

STATUS: Limited Standard

CLASSIFICATION OF EQUIPMENT: Unclassified

USING SERVICE: Navy

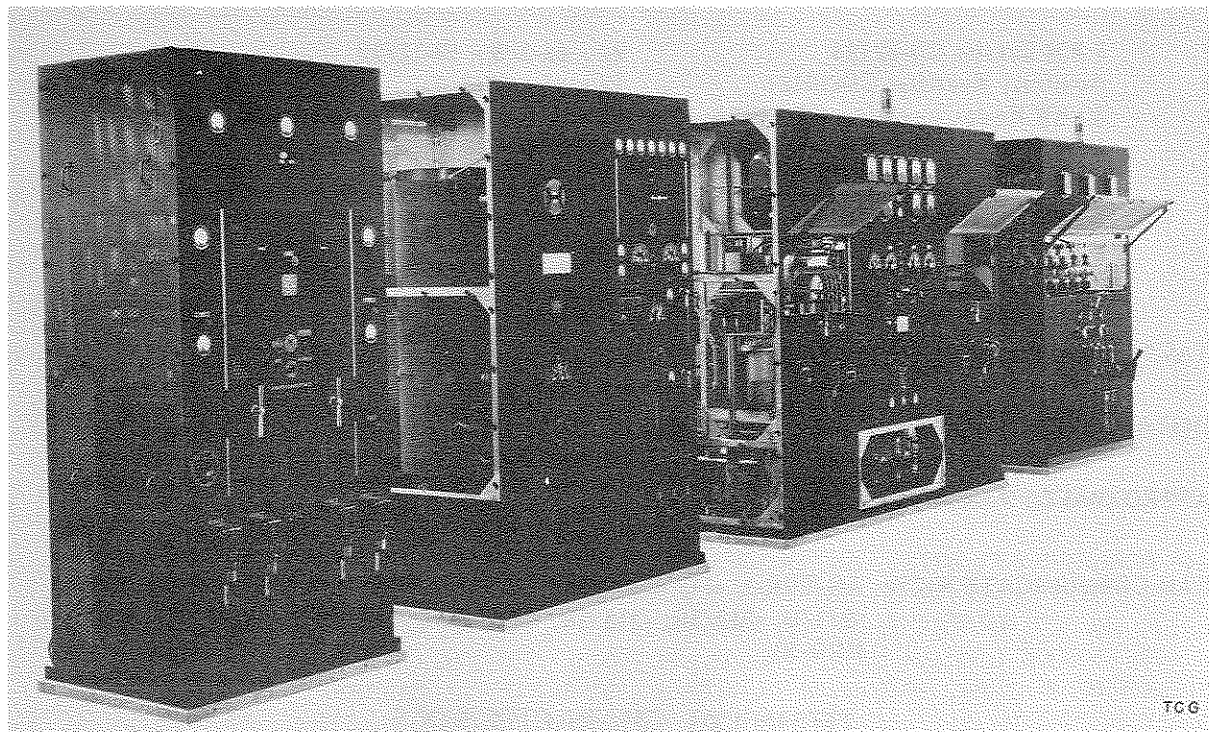
DATE OF THIS SHEET: 8 Apr 52

AN/FRT-TYPE

SERVICE TYPE NUMBER:

TCG

RADIO TRANSMITTING EQUIPMENT



Radio Transmitting Equipment TCG is designed for high-power, low-frequency shore-to-ship radio-telegraph service.

This equipment has a continuously variable, temperature-controlled master oscillator which can operate over the range of 0.05 to 0.15 mc. Requires an antenna having a resistance of 2 to 7 ohms and a capacitance of 2,500 to 4,000 mmf. Provision is made to operate the exciter unit directly into the antenna system. The r-f amplifier uses water-cooled tubes.

The transmitter can be keyed at speeds up to 500 words per minute and can convert facsimile audio signals (within a frequency range of 2,000 to 10,000 cps) to c-w signals.

AN/FRT-TYPE

INSTRUCTION LITERATURE:

NavShips 95311

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MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
1	2 KW Exciter CG-52194	92 x 66-1/8 x 50-17/32	1350
1	Auxiliary Rectifier CG-20121	92 x 45 x 38-5/8	1397
1	50 KW Power Amplifier CG-50081	100-5/16 x 120-7/8 x 143-7/16	6275
1	Main Rectifier Unit CG-20111	100-5/16 x 74-7/8 x 49-1/4	2635
1	Power Transformer CG-30458-A	44-1/2 x 65-5/8 x 100-3/8	5000
1	Contacting Unit CG-29092	65-3/8 x 46 x 44	1790

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Shore transmitting station.

INSTALLATION: Ground, fixed.

APPROXIMATE RANGE (IN MILES): Long.

CAN COMMUNICATE WITH: AN/SRR-3, -11; AN/TRQ-1; BC-344, -779; R-96/SR, -203/SR, -210/U, -211/U, -212/SR, -215/SR; RAK; RBA; RBL; RCH; SCR-614; National HRO-50.

TECHNICAL CHARACTERISTICS

FREQUENCY RANGE IN MEGACYCLES: 0.050 - 0.150, in 6 bands.

Band 1: 0.050 - 0.062

Band 4: 0.087 - 0.105

Band 2: 0.062 - 0.073

Band 5: 0.105 - 0.124

Band 3: 0.073 - 0.087

Band 6: 0.124 - 0.150.

TYPE MODULATION: Am.

TYPE OF SIGNAL: Cw.

POWER OUTPUT: 50 kw, 2 kw without r-f amplifier.

POWER REQUIREMENTS: 100 kw, 230 v, 60 cyc, 3 phase. Operation without r-f amplifier:
12 kw, 230 v, 60 cyc, 3 phase.

PHYSICAL CHARACTERISTICS

Information on Radio Transmitting Equipment TCG not available.