

## Demonstrate leadership in the Arctic

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The Arctic region—which includes the Bering, Beaufort, and Chukchi seas and the Arctic Ocean—is vital to U.S. interests, the global economy, and national security. The Arctic is also an environmental bellwether for the rest of the world and is changing faster than anywhere else on Earth. Such rapid change has broad implications for America’s economy, environment, and security. Economic opportunities as well as social and environmental challenges must be anticipated and managed effectively to maximize gains and minimize losses. Changes already affecting human communities include reduced food security (due to the loss of whaling, sealing, and other native harvesting practices), more severe storm damage, and increased local environmental threats from new activities. In some cases these compound stressors and the threat of mounting impacts from climate change necessitate the planned relocation of entire communities. Nonetheless, job creation and improved coastal economic prosperity are on the horizon in the Arctic. To realize these gains, however, more attention and investment are needed to create a sustained economic development program, repair and upgrade critical infrastructure, and conduct more scientific research. These actions need to be carried out in close coordination and consultation with Alaska Natives. Given the strategic importance of the Arctic, the United States must make the region a priority.

### Invest in sustainable economic development to support Arctic communities

As melting sea ice opens up new passages in the Arctic Ocean and surrounding seas, the region is preparing for the expansion of shipping, naval activities, commercial fishing, tourism, possible oil and gas development, and other activities. Rapidly increasing activity raises numerous questions about how to best manage the region’s oceans and coasts to support local people and the environment, and to advance national interests. Given the possibility of oil and gas development, increased tourism, and other economic activities in the Arctic, improved infrastructure and better emergency preparedness procedures are essential. This includes having robust response and recovery strategies in place for potential oil spills and other disasters as well as equipment that is tailored to extreme Arctic conditions.

Fortunately, tremendous work has already been done by federal, state, local, and tribal entities to start preparing for changing conditions in the Arctic. **The Trump Administration and Congress should build on progress to date and take immediate action to support sustainable economic development in the Arctic.** Specifically, they should:

- Implement and build upon existing expert recommendations in the [National Strategy for the Arctic Region](#), the [Alaska Arctic Policy Commission](#) report, and the U.S. Coast Guard’s [Port Access Route Studies](#).
- Implement the [International Maritime Organization’s Polar Code](#).
- Designate maritime economic zones and marine protected areas.

Given the magnitude of changes in the Arctic, policymakers need to work proactively to create a sustainable future that provides economic opportunities for the region.

## Engage tribes and native communities and include indigenous knowledge in policy development

Alaska Native communities have lived for millennia in one of the most challenging environments on Earth, and yet are among the most vulnerable to the impacts of a changing climate. A combination of warming temperatures, retreating sea ice, and sea level rise are fundamentally altering the way of life for Arctic coastal residents. Diminished sea ice has disrupted whale, walrus, and seal harvesting, reducing food security and impairing longstanding cultural traditions. The changing environment also threatens to undermine critical infrastructure, such as wastewater treatment systems, telecommunications, roads, and the availability of potable water.

At the same time, many of these communities will have economic opportunities that did not exist before. For example, the retreat of sea ice also creates opportunities for commercial fishing and shipping in the Arctic. For Alaska Natives, it is essential to link discussions about economic growth to community survival, resilience, and success. Alaska Native voices and traditional knowledge must be featured prominently in policy decisions to protect subsistence economies and native traditions, using both formal and informal consultation mechanisms. **The Trump Administration and Congress should actively engage tribes and native communities in the Arctic in strategies to address a dramatically changing Arctic.**

## Invest in critically needed environmentally sound infrastructure in the Arctic

While the opening of the Arctic due to melting sea ice presents many opportunities for commerce, it also highlights the urgent need for critical infrastructure investments. Specifically, **the Trump Administration and Congress should invest in Arctic infrastructure** including: a permanent Coast Guard presence and enhanced search and rescue capacity, port improvements, modern water and sewer systems, telecommunications, access to new energy resources, oil and chemical spill prevention and response, and coastal erosion and storm surge protection. This infrastructure will help boost local economies, protect the environment, and protect human life and property. This is particularly important because rising temperatures and melting permafrost are fundamentally changing coastal and inland landscapes, affecting the availability of stable land for construction, transportation, and human habitation.

## Implement a coordinated scientific research program in the Arctic with diverse partners

Monitoring efforts and scientific research are needed to understand the changing Arctic, including migrating fish stocks and trends in weather and climate patterns that could have significant economic, environmental, and human health impacts. Building this knowledge base will require significant investments in research infrastructure and monitoring programs. **The Trump Administration and Congress should enhance our scientific understanding of Arctic marine ecosystems with an Arctic research program** that includes:

- Baseline assessments of environmental conditions and basic charting and mapping.

- Increased understanding and incorporation of socioeconomic information and traditional knowledge sources in decision making.
- Enhanced ecological monitoring, including ocean observing systems.
- Comprehensive predictive modeling to inform proactive policy responses appropriate to future conditions.
- Risk assessments and scenario planning for various activities.
- Establishing an international Arctic forecasting center to improve weather and ocean forecasting.
- Establishing a national center for Arctic oil spill research.

Given declining federal budgets, more needs to be done to avoid duplicating efforts, coordinate research activities, and pursue public/private partnerships and joint funding opportunities. For instance, the Trump Administration should work with a diverse range of potential partners, including the oil and gas industry and other commercial interests, nongovernmental organizations, state government, coastal and tribal communities, other nations, and other interested stakeholders to assess challenges, identify research priorities, and develop coordinated solutions. It should build on the [Interagency Arctic Research Plan: FY2017-2021](#), and on the US Arctic Research Commission's [Report on the Goals and Objective for Arctic Research 2017-2018](#), which provide a strong foundation to guide public and private investment in Arctic science. Greater support must also be provided to implement the Arctic observation network to improve management of human activities in this sensitive ecosystem before environmental and cultural damages occur.

**Increase funding for federal agencies operating in the region, including the U.S. Coast Guard, NOAA, the National Science Foundation, and the U.S. Department of Defense**

The U.S. Coast Guard is responsible for monitoring activities in the maritime environment and responding to emergencies, including search and rescue missions and oil spill disasters. The Coast Guard it is not adequately equipped to carry out these missions in the Arctic, and currently relies on partner agencies and industry to support any sustained operations in the region. Funds are needed to maintain the aging fleet of Coast Guard aircraft and vessels, as well as to acquire new ones. In addition, infrastructure must be developed along the northern Alaskan coastline to sustain even basic shore-based operations. **The Trump Administration and Congress should increase funding for federal agency activities in the region, particularly U.S. Coast Guard operations.**

The state of the U.S. icebreaker fleet is of particular concern and has garnered national attention. The United States has just two Arctic icebreakers in service: the Coast Guard Cutter *Healy*, which is often used as a platform for scientific research, and the Coast Guard Cutter *Polar Star*, which is the only heavy icebreaker in the fleet. Compared to other countries, the United States is sorely behind. Russia, for example, has an estimated 40 active ice breaking ships with several more under construction. The United States has not added a new icebreaker to its fleet since 1999. New icebreakers are needed for safety and security applications and to support Arctic communities with life-sustaining services, such as clearing paths for tankers transporting vital supplies. Since it takes

approximately ten years to build an icebreaker, **Congress should immediately invest in the construction of new icebreakers.**

**The Trump Administration should also strongly support the activities of other key federal agencies in the region.** NOAA, the U.S. Department of Defense, and the National Science Foundation need to be both supported and encouraged to collaborate with state and local governments, Alaska Native governments, and industry. Such collaboration will improve the ability of commercial entities to operate safely in the region and ensure effective response and recovery in the event of a natural or human-caused disaster. Specific needs include improved communication and coordination; oil spill planning, preparedness, and response; vessel tracking; search and rescue; and investment in new icebreakers, aircraft, and shore-based infrastructure.

### **Engage in multilateral efforts to address Arctic challenges and enhance international cooperation in the region**

In 2015, the United States assumed chairmanship of the [Arctic Council](#), a high level intergovernmental forum to enhance cooperation, coordination, and interaction among the Arctic nations in conjunction with indigenous peoples. The United States has worked diligently throughout its chairmanship to improve economic and living conditions and safety and security in the region. The Council also provides a forum to address environmental stewardship and the impacts of climate change. In 2017, the chairmanship will pass from the United States to Finland.

Through the passing of the chairmanship and beyond, **the Trump Administration should continue America's strong and focused commitment to addressing Arctic challenges.** Through the Arctic Council and other multilateral mechanisms, there is a timely opportunity to strengthen diplomatic efforts and relationships that exist across the Arctic. In particular, the Arctic has been one area where the United States and Russia have continued to cooperate despite tensions in other contexts, a dynamic that the Trump Administration should build upon.

In particular, the United States should work in partnership with other Arctic nations to:

- Coordinate and enhance scientific research.
- Improve planning, communication, and coordination of economic activity in the region.
- Implement search and rescue and oil spill response agreements.
- Strengthen diplomatic efforts and relationships between the United States, Canada, and Russia.
- Conduct detailed risk analysis and mitigation exercises.