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DEPLOYMENT

DETECTION & 3D GEOLOCATION OF AERIAL TARGETS OVER WIDE AREAS

How a NATO partner built an air defense platform to increase national security

Domain: Air

Application: Air defense

Customer: Military end-user

SITUATION: RESPONDING TO ALL POSSIBLE AERIAL THREATS

Modern armed forces have long been concerned with the threats presented by medium-altitude, long-endurance (MALE) unmanned aerial vehicles (UAVs). Such UAVs are commonly used for intelligence, surveillance, and reconnaissance (ISR) purposes, target painting missions, and as loitering munitions.

Ubiquitous threats from multiple directions spurred one military end-user to augment and add to the capability of its air defense platforms by adding CRFS' unique passive detection, geolocation, and intelligence capability. Its adversaries have a wide range of drones to perform ISR, so it wanted to detect and 3D geolocate enemy drones long before ingress to their territorial airspace.

The NATO partner required powerful SDR technology with exceptional detection range and sensitivity, capable of tough-environment missions over a vast theatre of operations.

SOLUTION: RF RECEIVERS WITH WIDE FREQUENCY CAPABILITIES

The military customer operates an air defense platform designed by a globally renowned system integrator. Attracted by CRFS' passive systems' ability to operate against this range of threat vectors, it invited collaboration to enhance their sensor capability. They wanted RF capability to eliminate false positives and provide highly accurate tracking data.

Its chosen solution was a network of RFeye Nodes placed throughout the country, working alongside other sensor systems and feeding data to the command and control platform. RFeye Site software then identifies targets and can determine if targets have penetrated internationally recognized borders.

And, as the RFeye Receiver is a passive device, it provides long-range detection and tracking without the enemy knowing they are being watched.

RESULTS: A ROBUST AIR DEFENSE PLATFORM

The military can monitor and classify drones across its vast border in its own airspace and hundreds of kilometers into its neighbors' airspace. It can also conduct extensive coastal surveillance operations.

The solution can see UAVs long before they approach the border and become a potential threat or source of interference. If sovereign airspace is violated, the command and control software will initiate a targeted engagement or jamming response.

The country's air defense capabilities have been significantly enhanced.

EQUIPMENT USED

RFeye® Receiver (Node)

High-performance spectrum sensor (receive / record) to 40GHz

Talk to us

Want to discuss your deployment needs?

Drop us a message & let us know how can we help

SILVUS TECHNOLOGIES a Motorola Solutions Company

RFeye®

Silvus Technologies, a Motorola Solutions company, builds mission-critical capabilities that enable defense and security organizations to understand the electromagnetic environment, maneuver through the spectrum, and maintain an operational advantage in contested conditions. Through an interoperable ecosystem of industry-leading RFeye™ sensors, resilient tactical communications, and advanced electronic warfare capabilities, Silvus extends SIGINT to dismounted operators and uncrewed platforms—empowering forces to sense threats, connect forces, and command the spectrum. Together, these capabilities deliver the situational awareness and decision advantage needed to achieve spectrum superiority.

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