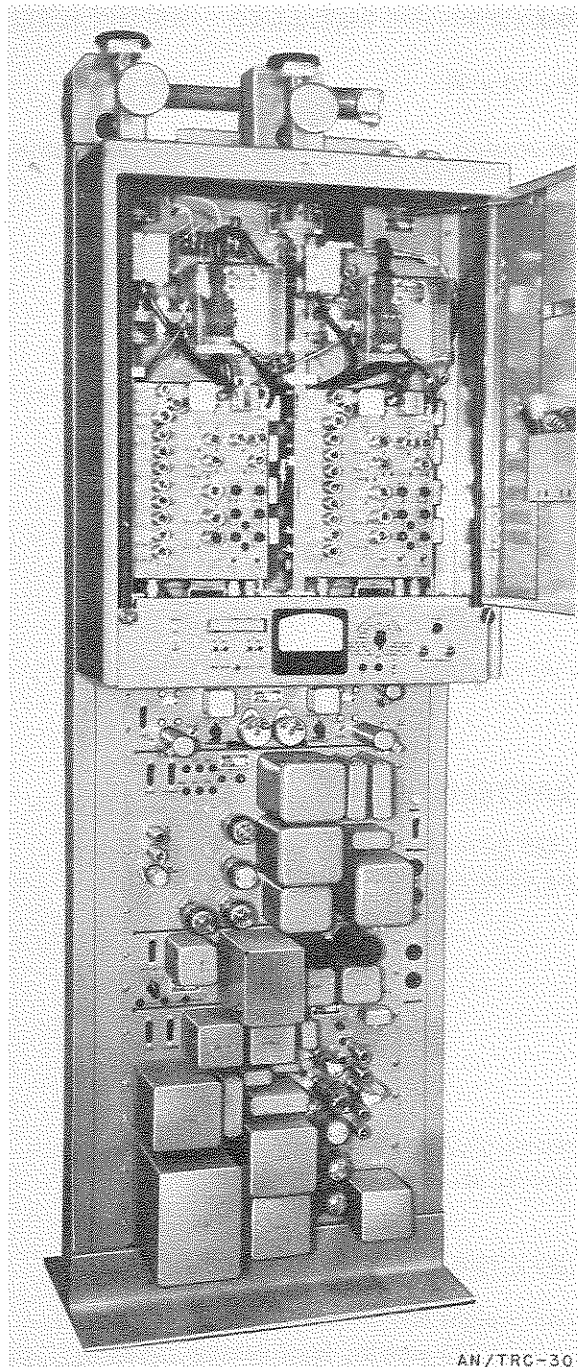


STATUS: Substitute Standard
 CLASSIFICATION OF EQUIPMENT: Unclassified
 USING SERVICE: Air Force
 DATE OF THIS SHEET: 7 Jun 52

AN/TRC-30

RADIO SET



AN/TRC-30

Radio Set AN/TRC-30 is a microwave, f-m radio set used in two-way, (duplex) point-to-point radio relay systems.

This Radio Set consists of a radio transmitter, four feet parabola antenna, a reflector, and wave guide kit.

A complete system consists of two terminal sets, each with a receiver and transmitter, and a number of repeater sets, spaced 20 to 40 miles apart in tandem, sufficient to span the distance between the terminals.

When used with its associated multiplexing equipment (such as Philco CMT-4) the system is capable of expansion up to 24 telephone channels. Each channel may be further expanded to as many as 12 additional channels for telegraph, teletype, telemetering, signaling, and supervisory control circuits.

High-speed facsimile transmission is also possible by using two adjacent telephone channels as one.

With the use of smaller multiplexing units, one, four, or eight voice channels may be inserted, or dropped off, at any repeater station as may be required.

Power requirements are: 700 w of 115v, 60-cyc, single phase, ac, per terminal, or repeater station, less heaters; with heaters power consumption is 1,200 w.

AN/TRC-30	INSTRUCTION LITERATURE: Philco Books & Philco Training Manual CLR-6
	CLASSIFICATION OF EQUIPMENT: Unclassified
USING SERVICE : Air Force	
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RADIO SET

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
1	Philco CLR-6 Repeater/Terminal (in rack)	28 x 90 x 90	500 (each)
1	Philco Multiplexing Equipment (CMT-4)	Not Available	Not Available
1	Voice Termination Equipment (Used with but not part of.)	“ “	“ “

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Normally issued (at any organizational level), as project equipment in accordance with AFR 100-17.

INSTALLATION: Ground, fixed station.

APPROXIMATE RANGE (IN MILES): Repeater spacing: Line of sight (20-40 miles)
Total range: 1,000 miles (or more) terminal spacing.

CAN COMMUNICATE WITH: Identical, or equivalent, repeater and terminal equipment operating in the same system.

TECHNICAL CHARACTERISTICS

FREQUENCY RANGE IN MEGACYCLES: 7,125 to 7,425 (with channel division determined by multiplexing equipment).

TYPE MODULATION: Fm.

TYPE OF SIGNAL: Voice, cw, radioteletype.

POWER OUTPUT: 1 w.

POWER REQUIREMENTS: Per terminal or repeater station (1,200 w with heaters; 700 w without heaters) 115v, 60 cyc, 1 phase, ac.

PHYSICAL CHARACTERISTICS

Radio Set AN/TRC-30 measures 28 x 90 x 90 inches, net weight 500 pounds, volume 131.25 cu ft. Packed for either domestic or export shipment: total weight 810 pounds, total volume 135 cu ft, 3.38 ship tons.
(Two units required for minimum terminal-to-terminal installation).