

Sensis Solutions at Work



At a Glance

Improved conflict detection and alerting

No blind spots or coverage gaps

Accuracy: 5.9 m.

Coverage: Ground level up to 200 ft.

Indira Gandhi International Airport A-SMGCS

The Challenge:

Rapidly increasing air traffic and seasonal fog conditions unique to New Delhi created flight delays and cancellations at India's 2nd busiest airport, Indira Gandhi International Airport (IGI). To safely accommodate almost 24 million passengers a year, Airports Authority of India (AAI), the air navigation service provider for IGI, needed to provide air traffic controllers with a reliable, accurate picture of the airport surface traffic in extreme weather conditions.

Sensis Solutions at Work:

To safely deliver high levels of airport movement, AAI deployed Sensis Advanced – Surface Movement Guidance and Control System (A-SMGCS), improving operational efficiency and providing accurate surveillance in all weather conditions.



Sensis A-SMGCS, the world's only fully integrated ICAO Level 2 A-SMGCS, fuses fog-penetrating X-band radar with one-second update rate multilateration and Automatic Dependent Surveillance – Broadcast (ADS-B). Data is integrated by the system's Multi-Sensor Data Processor (MSDP) which leverages the strengths of each individual sensor for the most accurate indication of target location. Each target is tracked in real time and identified by type, altitude and velocity. This surveillance data is presented to the controller on an integrated display that features an interface developed in full consultation with air traffic controllers, enabling safety, efficiency and capacity improvements on the airport surface and throughout the system.

In addition to the visual display, A-SMGCS also incorporates advanced conflict detection and alerting functionality to visually and audibly alert air traffic control to possible conflicts and incursions.

Indira Gandhi Air Traffic Control Tower

A-SMGCS

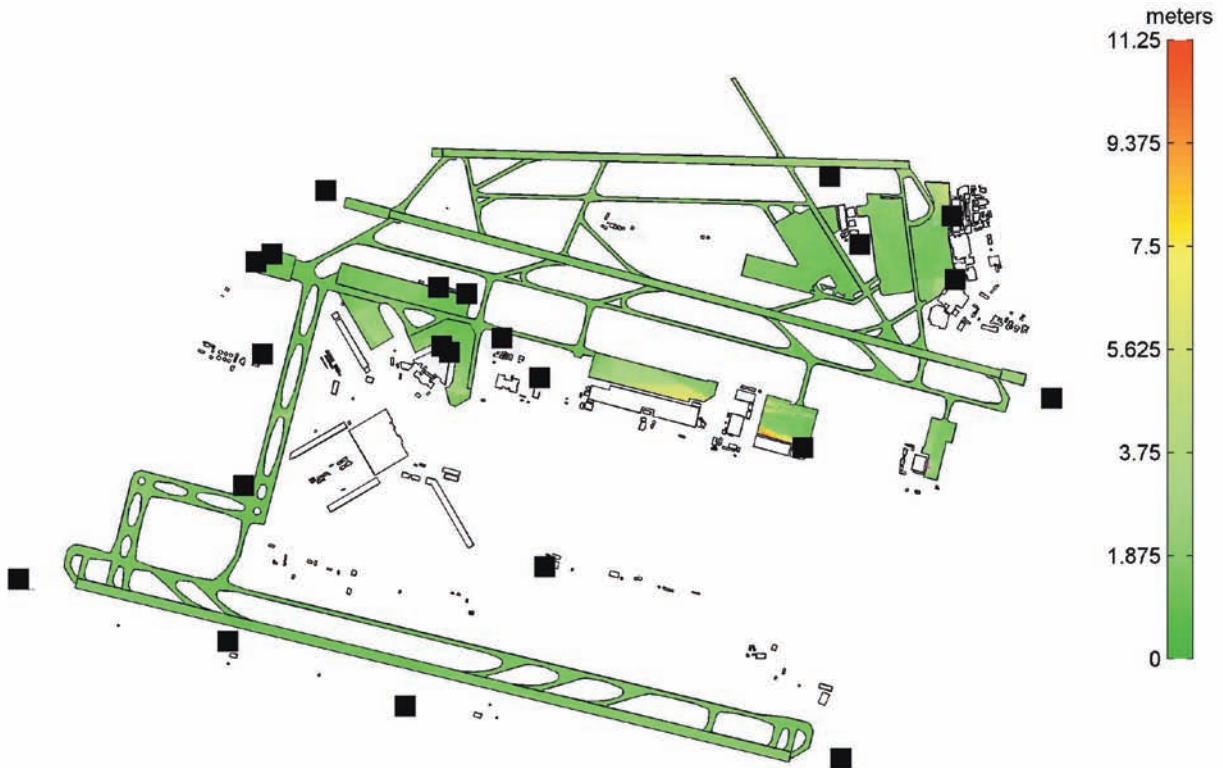


Solution Performance

Feature:	Benefit:
X-band radar	Lower maintenance, life cycle cost and power consumption
Multi-Sensor Data Processor	Smooth output free from false position reports
Multiple deployment options - end-to-end, upgrade or extension of existing system	Highly flexible design allows for additional functionality and future upgrades
Supports ADS-B	Transitions technology from currently equipped aircraft to those of the future

About Sensis A-SMGCS:

Sensis A-SMGCS is the world's only fully integrated ICAO Level 2 A-SMGCS. In addition to Indira Gandhi International Airport in India, Sensis A-SMGCS was selected for Brisbane, Melbourne, Perth and Sydney Airports in Australia, Hong Kong International Airport in China, and for more than 35 airports in the United States as part of the FAA's Airport Surface Detection Equipment, Model X (ASDE-X) program.



IGI A-SMGCS Coverage Area