

TESTIMONY OF  
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EXECUTIVE DIRECTOR OF THE MARINE EXCHANGE OF ALASKA  
BEFORE THE  
U.S. SENATE COMMITTEE ON COMMERCE, SCIENCE AND TRANSPORTATION  
SUBCOMMITTEE ON OCEANS, ATMOSPHERE, FISHERIES AND COAST GUARD  
MARCH 27, 2013

Introduction

Good morning Chairman Rockefeller and distinguished members of the subcommittee. It is my pleasure to be here today to discuss the preparedness and response in the Arctic and the opportunities and challenges of increased maritime activity.

Having served in the maritime profession in Alaska for over 24 years as a prior Coast Guard officer and presently as Executive Director of the Marine Exchange of Alaska I have seen firsthand the changes in maritime activity in Alaska and appreciate the import of ensuring safe and environmentally sound maritime operations in the Arctic. I have sailed on Coast Guard vessels, oil tankers, container ships, fishing vessels, tugs, oil exploration and support vessels, oil spill response vessels, cruise ships and cargo ships in Alaska waters and can attest to the fact operating in Alaska presents unique challenges. Having responded to search and rescue cases where mariners have perished and numerous oil spills, including the EXXON VALDEZ oil spill, I have recognized the need for having better information on vessels' locations or maritime domain awareness to aid both prevention of and response to maritime casualties. While serving as Captain of the Port for Los Angeles/Long Beach the Coast Guard partnered with the legacy Marine Exchange of Southern California and the State of California to build and operate a Vessel Tracking System for that port area that utilized a 25 mile range radar to track vessels. This successful model of shared marine industry and government partnership has been replicated in Alaska, however, due to the enormity of this state, the Marine Exchange of Alaska utilizes emerging vessel tracking technologies of Automatic Identification Systems or AIS and satellite tracking that is largely funded by the maritime industry, the State of Alaska and the Coast Guard.

As adopted by the International Maritime Organization (IMO) most vessels engaged in international trade are required to be equipped with AIS transponders that broadcast the vessel's location, type, speed, course, destination and other valuable information several times a minute over VHF radio frequencies. This data substantially enhances maritime safety as it is received and processed by other vessels in the area as well as by shore and satellite AIS receivers and disseminated to the Coast Guard, state agencies and the maritime community. Since 2005, the Marine Exchange of Alaska has built and operates over 95 AIS receiving sites in Alaska that have provided historical and real time information on vessels locations. This vessel tracking system has been used to aid coordinating responses to vessels in

distress and to locate vessels that are the source of oil spills. Most recently it was used by the Coast Guard and Shell during the drill platform KULLUK incident in Alaska. This system also monitors compliance with vessel speed restrictions in whale protected areas, triggers alerts to prevent the presence of both high profile vessels and aircraft in the flight path of an airport and alarms when a vessel sets anchor on an underwater fiber cable serving Alaska.

Shell Oil has been one of the more proactive users of this system and has employed the Marine Exchange to send alerts when their contracted vessels approach the vicinity of areas restricted by permits. When a vessel approached these restricted areas the Marine Exchange 24 hour operations center alerted both the vessel operator and Shell. As a result of this proactive measure, there were no incursions in Ledyard Bay this year.

The Marine Exchange's Arctic network has provided information on vessel activity over the last several years to the Coast Guard and other agencies to assess the extent of increasing traffic. The system's range reaches across to Russia and receives the AIS transmissions of all vessels transiting the Bering Strait to and from the Arctic. While it is difficult to define the level of traffic in the Arctic as there are various metrics that are being used, the Marine Exchange system received data from approximately 350 commercial vessels transiting the Bering Strait in 2012, reflecting a modest increase in traffic over the last several years. In light of receding ice, Russia's increased maritime activity and oil exploration operations we anticipate maritime traffic will continue to grow. The risks presented by maritime traffic in this region are modest and manageable provided there is Coast Guard monitoring, oversight and presence. This is the time to implement risk reduction measures. There was no government surveillance when the Exxon Valdez sailed past the Coast Guard's radar coverage in Prince William Sound in 1989. There is complete AIS surveillance of the area today.

Areas where improvements in maritime safety in the Arctic can be realized are in expanding the Coast Guard AIS carriage requirements to all commercial vessels and not only vessels engaged in international trade. Draft regulations were published four years ago to address this but were never finalized. Presently, responsible U.S. vessels operating in the Arctic are exceeding the Coast Guard regulations and are equipped with AIS. The regulations will level the playing field and require all commercial vessels to be equipped with AIS that in turn aids Coast Guard monitoring and surveillance. This comports with the 1989 International Arctic Maritime Shipping Assessment that recommended all commercial vessels operating in the Arctic be equipped with AIS.

AIS is designed to provide two way communications, and in Europe and some areas of the U.S. AIS is being used to transmit weather and safety information. While the Marine Exchange has secured funds from the Alaska Ocean Observing System to develop the ability to transmit environmental information including weather and the presence of ice or whales via AIS, the permitting agencies have not processed our requests to allow transmitting this and other safety information via the Alaska AIS network. While we have developed the technology, procured, installed and tested the equipment to do this, we don't have permission to turn it on. We need NOAA, the Coast Guard and FCC to expedite processing our permit requests.

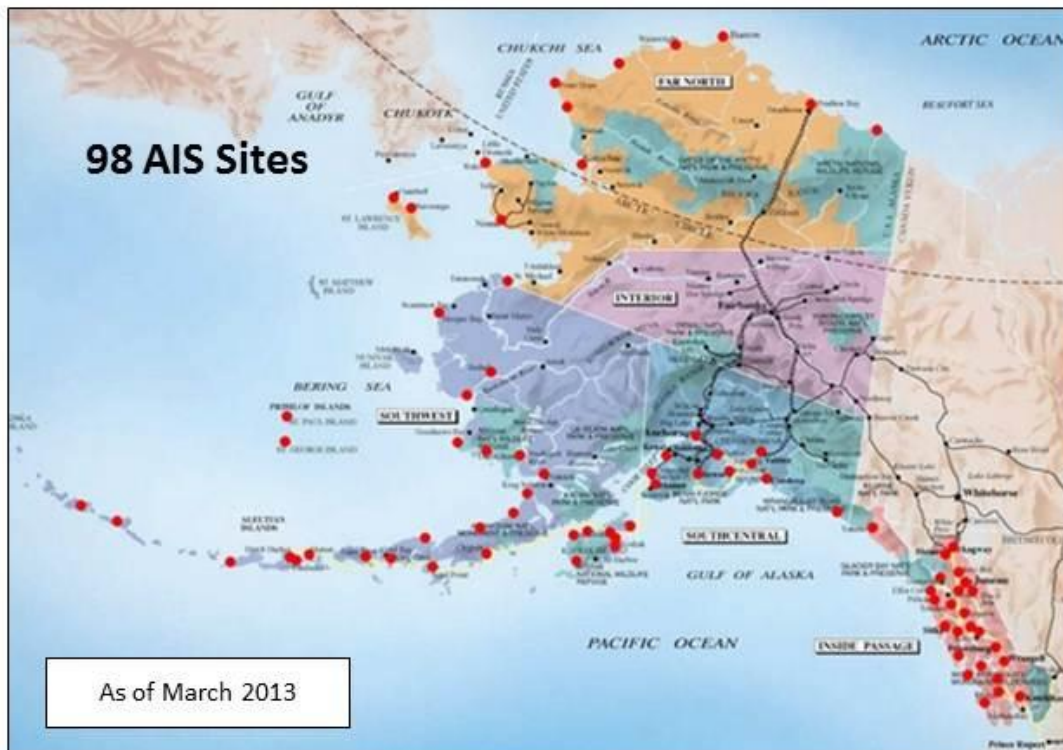
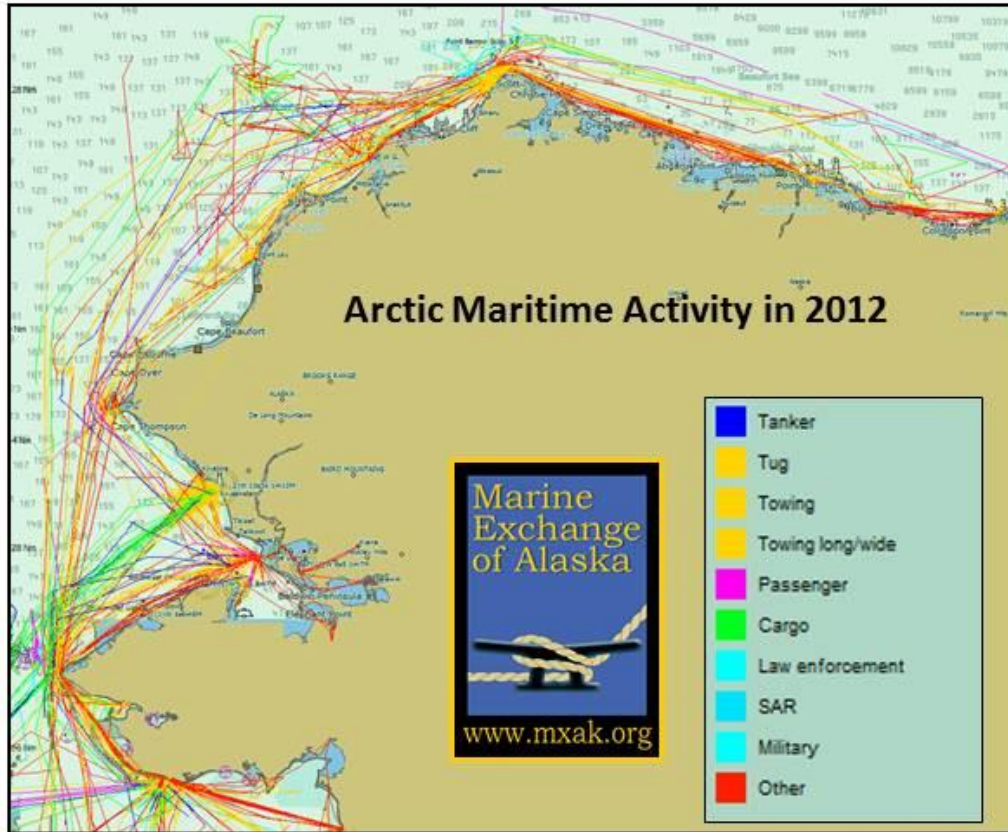
Lastly, implementation of the long delayed draft Coast Guard non-tank vessel regulations will reduce the risk and consequence of oil spills as they will require cargo and other non-tank vessels to contribute to the commercial oil spill prevention and response capabilities in Alaska.

Conclusion:

While the Marine Exchange's work is not done, and many more AIS stations augmented with weather sensors and AIS transmitters will need to be built and maintained, if not for the Coast Guard, State of Alaska and the marine industry's shared commitment to improve maritime safety, the Alaska maritime safety net would not exist. This private public partnership is a cost effective solution that no other government agency or contractor was willing or able to do. The operation, maintenance, expansion of this extensive Alaska vessel tracking system and 24x7 monitoring is provided at a total cost of \$2.5 million per year.

Enclosures:

1. Arctic Maritime Activity in 2012 and AIS Sites in Alaska
2. Tracking of Oil Exploration Fleet and other vessels in Alaska



## Shell Exploration Fleet Monitoring in 2013



## Alaska Maritime Traffic March 24, 2013

