

# PROJECT SUMMARY



## Automatic Waterside Perimeter Incursion, Warning and Alerting Safety System

**Client:** Ontario Power Generation

**Location:** Niagara International Control Works, Niagara Falls, Ontario, Canada

**System:** Accipiter® NM1-8A Radar / Salus™ Surveillance System

### The Challenge

Ontario Power Generation (OPG), along with New York Power Authority (NYPA), operate a bi-national power generation facility on the Niagara River at Niagara Falls. The International Control works manages the flow of water to storage reservoirs that power hydro-electric generating stations both sides of the border. Niagara Falls is one of the most visited tourist attractions in the world and the Niagara River poses significant danger to boaters and thrill seekers who wish to see the Falls from unique perspectives. Further, the international border that runs through the center of the River poses a significant challenge to both Canadian and US border enforcement, as well as respective coast guards.

OPG and NYPA approached Accipiter to provide a surveillance solution that would serve multiple missions and operate on a bi-national basis. The system was to monitor and alert to vessels of all sizes that approached and crossed various perimeter boundary points, creating alert notifications for operators, enabling manual or automatic long range acoustic warnings to zone intruders, and providing video slew to cue, tracking and recording, enabling continual vigilance and prosecutorial evidence.

### 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, generating automated operator alerting for multiple boundary and entry points, automated camera and acoustic hailing device slew to cue and automated tracking. The Accipiter® NM1-8A Radar Surveillance System provides the customer with unprecedented long range marine target tracking on the Niagara River; Axis bi-spectral cameras provide combined optical and thermal video surveillance for day/night operation; and Accipiter's multi-purpose positioning system is equipped with a USSI long range acoustic hailing device, 12m candle search light for operators to get eyes on the target during night time operations, and thermal imaging camera - while our SALUS™ integrated ground, marine and air surveillance management system delivers live situational awareness and alerting. The SALUS™ system, which comprises of the Accipiter® Sensor Intelligence Integration Server (SIIS) along with our browser-based Accipiter® Common Operating Picture (COP), delivers a view of all tracked targets through a GIS mapping system, with custom alert zones and conditions enabling operators to not only see a map and video view of potential infractions,



Accipiter® Multi-Device Steerable Platform incorporating high powered acoustic hailing device, thermal camera and high-powered searchlight.

but also respond quickly thorough targeted acoustic hailing, live video view with automated tracking, track and video recording for post incident investigation and trend /



**Project Start:** 07/2018; **Project Finish:** 12/2018

**Support Commencement:** 12/2018

**Support Services:** Ongoing



**Market:** Public Safety and Security



**Type of Contract:** Supply, Commission and Support

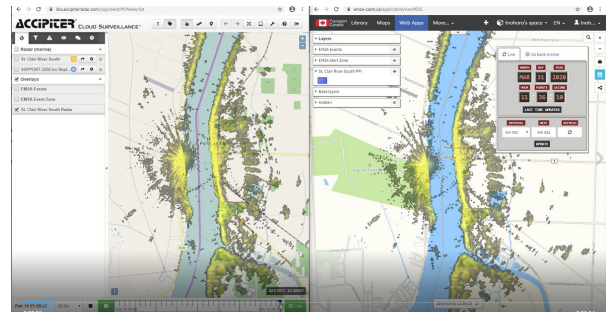


**Client Contact:**

Available upon request



Axis Q8741-LE Bi-spectral PTZ Camera Installation at Brighton Beach Power Generating Station



Accipiter-generated Radar Ice Imagery in Accipiter® COP and TC's EMSA GIS Solution Simultaneously, to share with Walpole Band Council

behavioral understanding through Accipiter® analytical Surveillance-to-Intelligence® (S2I) tools, enabling better response and proactive mitigation measures to be deployed.

### Additional Services

Given the unique geographical location of this installation, Accipiter, with the permission of the customer, utilizes the radar system for other multi-mission purposes, and is able to deliver customized radar surveillance feeds through a Radar-as-a-Service (RaaS) model to US Customs and Border Protection (CBP) as well as Niagara Regional Marine Police with monitoring of the US/Canadian border, alerting to unauthorized vessel border crossing and to vessels in distress.

(continued on reverse)

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Accipiter also provides remote system health monitoring, seasonal sensor tuning and customer support services.

An Accipiter® Radar-as-a-Service (RaaS) model, coupled to a customer purchased system provides a unique flexibility to generate revenue through sensor network sharing which may offset maintenance and life cycle management costs.

## Project Expansion

Following the success of this project, Accipiter has received subsequent purchase orders from both OPG and NYPA for system expansion, including two additional Accipiter® multi-purpose positioning systems, additional cameras for long range surveillance as well as video analytical thermal detection and alerting to water side intruders as well as a unique Ice monitoring service.



*Addition of Second Accipiter® Multi-device Steerable Platform with High Powered Acoustic Hailing Device and Thermal Camera*



*Relocation of Radar from the Roof top to Wall Mount with Addition of Axis Q8742-LE Bi-spectral Camera*

## Press

Accipiter Project Press Release can be found on our website at:

<https://www.accipiterradar.com/new-radar-detection-safety-system-launched-on-niagara-river/>

OPG Press Release as result of observations and results using the Accipiter® system can be found at:

<https://www.cbc.ca/news/canada/hamilton/jet-ski-niagara-falls-1.5672218>

## 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 provides 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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## PATENTS & TRADEMARKS

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