

AERIAL OUTFIT AYK

AYK

SUMMARY OF DATA

PURPOSE

A fixed SHF df aerial outfit fitted as an addition to Aerial Outfits AYC, AYD and AYE to extend the coverage of Search and DF Outfit UA3 to J-band.

BRIEF DESCRIPTION

Four antennae, fitted at the top of the polemast and orientated for forward, aft, port and starboard reception are connected by four Size 18 waveguide runs to a Radio Frequency Head in which the signals are detected. The resultant video signals are fed via the four change-over contacts of a reed relay and pyrotenax cables to the office equipment. As only three sets of video inputs can be accommodated by the UA3 office equipment, it is necessary to switch the AYK video with one of these. The relatively little used C-band was chosen. Thus the video signals from Aerial Outfit AYD are also fed, via four pyrotenax cables, to the Radio Frequency Head and thence via the reed relay to the office equipment. The reed relay is operated from a selector unit (Selector Antenna) sited near the UA3 office equipment, offering selection of AYK or AYD reception as desired.

A facility is provided for injecting the output of a J-band test source into the antennae for overall test purposes and channel balancing.

TYPE OF RECEPTION

Pulsed rf signals from target radar.

FREQUENCY

11.5 to 18.0 GHz.

MAJOR UNITS AND PHYSICAL DATA

NATO Stock No.	Description	Qty	Length	Width	Height	Weight
5895-99-924-5630	Antenna Assembly	4	-	-	-	1.36 Kg(3 lb)
5895-99-520-0657	Radio Frequency Head	1	54 cm (21.25 in.)	20.3 cm (8 in.)	37.5 cm (14.75 in.)	27.22 Kg (60 lb)
5895-99-924-5631	Selector Antenna	1	-	-	-	3.63 Kg (8 lb)

TEST EQUIPMENT

NSN or AP No.	Description
5935-99-520-1764	Injector Signal (Part of AYK)
AP 197096	Test Unit Spark (Part of AYC/D/E)
5985-99-972-3029	Test Source (Dockyards)

ELECTRICAL CHARACTERISTICS

POLARISATION: Horizontal and vertical

POWER GAIN: 8 dB approximately

POWER SUPPLIES

115/230 V 50/60 Hz 1 \emptyset 100 VA for Selector Antenna

HANDBOOK

BR 352

INSTALLATION SPECIFICATION

B1031

ESTABLISHMENT LISTS

S1540 AYK
S1602 Waveguide Outfit Size 18 No.1