



Figure 11. Radio Set AN/MRC-1, components installed in shelter.

Status: Limited standard. *Stock No.:* 2S3007-1. *Reference:* TM 11-602.

Radio Set AN/MRC-1 comprises a radio system which provides facilities for high-speed, high-power, c-w transmission and reception in addition to the normal functions of Radio Set SCR-399. It is intended primarily for fixed-station use, but is completely mobile, being installed in three 2½ ton, 6 x 6 cargo trucks.

TECHNICAL CHARACTERISTICS

FREQUENCY RANGE: Transmitter: 2.0 to 13.0 mc. Receiver: 1.5 to 18 mc.
NUMBER OF CRYSTALS: 3 operating. (1 at a time)
PRESET FREQUENCIES: 3 in exciter stages of Radio Transmitter T-62/MRC-1.
ANTENNA: Normal operation (full power). Transmitting: doublet. Receiving: flattop. (Station uses whip antennas when mobile.)
TYPE MODULATION: Full power: c-w only. Medium power: a-m, c-w.
FREQUENCY CONTROL: Mo, crystal.
POWER SOURCE: A-c, 110-v, 60-cyc, single-phase, 10-kw Power Unit PE-95.
POWER OUTPUT: Full power: c-w, 2 kw. Medium power: c-w, 275-400 w; a-m, 200 to 300 w.
RANGE: Medium and long, dependent upon antenna used, frequency and ionospheric conditions.
NUMBER OF TUBES: Transmitting shelter: 39. Receiving shelter: 37.

GENERAL APPLICATION

USE: Provides facilities for high-speed, high-power, c-w communication in addition to normal functions of Radio Set SCR-399.
TO COMMUNICATE WITH: Radio Sets AN/MRC-1, AN/VRC-1, SCR-188-A, SCR-399-A, SCR-499-A, SCR-299, SCR-694, SCR-284, SCR-511, SCR-536, SCR-177-B, SCR-193, and SCR-506.

INSTALLATION: Primarily intended for fixed station, but is installed and operated in trucks and is completely mobile.

TYPE OF SIGNAL: Voice, m-c-w, or c-w.

PRINCIPAL COMPONENTS

| Name | Dimensions (in.) | Weight (lb) |
|---|------------------|-------------|
| (In Shelter HO-17-Transmitting) Power Amplifier AM-35/MRC-1 | 158 x 90½ x 77 | 8,105 |
| Radio Transmitter T-62/MRC-1 | | |
| Radio Receiver BC-312 | | |
| Speech Amplifier BC-619 | | |
| (In Shelter HO-17-Operating) 3 Radio Receivers BC-342 | 158 x 90½ x 77 | 7,365 |
| Rectifier power unit | | |
| Power Unit PE-95 (in Trailer K-52) | 76½ x 108 x 76½ | 4,965 |
| Antenna System AS-94/MRC-1 | | |
| Antenna System AS-95/MRC-1 | 100 x 17 x 17 | 350 |

WEIGHT AND VOLUME

| | Domestic pack |
|----------------------|---------------|
| Total weight (lb) | 32,945 |
| Total volume (cu ft) | 2,506 |
| Ship tons | 62½ |