



**Committee on Transportation and Infrastructure  
U.S. House of Representatives**

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July 18, 2014

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**SUMMARY OF SUBJECT MATTER**

TO: Members, Subcommittee on Coast Guard and Maritime Transportation  
FROM: Staff, Subcommittee on Coast Guard and Maritime Transportation  
RE: Hearing on "Implementing U.S. Policy in the Arctic"

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**PURPOSE**

On Wednesday, July 23, 2014, at 10:30 a.m. in 2253 Rayburn House Office Building, the Subcommittee on Coast Guard and Maritime Transportation will hold a hearing to review U.S. policy in the Arctic and how the agencies with the largest presence in the Arctic intend to implement such policy. The Subcommittee will hear from the Coast Guard, the Navy, the Department of State, the National Oceanic and Atmospheric Administration (NOAA), the National Science Foundation (NSF), and the State of Alaska.

**BACKGROUND**

**The Arctic: Geographic and Political Scope**

The Arctic is generally defined as those lands and waters north of the Arctic Circle (66° 33' 44" North latitude). The Arctic Research and Policy Act of 1984 (15 U.S.C. 4101 et. al) defines U.S. territory in the Arctic as all water north of the Aleutian Chain and all territory north of the Kuskokwim River in Alaska. In addition to the United States, seven other countries have territory in the Arctic: Canada, Russia, Norway, Denmark (by virtue of Greenland), Finland, Sweden, and Iceland. These countries are all members of the Arctic Council (see below).

Climate conditions in the Arctic have changed over the last few decades. The percentage of the Arctic Ocean covered in ice during the summer months continues to shrink. As a result, waters previously blocked by ice have become navigable at certain times in the summer. This opens opportunities for ships to transit between the Atlantic and Pacific Oceans through the Northwest Passage and the Northern Sea Route, reducing the time it takes to transport goods between East Asian and Western European ports by as much as 10 days. It may also ease the difficulties faced in extracting potential oil and gas resources, as well as expand fishing and tourism activities.



## Arctic Policy

### *National Security Presidential Directive on Arctic Region Policy*

In 2009, President Bush signed a *National Security Presidential Directive on Arctic Region Policy (NSPD 66)*. It declared that it is the policy of the United States to:

1. Meet national security and homeland security needs relevant to the Arctic region;
2. Protect the Arctic environment and conserve its biological resources;
3. Ensure that natural resource management and economic development in the region are environmentally sustainable;
4. Strengthen institutions for cooperation among the eight Arctic nations;
5. Involve the Arctic's indigenous communities in decisions that affect them; and
6. Enhance scientific monitoring and research into local, regional, and global environmental issues.

*NSPD 66* requires the heads of the departments and agencies with responsibilities relating to the Arctic region to work to identify future budget, administrative, personnel, or other authorities to implement the policy directive. *NSPD 66* has not been changed by the Obama administration.

## *National Strategy for the Arctic Region*

In May 2013, the President released the *National Strategy for the Arctic Region (National Strategy)* which establishes the federal government's strategic priorities for the Arctic region. The *National Strategy* is centered on three lines of effort:

1. Advance United States Security Interests – Ensure access to the airspace and waters of the Arctic for U.S. aircraft and vessels, support lawful commerce, improve awareness of activity in the region, and enhance Arctic infrastructure and capabilities, including ice-capable platforms as needed.
2. Pursue Responsible Arctic Region Stewardship – Protect the Arctic environment and conserve its resources, chart the Arctic region, and employ scientific research to increase understanding of the Arctic.
3. Strengthen International Cooperation – Working through bilateral relationships and multilateral bodies, including the Arctic Council, pursue arrangements that advance collective interests, promote shared Arctic state prosperity, protect the Arctic environment, and enhance regional security. Work toward U.S. accession to the United Nations Convention on the Law of the Sea.

In January 2014, the President released the *Implementation Plan for the National Strategy for the Arctic Region (Implementation Plan)*. The *Implementation Plan* lays out 37 objectives that will be undertaken by various federal agencies to execute the *National Strategy's* three lines of effort. Objectives include:

- Improve maritime infrastructure to support operations in the Arctic;
- Enhance Arctic domain awareness;
- Ensure safe and responsible development of energy resources;
- Conserve Arctic ecosystems;
- Chart the Arctic region;
- Promote scientific research and monitoring; and
- Resolve boundary disputes.

Lead and supporting federal agencies are identified for each objective, as well as the actions that will be taken to accomplish the objective and benchmarks to judge progress. The “Department of Homeland Security (DHS)/Coast Guard” is designated the lead federal agency for the most objectives.

The Coast Guard, Navy, and NOAA have each developed their own Arctic strategies and implementation plans which outline what actions each agency intends to take over the next five to ten years to enhance their presence, understanding, and mission effectiveness in the Arctic. In February 2013, NSF released its *FY 2013-2017 Arctic Research Plan* to guide its Arctic efforts. Each of these plans and strategies are consistent with the *National Strategy* and the *Implementation Plan*. For instance, the Coast Guard released its *Arctic Strategy* in May 2012 and

its *Arctic Strategy Implementation Report* in May 2014. The Service's *Arctic Strategy* outlines three strategic objectives:

1. Improving Awareness;
2. Modernizing Governance; and
3. Broadening Partnerships.

The Coast Guard's *Arctic Strategy Implementation Report* identifies 12 initiatives it intends to pursue over the next 10 years to carry out its *Arctic Strategy*, including improving maritime domain awareness and recapitalizing its polar icebreakers.

## **Issues**

### *1. Icebreakers*

#### Current Status

The Coast Guard is the only federal agency that owns and operates icebreakers (NSF charters a privately-owned ice capable research vessel NATHANIEL B. PALMER to conduct scientific research in the Antarctic). To conduct its current mission in the Arctic, the Coast Guard principally relies on its medium icebreaker HEALY.

The HEALY was commissioned on August 21, 2000. It is 420 feet long and displaces about 16,000 tons. It can break through ice up to 4½ feet thick at a speed of 3 knots, and embark a scientific research staff of 35 (with room for another 15 surge personnel and two visitors). The HEALY can operate in temperatures as low as -50 degrees F. However, as a medium icebreaker, the HEALY does not possess the power or maneuverability to conduct all polar icebreaking operations.

In addition to the HEALY, the Coast Guard currently has in its inventory two Polar Class heavy icebreakers: the POLAR STAR and POLAR SEA. Both cutters are 399 feet long and displace about 13,200 tons. They are the world's most powerful non-nuclear-powered icebreakers, with a capability to break through ice up to 6 feet thick at a speed of 3 knots. In addition to a crew of 134, each ship can embark a scientific research staff of 32 and operate in temperatures as low as -60 degrees F. Currently, the POLAR STAR is the only operational heavy icebreaker.

The POLAR STAR was commissioned in 1976, but was in non-operating commissioned status from 2006 through 2013. In fiscal years 2010 and 2011, Congress appropriated a total of \$60 million to conduct a service life extension of the POLAR STAR, which was completed on December 14, 2012, at Vigor Shipyards in Seattle, Washington. The icebreaker was certified mission ready in November 2013 and is expected to have a service life of 7 to 10 years. It recently completed the breakout and resupply of NSF's McMurdo Station in Antarctica.

The POLAR SEA was commissioned in 1977. In 2006, the Coast Guard began a rehabilitation project that was supposed to extend the icebreaker's expected service life to 2014. However, in May 2010, the POLAR SEA suffered an unexpected engine casualty and has been incapable of conducting operations since then. The Coast Guard placed the POLAR SEA in commissioned inactive status on October 14, 2011, and transferred certain major equipment from it to the POLAR STAR.

Section 222 of the *Coast Guard and Maritime Transportation Act of 2012* (P.L. 112-213) required the Secretary of Homeland Security to submit to the Committee an analysis of reactivating and extending the service life of the POLAR SEA through fiscal year 2022. If the Secretary determined based on the analysis that it was cost effective to reactivate the icebreaker, the Secretary is required to submit a service life extension plan to the Committee. If a determination is made that it is not cost effective to reactivate the icebreaker, then the Secretary is authorized to decommission the POLAR SEA. On November 7, 2013, the Secretary submitted the analysis to reactivate the POLAR SEA. It estimated the cost to reactivate at \$99.2 million and the cost to reactivate and operate for 10 years at \$574 to \$750 million. Although the Committee has received the reactivation analysis, the Secretary has yet to make a determination to reactivate or decommission the icebreaker.

Section 214(a) of H.R. 4005, the *Coast Guard and Maritime Transportation Act of 2014* authorizes the Commandant of the Coast Guard to decommission the POLAR SEA without a determination from the Secretary. It also requires the Service to submit a plan to the Committee to maintain Coast Guard polar icebreaking services through fiscal year 2050.

### Icebreaker Studies

*NSPD 66* and the *National Strategy* call for a strong U.S. presence in the Arctic, but neither discusses federal requirements for polar icebreakers. The last time the federal government produced a Presidential level declaration of policy regarding U.S. requirements for polar icebreaking was a report to Congress in 1990. It called for a fleet of three polar icebreakers (Presidential Report to Congress, October 1990). However, staff has been informed that the White House Office of Science and Technology Policy is currently reviewing polar icebreaker needs. It is unclear if that will result in a new Presidential level declaration of policy on polar icebreakers. In the interim, several studies have been conducted outlining the need for a robust U.S. fleet of polar icebreakers.

**Naval Operations Concept 2010:** On May 24, 2010, the Chief of Naval Operations for the Navy and the Commandants of the Coast Guard and Marine Corps released the *Naval Operations Concept 2010 (NOC-10)* which describes when, where, and how U.S. naval forces will contribute to enhancing security, preventing conflict, and prevailing in war. *NOC-10* notes increased activity in the Arctic and declares that the United States must maintain an active maritime presence in the region. Specifically, it states that icebreakers must be at least ready for deployment to the region at all times. Additionally, *NOC-10* notes that the Coast Guard is the sole repository of icebreaking capability and knowledge in the U.S. military and reiterates that icebreakers are essential to Navy and Marine Corps operations in the Arctic.

**High Latitude Study:** In September 2011, the Coast Guard provided its *High Latitude Region Mission Analysis Report* to Congress. The report cited a significant polar icebreaking capability gap that will continue to prevent the Coast Guard from conducting its critical missions in that region. The report concluded:

- The Coast Guard requires three heavy and three medium icebreakers to fulfill its statutory missions.
- The Coast Guard requires six heavy and four medium icebreakers to fulfill its statutory missions *and* maintain the continuous presence requirements of *NOC-10*.

### Icebreaker Recapitalization

The Coast Guard expects the POLAR STAR to remain in operation no longer than 2023. The Service estimates that designing and building a new polar icebreaker will take 8 to 10 years. The fiscal year 2013 budget request for the Coast Guard included \$8 million to begin survey and design for a new polar class icebreaker. To date, Congress has appropriated \$9.6 million. The fiscal year 2015 budget request includes an additional \$6 million to continue survey and design work. In a November 2011 report to Congress, the Coast Guard estimated it would cost approximately \$859 million to construct a new polar class icebreaker (*U.S. Polar Icebreaking Recapitalization*). The Service has informed staff that its current estimate is approximately \$1 billion.

The Coast Guard recently completed a draft operational requirements document for a new polar class icebreaker. The document includes input from 11 federal agencies with interests or missions in the Arctic. In testimony before the Subcommittee in April 2014, Admiral Robert Papp, the former Commandant of the Coast Guard, made the following three points concerning the acquisition of a new polar class icebreaker:

**1. Impact the acquisition of a \$1 billion icebreaker would have on the Coast Guard's current effort to recapitalize its aging fleet of vessels, aircraft, and communications systems:**

*"I can't afford to pay for an icebreaker in a \$1 billion dollar budget because it would just displace other things that I have a higher priority for. I just don't see how we can fit an icebreaker in. The Offshore Patrol Cutter is my highest priority for the Coast Guard. I need to fit that in the budget. And I fear that if we try to fit the cost of an icebreaker in there, it would displace the Offshore Patrol Cutter, or some other very important things."*

**2. Sharing the cost to acquire a new polar class icebreaker:**

*"If we are going to build a new icebreaker, if that is a priority, we just can't fit it within our acquisition account and I would look across the inter-agency... my number one*

*option is to get support across the interagency, those agencies that benefit from the support of an icebreaker, to contribute towards the construction of it.”*

### **3. Reactivating the POLAR SEA:**

*“We might be able to overhaul POLAR SEA and fit that into the budget as an affordable means for providing an additional icebreaker as we await a time that we can build a new icebreaker. Refurbishment of the POLAR SEA may be a viable option for that.”*

Section 214(b) of H.R. 4005 prohibits the Coast Guard from spending any of its funds to design or build capabilities into the new polar class icebreaker that come from requirements requested by other federal government agencies. However, the language does allow the Coast Guard to spend funds transferred from other agencies for such purposes.

### *2. The Arctic Council*

The Arctic Council is an intergovernmental forum established in 1996 to discuss issues impacting the area and its indigenous communities, as well as to coordinate activities among its eight member states. The Council also includes six organizations representing indigenous peoples and 12 observer states.

The Arctic Council is organized into working groups and task forces to discuss issues including emergency response, sustainable development, and environmental protection. Although the Council does not have formal policy making authority, its member states recently used the forum to reach two agreements to coordinate member state responses to search and rescue cases and incidents of oil spills in the Arctic.

The General Accountability Office (GAO) recently completed a report on U.S. participation in the Arctic Council (GAO 14-435). It found that there is no overall strategy to guide and prioritize federal agency participation in the Council and no system in place to track progress made by agencies in implementing recommendations adopted by the Council. GAO recommends the State Department develop a strategy and a system to track agency work on recommendations.

The chairmanship of the Arctic Council rotates every two years among the eight member states. The United States will assume chairmanship of the Arctic Council in April 2015. The agenda for the U.S. chairmanship is currently being drafted by the State Department. On July 16, 2014, Secretary Kerry appointed Admiral Papp as the Nation’s first Special Representative for the Arctic.

### *3. Polar Code*

The International Maritime Organization (IMO) is a United Nations organization composed of nations that register commercial vessels under their flag. It acts as a policy making forum which establishes safety, security, and environmental rules for vessels operating in

international waters. Rules adopted are usually in the form of self-executing amendments to existing international treaties such as the International Convention for the Safety of Life at Sea (SOLAS). The Coast Guard represents U.S interests at the IMO.

In May 2014, the IMO's Maritime Safety Committee approved a draft Polar Code and related amendments to make the Code mandatory under SOLAS. The Code establishes rules governing the design, construction, equipment, operational, and crew training standards for vessels operating in Arctic and Antarctic waters. It would also establish mechanisms for governments to check such vessels for compliance. IMO is expected to formally adopt the Code at its next session, which will be held in November 2014.

## **WITNESSES**

### **Panel I**

Vice Admiral Peter V. Neffenger  
Vice Commandant  
U.S. Coast Guard

Rear Admiral Jonathan White  
Oceanographer and Navigator of the Navy  
Director, Space and Maritime Domain Awareness  
U.S. Navy

Ambassador David Balton  
Deputy Assistant Secretary for Oceans and Fisheries  
Bureau of Oceans and International Environmental and Scientific Affairs  
Department of State

### **Panel II**

Captain Dave Westerholm, *USCG Ret.*  
Director, Office of Response and Restoration  
National Ocean Service  
National Oceanic Atmospheric Administration

Dr. Kelly Faulkner  
Division Director, Polar Programs  
Geosciences Directorate  
National Science Foundation

Ed Fogels  
Deputy Commissioner  
Department of Natural Resources  
State of Alaska