

20 August 1962

Cog Service: USN FSN:

RADIO SET AN/GRC-13

Functional Class:

USA

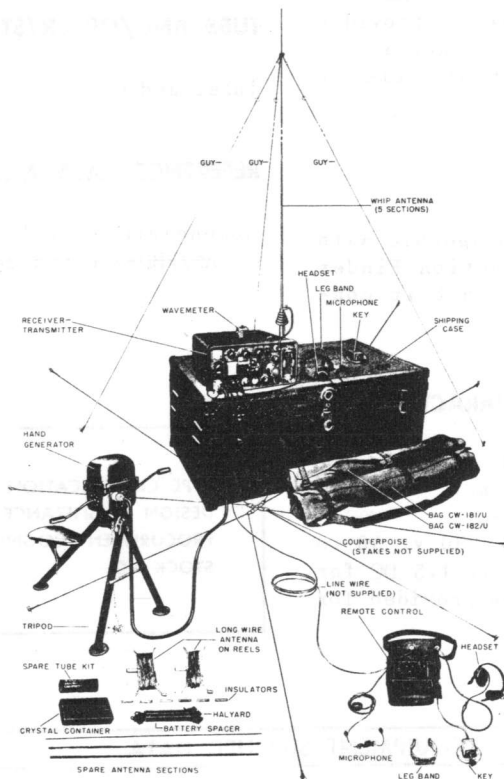
USN

USAF

TYPE CLASS: Used by

Used by

MANUFACTURER'S NAME/CODE NUMBER: RCA Victor Division, (79089).



Radio Set AN/GRC-13

#### FUNCTIONAL DESCRIPTION:

The Radio Set AN/GRC-13 is designed to provide complete facilities for two (2) way radio communications by Continuous Wave (CW) telegraphy (A1) and telephony (A3) on any one (1) of ten (10) preset frequencies in the 2 to 12 megacycle band. The complete equipment including operating accessories, hand-driven generator and operating spares, are packed in a single field case to facilitate transportation in field operations.

No field changes in effect at time of preparation (5 July 1962).

#### TECHNICAL CHARACTERISTICS:

TYPE OF EQUIPMENT: Radio.

EQUIPMENT PURPOSE: Communications.

TYPE OF FREQUENCY CONTROL: Crystal.

## AN/GRC-13 RADIO SET

TYPE OF EMISSION: A1 (CW), A3 (phone).

### TYPE OF CIRCUIT

RECEIVER: Superheterodyne.

TRANSMITTER: Crystal saver circuit.

### NOMINAL POWER INPUT

RECEIVE: 135 W.

TRANSMIT: 200 W.

### NOMINAL POWER OUTPUT

RECEIVER: 25 mw into 300 ohms non-inductive resistance.

TRANSMITTER: Hand generator A1-12 W; A3-45 W.

AUXILIARY POWER SUPPLY: A1-20 W; A3-6 W.

### FREQUENCY RANGE

RECEIVE AND TRANSMIT: 2 to 12 mc.

### NUMBER OF PRESET FREQUENCIES

RECEIVE AND TRANSMIT: 10.

### NUMBER OF BANDS: 1 band.

INTERMEDIATE FREQUENCY: 1600 kc.

### OUTPUT IMPEDANCE

RECEIVER HEADSET: 300 ohms.

TRANSMITTER ANTENNA: 3000 ohms.

### INPUT IMPEDANCE

RECEIVER: 40 ohms at input to R.F. stage.

TRANSMITTER: 100 ohms (Microphone line).

RECEIVER SELECTIVITY: 6 db down at 7.5 kc off resonance.

### AUDIO FREQUENCY RESPONSE

RECEIVE AND TRANSMIT: 400 to 3000 cycles.

### AVC OPERATION

RECEIVER: Form 4 db between 50 to 50000 microvolts.

OPERATING POWER RQMT: 12 v dc, 24 v dc, 115 v ac.

### RELATION TO OTHER EQUIPMENT:

The Radio Set AN/GRC-13 was formerly known as Navy Model MB0.

EQUIPMENT REQUIRED BUT NOT SUPPLIED: None.

### MAJOR COMPONENTS

QTY	ITEM	STOCK NUMBERS	DIMENSIONS (INCHES)	WEIGHT (LBS.)
1	Radio Set AN/GRC-13		18 x 20-1/4 x 44-1/4	257
	consists of:			
1	Engine Generator Kit MX-1010/U		20 x 21-7/8 x 28-1/4	177
1	Power Supply Kit MX-1011/U		20-1/4 x 27-1/4 x 32-3/4	282
1	Installation Kit MX-1012/U		19-1/4 x 22-7/8 x 27-1/2	118

REFERENCE DATA AND LITERATURE:

NAVSHIPS 91235: Technical Manual for Radio Set AN/GRC-13.

TUBE, CRYSTAL AND/OR SEMI-CONDUCTOR DATA:

TUBES: (2) 114 (2) 1R5 (2) 1S5 (4) 1T4 (1) 2E22 (1) 3A4 (3) 3Q4 (1) 6AU6  
 (1) 5678 (1) 1006 (1) 6X5GT

CRYSTALS: (1) CR-5B/U (1) CR-18/U

SEMI-CONDUCTORS: (3) 1N47

SHIPPING DATA

PKGS	VOLUME (CU FT)	WEIGHT (LBS)
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PROCUREMENT DATA

PROCURING SERVICE: USN  
 SPEC &/OR DWG:

DESIGN COG: USN, BuShips

CONTRACTOR	LOCATION	CONTRACT OR ORDER NO.	APPROX. UNIT COST
RCA Victor Division	Camden, N. J.	N0bsr-42227, 27 February 1948	