



Statement Before the

**House Transportation and Infrastructure Committee
Subcommittee on Coast Guard and Maritime Transportation**

***“Maritime Transportation in the Arctic:
The U.S. Role”***

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Mr. Chairman, Ranking Member Garamendi, and distinguished members of the subcommittee, thank you for the opportunity to speak again to you on an issue which impacts U.S. national security and its sovereignty. More Congressional committee hearings should be dedicated to understanding emerging economic and military developments in and around the Arctic region to ensure the United States has a capable and credible maritime presence in the Arctic. My testimony today is drawn from an extensive research project that CSIS completed last fall entitled, “Maritime Futures: The Arctic and the Bering Strait Region.”

Former Commandant of the U.S. Coast Guard, Admiral Paul Zukunft, recently called the Arctic America’s “Fourth Coast;” a coast that must remain safe, secure, and well-stewarded today and in the future.¹ Unfortunately, only 4.1 percent of America’s Fourth Coast (the U.S. maritime portion of it) is charted to modern international navigation standards. And what is charted, including waters off western Alaska and the Aleutian Islands, is based on information that dates back to before World War II while other regions remain entirely unsurveyed.² Our knowledge of Arctic waters are limited, outdated, or are insufficient due to a lack of data.³ The Arctic’s high latitude presents unique communication challenges which is limited by geomagnetic interference and minimal satellite coverage and bandwidth. The United States lacks sufficient air and sea infrastructure along Alaska’s western and northern shores, and along the narrow Bering Strait.⁴ Without knowledge and presence in the Arctic, we lack sovereign control.

This is not how one would imagine the United States – the world’s greatest maritime power – would strategically approach the emergence of a new ocean, the Arctic Ocean, or protect its Fourth Coast.

For far too long, the United States has done the bare minimum to appropriate sufficient resources to enhance maritime infrastructure and improve emergency response capabilities along our Fourth Coast. We have perfected the art of “making do” by “making it work” which equates to a Coast Guard seasonal presence (July – October) along the U.S. Arctic Coast and a prayer that should “something happen” in the American Arctic, it will occur during this season, and preferably near a pre-positioned U.S. maritime asset.

While trans-Arctic shipping and destination shipping may be muted today, we anticipate an increase in maritime traffic through the narrow Bering Strait, particularly as LNG carriers from

¹ Admiral Paul F. Zukunft, Keynote Address at CSIS event “The Arctic of the Future: Strategic Pursuit or Great Power Miscalculation?” May 10, 2018, <https://www.csis.org/analysis/arctic-future-strategic-pursuit-or-great-power-miscalculation-keynote-address>.

² Hydrographic Services Review Panel, “Charting the U.S. Maritime Arctic,” National Oceanic and Atmospheric Administration, February 2018, <https://www.nauticalcharts.noaa.gov/hsrp/recommendations/2018/HSRP-Charting-Maritime-Arctic-28feb2018.pdf>; Hannah Hoag, “NOAA is Updating its Arctic Charts to Prevent a Nautical Disaster,” *Arctic Deeply*, August 29, 2016, <https://www.newsdeeply.com/arctic/community/2016/08/29/noaa-is-updating-its-arctic-charts-to-prevent-a-nautical-disaster>.

³ “Caution Required When Using Nautical Charts of Arctic Waters,” *Arctic Regional Hydrographic Commission (AHRC)*, June 28, 2017, https://www.iho.int/mtg_docs/rhc/ArHC/ArHC_Misc/Notice%20on%20caution%20required%20when%20using%20nautical%20charts%20in%20Arctic%20waters3.pdf.

⁴ Heather A. Conley, Matthew Melino, and Andreas Østhagen, *Maritime Futures: The Arctic and the Bering Strait Region* (Washington, DC: CSIS, November 2017) https://csis-prod.s3.amazonaws.com/s3fs-public/publication/171027_Conley_MaritimeFutures_Web.pdf?mHPGy0uKqRMcek0zw6av5jI332MeELk5

the Russian Arctic make their way to Asian energy markets. Transits through the Bering Strait have more than doubled over the past decade.⁵ Over time, these increased transits will stretch and expose our thinly resourced and outdated capabilities until we are no longer able to respond to a major environmental accident or mass casualty incident.

The United States requires a pro-active, long-term plan to protect the U.S. coastline in Alaska, patrol U.S. territorial waters in the North Pacific and the Bering, Chukchi, and Beaufort Seas, and enforce our 200-mile Exclusive Economic Zone (EEZ) as well as our maritime demarcation border with Russia. These tasks are critical to the future prosperity and national security of Alaska and the United States as interest in Arctic energy exploration, natural resource extraction, fisheries, tourism, and maritime transportation grows.

Presence = Sovereignty in the Arctic

The U.S. Coast Guard's District 17 maintains a physical presence in several Alaskan cities ranging from the southeast tip of Ketchikan to Cordova and Kodiak in the south and as far inland as Fairbanks.⁶ However, the Coast Guard's most critical posts for operating in the Bering Strait include Kodiak, Unalaska in the Aleutian Islands, a seasonal presence in Kotzebue, and Sitka which include hangars for aircraft such as HC-130Hs, MH-60-Ts, and MH-65-Ds used for critical response missions.⁷ These aircraft compliment the Coast Guard's most significant presence in the Arctic region – U.S. Coast Guard Cutter (USCGC) *Munro*, USCGC *Spar*, and USCG *Alex Haley* to enforce fishery laws, ensure commercial fishing vessel safety, and responding to search-and-rescue missions.

Enhanced U.S. Arctic presence and sovereignty must be built on reliable command, control, communications, computers, and information technology (C4IT) capabilities and knowledge of Arctic waters. Some communities in the Arctic have cellular phone networks, but with limited – albeit improving – broadband coverage, capacity, and reliability.⁸ A lack of geospatial and oceanographic infrastructure to support nautical charting and accurate positioning services along the coasts of the Chukchi and Beaufort Seas exacerbate the challenge as do gaps in geodetic coverage, tides and currents, hydrographic surveys, and shoreline mapping.⁹

An additional shortcoming in Arctic assets is the lack of deep-water ports. The closest U.S. deep-water port is Dutch Harbor in the southern Bering Sea, which is over 800 miles from the Bering Strait. Surrounding the strait, there are three primary Alaskan-based ports that service vessel traffic: Nome, Kotzebue, and the DeLong Mountain Transportation System (DMTS) port servicing the Red Dog Mine. However, the water depth at these ports does not exceed 10 meters, severely restricting the number and type of vessels able to dock.¹⁰

⁵ Sierra Fletcher, "Bering Sea Vessel Traffic: Risk Analysis," Nuka Research and Planning Group LLC and Ocean Conservancy, December 2016, 16, <https://oceanconservancy.org/wp-content/uploads/2017/01/bering-sea-vessel-traffic-1.pdf>.

⁶ Ibid, 14.

⁷ Ibid, 14.

⁸ "United States Coast Guard Arctic Strategy," 14.

⁹ Ibid.

¹⁰ PAME Working Group, "Arctic Marine Shipping Assessment 2009 Report," Arctic Council, April 29, 2009, 108, https://www.pmel.noaa.gov/arctic-zone/detect/documents/AMSA_2009_Report_2nd_print.pdf.

Members of this subcommittee are all too familiar with the lack of icebreaking capabilities. Icebreakers provide assured year-round access to ice covered waters so that the U.S. Coast Guard can meet its statutory missions as well as national and international obligations. Icebreakers also serve as mobile infrastructure for the region. Mobility and flexibility in projecting presence in the Arctic is essential. We are encouraged that efforts to procure one new heavy icebreaker are underway, with it scheduled to enter service in 2023 (we hope). But to be clear this new heavy icebreaker will be predominantly used in Antarctica, not the Arctic. And to add another important point of clarity, the United States also does not currently have an interim icebreaker solution for the *next five years*. Should there be a catastrophic mechanical failure of the one U.S. heavy icebreaker, the *Polar Star*, before 2023, the U.S. would have to lease icebreaking capabilities from other nations on an emergency basis. There are currently no leasable heavy icebreakers in the global inventory to our knowledge, save for Russian icebreakers, that would meet U.S. Coast Guard mission needs. This is not hyperbole or a hypothetical – the *Polar Star* is plagued by significant mechanical difficulties.¹¹ Again, this is not how a great maritime power would typically respond to such an immediate and significant capability deficiency, but this is the current and future reality the United States faces for the next five years.

Simply put, the U.S. Coast Guard is inadequately resourced to execute its mission in the Arctic which means we are not in a position to sufficiently safeguard U.S. territorial waters and EEZ when foreign-flagged vessels traverse the narrow Bering Strait.

With the exception of the procurement of a new heavy icebreaker, the United States has not altered its Arctic presence in any meaningful way over the past decade. More importantly, the United States no longer has the luxury of remaining an indifferent Arctic actor.

Our Competitors are More Interested in the Arctic than the United States

In stark contrast, Russia and China have declared the Arctic to be an economically and militarily strategic region with both nations having stated Arctic policies which seek to project influence *beyond* their coastlines to secure future national interests. Both countries are making substantial economic investments in the Arctic while Russia is reasserting itself militarily.

Russia is increasing its conventional military strength across the region, with plans to construct new military bases at Rogachevo, Cape Schmidt, Wrangel Island, and Sredniy Island.¹² The strategically located Kola Peninsula maintains a number of naval bases and shipyards under the command of Russia's Northern Fleet, which was recently outfitted with new air defense systems such as the S-400 and Pantsir-3 systems.¹³ Last year Russia also activated a new complex radar system on Wrangel Island in an effort to solidify its presence and improve its aerial situational

¹¹ Christopher Woody, "The Coast Guard's only heavy icebreaker has been fighting engine failure and flooding in the frigid Antarctic," *Business Insider*, February 8, 2018, <http://www.businessinsider.com/coast-guard-icebreaker-polar-star-engine-failure-flooding-in-antarctic-2018-2?r=UK&IR=T>.

¹² Damien Sharkov, "Take A Tour Of Russia's Giant New Arctic Military Base," *Newsweek*, April, 18, 2017, <http://www.newsweek.com/tour-russias-giant-new-arctic-military-base-585759>.

¹³ "Modernization Time: Russian Northern Fleet to Receive More S-400 Systems," *Sputnik International*, January 8, 2016. <https://sputniknews.com/military/201601081032850620-russia-military-modernization/>.

awareness.¹⁴ There has also been a resurgence in Russian submarine activity across the region. Russia is actively seeking to modernize its submarine fleet, with plans to build new ballistic-missile subs and a new class of nuclear-powered subs.¹⁵ This would allow them to project power not only in the Arctic but also across the broader North Atlantic region and the strategic Greenland-Iceland-United Kingdom (GIUK) Gap.

Much of Russia's economic activity in the Arctic centers on developing the Northern Sea Route (NSR) as a viable alternative shipping route that will more directly connect Russian energy producers with Northern Europe and Asian markets. The focus of Russia's economic investment in the Arctic is the Yamal LNG project based in the Sabetta Port on the Yamal Peninsula. The \$27 billion project, partially funded by Chinese investment (Chinese companies own 29.9 percent), exported its first shipment in December 2017, and less than three months later, ships carried the first one million ton of LNG through Arctic waters. Infrastructure investment around the Yamal LNG project includes an international airport, port harbor and approach channels, vessel traffic management systems, navigational support aids, and marine service buildings.¹⁶ To accommodate an increase in LNG carriers and maritime traffic, Russia invested and planned for the construction of 10 search-and-rescue stations along the NSR to complement existing Marine Rescue Coordination Centers, Marine Rescue Sub-Centers, hydrographic bases, and navigational equipment.¹⁷ They have also invested heavily in its icebreaking capabilities. In 2016 alone, Russia floated three new icebreakers, the diesel-electric *Polaris* (January 2016), the diesel-electric *Ilya Muromets* (June 2016), and the nuclear-powered *Arktika* (June 2016), which is expected to be the world's largest icebreaker when completed in 2019.¹⁸

A self-described "near-Arctic State," China's ambitions for the Arctic are grounded in its pursuit of greater global economic growth, shipping route diversity, and an increased scientific presence. Its reliance on the Strait of Malacca for its export-led economy has led Beijing to identify alternative shipping routes, such as the NSR. With numerous transpolar and NSR sea voyages by Chinese shipping company COSCO, China remains focused on developing a "blue economic passage" that will promote trade "to Europe via the Arctic Ocean" as part of its Belt and Road Initiative,¹⁹ which explicitly "encourag[es] Chinese enterprises to take part in the commercial use of the Arctic route."²⁰ With the inclusion of the Polar Silk Road in its global economic governance strategy, China is growing its presence through infrastructure investments including research stations, airports, ports, LNG terminals, icebreakers, and undersea cables in the circumpolar Arctic, and most interestingly, in Alaska. In some instances, China's Arctic projects may also have

¹⁴ Damien Sharkov, "Russia Deploys Air Radar on Arctic Wrangel Island," *Newsweek*, January 4, 2017, <http://www.newsweek.com/russia-deploys-air-radar-arctic-wrangel-island-538527>.

¹⁵ Christopher Woody, "Russia has 'stepped on the gas' with its submarine fleet – and NATO is on alert," *Business Insider*, April 28, 2018. <http://www.businessinsider.com/russia-submarine-warfare-increasing-focus-2018-4>.

¹⁶ "Yamal LNG Infrastructure," Novatek, accessed May 31, 2018, http://www.novatek.ru/en/business/yamal-lng/yamal_infrastructure/.

¹⁷ Heather A. Conley, Matthew Melino, and Andreas Østhagen, *Maritime Futures: The Arctic and the Bering Strait Region* (Washington, DC: CSIS, November 2017), VII, https://csis-prod.s3.amazonaws.com/s3fs-public/publication/171027_Conley_MaritimeFutures_Web.pdf?mHPGy0uKqRMcek0zw6av5jI332MeELk5

¹⁸ "Russia Floats Out *Arktika* Icebreaker, Set to Be World's Largest," RT, June 16, 2016, <https://www.rt.com/business/346997-russia-arktika-icebreaker-float/>.

¹⁹ "Full text: Vision for Maritime Cooperation under the Belt and Road Initiative," *Xinhua*, June 20, 2017, http://www.china.org.cn/world/2017-06/20/content_41063286_2.htm.

²⁰ Ibid.

military applications such as scientific research stations becoming staging grounds for military satellites or commercial airports serving as future air bases.²¹ In November 2017 Chinese President Xi Jinping and President Trump signed a five-party Joint Development Agreement (JDA), worth an estimated \$43 billion and includes three of the largest Chinese energy and finance companies – Sinopec, Bank of China, and China Investment Corporation to develop Alaskan LNG for export to China.²² The *Xue Long 2*, China's second icebreaker (and first domestically built) is scheduled to be completed in 2019. China is also designing an additional more powerful icebreaker. This coincides with Chinese development of a modern navy, enabling greater power projection capabilities in the Arctic region.

Russia and China have not altered their economic strategies in the Arctic despite modest maritime traffic through the Bering Strait and the NSR due to fluctuating commodity prices, high insurance costs, and environmental regulations. China and Russia do not base their Arctic investment decisions on market economic dynamics. But Western countries, which are guided by market forces, question the near-term economic viability of the Arctic. Western oil companies have not yet uncovered an Arctic energy boon. British company Cairn Energy abandoned efforts off the coast of Greenland after its \$1.4 billion venture did not yield the predicted reserves²³; Norway's hopes of uncovering a large oilfield in the Korpffjell Well in the Barents Sea yielded small, non-commercial quantities of natural gas and no oil²⁴; and Royal Dutch Shell's six-year, \$7 billion odyssey in the American Arctic collapsed with an estimated loss of around \$4.1 billion in future earnings.²⁵ There are also legitimate questions surrounding the future growth in trans-arctic shipping as the shallow waters along the NSR are not compatible with large draft container ships, thus negating a flurry of new investment and resources.

Place Your Bet Carefully on the Future of the Arctic

Today, the United States is “betting” that the region will remain of limited strategic value and that its current, minimalist capability posture will be sufficient. Because Russia and China take such a dramatically different and long-term view (the next half-century, not the next budget cycle) of the Arctic's geopolitical significance and economic potential, the United States must assess the U.S. national security and strategic implications of such a disparate Arctic perspective between the U.S. and its competitors, as stated in the National Security and National Defense Strategies.

Could the United States lose access to portions of its maritime Arctic in the future?

²¹ Ashley Feng and Sagatom Saha, “China's Arctic Ambitions in Alaska,” *The Diplomat*, April 20, 2018, <https://thediplomat.com/2018/04/chinas-arctic-ambitions-in-alaska/>.

²² Presidents Trump and Xi Witness Historic Signing of Joint Development Agreement for Alaska LNG” (press release), Office of the Governor of Alaska, November 8, 2017, <https://gov.alaska.gov/newsroom/2017/11/presidents-trump-and-xi-witness-historic-signing-of-joint-development-agreement-for-alaska-lng/>.

²³ Terry Macalister, “Greenland halts new oil drilling licenses,” *The Guardian*, March 27, 2013, <https://www.theguardian.com/world/2013/mar/27/greenland-halts-oil-drilling-licences>.

²⁴ Nerijus Adomaitis, “Norway's Arctic oil ambitions suffer setback as most promising well yields none,” *Reuters*, August 29, 2017, <https://www.reuters.com/article/us-statoil-norway/norways-arctic-oil-ambitions-suffer-setback-as-most-promising-well-yields-none-idUSKCN1B90NH>.

²⁵ Karolin Schaps, “Royal Dutch Shell pulls plug on Arctic exploration,” *Reuters*, September 28, 2015, <https://www.reuters.com/article/us-shell-alaska/royal-dutch-shell-pulls-plug-on-arctic-exploration-idUSKCN0RS0EX20150928>.

What are the implications if America's Arctic resources are exploited and infrastructure is constructed by Chinese rather than U.S. firms?

Perhaps Russia and China are over-extending themselves economically and militarily and America has established the appropriate policy and course of action.

Which nation is correct about the future of the Arctic? That is the strategic question we must address. If the United States is incorrect about the Arctic, we will be placed at a great strategic disadvantage with deleterious military implications for the North Atlantic and North Pacific.

Prudence would suggest the United States must ensure an enduring and credible maritime presence in the Arctic to secure its Fourth Coast. America's current posture does not yet meet this requirement.