

SEA MOSQUITO 33

The radio equipment fitted in the Sea Mosquito 33 was decided by the operational roles which may be required of the aircraft. These were laid down as :—

- (i) *Strike.*
- (ii) *Sea Reconnaissance.*

A search radar is required for both the above roles, and the AN/APS-4 (ASH) equipment was considered the most suitable because of its good overall performance combined with its comparatively small weight. The decision to install ASH, determined the requirement for AN/APX-2 (IFF Mk. III GR plus Interrogator) as opposed to AN/APX-1 (IFF Mk. III GR) in order to provide interrogator facilities with the corresponding response on the Indicator Unit of the ASH.

To fulfil the Strike role communication requirements both a V.H/F and an H/F channel were required and thus it was decided to fit ARI 5272 (TR 1520) and ARI 5206. Unfortunately difficulties were encountered in the production of the TR 1520 and to avoid a hold up in the aircraft production line it was decided to fit the SCR 522, replacing it by a Service modification with TR 1520 as soon as possible.

The V.H/F and H/F equipments installed to fulfil the Strike role communication requirements also cover the Sea Reconnaissance requirements of good long range communications, either C.W. or Voice, at both high and low altitudes.

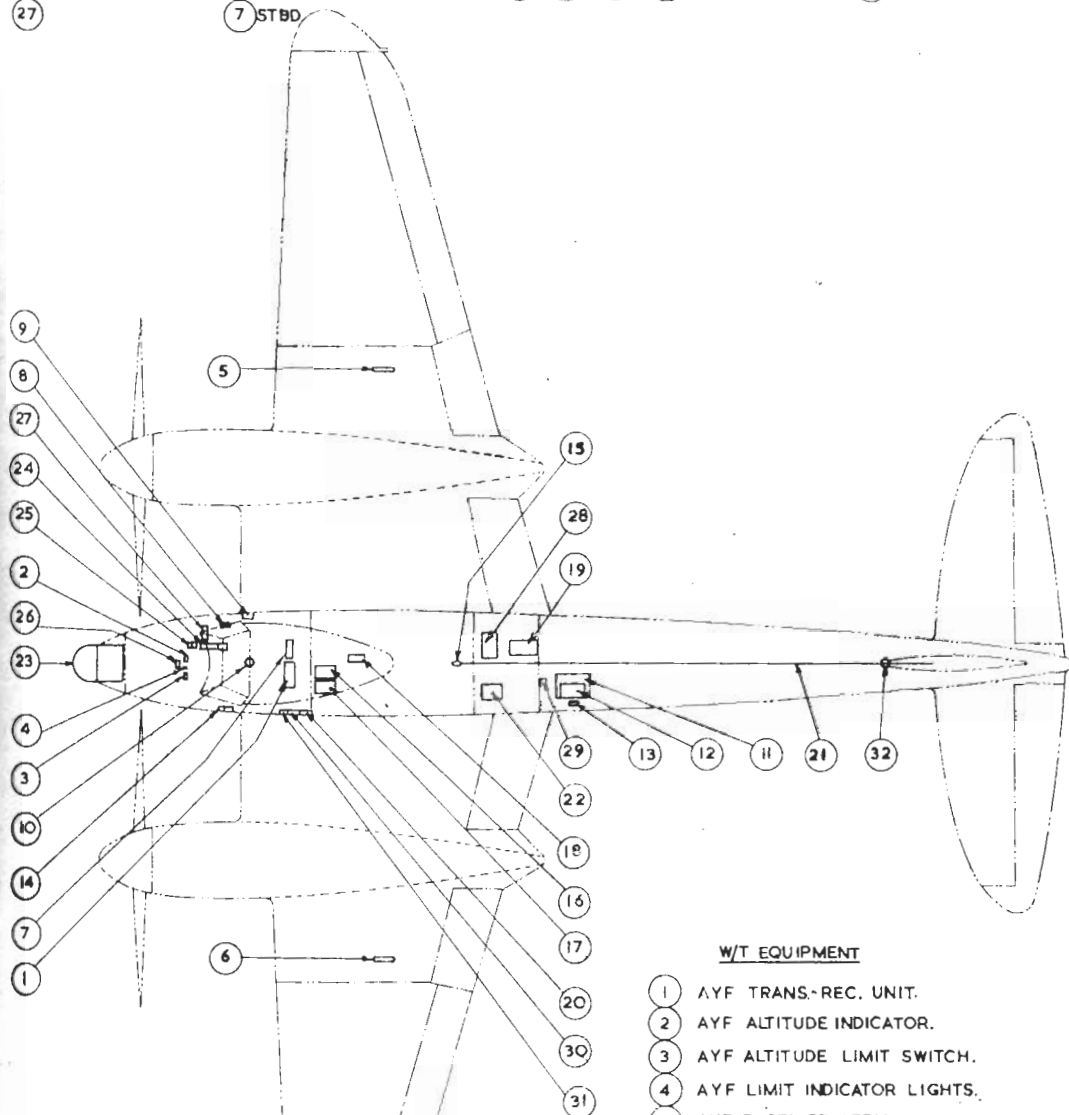
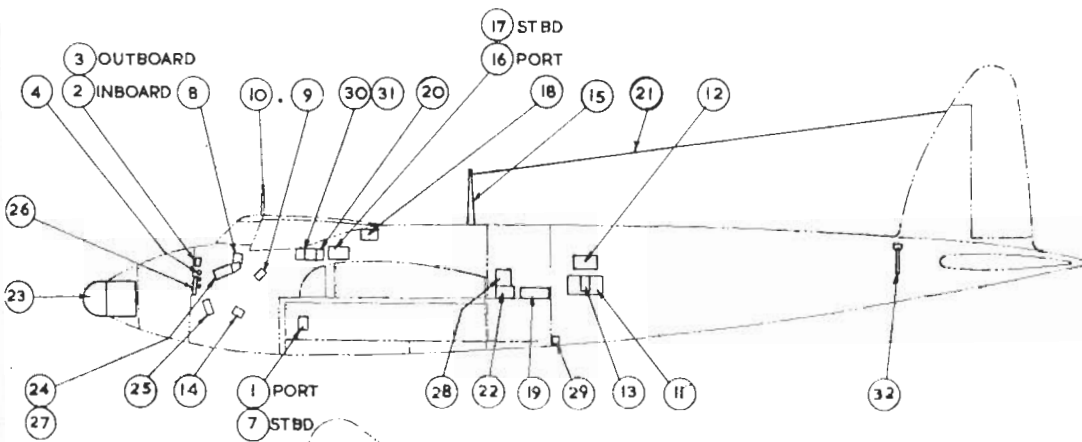
For normal homing purposes the ZBX Receiver (Modified for AVC) has been fitted, this receiver operates in conjunction with the Type YE, YG, or 72 DP Beacons. The reason for fitting ZBX (mod AVC) as opposed to the straight ZBX is that the Sea Mosquito 33 has a forward looking cockpit enabling a straight approach to the deck when landing on, and thus use may be made of the Type 93S Beam Approach Beacon.

The Radio Altimeter AYF has been fitted in this aircraft primarily as a Navigational aid, but also to give an accurate height indication during Blind approach when using the Type 93S Beacon.

Brief details of the equipments fitted are as follows :—

- (i) *AN/APS-4. An X-Band Search/Intercept Radar with B-Scope presentation. The Equipment, with the exception of the VCP, Indicator-Amplifier, and Control Unit, is contained in a perspex " Bomb " which is normally stowed externally, but in the case of the Sea Mosquito has been installed in the nose of the aircraft.*
- (ii) *AN/APX-2. An IFF Mk. III GR equipment incorporating an Interrogator, operating in the 176 Mc/s Band.*
- (iii) *SCR 522. A V.H/F equipment with Press Button selection of any one of four predetermined frequencies in the 100-156 Mc/s Band for Voice communication.*
- (iv) *ARI 5272. A lightweight V.H/F equipment with Press Button selection of any one of four pre-determined frequencies in the 115/145 Mc/s Band for Voice communication.*
- (v) *ARI 5206. An H/F equipment with continuous tuning in the band 2.4 to 13 Mc/s, giving C.W., M.C.W., or R/T Services. Power output on C.W.—25 watts, M.C.W., and R/T—6-7 watts.*
- (vi) *ZBX (mod AVC). A homing receiver operating in conjunction with the Type 93S, YE, YG, or 72 DP Beacons, on 246 Mc/s carrier frequency, and the choice of any six modulation frequencies in the band 540 to 840 Kc/s.*
- (vii) *AYF. A frequency modulated Radio Altimeter operating at 440 Mc/s which provides an accurate indication of height between 0 and 400 feet. Facilities are provided to give immediate indication of deviation from a selected height at which it is desired to fly.*





**LAYOUT OF RADIO EQUIPMENT
IN SEA MOSQUITO MK.33**

W/T EQUIPMENT

- 1 AYF TRANS.-REC. UNIT.
- 2 AYF ALTITUDE INDICATOR.
- 3 AYF ALTITUDE LIMIT SWITCH.
- 4 AYF LIMIT INDICATOR LIGHTS.
- 5 AYF RECEIVER AERIAL.
- 6 AYF TRANSMITTER. AERIAL.
- 7 ZBX RECEIVER.
- 8 ZBX CONTROL UNIT.
- 9 JUNCTION BOX TYPE 103.
- 10 ZBX AERIAL.
- 11 TR5043 TRANS.-REC. (SCR 522).
- 12 POWER UNIT (SCR 522).
- 13 JUNCTION BOX TYPE 17A (SCR522).
- 14 CONTROLLER (SCR 522).
- 15 BLADE AERIAL (SCR522)
- 16 ARI.5206 RECEIVER.
- 17 ARI 5206 TRANSMITTER.

- 18 ARI.5206 AERIAL TUNING UNIT
- 19 ARI.5206 MODULATOR TYPE 76
- 20 ARI.5206 CONTROL UNIT
- 21 ARI.5206 AERIAL.

R ADAR EQUIPMENT

- 22 VOLTAGE CONTROL PANEL
- 23 AN/APS-4 TRANS.-REC.
- 24 AN/APS-4 INDICATOR
- 25 AN/APS-4 CONTROL BOX
- 26 AN/APS-4 JUNCTION BOX
- 27 AN/APS-4 INDICATOR AMPLIFIER
- 28 AN/APX-2 TRANS.-REC.
- 29 AN/APX-2 CRASH SWITCH
- 30 AN/APX-2 OPERATORS CONTROL
- 31 AN/APX-2 PILOTS CONTROL UNIT
- 32 AN/APX-2 AFRIAL