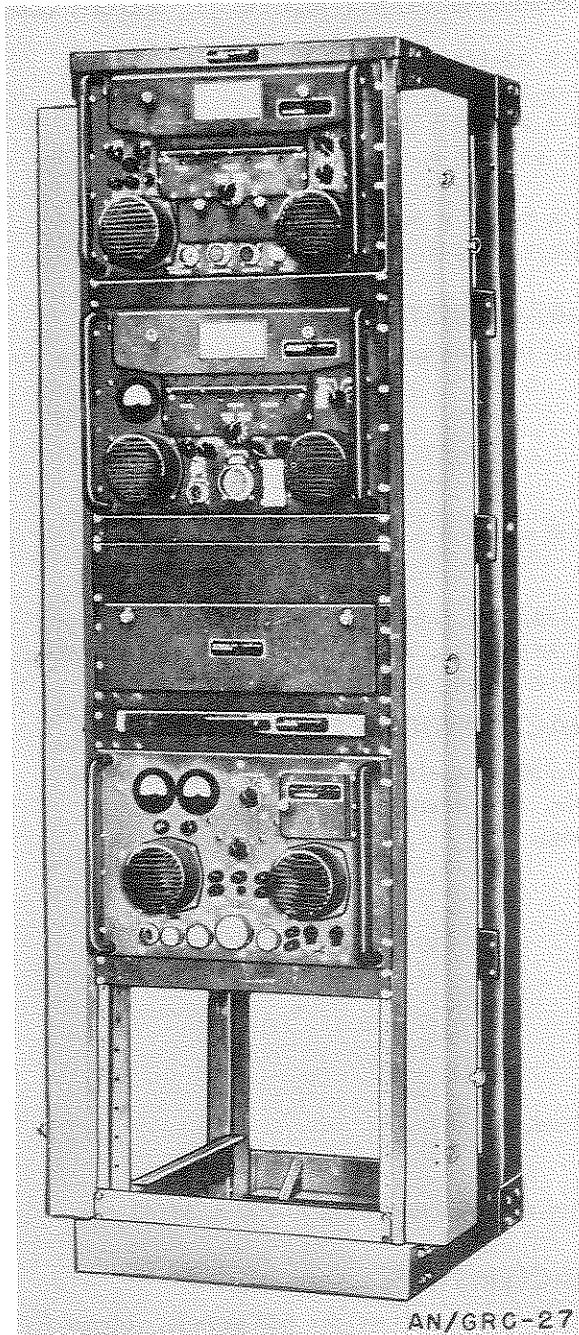


STATUS: Substitute Standard
 CLASSIFICATION OF EQUIPMENT: Restricted
 USING SERVICE: Air Force
 DATE OF THIS SHEET: 10 Jun 52

AN/GRC-27

RADIO SET



Radio Set AN/GRC-27 is the basic family of communication units for two-way, fixed station, ground, u-h-f, a-m (voice or mcw) air base traffic control, or point-to-point, communication. It is comprised of an indefinite quantity of each of the following: radio transmitter, modulator-power supply, radio receiver, distribution panel components, and 19-inch relay racks, antennas, and the necessary interconnecting cables.

This equipment is designed to operate in any 10 preset crystal-controlled channels (of a total of 1,750 channels) spaced 100 kc apart in the 225.0 to 399.9 mc range.

Radio Receiver R-278/GR also monitors either one of two crystal-controlled, preset, stand-by, guard channels from 238 to 248 mc.

Modulator-Power Supply MD-129/GR supplies power for Radio Transmitter T-217/GR in cycles of one minute ON and five minutes OFF.

Equipment can be requisitioned as required on an individual project, or installation basis.

Requires 2,310 w, 115 to 230-v, 60-cyc, ac for a typical installation of one transmitter, one modulator, one receiver plus ancillary items.

AN/GRC-27

INSTRUCTION LITERATURE:
 TO 16-30GRC27-1 & 16-35A104
 CLASSIFICATION OF EQUIPMENT: Restricted
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RADIO SET

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
*	Radio Transmitter T-217/GR	19 x 12-1/4 x 20	130.0
*	Radio Receiver R-278/GR	19 x 12-1/4 x 20	115.0
*	Modulator-Power Supply MD-129/GR	19 x 12-1/4 x 20	140.0
*	Antenna AT-197/GR	Not available	7.0
*	Antenna AS-505/GR	" "	50.5
*	Distribution Panel J-390/GR	19 x 5-1/4 x 3-1/4	5.5
*	Rack MT-686/GR	22-5/8 x 72-1/2 x 21-3/8	96.0

* Issued as required

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Normally issued on any organizational level as project equipment in accordance with AFR 100-17.

INSTALLATION: Ground, fixed.

APPROXIMATE RANGE (IN MILES): (Nominal) Line of sight.

CAN COMMUNICATE WITH: AN/ARC-12, -19, -27, -30, -33, -34; AN/GRC-16, -27, -29, -30, -32; AN/GRR-7; AN/GRT-3; AN/MRC-12, -20, -22; AN/PRC-14, -17, -20; AN/TRC-32; AN/URC-4; AN/URR-9, -12, -13; AN/URT-10; MAR; MAY; R-278/GR; RDR; RDZ; SCR-616; TED.

TECHNICAL CHARACTERISTICS

FREQUENCY RANGE IN MEGACYCLES: A total of 1,750 channels, spaced 100 kc apart, in the frequency range 225.0 to 399.9 mc are available. It is designed to operate on 10 preset channels and one guard channel (238 to 248 mc).

TYPE MODULATION: Am.

TYPE OF SIGNAL: Voice, mcw.

POWER OUTPUT: Transmitter: 100 w (Nominal).
 Receiver: 3 w into 600 ohm load.

POWER REQUIREMENTS: Minimum installation 2,310 w (approximate) 115/230 v, 50/60 cyc, 1 phase, ac.

PHYSICAL CHARACTERISTICS

Radio Set AN/GRC-27 measures 22-5/8 x 72-1/2 x 21-3/8 inches, net weight 544 pounds, volume 20.1 cu ft, 1 ship ton. Packed for domestic or export shipment: total weight 600 pounds, total volume 24 cu ft, 1.2 ship tons. Shipped in 7 packages.

(Minimum installation requirements; one transmitter, one receiver, one modulator, and ancillary items.)