

AN/TRC-90 and AN/TRC-129 Radio Terminal Sets

Status: STD-A; NSN: 5820-00-168-1558 (AN/TRC-90)
 STD-A; NSN: 5820-00-168-1559 (AN/TRC-90A)
 STD-A; NSN: 5820-00-168-1560 (AN/TRC-90B)
 STD-B; NSN: 5820-00-168-1563 (AN/TRC-129)
 STD-B; NSN: 5820-00-168-1564 (AN/TRC-129A)

Reference: TM 11-5820-519-12
 TM 11-5820-726-12

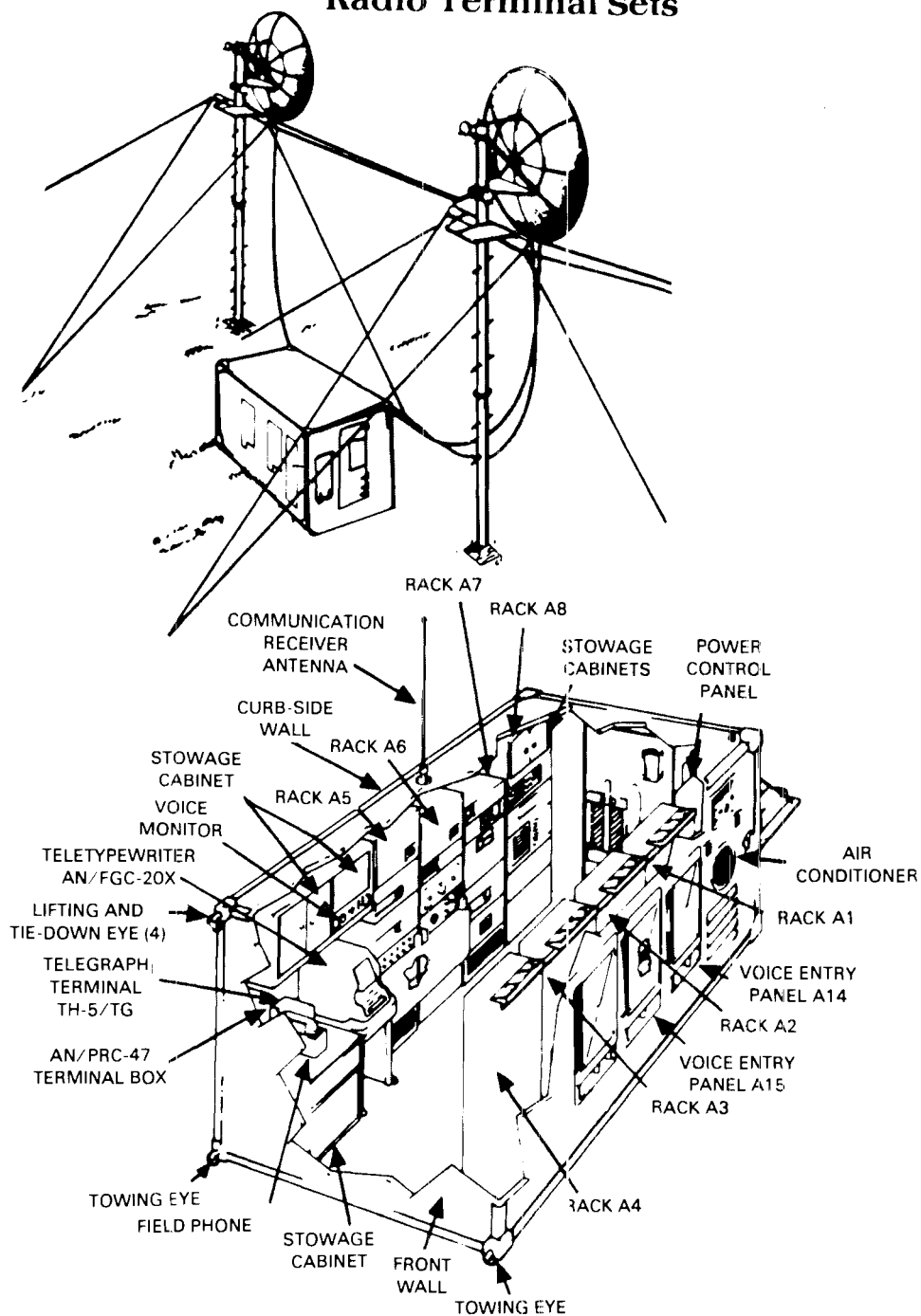
General Information

The AN/TRC-90 and the AN/TRC-129 series are transportable microwave FM radio terminal sets that use the high reliability propagation of tropospheric scatter communications. The terminal sets use a dual antenna system for dual space-diversity reception. The AN/TRC-90 or the AN/TRC-129 provide 24 voice channels and 16 teletypewriter channels. One voice channel can be used to accommodate the 16-channel teletypewriter tone pack. Current tactical speech security equipment is not compatible with either the AN/TRC-90 or the AN/TRC-129, but individual teletypewriter circuits can be secured by using Electronic Teletypewriter Security Equipment TSEC/KW-7. Radio Set AN/PRC-47 (a component of the AN/TRC-90 and the AN/TRC-129) is used for communications between terminals during initial installation.

Technical Characteristics

Frequency Range-----4.4 to 5.0 GHz
 Frequency Separation
 Transmit to Receive-----1.8 MHz
 Planning Range-----161 km (100 mi)
 Number of Channels-----NA (continuous tuning)
 Power Input-----120/208 V AC, 60 Hz
 Power Source-----15 kw power unit
 Power Output-----1 kw
 Antenna-----AN/TRC-90: 4.57 m (15 ft) diameter
 AN/TRC-90A: 3.05 m (10 ft) diameter
 AN/TRC-90B: 8.84 m (29 ft) diameter
 AN/TRC-129, -129A: 3.05 m (10 ft) diameter
 Tuning-----Continuous
 Squelch-----None
 Receiver Threshold-----AN/TRC-90, -90A: -98 dBm (24 channels),
 -104 dBm (12 channels)
 AN/TRC-90B, -129, -129A: -102 dBm
 Receiver Noise Figure-----AN/TRC-90, -90A: -10 dBm
 AN/TRC-90B, -129, -129A: 6 dB
 IF Bandpass Noise-----AN/TRC-90, -90A: -108 dBm (24 channels),
 -115 dBm (12 channels)
 AN/TRC-90B, -129, -129A: -108 dBm

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Antenna Gain-----	AN/TRC-90: 41 dB
	AN/TRC-90A: 36 dB
	AN/TRC-90B: 50 dB
	AN/TRC-129, -129A: 36 dB
Type of Service-----	FM, bandwidth variable between 600 kHz and 4 MHz
Weight-----	4,812 kg (10,586 lb)