



WATTS ANTENNA COMPANY



For A Proven Better Image!

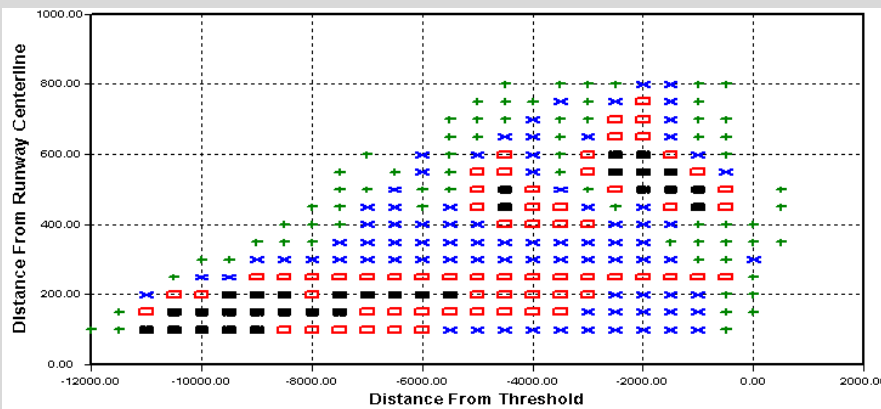
MODEL 201 WIDE APERTURE LOCALIZER ARRAY CAT II/III INSTRUMENT LANDING SYSTEM The Smallest Critical and Sensitive Areas of any ILS Localizer



Antenna is Shown with a Park Air Systems LPD Array Used for Clearance Signals

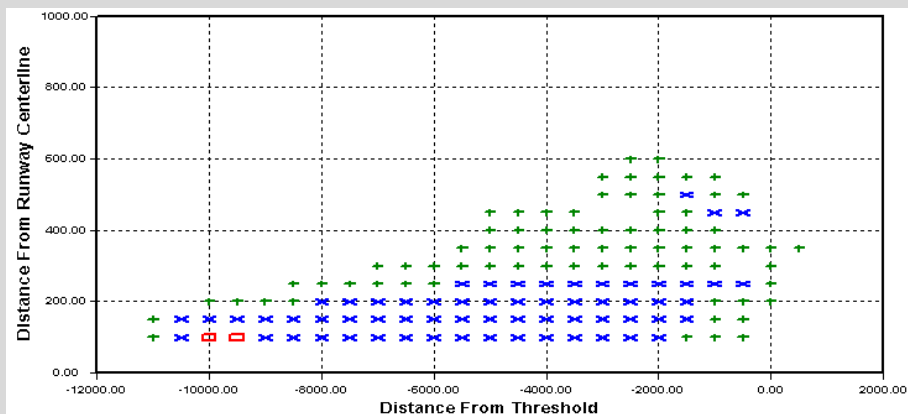
ILS CRITICAL AREA MODELING CATEGORY II/III

SCENARIO
747 AIRCRAFT PARALLEL
TO THE RUNWAY



BENEFITS

- Modular Course Antenna Design
- Designed to Interface with the Electronic Equipment of any Manufacturer
- Can be Configured to Provide a Narrow Beam Back-course
- Long Term Category II/III Performance – Minimize Future Downtime and Costs Associated with Periodic Upgrades of the ILS
- Premium Quality Approach Course
- Provides Significant Opportunity to Increase the Number of Flight Operations During IFR Conditions
- Provides Significant Opportunity to Promote New Taxiways and Greater Use of Existing Taxiways to Increase Flight Operations



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MODEL 201 WIDE APERTURE LOCALIZER ARRAY

COURSE ANTENNA

Antenna Aperture, 278 FT. (84.7 Meters)
3dB Beamwidth, 2.65 Degrees Theoretical
Front-to-Back Ratio, 0 to 20 dB (Adjustable with Reflecting Screen)
CSB Sidelobe Level Suppression = 27 dB or Greater
SBO Sidelobe Level Suppression > 27 dB, 31 dB Compared to Existing Systems
Course Width, 3 to 4 Degrees (Adjustable)
Transmission Line, 7/8 Air-Dielectric
System Air Pressure, 5 PSI Nominal
Element Type, Slots

WATTS 8-ELEMENT CLEARANCE ARRAY (not shown)

Array Aperture, 80 FT. (24.4 Meters)
Azimuth Coverage, +/- 15 to 20 Degrees
Clearance Array Type 1, 8-Element LPD (Typical) No Back-Course
Clearance Array Type 2, 8-Element Dipole, With Back-Course
Front-to-Back Ratio, Array Type 1, 25dB or Greater
Front-to-Back Ratio, Array Type 2, 0dB
CSB Sidelobe Level Suppression > 30 dB Beyond 22 Degrees, Theoretical
SBO Sidelobe Level Suppression > 30 dB Beyond 22 Degrees, Theoretical
Centerline Power Separation, Course-to-Clearance, 15 dB (Minimum)

Note:

Potential Centerline Power Separation, Course-to-Clearance, up to 25 dB, Additional Separation Possible by Cross Feeding Clearance into the Course Antenna and Phasing a Sharp Minimum in the Clearance Pattern on Centerline.