Committee on Transportation and Infrastructure
U.S. House of Representatives
Washington, DC 20515

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December 1, 2022

**SUMMARY OF SUBJECT MATTER**

**TO:** Members, Subcommittee on Coast Guard and Maritime Transportation
**FROM:** Staff, Subcommittee on Coast Guard and Maritime Transportation
**RE:** Subcommittee Hearing on " U.S. Coast Guard's Leadership on Arctic Safety, Security, and Environmental Responsibility"

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## PURPOSE

The Subcommittee on Coast Guard and Maritime Transportation will hold a hearing on Wednesday, December 7, 2022, at 10:00 a.m. EST in 2167 Rayburn House Office Building and via Zoom to examine the implementation of the U.S. Coast Guard's Arctic Strategy. The Subcommittee will hear testimony from the U.S. Coast Guard (USCG), the U.S. Arctic Research Commission (USARC), the Government Accountability Office (GAO), the Polar Institute of the Wilson Center, and Le Moyne College.

## BACKGROUND

The Arctic region has transformed on multiple fronts in the decade since the release of the USCG's 2013 Arctic Strategy.[1] Geophysically, the surface temperature of the Arctic is warming 2-3 times faster than the world as a whole,[2] altering snow cover, ice cover, and trends in extreme storm events.[3] Between 1971 and 2019, the by-month average extent of sea ice in the Arctic declined in all months of the year but especially September (43 percent decline from 1971 to 2019), with climate

[1] USCG, 2013. https://www.dco.uscg.mil/Portals/9/DCO%20Documents/5pw/Arctic%20Policy/USCG%20Arctic%20Strategy.pdf?ver=2017-10-05-123403-330, accessed November 8, 2022; USCG, 2019. https://www.uscg.mil/Portals/0/Images/arctic/Arctic_Strategy_Book_APR_2019.pdf, accessed November 8, 2022.
[2] Arctic Council, 2021. https://oaarchive.arctic-council.org/bitstream/handle/11374/2621/MMIS12_2021_REYKJAVIK_AMAP_Arctic-Climate-Change-Update-2021-Key-Trends-and-Impacts.-Summary-for-Policy-makers.pdf?sequence=1&isAllowed=y; IPCC, 2021. https://www.iarpccollaborations.org/plan/introduction-and-background.html, accessed November 8, 2022.
[3] IPCC, 2021. https://www.iarpccollaborations.org/plan/introduction-and-background.html, accessed November 8, 2022.

models predicting that the first ice-free September in the Arctic could occur as soon as 2040.[4] This extended summer has created novel opportunities for maritime transit, broadening the stage for commercial activities such as shipping, passenger cruises, energy development, and mineral extraction (Fig. 1).[5]

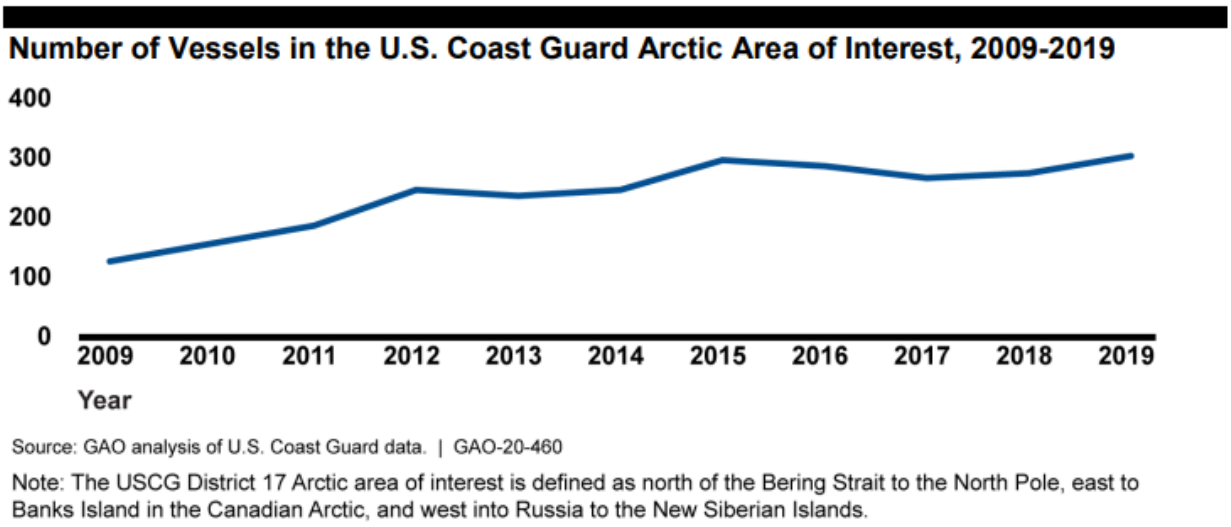


**Figure 1.** Increase in vessel traffic in USCG District 17 Arctic area of interest, 2009-2019.[6]

Geopolitically, the Arctic has been a region of increasing focus for the eight Arctic nations (U.S., Canada, Denmark (Greenland), Iceland, Sweden, Norway, Finland, Russia), and self-proclaimed "Near Arctic" states including the People's Republic of China (Fig. 2).[7] The USCG, the U.S. Department of Defense (DOD), and the U.S. White House each released updated strategic plans within the past three years.[8]

Russia's renewed aggression toward Ukraine has heightened geopolitical tensions, and previous efforts to work cooperatively in the Arctic are suspended until further notice, heightening risk and creating new uncertainty in USCG operations.[9]

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[4] Arctic Council, 2021. https://oaarchive.arctic-council.org/bitstream/handle/11374/2621/MMIS12_2021_REYKJAVIK_AMAP_Arctic-Climate-Change-Update-2021-Key-Trends-and-Impacts.-Summary-for-Policy-makers.pdf?sequence=1&isAllowed=y, accessed November 14, 2022.

[5] GAO, 2020. "MARITIME INFRASTRUCTURE A Strategic Approach and Interagency Leadership Could Improve Federal Efforts in the U.S. Arctic", available at https://www.gao.gov/products/gao-20-460, accessed November 27, 2022.

[6] *Id.*

[7] DOD, 2019. https://media.defense.gov/2019/Jun/06/2002141657/-1/-1/1/2019-DOD-ARCTIC-STRATEGY.PDF, accessed November 27, 2022.

[8] DOD, 2019. https://media.defense.gov/2019/Jun/06/2002141657/-1/-1/1/2019-DOD-ARCTIC-STRATEGY.PDF, accessed November 27, 2022; U.S. White House, 2022. https://www.whitehouse.gov/wp-content/uploads/2022/10/National-Strategy-for-the-Arctic-Region.pdf, accessed November 27, 2022; USCG, 2019. https://www.uscg.mil/Portals/0/Images/arctic/Arctic_Strategy_Book_APR_2019.pdf, accessed November 8, 2022.

[9] DOS, 2022. https://www.state.gov/joint-statement-on-arctic-council-cooperation-following-russias-invasion-of-ukraine/, accessed November 27, 2022.

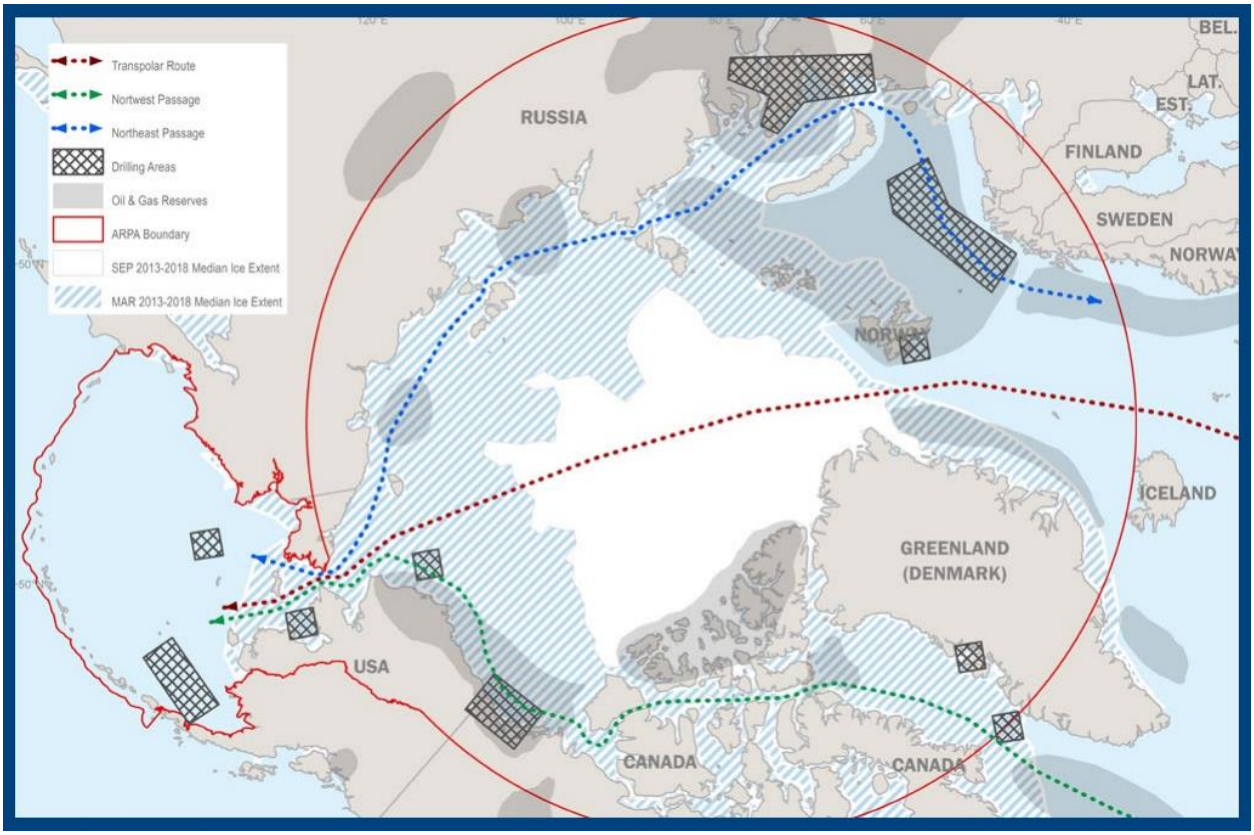


**Figure 2.** Map of the Arctic region as defined by the Arctic Research and Policy Act of 1984 (ARPA),[10] highlighting two transit routes (Northwest Passage, Northeast ("Northern") Passage) of high interest to the U.S.[11,12]

## I. USCG Strategy in the Arctic

The USCG's vision for operating in the Arctic region is, "Ensure safe, secure, and environmentally responsible maritime activity in the Arctic."[13] Safety, security, and environmental stewardship capture the spectrum of the USCG's primary duties under section 102 of title 14, U.S. Code.[14] In a place as vast and remote as the Arctic, the USCG accomplishes this diverse mission set via multi-agency partnerships and multi-purpose assets and infrastructure.[15] In this way, USCG activity in the Arctic can be viewed as an example of how the USCG optimizes use of its limited resources for its priority missions.

[10] ARPA, 2006. https://www.arctic.gov/uploads/assets/arpa_amended.pdf, accessed November 27, 2022.
[11] USCG, 2019. https://www.uscg.mil/Portals/0/Images/arctic/Arctic_Strategy_Book_APR_2019.pdf, accessed November 8, 2022.
[12] DOD, 2019. https://media.defense.gov/2019/Jun/06/2002141657/-1/-1/1/2019-DOD-ARCTIC-STRATEGY.PDF, accessed November 27, 2022.
[13] USCG, 2013. https://www.dco.uscg.mil/Portals/9/DCO%20Documents/5pw/Arctic%20Policy/USCG%20Arctic%20Strategy.pdf?ver=2017-10-05-123403-330, accessed November 8, 2022.
[14] Homeland Security Act of 2002, cited by USCG, 2022. https://www.history.uscg.mil/Home/Missions/, accessed November 28, 2022.
[15] USCG, 2013. https://www.dco.uscg.mil/Portals/9/DCO%20Documents/5pw/Arctic%20Policy/USCG%20Arctic%20Strategy.pdf?ver=2017-10-05-123403-330, accessed November 8, 2022.

As an illustration of scale, Dutch Harbor in the Aleutian Islands is currently the closest U.S. deep draft port to the Arctic; roughly 1,100 nautical miles from Point Barrow (the northernmost point in the U.S.).[16] Construction for the Deep Draft Port Project, which was authorized at $333 million in the *2020 Water Resources Development Act* included in the *Consolidated Appropriations Act of 2021*, is expected to begin in Spring 2023 and will provide a new deep draft port option in Nome, Alaska, still approximately 500 nautical miles from Barrow.[17] Likewise, the closest USCG Air Station to Barrow is in Kodiak, Alaska, located approximately 945 nautical miles to the south.[18]

USCG Arctic operations are primarily based out of the USCG District 17 Command Center in Juneau, Alaska, and Base Kodiak, which is the largest USCG command in the entire Pacific Area.[19] District 17 encompasses 3.9 million square miles and over 47,300 miles of shoreline throughout Alaska and the Arctic, from north of the Bering Strait to the North Pole, east to the Banks Island in the Canadian Arctic, and west to Russia to the New Siberian Islands.[20]

*A. Safety*

Safety encapsulates four of the "non-homeland security" missions of the USCG: Marine Safety; Search and Rescue; Aids to Navigation; and Ice Operations.[21] During an average month, USCG District 17 saves 22 lives and over $1.65 million in property (includes onshore); reports and investigates 25 marine casualties; services 93 buoys and fixed aids to navigation; performs 143 commercial fishing vessel safety exams; teaches 375 kids about life jacket wear; and performs 95 marine inspections.[22]

*B. Security*

Security encapsulates all five domestic security missions of the USCG: Ports, Waterways, and Coastal Security; Drug Interdiction; Migrant Interdiction; Defense Readiness; and Other Law Enforcement.[23] In the context of the Arctic region, Ports, Waterways, and Coastal Security and Defense Readiness are key functions of the USCG as it works in coordination with the DOD to stabilize the region geopolitically while safeguarding U.S. interests.[24] Particularly, the USCG's non-

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[16] USCG, 2013. https://www.dco.uscg.mil/Portals/9/DCO%20Documents/5pw/Arctic%20Policy/USCG%20Arctic%20Strategy.pdf?ver=2017-10-05-123403-330, accessed November 8, 2022.
[17] Alaska Public Media, 2022. https://alaskapublic.org/2022/11/18/nomes-arctic-deep-draft-port-project-approaches-milestone/, accessed November 28, 2022.
[18] USCG, 2013. https://www.dco.uscg.mil/Portals/9/DCO%20Documents/5pw/Arctic%20Policy/USCG%20Arctic%20Strategy.pdf?ver=2017-10-05-123403-330, accessed November 8, 2022.
[19] USCG, 2022. https://www.pacificarea.uscg.mil/Our-Organization/District-17/, accessed November 28, 2022.
[20] USCG, 2022. https://www.pacificarea.uscg.mil/Our-Organization/District-17/, accessed November 28, 2022; GAO, 2020. "MARITIME INFRASTRUCTURE A Strategic Approach and Interagency Leadership Could Improve Federal Efforts in the U.S. Arctic", available at https://www.gao.gov/products/gao-20-460, accessed November 27, 2022.
[21] Homeland Security Act of 2002, cited by USCG, 2022. https://www.history.uscg.mil/Home/Missions/, accessed November 28, 2022.
[22] USCG, 2022. https://www.pacificarea.uscg.mil/Our-Organization/District-17/, accessed November 28, 2022.
[23] Section 468, Title 6, U.S.C. https://uscode.house.gov/view.xhtml?req=(title:6%20section:468%20edition:prelim)%20OR%20(granuleid:USC-prelim-title6-section468)&f=treesort&edition=prelim&num=0&jumpTo=true, accessed November 28, 2022.
[24] DOD, 2019. https://media.defense.gov/2019/Jun/06/2002141657/-1/-1/1/2019-DOD-ARCTIC-STRATEGY.PDF, accessed November 27, 2022.

homeland security missions, e.g., Search and Rescue, give the USCG visible presence and allows it to interact in non-confrontational ways. As such, the USCG—an armed service—is uniquely qualified to initiate and enhance partnerships between the U.S. government and others, be it local Alaskan communities, private commercial enterprises, or foreign nations.

*C. Environmental Stewardship*

The Alaskan commercial fishing industry is estimated to have a $3 billion impact on the U.S., and fished species are expected to shift northward within and into the Arctic as sea water temperatures rise,[25] creating potential new enforcement challenges for the USCG to the current international prohibition on commercial fishing in the central Arctic Ocean.[26]

The USCG also plays a vital leadership role in responding to oil spills and other environmental pollution incidents.[27] This role is expected to require more of the USCG's time and resources as maritime traffic increases with the melting of the Arctic sea ice.[28] However, it is worth noting that techniques to physically remove oil from ice-heavy landscapes are still underdeveloped.[29] Oil pollution, along with the region's changing ecology, make federally and internationally protected marine mammals and other endangered species more vulnerable to extinction,[30] and put Alaskan communities that depend on local food resources at increased risk.[31]

*D. Additional Duties of the USCG*

Complimentary to the USCG's statutory missions listed in section 468 of title 6, U.S. Code, are seven statutory duties listed under section 102 of title 14, U.S. Code. Together, these statutes codify the necessity of the multi-purpose approach of USCG. For example, two duties that are particularly relevant to the Arctic strategy are the directives to develop and operate icebreaking facilities pursuant to international agreements, and to engage in oceanographic research of the high seas and in waters subject to the jurisdiction of the U.S.[32] So, in addition to having the ability to perform nine of the 11 statutory missions, polar icebreakers shall also engage in oceanographic research. The White House's National Strategy for the Arctic Region emphasizes a commitment "to

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[25] Huntington et al., 2020. "Evidence suggests potential transformation of the Pacific Arctic ecosystem is underway", available at https://www.nature.com/articles/s41558-020-0695-2, accessed November 28, 2022.
[26] USCG, 2019. https://www.uscg.mil/Portals/0/Images/arctic/Arctic_Strategy_Book_APR_2019.pdf, accessed November 8, 2022.
[27] GAO, 2020. "MARITIME INFRASTRUCTURE A Strategic Approach and Interagency Leadership Could Improve Federal Efforts in the U.S. Arctic", available at https://www.gao.gov/products/gao-20-460, accessed November 27, 2022.
28 USARC, 2012. "Oil Spills in Arctic Waters", available at https://www.arctic.gov/uploads/assets/oil_spills_2012_hi.pdf, accessed November 30, 2022.
29 NAS, 2022. "Oil in the Sea IV", available at https://nap.nationalacademies.org/catalog/26410/oil-in-the-sea-iv-inputs-fates-and-effects, accessed November 28, 2022.
30 *Id.*
31 CRS, March 2022. "Changes in the Arctic: Background and Issues for Congress", available at https://crsreports.congress.gov/product/pdf/R/R41153, accessed November 28, 2022.
[32] Section 102, Title 14, U.S.C. https://uscode.house.gov/view.xhtml?hl=false&edition=prelim&req=granuleid%3AUSC-prelim-title14-section102&num=0&saved=%7CKHRpdGxlOjE0IHNlY3Rpb246MTAyIGVkaXRpb246cHJlbGltKSBPUiAoZ3JhbnVsZWlkOlVTQy1wcmVsaW0tdGl0bGUxNC1zZWN0aW9uMTAyKQ%3D%3D%7CdHJlZXNvcnQ%3D%7C%7C0%7Cfalse%7Cprelim, accessed November 28, 2022.

a whole-of-government, evidence-based approach"[33]—a principle which further emphasizes the planned use of icebreakers as multi-mission platforms.[34]

*E. Partnerships, the Polar Code, and Arctic Sovereignty*

The USCG's most recent Arctic guidance, the *USCG Arctic Strategic Outlook* (2019), offers three immediate lines of effort: 1) Enhance capability to operate effectively in a dynamic Arctic; 2) Strengthen the rules-based order; and 3) Innovate and adapt to promote resiliency and prosperity. These efforts are to be guided by the underlying principles of partnership, unity of effort, and culture of continuous innovation.[35] To carry out these efforts, partnerships exist between the USCG and other U.S. federal agencies (e.g., National Oceanic and Atmospheric Administration, U.S. Arctic Research Commission), Alaska state agencies, Alaska local and indigenous communities, non-governmental organizations, academic institutions, and foreign-based entities.[36]

International cooperation in the Arctic has been facilitated largely through the Arctic Council (Council), established in 1996.[37] The Council is made up of the eight Arctic nations, six Indigenous Peoples' organizations (Permanent Participants), and a variety of other governmental and nongovernmental partners (Observers).[38] In 2009 the Council called upon the International Maritime Organization (IMO) to formulate and adopt the International Code for Ships Operating in Polar Waters, referred to as the "Polar Code." The Polar Code went into effect on January 1, 2017, and enacts mandatory requirements intended to improve vessel safety and prevent pollution from vessels transiting in the Arctic, including ship construction, navigation, crew training, and ship operation.[39] The Polar Code applies to passenger and cargo ships of 500 gross tons or more engaged in international voyages.[40]

The Council is a consensus-based, intergovernmental forum that works to promote environmental, social, and economic aspects of sustainable development in the Arctic. Russia was scheduled to chair the Council from 2021-2023, but since Russia's invasion of Ukraine in March 2022, the seven other Arctic state members (including the U.S.) jointly declared a suspension of their participation from Council activities.[41] The future of the Council remains unclear.

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[33] U.S. White House, 2022. https://www.whitehouse.gov/wp-content/uploads/2022/10/National-Strategy-for-the-Arctic-Region.pdf, accessed November 27, 2022.
[34] CRS, September 21, 2022. "Coast Guard Polar Security Cutter (Polar Icebreaker) Program: Background and Issues for Congress", available at https://crsreports.congress.gov/product/pdf/RL/RL34391, accessed November 28, 2022.
[35] USCG, 2019. https://www.uscg.mil/Portals/0/Images/arctic/Arctic_Strategy_Book_APR_2019.pdf, accessed November 8, 2022.
[36] *Id.*
[37] Arctic Council, 2022. "About the Arctic Council", available at https://www.arctic-council.org/about/, accessed November 30, 2022.
[38] *Id.*
[39] IMO, 2022. "Shipping in polar waters", available at https://www.imo.org/en/MediaCentre/HotTopics/Pages/Polar-default.aspx, accessed November 30, 2022.
[40] *Id.*
[41] DOS, March 2, 2022. "Joint Statement on Arctic Council Cooperation Following Russia's Invasion of Ukraine", available at https://www.state.gov/joint-statement-on-arctic-council-cooperation-following-russias-invasion-of-ukraine/, accessed November 8, 2022.

## II. Documented Challenges to USCG Arctic Operations

### *A. Infrastructure*

Numerous governmental and academic reports have identified infrastructure and operational challenges to maritime transportation in the U.S. Arctic. Liabilities include limited satellite coverage and architecture to support voice and data communications, hazardous weather and ice conditions, and the lack of channel marking buoys and other floating visual aids to navigation (for which installation is not always possible due to continuously moving ice sheets).[42] In addition, to ensuring safe and efficient maritime transportation in the region, it is necessary to conduct surveys to improve nautical charts, improve communications capabilities, improve weather forecasting and modeling, and develop community and regional emergency response networks in preparation for vessel and aircraft accidents and environmental damage related to increased ship traffic and industrial development.[43] In many cases, data exist or are actively being collected, but the lag between data collection, communication, and operational use by the USCG is severe.[44]

In addition to known infrastructure requirements, the USCG has explored the need for the creation of new vessel routing measures to reduce the risk of marine casualties and increase the efficiency and predictability of vessel traffic in the U.S. Arctic.[45] The USCG is also conducting several Arctic-focused research projects in collaboration with academia at the Arctic Domain Awareness Center, including methodologies to minimize environmental damage from spilled oil in extreme cold, enhanced navigational capabilities in the Arctic, establishing exposure limits for Search and Rescue team members in extreme cold, and developing a classification system of ice conditions.[46] Other efforts to improve Arctic capabilities include the International Arctic Ocean Buoy Program, which maintains an international network of drifting buoys in the Arctic Ocean to provide meteorological and oceanographic data for real-time operational and research through the U.S. Integrated Ocean Observing System.[47]

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[42] Arctic Council, 2009. "Arctic Marine Shipping Assessment"; U.S. White House, 2013. "National Strategy for the Arctic Region"; GAO, 2014. "Maritime Infrastructure: Key Issues Related to Commercial Activity in the U.S. Arctic over the Next Decade"; Alaska Arctic Policy Commission, 2015. "Final Report"; U.S. Committee on the Marine Transportation System, 2016. "A Ten-Year Prioritization of Infrastructure Needs in the U.S. Arctic"; Council on Foreign Relations, 2017. "Arctic Imperatives, Reinforcing U.S. Strategy on America's Fourth Coast"; Center for Strategic and International Studies, 2017. "Maritime Futures, the Arctic and the Bering Strait Region".

[43] *Id.*

[44] Simonee et al. 2021. "Sila Qanuippa? (How's the Weather?): Integrating Inuit Qaujimajatuqangit and Environmental Forecasting Products to Support Travel Safety around Pond Inlet, Nunavut, in a Changing Climate", available at https://doi.org/10.1175/WCAS-D-20-0174.1, accessed November 16, 2022.

[45] USCG, 2016. "Port Access Route Study: In the Chukchi Sea, Bering Strait, and Bering Sea. Preliminary Findings", Number USCG-2014-0941 and USCG-2010-0833; USCG, 2018. "Port Access Route Study: Alaskan Arctic Coast", available at https://www.govinfo.gov/content/pkg/FR-2018-12-21/pdf/2018-27604.pdf, accessed November 28, 2022.

[46] USCG, 2018. "FY18 RDT&E Project Portfolio" in Acquisition Directorate. Research, Development, Test & Evaluation; Examples: Next Generation Arctic Navigational Safety Information System (proj #6211), Arctic Operations Support (proj #6210), Robust Maritime Arctic Communications (proj #6213), Safety Parameters for ICE Operations (proj #5301), Response to Oil in Ice (proj #4701), Ice Condition Risk Assessment Tool (proj #6512), and Arctic Technology Evaluation 2018 (proj #62101).

[47] IOOS, 2022. https://ioos.noaa.gov/regions/aoos/, accessed November 28, 2022.

*B. Assets*

While several U.S. agencies have a physical presence and substantial interests in the Arctic, the USCG's experience, material assets, and installations located throughout Alaska establish it as a key presence in the region. However, with no assets permanently stationed above the Arctic Circle, the USCG is restricted to a seasonal presence via mobile command and control platforms such as large cutters and ocean-going ice-strengthened buoy tenders, and establishing seasonal air and communications capabilities by leasing facilities.[48] Compared to Russia's six Arctic bases and 14 newly built icebreakers, the USCG is forced to stretch assets and capabilities to secure a wide mission set with limited resources.[49]

The operational U.S. polar icebreaking fleet currently consists of one heavy polar icebreaker, Polar Star, which carries out its primary mission, the resupply of McMurdo Station, in the Antarctic, and one medium polar icebreaker, Healy, which carries out its primary mission, scientific research, in the Arctic (Fig. 3).[50] A decade-long effort to expand USCG capabilities in the Arctic found footing in Congress with the establishment of the USCG Polar Security Cutter (PSC) program and a Joint Program Office with the U.S. Navy in 2016.[51] Authorization for the acquisition or procurement of a market-available icebreaker is included in the *Don Young Coast Guard Authorization Act of 2022*, as is authorization for a third Polar Security Cutter (PSC; heavy polar icebreaker) and evaluation of the USCG's acquisition of three Arctic Security Cutters (ASCs; medium polar icebreakers). The USCG PSC program received a total of $1.8 billion in procurement funding through FY 2021, including $300 million that was provided through the U.S. Navy's shipbuilding account (FY 2017-2018).[52] With the funding the USCG PSC program received through FY 2021, PSCs 1 and 2 are fully funded.[53] Construction of the first PSC is anticipated to begin in Spring 2023 for an on-time delivery in FY 2025,[54] though a delay appears probable at this time.[55] Delivery of a heavy polar icebreaker will mark the U.S.'s first new heavy icebreaker in nearly 50 years.[56]

[48] GAO, 2020. "MARITIME INFRASTRUCTURE A Strategic Approach and Interagency Leadership Could Improve Federal Efforts in the U.S. Arctic", available at https://www.gao.gov/products/gao-20-460, accessed November 27, 2022.
[49] USCG, 2019. https://www.uscg.mil/Portals/0/Images/arctic/Arctic_Strategy_Book_APR_2019.pdf, accessed November 8, 2022.
[50] CRS, September 2022. "Coast Guard Polar Security Cutter (Polar Icebreaker) Program: Background and Issues for Congress", available at https://crsreports.congress.gov/product/pdf/RL/RL34391, accessed November 28, 2022.
[51] *Id.*
[52] U.S. Naval Institute, January 7, 2022. https://news.usni.org/2022/01/07/report-to-congress-on-coast-guard-polar-security-cutter-16, accessed November 28, 2022.
[53] *Id.*
[54] USCG, July 29, 2022. "Q3 FY2022 USCG Surface Acquisition Update – CG&MT", briefing to CGMT.
[55] Katz, J., November 14, 2022. "Why a small shipyard merger could signal bigger problems for the US military", available at https://breakingdefense.com/2022/11/why-a-small-shipyard-merger-could-signal-bigger-problems-for-the-us-military/, accessed on November 29, 2022.
[56] CRS, September 2022. "Coast Guard Polar Security Cutter (Polar Icebreaker) Program: Background and Issues for Congress", available at https://crsreports.congress.gov/product/pdf/RL/RL34391, accessed November 28, 2022.


**Figure 3.** Coast Guard Cutter Healy, a 420-foot medium endurance icebreaker/research vessel, is the only icebreaker currently dedicated to Arctic operations. No other U.S. military service branch operates icebreakers.[57]

The mixed fleet (three PSCs, three ASCs) arrangement currently under consideration will help close four major gaps in USCG Arctic capabilities that were identified by the Homeland Security Operational Analysis Center—unreliable communications, lack of adequate maritime domain awareness, scarcity of available assets (especially ice-resistant air support and icebreakers) and supporting infrastructure, and institutional difficulty to identify, articulate, and close capability gaps.[58] The report states that if these capability gaps are not closed by the 2030s, the USCG risks facing substantial vulnerabilities in several of its missions in the Arctic including search and rescue, marine safety, ice operations, marine environmental protection, and ports, waterways, and coastal safety.[59]

## III. Recent Congressional Actions

The *Don Young Coast Guard Authorization Act of 2022*, which is expected to be included the *National Defense Authorization Act for Fiscal Year 2023*, includes key support for the USCG to continue implementing its Arctic Strategic Outlook. Title I, Authorizations, would authorize $167.2 million for a third PSC, $150 million for the acquisition or procurement of an available icebreaker, and $20 million for icebreaking cutters for operation in the Northeast, Arctic, and Great Lakes (FY 2023). Additionally, Title I would authorize $1 million for the USCG to evaluate design requirements for the ASC (FY 2023-2024).

[57] Photo credit: USCG, 2022. https://www.history.uscg.mil/Our-Collections/Photos/igphoto/2002136680/, accessed November 27, 2022; Lind, 2018. "USCG Cutter Healy Deploys for the Arctic", available at https://www.passagemaker.com/trawler-news/uscg-cutter-healy-deploys-for-the-arctic#:~:text=In%20mid-July%20the%20United%20States%20Coast%20Guard%20Cutter,vessel%20operated%20by%20the%20USCG%2C%20measuring%20420%20feet, accessed November 28, 2022.
[58] Homeland Security Operational Analysis Center, 2018. "Identifying Potential Gaps in the U.S. Coast Guard Arctic Capabilities", available at https://www.rand.org/pubs/research_reports/RR2310.html, accessed on November 29, 2022.
[59] *Id.*

Title II dedicates an entire Subtitle to provisions affecting USCG operations in the Arctic region. Building on Title I authorizations, Title II would establish a medium icebreaker (i.e., ASC) program office within the USCG so that the it can conduct a PSC/ASC fleet mix analysis, and establish the conditions under which an available icebreaker may be acquired. Title II would also extend the timeline of the *Pribilof Island Transition Completion Act of 2016* (Public Law 114-120) and require an update to Congress on the USCG's activities and infrastructure needs at St. Paul Island, Alaska.

## WITNESS LIST

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