ADGA

CASE STUDY

Shaping RCN combat readiness with synthetic training

ADGA RCN-DMOC FST CONTRACT

SHAPING RCN COMBAT READINESS WITH SYNTHETIC TRAINING

ADGA connects four nations in a virtual environment to train as they fight

Customer Challenge

It costs $50,000 per day in fuel alone to put a Royal Canadian Navy frigate to sea, but the benefits of delivering effective training in a synthetic environment that avoids the need and the expense of deploying actual aircraft and ships has evolved far beyond simple cost savings. With today's Live-Virtual-Constructive training systems, networked synthetic environments allow armed forces the world over to simulate scenarios and outcomes that are simply not possible with live exercises.

The Government of Canada has made it a priority for Canadian Forces personnel to have the means with which to more realistically engage in synthetic environments, at any scale, for more effective training outcomes, with each other and with Canada's allies, anywhere in the world.

For the Royal Canadian Navy (RCN), this transformation began in 2012, with plans for a Distributed Mission Operations Center (DMOC) at Naval Fleet School Atlantic (NSF(A)). DMOC consolidated geographically dispersed resources into a single, cohesive synthetic environment – the Fleet Synthetic Training environment.

But the devil is in the details, or, more aptly, the software. Various complex systems must be managed on an ongoing basis to ensure they are up to date, interoperable and secure over a classified network that relies on cloud-based infrastructure for latency-free and real-time connectivity for all participants. The user experience must be consistent for all participants to ensure a level playing field, whether they are located across the room, or on the other side of the world.

Approach

In support of this need, ADGA began work with the RCN-DMOC in 2016 to spearhead continued consolidation with Canada's Royal Air Force and with military operations on the east and west coasts. Today, a veteran ADGA team works from Halifax and Ottawa to support collective training between various RCN simulators, DMOC and other external simulation environments.

These external environments include:

- RCAF simulators such as the CP-140 Procedural Crew Trainer (PCT) and the CH-148 Battlelab via the RCAF Modelling and Simulation Environment (RMSE)

- The United States Navy (USN) Continuous Training Environment (NCTE) on the Navy Enterprise Tactical Training Network (NETTN). This allows the RCN to participate in USN FST-Joint events with USN assets as well as coalition partners such as the British Royal Navy (RN) and Royal Australian Navy (RAN).

- United States Air Force simulators through participation in joint exercises such as Coalition Virtual Flag. CVF also supports training with other air forces in the Five Eyes community and is expanding into the joint maritime environment with the addition of the RCN, USN, and soon, the RN and RAN as participants.

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ADGA also delivers related:

- Modelling and Simulation for the DMOC and a related Simulation Framework for Mission Rehearsal Tactics (MRT)

- Staff Augmentation with qualified personnel who have RCN experience for the:

  - Maritime Helicopter Project, to replace the Sea Kings with 28 CH-148 Cyclone Helicopters

  - Director General Maritime Equipment Program Management, for life cycle management of all RCN vessels
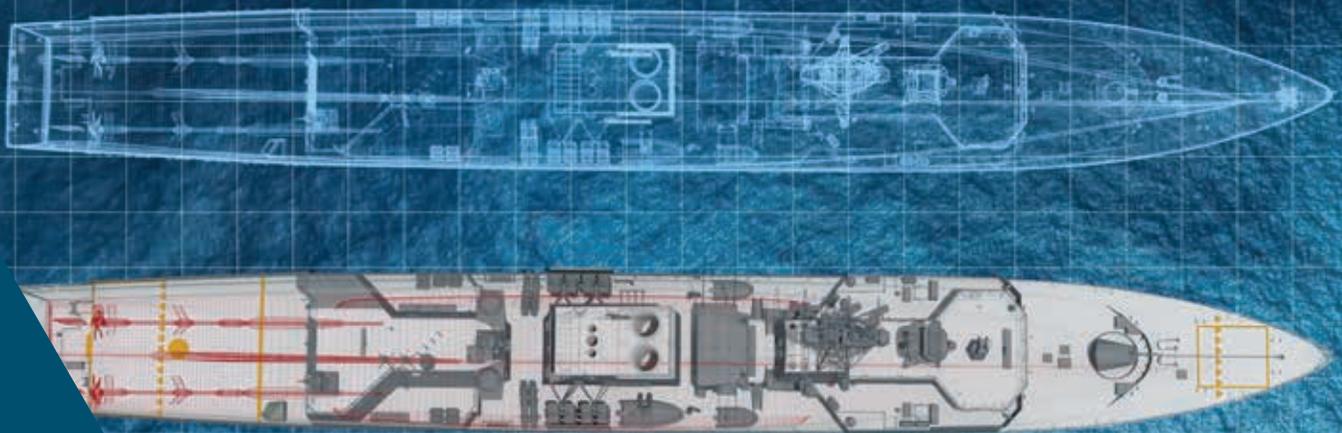
Outcome

ADGA personnel are trusted to deliver operational planning and support activities to the RCN DMOC by working directly with RCN and coalition military personnel to plan and execute synthetic events, and with the RCN to develop and deploy new RCN FST capabilities.

ADGA in particular provides technical support of the networking and distributed simulation areas. In this capacity, ADGA is responsible for the mission-critical interoperability of all simulator suites and software systems and standards, to ensure a consistent experience in which **all** participants, regardless of their location, have equal situational awareness at all times.

The team serves this role by levering ADGA's long-standing status as a completely objective, arms-length and agnostic partner for the Canadian Armed Forces, with expertise in working with third-party systems that have been procured from qualified OEMs.

ADGA's long-standing relationship with the Canadian Armed Forces, its untarnished status as a trusted and un-biased partner, and its consistent service in support of Canada's NATO obligations, is a testament to the expertise and character of its people. Through its engagement with RCN-DMOC, ADGA ensures Canada's Navy can prepare its personnel for the realities of modern conflict and fulfill its obligations to our allies, as cost-effectively as possible, in a true-to-life synthetic environment.

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Founded in 1967, ADGA is a leading Canadian provider of technology solutions, consulting and professional services. Headquartered in Ottawa, with offices across Canada, we are a privately owned and operated company with over 800 technical consultants and subject matter experts delivering strategic insight, world-class capabilities and service excellence to clients within the following industries:

- Defence
- Education
- Energy & Utilities
- Health Care
- Media & Telecommunication

- Mining
- Public Safety
- Public Sector & Government
- Real Estate; and
- Transportation & Aviation

Our services are organised internally through industry-focused Business Services teams as well as capability-driven Consulting Practices, which ensures that clients benefit from robust service delivery frameworks as well as specialist technical knowledge and expertise.

Presidia Security Consulting

MEMBER OF THE ADGA GROUP

Presidia Security Consulting (Presidia) provides security, intelligence and investigation services with related marketing and communications strategies to support them. With extensive executive experience within the Canadian security and law enforcement communities, Presidia principals have led the development of strategic research and policy documents and have implemented innovative security solutions that are now cornerstones of key business processes. Our team members have developed best practices – both at home and abroad – to protect their people, assets, operations and reputations.

extravision

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Extravision specializes in the development, design and integration of security technologies. However, our expertise in this field goes beyond security equipment. Our integrated security management approach relies on our extensive expertise, capitalizing on our knowledge, analytical skills and knowhow to provide the most effective and optimized means of security. As a security system integrator, Extravision responds precisely to customers' distinctive needs with a personalized solution, regardless of the scale of the project, within allotted budgets and timeframes.

ADGA's CONVERGED SECURITY SOLUTIONS

ADGA's Converged Security Solutions offering is unique in Canada, providing a peerless combination of **ADGA**, **Presidia** and **Extravision** capabilities to address your unique security challenges. These areas of expertise include Personnel Security, Cyber Security, Electronic Security Systems and Physical Security, all supported by a robust security program and enterprise risk management framework. This framework ensures a holistic approach to security and identifies risk relative to organizational objectives, producing cost-effective response strategies and tangible, validated results. This full-stack approach provides "one-stop shopping" for custom-made security solutions for both large and small organizations and delivers world-class security expertise and services – enriched by a global network of trusted industry partners – to government, corporate, private and non-profit organizations. Employing a discreet, confidential and consultative approach, we work closely with our clients to protect their people, information, assets, facilities and reputation in today's dynamic and complex threat and risk landscape.