AEROBANH SURFACE MANAGEMENT SYSTEM

Improve Efficiency for Airports, Airlines, and ANSPs

Saab Sensis Corporation Aerobahn®, a browser-based surface management system, enables airports, airlines, and air navigation service providers to more efficiently and cost-effectively manage and measure airside operations. Aerobahn combines operational information with surveillance data for a comprehensive view of aircraft activity, allowing users to manage everything from gate conflicts and passenger misconnections to pre-departure sequences and taxi routes. By providing all stakeholders with a common surveillance and communication platform, Aerobahn enables informed, Collaborative Decision Making (CDM).

Aerobahn TaxiView® and OpsView® give users real-time situational awareness for immediate decision making, as well as the tools necessary for post-operational analysis, enabling process improvements.

FEATURES/BENEFITS:

- Improve schedule efficiencies and blocktime planning
- Maximize runway, taxiway and gate/stand utilization
- Decrease delays & heighten performance during irregular operations
- Reduce emissions
- Identify trends and recurring operational problems
- Better forecast the impact of future operational events
- Understand usage of airport resources, enabling verification of related fees
- Improve post-operational analysis leading to automation or process improvements
- Facilitate long-term planning
Aerobahn TaxiView

Aerobahn TaxiView provides real-time and historic location and status of aircraft and sensor-equipped vehicles for more effective handling of operations. TaxiView fuses airport surveillance data with key flight data (e.g., flight plan, ACARS events, gate assignments) and displays this information on a detailed map of the airport surface. For user customization, TaxiView provides the ability to "tag" aircraft with operational information such as call sign, ETA, departure fix, or over 100 other key attributes, as well as the ability to overlay additional tools focusing on specific regions of interest or performance metrics. TaxiView users have the ability to overlay charts and graphs to quickly view the airport status such as a runway usage, taxi time performance, and anticipated demand. Further, TaxiView’s Region Occupancy Monitor provides graphical and tabular views of traffic flow in and out of specific user-defined regions. Aerobahn also enables users to identify key criteria for alerting parameters, allowing users to monitor events such as the amount of time an aircraft has been pushed off from the gate but not yet airborne. For post-event analysis, TaxiView’s playback function enables users to play back an aircraft’s route and review an operational event.

TAXIVIEW FEATURES AND FUNCTIONALITY

- Define and view specific airport regions such as deicing pads or taxiways as well as dynamically define regions such as construction areas
- Monitor aircraft throughput and time elapsed since the aircraft entered and exited a specific region
- Receive notification of critical events, such as long on board delays, unmet aircraft, or gate conflicts
- Annotate the airport map with constraints on the airfield such as taxiway or runway closures
- Customize the display of the airport surface, as well as the aircraft data blocks (e.g., call sign, ETA, departure fix, or over 100 other key attributes)
- Zoom, rotate, and pan on the airport view
- Search for and highlight individual flight numbers or aircraft registration numbers
- Play back operational events at a user-specified pace
Aerobahn OpsView

Aerobahn OpsView enables post-operation investigation, analysis, and customized reporting. It allows users to select and filter data by fields like flight number, aircraft model, and flight plan fix, dynamically configuring queries on activity such as runway occupancy, taxiway occupancy, gate occupancy, taxi times, wheels up/wheels down, and general airside traffic operations. With OpsView, users can quickly generate metrics on event times, usage, and flights meeting or exceeding established criteria. This data can be presented as a tabular set, pivot table, or charts (line, bar, pie). Additionally, once the report has been generated, users can activate the playback function which enables them to view the actual taxi route of the aircraft, as well as operational events that may have impacted the route, providing an awareness of what actually transpired as compared to original expectations.

OPSVIEW FEATURES AND FUNCTIONALITY

- Identify and evaluate operational events that influence traffic flows, on-time performance, throughput in specific areas of the field, and occupancy and usage of scarce airport resources
- Generate default, production and dynamically configured reports and queries on demand and automatically
- Play back operational events associated with an activity by simply selecting the activity within a report
- Distribute reports and queries on demand and automatically
Aerobahn Surface Management System

Saab Sensis Aerobahn can work with a variety of surveillance data sources. One such source is the highly accurate Saab Sensis multilateration. Saab Sensis multilateration uses multiple low-maintenance, non-rotating sensors to triangulate aircraft location based on transponder signals and to provide air traffic controllers and commercial users with precise aircraft position and identification information regardless of weather conditions. With a higher update rate and greater positional accuracy than traditional radar, Saab Sensis multilateration provides effective surveillance for increased safety, capacity and efficiency of airspace and airport resources. Additionally, each multilateration sensor deployed by Saab Sensis supports Automatic Dependent Surveillance – Broadcast (ADS-B).

Saab Sensis multilateration offers an ideal solution for the complexity of airport surface surveillance. The flexibility in configuring the system allows coverage over the entire airport area, including the ramp, remote aircraft parking, and approach/departure corridors.

Saab Sensis multilateration is deployed around the world and has been the surveillance solution of choice for more than 20 locations throughout Europe, Canada, and Asia. Additionally, it is a core component of the FAA’s Airport Surface Detection Equipment, Model X (ASDE-X) system which Saab Sensis has installed at 35 airports across the U.S.

**BENEFITS:**

• Reduce runway incursions
• Maintain capacity in low visibility
• Optimize ramp and gate operations
• Decrease aircraft taxi delays
• Improve surveillance data