A note to the reader:
We believe it is important to share first-person narratives, perspectives, and insights. This document should be viewed as a roadmap to the rich discussions that occurred during the conference, which are available in full via hyperlinks.

TABLE OF CONTENTS

Foreword »

Opening Remarks »

Keynotes »

Program »

Panel 1: »
Strategies for a New Arctic

Keynote Presentation: »
The U.S. in the Arctic: Challenges and Perspectives

Lunch Discussion: »
U.S. National Security and the Arctic

Panel 2: »
Policy, Research, and Development
Perspectives on America’s Arctic

Panel 3: »
Charting a Path Forward for America’s Security in the Arctic
Foreword

The Arctic and U.S. National Security, a symposium hosted by the Wilson Center’s Polar Institute, provided a timely opportunity to explore and promote Arctic security discussions at a critical moment for the region. The symposium included policy leaders currently drafting branch-specific Arctic strategies, solicited comments from senior officials from the Departments of Defense, Homeland Security, and Commerce, and elicited guidance and perspective from individuals representing the State of Alaska, industry, and research community. The resulting dialogue provided productive operational and policy insight at the start of the 116th United States Congress.

The broad findings include the need for the U.S. government to prioritize Arctic security and related issues as the region becomes increasingly globalized. Investment in critical infrastructure and a more pronounced, sustainable U.S. military presence are needed. The rapidly changing climate requires continued, purposeful, and coordinated scientific research to include enhanced observation networks. Communicating the needs and capabilities of U.S. Arctic stakeholders is critical, and will help inform and influence relevant policy-making processes and results.

Representatives of the U.S. Coast Guard, Air Force, and Navy described their respective Arctic strategies, the need for additional icebreakers (Polar Security Cutters) and called for the U.S. to ratify the United Nations Convention on the Law of the Sea (UNCLOS). Russia is a significant actor in the Arctic, and China is strategically expanding its presence in the region. The opening of the Arctic is a global issue that requires global cooperation and continued U.S. engagement and leadership.

These proceedings succinctly summarize the speakers’ comments throughout the daylong event, highlighting key themes and findings. Each speaker’s presentation is hyperlinked, providing access to full remarks and any accompanying visuals. We believe it is important to make available these narratives, perspectives, and insights.

The Arctic and U.S. National Security symposium was generously supported by Lockheed Martin Corporation; Akima; ASRC Federal; Doyon, Limited; and GeoNorth Information Systems. The Polar Institute is supported by A2A Railway; GCI Communication Inc.; Olgoonik Corporation; and Ukpeaġvik Iñupiat Corporation.

Jack Durkee, Conference Director and Program Assistant, Polar Institute
Michael Sfraga, Director, Polar Institute
Opening Remarks

**Michael Sfraga**, Director, Polar Institute, and Director, Global Risk and Resilience Program, Wilson Center

Sfraga opened the symposium with an overview of the new, global, and interconnected Arctic, highlighting the rapid pace of change in the region—politically, economically, socially, and physically. Sfraga noted that the day’s program was an opportunity to review, assess, and discuss the increasingly important issue of U.S. national security in the Arctic, posing the following questions: How should the United States position itself to take advantage of, defend, and secure U.S. interests in the Arctic?; How should the U.S. address the emergence of great-power competition and interests from non-Arctic states?; And how could the U.S. consider security in a broader sense?

**Jane Harman**, Director, President, and CEO, Wilson Center

Harman welcomed guests and speakers to the event and shared her view that the Wilson Center has become “The Arctic Public Square” in Washington, DC and beyond. She noted the importance that she and the Center’s Trustees have placed on studying the Arctic; she also underscored the region’s growing national and international importance, with particular note of the need for national defense and security strategies in light of the reemergence of great-power geopolitics and the opening of a new ocean.
Pawlowski emphasized the need for significant infrastructure investment and an expanded and enhanced physical presence in the U.S. Arctic. The recent NATO Trident Juncture exercise, in which 20,000 U.S. military personnel participated, demonstrated that the U.S. government understands the need to maintain a presence in the Arctic. Both of these needs should be government priorities across multiple federal agencies, because other countries, including China and Russia, are growing their Arctic capabilities. China is developing a commercial port in Iceland, and developing mines near Thule Air Force Base in Greenland; Russia has new, significant military and economic investments in their Arctic. Despite Russia’s new initiatives, it still has major infrastructure challenges, evidenced by its largest naval dock sinking in Roslyakovo, Murmansk in October 2018. He concluded by noting that U.S. Arctic priorities should include: funding a polar security cutter (estimated at $750 million); opening a consulate in Greenland; and funding strategic infrastructure—citing the Army Corps of Engineers study in Nome, Alaska that explores a deep-water or deep-draft port.
The U.S. Coast Guard’s four-year strategic plan was released in December 2018, with an update due in early 2019. On April 23, 2019, the Coast Guard awarded the contract to VT Halter Marine, Inc. to begin construction of a Polar Security Cutter. Admiral Schultz stated the USCG should be on a 5% funding growth rate, especially with respect to operations. Such funding growth, along with additional federal support, would enable the USCG to adopt its “6-3-1” icebreaker strategy (adopt six operational polar security cutters, three of which are heavy polar security cutters, and one available now). Admiral Schultz highlighted the USCG’s challenges in search-and-rescue operations in the Arctic. The Crystal Serenity’s transit of the Northwest Passage in 2016, and the potential for similar transits in the future, highlight such challenges. Admiral Schultz discussed the growing Russian presence in the Arctic, noting that 20% of Russia’s GDP is derived from the region. The country has significant capacity in the region, with 46 total icebreakers, 7 of which are nuclear-powered, and 10 to 11 under construction. China has been an observer to the Arctic Council for five years and declared itself in January 2018 as a “near-Arctic power.” Admiral Schultz underscored the significance of China’s 30% stake in the Yamal LNG project. He also explored the importance of changing the U.S. stance on UNCLOS, stating, “ratification of UNCLOS enhances the US’ rights.”
Program Tracks

Panel 1: Strategies for a New Arctic

Shannon Jenkins, Senior Arctic Policy Advisor, U.S. Coast Guard
Iris Ferguson, HQE, Senior Advisor, HAF/A3, U.S. Air Force
Jeffrey Barker, Deputy Branch Head, Policy and Posture, OPNAV N5I5B, U.S. Navy
David Kennedy, Senior Arctic Advisor, NOAA
Moderator: Michael Sfraga, Director, Polar Institute, Wilson Center

Shannon Jenkins, Senior Arctic Policy Advisor, U.S. Coast Guard

The 2013 USCG strategy highlights domain awareness, modernizing governance, and cooperation, including and beyond national defense. Cooperation in the Arctic is interdependent with sovereignty, safety, and stewardship, and mirrors the U.S. National Security Strategy in the Arctic in that regard. Jenkins underscored significant increases in passenger bookings for Arctic cruises, with a trend line from 20,000 in 2018 to a predicted 40,000 in 2020. He also noted Canada’s recent release of its defense strategy plan, which features the Arctic, highlights cooperation, and also mirrors language from the U.S. National Security Strategy.

Iris Ferguson, HQE, Senior Advisor, HAF/A3, U.S. Air Force

Ferguson provided an expansive picture of U.S. Air Force capabilities in the Arctic, including the North Warning System, ballistic-missile-warning systems, forthcoming deployments of two squadrons of F35s in Fairbanks, capacities and importance of Thule Air Force Base, and Raven Camp in Greenland, and enhanced domain awareness achieved through AWACs and space-based assets. USAF priorities include planning, strategies, and positioning for great-power competition; modernizing the North Warning System; adapting to a changing environment; maintaining agile capabilities in austere environments; and maintaining a holistic approach through interoperability.
Jeffrey Barker, Deputy Branch Head, Policy and Posture, OPNAV N5I5B, U.S. Navy

Barker reviewed the mission and recent evolution of U.S. Navy planning with regard to an Arctic strategy, including consideration of the National Security Strategy in 2017, the National Military Strategy in 2018, the classified Navy strategy and design document in 2018, and an unclassified Navy strategy in 2019. He noted that most USN missions in the Arctic are conducted via submarines. He also reinforced the high degree of coordination that exists between the USN and the USCG via the Fleet Board Working Group, which meets every three to four months. An additional topic discussed was the USN Arctic Scholars Initiative that brings together students from allied nations, including Canada, Iceland, and Norway.

David Kennedy, Senior Arctic Advisor, NOAA

Kennedy discussed the interrelated issues of science and environmental intelligence as integral components of national security. NOAA carries out this mission by allocating $120 million per year to Arctic research, which advances understanding of the Arctic region and subsequently informs both the research and policy communities. The current NOAA Arctic Action Plan is under revision, with a draft to be released in the very near future. Kennedy also explored the strong partnerships and coordination with numerous federal agencies on Arctic strategy development and implementation.
Admiral Zukunft established foundational themes for the daylong program and discussed a wide array of current and emerging issues in the Arctic, including natural-resource development; the U.S. claims and access to the nation’s continental shelf; infrastructure needs; shipping; fish stocks and related management; oil spill prevention and response; and concern for ocean-vessel tracking and aids to navigation. Admiral Zukunft highlighted the work of the Arctic Executive Steering Committee (AESC), which aspired to provide a whole of government approach to the topics previously noted. The work of the AESC has been placed on hold by the new administration. In 2017, Russia sent an ice-capable LNG carrier to the Yamal Peninsula LNG plant, signaling the country’s progress in Arctic infrastructure development, use of foreign direct investment, and overall Arctic capabilities. The disparity between Russia and the U.S. in regard to icebreaker count relative to GDP is alarming: Russia operates more than 20 icebreakers for every American icebreaker, while American GDP is ten times higher than Russia’s. Furthermore, Russia is building icebreaker corvettes with cruise-missile capabilities, raising the issue of how militarization of the Arctic may affect the region. While leading the USCG, Admiral Zukunft observed the Xuelong, the Chinese icebreaker, conducting science research expeditions on the U.S. extended continental shelf in the Arctic. Paths forward for U.S. Arctic policy include investing in infrastructure, communications and data transmission, maintaining domain awareness, revitalizing the AESC, and developing a sustainable view of the Arctic.
The lunch discussion, moderated by David Sanger, *New York Times National Security Correspondent*, featured Admiral Paul F. Zukunft (ret.), *former Commandant, U.S. Coast Guard*; Sherri Goodman, *Senior Fellow, Polar Institute, Wilson Center, and former U.S. Deputy Under Secretary of Defense (Environmental Security)*; and Jim Townsend, *Global Fellow, Polar Institute, Wilson Center, and former Deputy Assistant Secretary of Defense for Europe and NATO*. Admiral Zukunft stated the U.S. is a “reactive nation,” as seen in the Exxon Valdez and Deepwater Horizon disasters. Goodman stated that the environmental security and national security domains are inextricably connected and reminded attendees of an Arctic military environmental cooperation initiative between the U.S., Russia, and Norway was created at the end of the Cold War. Townsend recalled that President George H.W. Bush’s shift away from a Cold War stance decreased U.S. expertise in Arctic operations. Russia’s rapid and expansive return in 2014 exposed this, and has left Norway, which maintained its operational readiness, as the nation most equipped to combat Russia’s advances in the Arctic. The NATO Trident Juncture exercise, while successful, showed the difficulties in Arctic operations; it highlighted the need for improvement in communications and land mobility forces in the Arctic.

During the Lunch Q&A Discussion, the panelists covered the following issues:

- A joint program between the USN and USCG to explore the efficacy of polar security cutters.
- NORAD is the centerpiece of U.S.-Canadian cooperation and air defense, but there are unresolved, minor matters to be agreed upon—for example, small overlapping claims of each country’s extended Arctic continental shelves.
- Continued and each country’s expanded cooperation between the U.S. and Canada regarding activities along and through the Northwest Passage would be a long-term, positive component of managing a shared Arctic.
- China is now active in the Arctic, and has a long-term approach to Polar issues, highlighting the need to update the Antarctic Treaty that expires in 25 years. China has substantial assets in the Antarctic and view both poles as strategic, long-term regions to influence.
- Future recommendations for the U.S. in the Arctic include: developing and implementing a coherent icebreaker strategy; port and infrastructure development; working with Congress to develop and coordinate a comprehensive Arctic policy; revitalizing the AESC; and building a long-term view of, and constituency for, the Arctic.
The development of an overarching Arctic strategy for the Department of Homeland Security started three years ago, with a focus on functional awareness, securing Arctic infrastructure and borders, building resilient communities, and facilitating and sustaining commerce. More broadly, awareness, networking, and reporting are crucial to Arctic security. DHS missions relevant to the Arctic include: Customs and Border Patrol, FEMA, TSA, ICE, and cyber and infrastructure missions. There is a need to address redundancy across agencies, especially in science and research and development. The view towards risks in the Arctic should shift from “per-capita risks” to national risks.
Program Tracks

Panel 2: Policy, Research, and Development Perspectives on America’s Arctic

Bryce Ward, Mayor, Fairbanks North Star Borough

Larry Hinzman, Vice Chancellor for Research, University of Alaska Fairbanks, and President, International Arctic Science Committee

Bob McCoy, Director, Geophysical Institute, University of Alaska Fairbanks

Marcel J. Lettre II, Vice President, National Security, Lockheed Martin Corporation, and former Under Secretary of Defense for Intelligence

Holly Dockery, Senior Manager, Global Engineered Security Solutions, Sandia National Laboratories

Bill Monet, CEO, Akina

Moderator: Brian Rogers, Chancellor Emeritus, University of Alaska Fairbanks

Bryce Ward, Mayor, Fairbanks North Star Borough

An interface is needed in Alaska between the military and civilian sectors to facilitate coordination of strategy, activities, and infrastructure development, considering that 20% of the Fairbanks population is, in some way, linked to the military. The Mayor leads monthly “tiger team” meetings, bringing together community and military leaders in Fairbanks to execute a more effective joint effort.

Larry Hinzman, Vice Chancellor for Research, University of Alaska Fairbanks, and President, International Arctic Science Committee

The environmental impacts in Alaska due to a changing climate include coastal erosion between 15 and 60 feet per year (with 23 villages needing relocation). Some predict that the entire state may experience temperatures above freezing by 2099. The state’s infrastructure is at particular risk; the Alyeska oil pipeline was not built to meet the current changes in permafrost. To mitigate inevitable structural challenges, additional observations and monitoring of the environment are needed. Such data can help to better understand the physical environment, while informing infrastructure development. Hinzman underscored the importance of the Agreement on Enhancing International Arctic Scientific Cooperation, signed in May 2017 among 26 governments to focus on collecting data and analyzing the capacity of the Arctic.
Bob McCoy, Director, Geophysical Institute, University of Alaska Fairbanks

In Alaska, there are 54 active volcanoes and 43,000 earthquakes per year. Meanwhile, 15,000 flights per year transit the Arctic. These data show the need for accurate forecasting, resilient infrastructure, robust research capabilities, and continuously updated modeling and forecasting (particularly permafrost models). Facilities such as the High Arctic Research Station provide extreme-condition test sites for submarines and unmanned aircraft. The Pacific Spaceport Complex–Alaska in Kodiak allow defense and satellite programs to better serve the scientific and civilian communities.

Marcel J. Lettre II, Vice President, National Security, Lockheed Martin Corporation, and former Under Secretary of Defense for Intelligence

Lettre underscored three main areas that the collective community of researchers, industry leaders, military leaders, and community leaders could further develop: strategy, capabilities, and partnerships. The National Defense Strategy is shifting from counter-terrorism to near-peer competition, with a focus on rapid technological changes. The focus for technological capabilities in the Arctic include cyber, space, autonomous, hypersonic, and integrated capabilities. Multi-stakeholder dialogue and early public-private partnerships are critical to Arctic issues.

Holly Dockery, Senior Manager, Global Engineered Security Solutions, Sandia National Laboratories

Sandia National Laboratories is working with the University of Alaska Fairbanks to create research capabilities in Oliktok Point and Utqiagvik in Alaska, and has research and development initiatives to include microgrids, synthetic aperture radar, and autonomous unmanned aerial systems. Alaska provides fertile ground for data acquisition and can effectively portray to decision-makers the application of such technologies and expertise beyond the state, ways to monetize such technologies, and their overall applications to national security needs.

Bill Monet, CEO, Akima

The Red Dog Mine, the largest zinc mine in the world, is operated by NANA Corporation. Operating the mine in its entirety has enabled NANA to acquire and grow expertise and practical knowledge of operating in harsh environments, which the company is willing to share with partners. Akima, with a federal-area presence in Virginia, is a wholly owned company of NANA. It can play a vital role in communicating operator data from Alaska to policymakers in Washington, DC. Private investment via industry is a compelling partnership option when public investments do not have access to comprehensive funding—and when values, missions, and interests converge.
Program Tracks

Panel 3: Charting a Path Forward for America’s Security in the Arctic

Jim Townsend, Global Fellow, Polar Institute, Wilson Center, and former Deputy Assistant Secretary of Defense for Europe and NATO

Sherri Goodman, Senior Fellow, Polar Institute, Wilson Center, and former U.S. Deputy Under Secretary of Defense (Environmental Security)

General Randy ‘Church’ Kee (ret.), Director, Arctic Domain Awareness Center

Moderator: Admiral Paul F. Zukunft (ret.), former Commandant, U.S. Coast Guard

There are five ‘not-just’ issues pertinent to the Arctic. One, challenges in the Arctic are not just U.S. challenges; Arctic issues extend to NATO, Canada, and the Nordic Council, among others. Two, it is not just an Alaska problem; the U.S. must understand the GI-UK Gap and European views of the Arctic. Three, it is not just a U.S. Indo-Pacific Command problem; Allied Maritime Command and U.S. European Command should be consulted in Arctic issues as well. The 2nd Fleet has an Arctic portfolio, while the Pacific Fleet does not. Four, it is not just about icebreakers; while they are important for a presence in the region, icebreakers are not the whole solution and developing infrastructure is vital. Five, it is not just about a new Cold War; new technology and tools, like AI and submarines, should help.

Sherri Goodman, Senior Fellow, Polar Institute, Wilson Center, and former U.S. Deputy Under Secretary of Defense (Environmental Security)

Because of the new era of great-power competition, we need maritime domain awareness in the United States. Long-term strategies must consider this competition as well as climate change as mutually inclusive. Military-to-military cooperation can help build trust in the region; working with allies like Canada and Greenland is essential, especially in considering the North-American Arctic as a concept. China, on the other hand, has successfully developed a long-term plan in the Arctic, while establishing collaboration with
multiple Arctic nations. The U.S. Arctic is geographically challenging, which reveals the need for innovation, resilient infrastructure, and predictive capabilities. Accurate charts of the maritime landscape are needed.

**General Randy ‘Church’ Kee** (ret.), Director, Arctic Domain Awareness Center

The Arctic framework should be constructed in a treaty-type framework similar to NATO, NORAD, and UNCLOS. By doing so, we can address important issues such as the demilitarization space or prohibit future actors from proliferating offensive weapons systems. Legislation can help protect Arctic communities from future disasters, policy can help realign the military structure and facilitate discussion, and resource planning in both physical and structural frameworks are lacking—and the shortage of programs addressing cultural intelligence heightens any future conflict amongst the different actors. This framework needs to be both long-term in view and non-hierarchal in structure if it is to succeed. Essential questions facing the region include: How soon will an oil resource be developed in Chukchi? Do we accede to China’s aspirations and exploration/development needs? When will an Arctic ecosystem or interdependent systems fail? Are we prepared for an “Arctic Crimea”?

**Concluding Remarks**

**Admiral Paul F. Zukunft (ret.), former Commandant, U.S. Coast Guard**

Admiral Zukunft summarized his overall message in a short, pointed statement. His message underscored that any U.S. Arctic strategy implemented must be informed by science and have realistic assumptions. These assumptions must be global in scope and mindful of available financial resources to effectively execute the strategy, factoring in the nation’s overall level of debt and the political will to support an advanced and forward-looking strategy.