WATTS ANTENNA COMPANY

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Sole Source Provider of EFGS Antennas!

MODEL 107 (UPSLOPE) END-FIRE GLIDE SLOPE ANTENNA

CATEGORY I INSTRUMENT LANDING SYSTEM FOR THE TOUGHEST SITE OF THEM ALL!

THE EF-9 INTERFACE UNIT PROVIDES POWER DISTRIBUTION AND MONITORING FOR THE ANTENNA SYSTEM (Designed to be Easily Adapted to any Transmitter & Monitor Electronics)

(Rear Antenna Shown)

A PROVEN FRANGIBLE SUPPORT STRUCTURE

Have you been told that you cannot get ILS service at your airport because the site is too difficult? Throw that old report away! We don't believe it and let us tell you why!

Model 107 "Upslope" End-fire has performance improvements over conventional capture-effect (M-Array) image type systems. Sideband-only (SBO) signal cancellation is maintained to higher elevation angles to reduce multi-path at severe upslope sites. Additionally, End-Fire Glide Slope Antennas can:

:

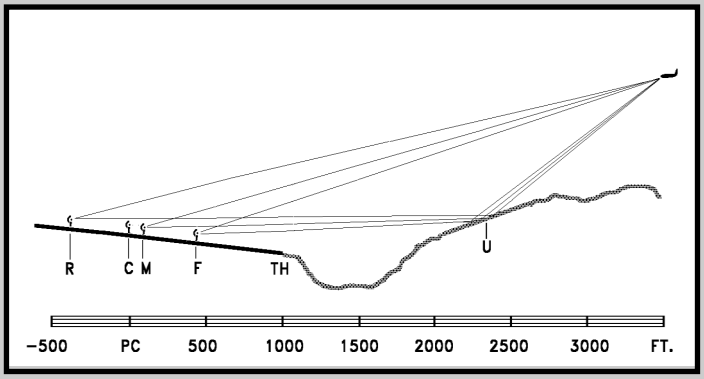
Provide Significant Cost Savings by Avoiding Expensive Ground Plane Conditioning.

Provide ILS Service where Previously not Possible or Cost Effective due to Terrain.

Proven Frangible Low-Profile Design Permitting "Next to Runway" Installation.

Help You To Avoid High Wetland Relocation Costs.

Be Installed at Waterside Sites Since the Signal is not Degraded by Tidal Variations.



Precision Glide Path Guidance is Achieved with Narrow Lateral Radiation Patterns that Reduce Multi-path Signals from Buildings or Mountainous Terrain.

WATTS ANTENNA COMPANY

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MODEL 107 (UPSLOPE) END-FIRE GLIDE SLOPE ANTENNA

Frequency range	329 to 335 MHz
Excitation:	
CSB	3.0 W
SBO	150 to 500 mW
CLR	1.2 to 2.0 W, nominal
Input impedance	50 ohms
VSWR:	
Main antenna	1.15:1
Clearance antenna	2.0:1
Pressurization	Dry air, 6 psi, nominal
Radiation pattern:	
Main antenna	-3 dB beamwidth > 5 degrees azimuth -9 dB beamwidth < 20 degrees azimuth Front to back ratio > 12 dB
Middle antenna	-3 dB beamwidth > 6 degrees azimuth -9 dB beamwidth < 14 degrees azimuth Front to back ratio > 12 dB
Clearance antenna	-3 dB beamwidth > 20 degrees azimuth -9 dB beamwidth > 40 degerees azimuth Front to back ratio > 12 dB
Glide angle (electronic)	2.5 to 4.0 degrees (adjustable-relative to longitudinal slope)
Path width	0.70 degree
Power requirement	25-30 VDC: nominal 27 VDC @ 0.98 amp maximum
Duty cycle	Continuous, unattended
Outdoor equipment:	
Temperature	-50 to +70 degrees C
Relative humidity	5 to 100 percent
Altitude	0 to 10,000 feet
Wind	0 to 100 mph
Ice loading	1 inch radial clear ice
Indoor equipment:	
Temperature	-10 to +50 degrees C
Relative humidity	5 to 90 percent
Altitude	0 to 10,000 feet