



# TRUE NORTH

Ted Stevens Center for Arctic Security Studies Monthly Bulletin

MAY 2025



## Fellows complete Arctic program as TSC reinforces focus on restoring deterrence in the North

The Ted Stevens Center for Arctic Security Studies recognized two uniformed service members on May 15 for completing the center's Arctic Fellowship Program—an initiative designed to grow Arctic-literate leaders, strengthen national and homeland defense awareness, and advance the Department of Defense's strategic priority of restoring deterrence in the North.

U.S. Air Force Maj. Anthony Caliva and U.S. Coast Guard Lt. Cmdr. Daniel Jones completed the intensive program and now return to operational roles equipped with critical Arctic expertise and a mission-ready perspective on strategic competition, regional access, and domain-specific readiness. Their completion marks a continued investment in cultivating leadership capable of navigating the security challenges of the Arctic.

**Continued on Page 3**



## MRS 2025 strengthens maritime risk dialogue and deterrence posture in the Arctic

As the Arctic grows increasingly contested, the 2025 Maritime Risk Symposium delivered a powerful reminder that the United States must remain forward-leaning in defending its maritime sovereignty interests in the region.

Hosted by the Ted Stevens Center for Arctic Security Studies on May 13, the symposium gathered military leaders, researchers, industry experts, government agencies, and partners to explore what it takes to protect and defend U.S. Arctic maritime sovereignty. This year's theme—"Protecting and Defending U.S. Arctic Maritime Sovereignty Interests through Deterrence"—reflected a sharpened focus on strategic competition and the Department of Defense's renewed emphasis on homeland defense.

"The Arctic is no longer a remote frontier," one speaker noted. "It's a strategic theater where presence, partnerships, and preparation determine outcomes."

Participants examined a wide spectrum of risks—spanning cyber vulnerabilities, gray zone activity, infrastructure gaps, illegal fishing, and fragile regulatory frameworks. The conversations made clear that maintaining U.S. maritime dominance in the Arctic requires more than investment in platforms—it requires foresight, agility, and collaboration.

The symposium also served as an early response to Section 18 of the Executive Order on Restoring America's Maritime Dominance, issued in April 2025.

**Continued on Page 2**





### Continued from Page 1 MRS story

The order directs federal departments to develop strategies that secure Arctic waterways and enable American prosperity amid evolving security challenges—exactly the issues tackled during MRS 2025.

Across the panels, speakers emphasized that deterrence in the Arctic must be persistent and multidimensional. Maritime domain awareness, allied interoperability, and rapid response capabilities were identified as core components in securing sea lanes, defending exclusive economic zones, and countering adversarial activity.

“Our adversaries have already demonstrated interest and presence,” one expert said. “We must match that with credible capabilities and coordinated action.”

Several discussions addressed the pressures emerging from increased economic interest in Arctic shipping and natural resources. As sea ice recedes and new maritime routes emerge, competition over access, control, and regulation is escalating.

Speakers stressed that without adequate infrastructure and international cooperation, even non-military developments could present cascading risks to regional stability.

In a panel focused on hybrid threats, panelists described how gray zone tactics—disinformation, lawfare, and infrastructure sabotage—are already targeting the Arctic Maritime Transportation System (MTS). These indirect forms of aggression challenge traditional rules of engagement and demand new legal frameworks, intelligence-sharing mechanisms, and cyber defense strategies.

Illegal, unreported, and unregulated (IUU) fishing also emerged as a flashpoint for future Arctic security tensions. Warming waters are expected to drive new fishing activity into high-value areas, with consequences for sovereignty, environmental protection, and Indigenous food security.

“Fisheries enforcement isn’t just a conservation issue—it’s a sovereignty issue,” a panelist emphasized. “If we fail to act, the vacuum will be filled.”

In closing remarks, Randy “Church” Kee, Director of the TSC, pointed to the operational and strategic clarity that MRS 2025 brought to Arctic maritime defense. As the Arctic continues to change—geophysically and geopolitically—our understanding of risk must evolve in step,” he said. “This symposium helps align the conversations we’re having today with the decisions we need to make tomorrow.”

He noted that deterrence in the region is not solely about force posture, but about reducing uncertainty for those who operate in contested and unforgiving environments. That means addressing cyber vulnerabilities, increasing situational awareness, and strengthening partnerships across the Arctic security community.

“If you get risk wrong, someone’s going to get hurt,” he said. “We need to imagine how to be more effective—understanding, categorizing, analyzing, and reducing risk—so those who are in harm’s way can return home safely and operate another day.”

MRS 2025 closed with a forward look to next year’s event, which is tentatively scheduled to be hosted by the University of Houston. While the 2025 symposium adapted to a hybrid format under Chatham House rules, it left no doubt about the urgency and complexity of maritime risk in the Arctic—and the role of the TSC in leading that dialogue.



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ABOUT  
MRS**



### Continued from Page 1 Fellows story

“The military doesn’t have a lot of Arctic experts,” said Caliva. “Taking this knowledge back to our services and to the joint force is going to be indispensable for growing our awareness and capabilities in the region.”

### Training for a theater that can’t be ignored

The Arctic remains one of the most operationally complex regions in the world—defined by its vast distances, limited infrastructure, evolving access routes, and increasing attention from near-peer competitors. Both Fellows began the program aware of the region’s importance but finished with a grounded, firsthand understanding of its strategic realities.

“Until you actually spend time in the region, it’s hard to appreciate the diversity and the different realities of Arctic life and operations,” said Jones. “It completely changed how I think about the Arctic as a domain.”

Their experience included academic coursework through the University of Alaska and participation in field engagements and international security

forums. Topics ranged from Arctic geopolitics and security frameworks to maritime law, air domain challenges, and operational environment change—all reinforcing the realities that shape U.S. planning and presence in the region.

Caliva will now serve as deputy chief of the 11th Air Force commander’s action group, where Arctic posture and deterrence strategy are front and center. Jones will report as operations officer aboard the USCGC Polar Star, the nation’s only heavy icebreaker, supporting polar mission execution. Both assignments will benefit immediately from the Arctic insight developed through the Fellowship.

“The program helped me think through how the Air Force can adapt its operations,” said Caliva. “The Arctic is such a uniquely challenging environment—you can’t just take concepts that work in the Pacific or the Middle East and expect them to succeed here.”

### Enhancing readiness through Arctic literacy

Both Fellows emphasized how the Fellowship strengthened their understanding of the operational demands unique to the Arctic—and how those lessons apply directly to their services’ evolving missions.

“We can’t do it alone,” said Jones. “We don’t have all the ships, aircraft, or people who truly understand this region. It has to be a team effort—with Alaska-based communities, international partners, and across the U.S. military.”

From strategic airpower to maritime domain awareness, they noted that Arctic operations can’t be approached with general-purpose assumptions. The region’s challenges—distance, weather, mobility constraints, contested access—require tailored capability, proactive presence, and trusted relationships.

The Fellowship supports these needs by building cross-domain and cross-service literacy. As the Fellows return to operational commands they are prepared not only to operate in the region, but also to educate others, raise Arctic awareness within the joint force, and help shape strategy that aligns with national defense priorities.

“A big takeaway for me,” Caliva said, “is understanding how much this region matters across the full spectrum of military operations. It’s not just about physical challenges—it’s about geopolitical complexity and strategic timing.”

### Restoring deterrence in the North

As the DoD places greater emphasis on the Arctic, the theme of Restoring Deterrence in the North has taken on new urgency. Russia’s military buildup along the Northern Sea Route and China’s expanding polar interests have made it clear that the Arctic is a growing domain of strategic importance.

“Deterrence in the Arctic means more than showing up with force,” said Jones. “It means being present,

**Continued on Page 4**



### Continued from Page 3 Fellows story

understanding the terrain, and having relationships that let you prevent escalation before it starts.”

Both Fellows reflected on how deterrence in this region is multi-layered. It involves visible presence, credible capability, and meaningful coordination with Allies and partners. It also means establishing the kind of domain awareness and logistical depth required to prevent miscalculation in a harsh and complex environment.

“We have to be able to operate well enough in the Arctic to repel any military aggression,” said Caliva. “That’s what conventional deterrence in this region looks like—capable forces, tailored strategies, and clarity of purpose.”

### Peace through strength in practice

Caliva and Jones both pointed to the concept of peace through strength as a guiding principle in the Arctic. That strength, they noted, is not measured only in platforms or posture—it’s demonstrated through readiness, resilience, and credibility.

“You don’t want to have to use force—you want your strength to prevent the need for it,” said Jones. “That’s why presence and capability matter. It’s about making sure others think twice.”

Caliva added that in such an austere region, the ability to act decisively is a deterrent in itself. “You need the tools, the partnerships, and the understanding to project strength that

prevents missteps,” he said. “Peace in the Arctic depends on that layered approach.”

### A program worth recommending

As they conclude their time as Arctic Fellows, both service members strongly recommended the program to others in uniform. They praised its academic rigor, strategic value, and real-world applicability to current and emerging mission sets.

“It’s a fantastic opportunity,” said Jones. “You get support from the center, from the university, and from a community of people committed to shaping the future of Arctic security.”

Caliva agreed. “This program is only getting stronger. I’m excited for the next group of Fellows because the foundation is in place—and the impact will continue to grow.”

Capt. Grant Thomas, U.S. Coast Guard Liaison to the TSC and Arctic Fellows coordinator, noted the program’s growing role in supporting national defense objectives.

“This program continues to evolve to meet the needs of participating services,” Thomas said. “It’s building leaders who are not only Arctic-literate, but ready to advise, plan, and act in alignment with the nation’s most urgent security priorities in the region.”

As the U.S. sharpens its Arctic posture, the TSC Arctic Fellowship Program remains a critical platform for shaping leaders who understand the Arctic not just as a location—but as a critical domain.



## ARCTIC CONNECTIONS



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EPISODE 9  
NOW

### Arctic perspectives from Global Strike Command

Episode 9 of Arctic Connections explores the role of the U.S. Arctic in our ability to deter competitors around the globe featuring Gen. Thomas A. Bussiere, commander, Air Force Global Strike Command and commander, Air Forces Strategic - Air, U.S. Strategic Command, with host, Matt Hickey. Hickey and Bussiere discuss Global Strike Command’s ongoing modernization efforts including NC3 architecture, bomber fleet, and ICBM evolution, as well as potential lessons learned for Arctic innovation. Finally, the show concludes with a discussion on the strategic access, placement, and location of Alaska as both Arctic and Pacific. Originally recorded Jan. 15, 2025, this episode exams these topics and more.





## ICE-PPR workshop advances Arctic navigation and ISR collaboration

Improving domain awareness in the Arctic requires more than new technology—it demands international collaboration. That was the central focus of a virtual navigation and intelligence, surveillance and reconnaissance (ISR) workshop hosted April 29 to May 1 by the Ted Stevens Center for Arctic Security Studies, the U.S. Navy Office of Naval Research, and the U.S. Army Cold Regions Research and Engineering Laboratory.

The three-day event brought together researchers, operators and defense professionals from across seven allied nations to identify capability gaps and research priorities related to Arctic navigation and ISR.

The workshop was conducted under the framework of the International Cooperative Engagement Program for Polar Research—known as ICE-PPR—a long-standing research initiative established through a 25-year Memorandum of Understanding.

The MOU links the U.S. Department of Defense with the defense ministries of Canada, Denmark, Finland, New Zealand, Norway and Sweden, enabling collaboration and cost-sharing on polar research efforts that advance shared security interests.

Navigation, ISR and related technologies are vital to Arctic situational awareness in both near- and long-term timeframes—providing the backbone for operational decision-making, force mobility, and regional deterrence.

“ICE-PPR in general and this workshop in particular offer a fantastic opportunity to engage with allies at the action officer level to find mutual research interests and share information that will support the Arctic practitioner,” said Randy “Church” Kee, Director of the TSC and chair of the ICE-PPR Situational Awareness Working Group.

That working group includes two sub-groups focused on communications and navigation/ISR—both essential for operating effectively in austere Arctic environments.

“Arctic situational awareness is hindered by lack of region-specific assets, harsh climate, remoteness, paucity of data, and geopolitical tension,” said Matthew Schell, workshop organizer and Deputy Associate Director for Research and Analysis at the TSC. “For example, an innovative replacement for GPS that works equally well above 70 degrees North Latitude would be a game-changer in the Arctic.”

The workshop’s agenda featured expert panels, structured discussions and a collaborative review of Polar Waze, an emerging ICE-PPR concept that proposes using dynamic sea ice and weather data to optimize Arctic maritime routes. Participants included military planners, policy advisers, scientists and technical experts from across time zones stretching from Alaska to Finland.

A final report summarizing research gaps and priority areas will guide follow-on projects and ICE-PPR engagement activities planned for later this year.

“This wasn’t just about exchanging ideas,” Schell said. “It was about aligning efforts to close critical gaps—and advancing the partnerships that will shape the future of Arctic security.”



### Reflections from Arctic Multidomain Legal Course 25-02

As competition increases across the Arctic, legal clarity is proving just as vital as operational might. That was the driving focus behind the Arctic Multidomain Legal Course, hosted virtually by the Ted Stevens Center for Arctic Security Studies from May 6 to 8.

More than 50 participants and lecturers from across North America joined the three-day course, which unpacked the legal principles, frameworks and instruments shaping security operations across the Arctic's multidomain environment. Led by the TSC School for Arctic Security Studies, the course attracted professionals from military, government and academic sectors.

"Allies and partners are working together to enhance deterrence, modernize strategies, and synchronize

efforts across the circumpolar Arctic and adjacent regions," said Matthew Bell, Dean of the School for Arctic Security Studies, in his welcome remarks.

This knowledge not only supports the Department of Defense in advancing operational readiness, but also helps operators deter aggression, dissuade adversaries and, if necessary, defend the Arctic region.

Participants explored legal issues tied to operational challenges in the Arctic. Topics ranged from freedom of navigation and coastal states' rights to security challenges involving Air Defense Identification Zones (ADIZs), emerging space law, and lawfare tactics employed by strategic competitors such as China and Russia.

The course emphasized real-world applicability, culminating in a capstone simulation that tasked participants with presenting legal arguments during a mock United Nations Security Council session. The scenario focused on a fictional crisis involving China, Russia, Indigenous Peoples and the United States in the Bering Sea.

Participants described the course as both timely and impactful. One attendee shared, "Seeing the application in the exercise was most interesting and helped me as a non-lawyer begin to operationalize the material presented today."

Designed to advance readiness and resilience, AMLC ensures that Arctic operators understand the legal boundaries and opportunities that shape mission success in the region. As Dr. Kathryn Friedman, the course director, explained, "The course is an important component of DoD's interim strategy. It contributes to broader deterrence efforts through shared understanding and strengthened networks among U.S. and partner-nation professionals operating in the Arctic."

The next Arctic Multidomain Legal Course is scheduled for Nov. 4–6, 2025.



## UPCOMING COURSE

### Arctic Regional Security Orientation Course (ARSOC)

- Virtual, Oct. 27-31, 2025

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FOR THIS  
COURSE







## TED STEVENS CENTER ALUMNI EVENT



**Dr. Emily Johnston**  
Emergency Medicine Physician  
Mountain Guide



**MAJ Titus Rund**  
Flight Surgeon, 207<sup>th</sup>  
Aviation Troop Command  
Alaska Army National Guard



**Matthew Hickey**  
Associate Director for  
Strategic Engagement  
Ted Stevens Center

## ADVANCEMENTS IN SUB-ZERO MEDICINE

Join us for a virtual discussion focused on sub-zero medicine—the specialized field dedicated to healthcare delivery, medical response, and human performance in Arctic and extreme cold environments. This event brings together medical professionals and experts in tactical, austere, and wilderness medicine and rescue to discuss the latest advancements and persistent challenges in cold-weather medicine.

**June 3, 2025  
11:00 AKDT**



**LAST CHANCE  
FOR ALUMNI  
TO REGISTER**

## Check out this new Operational Analysis!

### *The U.S.-Canada Trade Relationship: The National and Economic Impacts of Canadian Tariffs*

This paper provides an examination of the historical evolution of Canadian tariffs, their multifaceted economic impacts on U.S. sectors like agriculture, manufacturing, and lumber, and the inherent unfairness they introduce into agreements such as the United States-Mexico-Canada Agreement (USMCA). Furthermore, it advances a detailed case for reciprocal tariffs as a strategic tool to not only counteract these imbalances and restore economic fairness but also enhance North American security and Arctic defense interests.



North American Arctic Security Workshop  
May 2024  
Workshop Report

### Explore the insights from the NAASW 2024 Final Report

The North American Arctic Security Workshops (NAASW) 2024 Report is now available. Held in Iqaluit, Nunavut, in May 2024, the workshop brought together stakeholders from across Canada, Greenland, the Kingdom of Denmark, and the United States to examine evolving defense and security challenges in the North American Arctic. The final report presents key insights from this significant multilateral engagement, offering valuable perspectives for the Arctic security community.



**SCAN TO  
READ THE  
NAASW  
2024  
FINAL  
REPORT**



# Journal of Arctic Security, Special STEM Edition 2025 Call for Papers

The Ted Stevens Center for Arctic Security Studies announces an article submission deadline of **October 1, 2025** for contributions to JAS Vol. 5, a special STEM edition for release in spring 2026.

Increasing focus on meeting the strategic, operational, and tactical challenges of the Arctic operating environment has led to new and promising research. Foundational scientific research improves understanding of the remote and rapidly changing region while development and testing of emerging technologies promises to provide near term solutions. Researchers are invited to submit papers on Science, Technology, Engineering, and Math (STEM) solutions to Arctic challenges:

1. **The Arctic Operating Environment:** We welcome submissions that explore the Arctic operating environment in all the warfighting domains. This includes, but is not limited to, studies on sea ice dynamics, meteorology, bathymetry, or permafrost thaw with implications for national security, defense, and military operations. Papers may also cover advancements in remote sensing and modeling that highlight their relevance to security strategies and policies.
2. **Arctic Engineering:** Submissions should focus on innovative engineering solutions tailored to the Arctic's extreme conditions with implications for national security. Topics of interest include the development of cold-resistant materials, ice-resistant structures, and the adaptation of infrastructure to the changing Arctic environment, which are critical for ensuring the safety and operational capabilities of national assets in the region.
3. **Renewable Energy and Sustainability:** This section seeks papers on the adaptation and implementation of renewable energy technologies in the Arctic, underscoring their strategic importance for energy security. Research on improving the efficiency, sustainability, and reliability of renewable sources such as wind, solar, and tidal energy in cold climates is particularly encouraged, with a focus on their role in reducing dependencies and enhancing the resilience of both military and civilian operations.
4. **Marine Biology and Ecosystems:** We invite research that addresses the shifting marine ecosystems within the Arctic Circle and their implications for national security. Studies may focus on changes in biodiversity, the effects of environmental stressors on marine organisms, and conservation strategies to protect Arctic marine life, considering their significance for sustaining fish stocks and maintaining ecological balance in strategic waters.
5. **Telecommunications and Technology Development:** We invite contributions that focus on enhancing communication technologies in the Arctic, emphasizing their strategic importance for national security. Papers may include the development of robust infrastructure, innovations in data transmission methods, and solutions for improving digital connectivity in remote and extreme environments, essential for secure and reliable communications for defense and emergency response.
6. **Below Zero Medicine- Medical Research and Health Care in the Arctic:** This section calls for papers on medical research, health care practices, and emergency response strategies specifically tailored to the harsh Arctic environment. Submissions should explore the unique medical challenges faced by inhabitants and transient populations in this region, such as issues related to hypothermia, frostbite, and vitamin D deficiencies. Papers could also discuss the development and adaptation of medical technologies and telemedicine solutions designed for remote and isolated communities, emphasizing their implications for national security by ensuring the health and readiness of military personnel and civilian populations in strategic Arctic areas.

Submissions of 4,000 – 6,500 words in APA Style with author's curriculum vitae will be accepted by the editorial staff at [TSC-JACSS@groups.af.mil](mailto:TSC-JACSS@groups.af.mil).

JAS is a peer-reviewed academic publication. Articles are unclassified, and readers can access articles from all over the world. Submissions will be accepted in English language, clearly written for an informed audience of defense and security affairs professionals and academics.

Scan the QR code to see the latest  
Journal and the JAS Writer's Guide





## Director's Monthly Note



Dear and Distinguished Colleagues,

As we close out the month of May, I want to take a moment to reflect on the incredible momentum we've seen here at the Ted Stevens Center. The Arctic continues to grow in strategic importance, and our efforts to foster understanding, collaboration, and capability in the region are more critical than ever.

This month, we had the distinct honor of hosting the 2025 Maritime Risk Symposium

in Anchorage, Alaska. Bringing together experts from across the defense, research, and maritime sectors, this hybrid event served as a powerful platform for addressing emerging threats and enhancing deterrence in the Arctic maritime domain.

We also proudly celebrated the graduation of our 2025 Arctic Military Fellows cohort. These exceptional officers spent the past year deepening their understanding of Arctic security issues while building enduring partnerships. Their commitment to learning and leadership underscores the importance of investing in the next generation of Arctic security and defense professionals.

Another key highlight was the International Cooperative Engagement Program for Polar Research workshop focused on Arctic navigation and intelligence, surveillance, and

reconnaissance (ISR). This three-day multinational effort aimed to identify critical capability gaps and shape a forward-looking research agenda.

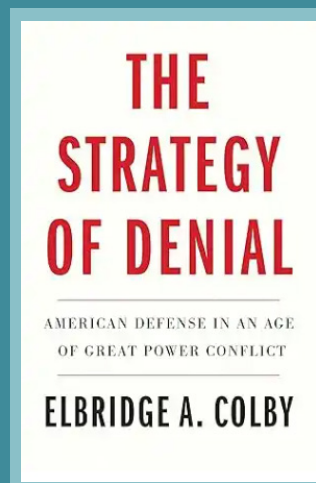
Thank you for your continued partnership and support. We remain committed to fostering the collaboration and innovation needed to meet the challenges of the Arctic—together.

Very Respectfully,  
Maj. Gen. (ret.) Randy "Church" Kee  
Director, Ted Stevens Center for Arctic Security Studies

## DIRECTOR'S MONTHLY READING RECOMMENDATION

*The Strategy of Denial: American Defense in an Age of Great Power Conflict*  
by Elbridge Colby

Elbridge A. Colby was the lead architect of the 2018 National Defense Strategy, the most significant revision of U.S. defense strategy in a generation. Here he lays out how America's defense must change to address China's growing power and ambition. Based firmly on the realist tradition but deeply engaged in current policy, this book offers a clear framework for what America's goals in confronting China must be, how its military strategy must change, and how it must prioritize these goals over its lesser interests. This book outlines a rigorous but practical approach, showing how the United States can prepare to win a war with China that we cannot afford to lose—precisely in order to deter that war from happening.



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