

PROJECT SUMMARY



Automatic Perimeter Incursion, Warning and Alerting Safety System

Client: Ontario Power Generation
Location: Chat Falls Generating Station, Ontario, Canada
System: Accipiter® Salus™ Surveillance System

The Challenge

Ontario Power Generation (OPG) operate numerous power generation facilities throughout the province of Ontario, Canada. While the primary purpose of these hydro-electric generating stations is to produce power, by their very nature they are typically located in publicly accessible areas with limited property boundaries and area attractants to sightseers, fishermen and adventurers – most of who do not realize the dangers that exist. While many critical infrastructure sites are able to protect their physical boundary, it is far more difficult for locations such as Chat Falls GS, where placing downstream safety booms or buoys are not practical due to high water flow rates and winter icing, so reliance on public safety signs have been the only possible mitigation measure. Additionally, many such sites operate unmanned or remotely, so site personnel are limited or non-existent.

As a result of the many potential safety risks to the public at hydro-electric stations, OPG issued a competitive tender to examine the capabilities of today's technology, to determine how surveillance and automated alerting may warn the public, and where necessary produce evidence to prevent or reduce future safety related incidents. The requirements were to provide surveillance, alerting and automated public acoustic warnings for potential incursions across the head pond, a tailrace, sluice gates and public entry points from the beach front and wooded areas. Following exhaustive tender evaluation, Accipiter Radar was awarded the contract to provide the solution.



Axis 1942-E Thermal Imaging Cameras with Video Analytics Software and Axis C3003-E PA Horn

The Solution

Accipiter delivered its out-of-the-box, integrated SALUS™ system, utilizing proven COTS products, as well as a customized concept of operations to detect and track small uncooperative targets on the water and land, generating automated operator alerting for multiple boundary and entry points, automated camera slew to cue through radar generated target tracks, thermal imaging video analytics driven alerting and automated PA horn notifications.

Accipiter supplied and commissioned short range radar sensors from SpotterRF, providing surveillance for both upstream and downstream water and beach regions; Axis Q8741-LE bi-spectral surveillance cameras for tracking of targets detected by the radar sensors; Axis 1942-E thermal imaging cameras equipped with video analytics detection software; and Axis C3003-E horn speakers. Accipiter's SALUS™ integrated



Project Start: 12/2018; Project Finish: 06/2019
Support Commencement: 06/2019
Support Services: Ongoing



Market: Public Safety & Security



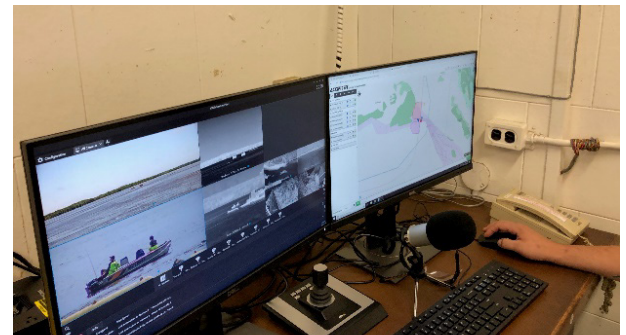
Type of Contract: Supply, Commission and Support



Client Contact:
Available upon request



SpotterRF Short Range Radar Sensor with Axis Q8741-LE Bi-spectral Surveillance



Accipiter® On-site SALUS™ Workstation, with Video Surveillance and Accipiter® COP Track and Alerting Software

ground, marine and air surveillance management system is sensor agnostic, allowing us to select the correct radar and camera type, matching their capabilities with the mission requirements and seamlessly integrating them into the SALUS™ system, which delivers live situational awareness and alerting. SALUS™ comprises of the Accipiter® Sensor Intelligence Integration Server (SIIS), along with our browser-based Common Operating Picture (COP), and delivers a view of all tracked targets through a GIS mapping system, with custom alert zones and fully automated tracking and acoustic hailing.

(continued on reverse)

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All radar generated tracks, camera video and alerts are recorded, and alerts are emailed to operators who then determine if site attendance or response is required. Post incident investigation and trend / behavioral understanding through Accipiter® analytical Surveillance-to-Intelligence® (S2I) tools enabling better response and proactive mitigation measures to be deployed.

Additional Services

Given the nature of this technology evaluation project, Accipiter continues to evaluate the effectiveness of the system through multiple changing seasons, customizing and upgrading capabilities in line with customer requirements, feedback and site changes. Accipiter also provides remote system health monitoring, seasonal sensor tuning and customer support services.

Following the success of this project, Accipiter has received subsequent purchase orders from OPG for additional generating station locations and is in the process of completing similar projects.

Accipiter® RIN Platform Technology

Accipiter's RIN Platform Technology provides significant and groundbreaking capabilities that enable enhanced decision support, information sharing, interoperability and wide area site integration and access. Customers with many geographically distributed and remote sites, such as OPG, can benefit from Accipiter's out-of-the-box system of systems design, enabling unlimited expansion at each individual site, as well as regional and central monitoring and management capabilities through the Accipiter® S2I tools or integrated into their own C2 system. Our business intelligence dashboards enable post processing historical and analytical understanding of individual or multiple site activity, access to distributed radar feeds, cameras and alerts through web-browser access and the sharing of sensor data with other agencies and companies.

Our RIN platform technology is sensor agnostic enabling the selection of correct sensors and devices to meet site specific requirements and user missions. This flexibility ensures ongoing system relevance and effectiveness, with plug and play ability to add additional and latest technologies cost effectively as apart of life cycle management and system upgrade, protecting previous investments.

About Accipiter

Accipiter Radar is a North American company that develops, sells, and operates high-performance Radar Intelligence Networks™ that monitor the behavior of uncooperative targets such as small vessels, low flying aircraft, drones / UAS, people, vehicles and birds, as well as distributed phenomenon such as weather, waves and ice. Accipiter is a world leader in extracting actionable intelligence from multiple surveillance sources. Its suite of Surveillance-to-Intelligence™ (S2I) analytical user apps provides both tactical (real-time) and strategic (historical) situational awareness for 21st century safety and security applications.

Accipiter provide protection and security for governments, military, security agencies and commercial operators around the world including airports, military airbases, ports, waterways, critical infrastructure, remote mining facilities, LNG plants. Accipiter is a leader in radar surveillance for Beyond Visual Line of Sight (BVLOS) for commercial drone operations.

Products Designed and Built to Exceed Expectations

Accipiter's family of products are designed for persistent detection and tracking of cooperative and uncooperative targets on the water, in the air and on the ground. 2D and 3D radar systems for fixed installation locations or for rapid mission deployment, connect with Accipiter's M³® Target Information System and Surveillance-to-Intelligence™ tools to enable live tactical situational awareness and strategic analytical decision making through 24/7/365 all domain awareness.

Whether you are protecting your homeland through border enforcement, providing coastal surveillance or using surveillance to protect your critical infrastructure perimeter; increasing aviation safety through bird and drone activity monitoring or safety management; or protecting wildlife through wildlife hazard management studies, habitat management and active bird deterrent systems, Accipiter has a proven system for you.

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