



CHAMBER OF SHIPPING
OF AMERICA

PREPARING FOR MARITIME TRANSPORTATION IN A CHANGING ARCTIC

HEARING BEFORE THE

**SENATE COMMERCE, SCIENCE AND TRANSPORTATION'S
SUBCOMMITTEE ON OCEANS, ATMOSPHERE, FISHERIES, AND
COAST GUARD**

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IN ROOM 253 RUSSELL SENATE OFFICE BUILDING

TESTIMONY OF

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Good morning, Chairman Sullivan, Ranking Member Baldwin and Members of the Subcommittee. We appreciate the opportunity to provide testimony at this hearing to discuss emerging transportation issues in the changing Arctic region.

Mister Chairman, we respectfully request that our testimony be entered into the record for this hearing.

I am Kathy Metcalf, President and CEO of the Chamber of Shipping of America (CSA). CSA represents member companies which are U.S. based that own, operate or charter both US and non-US flag oceangoing tankers, container ships, and other merchant vessels engaged in both the domestic and international trades. Several of our members conduct operations in the Arctic region including operations based in US waters.

Shipping in Arctic Waters

Recent observations and projections for the future suggest that thinner ice and longer ice free periods could result in the possibility of increased international shipping activity in the Arctic. There are four main types of operations in the Arctic, all of which are projected to increase in volume in the future:

- 1) offshore support vessel activities supporting offshore exploration activities
- 2) destination transport with ships moving energy, raw materials and goods from and between Arctic ports and the rest of the world
- 3) trans-Arctic shipping using commercially viable intercontinental Arctic sea routes connecting the Atlantic and Pacific Oceans via the Northern (Russian) Sea Route (NSR) and potentially in the future, via the Northwest Passage (Canadian)
- 4) cruise shipping and tourism

Technical developments in ship design, construction and equipment that make operations possible in these remote regions with challenging and unpredictable sea and weather conditions, are stimulating increased interest in Arctic shipping driven for the most part by the increasing demand for shipping services that can support the activities noted above. Increased efficiencies in long range transportation routes can be appreciated by noting that a voyage between Tokyo, Japan and Hamburg, Germany via the Suez Canal is approximately 14,000 nautical miles with a duration of approximately 50 days, while the same voyage transiting the Northern Sea Route would be approximately 8000 nautical miles with a duration of approximately 35 days resulting in more fuel and time efficient transport of cargoes with a resulting reduction in air emissions due to the significant reduction in transit miles.

In view of the anticipated increases in shipping services in the Arctic, there is a growing awareness within the international community about the impact of these increased activities on the sensitivity of Arctic ecosystems and the need for a high degree of care

by vessels operating in and through the Arctic. The global shipping industry fully acknowledges these concerns and is totally committed to the protection of the Arctic marine environment, the prevention of pollution and the safe operation of vessels in this area.

Arctic Governance Issues

In 1996, the Arctic Council was formed to promote cooperation, coordination and interaction among the Arctic States, Arctic indigenous communities and other stakeholders with a focus on sustainable development and environmental protection. The Ottawa Declaration established membership in the Arctic Council to include Canada, Denmark, Finland, Iceland, Norway, the Russian Federation, Sweden and the United States. In addition, six organizations representing Arctic indigenous peoples have status as Permanent Participants and an observer status exists which is open to non-Arctic states and other entities that the Council determines can contribute to its work.

The work of the Arctic Council is conducted through six working groups which are the Arctic Contaminants Action Program (ACAP), Arctic Monitoring and Assessment Programme (AMAP), Conservation of Arctic Flora and Fauna (CAFF), Emergency Prevention, Preparedness and Response (EPPR), Protection of the Marine Environment (PAME), and Sustainable Development Working Group ((SDWG). While all carry out vital projects, EPPR and PAME are the two principle working groups relative to Arctic shipping issues. In 2002, the Council requested PAME to develop a strategic plan for the protection of the Arctic marine environment which was approved as “The Arctic Strategic Plan (AMSP)” in 2004 with four strategic goals including reduction and prevention of pollution, conservation of Arctic marine diversity and ecosystem functions, promotion of the health and prosperity of all Arctic inhabitants and the advancement of sustainable Arctic marine resource use. PAME was also charged with developing the Arctic Marine Shipping Assessment which was agreed by the Council in 2009 and is the subject of periodic status reports with the most recent published in May 2017.

Most recently under the leadership of PAME, the Arctic Shipping Best Practices Information Forum was created to raise awareness of the provisions of the IMO Polar Code and to facilitate the exchange of information and best practices among the forum participants. In addition a number of Arctic Shipping Forums/Conferences have been convened or are planned to facilitate discussions among all stakeholders on critical issues and promote the sharing of information which include governance issues as well as operational issues.

Principles with Respect to the Regulation of Ships and the Governance of Maritime Activity in the Arctic

The international shipping industry through the International Chamber of Shipping (ICS) and its member national associations, of which CSA is a founding member, has identified 7 key principles related to maritime activities in the Arctic:

- 1) Maintenance of a global framework regulating Arctic shipping under the auspices of the International Maritime Organization (IMO), to ensure the creation and implementation of comprehensive and consistent requirements for safety and environmental protection.
- 2) Development of Arctic maritime infrastructure to support safety and environmental protection including programs to address aids to navigation, nautical charts, satellite communications, bunkering facilities, port reception facilities for ship's waste, pilotage in shallow passage areas, ice-breaking capabilities, search and rescue infrastructure and the provisions of "places of refuge".
- 3) Full participation of shipping nations in the decision making processes associated with the development of Arctic shipping requirements and programs. The rights of the nations which compose the Arctic Council are acknowledged however these rights should always be exercised in a manner that remains consistent with the UN Convention on the Law of the Sea (UNCLOS) and existing IMO conventions, including the recently implemented Polar Code which amended the International Convention for the Safety of Life at Sea (SOLAS) and the International Convention for the Prevention of Pollution from Ships (MARPOL).
- 4) Full and free market access and freedom of navigation. Unilateral, national or regional regulations governing ship safety, environmental protection or other shipping matters should be avoided and must not disadvantage ships registered in non-Arctic nations. The UNCLOS regime of transit passage for straits used for international navigation should be given full force and effect. Likewise, regulations governing market access should be consistent with commitments made by governments at the World Trade Organization (WTO).
- 5) Need for legal clarity about the status of the Arctic. Outstanding questions about the legal status of Arctic waters need to be clarified at the United Nations level. In general, in all waters (other than "internal waters"), the right of innocent passage within the Exclusive Economic Zone (EEZ) enshrined in UNCLOS should always apply. Further clarification is needed as to the definition of "internal waters" as well as the relationship between coastal states' rights and the principles of innocent passage and transit passage enshrined in UNCLOS. International shipping needs clarity with respect to which nations or organizations are responsible for ensuring the safety and environmentally responsible operations of ships operating in Arctic waters.
- 6) Transparency of national regulations. Although the shipping industry promotes the concept of globally consistent regulations for Arctic shipping consistent with UNCLOS and IMO conventions, if national requirements are to be put in place they should be clear, understandable and accessible to the shipping industry to ensure successful compliance.

- 7) Reducing bureaucracy and setting appropriate fees for services. Consistent with coastal nations' rights and obligations under UNCLOS, the development of Arctic shipping and the services necessary to assure safe and environmentally responsible operations should be fair, transparent and avoid the creation of monopolistic practices where it is determined that fees should be assessed on users. These processes should reconcile the need for both environmental and economic sustainability and will require the provision of maritime services that are competitive and cost efficient.

The IMO International Code of Safety for Ships Operating in Polar Waters (The Polar Code)

The Polar Code and related amendments to SOLAS and MARPOL, which entered into force on 1 January 2017, is intended to cover the full range of shipping related issues relevant to navigation in waters surrounding both the North and South poles including ship design, construction and equipment, operational and training concerns, search and rescue, and protection of the unique environment and eco-systems of the polar regions. The Polar Code includes mandatory measures covering safety (part I-A) and pollution prevention (Part II-A) and recommendatory provisions for both safety and pollution prevention (parts I-B and II-B, respectively). The chapters in the Polar Code set out goals and functional requirements including issues related to ship structure, stability and subdivision, watertight and weathertight integrity, machinery installations, operational safety, fire safety/protection, life-saving appliances and arrangements, safety of navigation, communications, voyage planning, manning and training, prevention of oil and noxious liquid substance pollution, prevention of pollution by sewage, and prevention of pollution by discharge of garbage. The Polar Code also includes new manning and training requirements which are now mandatory under the Standards of Training, Certification and Watchkeeping (STCW) Convention and Code effective 1 July 2018 and include requirements for basic training (Master, Chief Mate and officers in charge of a navigational watch) and advanced training (Master, Chief Mate).

The Polar Code applies to vessels which operate in polar waters and are required to be certified in accordance with the SOLAS Convention (Part I safety and manning/training requirements) and/or the MARPOL Convention (Part II). For non-SOLAS vessels required to hold a MARPOL certification, only the provisions of Part II apply. New ships built on or after 1 January 2017 must be compliant with the safety provisions at the time of delivery while existing ships (built before 1 January 2017) must comply with the safety provisions by their first intermediate or renewal survey after 1 January 2018. As noted above the manning and training requirements apply to new and existing ships on 1 July 2018. The environmental protection requirements are applicable to both new and existing vessels on/after 1 January 2017. Compliance with the Polar Code is documented through the issuance of a Polar Ship Certificate and requires the preparation of a ship-specific Polar Operations Manual.

US Flag Operations in the Arctic

As noted in my opening comments, CSA has several members that operate in Arctic waters. For example, Crowley Maritime Corporation has extensive experience in ice management and vessel operations in the Arctic, supporting commercial and government services and goals. Starting in the mid-1950s with the first operations in the Arctic by commercial tug and barge service, Crowley began supplying the Distant Early Warning (DEW) Line radar installations for the US Air Force in the Aleutians and across the northern coast of Canada. In 1968, Crowley began providing services in the Arctic through its sealifts into Prudhoe Bay as well as petroleum transportation for the re-supply of remote villages, other commercial entities and government facilities. Today, Crowley's operating areas include the entire Arctic coast of the US, including sounds, bays and rivers and most recently has expanded to serve the Canadian Arctic. Crowley has also successfully managed projects in Prudhoe Bay, Sakhalin, Coronation Gulf of Canada and the Barents Sea. With a storage capacity of more than 75 million gallons, Crowley is one of the unquestionable leaders in the Alaska fuel industry providing transportation, distribution and sales of petroleum products to more than 280 communities across the state, including many in the Alaskan Arctic. Crowley also supports the energy industry on the North Slope with summer tug-and-barge sealifts of large production modules and other essential marine transportation services.

As indicated by the examples above, Crowley offers a full range of services including project management, heavy lift barge transportation, ocean towing, engineering, liquefied natural gas (LNG) services, naval architecture, vessel design and construction management, project concept studies and emergency response services.

Crowley operates seven US flag tugs and ten US flag barges that provide seasonal deliveries to the region that are paramount to the viability and quality of life for the indigenous populations living in the remote villages of the Alaskan Arctic. These vessels utilize ultra-low sulfur diesel fuel and typically stop in Port Clarence to change from deep sea towing gear to shallow draft towing gear to avoid impacting the Arctic sea bottom. Crowley also utilizes shallow draft assist vessels to manage barge operations in the shallow waters of the region to further minimize its operational footprint in the Arctic. Safe and environmentally responsible operation is the fundamental basis of Crowley's operating philosophy and is reflected in its vessel design, maintenance and crew training requirements, use of ice monitoring to determine safe navigational routes and avoid wind driven ice which can entrap equipment, and its collaboration with the US Fish and Wildlife Service to minimize the impact of its operations on identified endangered species which includes the use of marine observers and adherence to marine mammal avoidance areas.

Infrastructure Funding

As noted above, safe and environmentally responsible operations require that attention be paid to infrastructure needs including development and/or enhancement of navigation and communication systems, aids to navigation, search and rescue capability, land-based systems to enable bunkering and waste disposal, emergency response needs and

icebreaking capability. While all require funding likely from a combination of public and private sources, in particular, I would bring your attention to the current status of the US Coast Guard's icebreaking capability and the urgent need for additional funding to meet the needs of both the US Arctic waters as well as the Great Lakes. Enhancement of the US icebreaking capability will benefit the US economy and the efficiencies of the marine transportation system by maximizing the operational seasons in both the Arctic and Great Lakes. The industry fully supports and is appreciative of provisions contained in the recently passed US Coast Guard Authorization Act of 2018 addressing these critical resources.

Conclusion

There is no doubt that the changing and ever challenging landscape of the Arctic and Arctic shipping requires a realistic and pragmatic assessment of the maritime transportation needs at a global level and at the US level relative to transportation needs in the US Arctic. The shipping industry will meet that challenge in a safe, environmentally responsible and efficient manner taking into account a quote from educator and author William Arthur Ward who commented that "The pessimist complains about the wind; the optimist expects it to change; the realist adjusts the sails".

Thank you for the opportunity to testify at this hearing. We would be happy to answer any questions.