

## Raytheon's Homeland Security Portfolio

The Integrated Security System for Airports is a subset of Raytheon's Homeland Security portfolio of solutions, which includes projects such as the System for Vigilance of the Amazon that protects 2 million square miles of Brazilian Amazon rainforest; US-VISIT program, for which Raytheon provides support in systems engineering, biometrics and plays a lead role in deployment activities; and Athena Maritime Domain Awareness Fusion Center, which fuses a large number of existing sensor data to provide decision makers with the real-time maritime situational awareness.

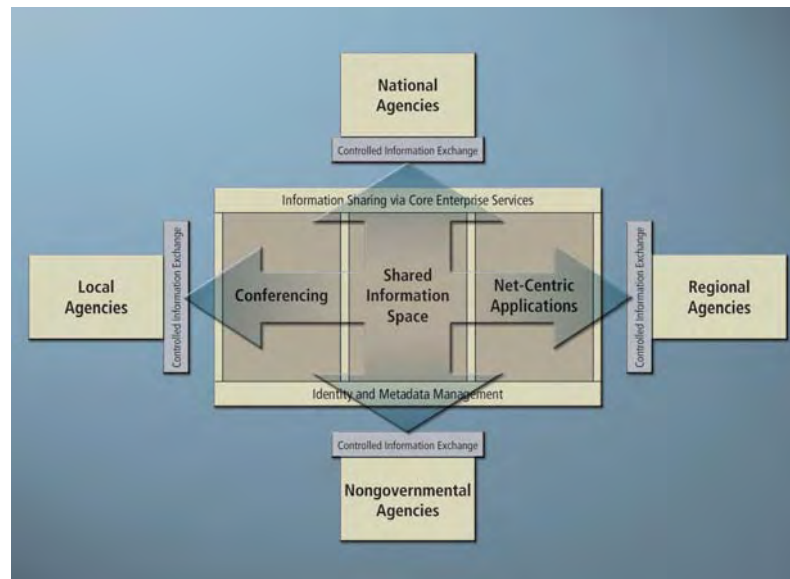
### Advanced Route Evaluation System

The U.S. Department of Homeland Security (DHS) awarded Raytheon a contract to produce the Advanced Route Evaluation System (ARES). This system performs risk analysis on aviation routes to help planners determine the best routes for aircraft to use during an emergency. The ARES contract was awarded under the Rapid Technology Application program (RTAP).

ARES is an integrated solution for aviation route risk analysis that assesses factors such as aircraft type, fuel loads, and flight route, as well as modeling the relative vulnerability to terrorist activity for any planned flight.

### Emergency Data Awareness Portal

Raytheon has been selected by the U.S. Department of Homeland Security (DHS) Homeland Security Advanced Research Projects Agency (HSARPA) to develop and produce the Emergency Data Awareness Portal (EDAP) prototype under the Rapid Technology Application Program (RTAP).



The EDAP contract places Raytheon at the forefront of emergency response data integration technologies. The EDAP system will improve the comprehensiveness and timeliness of resource data for use by first responders and personnel responsible for disaster management. EDAP will ultimately be deployed in the Tampa (Florida) Urban Areas Security Initiative (UASI) region. UASI is a DHS program which provides resources for equipment, training, planning and exercise needs of select high threat urban areas.

The EDAP program will develop a standard emergency management/emergency response data fusion solution that allows both sharing and use of data to support unified and integrated decision making processes among the participating agencies, regardless of agency location or level of government.

Raytheon is applying advanced technologies and resources to detect threats, protect lives and respond to disasters.

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Customer Success Is Our Mission

## Integrated Security System for Airports



**Raytheon**



## Raytheon's Integrated Security System for Airports — An Optimized Solution for Protection of Global Aviation Gateways



Raytheon has developed a comprehensive security solution to ensure the safety and security of both airport employees and the traveling public. The Integrated Security System for Airports (ISSA) is an all-inclusive system that fuses information from an array of different sources — cameras, radars and sensors — and presents them to users in a way that helps them identify the greatest risks to the airport and decisively act on them.

The Raytheon ISSA creates a zone of safety around commercial airports and helps security staff make better decisions on potential threats much faster. The system achieves this by detecting, observing, assessing and tracking potential intrusions to secure areas and aiding airport security personnel in dispatching the appropriate response to the potential intrusion.

### An Unpredictable World

No one needs a reminder about how a single event can shape the way we see the world. Today's threats test the limits of our imaginations. A security threat could come from land, air or sea. It could originate from a single source or simultaneously from multiple points. It could be a crude attempt or a sophisticated plot. It could test the perimeter or a secure area within the facility.

Airport operators know that no matter what the threat, the responsibility of protecting their passengers and employees begins at the perimeter — the moment a person enters the property. From the outer gate to the aircraft gate, ISSA protects sensitive areas, so that no one intrudes upon them undetected.

### A Predictable Response

Airport operators need not imagine a specific type of threat to be prepared for it. Raytheon's layered approach provides 24/7 coverage through all types of weather and throughout all security zones. Ground surveillance radars, video motion detection cameras with integrated track correlation, maritime surveillance systems (if required), and smart fencing — with overlapping coverage in critical areas — provide a high probability of detection and low false alarm rate, and support high system availability. ISSA is the most comprehensive and reliable solution in the marketplace today.

Our rigorous and proven process analyzes all components within a system and ensures our ISSA design is reliable, easily maintained, and can survive multiple component failures. Our system is designed to exceed a system availability standard of 99.9 percent.

### Customizing the Solution

Raytheon's proven Sensor Terrain Analysis Tool (STAT) allows customers to see the solution before investing in it. This modeling and simulation capability can recreate customers' complex surveillance systems and operating environments in a matter of days where it normally took months, reducing the time between defining the concept and designing the system.

STAT uses high-fidelity performance models to accurately predict sensor performance at any given site, while taking into consideration topography, weather and blockage from buildings. Existing security infrastructure, such as sensor locations, are integrated into the simulation model. This capability gives customers the ability to experiment with different cost/performance scenarios and arrive at the perfect balance of safety and affordability.

### A Proven Partner

The Raytheon ISSA solution builds on 80 years of communications and electronics systems experience. We have installed security systems at more than 300 airports worldwide, providing us with a unique understanding of critical system interfaces used in an airport security environment.

We leverage our extensive experience in developing, integrating and commissioning complex real-time systems worldwide for both military and civilian customers. And we do it on time and on budget.

As the Transportation Security Administration's contractor of choice for proven security technologies, Raytheon has unique insight into the intricacies of a robust airport security system. We have solved security challenges in the world's most demanding airport environments.

### Perimeter Intrusion Detection System

Raytheon has created an Integrated Security System for Airports that makes it easier for security professionals to ensure the safety of passengers from their arrival at the airport to departure in the aircraft.

Using a new turnkey airport security solution, Raytheon is helping airport executives create a seamless relationship between airport operations and airport security without creating an additional burden on travelers or airport management.

The first practical application of Raytheon's aviation security tools are now being implemented in the New York region's Perimeter Intrusion Detection System, or PIDS.

Raytheon is designing and implementing the PIDS system for the Port Authority of New York/New Jersey to protect the four largest airports in the New York City region:

John F. Kennedy International, Newark Liberty International, LaGuardia, and Teterboro.

The system will fuse information from cameras, radars, and other sensors into a single common operating picture. This will allow users to identify and respond to potential threats faster and more efficiently. It is the most comprehensive project of its kind in the United States.

Raytheon's Integrated Security System for Airports takes a proven approach like PIDS and integrates systems that cover:

- Access control;
- Video motion detection;
- Command and control/decision support;
- Communications;
- Smart fencing;
- Ground surveillance radars; and
- Aviation operations.