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SECTION 10 OF 10

NAVSHIPS 94200.1

DIRECTORY OF COMMUNICATION EQUIPMENT

(CONTINUED)

PREPARED BY
U.S. NAVY
ELECTRONICS SUPPLY OFFICE
GREAT LAKES, ILLINOIS

April 1959

Radio-Transceivers

RADIO SET**AN/MRC-40****FUNCTIONAL DESCRIPTION**

The AN/MRC-40 is a mobile ground radio unit, trailer mounted, designed to receive and transmit radio signals for air to ground communications.

No field changes in effect at time of preparation (3 December 1958).

ELECTRICAL AND MECHANICAL CHARACTERISTICS

TYPE OF EMISSION: A2 and A3 type.
 NUMBER OF CHANNELS: 1750 channels.
 CHANNEL SPACING: 100 kc.
 NUMBER OF PRESET FREQUENCY CHANNELS: 10.
 METHOD OF OPERATION: Engine generator operated.
 TYPE OF INSTALLATION: Ground mobile.
 POWER OUTPUT: 100 W.
 OPERATING FREQUENCY RANGE: 225 to 400 mc.
 OPERATING POWER REQUIREMENT: 115 v AC, 50 to 60 cps, single ph.

MANUFACTURER'S OR CONTRACTOR'S DATA

United States Marine Corps.
 Contract MIPR-57-881C-77038.
 Contract EN24/75011(57).

TUBE AND/OR CRYSTAL COMPLEMENT

Electron Tube and Crystal Data not Available.

REFERENCE DATA AND LITERATURE

Nomenclature Card AN/MRC-40 for Radio Set.

TYPE CLASSIFICATION

DESIGN COGNIZANCE BUSHIPS

PROCUREMENT COGNIZANCE

STOCK NO.

R.D.B. IDENT. NO.

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Radio Set AN/MRC-40 Including:		
1	Radio Transmitter T-217A/GR	12-1/4 X 19 X 22	
1	Radio Receiver R-278B/GR	12-1/4 X 19 X 21	
1	AN Mast AB-155A/U		
1	AN Modulator-Power Supply MD-129A/GR	12-1/4 X 19 X 22	
1	AN Radio Set Control C-1335/TRC-32	8-3/4 X 12-1/4 X 19	
1	AN Radio Set Control C-1336/TRC-32	8-3/4 X 12-1/4 X 19	
1	Sig Power Unit PE-75		
1	AN Antenna AS-390/SRC	6-3/4 h X 23-3/4 dia	
1	AN Terminal Box J-306/GR	2 X 5 X 10	

June 1961

Radio-Transceivers

RADIO SET

AN/MRC-47A

FUNCTIONAL DESCRIPTION

The AN/MRC-47A is designed as a mobile, general-purpose, ground equipment used to provide communications between aircraft in flight and a command center on the ground.

No field changes in effect at time of preparation (10 April 1961).

ELECTRICAL AND MECHANICAL CHARACTERISTICS

TYPE OF INSTALLATION: Mobile, truck-mounted.

TYPE OF EMISSION: A1, A2 and A3.

POWER OUTPUTS

TCS TRANSMITTER: 40 W, A1 emission and 20 W, A3 emission.

TCK TRANSMITTER: 400 W, A1 emission and 100 W, A3 emission.

T-217/GR TRANSMITTER: 100 W, A2 emission and 100 W, A3 emission.

FREQUENCY DATA

TCS TRANSMITTER

NUMBER OF BANDS: 3 bands.

FREQUENCY RANGE: 1500 to 12,000 kc.

T-217/GR TRANSMITTER

NUMBER OF CHANNELS: 1750 channels.

FREQUENCY RANGE: 225 to 339.9 mc.

CHANNEL FREQUENCY: 100 kc wide.

TCK TRANSMITTER

NUMBER OF BANDS: 6 bands.

FREQUENCY RANGE: 2000 to 18,000 kc.

OPERATING POWER RQMT: 120 v ac, 60 cps, single ph.

TUBE AND/OR CRYSTAL COMPLEMENT

Electron Tube, Crystal and/or Semi-Conductor

Device data not available.

REFERENCE DATA AND LITERATURE

NAVSHIPS 93400: Preliminary Data Form for Radio Set AN/MRC-47A.

TYPE CLASSIFICATION	(NAVY)
PROCUREMENT COGNIZANCE	
DESIGN COGNIZANCE	TASSA
STOCK NO.	
R.O.B. IDENT. NO.	

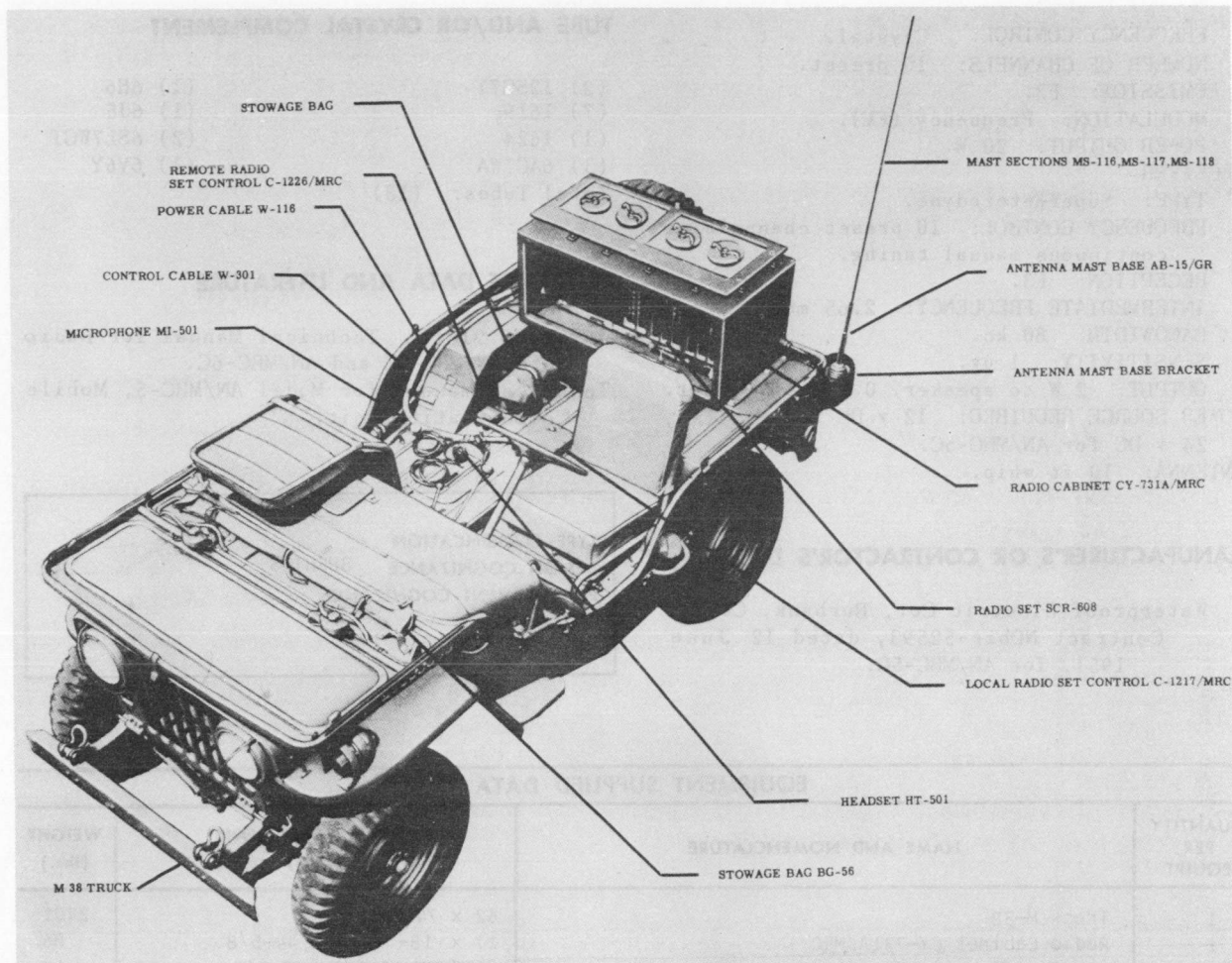
EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Radio Set AN/MRC-47A consists of:		
1	Transmitter Group OA-777A/MRC-47		
1	Receiver Group OA-778A/MRC-47		
2	Truck, Cargo M-35 or equal		
1	Shelter, Electrical Equipment S-103A/MRC-47	65-3/4 x 69-1/2 x 132	
1	Shelter, Electrical Equipment S-104A/MRC-47	65-3/4 x 69-1/2 x 132	

April 1958

RADIO SET

AN/MRC-5, AN/MRC-5C



Radio Set AN/MRC-5C

FUNCTIONAL DESCRIPTION

The AN/MRC-5 and AN/MRC-5C are complete mobile radio stations designed for short range ground communication in field and internal security operations. It consists of Radio Set SCR-608 installed in a type M-38, 1/4 ton (jeep) truck. Headset reception and push-to-talk transmission are possible at the local radio set control, located between the seats, or on the dash of the vehicle, and at the remote radio set control, which may be located up to a distance of one-mile from the vehicle. The local radio set control also provides loudspeaker reception and on-off power control of the radio set. The equipments are submersion proof.

The major difference results in the use of a 12 v DC power supply for the AN/MRC-5 and a 24 v DC source for the AN/MRC-5C.

No field changes in effect at time of preparation (4 October 1957).

RELATION TO OTHER EQUIPMENT

The AN/MRC-5, -5C are similar to AN/MRC-6C except that the AN/MRC-6C consists of an M-38A, 1/4 ton, 4 x 4 truck and a radio transmitting and receiving equipment TCS.

Equipment Required but not Supplied: One mile of Infantry Field Wire WD-1/TT or equivalent.

ELECTRICAL AND MECHANICAL CHARACTERISTICS

RANGE: 5 to 15 mi.

TRANSMITTER

FREQUENCY RANGE: 27 to 38.9 mc.

Radio-Transceivers

AN/MRC-5, AN/MRC-5C**RADIO SET**

April 1958

FREQUENCY CONTROL: Crystal.
 NUMBER OF CHANNELS: 10 preset.
 EMISSION: F3.
 MODULATION: Frequency (FM).
 POWER OUTPUT: 20 W.

RECEIVER

TYPE: Superheterodyne.
 FREQUENCY CONTROL: 10 preset channels or continuous manual tuning.
 RECEPTION: F3.
 INTERMEDIATE FREQUENCY: 2.65 mc.
 BANDWIDTH: 80 kc.
 SENSITIVITY: 1 uv.
 OUTPUT: 2 W to speaker, 0.2 W to headset.
 POWER SOURCE REQUIRED: 12 v DC for AN/MRC-5,
 24 v DC for AN/MRC-5C.
 ANTENNA: 10 ft whip.

TUBE AND/OR CRYSTAL COMPLEMENT

(2) 12SG7Y	(1) 6H6
(7) 1619	(1) 6J5
(1) 1624	(2) 6SL7WGT
(3) 6AC7WA	(1) 6V6Y
Total Tubes: (18)	

REFERENCE DATA AND LITERATURE

NAVSHIPS 91811: Technical Manual for Radio Sets AN/MRC-5C and AN/MRC-6C.
 Technical Manual for Model AN/MRC-5, Mobile Communication Unit.

MANUFACTURER'S OR CONTRACTOR'S DATA

Waterproof Electric Co., Burbank, Calif.
 Contract NObsr-52593, dated 12 June 1951, for AN/MRC-5C.

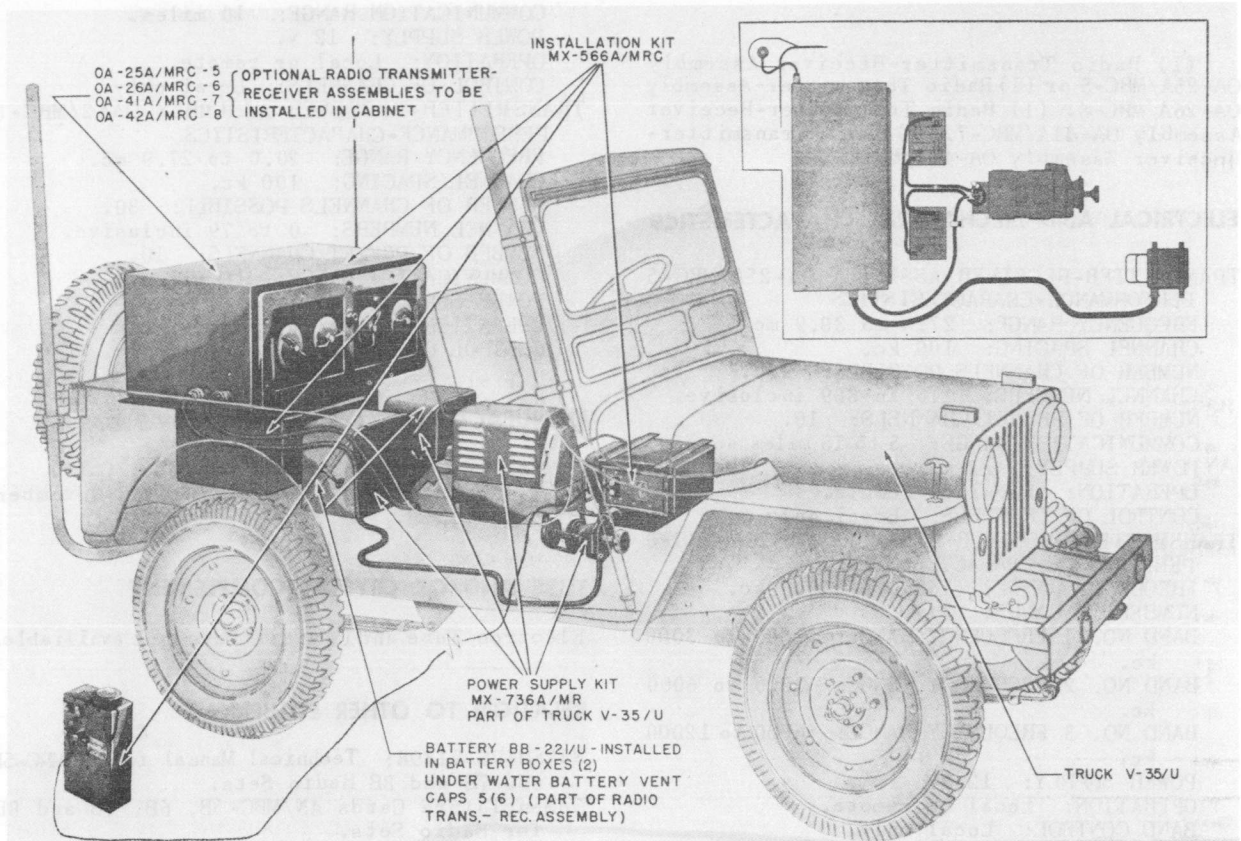
TYPE CLASSIFICATION
 DESIGN COGNIZANCE BUSHIPS
 PROCUREMENT COGNIZANCE
 STOCK NO.

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Truck M-38	62 x 74 x 133	2401
1	Radio Cabinet CY-731A/MRC	17 x 18-11/16 x 44-5/8	86
1	Local Radio Set Control C-1217/MRC	7-1/4 x 10-5/8 x 8-3/4	14
1	Remote Radio Set Control C-1226/MRC	1-9/16 x 3-3/16 x 4-7/8	1.2
1	Maintenance Parts Box CY-732/MRC	8-7/8 x 15-1/2 x 30	41.4
1	Antenna Mast Base Bracket	5-1/2 x 5-3/4 x 12-1/2	6.6
1	Radic Set SCR-608	13-1/8 x 13-9/32 x 35-5/8	181.
1	Set of Cables, Brackets, Plates, Hardware		

RADIO SET

AN/MRC-5B,6B,7B and 8B



Radio Set AN/MRC-5B, AN/MRC-6B, AN/MRC-7B or AN/MRC-8B

FUNCTIONAL DESCRIPTION

The radio sets designated as AN/MRC-5B, 6B, 7B and AN/MRC-8B, each consist of a transmitter-receiver assembly (OA-25A/MRC-5, OA-26A/MRC-6, OA-41A/MRC-7 or OA-42A/MRC-8), a 1/4 ton 4 X 4 Truck (V-35/U), a power supply kit (MX-736A/MR), an installation kit (MX-566A/MRC), and two six volt storage batteries (BB-221U) with special underwater vent caps installed. The design of the major truck units as well as the electronic equipment containers is such that operation is possible even after the material has been submerged as in fording or landing operations.

These radio sets provide compact and highly maneuverable mobile radio-telephone communication for organizational commanders in all echelons, for anti-aircraft and anti-tank warning and control nets, for base stations at command posts, for fire control

and fire direction nets, and for intra-organizational communications.

This series of radio sets are similar in their mode of transportation and source of power and differ from one another according to the type of transmitter-receiver assembly installed. Common to all sets are the Truck V-35/U, the Power Supply Kit MX-736A, the installation kit MX-566A, and the Batteries BB-221/U.

No field changes in effect at time of preparation (17 June 1958).

RELATION TO OTHER EQUIPMENT

The AN/MRC-5B, 6B, 7B and 8B radio sets are similar in their mode of transportation and source of power, and differ from one another according to the type of transmitter-receiver assembly installed.

April 1958

Radio-Transceivers

AN/MRC-5B,6B,7B and 8B**RADIO SET**

(1) Radio Transmitter-Receiver Assembly OA-25A/MRC-5 or (1) Radio Transmitter-Assembly OA-26A/MRC-6. (1) Radio Transmitter-Receiver Assembly OA-41A/MRC-7. (1) Radio Transmitter-Receiver Assembly OA-42A/MRC-8.

ELECTRICAL AND MECHANICAL CHARACTERISTICS**TRANSMITTER-RECEIVER ASSEMBLY OA-25A/MRC-5****PERFORMANCE-CHARACTERISTICS**

FREQUENCY RANGE: 27.0 to 38.9 mc.
 CHANNEL SPACING: 100 kc.
 NUMBER OF CHANNELS POSSIBLE: 120.
 CHANNEL NUMBERS: 270 to 389 inclusive.
 NUMBER OF PRESET CHANNELS: 10.
 COMMUNICATION RANGE: 5 to 15 miles approx.
 POWER SUPPLY: 12 v.
 OPERATION: Local or remote.
 CONTROL OF CHANNELS: Local only.

TRANSMITTER-RECEIVER ASSEMBLY OA-26A/MRC-6**PERFORMANCE-CHARACTERISTICS**

FREQUENCY RANGE: 1500 to 12000 kc.
 NUMBER OF BANDS: 3.
 BAND NO. 1 FREQUENCY RANGE: 1500 to 3000 kc.
 BAND NO. 2 FREQUENCY RANGE: 3000 to 6000 kc.
 BAND NO. 3 FREQUENCY RANGE: 6000 to 12000 kc.
 POWER SUPPLY: 12 v.
 OPERATION: Local or remote.
 BAND CONTROL: Local only.

TRANSMITTER-RECEIVER ASSEMBLY OA-41A/MRC-7**PERFORMANCE-CHARACTERISTICS**

FREQUENCY RANGE: 20.0 to 27.9 mc.
 CHANNEL SPACING: 100 kc.
 NUMBER OF CHANNELS POSSIBLE: 80.
 NUMBER OF PRESET CHANNELS: 10.
 CHANNEL NUMBERS: 0 to 79 inclusive.

COMMUNICATION RANGE: 10 miles.
 POWER SUPPLY: 12 v.
 OPERATION: Local or remote.
 CONTROL OF CHANNELS: Local only.
TRANSMITTER-RECEIVER ASSEMBLY OA42/MRC-8
PERFORMANCE-CHARACTERISTICS
 FREQUENCY RANGE: 20.0 to 27.9 mc.
 CHANNEL SPACING: 100 kc.
 NUMBER OF CHANNELS POSSIBLE: 80.
 CHANNEL NUMBERS: 0 to 79 inclusive.
 NUMBER OF PRESET CHANNELS: 10.
 COMMUNICATION RANGE: 10 miles.
 POWER SUPPLY: 12 v.
 OPERATION: Local or remote.
 CONTROL OF CHANNELS: Local only.

MANUFACTURER'S OR CONTRACTOR'S DATA

Willys-Overland Motors, Toledo, Ohio.
 Contract N8SS-2660, dated 22 November 1950.

TUBE AND/OR CRYSTAL COMPLEMENT

Electron Tube and Crystal Data not available.

RELATION TO OTHER EQUIPMENT

NAVSHIPS 91398: Technical Manual for AN/MRC-5B, 6B, 7B and 8B Radio Sets.
 Nomenclature Cards AN/MRC-5B, 6B, 7B and 8B for Radio Sets.

TYPE CLASSIFICATION
DESIGN COGNIZANCE BUSHIPS
PROCUREMENT COGNIZANCE
STOCK NO.

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Truck v-35/U including: (1) Installation Kit MX-566A/MRC (1) Power supply kit MX-736/MR (2) Care and Operational Manual NAVSHIPS 91306 (1) Technical Service Manual NAVSHIPS 91310 (2) Radio Set Technical Manual NAVSHIPS 91398 (2) SIGM 8 Pamphlet for: MX-566A/MRC MX-736A/MR (1) Parts Catalog NAVSHIPS 91310.4	60-5/8 X 68 X 134-1/4	2726

26 June 1962

RADIO SET AN/MRC-55

Cog Service: USN FSN:

Functional Class:

USA

USN

USAF

TYPE CLASS: Used by Used by

MANUFACTURER'S NAME/CODE NUMBER: Federal Telephone and Radio Company, (21964).

(No Illustration Available)

FUNCTIONAL DESCRIPTION:

The Radio Set AN/MRC-55 is designed as a mobile transmitter and receiver, which provides high frequency two-way communications. It has retransmission facilities and provides frequency shift keying teletype transmissions using field teletype. It has remote control up to one (1) mile.

No field changes in effect at time of preparation (16 January 1962).

TECHNICAL CHARACTERISTICS:

TYPE OF INSTALLATION: Mobile (transportable).

TYPE OF EMISSION: A1, A3 and FSK.

RECEIVER DATA

TYPE OF TUNING: Continuous.

NUMBER OF BANDS: 4 bands.

FREQUENCY RANGE: 2 to 32 mc.

TRANSMITTER DATA

NUMBER OF CHANNELS: 56,000 channels.

INDIVIDUAL CHANNEL FREQUENCY: 500 cycles.

FREQUENCY RANGE: 2 to 29.9995 mc.

TRANSMITTING POWER OUTPUT: 100 W.

OPERATING POWER RQMT: 110 v ac, 60 cps, single ph; 24 v dc, operated from 24 v dc, 100 amp 1/4 ton 4 x 4 truck generator system.

RELATION TO OTHER EQUIPMENT: None.

EQUIPMENT REQUIRED BUT NOT SUPPLIED:

(1) Multimeter (VTVM) Type ME-25A/U; (1) Frequency Meter (1.6 to 40 mc) AN/USM-29; (1) Megger (0.1 to 10,000 megohms, 500 volt test); (1) Adapter Set (NT49416, 49598, 49992); (1) Dummy Antenna (2-8 mc, 8-16 mc, 16-32 mc); (1) Dummy Load (600 ohms, 2 W); (1) R.F. Signal Generator (9.5 to 30,000 kc).

MAJOR COMPONENTS

QTY	ITEM	STOCK NUMBERS	DIMENSIONS (INCHES)	WEIGHT (LBS)
1	Radio Set AN/MRC-55 consists of:			
1	Radio Set Control OA-1444/GRC-14			

AN/MRC-55 RADIO SET

QTY	ITEM	STOCK NUMBERS	DIMENSIONS (INCHES)	WEIGHT (LBS)
1	Power Supply PP-1711/GRC-14		10 x 17-3/8 x 29	
1	Radio Receiver R-808/GRC-14		10 x 13-3/4 x 17-1/2	
1	Radio Transmitter T-631/GRC-14		13-3/4 x 17-1/2 x 29	

REFERENCE DATA AND LITERATURE:

NAVSHIPS 92911: Technical Manual for Radio Set AN/MRC-55.

TUBE, CRYSTAL AND/OR SEMI-CONDUCTOR DATA:

TUBES: (1) 6E4JA411BC (1) ZA8 (9) 12AT7WB (1) 12AU7 (1) 12BA6 (7) 26A6
 (2) 4JA60A (3) 4X250F (1) 5651WA (4) 5654-6AK5W (2) 5687WA (1) 5725-6AS6W
 (2) 5750-6BE6W (3) 5751 (1) 5814A (6) 6AH6WA (14) 6AJ5 (1) 6CL6
 (2) 6005-6AQ5W (2) 6082

CRYSTALS: None used.

SEMI-CONDUCTORS: (6) 1N540 (13) 1N645 (11) 1N69A

TRANSISTORS: (1) 2N117 (2) 2N174 (6) 2N340 (1) 2N83A

SHIPPING DATA

PKGS VOLUME (CU FT) WEIGHT (LBS)

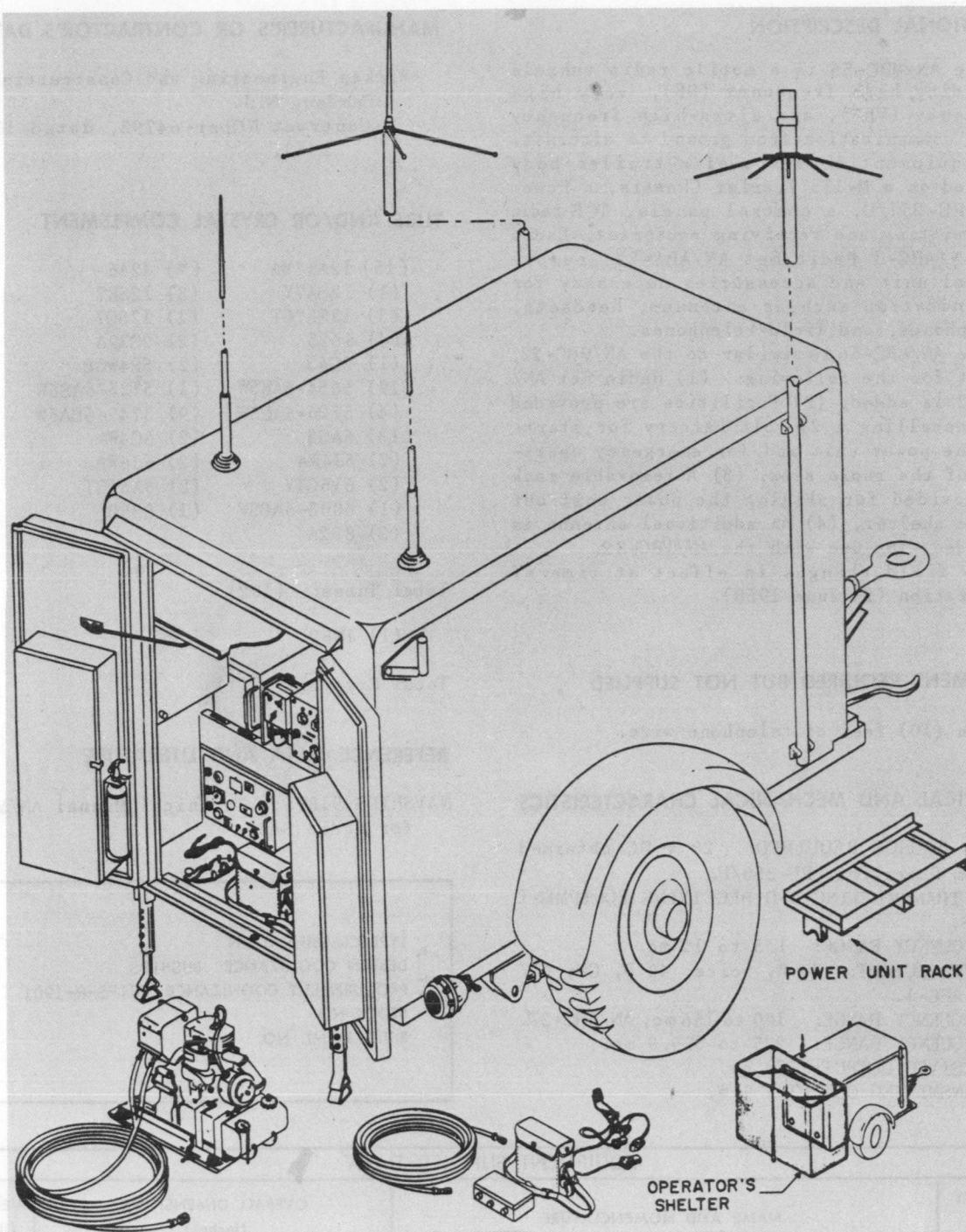
PROCUREMENT DATA

PROCURING SERVICE: USN
 SPEC &/OR DWG:

DESIGN COG: USN, BuShips

CONTRACTOR	LOCATION	CONTRACT OR ORDER NO.	APPROX. UNIT COST
Federal Telephone and Radio Company	Clifton, New Jersey		

RADIO SET



Radio Set AN/MRC-56

April 1958

Radio-Transceivers

AN/MRC-56

RADIO SET

FUNCTIONAL DESCRIPTION

The AN/MRC-56 is a mobile radio vehicle providing high frequency (HF), very high frequency (VHF), and ultra-high frequency (UHF) communication from ground to aircraft. The equipment consists of a trailer body mounted on a M-115 Trailer Chassis, a Power Unit PU-250/U, a control panels, TCS radio transmitting and receiving equipment, Radio Set AN/ARC-1 Radio Set AN/ARC-27, remote control unit and accessories necessary for communication such as antennas, headsets, microphones, and field-telephones.

The AN/MRC-56 is similar to the AN/MRC-22, except for the following: (1) Radio Set AN/VRC-32 is added, (2) Facilities are provided for installing a 24 volt battery for starting the power unit and for emergency operation of the radio sets, (3) A removable rack is provided for sliding the power unit out of the shelter, (4) An additional antenna is provided, for use with the AN/VRC-32.

No field changes in effect at time of preparation (24 June 1958).

EQUIPMENT REQUIRED BUT NOT SUPPLIED

Ten (10) feet of telephone wire.

ELECTRICAL AND MECHANICAL CHARACTERISTICS

POWER SOURCE REQUIRED: 28 v DC obtained from Power Unit PU-250/U.

RADIO TRANSMITTING AND RECEIVING EQUIPMENT TCS.

FREQUENCY RANGE: 1.5 to 12 mc.

POWER OUTPUT: 20 W, voice, 40 W, CW, AN/ARC-1.

FREQUENCY RANGE: 100 to 156 mc, AN/ARC-27.

FREQUENCY RANGE: 225 to 399.9 mc.

RECEIVER OUTPUT: 50 mw.

TRANSMITTER OUTPUT: 9 W.

MANUFACTURER'S OR CONTRACTOR'S DATA

Wickes Engineering and Construction Co.,
Camden, N.J.

Contract NObsr-64793, dated 10 June 1955.

TUBE AND/OR CRYSTAL COMPLEMENT

(15) 12AT7WA	(7) 12A6
(1) 12SA7Y	(3) 12SK7
(1) 12SL7GT	(1) 12SQ7
(4) 1625	(2) 2C39A
(1) 2C43	(2) 5R4WGB
(19) 5654-6AK5W	(1) 5725-6AS6W
(4) 5726-6AL5W	(9) 5749-6BA6W
(13) 6AG5	(2) 6C4WA
(7) 6J4WA	(2) 6J6WA
(2) 6V6GT	(2) 6X5WGT
(1) 6005-6AQ5W	(1) 829B
(2) 832A	

Total Tubes: (102)

(1) 1N69

Total Crystals: (1)

REFERENCE DATA AND LITERATURE

NAVSHIPS 91876: Technical Manual AN/MRC-56 for Radio Set.

TYPE CLASSIFICATION
DESIGN COGNIZANCE BUSHIPS
PROCUREMENT COGNIZANCE SHIPS-R-1901
STOCK NO.
R.D.B. IDENT. NO.

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIP	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Radio Set AN/MRC-56 including:		
	(1) Trailer Body	58-1/4 X 83 X 110-1/4	975.00
	(1) Trailer Chassis M-115	47 X 58-1/4 X 76-1/4	250.00
	(1) Power Unit PU-250/U	30-1/2 X 38-1/4 X 106	280.00
		18-1/4 X 21-1/4 X 27	126.00

April 1958

RADIO SET

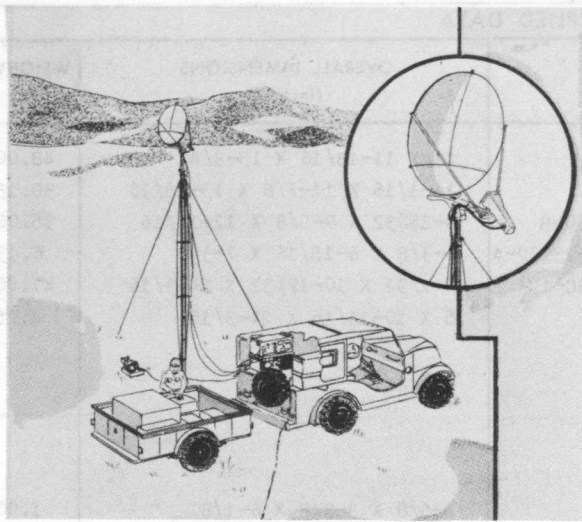
AN/MRC-56

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
(1)	Radio Transmitter (TCS) NT-52245-A	11 X 11-13/16 X 13-3/4	48.00
(1)	Radio Receiver (TCS) NT-46159-A	11-1/16 X 11-7/8 X 13-13/16	38.13
(1)	Dynamotor Power Unit (TCS) NT-211330-B	8-25/32 X 9-5/8 X 12-15/16	35.00
(1)	Remote control (TCS) (modified) NT-23270-A	4-3/8 X 6-15/16 X 7-3/8	6.13
(1)	Radio Transmitter-Receiver RT-18/ARC-1	9-1/32 X 10-19/32 X 24-3/16	47.00
(1)	Mounting (modified) MT-230/ARC	5 X 10-15/16 X 24-3/16	4.25
(1)	Mast Base AB-15/GR		
(3)	Mast Section MS-116		
(1)	Mast Section MS-117		
(1)	Mast Section MS-118		
(1)	Antenna NT-66150A		
(1)	Antenna AS-390/SRC		
(1)	Control Unit C-45/ARC-1	2-5/8 X 3-3/8 X 6-1/8	1.00
(1)	Receiver-Transmitter RT-178/ARC-27	11-1/4 X 12-3/8 X 27-7/8	72.20
(1)	Mounting (modified) MT-822/ARC-27	2-1/2 X 11-11/16 X 19-3/4	3.50
(1)	Radio Set Control C-626/ARC-27	5-1/2 X 6-3/8 X 9-9/16	9.75
(1)	Control Panel		
(1)	Radio Set Control		
(2)	Telephone EE-8	3-1/2 X 7-11/16 X 9-9/16	19.50
(2)	Headset-Microphones H-63/U		
(2)	Chest Set Group AN/GSA-6		
(1)	Telegraph Key 26026		
(1)	Leg Band Telegraph Key NT-10531		
(1)	Technical Manual NAVSHIPS-900,705	3/8 X 8-3/4 X 11-1/4	1.50
(1)	Technical Manual AN08-30ARC1-2	1/4 X 8-3/4 X 11-1/4	1.25
(1)	Technical Manual AN16-30ARC-27-2	3/8 X 8-3/4 X 11-1/4	1.50
(1)	Technical Manual NAVSHIPS-91731	1/4 X 8-3/4 X 11-1/4	1.25
(2)	Technical Manual NAVSHIPS	3/4 X 8-3/4 X 11-1/4	3.00
(1)	Technical Manual NAVSHIPS 91338	1/4 X 8-3/4 X 11-1/4	
(1)	Radio Set AN/VRC-32		

April 1959

Radio-Transceivers

RADIO SET**AN/MRC-59**

Radio Set AN/MRC-59

FUNCTIONAL DESCRIPTION

The AN/MRC-59 is designed as a small, lightweight, mobile radio communications system which provides one (1) to eight (8) duplex communication channels and is primarily for use in forward operation areas. Facilities are provided for net operations with the AN/GRC-37. It provides two-way microwave radio transmission for eight (8) telephone channels.

No field changes in effect at time of preparation (24 April 1959).

RELATION TO OTHER EQUIPMENT

The AN/MRC-59 is similar in operation to the AN/TRC-27 and AN/MRC-60 except that it differs in equipment supplied.

EQUIPMENT REQUIRED BUT NOT SUPPLIED

(5) Packboard Standard Army FII-8465-262-5281, (1) Sledge Hammer (5 lb), (1) Telephone type EE-8 or equivalent, (1) Telephone

Line (three ft or suitable length), (1) Fuel Can, (1) Compass, (1) Protractor. A set of maps, of installation area as required.

ELECTRICAL AND MECHANICAL CHARACTERISTICS

TYPE OF EMISSION:- P3f type of emission.

TYPE OF FREQUENCY CONTROL

TRANSMITTER: Variable frequency triode oscillator.

RECEIVER: Variable frequency klystron local oscillator.

TYPE OF RECEIVER: Superheterodyne, 60 mc IF.

RANGE DATA

ATTENUATION: Max allowable attenuation is 158 db.

SPACE ATTENUATION: For various ranges at 4700 mc shown below:

RANGE (MILES)	ATTENUATION (DB)	FADE MARGIN (DB)
1	110	48
5	124	34
10	130	28
20	136	22
30	140	18
40	142	16
50	144	14
60	146	12
80	148	10
100	150	8

TEMPERATURE RANGE: -54° C to $+65^{\circ}$ C.

MULTIPLEX CHARACTERISTICS

NUMBER OF CHANNELS: 4 duplex (8 per terminal).

CHANNEL TERMINATION: 2-wire, 600-ohm.

TYPE OF MULTIPLEXING: Time Division.

TYPE OF MODULATION: Pulse-position.

AUDIO BANDWIDTH: 300 to 3500 cps.

RINGING FREQUENCY: 25 cps.

FRAME FREQUENCY: 8 kc.

PULSE WIDTH: 0.45 ± 0.05 microsecond.

ANTENNA TYPE: Paraboloid reflector with off-center diplexing horn, vertical and horizontal polarization.

FREQUENCY RANGE: 4400 to 5000 mc.

POWER SUPPLIES: Self contained in receiver-transmitter and multiplexer units.

PRIMARY POWER SOURCES: 400 cycle Gasoline Engine Generator PU-278/TRC-27 (1 supplied) plus 28-v DC generator and 28 v DC to 400 cps, 115 v AC converter PU-391/GRC.

April 1959

Radio-Transceivers

AN/MRC-59

RADIO SET

MANUFACTURER'S OR CONTRACTOR'S DATA

Raytheon Mfg Co., Waltham, Mass.
Contract NObsr-71035, dated 28 September 1955.

(8) 1N458 (1) 1N459
(3) 1N21C(R) (8) 1N67 or 1N198
(17) 1N422 (2) 1N252 or 1N251
(1) 1N295 (3) 1N482 or 1N457

Total Crystals: (85)

TUBE AND/OR CRYSTAL COMPLEMENT

(4) 0A2WA (2) 6005/6AQ5W
(1) SV-9 (1) 2K22
(3) 6AU6WA (2) 6X4W
(12) 12AT7WA (13) 5654/6AK5W
(1) 5670 (2) 5726/6AL5W
(3) 5727/2D21W (1) 5814A
(1) 5933WA (20) 6021
(1) 6280

Total Tubes: (67)

(1) 1N659 (41) 1N460

REFERENCE DATA AND LITERATURE

NAVSHIPS 93098(A): Technical Manual for
Radio Sets AN/TRC-27, AN/MRC-59, AN/MRC-60.

TYPE CLASSIFICATION
DESIGN COGNIZANCE BUSHIPS
PROCUREMENT COGNIZANCE SHIPS-R-1947A
STOCK NO.
R.D.B. IDENT. NO.

EQUIPMENT SUPPLIED DATA

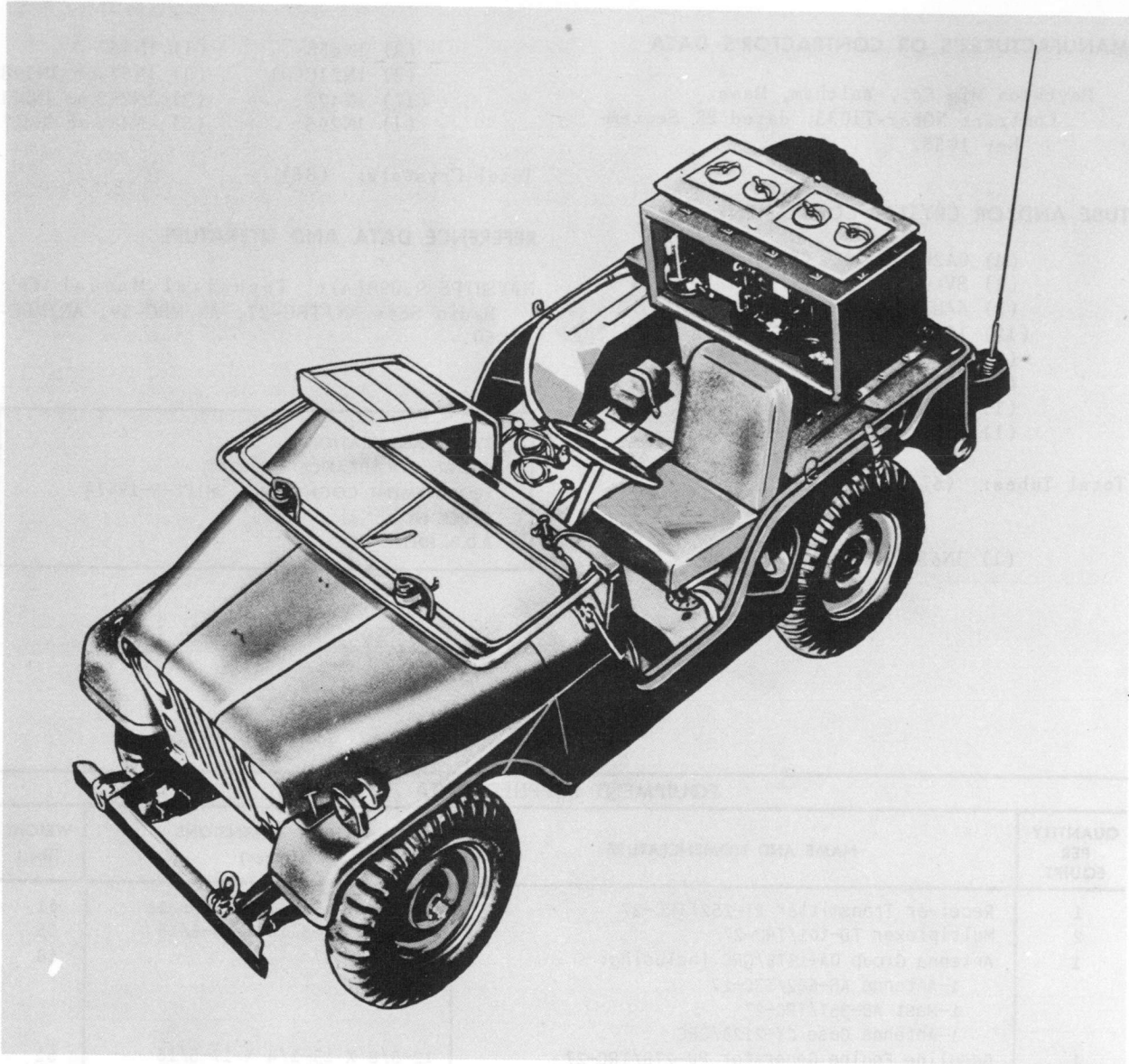
QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Receiver Transmitter RT-252/TRC-27	11-3/8 X 14-5/16 X 25-5/16	61
2	Multiplexer TD-101/TRC-27	9-7/8 X 14-5/16 X 25-5/16	55
1	Antenna Group OA-1378/GRC Including: 1-Antenna AS-682/TRC-27 1-Mast AB-357/TRC-27 1-Antenna Case CY-2123/GRC	9 X 17 X 27	58
1	Gasoline Engine Generator PU-278/TRC-27	12-5/8 X 13-1/4 X 17-5/16	51
1	Kit DC Generator System		
1	Motor Generator PU-391/GRC	14-5/16 X 15-3/8 X 25-5/16	150
1	Installation Kit, Truck		
1	Installation Kit, Trailer		
2	22 ft Coaxial Antenna Cable (included with RT-252/TRC-27)		
5	5 ft Coaxial Cable (included with RT-252/TRC-27)		
1	50 ft Power Cable (included with OA-1378/GRC)		
1	Set of Equipment Spares		
2	Technical Manual NAVSHIPS 93098(A)	1 X 9-1/4 X 11-1/2	

April 1958

RADIO SET

Radio-Transceivers

AN/MRC-6, -6C



Radio Set AN/MRC-6C

FUNCTIONAL DESCRIPTION

The AN/MRC-6 and AN/MRC-6C are complete vehicular radio stations for short-range, ground-to-ground tactical field use. The design and construction of these sets is such that operation is possible after material has been submerged during deep water fording or landing operations, provided applicable precautionary measures are adhered to by operative personnel.

The AN/MRC-6 differs from the AN/MRC-6C

in the power source required, the AN/MRC-6 requiring 12 v while the AN/MRC-6C requires 24 volts.

Transmission and reception on a predetermined frequency may be carried on, in the AN/MRC-6, from the dash Speaker-Remote Control position, and in the AN/MRC-6C, at the local radio set control, located between the seats of the vehicle and at the remote radio set control which may be located at any distance up to one mile from the vehicle.

No field changes in effect at time of preparation (29 January 1958).

Radio-Transceivers

AN/MRC-6, -6C

RADIO SET

April 1958

RELATION TO OTHER EQUIPMENT

Equipment Required but not Supplied:
Field wire for remote operation.

(2) 5R4WGB (3) 12SK7 (2) 6X5WGT
(1) 12SQ7
Total Tubes: (18)

AN/MRC-6
Not Available.

No Crystals.

ELECTRICAL AND MECHANICAL CHARACTERISTICS

FREQUENCY RANGE: 1500 to 12000 kc.
EMISSION: A1, A3.
POWER OUTPUT: 25 W for A1, 10 W for A3.
FREQUENCY CONTROL: Xtal or MO.
POWER SOURCE REQUIRED
AN/MRC-6: 12 v DC.
AN/MRC-6C: 24 v DC.
SPECIAL FEATURES: Waterproof case.

REFERENCE DATA AND LITERATURE

NAVSHIPS 91811, Technical Manual for Radio Sets AN/MRC-5C and AN/MRC-6C.
Technical Manual for Model AN/MRC-6, Mobile Communication Unit.

MANUFACTURER'S OR CONTRACTOR'S DATA

Waterproof Electric Co, Burbank, Calif.
Contract NObsr-52593 dated 15 April 1951 (AN/MRC-6C).
Contract NObsr-57476 dated 15 April 1951 (AN/MRC-6C).

TYPE CLASSIFICATION
DESIGN COGNIZANCE BUSHIPS
PROCUREMENT COGNIZANCE
STOCK NO.

TUBE AND/OR CRYSTAL COMPLEMENT

AN/MRC-6C
(5) 12A6 (4) 1625 (1) 12SA7Y

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
	AN/MRC-6		
1	Submersion-proof radio cabinet		
1	Submersion-proof chest for spare parts		
1	Ant mast base bracket		
1	Dash Speaker-Remote Control Box		
1	Radio Transmitter-552245A		
1	Radio Receiver-46159A		
1	Ant Loading Coil-47205		
1	Power Supply Unit-21881B		
1	12 volt DC radio battery charging generator		
1	Power-take-off device		

April 1958

RADIO SET

Radio-Transceivers

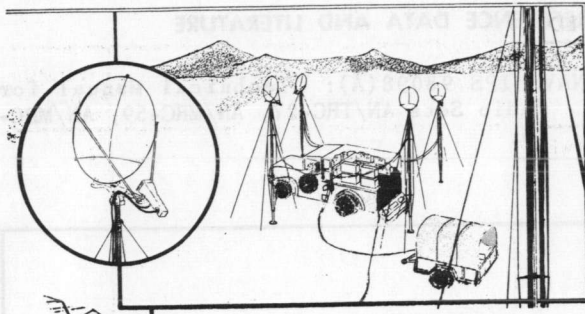
AN/MRC-6, -6C

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
2	6-volt storage batteries, 60AH (Sig Corps H-2 with water tight caps)		
1	Ant Mast Base M-57(Modified)		
2	Sets of Mast Sections MS-49-53 incl		
1	-26018 telegraph key w/cord 0 plug		
2	Headsets-49507		
2	Extension Cord for Headset-49534		
2	Microphone-51071		
2	Extension Cord for microphone-49561		
1	Sig Corps 56A roll for ant sections		
1	Sig Corps BG-67 Boot to cover mast base		
1	Hold down rope, 20 ft w/insulator IN-88		
1	Roll W-110 Field wire 200 ft		
1	Remote Control Unit-23398		
2	Technical Manuals for Navy Type TCS, Radio Transmitting and Receiving Equipment AN/MRC-6C		
1	Truck M38A1	60-7/8 X 73-3/4 X 138-5/8	2665
1	Radio Cabinet CY-731A/MRC	17 X 18-11/16 X 44-5/8	86
1	Local Radio Set Control C-1217/MRC	7-1/4 X 8-3/4 X 10-5/8	14
1	Remote Radio Set Control C-1228/MRC	1-9/16 X 3-3/16 X 4-7/8	1.2
1	Maintenance Parts Box CY-732/MRC	8-7/8 X 15-1/2 X 30	41.4
1	Antenna Mast Base Bracket	5-1/2 X 5-3/4 X 12-1/2	6.6
1	Radio Transmitter-52245A	11 X 11-13/16 X 13-3/4	48
1	Radio Receiver-46159A	11-1/16 X 11-7/8 X 13-13/16	38.1
1	Dynamotor Power Unit-211330B	8-25/32 X 9-5/8 X 12-15/16	35
1	Set of Cables, Brackets, Plates, Hardware, etc		
2	Technical Manuals NAVSHIPS 900-705	1-1/2 X 8-3/4 X 11-1/4	3
2	Technical Manuals NAVSHIPS 91811	1 X 8-3/4 X 11-1/4	2

RADIO SET

AN/MRC-60



Radio Set AN/MRC-60

FUNCTIONAL DESCRIPTION

The AN/MRC-60 is designed as a mobile radio communication system, basically consisting of four (4) AN/TRC-27 mounted in a shelter which is in turn mounted on a M-37 truck with various power units mounted on a M-101 trailer. It also operates from PU-381/GRC with the following input: 103-1/2 to 126-1/2 v, 57 to 63 cps, single phase, or from PU-392/GRC with the same input as listed above or with PU-391/GRC with the following input: 26 to 28 v DC.

No field changes in effect at time of preparation (27 April 1959).

RELATION TO OTHER EQUIPMENT

The AN/MRC-60 is similar in operation to the AN/TRC-27, AN/MRC-59 except that it differs in equipment supplied.

EQUIPMENT REQUIRED BUT NOT SUPPLIED

(5) Packboard Standard Army FII-8465-262-5281, (1) Sledge Hammer (5 lb), (1) Telephone type EE-8 or equivalent, (1) Telephone Line (three ft or suitable length), (1) Fuel Can, (1) Compass, (1) Protractor. A set of maps, of installation area as required.

ELECTRICAL AND MECHANICAL CHARACTERISTICS

TYPE OF EMISSION: P3f type of emission.
TYPE OF FREQUENCY CONTROL

TRANSMITTER: Variable frequency triode oscillator.

RECEIVER: Variable frequency klystron

local oscillator.

TYPE OF RECEIVER: Superheterodyne, 60 mc IF.
RANGE DATA

ATTENUATION: Max allowable attenuation is 158 db.

SPACE ATTENUATION: For various ranges at 4700 mc shown below:

RANGE (MILES)	ATTENUATION (DB)	FADE MARGIN (DB)
1	110	48
5	124	34
10	130	28
20	136	22
30	140	18
40	142	16
50	144	14
50	146	12
80	148	10
100	150	8

TEMPERATURE RANGE: -54° C to +65° C.

MULTIPLEX CHARACTERISTICS

NUMBER OF CHANNELS: 4 duplex (8 per terminal).

CHANNEL TERMINATION: 2-wire, 600 ohm.

TYPE OF MULTIPLEXING: Time Division.

TYPE OF MODULATION: Pulse-position.

AUDIO BANDWIDTH: 300 to 3500 cps.

RINGING FREQUENCY: 25 cps.

FRAME FREQUENCY: 8 kc.

PULSE WIDTH: 0.45 ±0.05 microsecond.

ANTENNA TYPE: Paraboloid reflector with off-center diplexing horn, vertical and horizontal polarization.

FREQUENCY RANGE: 4400 to 5000 mc.

POWER SUPPLIES: Self contained in receiver transmitter and multiplexer units.

PRIMARY POWER SOURCES: (a. and b. interchangeable).

a. 400-cycle Diesel Engine Generator PU-345/G (2-supplied).

b. 400-cycle Motor Generator PU-392/GRC (1-supplied).

c. One-quarter of AN/MRC-60 can be operated from 400 cycle Gasoline Engine Generator PU-278/TRC-27 (4-supplied).

MANUFACTURER'S OR CONTRACTOR'S DATA

Raytheon Mfg Co., Waltham, Mass.

Contract NObsr-71035, dated 28 September 1955.

Radio-Transceivers

AN/MRC-60

RADIO SET

TUBE AND/OR CRYSTAL COMPLEMENT

- (4) 0A2WA
- (1) 2K22
- (2) 6X4W
- (13) 5654/6AK5W
- (2) 5726/6AL5W
- (1) 5814A
- (2) 6005/6AQ5W
- (1) 6280
- (1) SV-9
- (3) 6AU6WA
- (12) 12AT7WA
- (1) 5670
- (3) 5727/2D21W
- (1) 5933A
- (20) 6021

Total Tubes: (67)

- (1) 1N659
- (8) 1N458
- (3) 1N21C(R)
- (17) 1N422
- (1) 1N295
- (41) 1N460
- (1) 1N459
- (8) 1N67 or 1N198
- (2) 1N252 or 1N251
- (3) 1N482 or 1N457

Total Crystals: (85)

REFERENCE DATA AND LITERATURE

NAVSHIPS 93098(A): Technical Manual for Radio Sets AN/TRC-27, AN/MRC-59, AN/MRC-60.

TYPE CLASSIFICATION
DESIGN COGNIZANCE BUSHIPS
PROCUREMENT COGNIZANCE SHIPS-1947A
STOCK NO.
R.D.B. IDENT. NO.

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
4	Receiver-Transmitter RT-252/TRC-27	11-3/8 X 14-5/16 X 25-5/16	61
8	Multiplexer TD-101/TRC-27	9-7/8 X 14-5/16 X 25-5/16	55
4	Antenna Group OA-1378/GRC including: (1) Antenna AS-682/TRC-27 (1) Mast AB-357/TRC-27 (1) Antenna Case CY-2123/GRC	9 X 17 X 27	58
2	Diesel Engine Generator PU-345/G	19-1/2 X 27-5/8 X 28	421
4	Gasoline Engine Generator PU-278/TRC-27	12-5/8 X 13-1/4 X 17-5/16	51
1	Motor Generator PU-392/GRC	16-3/8 X 23 X 28-3/8	325
1	Shelter Electrical Equipment S-140/MRC-60	55-1/4 X 59-1/2 X 77-1/4	850
1	Installation Kit Shelter Electrical Equipment		
1	Installation Kit, Trailer		
8	22-ft Coaxial Antenna Cable (2 included with each RT-252/TRC-27)		
20	5-ft Coaxial (5 included with each RT-252/TRC-27)		
8	5-ft Power Cable (1 included with each TD-101/TRC-27)		
4	50-ft Power Cable (1 included with each OA-1378/GRC		
2	100-ft Power Cable (on separate reels)		
1	Set of Equipment Spares		
2	Technical Manual NAVSHIPS 93098(A)	1 X 9-1/4 X 11-1/2	
1	Installation Kit, Shelter to Truck		

RADIO SET

AN/MRC-81

FUNCTIONAL DESCRIPTION

The AN/MRC-81 is designed to be installed as a mobile unit. It provides two (2) way communications between aircraft in flight and a command center on the ground.

No field changes in effect at time of preparation (18 January 1960).

AN/ARC-2: 26.5 v.
AN/VRC-33: 6, 12 or 24 v.

ELECTRICAL AND MECHANICAL CHARACTERISTICS

TYPE OF EMISSION: A1, A2, A3 and F3 type of emission.

OPERATING POWER RQMT

TRANSMITTING: 24 v, 15 amps.

RECEIVING: 12 v, 5 amps.

OPERATING FREQUENCY RANGE

AN/ARC-27: 225 to 399.9 mc.

AN/ARC-1: 100 to 156 mc.

AN/ARC-2: 2000 to 9050 kc.

AN/VRC-33: 30 to 42 mc.

NUMBER OF CHANNELS

AN/ARC-27: 18 preset frequency plus guard channel frequency.

AN/ARC-1: 9 preset freq plus guard channel freq.

AN/ARC-2: 8 preset channels.

AN/VRC-33: 1 Channel.

DIRECT CURRENT VOLTAGE RATINGS

AN/ARC-27: 27.5 v.

AN/ARC-1: 24 V.

MANUFACTURER'S OR CONTRACTOR'S DATA

Wickes Engineering and Construction Co.,
Camden 4, New Jersey.
Part No. 7750122-501.

Contract NObsr-71824, dated 21 June 1957.

Approximate Cost: \$200,200.00 with equipment spares.

TUBE AND/OR CRYSTAL COMPLEMENT

Electron Tube and Crystal Data not available.

REFERENCE DATA AND LITERATURE

Nomenclature Card AN/MRC-81 for Radio Set.

TYPE CLASSIFICATION (NAVY)
DESIGN COGNIZANCE USN, BUSHIPS
PROCUREMENT COGNIZANCE SPEC: SHIPS-R-2694
STOCK NO.
R.D.B. IDENT. NO.

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Radio Set AN/ARC-27		
2	Radio Set AN/ARC-1		
1	Radio Set AN/ARC-2		85
1	Radio Set AN/VRC-33		
1	Control Panel Radio Set Control C-2497/MRC-81		
1	Diesel Engine Generator Set PU-415/G	19-1/2 X 27-5/8 X 28	
2	Telephone EE-8 (TA-312)/PT	5-1/2 X 11-1/4 X 14-1/2	
1	Mounting MT-822/ARC-27	2-9/16 X 11-1/8 X 22-3/4	3.7
1	Radio Set Control C-626/ARC-27	5-7/16 X 6-9/16 X 9-9/16	10-1/2
1	Mounting MT-821/ARC-27		
1	Antenna Assembly AS-390/SRC		

27 August 1962

RADIO SET AN/MRC-83()

Cog Service:

FSN:

Functional Class:

USA

USN

USAF

TYPE CLASS:

MANUFACTURER'S NAME/CODE NUMBER: Collins Radio Company.

(No Illustration Available)

FUNCTIONAL DESCRIPTION:

The AN/MRC-83() is designed to provide mobile radio transmitting and receiving facilities for voice and teletype communications in the 2 to 30 megacycle frequency range.

No field changes in effect at time of preparation (15 May 1961).

TECHNICAL CHARACTERISTICS:

TYPE OF INSTALLATION: Mobile.

TYPE OF MOUNTING: Jeep M38A1.

TYPE OF EMISSION: CW, AM, SSB, DSB.

NUMBER OF CHANNELS: 28,000 channels.

NUMBER OF BANDS: 1 band.

FREQUENCY RANGE: 2 to 30 mc.

POWER OUTPUT: 1 kw PEP.

OPERATING POWER RQMT: 115 v ac, 60 cps, single ph; or 24 v to 30 v dc.

RELATION TO OTHER EQUIPMENT: None.

EQUIPMENT REQUIRED BUT NOT SUPPLIED: None.

MAJOR COMPONENTS

QTY	ITEM	STOCK NUMBERS	DIMENSIONS (INCHES)	WEIGHT (LBS)
1	Radio Set AN/MRC-83() consists of:			
1	Radio Receiver			
1	Radio Transmitter			
1	Control Radio			
1	Antenna Adapter			
4	Mountings			
1	Inverter-Converter			

REFERENCE DATA AND LITERATURE:

Nomenclature Card for Radio Set AN/MRC-83().

AN/MRC-83() RADIO SET

TUBE, CRYSTAL AND/OR SEMI-CONDUCTOR DATA:

TUBES: Data not available.

CRYSTALS: Data not available.

SEMI-CONDUCTORS: Data not available.

SHIPPING DATA

PKGS

VOLUME (CU FT)

WEIGHT (LBS)

PROCUREMENT DATA

PROCURING SERVICE:
SPEC &/OR DWG:

DESIGN COG: TASSA

CONTRACTOR

LOCATION

**CONTRACT OR
ORDER NO.**

**APPROX.
UNIT COST**

Collins Radio Company

Cedar Rapids, Iowa

N0m-70500

EQUIPMENT SUPPLIED DATA

QUANTITY	DESCRIPTION	WEIGHT (LBS)
1	Radio set, AN/MRC-83()	100.0
1	Receiver, AN/MRC-83()	100.0
1	Transmitter, AN/MRC-83()	100.0
1	Antenna, AN/MRC-83()	100.0
1	Power supply, AN/MRC-83()	100.0
1	Control panel, AN/MRC-83()	100.0
1	Mounting bracket, AN/MRC-83()	100.0
1	Accessories, AN/MRC-83()	100.0

June 1961

Radio-Transceivers

RADIO SET AN/MRC-84**FUNCTIONAL DESCRIPTION**

The AN/MRC-84 is designed to provide mobile operation of Continuous Wave (CW), Amplitude Modulation (AM), and voice receiving transmitting set in the frequency range of 2 to 12 megacycles (MC).

No field changes in effect at time of preparation (22 September 1960).

TUBE AND/OR CRYSTAL COMPLEMENT

Electron Tube and/or Crystal data not available.

REFERENCE DATA AND LITERATURE

NAVSHIPS 93400: Preliminary Data Form for Radio Set AN/MRC-84.

ELECTRICAL AND MECHANICAL CHARACTERISTICS

TYPE OF OPERATION: Mobile.

TYPE OF EMISSION: A1, A2, A3 types.

POWER OUTPUT

A1 EMISSION: 15 W.

A2 EMISSION: 15 W.

A3 EMISSION: 7 W.

FREQUENCY DATA

NUMBER OF BANDS: 3 bands.

FREQUENCY RANGE: 2 to 12 mc.

OPERATING POWER RQMT: 6, 12 or 24 v dc.

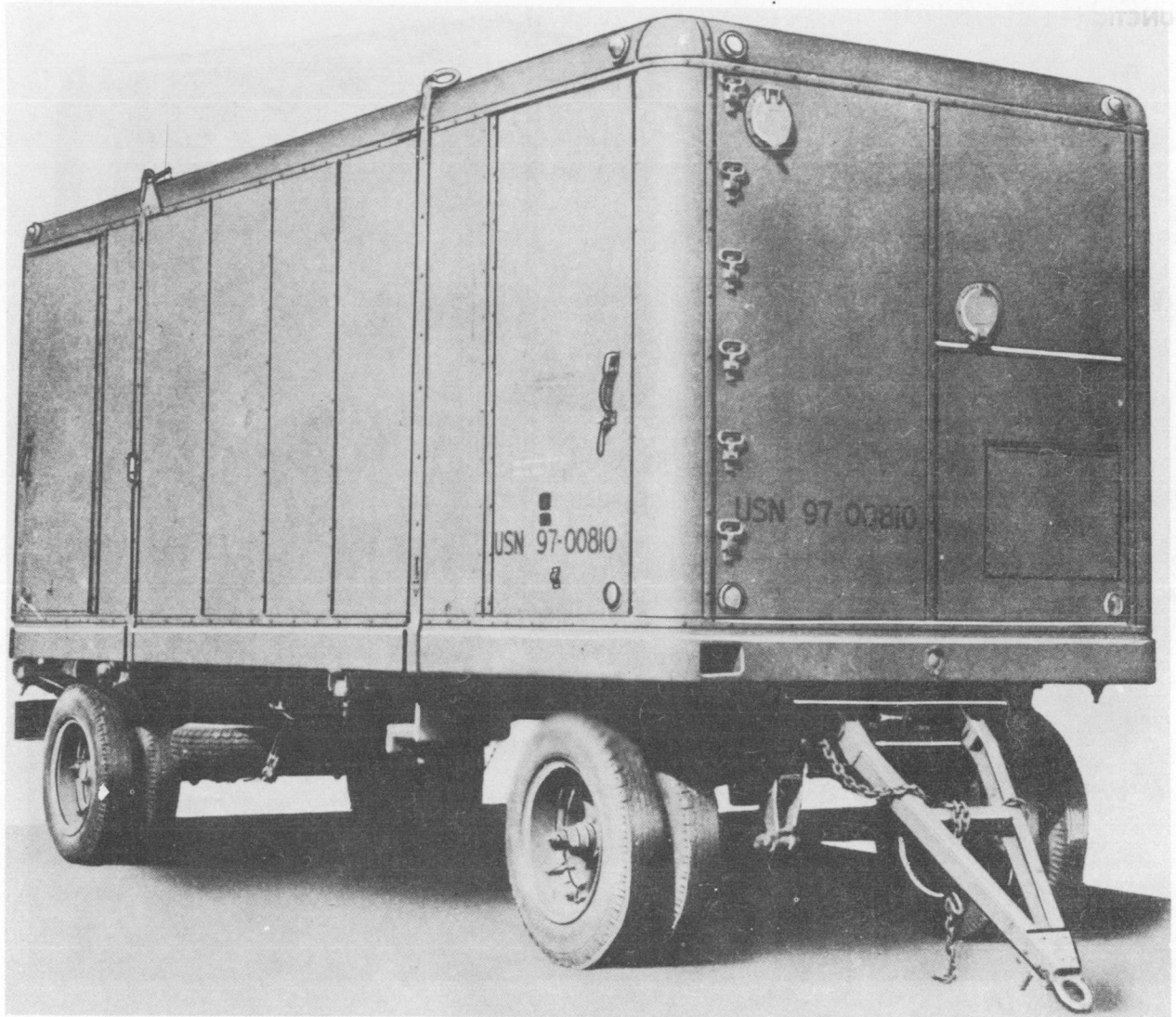
TYPE CLASSIFICATION (NAVY)
DESIGN COGNIZANCE TASSA
PROCUREMENT COGNIZANCE
STOCK NO.
R.D.B. IDENT. NO.

EQUIPMENT SUPPLIED DATA

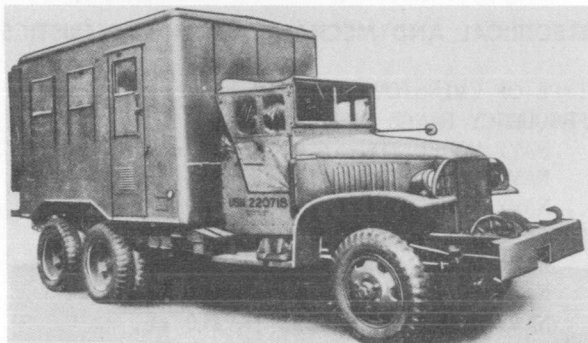
QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Radio Set AN/MRC-84 consists of:		
1	Receiver-Transmitter RT-77()/GRC-9	6-3/4 x 11-1/2 x 16	
1	Signal Hand Generator GN-58		
1	Mounting MT-350/GRC-9	1-9/16 x 11-9/16 x 16-5/8	
1	Dynamotor-Power Supply DY-88/GRC-9 or DY-105/GRC-9X	9-1/4 x 12-7/8 x 13-13/16	
1	Whip Antenna consists of:		
3	Mast Section MS-116 or MS-116A	0.393 dia x 39-1/2 lg	
1	Mast Section MS-117 or MS-117A	0.373 dia x 39-1/2 lg	
1	Mast Section MS-118 or MS-118A	0.246 dia x 39-1/2 lg	
1	Mast Base MP-65 or MP-65-A	3-1/8 dia x 18 lg	
1	Mast Bracket MP-50	5-1/4 x 5-3/8 x 8	

COMMUNICATION CENTRAL

AN/MSC-3



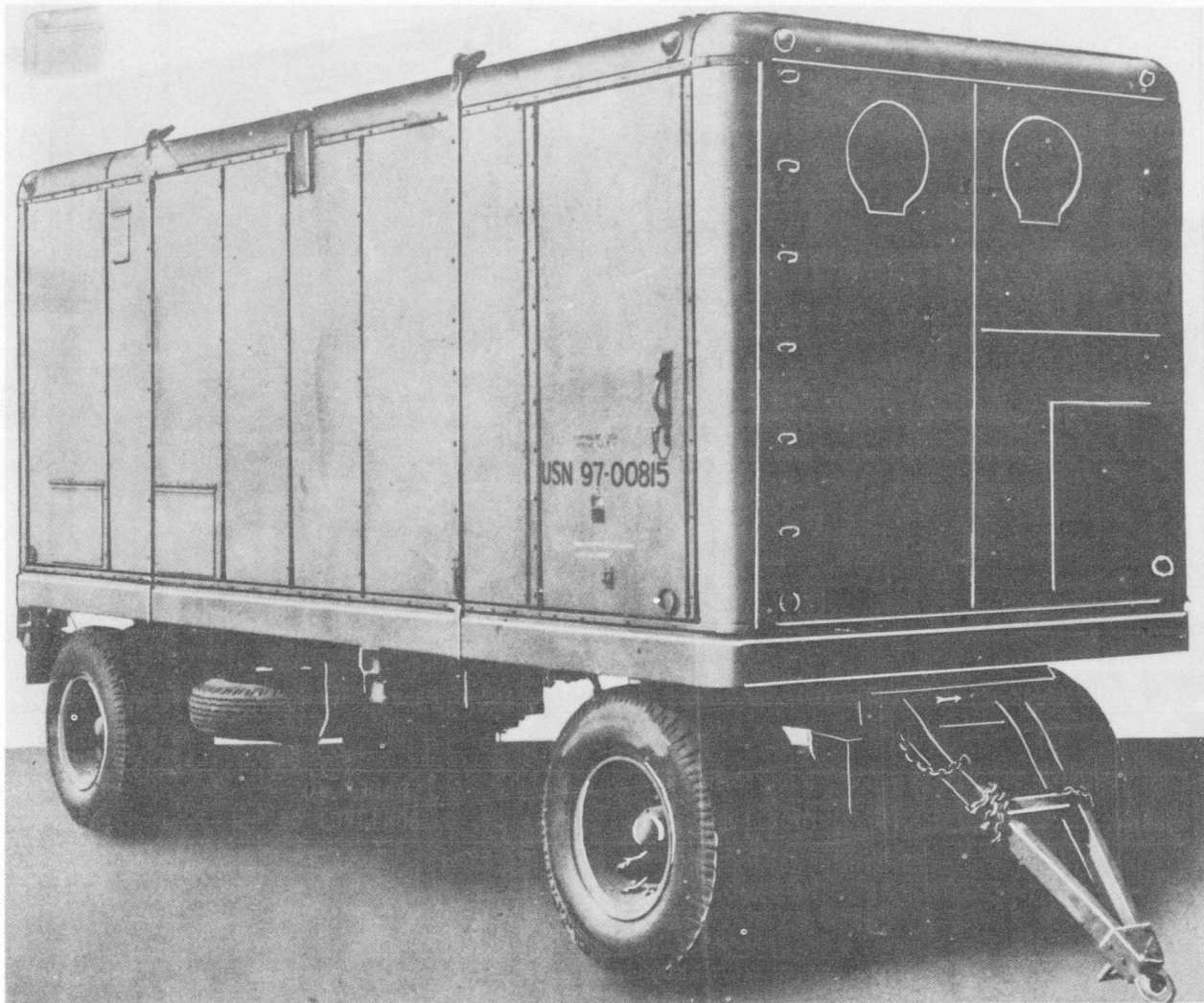
Teletype Central AN/MGC-1



Radio Central AN/MRC-25

FUNCTIONAL DESCRIPTION

The AN/MSC-3 is a mobile, self contained, high and low power communication station. The transmitting and receiving equipment, when used with the associated equipment is capable of providing six high powered communication channels, operating on either voice, teletype, or continuous wave (cw). Also provided are one very high frequency (vhf) channel that can operate on voice or modulated continuous wave (mcw), and one ultra high fre-



Radio Transmitter Central AN/MRT-3

quency (uhf) channel that can operate on voice teletype or modulated continuous wave (mcw). The system is capable of handling long haul, ship to shore and plane to shore circuits. It is designed as a long range, ground radio communication unit to be as mobile as possible within the limits of its application. It may be transported by rail, ship or under its own power.

No field changes in effect at time of preparation (5 September 1958).

ELECTRICAL AND MECHANICAL CHARACTERISTICS

TYPE OF EMISSION: A1, A2, A3.

FREQUENCY RANGE OF TRANSMITTERS

NAVY MODEL TDN-5: 2 to 20 mc.

NAVY MODEL TDQ: 115 to 156 mc.

NAVY MODEL TDZ: 225 to 400 mc.

FREQUENCY RANGE OF RECEIVERS

NAVY MODEL RBM-5: 0.2 to 2 mc.

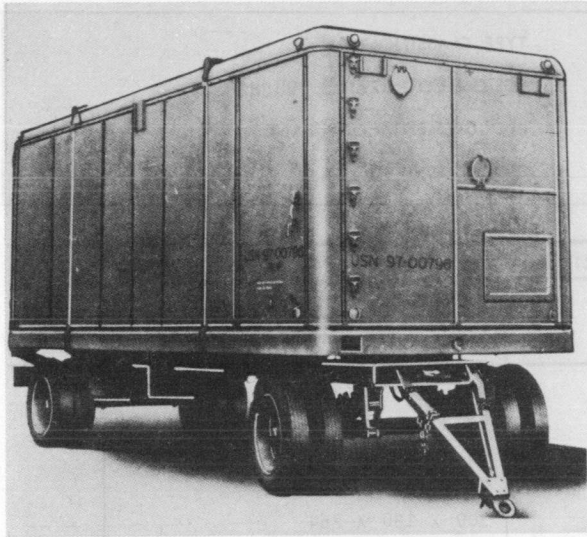
NAVY MODEL RCK: 115 to 156 mc.

NAVY MODEL RDZ: 225 to 400 mc.

PRIMARY POWER REQUIREMENTS: 115 v, 60 cps, single ph.

COMMUNICATION CENTRAL

AN/MSC-3



Radio Central AN/MRC-17

PRIMARY POWER SOURCE: Engine-generator sets which are part of equipments. Also, means are provided for use of any suitable source.

MANUFACTURER'S OR CONTRACTOR'S DATA

Philco Corp., Philadelphia, Pa.
Contract N189s89164, dated 15 February 1954.

TUBE AND/OR CRYSTAL COMPLEMENT

Radio Central AN/MRC-25

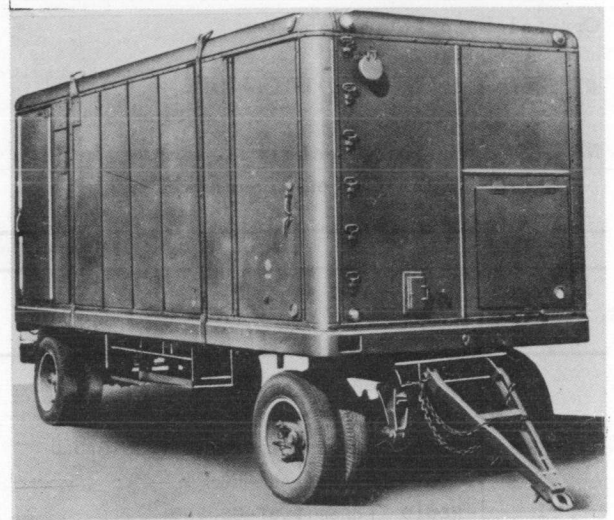
(4) 2C39	(4) 2C23	(1) 5R4GY
(2) 5U4G	(2) 5Y3GT	(15) 6AB7
(4) 6AC7	(2) 6AG7	(2) 6AK5
(2) 6AQ5	(2) 6F4	(4) 6H6
(3) 6J5	(1) 6SG7	(2) 6SK7
(2) 6SN7	(1) 6SN6W	(4) 6V6GT
(1) 6X5	(6) 12AU7	(3) 717A
(6) 807	(2) 956	(1) 9006
(1) 003/VR105	(2) 0D3/VR150-30	(4) 829B

Total Tubes: (83)

Teletypewriter Central, AN/MGC-1

(6) 6F6	(8) 223A
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Total Tubes: (14)



Communication Central Office Group AN/MSA-1

Radio Transmitter Central AN/MRT-3

(1) 5R4GY	(14) 5U4G	(8) 5Y3GT
(1) 5Y3GTG	(6) 5Z3	(1) 6A7
(9) 6AC7	(1) 6AH6	(10) 6AL5
(3) 6AV6	(1) 6BA6	(1) 6BE6
(2) 6C5	(1) 6F6	(1) 6G6G
(6) 6H6	(6) 6J5	(1) 6J6
(6) 6N7GT/G	(4) 6SA7	(21) 6SH7
(13) 6SJ7	(11) 6SL7GT	(2) 6SN7
(11) 6SN7GT	(1) 6SS7	(1) 6V6
(19) 6V6GTG	(1) 6X5	(10) 6X5GT
(4) 12A6	(2) 12AH7GT	(1) 12AX7
(1) 12C8		

Total Tubes: (181)

Radio Central AN/MRC-17

(3) 0A2	(2) 1Z2	(2) 2BP1
(2) 5U4G	(8) 5Y3GT	(1) 6A7
(2) 6AC7	(16) 6AL5W	(8) 6AQ5
(1) 6F6	(1) 6G6	(1) 6SL7GT
(9) 6SN7GT	(1) 6SS7	(5) 6V6GT/G
(4) 6X4	(3) 6X5	(6) 12A6
(1) 12AH7	(13) 12AU7	(10) 12AX7
(1) 12C8	(6) 12H6	(1) 12J5
(14) 12SG7	(9) 12SJ7	(4) 12SK7
(1) 25L6	(1) 25Z5	(1) 76
(1) 77	(1) 84	(2) 223B
(2) 816	(1) 829	(2) 832
(3) 991	(1) 9002	(3) 9003

Total Tubes: (154)

AN/MSC-3

COMMUNICATION CENTRAL

Crystal Data unavailable.

REFERENCE DATA AND LITERATURE

NAVSHIPS 92158: Technical Manual for AN/MSC-3 Communications Central.

TYPE CLASSIFICATION
DESIGN COGNIZANCE BUSHIPS
PROCUREMENT COGNIZANCE
STOCK NO.

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIP	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Radio Central AN/MRC-17	97 X 110 X 247	
1	Teletype Central AN/MGC-1	97 X 110 X 247	
1	Communication Central Office Group	95 X 109 X 245	
1	Radio Central AN/MRC-25	93 X 101 X 259	
1	Radio Transmitter Central AN/MRT-3	100 X 130 X 264	