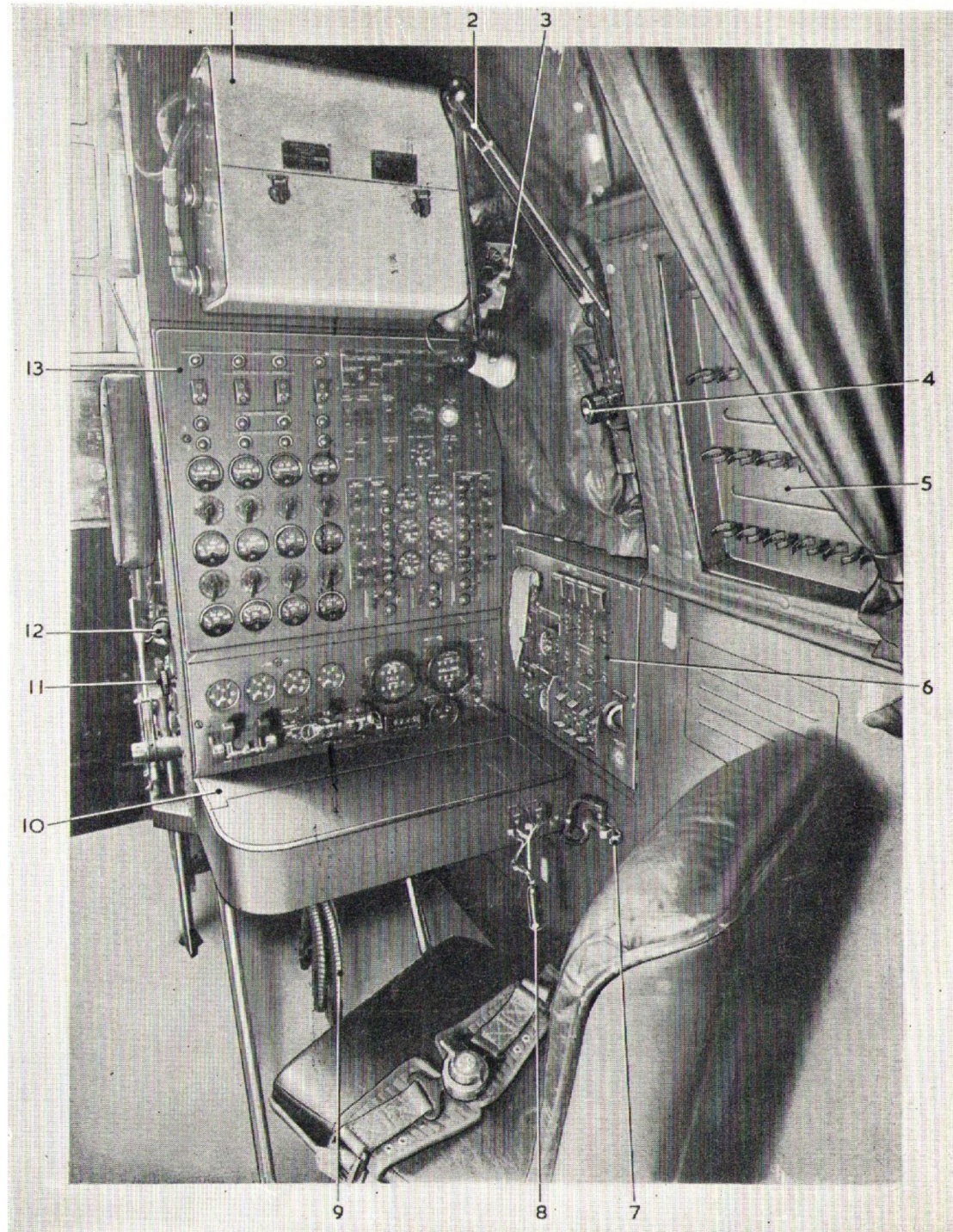


Fig. 4. Flight engineer's station

(A.L.90, Jan., 56)

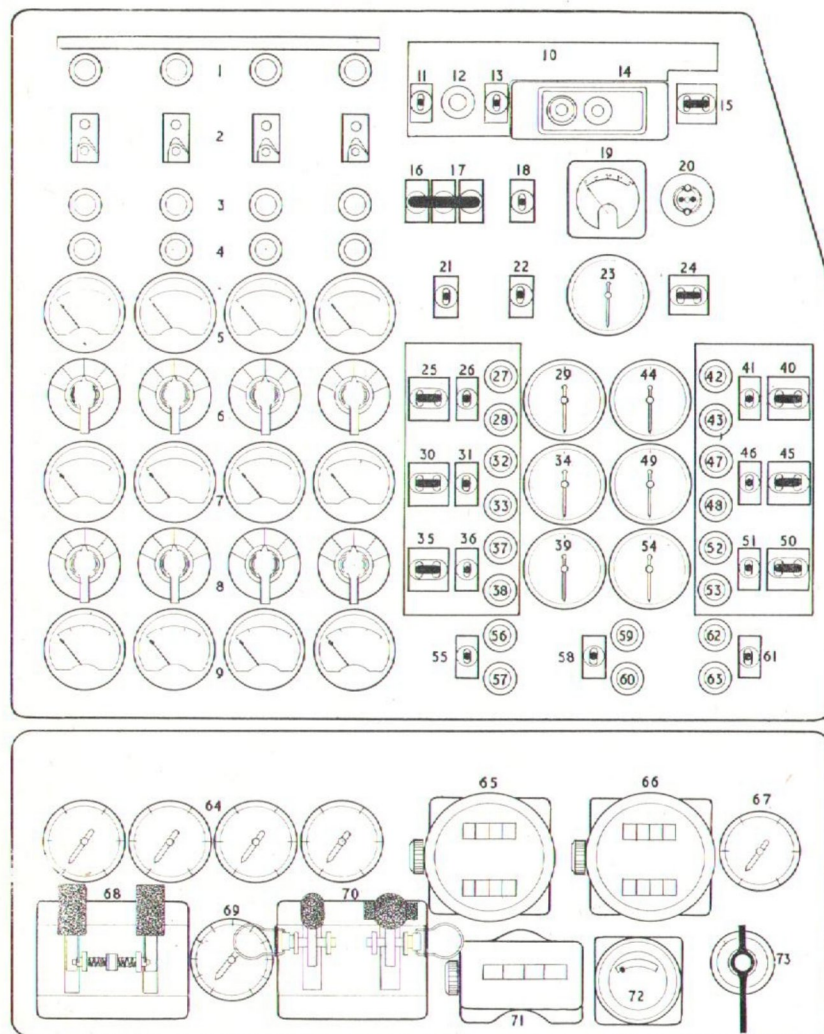


Fig. 5. Flight engineer's main panel

ELECTRICAL SYSTEM

- 1 GENERATOR FAILURE INDICATORS
(Left to right, No. 1, 2, 3 and 4)
- 2 GENERATOR FIELD CIRCUIT BREAKERS
(Left to right, No. 1, 2, 3 and 4)
- 10 SUPPLY — ELECTRICALLY DRIVEN FLIGHT INSTRUMENTS sub panel :—
- 11 Switch
Up—A.S.V. GYRO TEST & EMERG.
Down—NORMAL
- 12 Power failure indicator
- 13 Switch
Up—EMERG, down—NORMAL
- 14 RESET RELAY SWITCH—SWITCH OFF WHEN ENGINES STATIONARY
- 15 CONVERTER switch
Up—ON
- 18 GALLEY ISOLATION SWITCH
(Spring-loaded to "galley ON")
- 19 Voltmeter
- 20 FUEL PUMP TEST socket

ENGINE CONTROLS AND INDICATORS

- (Left to right No. 1, 2, 3 and 4)
 - 3 Supercharger indicators
 - 4 MASTER ENGINE COCK INDICATORS
 - 5 CHANGE temperature indicators
 - 6 CARBURETTOR AIR-INTAKE controls
(AUTO, COLD, STOP & ON)
 - 7 RADIATOR temperature indicators
 - 8 RADIATOR FLAP CONTROLS
(AUTO, OPEN, STOP & CLOSE)
 - 9 OIL temperature indicators
- Note.—Following items single only
- 16 SUPERCHARGER switch
Up—FS, down—MS
 - 17 WATER/METHANOL switch
Up—ON
 - 21 AIR CLEANER switch
Up—CLEAN, down—NORMAL

FUEL SYSTEM

- Note.—All switches up for ON
- 22 CABIN HEATER FUEL SUPPLY switch
 - 23 DROP TANK CONTENTS gauge
 - 24 DROP TANK PUMP SWITCH
- Note.—Following pump switches also down—TEST (item 20)

PORT SYSTEM

- No. 1 tank
- 25 PUMP SWITCHES
- 26 SELECTOR COCK switch
- 27 ON indicator
- 28 OFF indicator
- 29 Contents gauge
- No. 2 tank
- 30 PUMP SWITCHES
- 31 SELECTOR COCK switch
- 32 ON indicator
- 33 OFF indicator
- 34 Contents gauge

No. 3 and 4 tanks

- 35 PUMP SWITCHES
- 36 SELECTOR COCK switch
- 37 ON indicator
- 38 OFF indicator
- 39 Contents gauge

STARBOARD SYSTEM

No. 1 tank

- 40 PUMP SWITCHES
- 41 SELECTOR COCK switch
- 42 ON indicator
- 43 OFF indicator
- 44 Contents gauge

No. 2 tank

- 45 PUMP SWITCHES
- 46 SELECTOR COCK switch
- 47 ON indicator
- 48 OFF indicator
- 49 Contents gauge

No. 3 and 4 tanks

- 50 PUMP SWITCHES
- 51 SELECTOR COCK switch
- 52 ON indicator
- 53 OFF indicator
- 54 Contents gauge

CROSS FEED COCKS

- 55 Port Switch up—ON
- 58 CENTRE Switch up—ON
- 61 Starboard Switch up—ON
- 56, 59, 62 ON indicators
- 57, 60, 63 OFF indicators

OIL SYSTEM

- 64 Oil pressure gauges
(Left to right, No. 1, 2, 3 and 4)

MISCELLANEOUS

- 65 "Gallons gone" meter—port
- 66 "Gallons gone" meter—starboard
- 67 VACUUM GAUGE
- 68 EMERGENCY AIR BOMB DOORS
Both handles up—OFF
Left down—DOORS OPEN
Right down—DOORS CLOSED
- 69 EMERGENCY AIR, U/C and FLAPS gauge
- 70 EMERGENCY AIR U/C and FLAPS
Both handles up—OFF
Left down—U/C DOWN
Right down—FLAPS DOWN
- 71 AIR NAUTICAL MILES indicator
- 72 Oxygen flow indicator
- 73 VACUUM CHANGE
Left—EMERGENCY
Right—NORMAL

Note.—Capitals indicate inscriptions

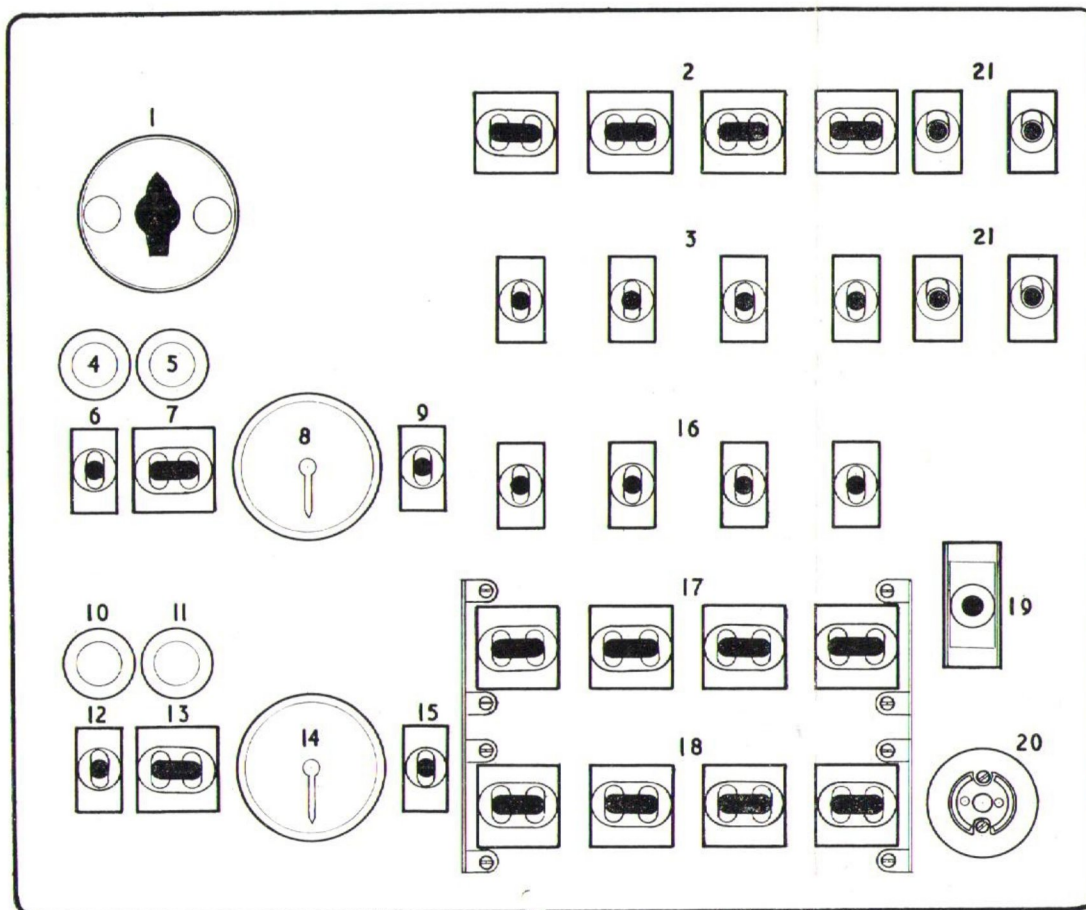


FIG. 6. FLIGHT ENGINEER'S AUXILIARY PANEL

ENGINE STARTING GROUP

- 1 ENGINE PRIMING switch
- 2 ENGINE STARTING SWITCHES
Down—ON (left to right, No. 1, 2, 3 and 4 engine. Fitted with guards)
- 3 BOOSTER COIL and SLOW RUNNING CUT-OFF switches
Up—booster coil on, down—cut-off operated

PROPELLER DE-ICING GROUP

- 4 NORMAL ON indicator
- 5 EMERGENCY ON indicator
- 6 NORMAL operation switch
Up—ON
- 7 EMERGENCY operation switch
Up—ON
- 8 TANK CONTENTS gauge
- 9 Gauge switch
Up—ON

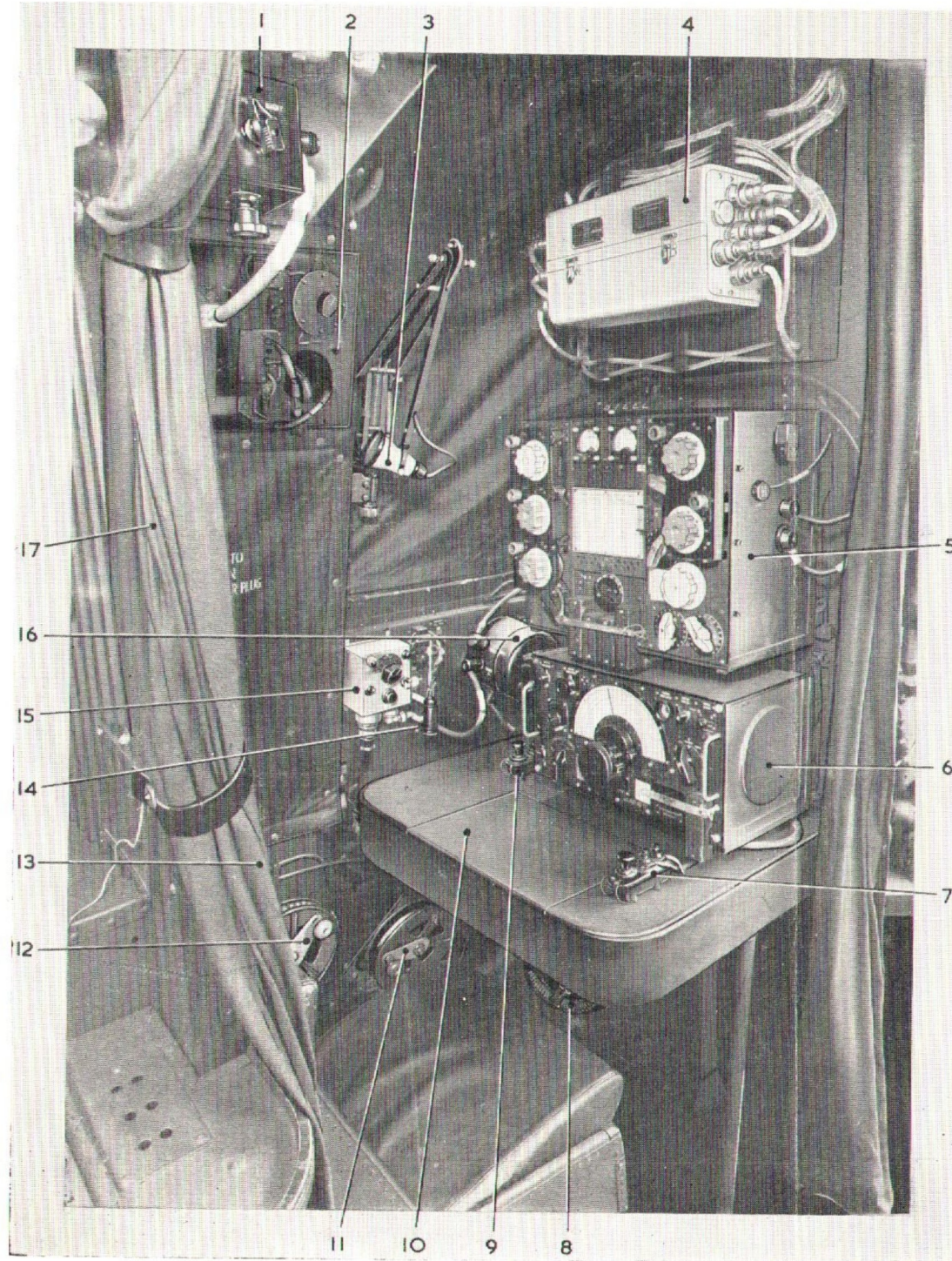
WING AND TAIL LEADING EDGE DE-ICING GROUP

- 10 NORMAL ON indicator
- 11 EMERGENCY ON indicator
- 12 NORMAL operation switch
Up—ON
- 13 EMERGENCY operation switch
Up—ON
- 14 TANK CONTENTS gauge
- 15 Gauge switch
Up—ON

MISCELLANEOUS

- 16 OIL DILUTION switches
Up—ON (left to right, No. 1, 2, 3 and 4)
- 17 GENERATOR SWITCHES
Up—ON, down OFF (left to right, No. 1, 2, 3 and 4)
- 18 WATER/METHANOL TEST SWITCHES
Up—TEST (left to right, No. 1, 2, 3 and 4)
- 19 UNDERCARRIAGE TEST SWITCH
Up—TEST
- 20 Water/Methanol PUMP TEST SOCKET
- 21 FUEL FLOWMETER BY-PASS operating switches
UP—ON (by-pass closed)

Note.—Capitals indicate inscriptions



Key to Fig. 7

- 1 LORAN LOADING UNIT
- 2 WIRELESS OPERATOR'S AUXILIARY PANEL
- 3 ANGLEPOISE LAMP
- 4 AUTO-PILOT JUNCTION BOX
- 5 T.1154M
- 6 R.1155L
- 7 MORSE KEY
- 8 OXYGEN TUBE CONNECTION
- 9 MORSE KEY FOR I.F.F.
- 10 TABLE WITH HINGED FLAP
- 11 TRAILING AERIAL WINCH
- 12 SPARE AERIAL REEL
- 13 OXYGEN CUT-OFF POINT (BEHIND CURTAIN)
- 14 MIC./TEL. SOCKET
- 15 CALL BOX
- 16 AERIAL SELECTOR SWITCH
- 17 BLACK-OUT CURTAIN

Key to Fig. 8

- 1 AIR POSITION INDICATOR NO. 1
- 1a AIR POSITION INDICATOR NO. 2
- 2 MK. 3 BOMBSIGHT COMPUTER
- 3 RISING FLAPS OVER TABLE MAP COMPARTMENTS
- 4 G4B COMPASS INDICATOR
- 5 DOUBLE SEAT
- 6 FRONT SPAR COVERS
- 7 S.B. PANEL
- 8 BOMBING PANEL
- 9 ASTRO COMPASS STOWAGE

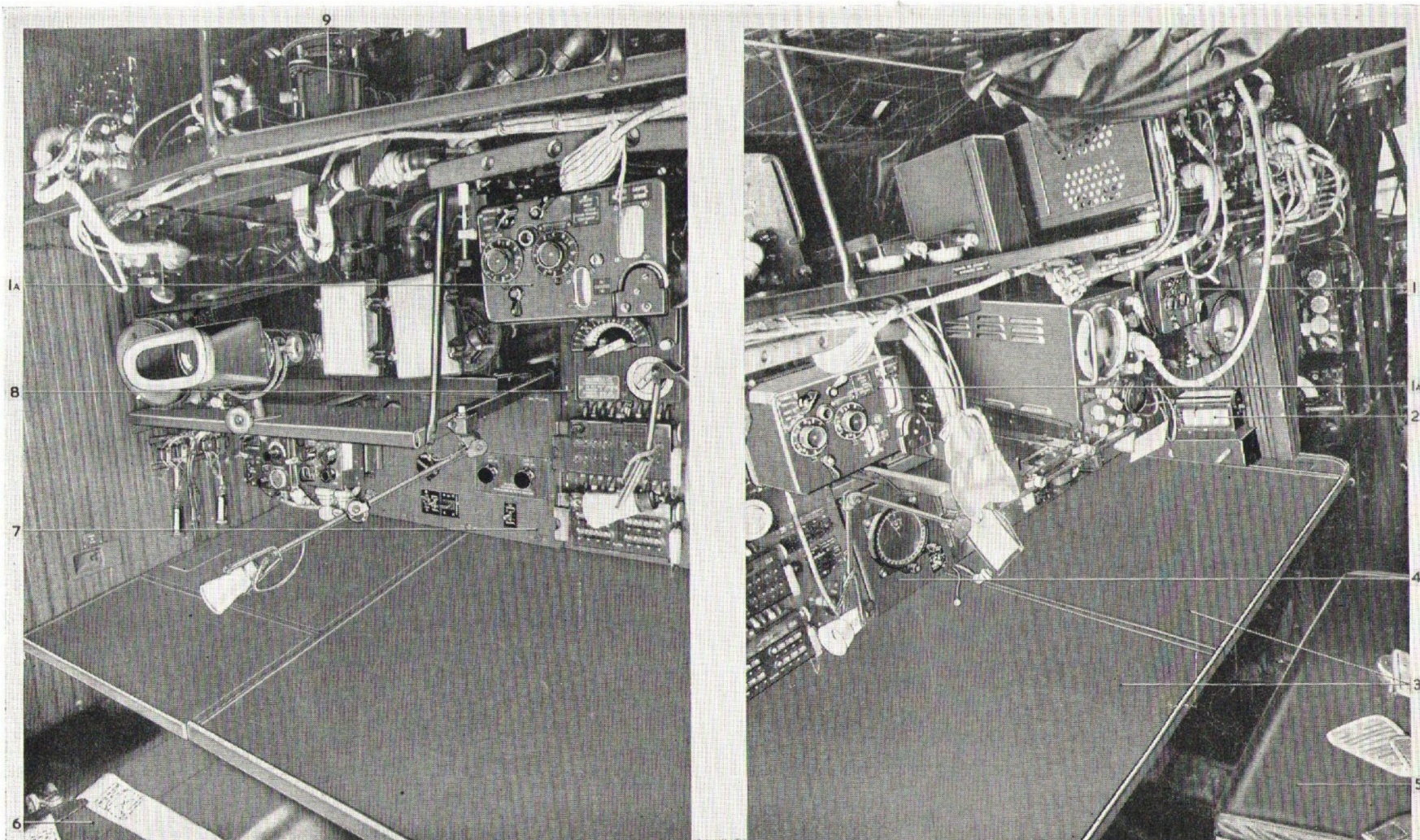


Fig. 8. Navigator's station

- | | | | |
|----|-----------------------------------|----|--|
| 1 | CONTROL UNIT TYPE 704 | 12 | AUTOMATIC BOMB DISTRIBUTOR |
| 2 | REBECCA CONTROL UNIT | 13 | SELECTOR SWITCHBOXES, TYPE F |
| 3 | OXYGEN FLOW INDICATORS | 14 | BOMB FIRING SWITCH |
| 4 | STOWAGES FOR SPARE G.P.I. LAMPS | 15 | NOSE DOORS OPEN SWITCH |
| 5 | CLOCK | 16 | FLARE RELEASE No.1 SWITCH |
| 6 | I/C S.B. SWITCH | 17 | FLARE RELEASE No.2 SWITCH |
| 7 | I/C, SPECIAL NORMAL SWITCH | 18 | S.B. HEATING ON SWITCH |
| 8 | SPECIAL I/C SUPPLY SWITCH | 19 | S.B. HEATING OFF SWITCH |
| 9 | I/C NORMAL SWITCH | 20 | BOMB FUZING SWITCH, UP NOSE, DOWN NOSE & TAIL |
| 10 | G.P.I. AND W.F.A. ON-OFF SWITCHES | 21 | BOMB RELEASE CHANGE OVER SWITCH, UP - BOMB AIMER, DOWN - NAV |
| 11 | STOWAGE FOR W.F.A. | 22 | I/C, V.H.F.1 AND V.H.F.2 SELECTOR SWITCH |

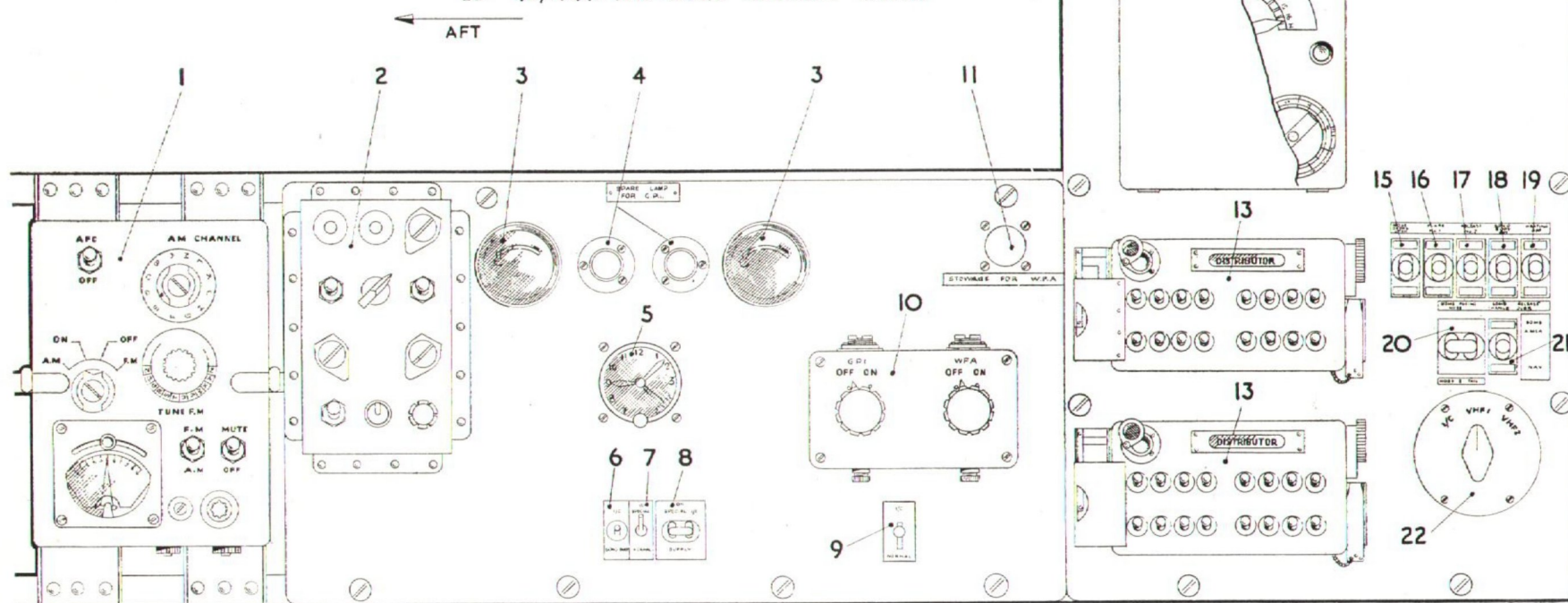


Fig. 9. Navigators' panels (I)

ADDENDA

The illustrations which follow depict the changes in controls, instruments, etc., when Phase 1 and Phase 2 are embodied in the aircraft. The radar, sono-buoy and navigator's stations, where other changes take place with the embodiment of Phase 1 and 2 are shown in Book 2 of this Air Publication.

PHASE 1 - ADDENDUM 1
ILLUSTRATIONS

Fig.

Flight engineer's panel - Phase 1 ... 1A
Starboard observer's station - Phase 1 2A
Port observer's station - Phase 1 ... 3A

PHASE 2 - ADDENDUM 2
ILLUSTRATIONS

Fig.

Flight engineer's panel - Phase 2 ... 1B
 ◀ *Crew stations and general equipment*
 Phase 2 2B
Flight engineer's auxiliary panel
 Phase 2 3B ▶

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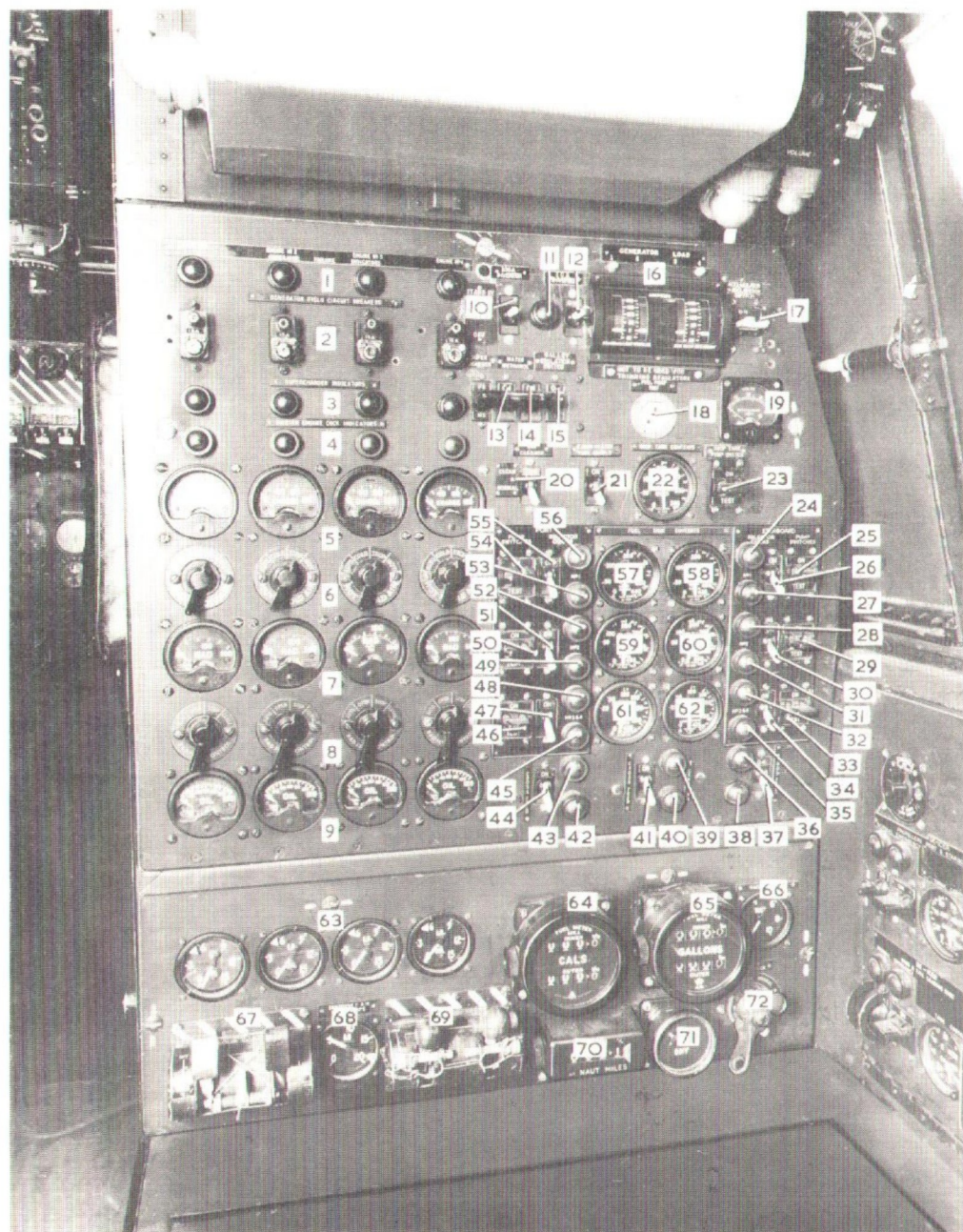


Fig.1A. Flight engineers panel - Phase I

RESTRICTED

KEY TO FIG. 1A

Flight engineer's main panel — Phase 1

(All engine components are from left to right, 1, 2, 3, 4)

- | | | |
|--|--|--|
| 1 GENERATOR FAILURE INDICATORS | 25 FUEL SELECTOR COCK SWITCH | 56 NO. 1 ON INDICATOR |
| 2 GENERATOR FIELD CIRCUIT BREAKERS | 26 NO. 1 PUMP SWITCH | 57 PORT SYSTEM NO. 1 TANK CONTENTS GAUGE |
| 3 SUPERCHARGER INDICATORS | ON/TEST | 58 STARBOARD SYSTEM NO. 1 TANK CONTENTS GAUGE |
| 4 MASTER ENGINE COCK INDICATORS | 27 OFF INDICATOR | 59 PORT SYSTEM NO. 2 TANK CONTENTS GAUGE |
| 5 CHARGE TEMPERATURE GAUGES | 28 NO. 2 ON INDICATOR | 60 STARBOARD SYSTEM NO. 2 TANK CONTENTS GAUGE |
| 6 CARBURETTOR AIR INTAKE CONTROLS | 29 NO. 2 PUMP SWITCH | 61 PORT SYSTEM NO. 3 AND 4 TANK CONTENTS GAUGE |
| AUTO/COLD/STOP/HOT | 30 FUEL SELECTOR COCK SWITCH | 62 STARBOARD SYSTEM NO. 3 AND 4 TANK CONTENTS GAUGE |
| 7 RADIATOR TEMPERATURE GAUGES | 31 NO. 2 OFF INDICATOR | 63 OIL PRESSURE GAUGES |
| 8 RADIATOR FLAP CONTROLS | 32 NO. 3 AND 4 ON INDICATOR | 64 GALLONS-GONE METER — PORT SYSTEM |
| AUTO/OPEN/STOP/CLOSE | 33 NO. 3 AND 4 PUMP SWITCH | 65 GALLONS-GONE METER — STARBOARD SYSTEM |
| 9 OIL TEMPERATURE GAUGES | 34 NO. 3 AND 4 COCK SELECTOR SWITCH | 66 VACUUM GAUGE |
| 10 INVERTER SWITCH No. 100a | 35 NO. 3 AND 4 OFF INDICATOR | 67 BOMB DOOR EMERGENCY AIR OPERATING LEVERS |
| ON/NORMAL/OFF | 36 CROSS-FEED COCK ON INDICATOR | Both handles up — OFF |
| 11 INVERTER FAILURE INDICATOR | 37 CROSS-FEED COCK SELECTOR SWITCH | Left down — DOORS OPEN |
| White — normal | 38 CROSS-FEED COCK OFF INDICATOR | Right down — DOORS CLOSED |
| Black — failure of an inverter | 39 CROSS-FEED COCK ON INDICATOR (PORT) | |
| 12 INVERTER SWITCH No. 103 | 40 CROSS-FEED COCK OFF INDICATOR (STARBOARD) | 68 EMERGENCY AIR PRESSURE GAUGE |
| 13 SUPERCHARGER SWITCH | 41 CENTRE CROSS-FEED COCK SWITCH | 69 ALIGHTING GEAR AND FLAPS EMERGENCY AIR OPERATING LEVERS |
| F.S./M.S. | 42 PORT CROSS-FEED COCK OFF INDICATOR | Up — OFF |
| 14 WATER/METHANOL SWITCHES | 43 PORT CROSS-FEED COCK ON INDICATOR | Left hand down — ALIGHTING GEAR DOWN |
| ON/OFF | 44 PORT CROSS-FEED COCK SWITCH | Right hand down — FLAPS DOWN |
| 15 GALLEY ISOLATION SWITCH | Port fuel panel | |
| 16 GENERATOR LOAD INDICATORS | 45 NO. 3 AND 4 OFF INDICATOR | 70 AIR NAUTICAL MILES INDICATOR |
| 17 A.A.P.P. OFF/FLIGHT SELECTOR SWITCH | 46 NO. 3 AND 4 PUMP SWITCH | 71 OXYGEN FLOW INDICATOR |
| 18 FUEL PUMP TEST SOCKET | 47 NO. 3 AND 4 COCK SELECTOR SWITCH | 72 VACUUM PUMP CHANGE-OVER COCK |
| 19 VOLTMETER | 48 NO. 3 AND 4 ON INDICATOR | EMERGENCY/NORMAL |
| 20 AIR CLEANER SWITCH | 49 NO. 2 OFF INDICATOR | No. 1/No. 2 |
| CLEAN/NORMAL | 50 NO. 2 PUMP SWITCH | |
| 21 CABIN HEATER FUEL SUPPLY | 51 NO. 2 TANK SELECTOR SWITCH | |
| 22 DROP TANK CONTENTS GAUGE | 52 NO. 2 ON INDICATOR | |
| 23 DROP TANK PUMP SWITCH | 53 NO. 1 OFF INDICATOR | |
| Starboard fuel panel | 54 NO. 1 PUMP SWITCH | |
| 24 NO. 1 ON INDICATOR | 55 NO. 1 COCK SELECTOR SWITCH | |

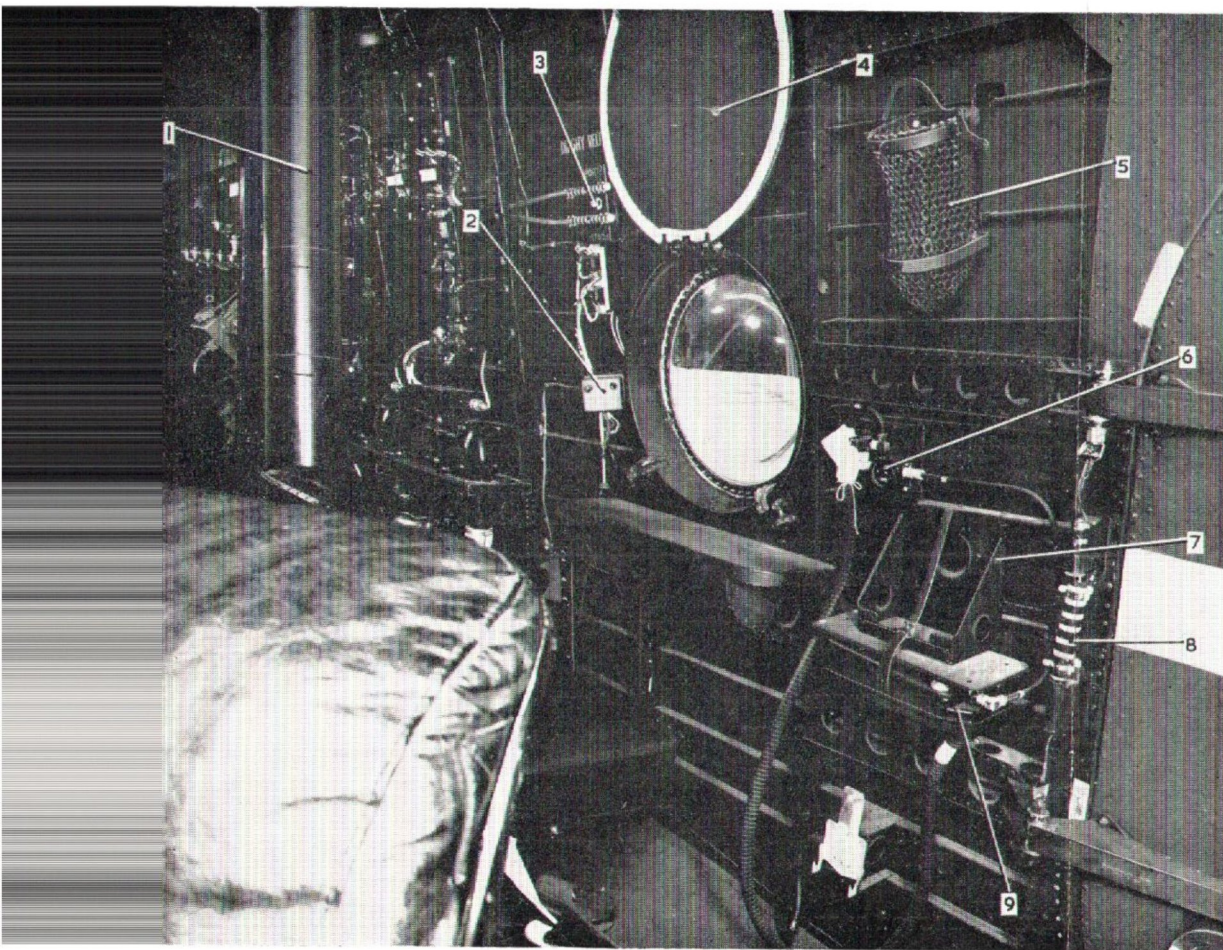


Fig. 2A. Starboard observer's station — Phase 1

KEY TO FIG. 2A

Starboard observer's station — Phase 1

- 1 STARBOARD SCANNER JACK
- 2 OBSERVATION BLISTER
- 3 DINGHY RELEASE HANDLES
- 4 OBSERVATION BLISTER BLACK-OUT COVER
- 5 PORTABLE OXYGEN BOTTLE STOWAGE
- 6 OXYGEN FLOW GAUGE AND BAYONET SOCKET CONNECTION
- 7 BINOCULAR STOWAGE
- 8 DOOR JETTISON HANDLE
- 9 OXYGEN RECUPERATION

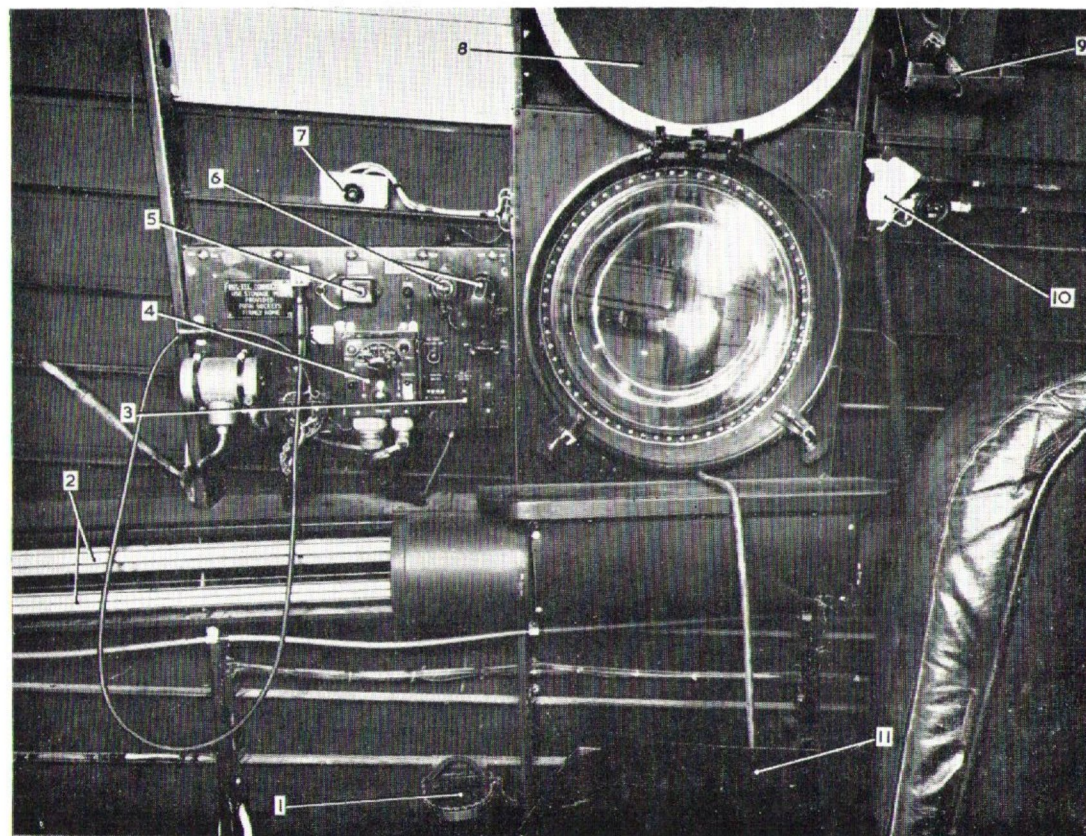


Fig. 3A. Port observer's station — Phase 1

KEY TO FIG. 3A

Port Observer's station—Phase 1

- 1 PORTABLE OXYGEN BOTTLE STOWAGE
- 2 RUDDER AND ELEVATOR CONTROL RODS
- 3 HEATER CONTROL PANEL (NO. 3 HEATER)
- 4 INTERCOM. CONTROL PANEL
- 5 FUSE BOX
- 6 FLOODLAMP AND DIMMER SWITCH
- 7 FLAME FLOAT RELEASE BUTTON
- 8 OBSERVATION BLISTER BLACK-OUT COVER
- 9 BINOCULAR STOWAGE
- 10 OXYGEN FLOW GAUGE AND BAYONET SOCKET CONNECTION
- 11 OBSERVER'S SEAT

KEY TO FIG. 1B

Flight engineer's panel—Phase 2

(All engine components are from left to right, 1, 2, 3, 4)

- 1 GENERATOR FAILURE INDICATORS
- 2 GENERATOR FIELD CIRCUIT BREAKERS
- 3 SUPERCHARGER INDICATORS
- 4 MASTER ENGINE COCK INDICATORS
- 5 CHARGE TEMPERATURE INDICATORS
- 6 CARBURETTOR AIR INTAKE CONTROLS—*AUTO/COLD/STOP/HOT*
- 7 RADIATOR TEMPERATURE GAUGES
- 8 RADIATOR FLAP CONTROLS — *AUTO/OPEN/STOP/CLOSE*
- 9 OIL TEMPERATURE GAUGES
- 10 INVERTER SWITCH NO. 100A—*STANDBY/NORMAL/OFF*
- 11 INVERTER FAILURE INDICATOR
White — normal
Black — failure of an inverter
- 12 INVERTER SWITCH NO. 103
- 13 SUPERCHARGER SWITCH—*F.S./M.S.*
- 14 WATER / METHANOL SWITCHES — *ON / OFF*
- 15 GALLEY ISOLATION SWITCH
- 16 GENERATOR LOAD INDICATORS
- 17 A.A.P.P. *OFF/FLIGHT* SELECTOR SWITCH
- 18 INTERCOMM. CALL INDICATOR
- 19 FUEL PUMP TEST SOCKET
- 20 VOLTMETER
- 21 AIR CLEANER SWITCH — *CLEAN / NORMAL*
- 22 CABIN HEATER FUEL SUPPLY SWITCH
- 23 DROP TANK CONTENTS GAUGE
- 24 DROP TANK PUMP SWITCH

Starboard fuel panel

- 25 NO. 1 TANK SELECTOR COCK *ON* INDICATOR
- 26 NO. 1 TANK PUMP SWITCH—*ON/TEST*
- 27 NO. 1 FUEL TANK SELECTOR SWITCH

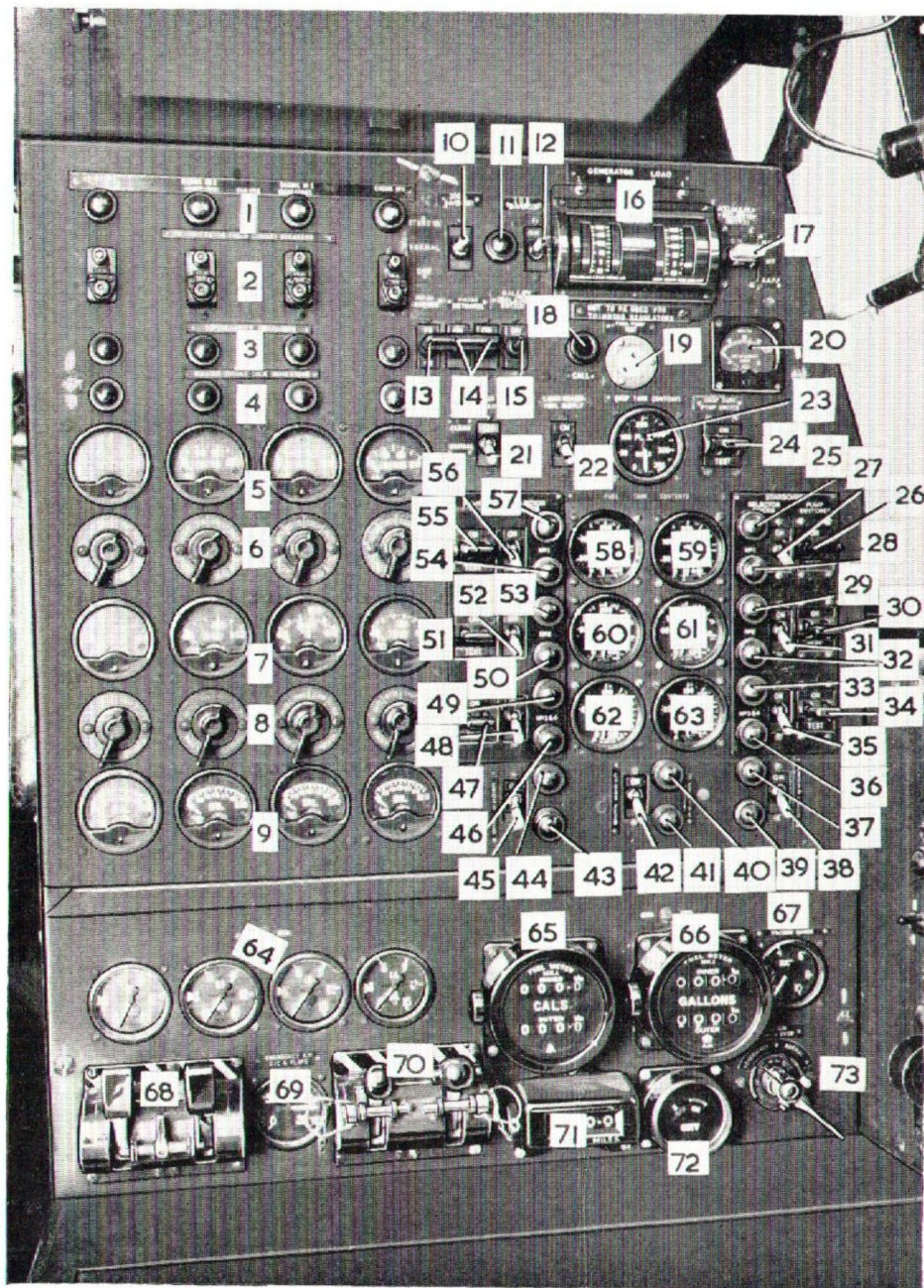


Fig. 1B. Flight engineer's panel — Phase 2

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KEY TO FIG. 1B (cont'd)

- 28 NO.1 TANK SELECTOR COCK, OFF, INDICATOR
- 29 NO.2 TANK SELECTOR COCK, ON, INDICATOR
- 30 NO.2 TANK PUMP SWITCH-ON/TEST
- 31 NO.2 FUEL TANK SELECTOR SWITCH
- 32 NO.2 TANK SELECTOR COCK, OFF, INDICATOR
- 33 NO.3 AND 4 TANKS SELECTOR COCK, ON, INDICATOR
- 34 NO.3 AND 4 TANKS PUMP SWITCH
- 35 NO.3 AND 4 TANKS SELECTOR SWITCH - ON/TEST
- 36 NO.3 AND 4 TANKS SELECTOR COCK, OFF, INDICATOR
- 37 CROSS-FEED COCK, ON, INDICATOR (STARBOARD)
- 38 CROSS-FEED COCK SELECTOR SWITCH (STARBOARD)
- 39 CROSS-FEED COCK SELECTOR, OFF, INDICATOR (STARBOARD)
- 40 CROSS-FEED COCK SELECTOR, ON, INDICATOR (CENTRE)
- 41 CROSS-FEED COCK SELECTOR, OFF, INDICATOR (CENTRE)
- 42 CROSS-FEED COCK SELECTOR SWITCH (CENTRE)
- 43 CROSS-FEED COCK SELECTOR, OFF, INDICATOR (PORT)

- 44 CROSS-FEED COCK SELECTOR, ON, INDICATOR (PORT)
- 45 CROSS-FEED COCK SELECTOR SWITCH (PORT)

Port fuel panel

- 46 NO.3 AND 4 TANKS SELECTOR COCK, OFF, INDICATOR
- 47 NO.3 AND 4 TANKS PUMP SWITCH - ON/TEST
- 48 NO.3 AND 4 TANKS SELECTOR SWITCH
- 49 NO.3 AND 4 TANKS SELECTOR COCK, ON, INDICATOR
- 50 NO.2 TANK SELECTOR COCK, OFF, INDICATOR
- 51 NO.2 TANK PUMP SWITCH
- 52 NO.2 TANK SELECTOR SWITCH
- 53 NO.2 TANK SELECTOR COCK, ON, INDICATOR
- 54 NO.1 TANK SELECTOR COCK, OFF, INDICATOR
- 55 NO.1 TANK PUMP SWITCH
- 56 NO.1 TANK SELECTOR SWITCH
- 57 NO.1 TANK SELECTOR COCK, ON, INDICATOR

- 58 PORT SYSTEM NO.1 TANK CONTENTS GAUGE
- 59 STARBOARD SYSTEM NO.1 TANK CONTENTS GAUGE
- 60 PORT SYSTEM NO.2 TANK CONTENTS GAUGE
- 61 STARBOARD SYSTEM NO.2 TANK CONTENTS GAUGE
- 62 PORT SYSTEM NO.3 AND 4 TANKS CONTENTS GAUGE
- 63 STARBOARD SYSTEM NO.3 AND 4 TANKS CONTENTS GAUGE
- 64 OIL PRESSURE GAUGE S
- 65 GALLONS-GONE METER - PORT SYSTEM
- 66 GALLONS-GONE METER - STARBOARD SYSTEM
- 67 VACUUM GAUGE
- 68 BOMB DOOR EMERGENCY AIR OPERATING LEVERS
Both handles up - OFF
Left down - DOORS OPEN
Right down - DOORS CLOSED
- 69 EMERGENCY AIR PRESSURE GAUGE
- 70 ALIGHTING GEAR AND FLAPS EMERGENCY AIR OPERATING LEVERS
- 71 AIR NAUTICAL MILES INDICATOR
- 72 OXYGEN FLOW INDICATOR
- 73 VACUUM PUMP CHANGE-OVER COCK - EMERGENCY/NORMAL

NOTE:
CONTROLS AND EQUIPMENT
AT CREW STATIONS IS SHOWN
ON THE ILLUSTRATIONS OF
CREW STATIONS

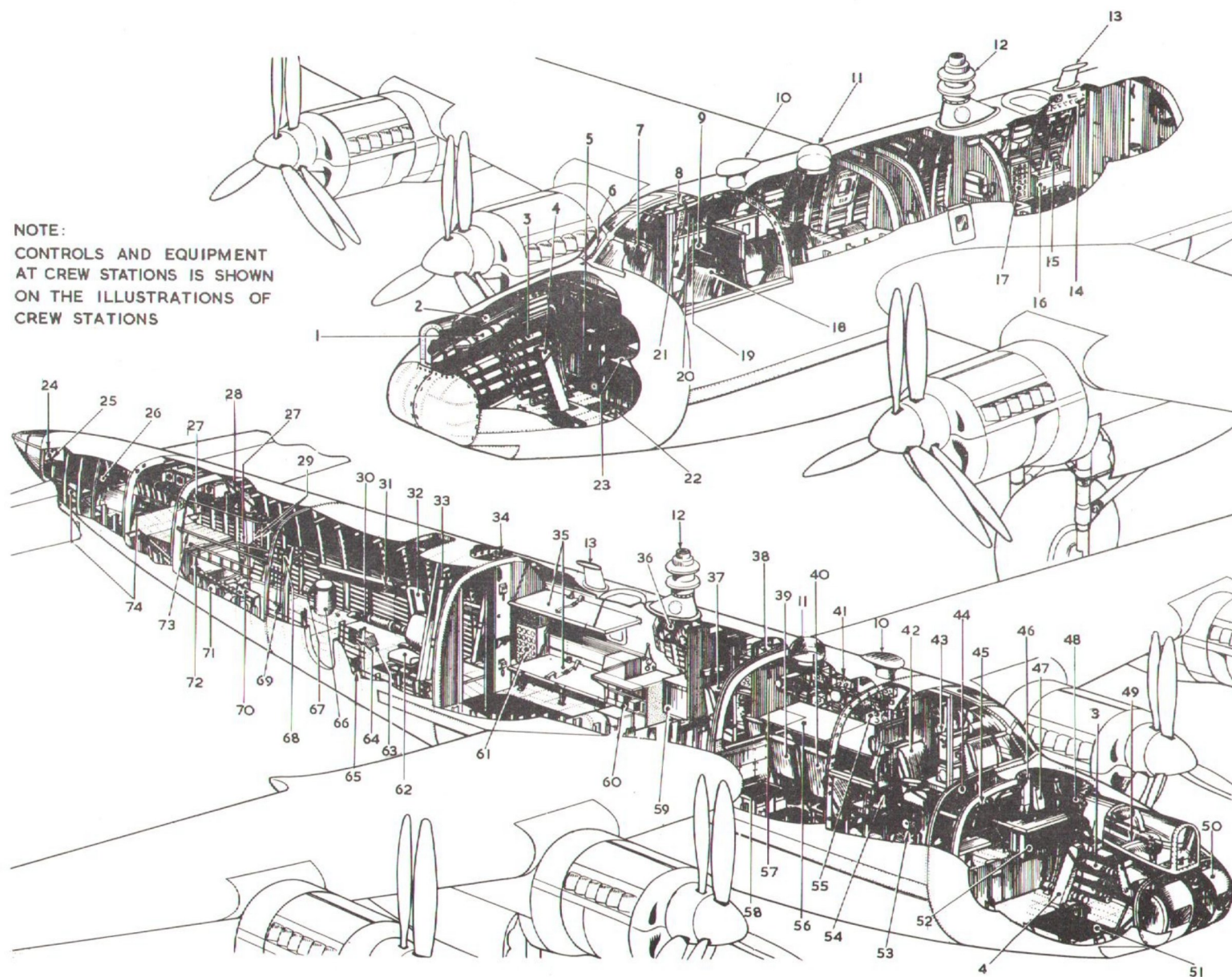


Fig. 2B. Crew stations and general equipment—Phase 2

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KEY TO FIG.2B

Crew stations and general equipment -
Phase 2

1. NO.1 HEATER
2. AMMUNITION SYSTEM
(port and starboard)
3. PYROTECHNIC STOWAGES
4. FLARE CHUTE
5. PRE-SELECTOR PANEL
6. WINDSCREEN WIPER
7. SECOND PILOT'S SEAT
8. CONTROL BOX IN CANOPY
9. FLIGHT ENGINEER'S SEAT
10. LOOP AERIAL
11. ASTRO DOME
12. A.R.I.18144 AERIAL
13. A.R.I.18124/1 AERIAL
14. SIGNAL DISCHARGER CONTROL
PANEL
15. SIGNAL DISCHARGERS (4)
16. EMPTY CARTRIDGE STOWAGE BAG
17. ILLUMINATING CARTRIDGE STOWAGE
(169 cartridges)
18. FIRST PILOT'S SEAT
19. DRIFT RECORDER
20. AIR THERMOMETER
21. SIGNAL PISTOL CARTRIDGE
STOWAGE
22. WINDSCREEN GLYCOL TANK
(under step)
23. PILOTS FLOOR
24. WANDER LIGHT
25. REAR ASTRO-COMPASS MOUNTING

26. REAR OBSERVER'S CUSHIONS
27. FLYING CONTROLS GUARD RAIL
28. RUDDER LOCKING SYSTEM
29. FLYING CONTROLS
30. NO.3 HEATER
31. FLYING CONTROL GUARD
32. OBSERVER'S SEAT (port)
33. RETRACTABLE SCANNER
34. PHOTOFLASH DISCHARGER
35. CREW REST BUNKS
36. NO.2 HEATER
37. RADAR OPERATOR'S SEAT
38. SEXTANT STOWAGE
39. NAVIGATOR'S RISING SEAT
40. ROUTINE NAVIGATOR'S SEAT
41. RADAR AND A.D.R.I.S. EQUIPMENT
42. WIRELESS OPERATOR'S SEAT
43. WIRELESS OPERATOR'S STATION
44. PILOT'S INSTRUMENT PANEL
45. RUDDER CONTROLS
46. CONTROL COLUMN
47. ENGINE CONTROL PEDESTAL
48. AMMUNITION BOX (port and
starboard)
49. FRONT GUNNER'S SEAT
50. GUN MOUNTING
51. AIR BOMBER'S CUSHIONS
52. A.C. SUPPLIES PANEL
53. TRIM CONTROL BOX

54. ALDIS LAMP STOWAGE (aft of
second pilot's seat)
55. NAVIGATOR'S PANEL
56. NAVIGATOR'S PLOTTING TABLE
57. ASTRO-COMPASS MOUNTING
58. STEP
59. GALLEY
60. A.R.I.18144 CRATE
61. PYROTECHNICS STOWAGE
62. OBSERVER'S SEAT (starboard)
63. FLARE CHUTE
64. BINOCULARS STOWAGE
65. HAND CAMERA STOWAGE
66. ELSAN

NOTE:- Refer to fig.18 for the effect of
Mod.359

67. FIRST-AID KIT
68. STOWAGES FOR CONTROL LOCK-
ING PINS
69. DIPSTICK STOWAGES
70. EMERGENCY PACK
71. NITROGEN BOTTLES
72. ACCESS LADDER
73. HAND RAIL
74. CAMERA CUPOLAS (retractable)

NOTE...

Controls and equipment at crew stations
are shown on the illustrations of crew
stations and panels.

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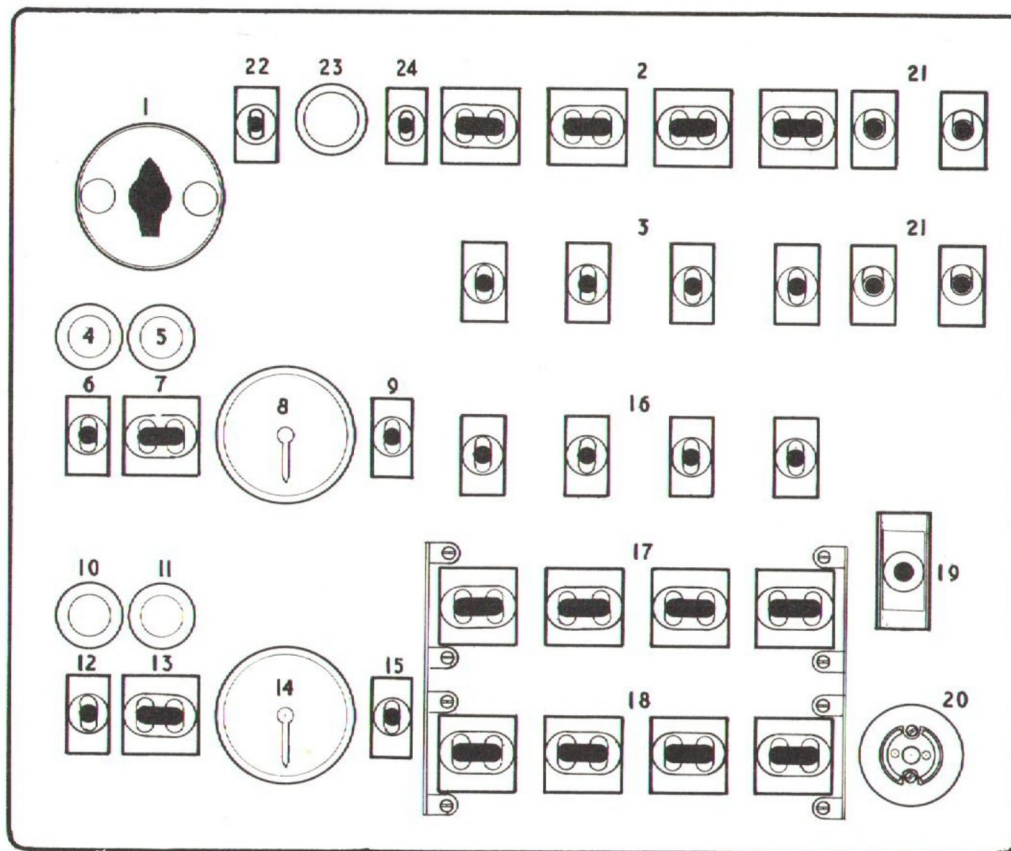


Fig.3B. Flight engineer's auxiliary panel - Phase 2

KEY TO FIG.3B

ENGINE STARTING GROUP

- 1 ENGINE PRIMING switch
2 ENGINE STARTING SWITCHES
Down - ON (Port to Starboard, No.1, 2, 3 and 4 engine. Fitted with guards)

- 3 BOOSTER COIL and SLOW RUNNING CUT-OFF switches

UP - booster coil ON

DOWN - cut-off operated

PROPELLER DE-ICING GROUP

- 4 NORMAL ON indicator
5 EMERGENCY ON indicator
6 NORMAL operation switch
Up - ON
7 EMERGENCY operation switch
Up - ON
8 TANK CONTENTS gauge
9 Gauge switch
Up - ON

WING AND TAIL LEADING EDGE DE-ICING GROUP

- 10 NORMAL ON indicator
11 EMERGENCY ON indicator
12 NORMAL operation switch
Up - ON
13 EMERGENCY operation switch
Up - ON
14 TANK CONTENTS gauge
15 Gauge switch
Up - ON

MISCELLANEOUS

- 16 OIL DILUTION switches
Up - ON (Port to Starboard, No.1, 2, 3 and 4)
17 GENERATOR SWITCHES
Up - ON, down OFF (Port to Starboard No.1, 2, 3 and 4)
18 WATER/METHANOL TEST SWITCHES
Up - TEST (Port and Starboard No.1, 2, 3 and 4)
19 UNDERCARRIAGE TEST SWITCH
Up - TEST
20 Water/Methanol PUMP TEST SOCKET
21 FUEL FLOWMETER BY-PASS operating switches

Up - ON (by-pass closed)

- 22 A.R.I.18144 DE-ICING SWITCH

Up - ON Centre - OFF

- 23 ALTERNATOR INDICATOR

Power - OFF - white

Power - ON - black

- 24 ALTERNATOR ON AND RESET SWITCH

Up - ON Centre - OFF Down - OFF

NOTE... Capitals indicate inscriptions

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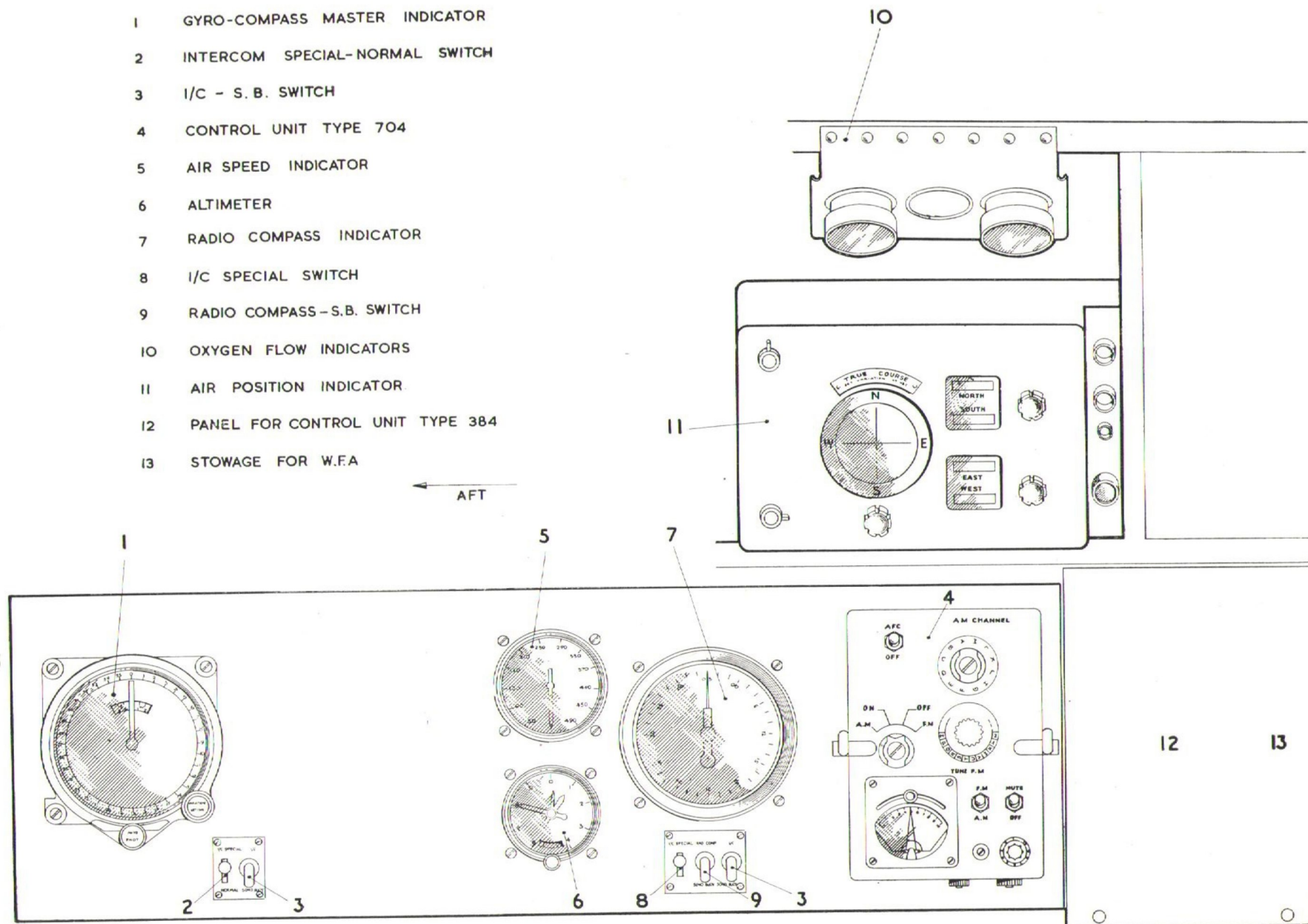
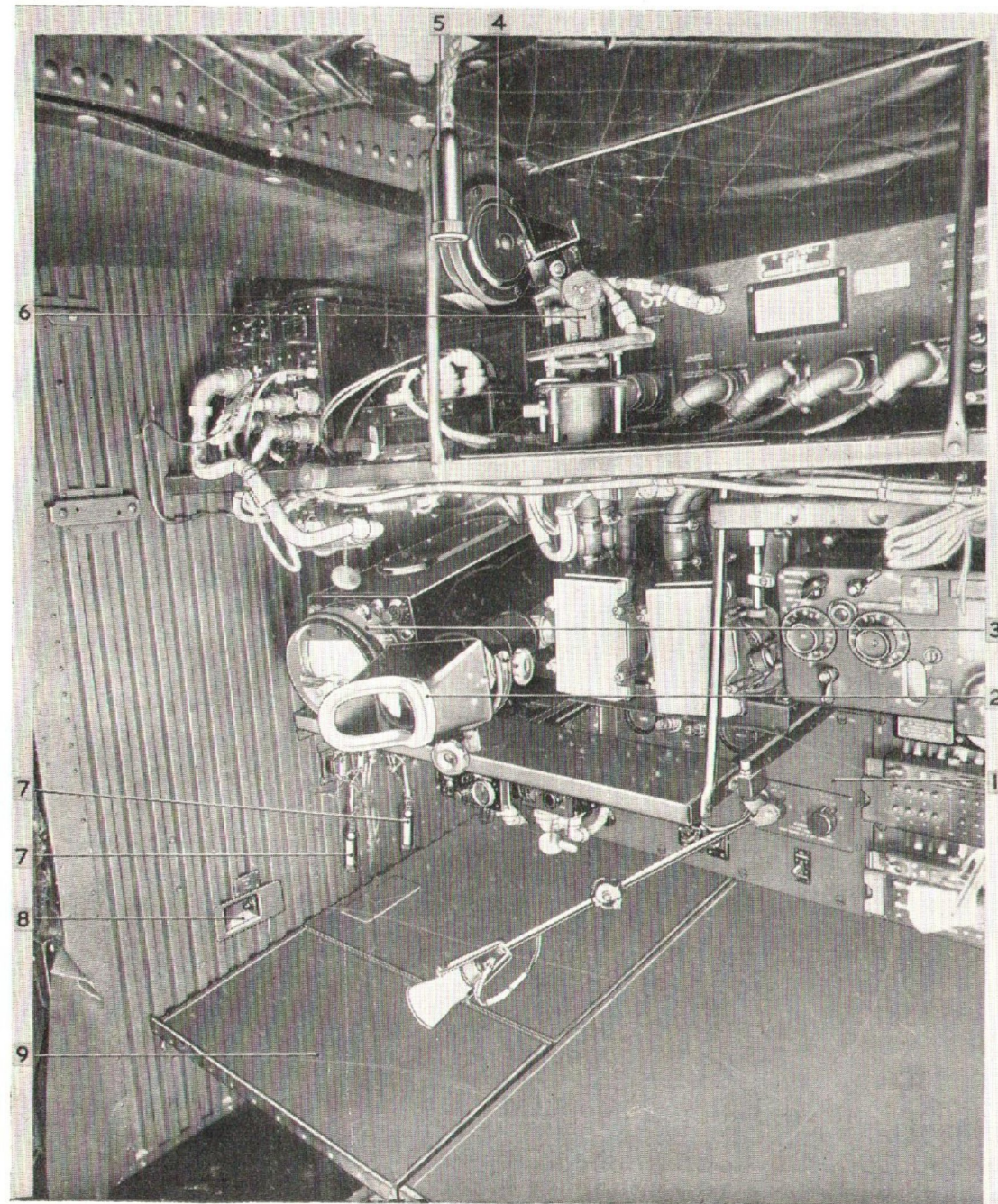


Fig. 10. Navigators' panels (2)

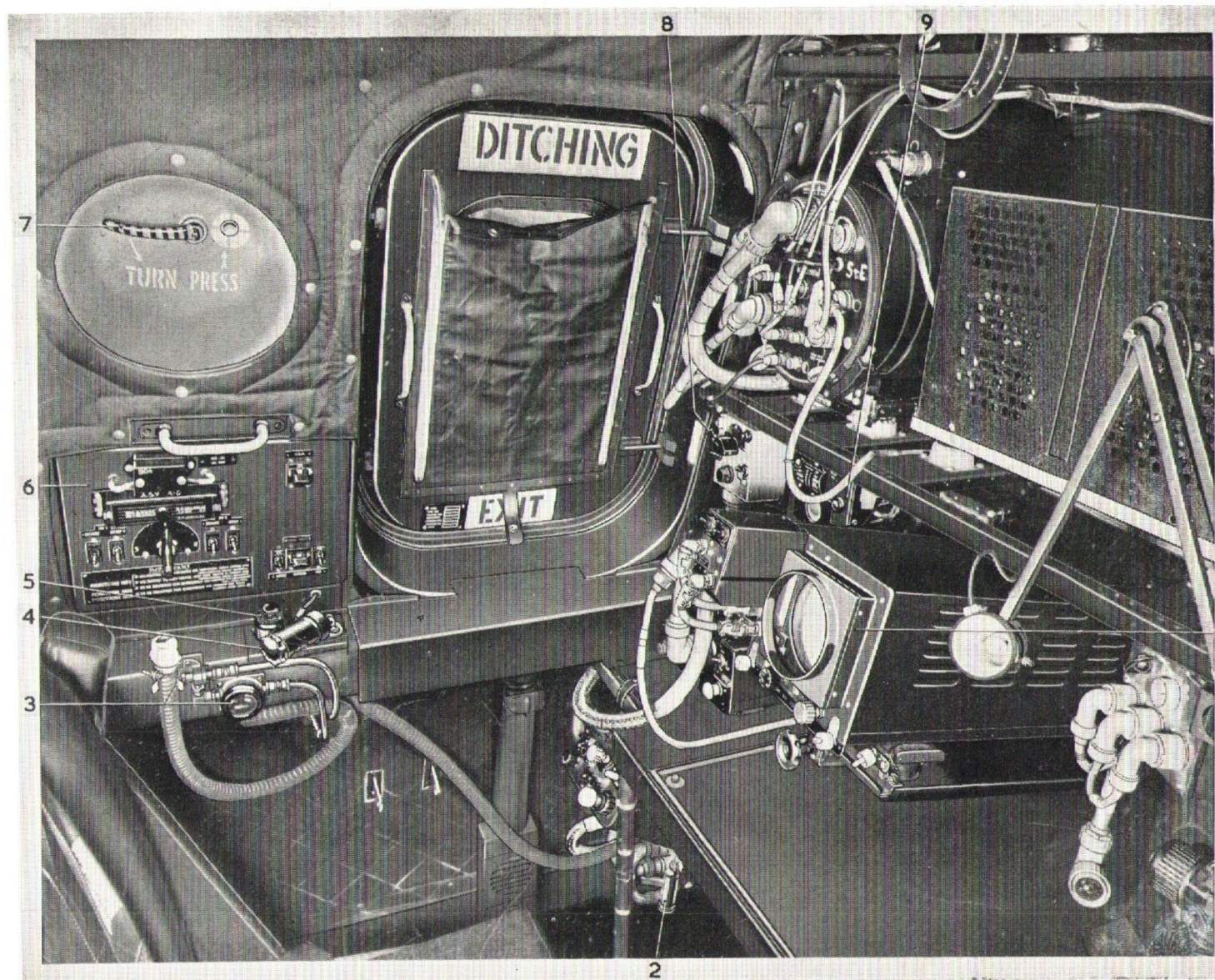


Key to Fig. II

- 1 PANEL
- 2 REBECCA INDICATOR
- 3 S.B. INDICATOR
- 4 WARNING HORN
- 5 ASTRODOME MIC/TEL. SOCKET
- 6 ASTRO-COMPASS IN STOWAGE
- 7 INTERCOM. MIC/TEL. SOCKETS
- 8 "PRESS TO TALK" PUSH-BUTTON
- 9 LIFT-UP FLAP IN TABLE

Fig. II. Sonobuoy operator's station

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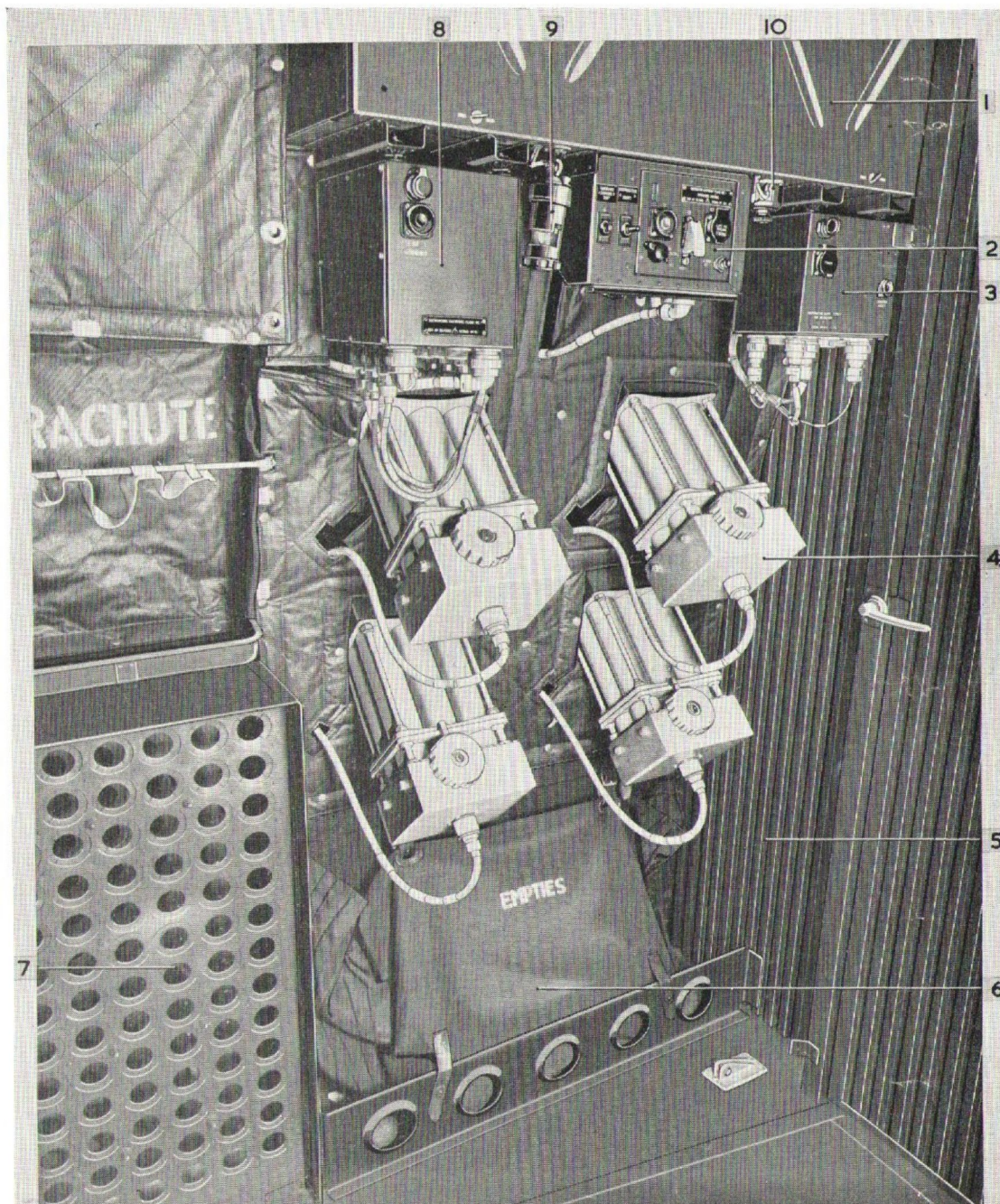


- 1 A.S.V. INDICATOR
- 2 INTERCOM. MIC/TEL. SOCKET
- 3. OXYGEN-FLOW INDICATOR

- 4 PANEL LAMP
- 5 DIMMER SWITCH FOR (4)
- 6 POWER PANEL

- 7 DITCHING EXIT RELEASE HANDLES
- 8 SCANNER EMERGENCY AIR LEVER
- 9 SCANNER CUPOLA CONTROL PANEL

Fig. 12. Radar operator's station

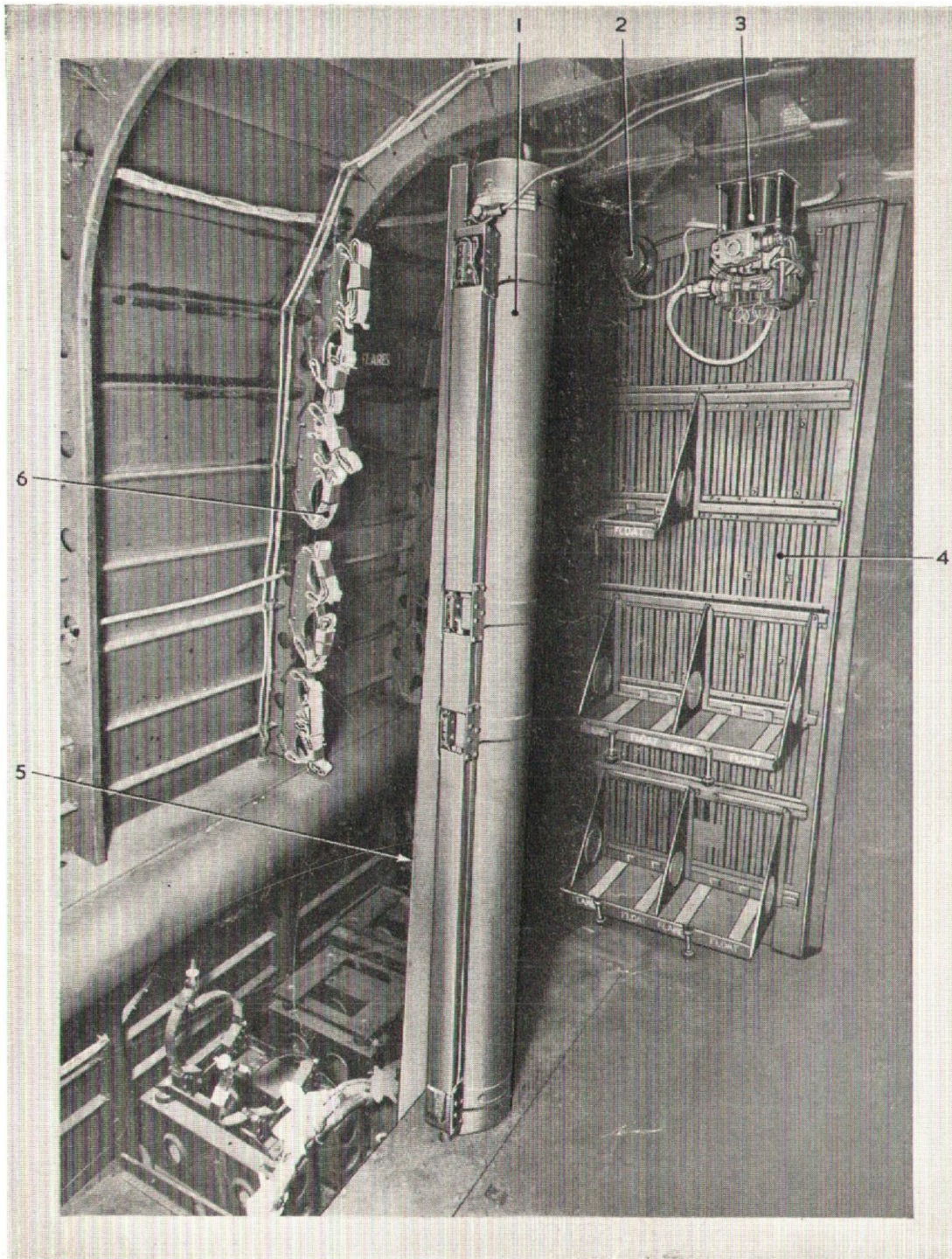


Key to Fig. 14

- 1 RELAY PANEL
- 2 CONTROL PANEL
- 3 DISTRIBUTOR
- 4 SIGNAL DISCHARGERS
- 5 BULKHEAD (FORMER 22)
- 6 EMPTY CARTRIDGE BAG
- 7 STOWAGE FOR 169 CARTRIDGES
- 8 FLARE CARTRIDGE DISTRIBUTOR
- 9 PANEL LAMP
- 10 DIMMER SWITCH

Fig. 14. Illuminating flare dischargers

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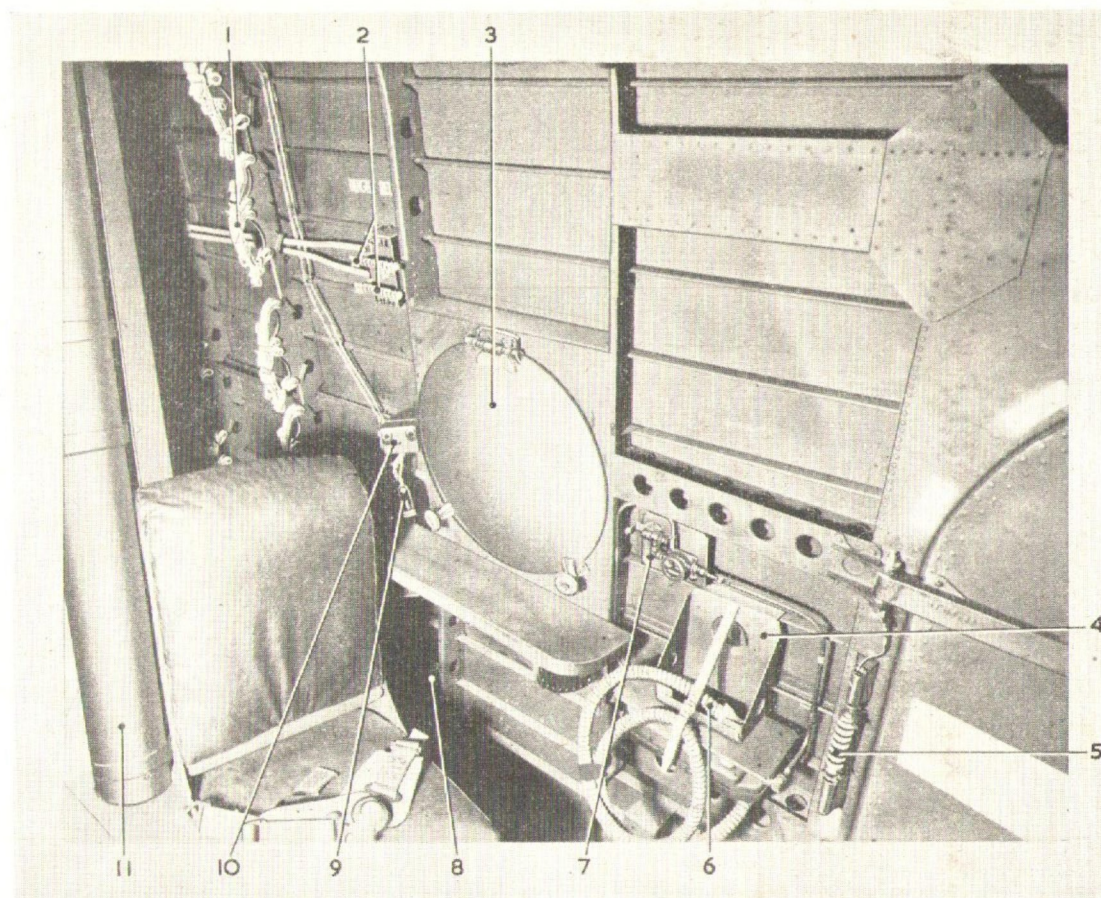


- 1 PORT SCANNER JACK
- 2 "ABANDON AIRCRAFT" WARNING HORN
- 3 1.5 IN. SIGNAL DISCHARGER
- 4 BULKHEAD (former 22)
- 5 SCANNER CONTROL VALVE MANUAL PUSH-BUTTON (obscured by jack)
- 6 4.5 IN. FLARE STOWAGES

Fig. 15. Photoflash discharger station

RESTRICTED

Dmd 2231 436380 375 7/54 AB539/3 8486



- 1 4.5 IN. STORE STOWAGES
- 2 DINGHY-RELEASE HANDLES
- 3 OBSERVATION WINDOW BLACK-OUT SCREEN
(in position)
- 4 STOWAGE FOR BINOCULARS
- 5 DOOR HINGE EMERGENCY RELEASE
- 6 OXYGEN TUBE
- 7 OXYGEN CUT-OFF POINT ON FLOWMETER
- 8 PORTABLE OXYGEN SET STOWAGE
- 9 MIC./TEL. SOCKET
- 10 CALL BOX
- 11 STARBOARD SCANNER JACK

Fig. 16. Starboard observer's station

- 1 NO. 3 HEATER CONTROL PANEL
- 2 DIMMER SWITCH—CONTROLS ITEMS (3) AND (11)
- 3 PANEL LAMPS
- 4 OXYGEN CUT-OFF POINT AND FLOW INDICATOR
- 5 OXYGEN TUBE
- 6 DRIFT SIGHT
- 7 FLAME FLOAT RELEASE CHUTE
- 8 ELSAN
- 9 PORTABLE OXYGEN SET STOWAGE
- 10 MIC./TEL. SOCKET
- 11 ANGLEPOISE LAMP

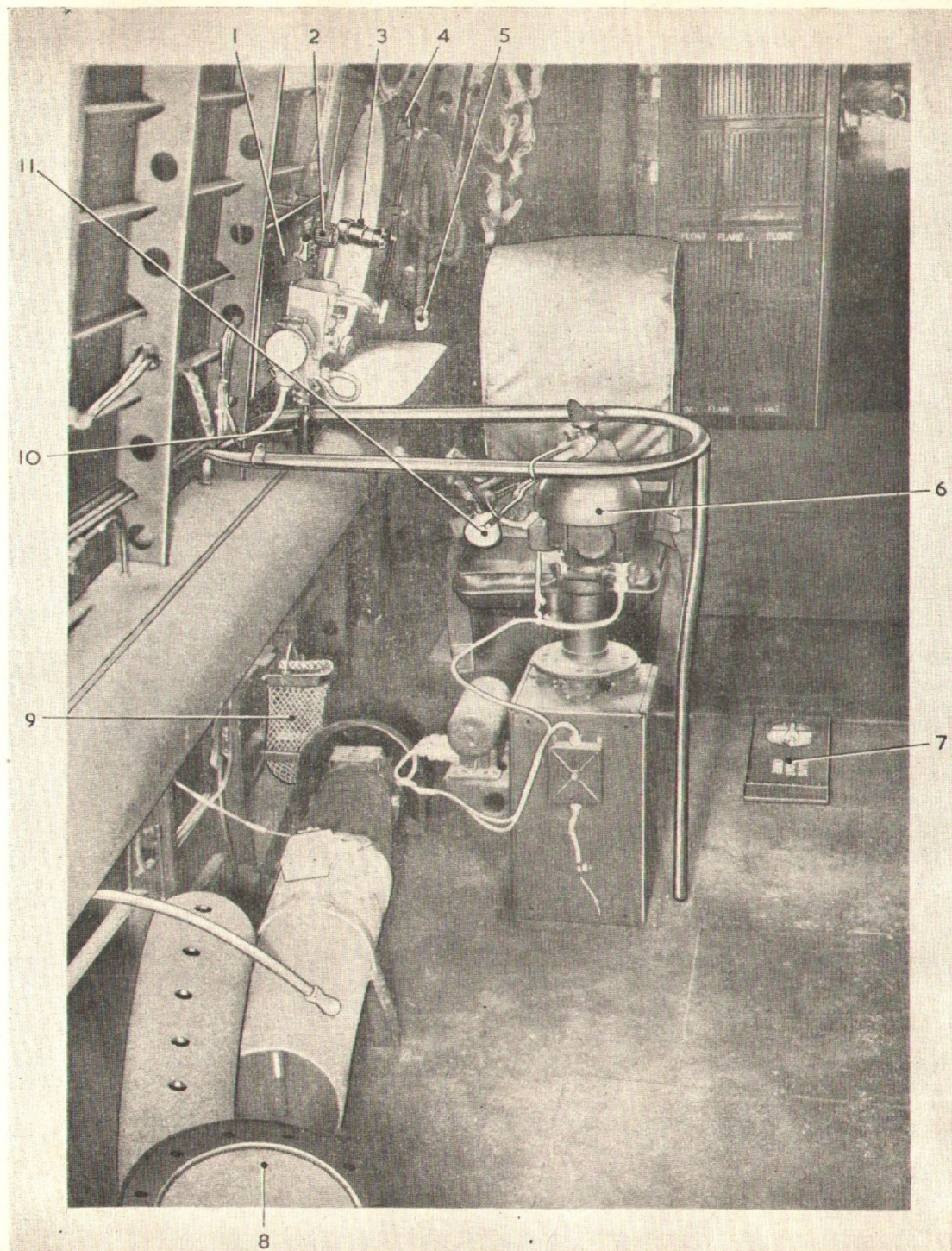


Fig. 17. Port observer's station (looking forward)



1 OXYGEN TUBE

Note:—Inter-com. call box and mic./tel. socket is adjacent to this

2 FIRST-AID STOWAGE

3 OXYGEN CUT-OFF POINT AND FLOW INDICATOR

4 NO. 3 HEATER CONTROL PANEL

5 DIMMER SWITCH—CONTROLS (6) AND (12)

6 PANEL LAMP

7 OBSERVATION WINDOW BLACK-OUT SCREEN

8 INTERCOM. CALL BOX AND MIC./TEL. SOCKET

9 FLAME FLOAT RELEASE CHUTE

10 DRIFT SIGHT

11 ELSAN (The incorporation of Mod. 359 provides a screening curtain in front of the Elsan and a relief tube aft of it.)

12 ANGLEPOISE LAMP

Fig. 18. Port observer's station (looking aft)

(A.L.82, Mar. 55)

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1 REAR NAVIGATION LIGHTING MOUNTING AT
TIP OF TRANSPARENT FAIRING

2 BLACK-OUT CURTAINS

3 INTER-COM. CALL BOX AND MIC./TEL. SOCKET

4 ASTRO-COMPASS MOUNTING

5 REAR OBSERVER'S CUSHIONS
(one removed to expose compass mounting)

6 ANGLEPOISE LAMP

7 DIMMER SWITCH

8 REAR FLARE CHUTE DOOR SWITCH

9 INDICATOR LAMP

10 RELEASE

11 ZIP FASTENER

On rear
face of
former

Note:—A sundblind is provided for roof of faring which fits on to
lift-the-dot fasteners and is stowed aft of black-out curtains



Fig. 19. Rear observer's station