

TECHNICAL MANUAL

FOR

SHORT TO MEDIUM RANGE

TRANSPORTABLE

ANTENNA

TYPE

HT-30



ANTENNA PRODUCTS

TABLE 1-1. Specifications

Characteristic	Description
Frequency Range	3 to 30 MHz
Polarization	Horizontal and Vertical
input Impedance	50 Ohms
VSWR	2:1 max
3 to 30 MHz	1.5:1 goal
Power	14 kW Avg
Communications Range	Short Medium Range Skywave
Number of RF inputs	2
Operational Modes	Transmit
Gain	-4 dBi minimum
3 to 4 MHz	0 dBi minimum
4 to 3 MHz	
Patterns	
Azimuth	
3 to 15 MHz	± 1.5dB
16 to 30 MHz	± 3.0 dB
Elevation	
Below 8 MHz	Beam max at the zenith
Above 8 MHz	Beam max no lower than 12 degrees above the horizon
Height	30 feet
Radius	104 feet
Weight	700 pounds max
Installation Time	2 Technicians 90 minutes not including anchors
Disassembly Time	2 Technicians, 2 hours
Temperature	
Storage	-40° F to 160° F
Operation	-22° F to 155° F
Rain	Mil STD 810 Method 506.2 Procedure I, 6.6 in/hr
Relative Humidity	5% to 100%
Wind and Ice	90 mph no ice
	50 mph with 1/2 inch radial ice
Snow	40 psf
Salt Fog	Mil STD 810, 509.2 , Procedure I
Altitude	Sea level to 40,000 feet
Solar Radiation	Mil STD 810, Method 505.2 Procedure II
Fungus Resistance	Mil STD810, Method 508.3
Vibration, Packed	Mil STD 810, Method 514.3, Procedure II
Shock, packed	Mil STD 810, Method 516.3, Procedure II
Sand	Mil STD 810, Method 510.2 Procedure II
Lightning	All housings and dipole elements have a DC path to ground

Table 1-2. Equipment Supplied

Nomenclature	Description	Qty
1500-0474-201	Antenna System Items, HT-30. Consists of	1
.1000-1949-401	Hybrid Balun Assembly	1
.1000-1951-401	Antenna Matching Unit	1
.0004-0998-301	Cable, Coax	1
.1000-1950-401	Termination	4
.1000-1952-201	Mast, Telescopic, & Accessory Items. Consists of	1
..1000-1954-201	Mast, Telescopic, 30FT	1
..0003-0507-301	Base Plate, Mast	1
..0003-0509-201	Pin, Baseplate	8
..0003-0548-302	Ladder Assembly	1
..0004-1020-201	Guy, Erecting	4
..2450-2248-001	Pump, Foot	1
..0003-1530-201	Stake, Mast	4
.1000-1953-201	Antenna Elements, & Accessory Items. Consists of	1
..0003-1442-301	Element Stake Assembly	12
..0003-1346-301	Bipod Assembly	12
..0003-1364-301	Element Reel Assembly	1
..0003-1364-302	Element Reel Assembly	1
.1000-1957-201	Installation Items. Consists of	1
..0004-0999-201	Radius Line	1
..2450-2247-001	Hammer, Hand	1
..2450-2251-005	Hammer, Sledge	1
.1000-1958-201	Transit Cases. Consists of	1
..4200-0040-001	Element Reel Case	1
..4200-0041-001	Termination Case	1
..4200-0042-001	AMU/Hybrid Case	1
..4200-0043-001	Anchor Case	1
..4200-0044-001	Bipod Case	2