

*AIRPORT EFFICIENCY AT ITS PEAK.....*

**CAT II/III INSTRUMENT LANDING SYSTEM**

**MODEL 201**

**WIDE APERTURE LOCALIZER ARRAY**



*ANOTHER TOUGH SITE SOLUTION BY:*

*WATTS ANTENNA COMPANY*

*270 SUNSET PARK DRIVE*

*HERNDON, VIRGINIA, 20170-5219*

*PHONE: (703) 787-7547; FAX: (703) 787-7548*

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**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**
- **The Smallest Critical and Sensitive Areas of any ILS Localizer**
- **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**
- **Provides Substantial Opportunities to Permit New Construction on and Around the Airport Property Without Degrading the ILS**
- **Increased Confidence that all Airborne Receivers will Provide the Same Indications on an Approach. i.e. Reduce Variations Between Flight Measurement Systems that Results from Multipath Signals**
- **Potential to Provide Efficient CAT II/III Operations with Super Jumbo Jets such as the Airbus A380**
- **Potential to Provide a Greater Density of ILS Localizer Systems and Minimize Channel Assignment Constraints**
- **Frangible Design – Thin Wall Fiberglass Tubing Construction**
- **Minimize Coaxial Cable Compared to Conventional Localizer Systems**
- **Reduced Tune-up Time**
- **Simplify Operating Frequency Changes**

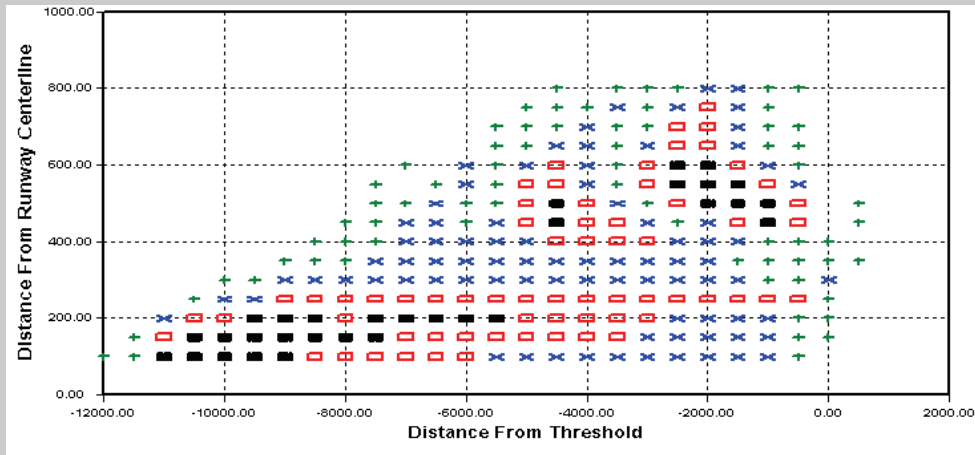
*Perhaps the last localizer array you will ever need!*

**ILS CRITICAL AREA MODELING**

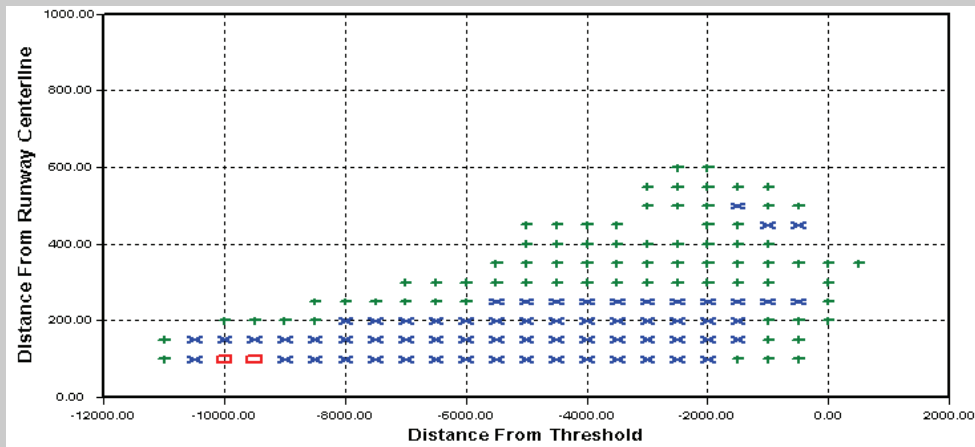
**CATEGORY II/III**

**SCENARIO — 747 AIRCRAFT PARALLEL TO THE RUNWAY**

*SOME SAID IT COULDN'T BE DONE.....WE DIDN'T LISTEN!*



**Typical 150 Feet Antenna Array Aperture (Course Only)**



**Watts 278 Feet Antenna Aperture (Course Only)**

**GREATER MOVEMENT OF AIRCRAFT WITHOUT DEGRADING THE ILS?**

**GREATER AIRPORT EFFICIENCY DURING POOR VISIBILITY?**

*Yes!*

***MORE AIRCRAFT OPERATIONS PER HOUR!***

<b><u>COURSE ANTENNA (64 Slots)</u></b>	
Antenna Aperture	278 Feet (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
<b><u>CLEARANCE ARRAY (2 Types)</u></b>	
Antenna Aperture	50 Feet ( 15.3 Meters)
Azimuth Coverage	+/- 15 to 20 Degrees
Clearance Array Type 1	8-Element LPD , No Back-Course
Clearance Array Type 2	8-Element Dipole, With Back-Course
Front-to-Back Ratio, Array Type 1,	25 dB or Greater
Front-to-Back Ratio, Array Type 2	0 to 20 dB (Adjustable with Reflecting Screen)
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)

**OUR ADVANCED TECHNOLOGY PRODUCT LINE LEADS THE INDUSTRY BY:**

- Providing Substantial Increases in Airport Capacity
- Providing Precision Guidance in Difficult Airport Environment
- Facilitating Airport Growth Opportunities
- Simplifying Air Traffic Control Operations
- Improving Signal Quality
- Increasing Safety
- Reducing Aircraft Fuel Consumption
- Reducing Greenhouse Gas Emissions