

10TH ANNUAL



# MASS23

MARITIME & ARCTIC SECURITY & SAFETY CONFERENCE

## EVENT PROGRAM

[www.maritimearcticsecurity.ca](http://www.maritimearcticsecurity.ca)  
[www.ac-ada.ca](http://www.ac-ada.ca)

# WELCOME TO **MASS 2023!**



## Atlantic Innovation Takes On Global Challenges

The 10th annual Maritime and Arctic Security and Safety (MASS) Conference will focus on the challenges and opportunities associated with northern and maritime environments. Specifically, we will dive into the topic of emerging threats and how Atlantic Canadian companies are leading the way to provide a safe, secure, and successful future for Canada, North America, and the world with their innovative products, services, and research in this three-day international event.



**#MASS23**



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Question?**

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1-888-522-2325**



# MESSAGE FROM THE CHAIR OF THE BOARD



On behalf of the Atlantic Canada Aerospace and Defence Association, a warm welcome to St. John's, NL!

The Maritime and Arctic Security and Safety (MASS) Conference takes place annually in St. John's with a theme that is carefully constructed to link the conference agenda with relevant safety and security topics related to our maritime corridors along with our northern and remote regions. Given the very nature of the geography involved, to remain relevant, inclusive and collaborative, MASS welcomes international participation.

Since its inception, MASS has facilitated knowledge exchange and meaningful connection. This year, as we celebrate the 10th annual MASS Conference, the agenda is focused on challenges and opportunities associated with northern and maritime environments. Specifically, we have assembled an excellent cross-section of speakers that can expertly address emerging threats and how, by way of opportunities, Atlantic Canadian companies are leading the way to provide a safe, secure, and successful future for Canada, North America, and the world with their innovative products and services.

Over the past two years with the war in the Ukraine we have witnessed first-hand that territorial sovereignty cannot be taken for granted while emerging threats like climate change create a whole new set of challenges for both security and safety. In addition, the north is opening, which results in a sometimes-forgotten strategic maritime corridor that can no longer be passed off as a future consideration.

The goal of this international conference is to promote stakeholder collaboration, technological innovation, harsh environment research and development, and world-class education efforts that are contributing to various components of Northern and Maritime development. The support from the Government of Canada, Government of Newfoundland and Labrador, and our many sponsors helps us achieve this goal. As the gateway to the Arctic and with a long history and attachment with all things maritime, St. John's is strategically the perfect location to present and remind us of the importance of Maritime and Arctic Security and Safety.

In closing, I wish to acknowledge all members, retired and currently serving, in our collective Armed Forces, Coast Guard, and Military.

Thank you to all the registrants, exhibitors, sponsors, and speakers for your valuable contribution and the gift of your time.

Best wishes for an informative and productive conference,

**Willis Jacobs**  
**Chair**

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## TUESDAY, JULY 25

### 1:30pm-4:15pm\* **Industry Tours**

Please join us for a tour of [SmartICE](#) and [Virtual Marine](#) to kick off MASS 2023! We'll pick our delegation up at the Sheraton and have everyone back to the hotel in time for the welcome reception.

- 1:30pm – Bus departs Sheraton Hotel
- 1:45pm – SmartICE Site Tour
- 2:35pm – Depart SmartICE
- 3:00pm – Virtual Marine Site Tour
- 4:00pm – Return to Hotel

*Please Note: Separate registration is required to attend. If you register and find you can no longer attend, please let us know so we can pass the space along to another guest. Closed toe shoes which are comfortable to walk in are a must.*

### 5:00pm-6:30pm\* **Pre-Conference Social** *Sláinte (115 Duckworth Street)*

## WEDNESDAY, JULY 26

### 7:00am **Registration, Networking, and Buffet Breakfast**

### 8:30am **Opening Remarks** *Victoria Belbin (CEO, ACADA)*

### **Welcome Address** *M.P. Joanne Thompson*

### **Welcome Address** *The Honourable Siobhan Coady, Deputy Premier and Minister of Finance*

### 9:00am **Engagement and Partnerships in the North: Discovering Opportunities Together** *Moderator: Carolann Harding (CEO, SmartICE)*

*Panelists: The Honourable Margaret Dawn Anderson (Member of the Senate Committee on National Security, Defence and Veterans Affairs); Chris Webb (President and CEO, Nunatsiavut Group of Companies); Trevor Bell (Co-Founder, SmartICE)*

With growing threats, emerging technology, and the desire for many A&D companies to expand their operations, we are honoured to host a panel of experts to speak to how we can discover Northern opportunities together. In this session we , will explore topics

of reconciliation, self- determination, strengthening relationships, employment, engagement, and more.

10:15am

### **Future of Transportation in the North**

*Charles S. “Duff” Sullivan (Country Leader, Managing Director, and President, Boeing Canada Operations Ltd.)*

Canada’s northern territories and Arctic region are warming at a rate three times faster than any other place on the planet. Ice roads over lakes, rivers, and permafrost during Canada’s winter months will soon be a memory. The shallow waters of Canada’s Arctic Archipelago offer limited navigable passages and few deep-water ports for resupply vessels. Aviation will soon be the only viable means to connect Canada’s northern and Arctic populations with the rest of the country, and the world. But, is Canada’s commercial aviation sector (aircraft and northern airports) adequately postured to support Canada’s northern and Arctic region?

10:45am

### **Safe and Clean Arctic Shipping**

*Part One: Bruce W.T. Quinton, PhD, P.Eng. (Deputy Head and Associate Professor, Ocean and Naval Architectural Engineering, Memorial University)*

This research assesses the operational capabilities of non-ice class warships in marginal ice zones. Ice impact experiments on full-scale pieces of the ex-HMCS IROQUOIS, as well as material characterisation of steel from those samples, were conducted. Results inform numerical models and other engineering tools that are used to predict damage from ice for particular ship manoeuvres. Additionally, full-scale ice load monitoring system (ILMS) technologies are being tested, validated, and improved in a laboratory setting.

*Part Two: Wei Qiu, PhD, P.Eng., FSNAME, FRINA, FCAE (Interim Associate Dean Research and Professor, Faculty of Engineering and Applied Science, Memorial University)*

The Qanittaq Clean Arctic Shipping Initiative, co-led and co-developed by Memorial University and the Inuit Circumpolar Council (ICC) Canada, is to address and respond to concerns about Arctic shipping and related environmental impacts affecting Northern communities by developing robust and innovative ship design and operation technologies that solve shipping challenges as well as solutions for national and international regulatory changes.

11:15am

### **Coffee Break**

11:30am

### **Canadian Security Intelligence Service (CSIS): National Security in Canada’s Arctic**

*John, CSIS Deputy Director-General and Senior Advisor, Economic Security*



12:00pm

## **Maritime Autonomous Systems Testbed (MAST): Challenges and Opportunities for Canadian Waters**

*Captain Chris Hearn, Fisheries and Marine Institute of Memorial University*

Maritime autonomous surface ship (MASS) technology has garnered considerable attention in recent years due to its potential to significantly augment the maritime sector. However, there are significant challenges for adopting large-scale MASS applications that involve legal, regulatory, technological, and operational implications. These challenges need to be addressed and researched in order to provide the Government of Canada and its stakeholders with the confidence that any incremental adoption in this technology can be implemented in Canadian waters safely and efficiently with all stakeholders having input. The Marine Institute, using its facility, The Launch, is developing Canada's first Maritime Autonomous Systems Testbed (MAST) to lead the investigation on how autonomous technology will influence Canada's ocean sectors in the future. Work will be undertaken to research both user-centric and outcome-driven technology, decarbonization, human-machine interface, human factors, remote operations, skill and training requirements, regulatory challenges, insurance and legal implications, national defence, cybersecurity, and operational impacts.

12:15pm

## **Lunch Break**

**Sponsored by: Cougar Helicopters**

1:00pm

## **Lunch Presentation: Northern and Remote SAR**

*Willis Jacobs (Safety and Quality Manager, Cougar Helicopters Inc.)*

A readily available and capable all-weather Search and Rescue (SAR) service is a significant contributor to Security and Safety in Canada's Northern and remote regions. Canada is well-served by the DND SAR program from the East to the West coast along the lower latitudes. However, given the wide expanses of Canadian geography and range of environmental conditions, experts agree that there are significant gaps and challenges to providing reliable and timely northern and remote SAR coverage and response – especially as commercial and tourism traffic increases due to climate change. This presentation looks at opportunities to collaborate to improve this situation and asks – “Why northern and remote SAR... and why now?”

1:45pm

## **Peter MacKay & Peter Van Praagh in conversation with Victoria Belbin**

**Sponsored by: McInnes Cooper**

Peter MacKay, PC, KC (Counsel, McInnes Cooper) and Peter Van Praagh (President, Halifax International Security Forum) join Victoria Belbin (CEO, ACADA) in a fireside, candid conversation. This session will draw connections between global geopolitics and Atlantic Canadian opportunities and delve into the urgency of ensuring democratic countries like Canada are helping address global needs. We will learn what is happening



in the geopolitical world, and how industry can help solve those problems. We will begin a conversation about how Atlantic Canada can rise to meet and, indeed, accelerate our abilities to help solve big, global problems.

2:45pm

## **Coffee Break**

3:00pm

## **Industry Spotlight**

**Sponsored by: University of New Brunswick**

This session will feature presenters from industry right here in Atlantic Canada. Each will be given 5-15 minutes to show off their relevant capabilities, services, or research to the aerospace and defence sector to inspire with innovation and connect with potential new partners.

*MC: Malinda Matchett (Provincial Director for NS, ACADA)*

### **1: Paving the Way: ASL Innovations' Composite Airport System**

*Noah Zanbilowicz (Managing Director, ASL Innovations Corporation)*

ASL Innovations' Composite Airport System (CAS) is a ground-breaking project which will revolutionize runway surfaces in Canada's remote North. CAS offers a sustainable and cost-effective solution to improve access to isolated areas. This innovative system maximizes local resources, reduces environmental impact, and enhances transportation connectivity, ultimately paving the way for a brighter and more accessible future for northern communities.

### **2: Rising to the Challenge**

*Patrick Edwards-Daugherty (President, Spiri Robotics)*

To address the complex challenges of our time, we need autonomous robots and software systems that interact well. For that reason, Spiri Robotics is creating software and hardware APIs to enable other developers to create compatible systems – with us and with each other. The topic of the presentation is our approach to this matter and a sneak preview of our developer kits to be released this year.

### **3: Objective Based Missions through Swarming and Autonomy**

*Dr. Armin Strobel (CEO, StrobelITEK)*

Much like AI-powered innovations such as ChatGPT are changing our perceptions of how to engage AI in our day to day, Objective based mission planning requires a similar shift in mindset. Dr. Strobel will review how this approach with systems such as the Sprinter UAV free operators to conduct more valuable tasks. Autonomy in UAVs will serve as a catalyst to free operators tasked with flying the UAV to move instead to

solving problems. Future he will introduce the Sprinter UAV systems itself and perform a live demonstration of remote operation of the Sprinter UAS.

#### **4: Energy Security and Decarbonization Options for Canada's North**

*Bradley McPherson, Director of Innovation at the Centre for Nuclear Energy Research, University of New Brunswick*

As the world battles climate change, Canada will face challenges in many forms from atmospheric to our land and oceans. Though greenhouse gas mitigation remains a primary target, coastal erosion as well as rising ocean levels and new "ice free" pathways will present a unique set of issues that we, as a nation, must be prepared to address simultaneously yet systematically.

As Canada's North becomes more accessible, exploration and additional population increases will present scenarios that demonstrate the need for energy growth and security. This new demand growth can and must be accomplished in a safe and environmentally conscious manner in this fragile ecosystem.

This presentation will explore ways to achieve growth in the North while keeping principles such as safety, security, and environment in clear focus.

4:30pm-5:30pm

#### **Hour of Connection in the Exhibition Hall**

For those not participating in B2B/B2G programs, we welcome connections and comradery in the Exhibit Hall! Tour the latest technology and innovation from our exhibitors and meet the students we have welcomed to the conference through the "Sponsor a Student" program in this fun, interactive hour.

*and/or*

#### **B2B/B2G Program in the Ballroom**

For those who have booked a session with our partners at ACOA.

5:30pm-6:30pm

#### **Networking Reception**

(Garden Court, Lower Level, Sheraton Hotel)

## THURSDAY JULY 27

7:30am **Registration, Networking, and Buffet Breakfast**

8:30am **Opening Remarks**  
*Victoria Belbin (CEO, ACADA) & Willis Jacobs (Chair, ACADA)*

8:45am **PAL Aerospace in conversation with Victoria Belbin**  
*Colby Mitchell (Chief Pilot, PAL Aerospace, ACP (DH8, BE20))*

Feature session with our Presenting Partner, [PAL Aerospace](#)

9:15am **How to be an Ally to Women in the Aerospace, Defence, Security, and Marine Industry**  
*Moderator: Ogaga Johnson (Director of Workforce Development, econext)*

*Panelists: Caron Hawco (President, Caron Hawco Group); David Males (Director of Business Development, SSI); Michele Tessier, OMM, CD (NABS Mentor, HMCS VENTURE and Board Director, Canadian Scientific Submersible Facility); Randy Billard (President and CEO, Virtual Marine)*

In this panel discussion, we will explore the topic of Diversity, Equity, Inclusion, and Belonging (DEIB) as it relates to women in our workplaces. With many decision-makers and influencers in the audience, our hope is to spark discussion and action in the workplaces of new and strengthened allies from the audience.

10:30am **Coffee Break**

10:45am **Security Under Threat: Urgent needs in a changing geopolitical and environmental landscape**  
*The Honourable Margaret Dawn Anderson (Member of the Senate Committee on National Security, Defence and Veterans Affairs)*

Canada's North is militarily and economically vulnerable. It's facing an existential threat from climate change and foreign powers covet its resources and waterways. Northwest Territories Senator Dawn Anderson discusses the Senate defence committee's in-depth study of Arctic security and provides an overview of the challenges facing Arctic residents and Canada today.

11:15am **Funding for Defence Innovation: IDEaS and NATO DIANA**  
*Sara Guay (Senior Policy Advisor for Director General R&D Innovation)*

Innovation for Defence Excellence and Security (IDEaS) is the Department of National Defence (DND) and the Canadian Armed Forces (CAF)'s access to innovation program. It transforms defence and security challenges being faced by the various partners in DND/CAF into innovative solutions that can increase defence capabilities.

DG Innovation also supports the Canadian regional office of the NATO Defence Innovation Accelerator for the North Atlantic (DIANA), to be located in Halifax, Nova Scotia. Like IDEaS, DIANA aims to support the best and brightest innovators to develop innovative technologies which could have defence and security benefits. Through its acceleration program and test centre network, DIANA looks to advance compelling deep tech with dual-use solutions for the Alliance.

11:45am

### **Actioning Labour Market Report Recommendations**

*Rama Lionel Ngenzebuke, PhD (Research Analyst, R.A Malatest & Associates Ltd.)*

A presentation of ACADA's Labour Market Gap Analysis – a brand new labour market study of the aerospace, defence, marine, cybersecurity, and artificial intelligence industries in Atlantic Canada completed by R.A Malatest & Associates. The study will provide an overview of the sector's economic health, makeup of the workforce, and current recruitment and retention challenges. The key findings of this study will help ACADA, our members, and key stakeholders optimize the unique strengths of various industry partners toward a coordinated, holistic approach to the sustained growth of the sector, as well as develop an attraction and retention strategy to ensure that Atlantic Canada's A&D industry will continue to grow and thrive.

12:15pm

### **Closing remarks**

*Victoria Belbin (CEO, ACADA)*

1:00pm-4:30pm\*

### **Tour of The Launch**

**Sponsored by: Memorial University & Springboard Atlantic**

Marine Institute is looking forward to welcoming conference attendees, speakers, and exhibitors to Holyrood for a special luncheon and tour of The Launch to close MASS 2023!

[The Launch](#) is the Marine Institute's hub of ocean innovation, discovery, and leadership, providing a collaborative and inclusive space for Canada's ocean stakeholders and rights holders to operationalize the vital technology needed to support ocean health and economic prosperity from coast-to-coast-to-coast. Located in Holyrood, NL, with direct access to the Northwest Atlantic Ocean and one of the harshest marine environments in the world, The Launch is ideally located to mobilize Canadian and Arctic Ocean research- if it works here, it will work everywhere.



**Schedule:**

- 1:00: Bus leaves The Sheraton
- 1:45: Arrival at The Launch
- 1:45-2:15: Networking & lunch
- 2:15-2:30: Opening remarks
- 2:30-3:00: Faculty Presentations
- 3:00-3:45: Facility Tours
- 4:00: Bus departs The Launch and returns to The Sheraton

**There is still space to join the tour!**

**Register by speaking with an ACADA team member at the registration desk.**

*Please Note:*

- *The program is subject to change*
- *Exhibits will be open from 8:30am on July 26 to 12:30pm on July 27*
- *All events will take place at the Sheraton unless otherwise noted with an \**

## THE HONOURABLE MARGARET DAWN ANDERSON

**Member of the Senate Committee on National Security, Defence, and Veterans Affairs**

Margaret Dawn Anderson is a proud Inuvialuk, and mother of 5. She was born and raised on the shores of the Arctic Ocean in Tuktoyaktuk, Northwest Territories, however, her professional experience has enabled her to engage and collaborate with the majority of the 33 communities throughout the Northwest Territories.

Ms. Anderson has a Bachelors of Child & Youth Care from University of Victoria. She has more than 20 years of experience as a public servant, working with communities and Indigenous peoples across the Northwest Territories. She served in various roles with the Government of Northwest Territories, Department of Justice. Notably, she was the Director of Community Justice and Policing, and Assistant Director, Corrections Services, where she implemented positive changes to the territorial justice system. She was involved in the feasibility study, development and implementation of the NWT Wellness Court Program, a therapeutic program that attempts to reduce recidivism by treating underlying issues like mental health, addictions, and cognitive challenges.

Prior to her appointment, Ms. Anderson worked as a Policy Analyst with the Inuvialuit Regional Corporation where she participated in Inuvialuit self-government negotiations with the Government of the Northwest Territories, and the Government of Canada.

Ms. Anderson's dedication to her community and to improving the lives of others is best displayed through the development, implementation and facilitation of the Planning Action Responsibly Toward Non-violent Empowered Relationships (PARTNER) program, a northern-based program for low to medium risk domestic violence offenders that is a central component to the NWT Domestic Violence Options (DVTO) Court. She also was an active member of the Working Group for DVTO Court. In addition, Ms. Anderson also worked with restorative justice initiatives across the NWT and conducted a review of the N.W.T.'s community justice program through consultations, which resulted in a report with several recommendations to improve community-based programming.

As the Senator for the Northwest Territories, Ms Anderson is committed to raising the profile of Arctic, Inuit and Indigenous issues across Canada to ensure representation that recognizes the uniqueness and diversity of people within the Northwest Territories. She firmly believes that a holistic approach which recognizes community driven approaches and partnership is the way forward when it comes to improving well-being in the North and to bridging socio-economic gaps between the Arctic and the rest of Canada. Ms. Anderson is a two-time recipient of the territorial Premier's Award for Excellence for her leadership and commitment to improving her community. She resides in Yellowknife, NT.

## VICTORIA BELBIN, M.M.S. ICD.D

**Chief Executive Officer | ACADA**

With a strong, national reputation as an effective and compelling leader, Victoria channels her experience, strategic thinking, and business acumen into her role as CEO for the Atlantic Canada Aerospace and Defence Association (ACADA) and her many volunteer board positions.

As an experienced association leader, Victoria has successfully transformed organizations into key drivers of policy, advocating on behalf of industry, resulting in responsive and collaborative partnership environments. Victoria's success in leading strategic initiatives is due to her ability to bring diverse teams together to find commonality and clarity.

Currently, as CEO of ACADA, Victoria leads a team across all Atlantic Provinces with the goal of creating the climate for growth by ensuring industry members are prepared to thrive locally, nationally, and internationally.

In addition, Victoria has gained significant corporate governance, business, and management experience in complex regulatory environments by leading industry organizations and as a board member in a variety of settings including not-for-profit organizations, charities, and crown corporations. Some of her board experience includes boards such as Workplace Health and Safety Commission (WNL), NL Liquor Corporation, TaskForceNL, Wonderbolt Circus, and the Governor General of Canada Leadership Conference (GGCLC) Board.

With a proven track record of building robust governance processes with Boards of Directors and volunteer teams, and bringing diverse stakeholders together, Victoria fosters strong relationships that enable action-oriented planning to respond to industry and community needs.

Victoria holds a Master of Marine Studies from Memorial University and stays on top of governance practices through her commitment to continuing education through the Institute for Corporate Directors and ICD.D designation.

## TREVOR BELL

**Co-Founder | SmartICE Sea Ice Monitoring & Information Inc.**

Trevor is the founding director of SmartICE and an honorary research professor at Memorial University of Newfoundland and Labrador. In recognition of the significance of his research to his discipline, policy change, and northern communities, Trevor was named a Fellow of the Royal Society of Canada and twice received the Arctic Inspiration Prize, in collaboration with the Nunatsiavut Government, for knowledge-to-action plans that benefit Arctic peoples. In 2021, Trevor received the inaugural Frederik Paulsen Arctic Academic Action Award and the Martin Bergmann Medal for Excellence in Arctic Leadership for his ground-breaking achievements on climate change adaptation.

## DR. RANDY BILLARD

**President & Chief Executive Officer | Virtual Marine**

Dr. Randy Billard is President and CEO of Virtual Marine. He is an original founder of the company and has been with the Virtual Marine since it started in 2004. He is a P. Eng, holds a Bachelor's degree in Mechanical Engineering and a Master's Degree in Ocean and Naval Architectural Engineering from Memorial University of Newfoundland and Labrador, with expertise in small vessel motion and wave modeling. He has a Ph.D. in Engineering at Memorial University with a research concentration in measuring human performance in simulation-based training programs.

Randy is responsible for leading Virtual Marine's team in the continuous development of small craft simulation technologies. He has expertise in oil and gas and military simulator development and project management. He is actively involved in ocean engineering and simulation R&D communities. He has experience in managing technical product development from early stage prototypes to commercially ready systems which includes validation and testing of simulators at various technology readiness levels.

Randy's work has included human factors studies to assess the effectiveness of simulation-based training programs and measurement of learning and skill retention in marine training programs. He has published research papers on vessel and wave numerical modeling, human performance modeling, and simulator training transfer. He is currently leading the development of the company's automated tracking and adaptive learning software.

## PATRICK EDWARDS-DAUGHERTY

**President | Spiri Robotics**

Born in North Carolina in 1974, he grew up in Halifax, NS (where Spiri is headquartered) and studied mathematics and physics at McGill and Cambridge. He founded Spiri Robotics in 2015 as a spin-off after several years of research towards what would become the Spiri Mu, the company's first product.

## SARA GUAY

**Senior Policy Advisor, with the Program Impact, Analytics and Advisory team, Director General Research and Development Innovation | Defence Research and Development Canada (DRDC)**

Sara Guay is a Senior Policy Advisor, with the Program Impact, Analytics and Advisory team, Director General Research and Development Innovation, Defence Research and Development Canada (DRDC). In this role, Sara is responsible to lead many aspects of the Post-Program Supports for the IDEaS program, such as the IDEaS Marketplace and is part of the team which is responsible for the implementation of the NATO DIANA North American regional office in Halifax, Nova Scotia.



## CAROLANN HARDING

**Chief Executive Officer | SmartICE Sea Ice Monitoring & Information Inc.**

Carolann Harding ICD.D is a dynamic leader and team player that thrives on creativity, problem-solving, collaboration and engagement. As CEO of SmartICE, Carolann is leading a diverse coast to coast to coast award-winning team, focusing on meeting SmartICE's social enterprise mandate, strategic directions and social impacts. Working collaboratively with indigenous communities, SmartICE co-designs projects that focus on climate change monitoring, workforce development and traditional knowledge. In May 2023, Canadian Geographic named SmartICE #1 on the list of 20 Canadian Innovations you should know about. Carolann is currently the Chair of FoodFirst NL, director on the Pinnguaq Board, Vice Chair of the ICD NL Chapter Executive and a Member of the MUN Faculty of Business Advisory Board. Carolann is a graduate from both Memorial and Dalhousie Universities. In 2021, Atlantic Business Magazine named Carolann as one of Atlantic Canada's 25 most Powerful Women in Business and was 1 of 3 national finalists in the RBC Women of Influence – Social Change Award – National Impact.

## CARON HAWCO

**President | Caron Hawco Group Inc.**

Caron Hawco is a business and communications strategist, international relations consultant, negotiator and facilitator. She offers significant knowledge relating to Newfoundland's energy sector, ocean technology, supply chain, diversity and inclusion, as well as the Arctic. She recently co-authored a national diversity strategy to advance diversity, equity and inclusion within Canada's ocean industries.

As President of the Caron Hawco Group, Caron provides strategic advice to corporate and industry leaders from international corporations, all levels of government and industry associations. Recently, she's been advancing the growth of the Newfoundland's wind/hydrogen sector.

Caron was as a leader with Statoil's (now Equinor) Canadian office, contributing to its global Arctic strategy as well as leading the development of its North American communications strategy and a local content strategy for a global negotiation. She also served as an advisor to Canada's Minister of Fisheries and Oceans.

Caron is a Professional Project Manager (PMP), an Internationally Accredited Communicator (ABC), a Certified International Trade Professional (CITP) and a Corporate Director (ICD.D.). She was awarded Newfoundland and Labrador's Communications Professional of the Year by the International Association of Business Communicators (IABC).

Caron has also served on over 15 boards of directors, including the Government of Newfoundland and Labrador's Oil and Gas Recovery Taskforce and as Chair of NOIA. She currently serves on the Government of Newfoundland and Labrador's Net-Zero Advisory Council, EnergyNL, COVE (innovation centre) and the Canada Guyana Chamber of Commerce.

## CAPTAIN CHRISTOPHER HEARN

**Director | Centre for Marine Simulation, Marine Institute of Memorial University**

A member of the Nautical Institute, Captain Christopher Hearn began his nautical endeavors in 1996 after graduating from the Marine Institute's Nautical Science Program. He quickly moved his way through the marine ranks advancing to Master Mariner and Marine Superintendent/DPA (Designated Person Ashore) in less than ten years.

His years at sea has afforded him experiences working with numerous companies engaged in a variety of operations including Offshore Supply, Seismic Survey, Ice Breaking, General Cargo, Crude Oil and Clean Products Tankers, Tugs, Cable ship, and RO-RO Container positions.

In 2008, Captain Hearn returned to the Marine Institute as the Director of the Centre for Marine Simulation. The Centre is the largest and most comprehensive marine training facility in Canada and covers an entire range of training, educational, and research and development capabilities through the use of simulation technology. As Director, Captain Hearn works with maritime and offshore industries to mitigate the risk of accidents, to accelerate training and improve performance, and to test new equipment design and procedures. CMS's particular areas of expertise include the modeling and simulation of harsh maritime environments, human performance in moving environments, simulation of offshore oil and gas operations, and waterway risk analysis.

## WILLIS JACOBS

**Safety & Quality Manager | Cougar Helicopters Inc.**

Willis is the Safety and Quality Manager at Cougar Helicopters located in St. John's Newfoundland & Labrador, Canada.

Cougar provides offshore helicopter passenger transport and Search & Rescue (SAR) support for major oil & gas customer operations in the harsh north Atlantic environment.

Previous to his work at Cougar, Willis served a career with the Royal Canadian Air Force where he was employed as an aerospace engineer, maintenance manager and project manager on a variety of helicopter fleets at locations across Canada and Germany. Staff and Command tours included postings across Canada, England and with NATO. His last RCAF tour was as the Executive Officer for the Directorate Strategic Planning at the NATO Supreme Headquarters Allied Powers Europe (SHAPE), Mons, Belgium.

Willis also serves as the Chair of the Atlantic Canada Aerospace and Defence Industry (ACADA) and as a member of the HeliOffshore Safety Steering Group (SSG).

## OGAGA JOHNSON

**Director of Workforce Development | econext**

Ogaga Johnson is a project leader, educator, and Project Management expert.

She is the Director of Workforce Development at econext where she leads various workforce development projects and training and development programming to build the current and future workforce in the clean economy within Newfoundland and Labrador.

She has extensive experience in workforce development and a clear voice on allyship for equity-deserving groups, especially immigrants.

Ogaga's passion for diversity and inclusion has also led her to work with 10,000+ youths, recent graduates, and professionals in Canada, helping to build a diverse talent pipeline for various sectors, including the aerospace and defense sector.

Also, she is the founder of Verisult (formerly OJC), a cutting-edge Project Management EDTech and Consulting firm that has trained thousands of individuals to get into and advance their Project Management careers and collaborated with numerous organizations to deliver exceptional initiatives including providing workforce development training and programs, project management consulting services, and administrative and project management staff.

Her skills and expertise have enabled her to make a significant impact, and she continues to inspire professionals and organizations alike to build a diverse workforce and achieve their project goals. In short, when it comes to project management and workforce development, Ogaga Johnson is the person to know.

## PETER MACKAY, PC, KC

**Counsel | McInnes Cooper**

Peter is Counsel at McInnes Cooper. Leveraging his public service and legal experience, he collaborates with McInnes Cooper professionals to bring strategic value to business and public sector leaders within and outside of Atlantic Canada.

Peter served in the Parliament of Canada for over 18 years as a cabinet minister in high-profile portfolios, including Justice and Attorney General, Department of National Defense, Foreign Affairs and the Atlantic Canada Opportunities Agency. He chaired the Government National security committee for almost 10 years. Peter started his legal career in Nova Scotia as a Crown Prosecutor and worked as a general practitioner before entering politics.

## DAVID MALES

**Director of Business Development | SSI**

With 35+ years as a trusted sales and marketing executive in IT & Related Services in the US and Canada, David Males is Director of Business Development at SSI. David's previous experience serving the industrial manufacturing and infrastructure development (AEC) sectors allows him to bring a practical perspective to help the marine and shipbuilding industry address key challenges surrounding digital transformation, lifecycle management, and the impact of emerging technology on current and future workers.

David is a frequent presenter at marine industry conferences addressing key challenges surrounding business transformation to digital shipbuilding and asset lifecycle management. He has been published in Maritime Technology magazine and chairs the SNAME O-52 Digital Twin Panel that aims to provide guidance to assist industry in the development of digital twin programs.

## RAMA LIONEL NGENZEBUKE, PhD

**Research Analyst | R.A Malatest & Associates Ltd.**

Rama Lionel Ngenzebuke has over 15 years of professional experience in academic research and consulting in Africa, Europe, United States, and Canada. He holds a master's in quantitative economics and a PhD in economics from the Free University of Brussels (2017) and was a post-doctoral researcher at Harvard University (2017-2018). He currently is a bilingual research analyst (level 2) at R.A Malatest and Associates Ltd (since 2019), where his quantitative and qualitative analytical skills benefit different research and evaluation projects commissioned by various federal departments, provincial governments, and other clients. Dr. Ngenzebuke was the lead analyst for the 2023 labour market analysis commissioned by Atlantic Canada Aerospace and Defence Association (ACADA).

## DR. BRUCE W.T. QUINTON, PhD, P.ENG.

**Deputy Head & Associate Professor, Department of Ocean & Naval Architectural Engineering | Memorial University**

Dr. Bruce Quinton is an Associate Professor and Deputy Head of the Department of Ocean & Naval Architectural Engineering at Memorial University of Newfoundland. His expertise includes capabilities of low- and non-ice-class vessels in ice infested waters; ship hull structural response to extreme/accidental loads (specializing in sliding loads causing damage); numerical simulation/application of ice and accidental loads; advanced material characterization and behaviour of Arctic shipbuilding materials; and full-scale laboratory ship impact experimentation. Dr. Quinton's novel experimental and numerical work related to moving/sliding loads on hull structures was awarded the 2013 Vice Admiral E. L. Cochrane Award – a prestigious international award from the Society of Naval Architects and Marine Engineers (SNAME). He is chairman of the V.1 – Limit States during Accidental and Damage Conditions Committee of the 22nd International Ship and Offshore Structures Congress, 2022; and technical member of the NATO STO AVT-367 – Sea-Ice Collision Risk Prediction and Mitigation for Naval Ships Panel and chair of the Structural Design Working Group.



Prior to commencing his faculty appointment, Dr. Quinton worked in industry on Arctic related projects including: ice strengthened vessel design, Arctic issues related to structural safety, Arctic escape, evacuation and rescue (EER) performance criteria, and others.

## DR. WEI QIU

**Interim Associate Dean (Research) of the Faculty of Engineering and Applied Science and Professor of Ocean and Naval Architectural Engineering | Memorial University**

Dr. Wei Qiu is the Interim Associate Dean (Research) of the Faculty of Engineering and Applied Science and Professor of Ocean and Naval Architectural Engineering at Memorial University. His research is in the area of marine hydrodynamics and its applications to ships and offshore structures. He has led numerous projects involving marine industries and government agencies.

Dr. Qiu has served in many international organizations, including the Chair of the ITTC Ocean Engineering Committee, a member of the ISSC Environment Committee, and a member of the joint ISSC-ITTC Committee. He is a fellow of the Royal Institution of Naval Architects (RINA), the Society of Naval Architects and Marine Engineers (SNAME) and the Canadian Academy of Engineering (CAE). He also serves as the Chair of the Interim Board of the Canadian Network for Innovative Shipbuilding, Marine Research and Training (CISMaRT).

## MICHELE TESSIER

**NABS Mentor | HMCS VENTURE & Board Director | Canadian Scientific Submersible Facility (CSSF)**

Michele was born and raised in Grand Bank, NL and joined the Navy in 1996 after completing a BA (English) at Memorial University. Her military career afforded her the privilege of traveling around the world and to every province and territory in Canada. She was the third woman in the history of the Canadian Navy to be appointed to command of a seagoing ship and retired in 2021 at the rank of Commander after four command appointments (HMCS NANAIMO, HMCS GRIFFON [Thunder Bay], Coastal Division Pacific, and the future HMCS MARGARET BROOKE). In 2017, the Women's Executive Network named Michele as one of "Canada's Most Powerful Women – Top 100" for that year, and she was subsequently appointed to the Order of Military Merit in 2018.

Michele has spoken both in and out of uniform to interest groups, educational institutions, and youth across Canada and around the world about values-based leadership, the Arctic, and being a woman in command. She continues to work with the Navy as a mentor for junior officers at the Navigation and Bridge Simulator (NABS) and is a Director on the Board for the Canadian Scientific Submersible Facility. In her spare time, Michele is completing a graduate program at Royal Roads University.

## CHARLES S. "DUFF" SULLIVAN

**Country Leader, Managing Director, President | Boeing Canada Operations Ltd.**

Sullivan joined the Boeing Global team in August 2020 as Country Leader, Managing Director and President of Boeing Canada Operations Ltd.

As Boeing's country leader in Canada, Sullivan brings the best of Boeing to Canada: our 104-year Boeing-Canada partnership; 550+ Canada-based Boeing suppliers; 2,000 full-time employees at 13 business sites in seven provinces; in-service support and sustainment for 100+ military aircraft; 500+ Boeing commercial airplanes equating to 75%+ market share; business activities worth \$5.3 Billion and 20,600 jobs to the Canadian economy; Boeing sponsorships and grants over \$1.2M annually for youth STEM, veterans, women in aviation and aerospace, indigenous, and various other community programs.

Sullivan is a former general officer and senior military commander who has served at the highest levels of operational command and leadership. He entered the private sector in November 2009 following a 31-year career in the Royal Canadian Air Force and has, over his 44-year career, championed initiatives related to defence and security, aviation and aerospace, and leadership and ethics.

In 2014, Sullivan received a Governor-In-Council appointment to serve as a presiding member of the Transportation Appeal Tribunal of Canada and was later appointed Chairperson and Chief Executive Officer. As a Tribunal Member, he presided over matters related to government enforcement actions across Canada's civil aviation and aerospace sectors. In October 2015, Sullivan was invited to join the Honourable David Pratt and Associates as an associate and senior counsel.

Sullivan has also served in several senior executive and high-profile leadership positions throughout his career. As Director-General of Capability Development at National Defence Headquarters he led a diverse team of defence research scientists, PhD academics and senior military analysts in implementing capability-based planning to identify Canada's future military capabilities. As Director of International Security and the Senior Defence Advisor in the Prime Minister of Canada's Privy Council Office he championed policy oversight of several government departments, Canada's defence strategy and defence procurement, NORAD, NATO, and Canada's security mission in Afghanistan. As the Director of Operations for the Canadian NORAD Region, he led the transformation of Canada's new Homeland Defence and Continental Security mission in the wake of 9/11 and the Air Security Mission for the 2002 G8 Summit in Kananaskis, Alberta.

Prior to retiring from the Air Force in 2009, Sullivan served at the rank of Major-General on a 12-month tour of duty in Afghanistan as NATO's Air Component Commander and Deputy Chief of Joint Operations. As the theatre air commander, he commanded Kabul International Airport, Kandahar and several other coalition airfields, and led military and civil air operations country-wide, including combat air operations for NATO's 42-nation coalition. As Deputy Chief of Joint Operations, he was delegated command approval authority of ground-force and Special Forces operations, and NATO's Counter Narcotics Mission. Sullivan also served as NATO's Strike Approval Authority for dynamic and time-sensitive targeting operations.

During his Air Force career as a professional aviator and fighter pilot, Sullivan accumulated over 3,500 hours flying jet aircraft, 1,600 of which were flown on the CF18 Hornet in the ground attack and air superiority roles. He has flown operational missions over Europe during the Cold War, the Persian Gulf, Bosnia, Croatia, Kosovo, Canada's high Arctic and the North Atlantic. He has commanded a Tactical Air Control Party, a CF18 Fighter Squadron, an Air Force Fighter Wing and Main Operating Base, and NATO ground and air forces during combat operations in Afghanistan.

Sullivan is a graduate of St. Lawrence College, Civil Engineering Technology; the Royal Military College of Canada, Leadership and Ethics; the Royal Air Force Command and Staff College, Bracknell, UK; Canadian Forces College, Toronto, MA-level Advanced Military and National Security Studies Program; USAF Air University Air Component Commanders' Program for General Officers, Montgomery, Alabama; and, NATO's Tactical Leadership Program (TLP) in Jever, Germany.

## PETER VAN PRAAGH

**President | Halifax International Security Forum**

Peter Van Praagh is the founding President of Halifax International Security Forum. Peter has served as Senior Director for Foreign Policy at the Washington, DC-based German Marshall Fund of the United States, as Deputy Vice President of Programs at the National Endowment for Democracy in Washington, DC, and as Chief of Party for the National Democratic Institute both in the former Soviet Union and in Turkey. In 2006-07, Peter served as Policy Director to the Minister of Foreign Affairs of Canada. Peter is a graduate of University College at the University of Toronto and the London School of Economics. He is married to Lena Van Praagh and has three children, Yasha, Sophia Joy, and Elizabeth.

## CHRIS WEBB

**President and CEO | Nunatsiavut Group of Companies**

Chris brings more than 20 years of business experience to his role, including more than 14 years at senior level positions. He has been a key leader responsible for developing short and long-term business strategic plans, instrumental in several business mergers, acquisitions, and business reorganization, while maintaining quality and service excellence. He currently sits on the boards of 19 companies and partnerships in which LICST has an interest, and chairs one-third of those boards.

In 2021, Chris was elected President of the Pan Arctic Inuit Logistics Corporation for a 1-year term.

A Beneficiary of the Labrador Inuit Land Claims Agreement, Chris has a Bachelor of Commerce Degree with a major in Human Resources Management and Industrial Relations from Saint Mary's University in Halifax, Nova Scotia. He earned an Executive Leadership Development Program Certificate offered jointly through Queen's and Cornell Universities.

Chris is a full-time hockey dad and volunteer coach. He resides in Happy Valley-Goose Bay, Labrador, with his wife Robin and son Eric.

## NOAH ZANBILOWICZ

**Managing Director | ASL Innovations Corporation**

Noah Zambilowicz is a dedicated leader with a passion for forging strong relationships and making a meaningful impact on the lives of others. As an experienced executive and leader, Noah has sharpened his skills through years of hard work and unwavering dedication. Embracing a path of lifelong learning, Noah is currently an ICD.D candidate. From his beginnings as a commercial fisherman in Northern BC to his training as

a naval architect and ultimately earning his MBA, he has amassed extensive knowledge and expertise in the business world. He is committed to securing robust access for northern and remote communities which reflects his desire to improve lives and foster a connected world. In addition to his professional accomplishments, Noah is a devoted husband, father of two, and serves on the boards of Candlelighters Newfoundland and Labrador, Drive Electric NL, and the Canadian Electric Vehicle Society.

## JOHN

**Deputy Director-General and Senior Advisor, Economic Security | CSIS**

John serves as Deputy Director-General and Senior Advisor, Economic Security.

He joined CSIS almost two decades ago, having invested a similar period in international consultancy, to government and business, in China and Russia. He is responsible for providing intelligence assessments and advice to senior government decision-makers on threats to national security and economic prosperity.



## ASL INNOVATIONS CORPORATION

[ASL Innovations Corporation](#) has a mission to relentlessly pursue excellence in everything they do. Guided by core values, they are committed to continuously evaluating, innovating, and improving their products and services. With two core research projects: Composite Airport System and Subsea Matting, ASL Innovations is dedicated to revolutionizing industries through these innovative solutions. With a team of dynamic professionals at the helm, ASL is committed to pushing boundaries and creating environmentally friendly products that enhance accessibility and sustainability in areas from the Arctic to the Ocean floor. They embrace a growth mindset, foster a culture that empowers their employees, partners, and customers to reach their full potential. Together ASL Innovations strive to create a lasting positive impact on the world and exceed expectations in every endeavor.

## C-CORE

[C-CORE](#) is a leading Canadian innovator in developing remote sensing solutions to address complex defence challenges in our oceans, on land and in space. Established in 1975, C-CORE's experience in remote sensing spans the spectrum of launching into space, ground segment development for satellite transponders and ground receiving stations, and innovative data analytics employing advances in AI for increased accuracy and lower false positive rates. C-CORE develops remote sensing analytics for Northern situational awareness, environmental monitoring, maritime surveillance, while providing agile approaches and rapid development for a wide range of defence R&D projects.

## COMPUSULT

[Compusult](#), incorporated in 1985, is a diversified, multinational Information Technology, Electronics, and Robotics company with over 38 years of experience in computer software, hardware and consulting services to government, military, business, technical and scientific sectors internationally. Our innovative products and services include:

- Geospatial and Other Data Aggregation, Discovery and Management Systems
- Custom and Commercial Software and Electronics
- Sensors and Sensor Management Systems (Internet of Things applications)
- Mobile Applications/Services
- Asset Tracking and Inventory Control Solutions
- Robotics and Autonomous Uncrewed Systems
- Learning Management Systems

- Assistive Technology for Persons with Disabilities
- Research and Development

Our key contracts have involved implementation of systems providing geospatial data warehousing, exploitation, data discovery/dissemination, situational awareness, information sharing and collaboration across civilian federal, provincial/local, defence, intelligence and commercial sectors. These enterprise-level and other key projects have been completed for clients such as NATO, the U.S. National Geospatial-Intelligence Agency (NGA), U.S. Department of Defense, Canadian Department of National Defence, Natural Resources Canada, Defence Research and Development Canada (DND), Open Geospatial Consortium (OGC), U.S. Environmental Protection Agency (EPA), and the U.S. Geological Survey.

## GLAMOX CANADA

[Glamox Canada](#) are a predominant Canadian marine lighting manufacturer and supplier based in Newfoundland, offering a range of high-quality Glamox lighting solutions, with brands including Aquasignal, Glamox, LINKSrechts, Luminell, Norselight and others.

Glamox are extremely proud to have been selected for all Federal build programs over the last 30+ years, including CPF, MCDV, ORCA, MSPV, AOPS, OFSV, OOSV, JSS, NLT classes of ships, with significant ongoing support, obsolescence management and upgrading on all existing fleets throughout their time in service. This includes over 16,000 LED upgrade solutions for original Halifax Class fluorescent lights, currently being installed.

Glamox can fulfil all marine lighting requirements, including all commercial marine and full MIL spec & NVIS compatible lighting, covering all exterior and interior lighting. This includes navigation lights, searchlights, floodlights, HVLAS and Ex lighting for outside, as well as downlights, recessed lighting, mirror, berth lights for accommodation areas, red/white options, and all technical lighting for machinery spaces, holds etc.

## INNOVATIONS FOR DEFENCE EXCELLENCE AND SECURITY (IDEaS)

[Innovation for Defence Excellence and Security \(IDEaS\)](#) is the Department of National Defence (DND) and the Canadian Armed Forces (CAF) access to innovation program. It transforms defence and security challenges being faced by the various partners in DND/CAF into innovative solutions to improve Canada's defence capabilities.

IDEaS continuously taps into the extraordinary talent and ingenuity resident in Canada with various calls for proposals every year. With its five funding elements, IDEaS supports the development of solutions by helping push technology forward from early R&D to a demonstrable level that can increase defence capabilities.

IDEaS is for all Canadian innovators, from defence primes to academia, Small and Medium sized enterprises to not-for-profits, municipal/provincial/territorial entities to individuals. Details of the program and well as announcements of opportunities are available on the website: [www.canada.ca/Defence-IDEaS](http://www.canada.ca/Defence-IDEaS)

## MAEROSPACE

[Maerospace](#) is the manufacturer and supplier of the PASE® High Frequency Surface Wave Radar, the only operationally deployed radar with 200-mile range, proven on 3 continents. The world leading PASE radar delivers Persistent Active Surveillance of the EEZ to combat illegal fishing, piracy, smuggling, and border threats. Maerospace combines radar systems with satellite data and analytics to help government and maritime companies make better decisions from more accurate detection of ship behaviour. Our data products produce time-synchronized positions, behaviour and anomaly detection for all ships worldwide. Combining radar, analytics and satellite data produces world's best maritime domain awareness solution.

## POLYAMMYNA NANOTECH INC.

[Polyammyna Nanotech Inc. \(PNI\)](#) is a 100% Atlantic Canada owned biotechnology Small Medium Business (SMB) with advanced materials technology focused on the Aerospace and Defence market. Our applications are in advanced manufacturing and emerging materials, marine and avionics and mission systems, space, communications and control subsectors. Our innovative and unique microbicidal coating and additive technologies counter large problem statements related to microbial influenced corrosion (MIC) & marine biofouling. PNI's innovative microbicidal technology has direct applications and benefits to the defense sector with novel solutions countering problem statements that affect mission readiness and safety.

## TECHNALOGIX

[Technalogix](#) has been in business for 27 years and is an industry-leading technology company. We have made significant strides in the development and manufacturing of high-performance RF amplifiers for industrial, scientific, medical, military, and broadcast applications. Renowned for our innovation, reliability, and exceptional performance, Technalogix's RF amplifiers have set new standards in the industry, cementing the company's position as a trusted provider of cutting-edge RF amplification solutions. At Technalogix, our primary focus is to give you the highest quality at the lowest price on North American Manufactured RF amplifiers.

## TRONOSJET MAINTENANCE

[Tronosjet Maintenance and Manufacturing](#) (TJM-MD) provides innovative products and solutions using the latest manufacturing technology combined with decades of experience in the aerospace industry. Tronosjet Maintenance (TJM) was founded in 2001 in Summerside, PE as an aircraft leasing, major modification centre and aircraft maintenance service provider. In 2016 the manufacturing division was established in Charlottetown, PE., operating as both a traditional and metallic additive manufacturing (AM), with in-house design, engineering, and testing capacity. TJM-MD holds AS9100 certification, Canadian Controlled Goods, a Transport Canada Approval for the Manufacture and Certification of Aeronautical Products and a Transport Canada/FAA/EASA Aircraft Maintenance Approval (AMO).

## TXTSQUAD

[TxtSquad](#) is a cloud based text messaging platform. With TxtSquad, you take control and streamline your operations with instant text messages and data driven automations. With easy to use web and mobile applications, TxtSquad is ready to help ACADA members better engage their workforce and streamline operations.

## VIRTUAL MARINE

**Be ready for any weather.**

We help coxswains train and practice in real weather conditions and for real emergencies, safely. We are [Virtual Marine](#).

We deliver high fidelity simulation and training solutions improving the safety of personnel and assets; changing the face of maritime safety.

Located in Newfoundland and Labrador Canada, Virtual Marine specializes in the development of state-of-the-art maritime safety training simulators. Virtual Marine's safety training simulators offer skill enhancing, hands on, realistic, risk free training. The ability to frequently practice in realistic scenarios using simulation technology is proven to increase the confidence and competence of seafarers. We incorporate science into advanced training systems to produce unique and memorable learning experiences. Being the first company to bring lifeboat simulation to the offshore oil and gas industry comes with a responsibility that we wear with pride.

We have helped regulatory bodies and flag states globally to implement and embrace the shift toward simulation that major Oil and Gas companies are requesting.