

STATUS: Standard

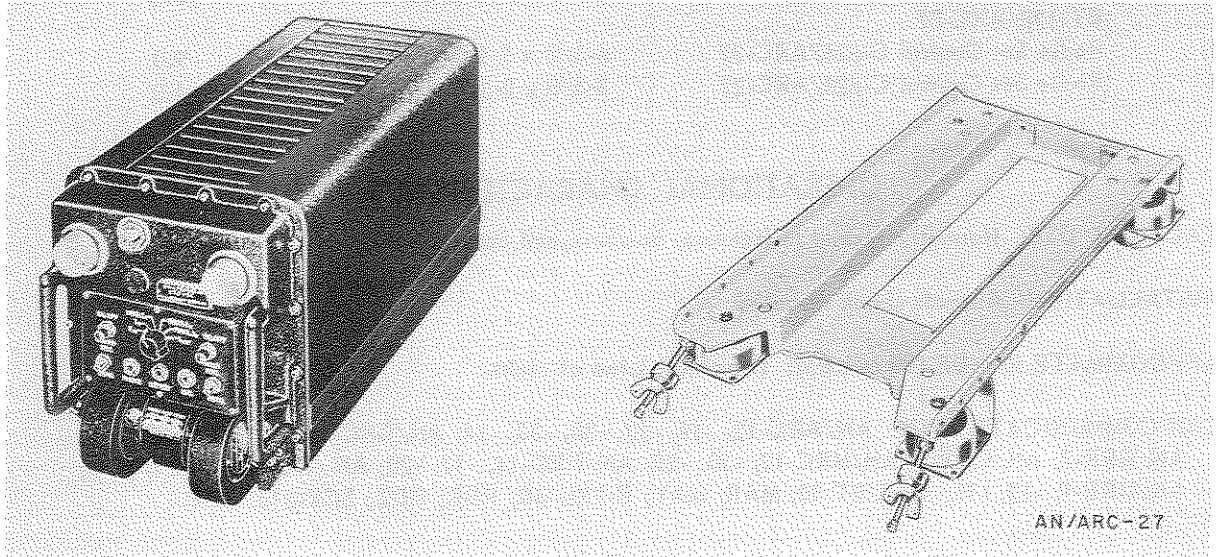
CLASSIFICATION OF EQUIPMENT: Restricted

USING SERVICE: Air Force, Navy

DATE OF THIS SHEET: 26 May 52

AN/ARC-27

RADIO SET



Radio Set AN/ARC-27 is an airborne, two-way, u-h-f command radio set for voice or tone signals. It is used for air-to-air, air-to-ship, and ground-to-air communication in all types of fighters, bombers, and cargo aircraft. Operates on any one of 18 preset, crystal-controlled frequencies (of 1750 available channels) with 100 kc separation, in the range 225.0 to 399.9 mc.

The receiving equipment consists of a triple-conversion, superheterodyne receiver using three crystal oscillators, and a double-conversion superheterodyne auxiliary guard channel receiver; both receivers working into a common audio output circuit.

The triple-conversion receiver operates with Direction Finder Group AN/ARA-25 for navigation purposes as well as for voice communication.

Any aircraft antenna which uses a 52-ohm coaxial transmission line, such as RG-8/U or RG-58/U, may be used.

AN/ARC-27	INSTRUCTION LITERATURE: TO AN 16-30ARC27-2, -3 CLASSIFICATION OF EQUIPMENT: Restricted
RADIO SET	USING SERVICE : Air Force, Navy DATE OF THIS SHEET : 26 May 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
1	Radio Receiver -Transmitter RT-178/ARC-27	11-1/4 x 12-3/8 x 27-7/8	70.5
1	Radio Set Control C-626/ARC-27	6-3/8 x 9-9/16 x 5-1/2	9.0
1	Radio Set Control C-628/ARC-27	3-5/8 x 2-5/8 x 5-3/4	1.0

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Normally issued to fighters, bombers, and cargo aircraft.

INSTALLATION: Aircraft, shock mounted.

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 are available in the frequency range 225.0 to 399.9 mc. It is designed to operate on any 18 preset, crystal-controlled channels.

TYPE MODULATION: Am.

TYPE OF SIGNAL: Voice or tone.

POWER OUTPUT: Transmitter: 10 w.
Receiver: 2 w.

POWER REQUIREMENTS: 700 w, 24 - 28 v, (25 amp, maximum) dc.

PHYSICAL CHARACTERISTICS

Radio Set AN/ARC-27 measures 19-3/4 x 12-3/8 x 27-5/8 inches, net weight 81.8 pounds, volume 1.145 cu ft. Packed for either domestic or export shipment: total weight 87.1 pounds, total volume 2.72 cu ft. Shipped in 3 packages.