

LPH-1

- LIGHTWEIGHT
- ROTATABLE
- HORIZONTAL POLARIZATION
- MIL TYPE AS-3250/F



Applications

The LPH-1 provides excellent reliability in medium to long range HF circuits. The rotatable antenna allows communication between a fixed station and mobile stations, such as ships, aircraft, or tactical deployments.

Features

The LPH-1 rotatable log periodic array (RLPA) is a lightweight, high strength antenna which provides excellent HF performance in the 6.2 to 30 MHz frequency band. A rotary joint allows continuous rotation.

Characteristics

The LPH-1 (Military Type AS-3520/F) lightweight, rotatable, horizontal log periodic antenna, produced to U.S. Air Force requirements, is suitable for use where limited space and difficult access are encountered. The LPH-1 system is supplied with a 60-foot tower. Primarily constructed of aluminum with the longest single piece being twelve feet, the

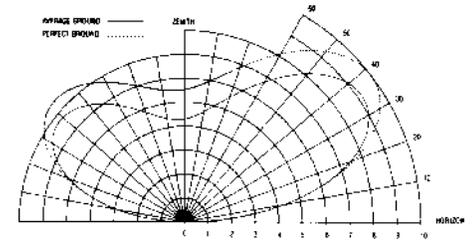
entire system can easily be roof-mounted. A sixty foot self-supporting tower is also available. The rotator is controlled remotely to any azimuth, with lights indicating the antenna heading.

Equipment Supplied

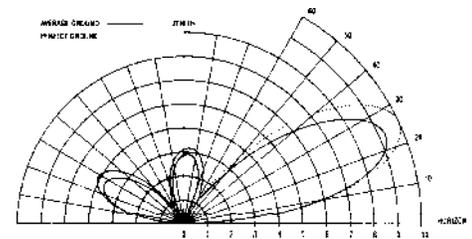
Array, balun transformer, rotator, sixty-foot guyed tower, and remote control unit.

Optional Equipment

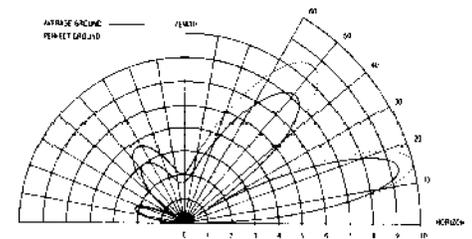
Tower from 24 to 60 feet (12-foot increments), erection kit, erection winch, and obstruction lights. Coaxial cable, connector adapters and mating adapters. Computer controller with RS-232 interface.



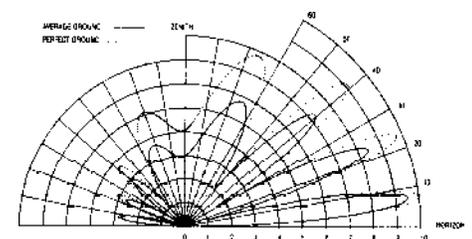
ELEVATION PATTERN (VOLTAGE) AT 6.2 MHz
CURVES FOR AVERAGE AND PERFECT GROUND



ELEVATION PATTERN (VOLTAGE) AT 9 MHz
CURVES FOR AVERAGE AND PERFECT GROUND



ELEVATION PATTERN (VOLTAGE) AT 15 MHz
CURVES FOR AVERAGE AND PERFECT GROUND



ELEVATION PATTERN (VOLTAGE) AT 30 MHz
CURVES FOR AVERAGE AND PERFECT GROUND

SPECIFICATIONS	1	1A	1B
Frequency Range	6.2-30 MHz	2-30 MHz	6.2-30 MHz
Power Capability	1 kW avg/2 kW PEP	1 kW avg/2 kW PEP	4 kW avg/8 kW PEP
Input Impedance	50 Ohms unbalanced	50 Ohms unbalanced	50 Ohms unbalanced
VSWR	2.5:1 maximum	2.5:1 maximum	2.5:1 maximum
Input Connector	Type "N"	Type "N"	Type "N"
Gain	6.2-12 MHz 9 dBi 12-30 MHz 12 dBi	9 dBi 12 dBi	9 dBi 12 dBi
Front-to-Back Ratio	6.2-12 MHz Bi-directional 12-30 MHz 10 dB	Bi-directional 10 dB	Bi-directional 10 dB
Azimuth Beam Width	65 degrees nominal	65 degrees nominal	65 degrees nominal
Rotation	.3 rpm continuous	.3 rpm continuous	.3 rpm continuous
Wind Loading	100 mph, no ice 65 mph, 1/2" ice	100 mph, no ice 65 mph, 1/2" ice	100 mph, no ice 65 mph, 1/2" ice
Erected Dimensions (H x L x W)	63 ft x 80 ft x 60 ft	63 ft x 80 ft x 60 ft	63 ft x 80 ft x 60 ft
Turning Radius	32 ft	32 ft	32 ft
Shipping Weight	1,800 lbs	1,800 lbs	1,800 lbs
Shipping Volume	56 cu ft	56 cu ft	56 cu ft