



# AeroTrac NextGen

Advanced Air Traffic Management System



AeroTrac<sup>®</sup> NextGen incorporates a reliable and redundant architecture, providing fail-safe backup modes for high-system availability and uninterrupted service. All applications operate under Commercial-Off-the-Shelf (COTS) multitasking operating systems using an enhanced Human Machine Interface (HMI).

## Field-Proven

For over 40 years, Telephonics Corporation has provided the expertise and advanced systems required for safe and efficient Communication, Navigation, Surveillance (CNS) and Air Traffic Management (ATM). From the planning stages to turnkey installation, Telephonics can assist in providing technical support and system solutions to ensure smooth, secure and effectual air traffic flow at airports and control centers around the world.

## Fully Scalable

AeroTrac NextGen utilizes a modular design that can be expanded and modified to fulfill new CNS/ATM requirements as they emerge as part of the global transformation of air traffic. The system is fully scalable in capacity and control sectors and may be applied to a wide range of applications including:

- Enroute control
- Approach/tower control
- Area control centers

Telephonics incorporates field-proven functions into AeroTrac NextGen's Air Traffic Control (ATC) automation system, creating an innovative HMI and other supporting tools that adjust easily to customer practices under International Civil Aviation Organization (ICAO) and Eurocontrol standards.

## Surveillance Data Processing System

Our Surveillance Data Processing (SDP) system includes Telephonics' advanced multi-radar tracking. The system receives and processes data from multiple sensor components and data links including Primary Surveillance Radar (PSR), Secondary Surveillance Radar (SSR), Automatic Dependent Surveillance-Broadcast/Contract (ADS-B/C) target reports, Mode S, weather radar and Wide Area Multilateration (WAM).

# AeroTrac NextGen



## Features

- Advanced HMI provides an accurate situational awareness picture available to controllers
- Integrated tower electronic flight strips that reduce operator workload and aircraft taxiing time, resulting in lower carbon emissions
- Integrated simulator with pseudo pilot and voice recognition capabilities for efficient and effective controller training
- Integrated data link server provides advanced controller-pilot data link communications/departure clearance communication
- Built-in features that allow for quick system configuration, airspace sectorization and setup time
- Interoperability for silent coordination among tower, approach and air control centers with different ATC suppliers
- Seamless integration of collaborative decision making, arrival management and departure management functions
- Integrated data and voice recording systems

The field-proven SDP can simultaneously process data, optimize radar accuracies and provide seamless radar tracking, resulting in a customized integrated air surveillance picture.

Telephonics' SDP is designed for low maintenance, providing automated sensor registration adjustments and is scalable to handle the largest sensor and target capacities. The system provides automatic correlation between flight data, sensor data, radar data and seamless integration of ADS-B/WAM to provide a smooth transition between radar and non-radar coverage areas.

## Flight Data Processing System

The AeroTrac NextGen Flight Data Processing (FDP) system is based on a modern, open architecture with client/server design, to provide accurate and timely flight data to controllers. With the help of real-time database management technology, the AeroTrac NextGen FDP provides online and flexible adaptation data cutover, fast system startup and prompt flight data recovery.

The FDP accepts various inputs to generate and maintain an accurate 4D trajectory model for enhanced conflict prediction, conflict probes and flow management. With built-in search engines, the FDP can readily retrieve and output flight information for analysis, statistics and/or billing purposes.

## Supporting Systems

In addition to the basic subsystems, AeroTrac NextGen provides advanced support tools including the control monitoring system, data recording facility, data management system, simulator and factory service facility to achieve a total ATM solution for customers around the world.

Telephonics' engineering processes are fully compliant with ISO and CMMI standards. We provide long term and comprehensive after sales support including software, hardware, safety management and mid-life obsolescence equipment handling for the entire product lifecycle to reduce risk and cost.

**For additional information, contact Telephonics at 631.755.7000 or visit [www.telephonics.com](http://www.telephonics.com).**