ESTRICTED

TYPE YE

SUMMARY OF DATA

PURPOSE

Homing Beacon for Aircraft Carriers.

TYPE OF TRANSMISSION

Rotating directional M.C.W. beacon signal. Bearing signals, consisting of one of 12 pre-selected morse letters, are transmitted through each 30° sector per revolution for 9 revolutions while the station identification signal, consisting of any 2 of 9 morse letters is transmitted for the tenth revolution.

FREQUENCY RANGE

200 - 250 Mc/s (Carrier) 540 - 830 kc/s (Modulation)

POWER OUTPUT

50 watts.

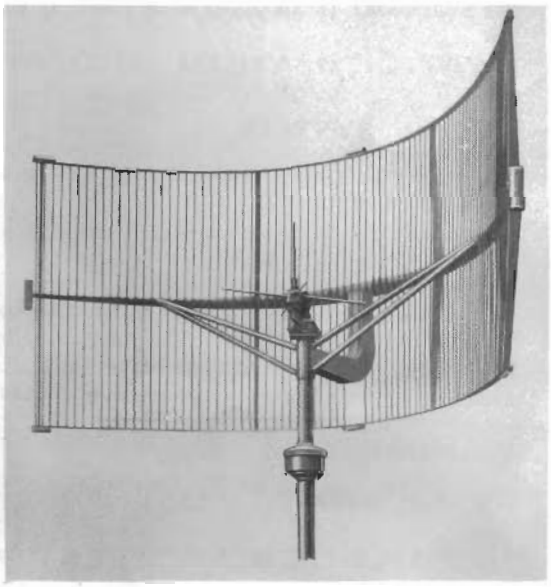
MAJOR UNITS

There are D.C. and A.C. models of Type YE.

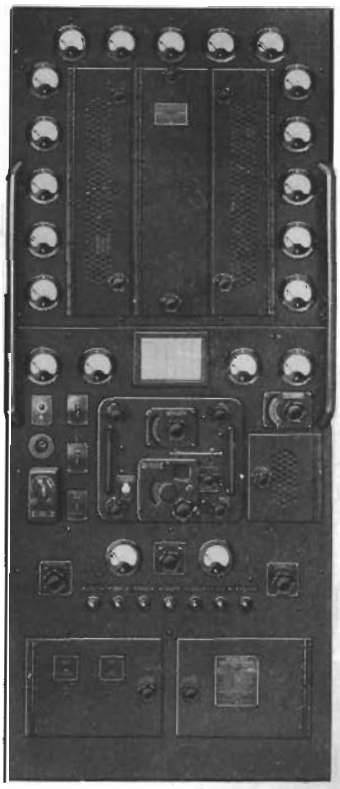
U.S. Navy No. or Patt. No.	Description	Physical Data			
		Height	Width	Depth	Weight
CRV52234	Transmitter (D.C. Model)	72⅜"	31⅛"	23½"	775 lb
CRV52235	Transmitter (A.C. Model)	72⅜"	31⅛"	23½"	850 lb
CC21725	Motor Generator (D.C. Model)	17⅛"	46⅛"	16"	586 lb
CC21726	Motor Generator (A.C. Model)	17⅛"	43¼"	16"	520 lb
CAE21741	Magnetic Controller (D.C. Model)	20⅝"	15"	13"	61 lb
CAE21740	Magnetic Controller (A.C. Model)	19½"	16"	9"	46 lb
CRV66036	Antenna Assembly	-	-	-	378 lb
65706	Aerial Control Unit, Design 56	19½"	23½"	12"	95 lb
-	Bendix Gyro Converter	-	-	-	-

BRIEF TECHNICAL DESCRIPTION

An American V.H.F. medium power beacon transmitter which transmits bearing and identification signals from a constant speed rotating aerial. The frequency is controlled by a crystal controlled oscillator. The carrier frequency is 18 x crystal frequency. The modulation frequency is controlled by master oscillator. The aerial is rotated at constant speed. The rotation of the keying disc is controlled by the rotation of the aerial and the ship's gyro compass so that the 30° letter sectors are stabilised in azimuth.



TYPE YE - AERIAL ASSEMBLY



TYPE YE - TRANSMITTER

POWER REQUIREMENTS AND CONSUMPTION

D.C. Model	220V. D.C.	2.1 kW
A.C. Model	220V. D.C.	5.5 kW

The A.C. Model is supplied with power at 220V. 3 phase 60 c/s by A.C. Supply Outfit DPH.

HEAT DISSIPATION IN OFFICE

2 kW.

AERIAL SYSTEM

Rotating directional aerial system supplied as part of equipment, consisting of a reflector, a drive tube and a drive unit.

REMARKS

Receiver Outfit ZB-ARA is used to monitor the Type YE transmissions; it is fitted alongside the Aerial Control Unit, Design 56. The power supply for Outfit ZB-ARA which may be supplied as either a 12V. or 24V. D.C. model, is obtained from batteries. In ships not fitted with Outfit ZB-ARA the radiation is checked by means of a suitable receiver already fitted in the Third Wireless Office.

HANDBOOKS

U.S. Navy, B.R.1930, B.R.1490, ~~B.R.1489~~

ESTABLISHMENT LIST

AE1

INSTALLATION SPECIFICATION

B.339