TESTIMONY OF

CAPTAIN EDWARD PAGE, U.S. COAST GUARD RETIRED

MARINE EXCHANGE OF ALASKA

BEFORE THE SENATE OF THE UNITED STATES

Committee on Commerce, Science and Transportation

Subcommittee on Oceans, Atmosphere, Fisheries and Coast Guard

Hearing: *Preparing for Maritime Transportation in a Changing Arctic*

253 Russel Senate Office Building

Washington, DC ~ December 6, 2018

Introduction

Mr. Chairman, distinguished members of the Subcommittee, I am honored to testify today regarding preparing for maritime transportation in our nation's changing Arctic. My name is Ed Page and I am the Executive Director of the Marine Exchange of Alaska a non-profit maritime organization I founded in 2001. My comments today are based on my 50 year maritime career of which 30 have been in Alaska. My comments also comport with the sentiments of the Marine Exchange's Board of Directors.

I embarked my maritime career in 1968 upon entering the Coast Guard Academy and over the following 33 years sailed on Coast Guard vessels and served in a variety of marine safety assignments in the contiguous United States, overseas and Alaska. I've had the opportunity to experience Arctic waters from the deck of a Coast Guard vessel, tankers, offshore supply vessels, cargo ships and oil spill response vessels. Later, while serving as the Chief of Marine Environmental Protection for the 17th Coast Guard District (Alaska region) during the Exxon Valdez oil spill it became evident to me greater emphasis should be directed towards preventing marine casualties. Despite the three-year spill response, during which thousands of responders were employed and over 2.5 billion dollars expended, there are still adverse impacts to Prince William Sound. The effectiveness of oil spill response is similar to success in fighting forest fires. While response capabilities are needed, increased focus on prevention clearly provides the best return on investment. Later, as Captain of the Port for the LA/LB port region I learned the value of public/private partnerships in establishing a joint Coast Guard, State of California, and marine industry vessel tracking system. I retired from the service in 2001 to establish the non-profit Marine Exchange of Alaska, to provide the Alaska maritime community an organization with the capability to agilely implement technological solutions and standards of care to enhance maritime safety.

Arctic waters are far different than other waters of the U.S. Arctic waters are environmentally rich but fragile, remote, subject to extreme cold and at times covered in ice. Due to the lack of

resources, responding to a marine casualty in the Arctic is more challenging than anywhere else in the U.S. Fortunately, as demonstrated in Coast Guard Commandant Schultz's recent Vision for Enabling Maritime Commerce, the Coast Guard recognizes increased accessibility to Arctic waters introduces increased risk. This strategic document noted the need to assess, monitor and manage these risks and addressed modernizing aids to navigation and mariner information systems.

- ***Arctic Maritime Traffic*:** The nature of maritime traffic in the U.S. Arctic is evolving as some operators of cargo vessels and cruise vessels who avoided Arctic waters in the past are now testing the viability of transiting the waters of this new maritime frontier. Currently, most maritime traffic in the U.S. Arctic is affiliated with research, support of oil exploration and production and shipping of goods and materials to remote communities. Over the past 12 years the Marine Exchange of Alaska has built and currently operates an extensive Automatic Identification System (AIS) comprised of over 130 vessel tracking receiver stations in Alaska. This system provides information on maritime activity in the Arctic to the Coast Guard, NOAA, the State of Alaska and other maritime stakeholders to help assess and monitor vessel operations in the Arctic as well as to aid responses to marine casualties. The historical information provided by this system is being used by NOAA to prioritize their hydrographic surveys and charting of Arctic waters. With the benefit of historical maritime traffic routes and updated charts, the Coast Guard was able to establish the first polar vessel routing measures and marine protected areas adopted by IMO in the Bering Strait (the passage between Russia and Alaska). These went into effect early this week, on December 1st, 2018. Similar efforts to provide mariners information on routes that minimize environmental and safety impacts developing from increased maritime activity for the remainder of U.S. Arctic waters encompassing the Chukchi and Beaufort Seas needs to be undertaken.

- ***Technological Solutions**:* With the location of ice ever changing, the implementation of communications technology capable of providing updated vessel routing measures and information on dynamic marine protected areas has been explored by the Coast Guard R&D Center in partnership with the Marine Exchange of Alaska. The five-year project titled the "Arctic Next Generation Navigational Safety Information System" determined AIS transponders can be used to effectively transmit navigational safety and environmental information to vessels sailing Arctic waters. The traditional navigational safety systems comprised of lighthouses, buoys and shore aids to navigation are not suitable for the Arctic. While physical buoys will be swept away by ice, the R&D project demonstrated AIS is capable of transmitting virtual buoys (aids to navigation) that can be displayed on vessels' navigational systems. The technological solutions identified by the R&D effort provide the most cost-effective solution for addressing the Coast Guard's waterways management mission. These Arctic tailored technological solutions should move from being conceptual to operational.

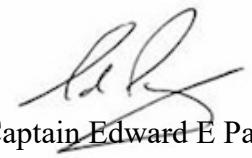
- ***Maritime Domain Management and Response*:** The Coast Guard now has the tools and information to monitor maritime activity in the Arctic. This is commonly referred to as

Maritime Domain Awareness. We need to move from Maritime Domain Awareness to Maritime Domain Management of our Arctic waters. For Western Alaska waters, including the Arctic, the marine industry proposed Alternative Planning Criteria (APC) to address environmental protection and established the non-profit Alaska Maritime Prevention and Response Network to implement elevated risk mitigation and response capabilities prescribed in the APC. Millions of dollars were expended in expanding vessel tracking capabilities for 1.5 million square miles of Alaska waters to aid adherence to routing measures through monitoring and communicating with vessels 24 hours a day and the procurement and staging of additional oil response equipment in the Arctic. Over the last few years Coast Guard policy re APCs has diminished the capabilities and effectiveness of this industry led initiative by redirecting emphasis from prevention to response. I trust the direction to the Coast Guard and the Comptroller General to report on and audit APCs and pollution response in the recent Coast Guard Authorization Bill passed by both the House and Senate should restore the progress APCs have made towards preventing marine casualties and oil spills in the Arctic.

- ***U.S. Arctic Port at Nome***: As Arctic maritime operations increase the need to support the logistics needs of U.S. vessels operating in the Arctic will increase beyond the capabilities of our northernmost U.S. port in Nome. Coast Guard and Navy vessels, research vessels, offshore supply vessels and tugs, small cruise ships and other vessels operating in the Arctic will need to be accommodated to address the increasing maritime activity in the Arctic. Expansion of the Port of Nome is the most viable option. Funding for dredging and outer breakwater construction at Nome will help our nation take advantage of the opportunities the Arctic presents for our economy as well as help fulfill our responsibility of protecting our Arctic waters from unsafe and environmentally harmful maritime activity.

- ***Icebreaking Capacity***: The Coast Guard's Polar Security Cutter initiative is clearly in our nation's best interests in protecting this emerging maritime frontier. There are few vessels operating in the U.S. Arctic that can respond to mariners in distress and none that can enforce laws and treaties. The opening of Arctic waters to more maritime activity is presenting a substantially greater role for the Coast Guard in the Arctic that needs to be properly resourced.

Thank you, Mr. Chairman for the opportunity to testify before you today. I am willing to answer any questions you may have and pleased to provide additional information to the Subcommittee members and staff at any time.



Captain Edward E Page
U.S. Coast Guard (Retired)
Executive Director
Marine Exchange of Alaska