STATEMENT OF

THE UNITED STATES COMMITTEE ON THE

MARINE TRANSPORTATION SYSTEM

BEFORE THE

COMMITTEE ON COMMERCE, SCIENCE AND

TRANSPORTATION

UNITED STATES SENATE

REGARDING

"ASSESSING U.S. PREPAREDNESS AND RESPONSE IN THE ARCTIC: THE OPPORTUNITIES AND CHALLENGES OF INCREASED MARINE ACTIVITY"

Anchorage, Alaska
March 27, 2013

I. INTRODUCTION

The U.S. Committee on the Marine Transportation System (CMTS) appreciates the opportunity to participate in the Senate Commerce Committee, Subcommittee on Oceans, Atmosphere, Fisheries, and Coast Guard's field hearing in Anchorage, Alaska to discuss Arctic maritime safety.

The United States is an Arctic nation. As climate change, including the loss of sea ice create a more accessible Arctic, we must consider the need for future action and guidance that will facilitate safe and efficient navigation, prevent loss of life and property, and reduce the risk of environmental damage in the region. Safe marine transportation is fundamental to each of these pursuits. For this reason, a U.S. Arctic Marine Transportation System (MTS) should be capable of meeting the safety, security and environmental protection needs of present and future Arctic stakeholders and activities.

II. CMTS AND THE COORDINATION OF DOMESTIC ARCTIC TRANSPORTATION POLICIES

The Committee on the Marine Transportation System (CMTS) originated as a Federal cabinet-level, interagency committee established at the direction of the President in 2004. Congress institutionalized the Committee in statute (P.L. 112-213) in December 2012. The CMTS has 28 member departments,

agencies and White House offices. The Secretary of Transportation serves as its Chair. The movement of people and goods through the U.S. MTS is within the purview of many individual federal agencies and programs. As specified in P.L. 112-213, the purpose of the CMTS is to assess the adequacy of the marine transportation system (including ports, waterways, channels, and their intermodal connections); promote the integration of the marine transportation system with other modes of transportation and other uses of the marine environment; and coordinate recommendations with regard to Federal policies that impact the marine transportation system.

Under section 307 of the Coast Guard Authorization Act of 2010, the CMTS was directed to coordinate the establishment of domestic transportation policies in the Arctic. This coordination includes the consideration of national policies and guidance related to safe and secure maritime shipping in the Arctic. To advance this coordination, the CMTS Coordinating Board created a nine-member interagency subcommittee (integrated action team or "IAT") led by the Maritime Administration, National Oceanic and Atmospheric Administration, and the U.S. Coast Guard.

The IAT oversaw development of a draft report titled *U.S. Arctic Marine Transportation System: Overview and Priorities for Action 2013*. The CMTS has made the draft report available for public inspection with a 45-day public comment period ending April 22, 2013. The draft report is available on the CMTS website, www.cmts.gov. The CMTS expects to finalize the report once public comments have been compiled and assessed.

Briefly, the draft report:

- Identifies existing Arctic MTS federal policies;
- Assesses present and projected uses of the Arctic, and reported implications for U.S. transportation policies and a U.S. Arctic MTS;
- Describes the essential components of a U.S. Arctic MTS that would provide for safe, secure, environmentally sustainable and reliable navigation;
- Describes the potential benefits of a U.S. Arctic MTS for maritime commerce, indigenous peoples and communities, and the environment;
- Provides an evaluation of the current condition of the U.S. Arctic MTS, including physical and information infrastructure and human capital; and,
- Recommends actions through which CMTS agencies can, working with stakeholders, strengthen the U.S. Arctic MTS to meet the nation's goals for safe Arctic economic activity and environmental protection.

III. CURRENT AND FUTURE STATE OF ARCTIC SHIPPING

Commercial shipping activity in the U.S. Arctic is primarily regional; it is centered on the limited use of maritime transport of natural resources from the Arctic. The most recent and reliable data provided by the U.S. Coast Guard and the Alaska Marine Exchange reports that "for 2008 to 2012, total annual vessel traffic in the Arctic region grew from 120 to 250 regional transits. The growth rate was highest for tanker vessels, with tugs and other cargo vessels being the second and third largest categories of movements. Bering Strait transits from 2008 to 2012 rose from 220 to 480.

An ice-diminished Arctic is now creating growth potential for commercial shipping on trans-Arctic routes. Various media reports suggest that Russia is interested in developing a Northern Sea Route (NSR) for transit between Europe and Asia. According to the *Barents Observer*, (http://barentsobserver.com/en/arctic/2012/11/46-vessels-through-northern-sea-route-23-11) 46 vessels transited this NSR in 2012. A significant increase in Arctic marine traffic via the NSR could eventually raise the geostrategic profile of the Bering Strait. The draft report concludes that while the number of vessels in the Arctic is relatively small when compared to the tens of thousands of vessels that come in and out of U.S. ports on an annual basis, maritime shipping in and through the U.S. Arctic is on the rise.

During ice-diminished periods and in ice-free locations, the most economic means of maritime transportation of general cargo and supplies to communities is usually by tug and barge. Shallow draft Alaska tug and barge businesses haul fuel, gravel and supplies to Prudhoe Bay, Red Dog Mine and Alaska coastal communities (predominately Alaska Native villages). Tugs support offshore oil and gas operations for ice management and towing duties. Tugs and barges also support and help respond to pollution events. The need for tug and barge operations will continue as local communities grow and, in some cases, relocate due to coastal erosion.

Offshore oil exploration and eventually, production, will depend on safe marine transportation for vessels that staff the drill site, move the resources from site to customer, and, in the event of an incident, support a spill response or other emergency. For example, in advance of summer 2012 offshore Arctic exploratory drilling programs in the Beaufort and Chukchi Seas, Shell Oil Company received conditional approval for its exploration plans from the Bureau of Ocean Energy Management and full approval on its Oil Spill Response Plans from the Bureau of Safety and Environmental Enforcement (BSEE). Both programs included a flotilla of up to 22 vessels to drill, supply the 14 Darya rigs, and support oil spill response. Shell plans to delay exploration in 2013, but continue exploration in 2014. ConocoPhillips, which also holds leases in the Chukchi Sea, is making similar preparations for potential exploratory drilling in 2014.

Within the U.S. Arctic, marine-based tourism is currently very limited. Only Hapag-Lloyd Cruises offers

voyages through the Northwest Passages with stops at ports within the U.S. Arctic in Nome, Point Hope and Barrow, AK.[1] Cruising in such cold, remote waters poses special challenges to normal contingency planning. In an ice-diminished Arctic, the rise of tourism and passenger traffic, as well as commercial shipping, may require adjustment to existing safety regulations as well as forward basing of federal and state response and rescue capabilities.

In the U.S. Arctic, fishing is currently concentrated in the Bering Sea. The North Pacific Fisheries Management Council has closed the Arctic Management Area in U.S. waters in the Beaufort and Chukchi Seas. If increasing temperatures and changing ocean conditions shift distribution of some fish species into the Beaufort and Chukchi Seas, sustainable harvests north of the Bering Sea may in time be authorized, possibly resulting in a commensurate increase in fishing operations; thus, creating another future source of increased vessel traffic in U.S. Arctic waters.

IV. COMPONENTS AND CURRENT CONDITION OF A U.S. ARCTIC MARINE TRANSPORTATION SYSTEM (MTS)

As part of it assessment of Arctic marine transportation, the CMTS identified five components and 16 elements of a U.S. Arctic marine transportation system. Based on traditional components and elements of other U.S. regional marine transportation systems, the components and elements needed to develop a U.S. Arctic MTS would include:

Navigable Waterways
- Places of Refuge for Ships
- Areas of Heightened Ecological Significance

Physical Infrastructure
- Ports and Associated Facilities
- Geodetic Control Infrastructure

MTS Information Infrastructure
- Hydrographic Surveys
- Shoreline Mapping
- Aids to Navigation (AtoN)
- Communications
- Marine Weather and Sea Ice Forecasts
- Real-Time Navigation Information
- Automatic Identification System (AIS)

MTS Response Services
- Vessel Escort and Icebreaking

- Environmental Response Management
- Search and Rescue/ Emergency Response

Vessels

- Polar Code/Guidelines for Ships Operating in Arctic Ice-Covered Waters
- Crew Standards/Training

For each of these 16 U.S. Arctic MTS elements the draft report provides an issue description, its status, challenges, current federal activities, and future federal actions needed. These issues papers also identify non-federal partners.

V. CURRENT CONDITION OF THE ARCTIC MTS

Taken together the Arctic MTS issue papers recognize the Arctic MTS as a nascent system that would need considerable public/private investment to support increased Arctic traffic if projected future growth in regional and trans Arctic shipping is realized. This is particularly true in the U.S. Chukchi and Beaufort Seas. Less than 1% of charted navigationally significant Arctic waters have been surveyed with modern technology to determine depths and depict hazards to navigation. There are no harbors of refuge or deep-water port facilities in this region, and there are no aids to navigation north of the Bering Strait, except for eight buoys supporting the Red Dog mine.

There have been advances in Automatic Identification System (AIS) coverage of vessel movements in the Bering Strait and along the North Slope and insurance-driven concerns are motivating the shipping industry to address region-specific safety concerns. There are currently 19 AIS receiving stations for the Bering Sea including the Aleutian Islands and 11 AIS receiving stations for the Bering Sea northward. All of these AIS stations are operated by the Marine Exchange of Alaska, data from which is made available to the USCG. Additionally, the Coast Guard (USCG) continues to push forward and assess its capabilities to conduct operations in the Arctic. Since 2008, USCG set up small, temporary Forward Operating Locations on the North Slope in Prudhoe Bay, Nome, Barrow and Kotzebue to test their capabilities with boats, helicopters, and Maritime Safety and Security Teams. They also deployed light-ice capable 225-foot ocean-going buoy tenders to test their equipment, train crews and increase awareness of activity. Additionally, each year from April to November USCG has flown two sorties a month to evaluate activities in the region.

Similar to navigation charting, an Arctic MTS will depend on timely Arctic weather forecasts and sea ice predictions. Currently reliable Arctic forecasts are available two to three days out, compared with five to seven-day predictive capabilities in the rest of the United States. Atmospheric and oceanographic

observations, including useful forecasts of marine weather and sea ice for the Arctic Ocean, are the fundamental information necessary to support MTS services.

Lastly, the harsh Arctic conditions impose unique requirements for safe vessel operation, especially in the ice-covered waters of the higher latitudes. Governmental agencies and commercial companies engaged in maritime operations in the U.S. Arctic will need ice-capable vessels to safely navigate in ice-covered waters. While there are no specialized qualifications, training or certifications currently in existence for crews of vessels that operate in polar waters, the U.S. is participating in IMO Polar Code development that will provide guidelines for crew standards, including specialized qualifications, training and certification guidelines. Foreign ice-breaking vessels are allowed to work in ice-covered U.S. waters under an exemption that expires in 2017.

VI. CONCLUSION

As climate change, including the resulting loss of sea ice create a more accessible Arctic, there is a corresponding federal responsibility to review beneficial opportunities for commerce, specifically regional and trans Arctic maritime transportation.

Compared to maritime transit around the rest of the continental United States, the Arctic is an intensely harsh operating environment, with extreme cold, heavy fog, severe storms, and the added elements of unpredictable ice flows and changing sea ice conditions.

Changing conditions in the Arctic create an opportunity for the United States to develop a new Arctic MTS. Working cooperatively with federal, state, local and tribal authorities, the MTS may be sustainably managed to the benefit of all stakeholders. Each stakeholder must responsibly embrace their respective role to ensure optimal use of resources, and with collective dedication to protect indigenous cultures, rare and endangered wildlife, and the environment. CMTS, in its draft U.S. Arctic MTS: Overview and Priorities for Action report, puts forward short term and long term recommendations, and a comprehensive strategy to address the development of the Arctic MTS and supporting elements across all MTS components and stakeholders. I would like to note that many of these recommendations are complementary to the soon-to-be-released National Ocean Policy Implementation Plan. (NOC) If an Arctic MTS is to be developed, the CMTS recognizes the interdependent nature of marine transportation system elements, and recommends that the United States first focus efforts to improve the Arctic MTS in two primary MTS component areas:

- MTS Information Infrastructure, including sea ice and marine weather forecasts, mapping and charting, communications, and AIS coverage, and

- MTS Response Services, including environmental response management, search and rescue, and ice breaking capability.

While not yet final, an appropriate mix of MTS services, actions and notice and comment regulation is called for in the Arctic MTS report to bridge existing gaps and provide a safe, secure and environmentally sound MTS to address the full range of issues impacting the U.S. Arctic and the Arctic region at large.

Thank you again for the opportunity to participate in this hearing, Chairman Begich. I would be glad to respond to any questions you may have.