Sensis Solutions at Work

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At a Glance

Industry's only certified multilateration system for simultaneous approaches to closely-spaced parallel runways

Allows for doubled operations during inclement weather

Accuracy: Down to 24 feet

Coverage: 30nm to the airport surface

Detroit Metropolitan Wayne County Airport PRM-A

The Challenge:

At Detroit Metropolitan Wayne County Airport (DTW), the Federal Aviation Administration (FAA) needed a cost-effective solution to increase landings during inclement weather as well as maximize capacity during normal operations. The airport has three parallel runways, but could not optimize the throughput without deploying a Precision Runway Monitoring (PRM) solution. Using the cost/benefits analysis from a multilateration PRM trial at Lambert-St. Louis International Airport, the FAA decided to pursue a multilateration PRM solution at DTW.

Sensis Solutions at Work:

The FAA chose Sensis to deploy Precision Runway Monitoring – Alternative (PRM-A) at DTW. The airport now employs the industry's only certified multilateration system that allows simultaneous approaches to closely-spaced parallel runways for increased operational throughput in all weather conditions. For PRM-A, the Sensis Airport Surface Detection Equipment, Model X (ASDE-X) system at DTW was expanded with additional multilateration sensors in a Wide Area Multilateration (WAM) configuration.

Sensis multilateration uses multiple sensors to triangulate aircraft positions based on transponder signals, providing positive location and identification in all weather conditions. The data from Sensis multilateration provides accurate, one-second surveillance updates needed to track aircraft on final approach to DTW from approximately 30nm from the airport down to the surface.

The PRM-A system will allow DTW to double operations during inclement weather from approximately 30 landings per hour to approximately 60 landings per hour. There is also the potential for reduced separation for duals and triples which will allow a 15% to 40% throughput increase during effected time periods.

In addition to providing high accuracy, high update rate, radar-like surveillance, the system is compatible with Automatic Dependent Surveillance – Broadcast (ADS-B).

Detroit Metropolitan Wayne County Airport tower

PRM-A

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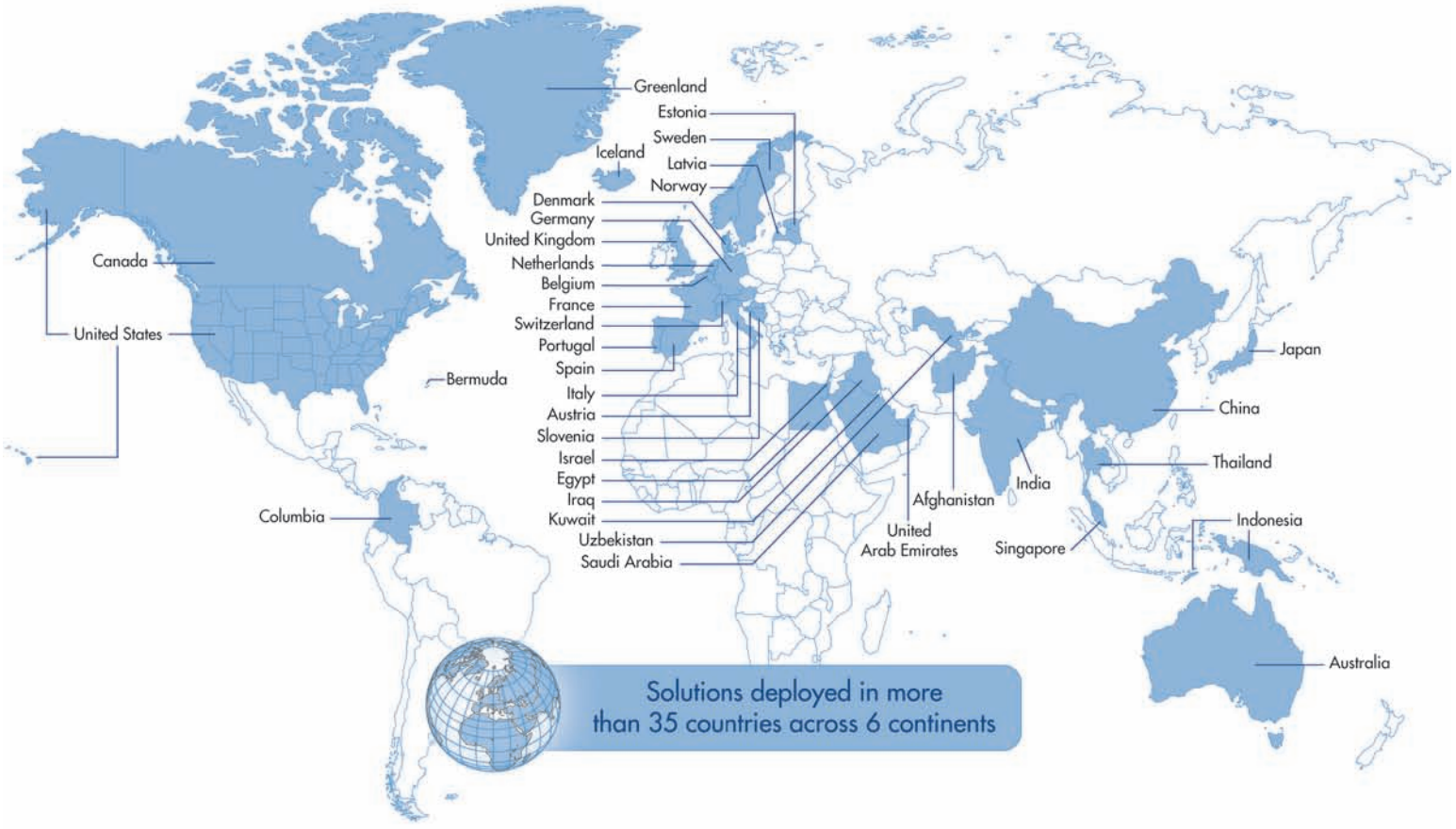
PRM-A Features & Benefits

Feature:	Benefit:
Better accuracy and higher update rate than existing radar systems	Simultaneous approaches on parallel runways for increased throughput
Highly reliable and seamless surveillance data	Increased efficiency and safety of operations
Low maintenance, low-cost sensors	1/3 lower life cycle cost than E-Scan PRM
Supports Automatic Dependent Surveillance – Broadcast (ADS-B)	Transitions technology from currently equipped aircraft to those of the future

About Sensis Multilateration:

Sensis multilateration has been the solution of choice for more than 50 locations throughout Europe, Asia and North America for challenging surveillance applications, including surface, terminal, en route and special use airspace. In addition to Detroit, Sensis is deploying multilateration for PRM at Sydney Airport in Australia.



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