

AERIAL OUTFIT AXO

SUMMARY OF DATA

PURPOSE

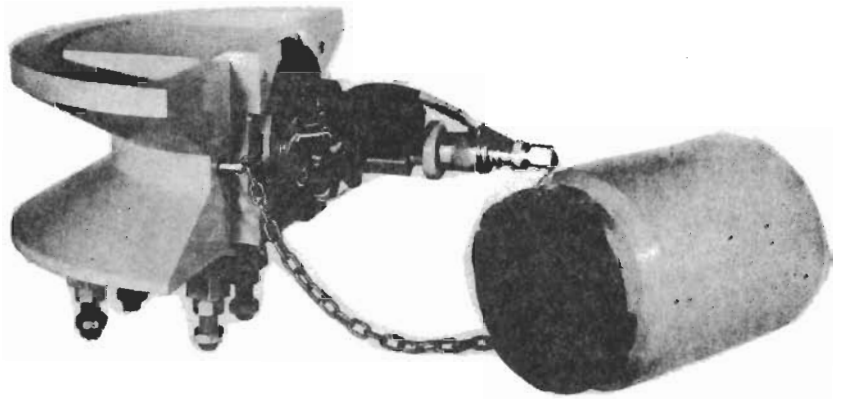
Aerial Outfit AXO is capable of receiving pulsed radar signals in the SHF band. It consists of four identical antennae and is used in conjunction with Radio Search DF Outfit UA3 in surface vessels.

BRIEF DESCRIPTION

Outfit AXO consists of four identical aerial units orientated to fit Fore and Aft, Port and Starboard. Each aerial unit is a biconical flare with apertures inclined at 45°, capable of receiving both horizontally and vertically polarised signals in the "H/I" band. Video signals are obtained by use of a matching taper and ridge type crystal holder. The detectors are biased silicon cartridge crystals designated CRYSTAL DIODE SET, NATO NO 5961-99-038-0239/0240/0241.

The resultant video signals are fed through a line matching transformer and Pyrotex low loss coaxial cable to the UA3 office equipment. Provision is made for the application of a small positive bias to the crystals.

The horizontal polar diagram for each aerial unit approximates to a cosine²θ law; the vertical beam width is approximately 30°.



FREQUENCY RANGE

7-11.5 GHz

MAJOR UNITS

- NSN 5865-99-529-0866 AERIAL UNIT 4 off
- Patt. 6159 Box Junction 4 off
- Patt. 13832 Cables 4 off
- Patt. 13941 Cables 4 off

POLARISATION

Horizontal and vertical

POWER GAIN

Approximately 10 dB

PHYSICAL DATA

	Height	Width	Length	Weight
Aerial Unit	16.5 cm (6.5 in.)	26.6 cm (10.5 in.)	35.5 cm (13 in.)	4.54 Kg (10 lb)
Box Junction	3.8 cm (1.5 in.)	5 cm (2 in.)	6.4 cm (2.5 in.)	0.45 Kg (1 lb)

SPECIAL TEST EQUIPMENT

Marconi Signal Source Type 6058B, NSN 6625-99-529-2952 Weinschel Step Attenuator Type AF 9003, NSN 5895-99-529-2954 (Part of Attenuator Kit NSN 5985-99-529-2953) Test Set Spark AP 186096 (918-6096).

BR 333(1)
Original

RESTRICTED

HANDBOOK

BR 4274

ESTABLISHMENT LIST

S1812

INSTALLATION SPECIFICATION

B1362

ASSOCIATED EQUIPMENT

UA3 BR 2349