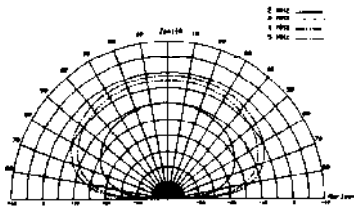
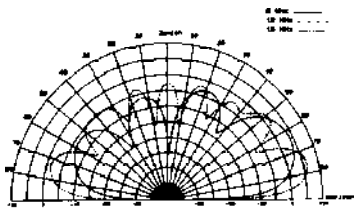


# HT-21A/21B

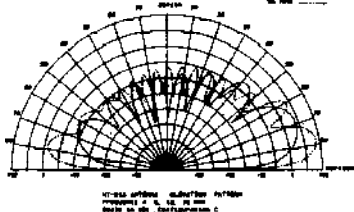
- TRANSPORTABLE HF ANTENNA
- SHORT/MEDIUM/LONG RANGE
- QUICK ERECT



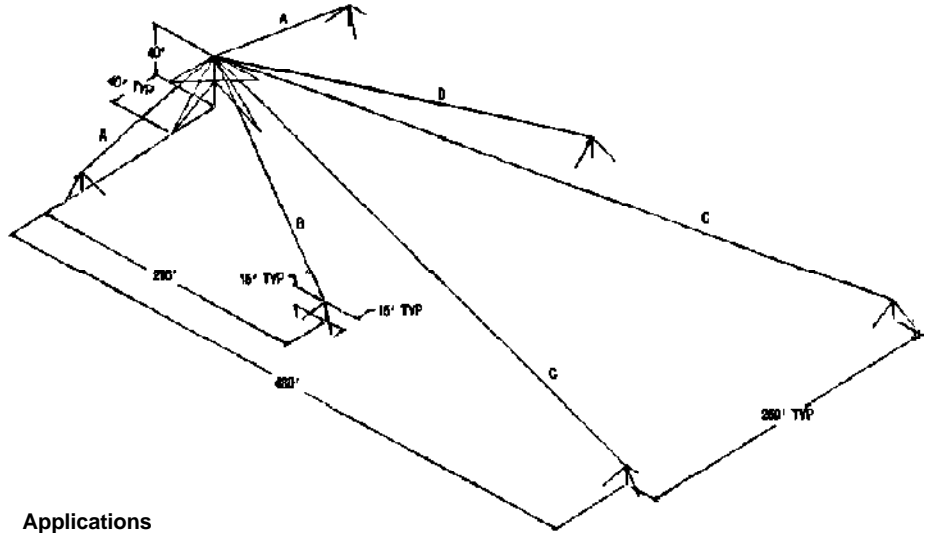
HT-21A antenna radiation pattern  
Frequency = 2, 1, 0.5 MHz  
Mode of use: Configuration A



HT-21A antenna radiation pattern  
Frequency = 2, 1, 0.5 MHz  
Mode of use: Configuration B



HT-21A antenna radiation pattern  
Frequency = 2, 1, 0.5 MHz  
Mode of use: Configuration C



### Applications

The HT-21A and HT-21B are designed to meet the specific requirements of the AN/TSC-122 communications shelter requirements for sloping-V antennas. It is a transportable antenna designed for rapid deployment in any one of three configurations for support of short, medium and long range HF skywave circuits. Configuration A is for short range skywave propagation on paths out to 700 KM. Configuration B is used on and paths ranging from 700 KM to 1500 KM and Configuration C is used on paths ranging from 1500 KM to 4000 KM. The HT-21A is ideally suited for changing operational environments because of its multiple configuration capability and ease of erection. The antenna offers good efficiency and excellent gain characteristics in each of the three configurations.

### Features

The HT-21A uses an aluminum telescoping mast, while the HT-21B uses a fiberglass

composite mast. In addition to the multiple configuration capability, the HT-21A is a terminated Vee-type dipole that is supported between a 40-foot telescoping mast and two 15-foot poles. The balun is located at the top of the 40-foot mast and the terminations are inside the 15-foot poles. The stowed configuration is less than six feet, weighs less than 170 pounds and stows in a small volume.

### Characteristics

The HT-21A provides flexible operation for short to long range HF skywave circuits. The input impedance is 50 Ohms with a VSWR of 2:1 or less for all three configurations over the frequency range of 2 to 30 MHz and handles 1 kW avg/2 kW PEP. The total erection time is 60 minutes with two men for any configuration 30 minutes to change configuration.

### Equipment Supplied

The antenna is supplied with telescoping mast and end poles, guys, balun, termination, anchors and transit bags.

## SPECIFICATIONS

### RF CHARACTERISTICS

Optimum Frequency Range

2 to 9 MHz

5 to 16 MHz

8 to 30 MHz

Gain (Typical)

-5 dBi

6 dBi

8 dBi

### MECHANICAL CHARACTERISTICS

Installed Size (ft) L x W x H

275 x 80 x 40

270 x 264 x 40

537 x 266 x 40

Installed Size, (m) L x W x H

83.8 x 24.4 x 15.2

82.3 x 80.5 x 15.2

164 x 81 x 15.2

### RF CHARACTERISTICS

Frequency Range

2-30 MHz

VSWR

2:1 max

Input Impedance

50 Ohms unbalanced

Power Handling

1 kW avg/2kW PEP

Polarization

Horizontal

Input Connector

Type "N"

### ENVIRONMENTAL CHARACTERISTICS

Wind Loading

85 mph gusts

55 mph, 1/2" radial ice

Solar 355 BTU/SF/HR

Temperature Range

-50°F to +120°F

Sand and Dust

MIL-STD-810, Method 510.2

Procedure I