



TM 295-3

Figure 2. Radio Receiving Set AN/GRR-5, typical system application, simplified block diagram.

## 5. Technical Characteristics of Radio Receiving Set AN/GRR-5

Receiver type.....Superheterodyne.

Types of signals which can be received.....A-m, c-w, or m-c-w (modulated continuous wave).

Frequency range:  
 Band 1.....1.5 mc to 2.7 mc.  
 Band 2.....2.7 mc to 5 mc.  
 Band 3.....5 mc to 9.5 mc.  
 Band 4.....9.5 mc to 18 mc.

Type of tuning.....Continuous, with provision for presetting detents for any 10 channel frequencies.

Number of tubes:  
 Receiver.....8.  
 Power supply.....4.

Intermediate frequency.....455 kc (kilocycle).

Method of calibration.....Built-in crystal frequency calibrator.

Calibration points.....Every 200 kc.

Audio output:  
 High.....90 mw (milliwatt).  
 Low.....20 mw.

Distortion.....10 percent or less for 70 mw output, measured at 5 mc with 400-cycle, 30 percent modulation.

Sensitivity:  
 a-m.....5 uv (microvolt) or better for 10 mw output, with a signal-plus-noise to noise ratio of 10 to 1.

c-w.....2 uv or better for 10 mw output, with a signal-plus-noise to noise ratio of 10 to 1.

I-f selectivity:

6 db (decibel)  
 down.....6.5 kc.  
 20 db down.....13 kc.  
 40 db down.....20 kc.  
 60 db down.....28 kc.

Power input:

For vehicular operation:  
 6 volts.....6.9 amperes, 41.4 watts.  
 12 volts.....3.22 amperes, 38.6 watts.  
 24 volts.....2.55 amperes, 61.2 watts.

For field operation:  
 90 volts  
 (2 Battery  
 BA-419/U) .. 27 ma (milliamperes).

1.5 volts  
 (1 Battery  
 BA-405/U) .. 350 ma.

For fixed installation:

115 volts ac,  
 50 or 60 cyc... 455 ma, 52.4 watts.

Antenna.....Mast Sections MS-116-A (2 ea), MS-117-A, and MS-118-A or any suitable reel antenna.

Weight of receiver and power supply in cabinet.....60.5 lb.

Weight of accessories...15.05 lb.

## 6. Packaging Data

a. When packaged for export shipment, the components of Radio Receiving Set AN/GRR-5 are placed in waterproof containers and are packed in a wooden export crate. Typical packaging is illustrated in figure 3. The size, weight, and volume of the crate are indicated in the following chart:

Note. Items may be packaged in a manner different from that shown, depending on supply channel.

| Type of packaging | Number of crates | Height (in.)     | Width (in.)      | Depth (in.)      | Volume (cu ft) | Total weight (lb) |
|-------------------|------------------|------------------|------------------|------------------|----------------|-------------------|
| Domestic          | 1                | 27 $\frac{1}{4}$ | 15 $\frac{1}{4}$ | 46 $\frac{1}{4}$ | 11.1           | 110               |
| Export            | 1                | 31               | 19               | 50               | 17             | 162               |

b. The following list indicates the contents of the cartons within the crate. See the packing list attached to the crate for the exact contents.

| Carton dimensions (in.)    | Contents  | Notes  |
|----------------------------|---|--|
| 10 x 6 x 44 $\frac{1}{2}$  | <p>Bag CW-206/GR containing:<br/>                     Electron Tube Case<br/>                     CY-1031/URR.</p> <p>Mast Sections<br/>                     2 MS-116-A<br/>                     1 MS-117-A<br/>                     1 MS-118-A</p> <p>Power Cable Assemblies<br/>                     CX-1358/U<br/>                     CX-1359/U<br/>                     CX-1360/U</p> <p>Bag CW-212/U<br/>                     Headset Cord CX-1334/U<br/>                     Headset CW-49507-A<br/>                     (Navy type)</p> | <p>See packing list for items in Electron Tube Case CY-1031/URR.</p>   |
| 18 x 14 x 18 $\frac{1}{2}$ | <p>Cover CW-211/U containing:<br/>                     Electrical Equipment Cabinet<br/>                     CY-615/URR<br/>                     Radio Receiver R-174/URR<br/>                     Power Supply PP-308/URR<br/>                     Mounting MT-768/URR<br/>                     Receiver-power supply interconnecting cable</p>  | <p>Receiver and power supply are secured into the case. Shock mounting is secured to the case.</p> <p>Shipped already connected.</p> |

## 7. Table of Components

| Component                                | Required No. | Height (in.)     | Depth (in.)     | Length (in.)     | Volume (cu ft) | Unit weight (lb) |
|--|--------------|------------------|-----------------|------------------|----------------|------------------|
| Electrical Equipment Cabinet CY-615/URR. | 1            | 13 $\frac{7}{8}$ | 8 $\frac{1}{8}$ | 12 $\frac{1}{2}$ | 1.1            | 8.6              |
| Radio Receiver R-174/URR.                | 1            | 5 $\frac{1}{8}$  | 7 $\frac{1}{2}$ | 12               | .3             | 18.9             |
| Power Supply PP-308/URR.                 | 1            | 5 $\frac{1}{2}$  | 8               | 12               | .3             | 26.              |
| Mounting MT-768/URR                      | 1            | 5 $\frac{1}{2}$  | 9 $\frac{1}{8}$ | 13 $\frac{1}{8}$ | .13            | 7.               |
| Cover CW-211/U                           | 1            | 15 $\frac{3}{4}$ | 11              | 14 $\frac{1}{2}$ | 2.3            | 1.75             |
| Bag CW-206/GR                            | 1            |                  | 27              | 44               |                | 3.5              |
| Electron Tube Case CY-1031/URR.          | 1            | 3                | 9 $\frac{1}{2}$ | 4 $\frac{1}{4}$  | .07            | 2.9              |
| Mast Section MS-116-A                    | 2            |                  |                 | 39 $\frac{1}{2}$ |                | .15              |
| Mast Section MS-117-A                    | 1            |                  |                 | 39 $\frac{1}{2}$ |                | .15              |