RESTRICTED

TYPE 1006 AND AERIAL OUTFITS
AKU, AZJ, AZK

SUMMARY OF DATA

PURPOSE
Radar Type 1006 is used in HM ships and submarines to provide range and bearing information for navigation, piloting and surface surveillance purposes.

BRIEF DESCRIPTION
Each equipment consists of a transmitter unit, a primary power supply unit, a display unit and a scanner unit (Aerial Outfit). Various combinations of equipment and outfit versions are used to fulfill a specific application. The equipment operates on X-band frequencies, 9445 MHz for surface vessels and 9650 MHz for submarines with nine selectable ranges on the display unit between 0.5 and 64 miles or 0.5 and 96 miles, depending on the version of display outfit in use. Range calibration may be in data miles (1 mile = 2000 yd) or nautical miles (1 mile = 2026.5 yd). Some of the aerial outfits available are fitted with certain specialty selected components and materials which permit operation of higher frequencies than those recommended for standard outfits. The scanner unit is installed in a position oriented to the weather conditions; the other units of the system are in a protected position. In submarines the transmitter, display unit and primary power supply unit are used in conjunction with Aerial Outfits AKU(2), (3) and (4). Surface vessels use Aerial Outfits AZJ(1), (2), (3) or (4) or AZK(1) or (2). Provision is made for the transmitter to operate with Display Outfits JHA series, JP series and JQ. Display Outfit JUD can be used independent of the transmitter unit, to present information from other radar sources.

TRANSMISSION CHARACTERISTICS
- Frequency: 9445 MHz ± 15 MHz, 9650 MHz ± 30 MHz for submarine role
- Power output: 25 W (peak)
- Pulse lengths: 0.05 µs - short pulse, 0.25 µs - medium pulse, 0.75 µs - long pulse
- Pulse repetition frequency (prf): Low prf 800 Hz, High prf 1600 Hz

RECEPTION CHARACTERISTICS
- Linear and logarithmic
- Intermediate Frequency: 60 MHz

MAJOR UNITS
- NSN 5840-99-523-6693: Transmitter Unit (Surface)
- 5840-99-523-6692: Transmitter Unit (Submarine)
- 5840-99-523-6699: or 5840-99-527-7275: Display Outfit JUD
- 5840-99-523-6694: Power Unit
- 5840-99-631-1103: Display Outfit JUD

ASSOCIATED AERIALS
- Physical Data: OUTFIT AZJ (1)(2)(3)(4)
  - 228.6 cm (7 ft 6 in.)
- OUTFIT AZK (1)(2)
  - 304.8 cm (10 ft)
- OUTFIT AKU (2)(3)(4)

ASSOCIATED DISPLAYS
- OUTFIT JUD (1)(2)(3)
- OUTFIT JHA series, JP series and JQ
POWER REQUIREMENTS
115 V or 440 V three phase 60 Hz or 220 V dc. Ship Supply
440 V three phase 60 Hz. Aerial Unit.

HANDBOOK
BR 4200

ESTABLISHMENT LIST
S1663 and S1905

INSTALLATION SPECIFICATION
B 1171 and B 3042