Increasing Shipping Traffic through the Bering Strait: Challenges of International Policy in a Rapidly Changing Climate and Managing Impacts to Regional Cetacean Populations

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Abstract
The Arctic region is experiencing growth in marine traffic as seasonal ice conditions shift to longer periods of open water and vessel improvements that have allowed for transit in heavier ice conditions. Regionally, Russia is improving existing transportation infrastructure to support increased traffic along the Northern Sea Route. As a result of these and other factors, shipping traffic is increasing through the Bering Strait and Bering Sea. Regulating traffic in these areas is more complex than most other areas in US waters given the presence of an international strait subject to international regulation through the International Maritime Organization. The US Coast Guard has recognized the hazards of increased traffic and is developing shipping guidelines to mitigate ship traffic risks. Further work will be needed to translate those guidelines into international law. In addition, research and management, focus has been on impacts to the Arctic Ocean, biological resources within, and the human residents at its margin while the Bering Sea/Bering Strait region tends to receive less attention. Of significance is the potential risk of increased ship strikes for endangered whales species, such as fin and humpback, that rarely enter the Arctic Ocean but aggregate in large numbers in the northern Bering Sea. To establish appropriate international and domestic regulations that mitigate ship strike risk, a greater understanding of ship traffic patterns, marine mammal densities and behaviors, and encounter risk will be needed. Accomplishing this will require a collaborative approach among multiple stakeholders utilizing established pathways such as Alaska Marine Exchange and the Arctic Data Integration Portal.

Comments
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THE RISK OF A SERIOUS OIL SPILL IN THE ARCTIC is escalating due to potential increases in shipping traffic and oil and gas activities. To provide an effective response effort in challenging Arctic conditions—and minimize impacts on people and sensitive ecosystems—a full range of proven oil spill response technologies is needed. This report assesses the current state of science and engineering regarding oil spill response in Arctic waters and identifies key oil spill research priorities, critical data and monitoring needs, mitigation strategies, and important operational and logistical issues. Rapid climate change is leading to retreat and thinning of Arctic sea ice, potentially increasing the accessibility of U.S. Arctic marine waters for commercial activities. With this projected rise in activity come additional concerns about the risk of oil spills. Achieving this goal requires the development of international standards for Arctic data collection, sharing, and integration. A long-term, community-based, multiuse Arctic observing system could provide critical data at a variety of scales. Vessel traffic is not actively managed in the Bering Strait or in the U.S. Arctic, nor is there a comprehensive system for real-time traffic monitoring. The lack of a U.S. vessel traffic monitoring system for the Arctic creates significant vulnerability for missions including oil spill response and.