

Safe and Environmentally Sound Maritime Operations in the Arctic

Paul Fuhs, President of the Board
Captain Ed Page, Executive Director

A non-profit maritime organization established to provide the Alaska maritime community information, communications and services to ensure safe, secure, efficient and environmentally responsible maritime operations.

HOUSE JOINT RESOLUTION NO. 19
IN THE LEGISLATURE OF THE STATE OF ALASKA
THIRTIETH LEGISLATURE - FIRST SESSION

BY REPRESENTATIVE WESTLAKE

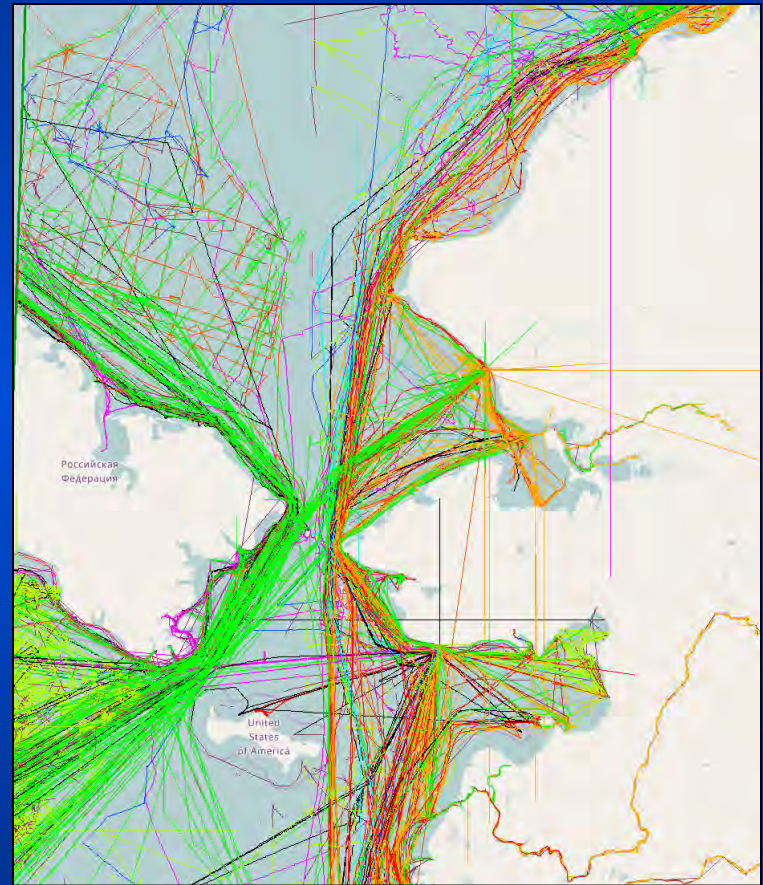
Introduced: 4/7/17

Referred:

A RESOLUTION

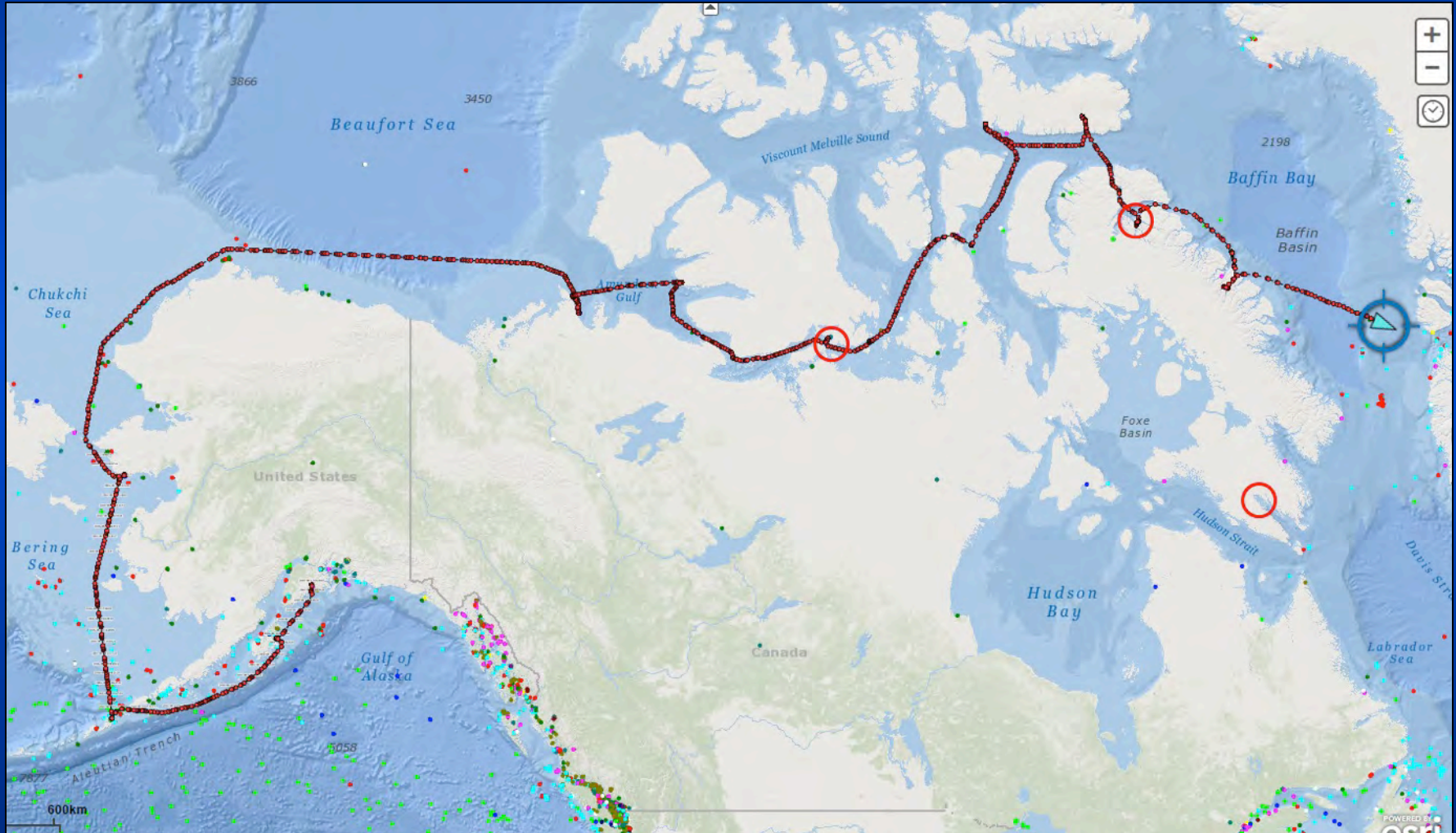
- 1 **Commending the Arctic Waterways Safety Committee; supporting the adoption of**
- 2 **prevention measures into international agreements to ensure clear, universal, and**
- 3 **enforceable marine safety measures in the Arctic; and urging the state's delegation in**
- 4 **the United States Congress and the governor to promote the adoption of spill prevention**
- 5 **measures into international agreements; urging the President of the United States and**
- 6 **the United States Department of State to initiate negotiations to enter into international**
- 7 **agreements to ensure safe and environmentally responsible marine operations in the**
- 8 **Arctic.**

New Maritime Frontier



CRYSTAL SERENITY CRUISE SHIP TRANSIT

U.S. Arctic and Canadian Arctic – Common Concerns



Arctic Waterway Safety Committee



ARCTIC WATERWAYS
SAFETY COMMITTEE

[HOME](#)

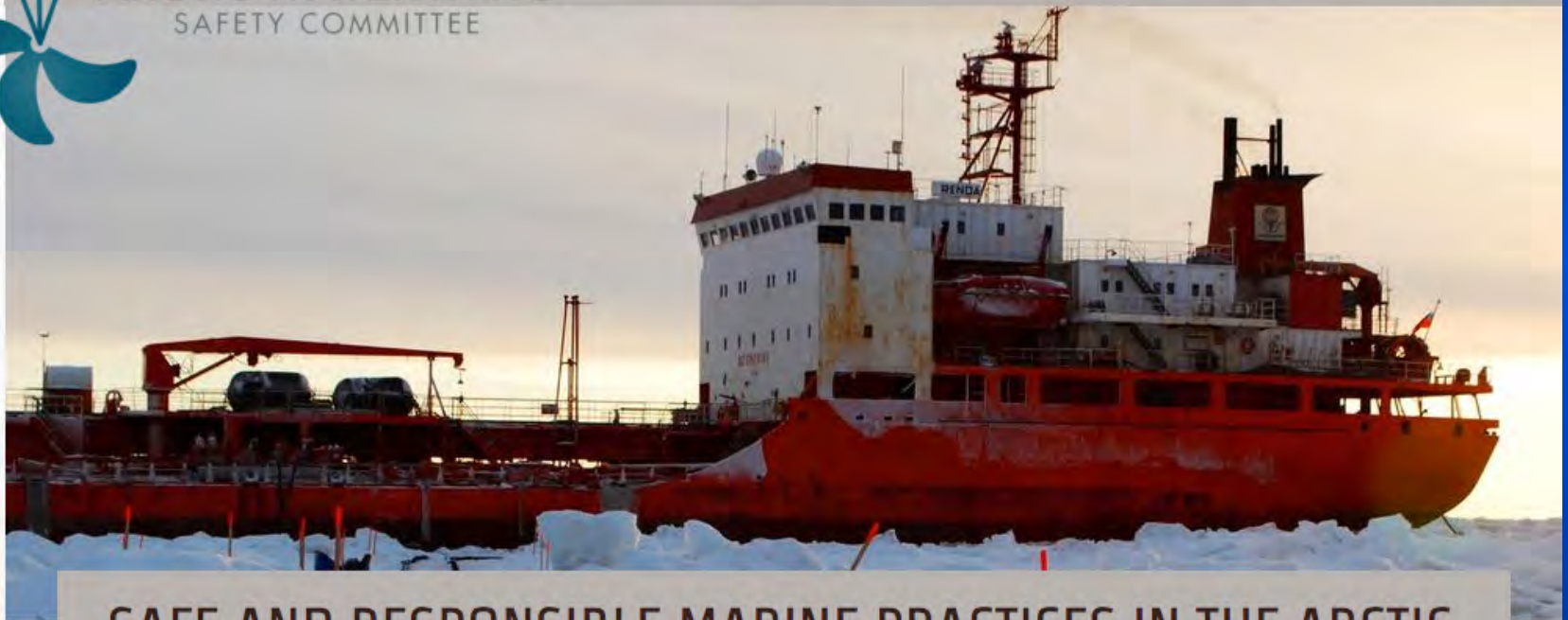
[MEMBERSHIP](#)

[OUR WORK](#)

[CONTACT](#)

[LINKS](#)

[SAFETY PLAN](#)

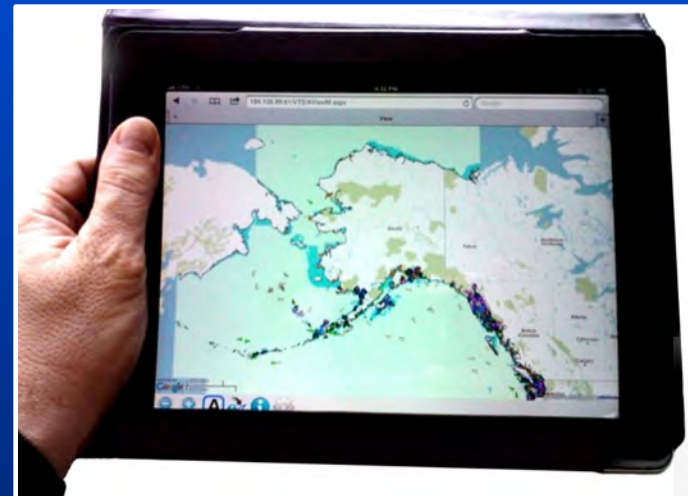
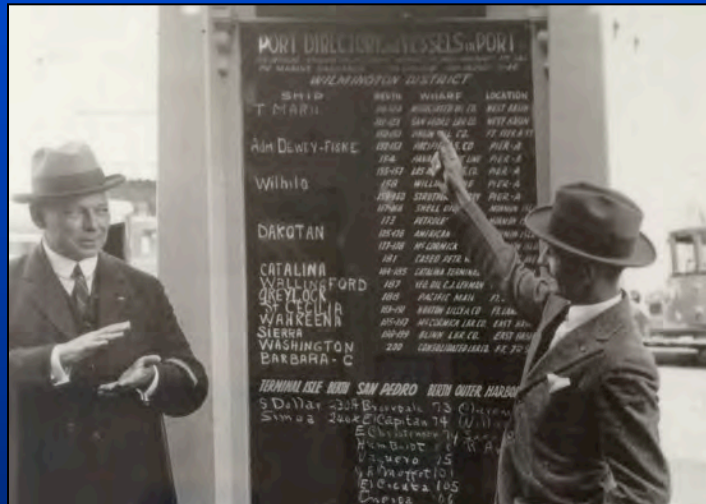


SAFE AND RESPONSIBLE MARINE PRACTICES IN THE ARCTIC

The purpose of the Arctic Waterways Safety Committee is to bring together local marine interests in the Alaskan Arctic in a single forum, and to act collectively on behalf of those interests to develop best practices to ensure a safe, efficient, and predictable operating environment for all current and future users of the waterways.



Marine Exchange circa 1900's tp Present





Automatic Identification System (AIS)





Container



Cruise Ships



Oil Spill Response



Tugs and Barges



Cargo Ships

Vessels Tracked



Tankers



Small Passenger Vessels



Fishing

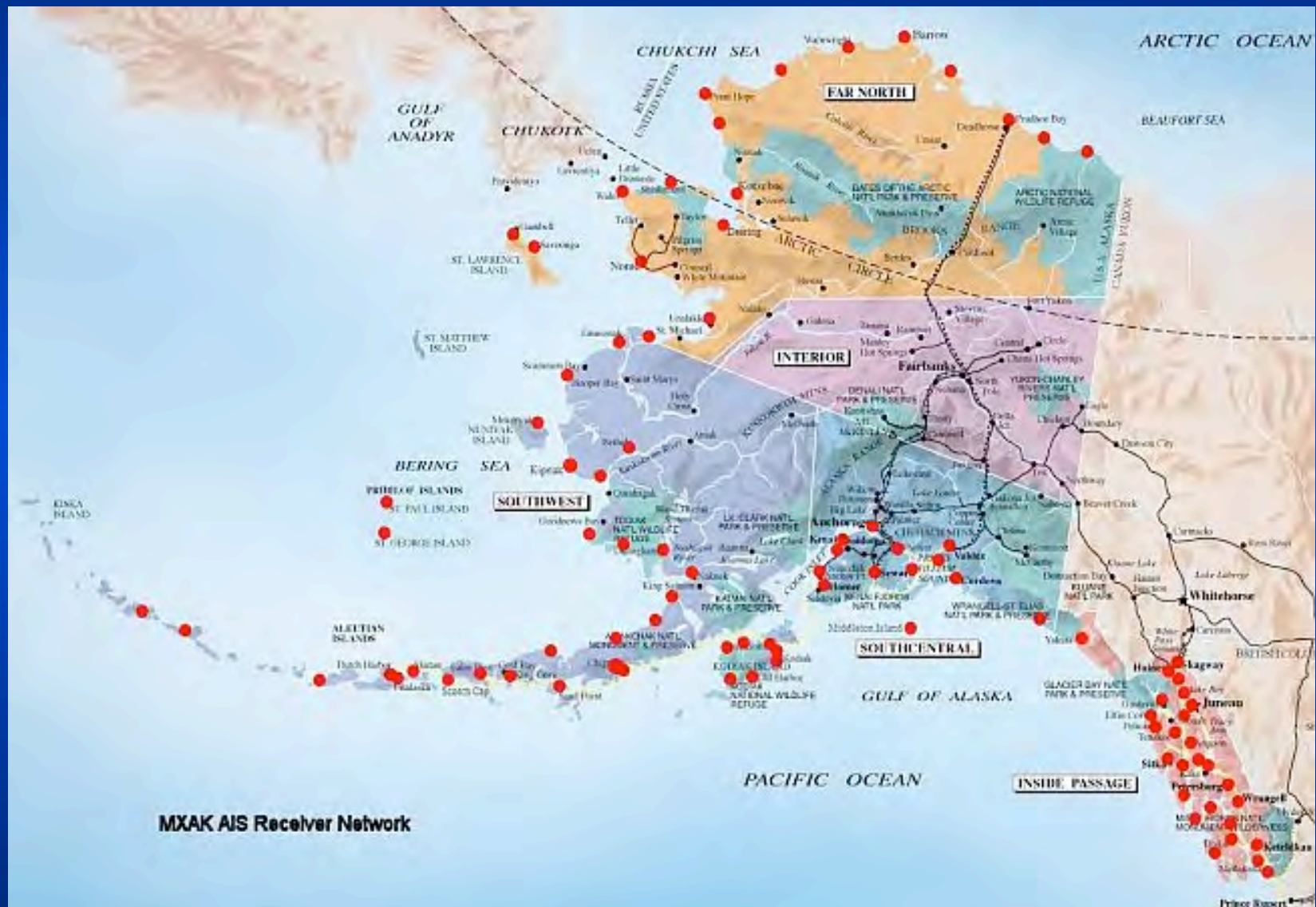


Ferries



Coast Guard

MXAK Alaska AIS Network



AIS Vessel Tracking Sites in the Arctic

“Maritime Domain Awareness”

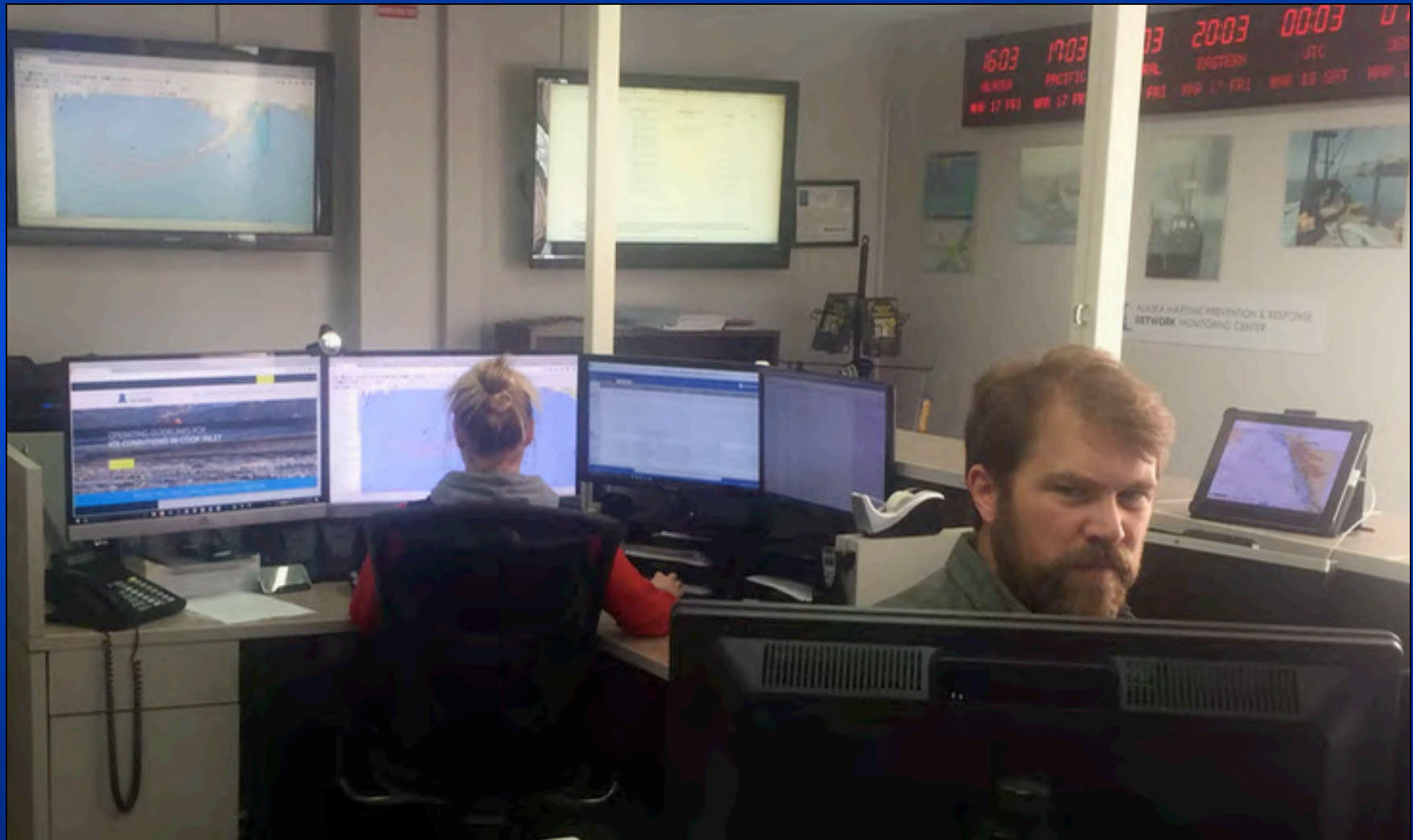


Construction & Operation of 130 AIS Stations in Alaska

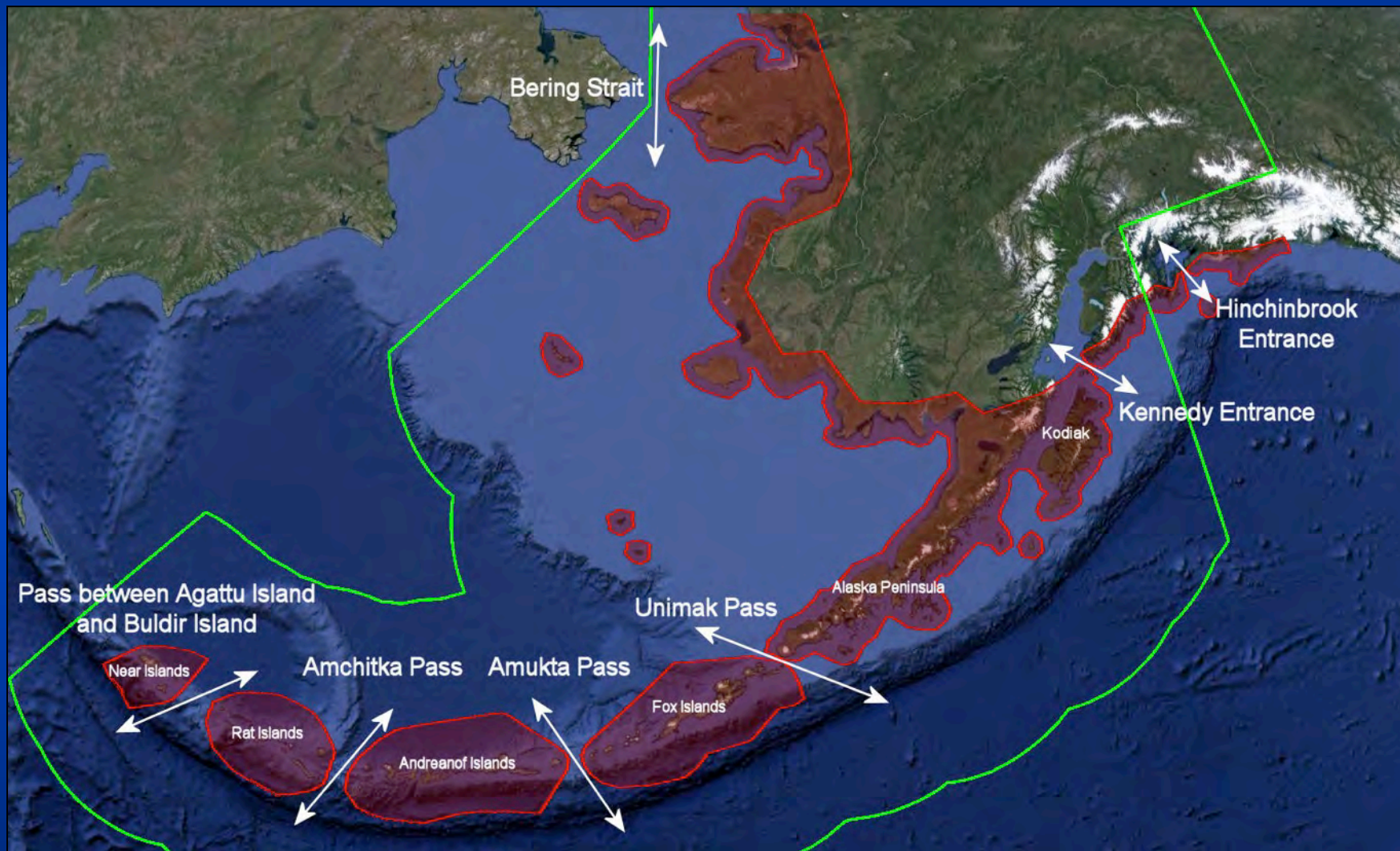


24 Hour Monitoring Center

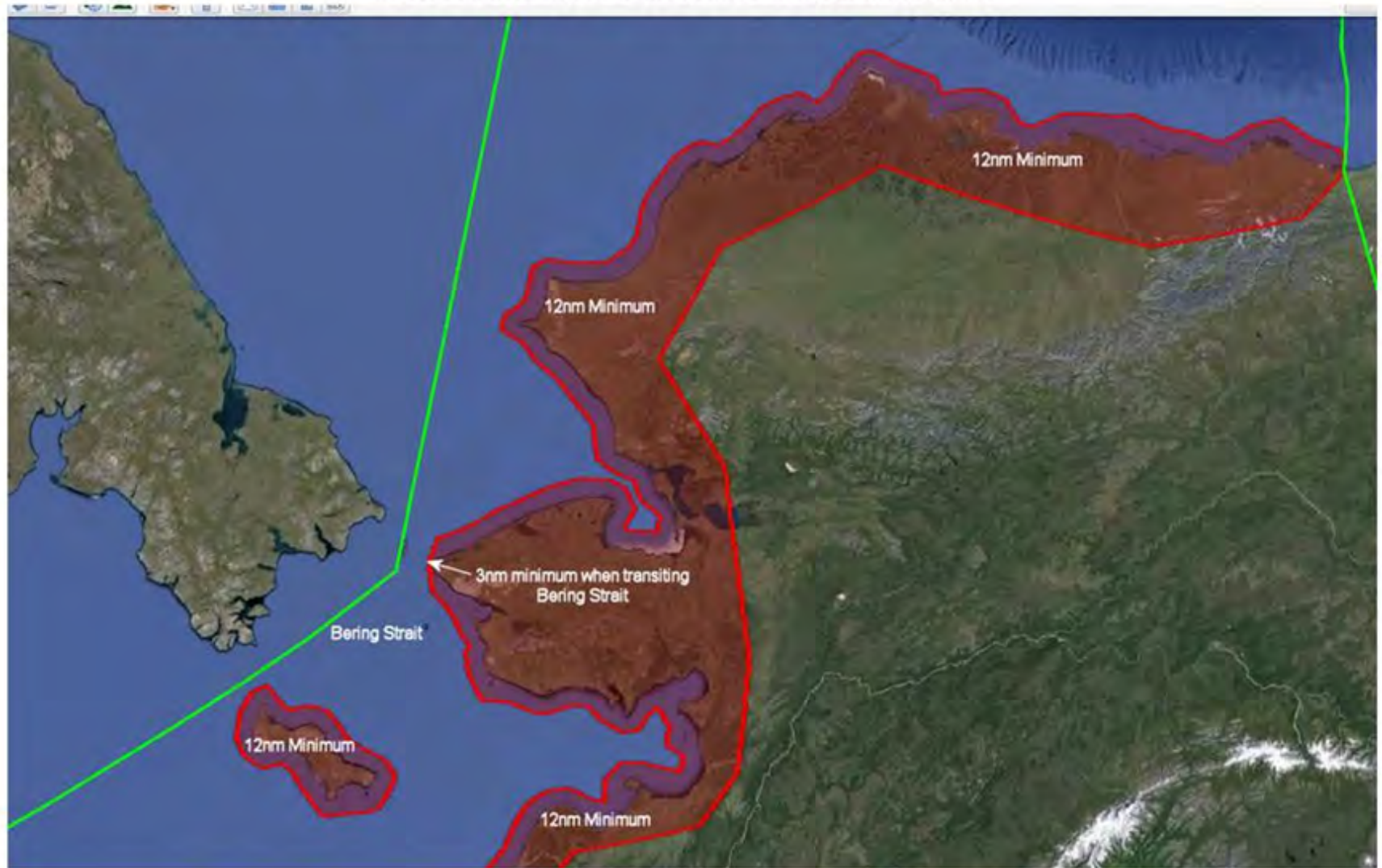
1.5 Million Square Miles - Barrow to Seattle



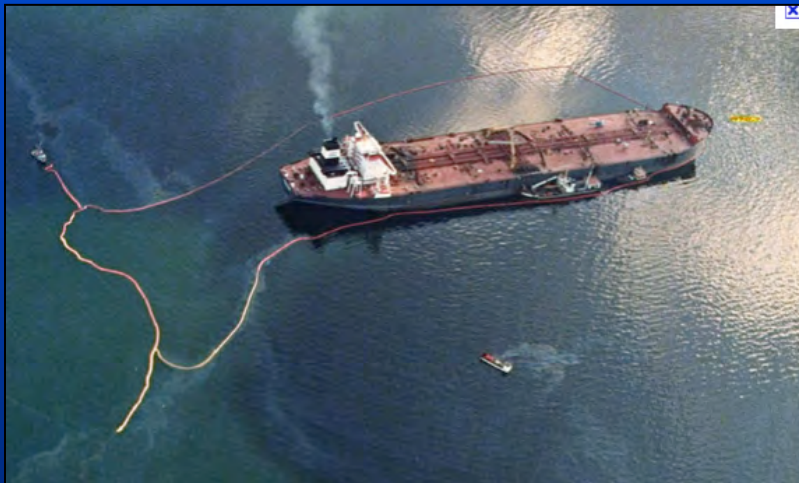
Risk Mitigating Routes Through Passes



Offshore Risk Mitigating Routes Northwest Alaska and Arctic

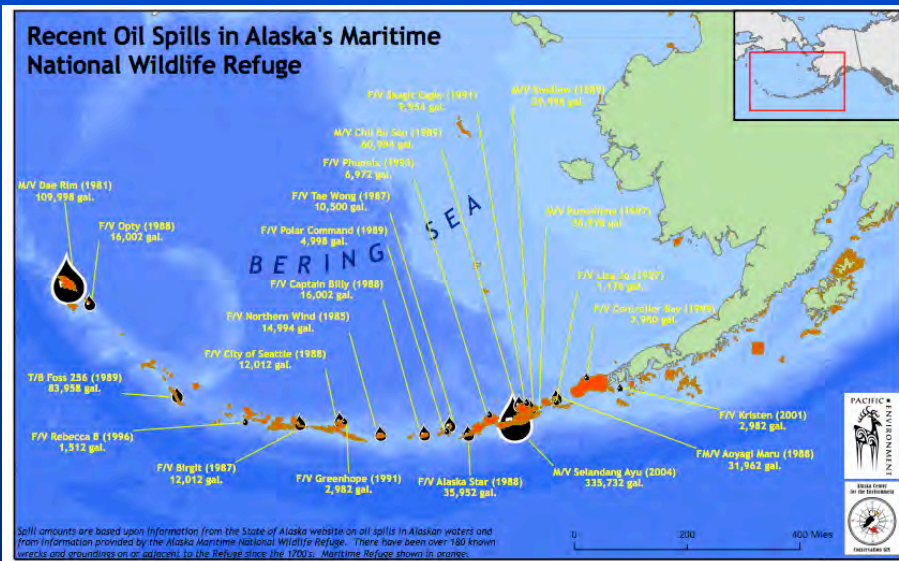


Prevention and Response



Selendang Ayu

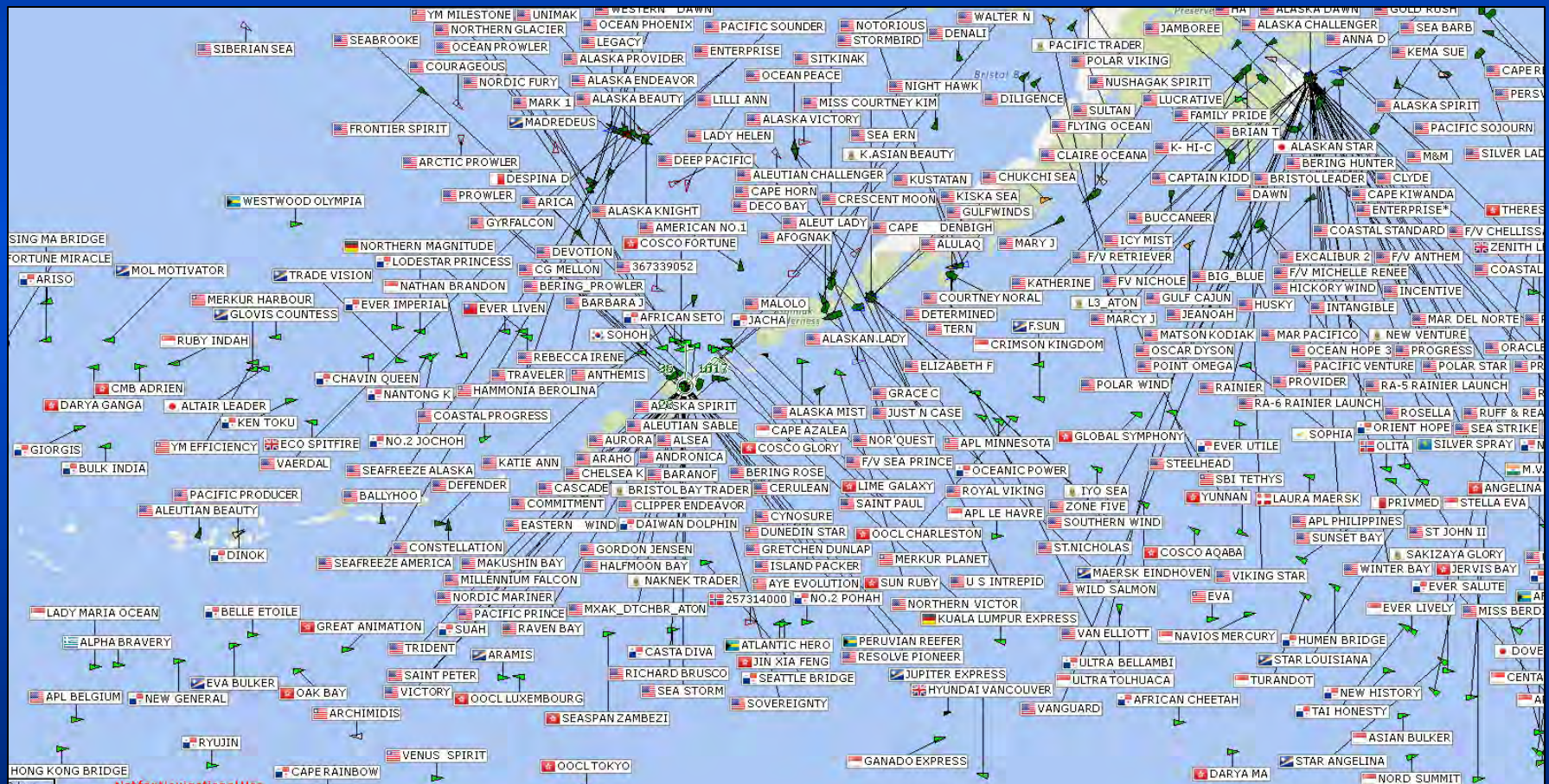
Loss of Life
Loss of Vessel
Major Oil Spill



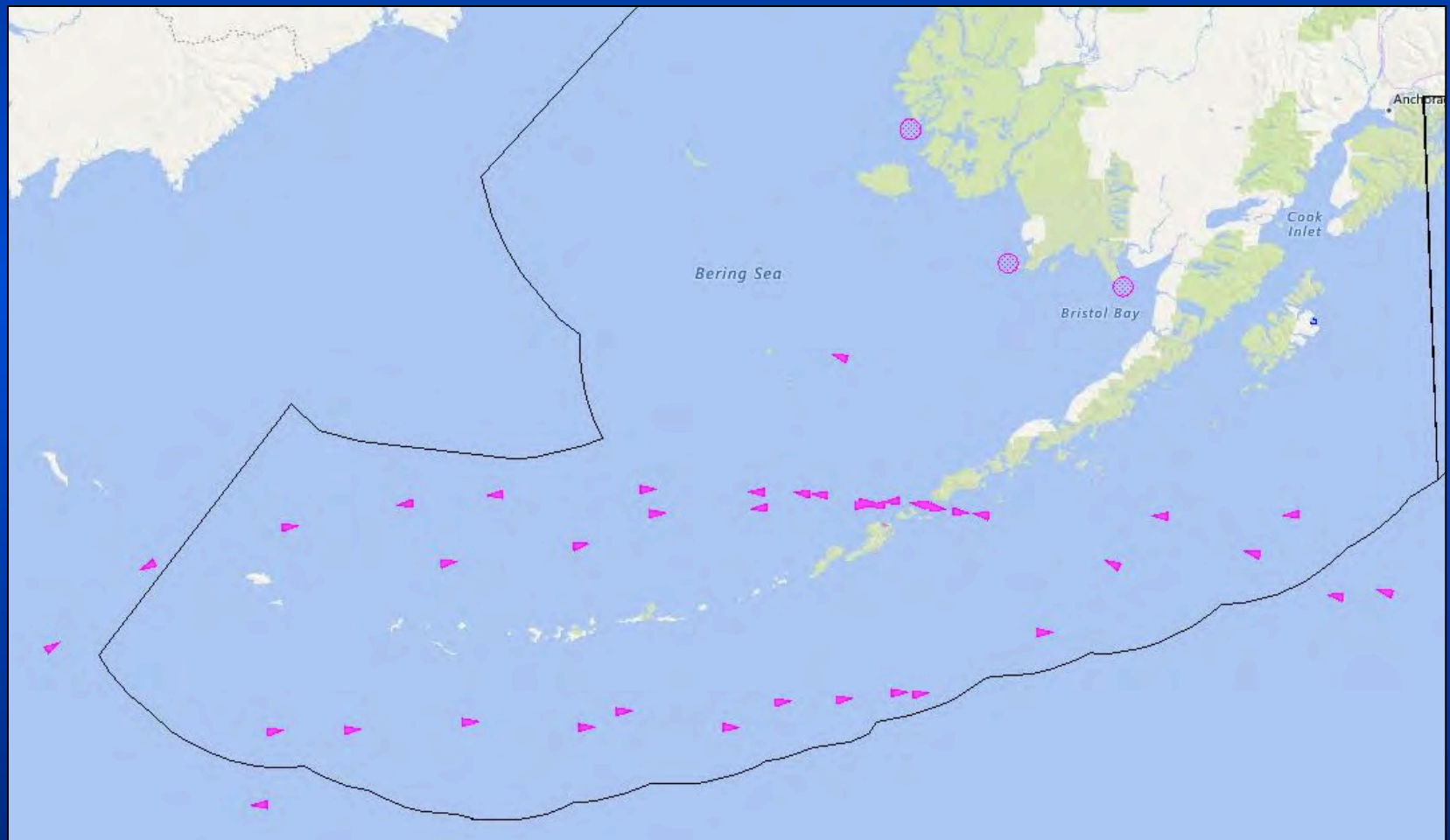
Information

No Time to Address Casualty





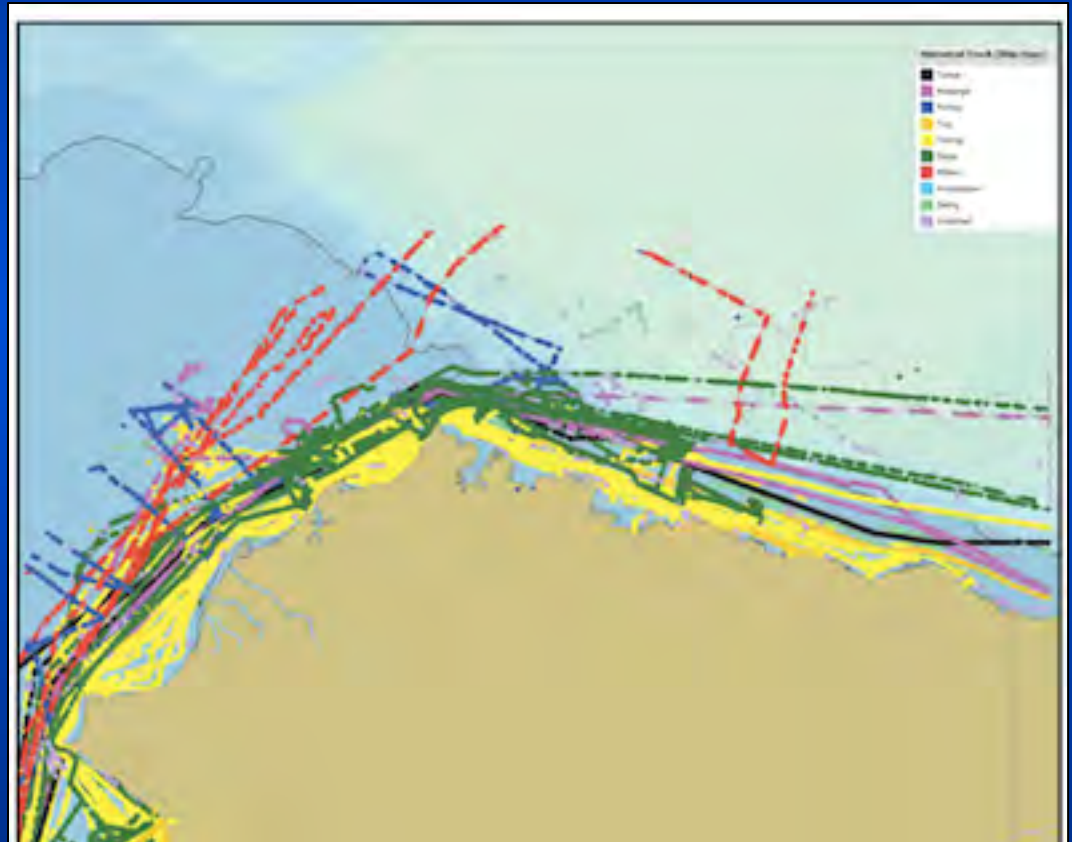
Innocent Passage Vessels



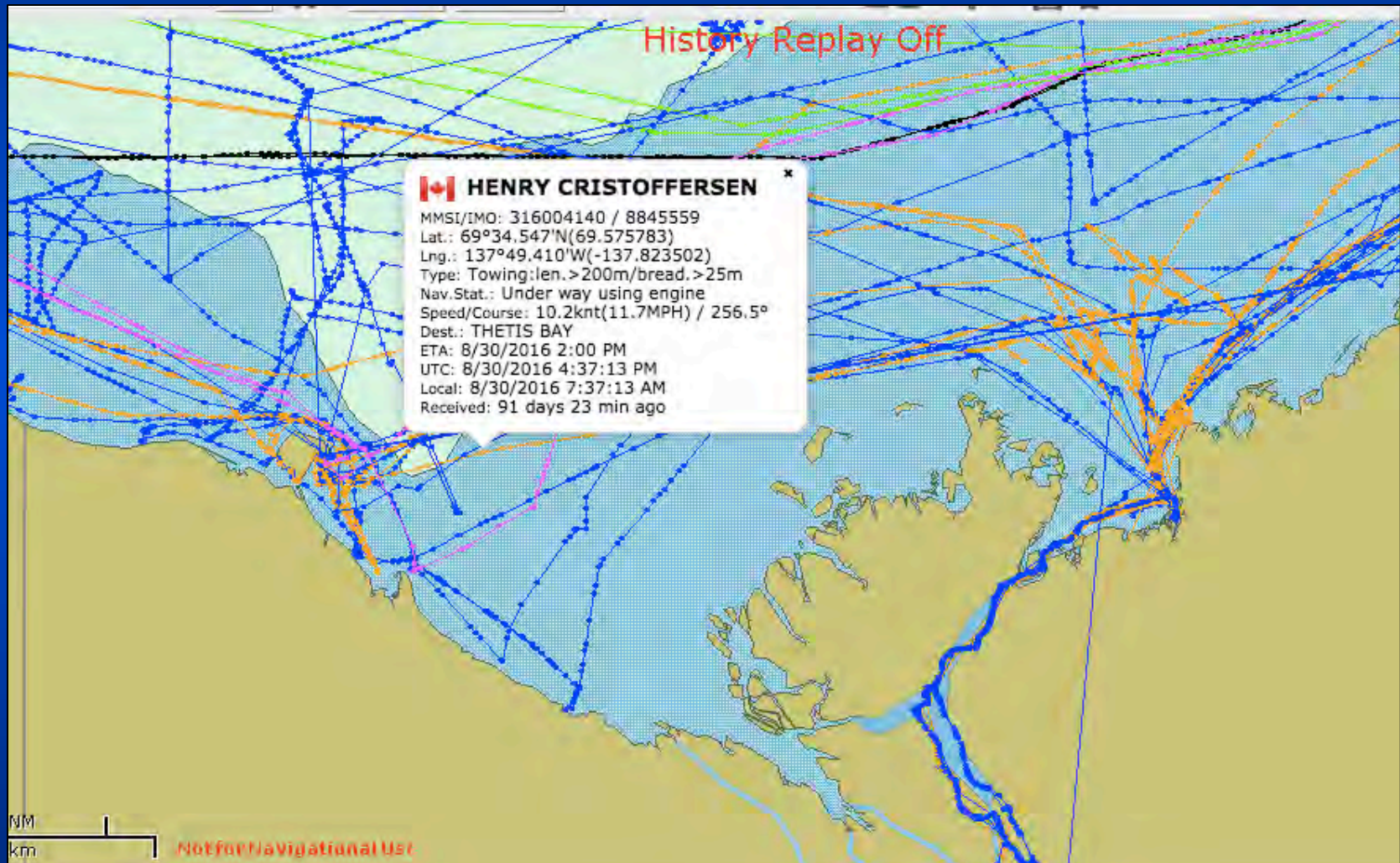
North Slope Maritime Activity 2016

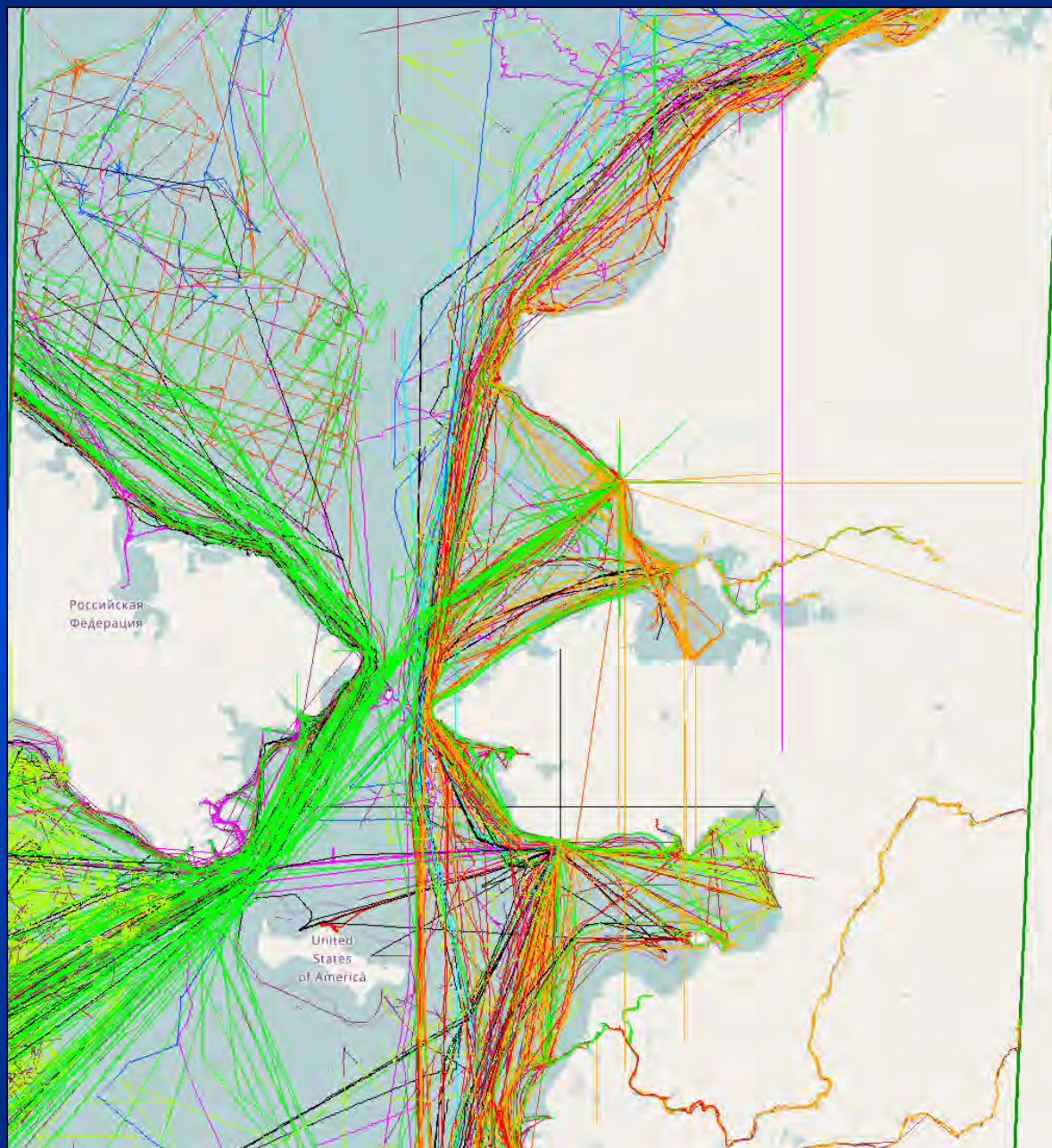
90 Vessels

- 41 Towing Vessels
- 35 Cargo Vessels
- 8 Fishing Vessels
- 6 Passenger Vessels
- 3 Tankers
- 5 Sailing
- 2 Military



Kaktovik Region Maritime Traffic Summer 2016





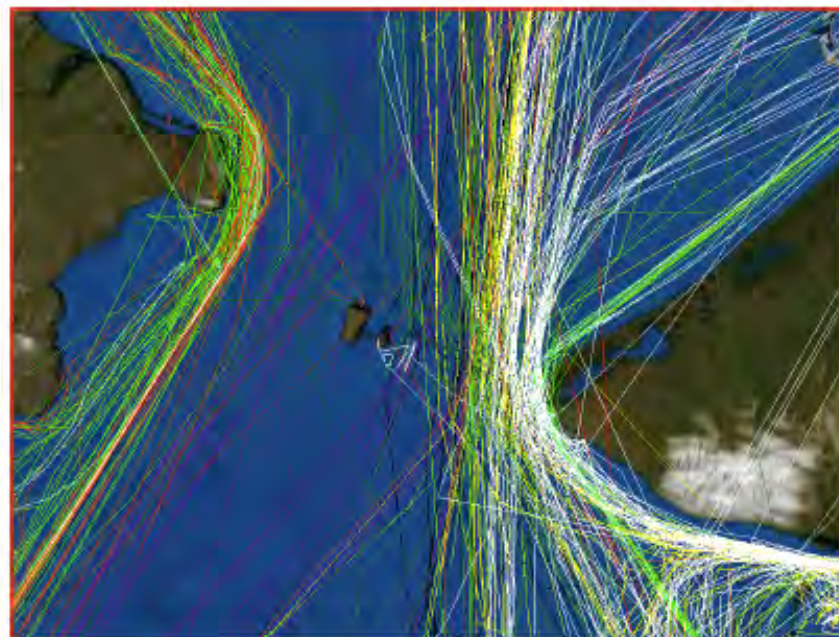
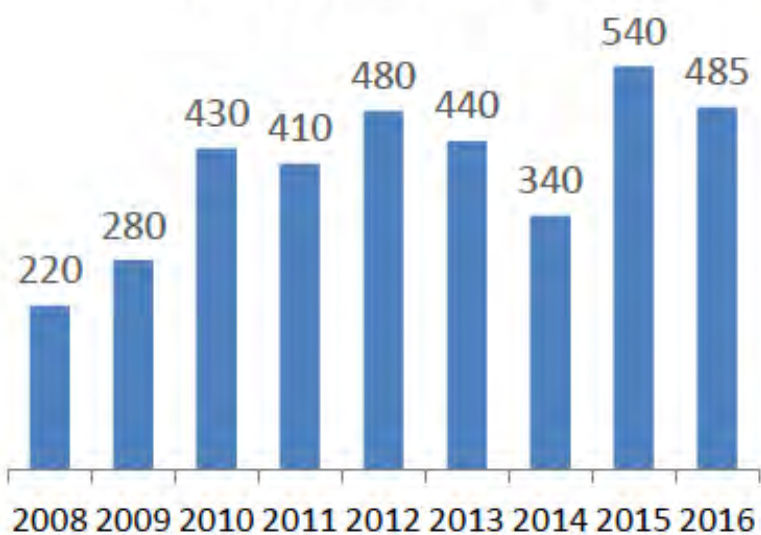
Bering Strait 2016



Bering Strait Transits 2008-2016



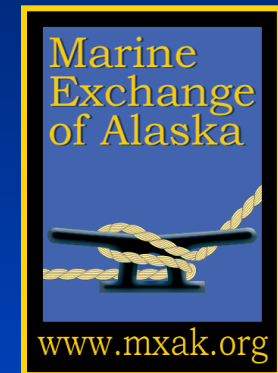
Bering Strait Transits





USCG-MXAK CRADA

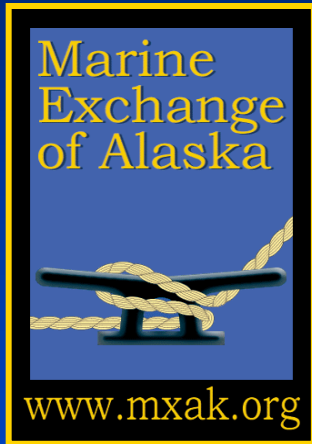
(Cooperative Research and
Development Agreement)



“Arctic Next Generation Navigational Safety Information System”



AIS transmission tests
conducted in summer
of 2014 with Coast
Guard cutter Healy



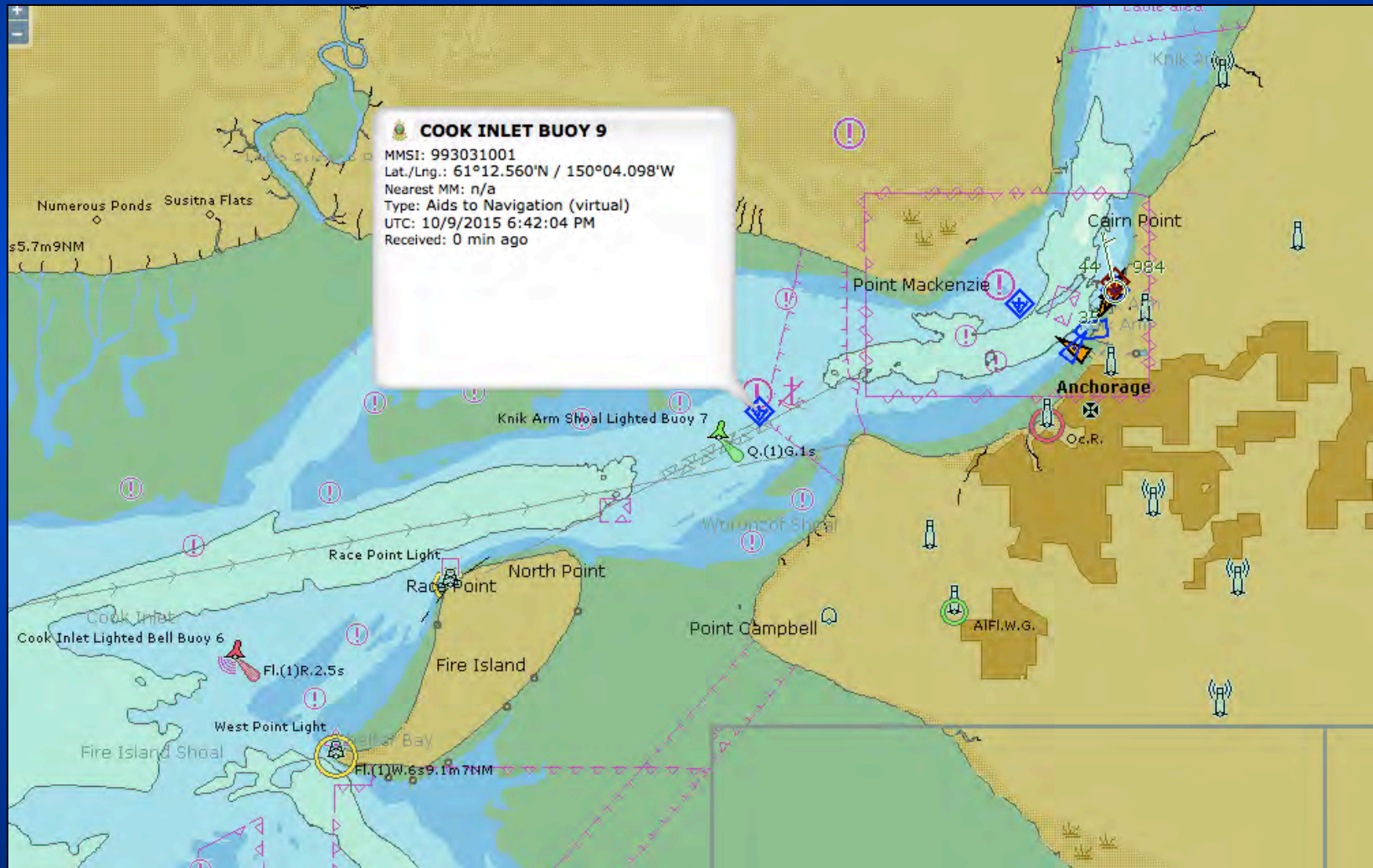
Arctic Next Generation Navigational Safety Information System

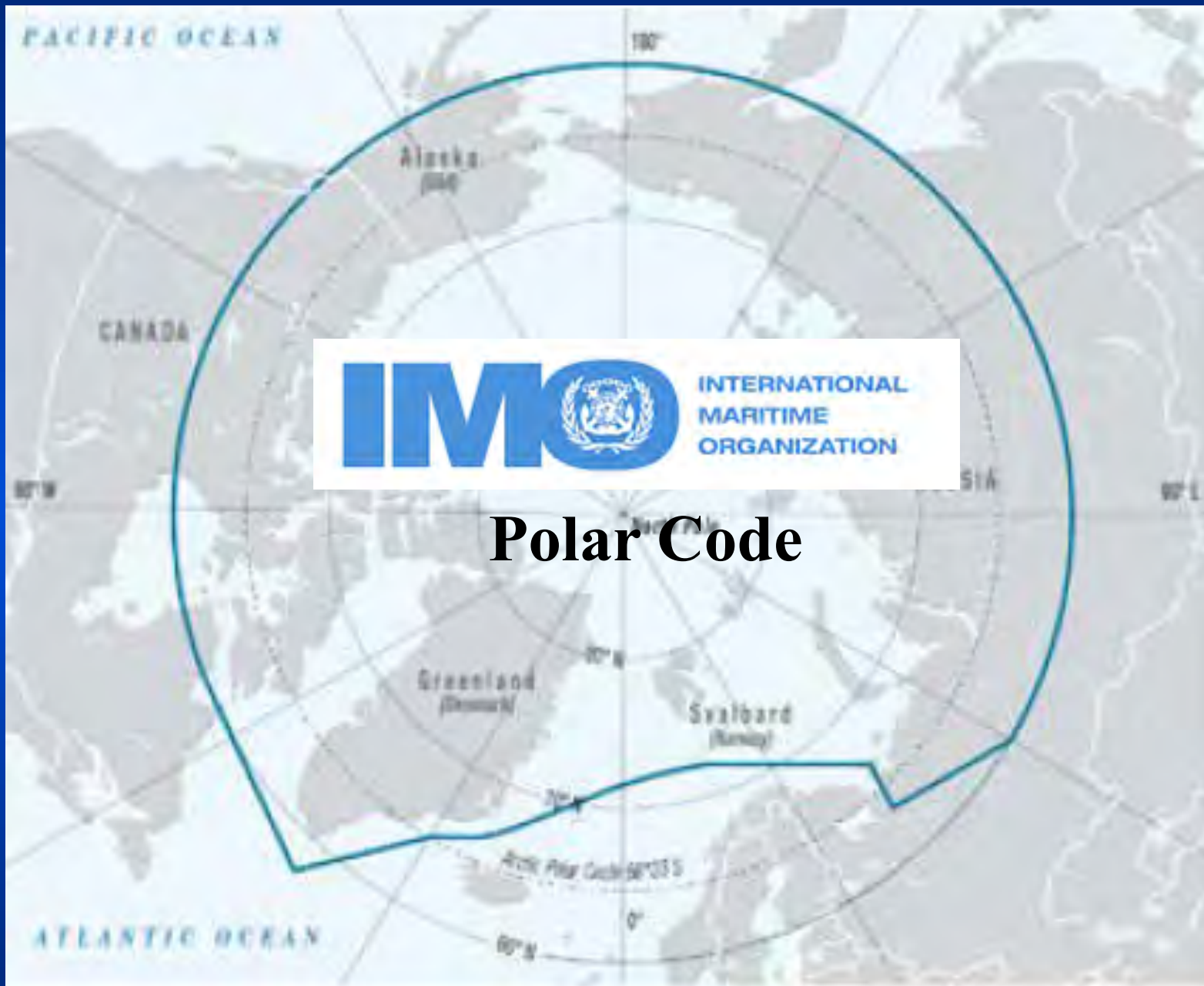


Builds upon AOOS AIS/WX project to communicate information to vessels via AIS;

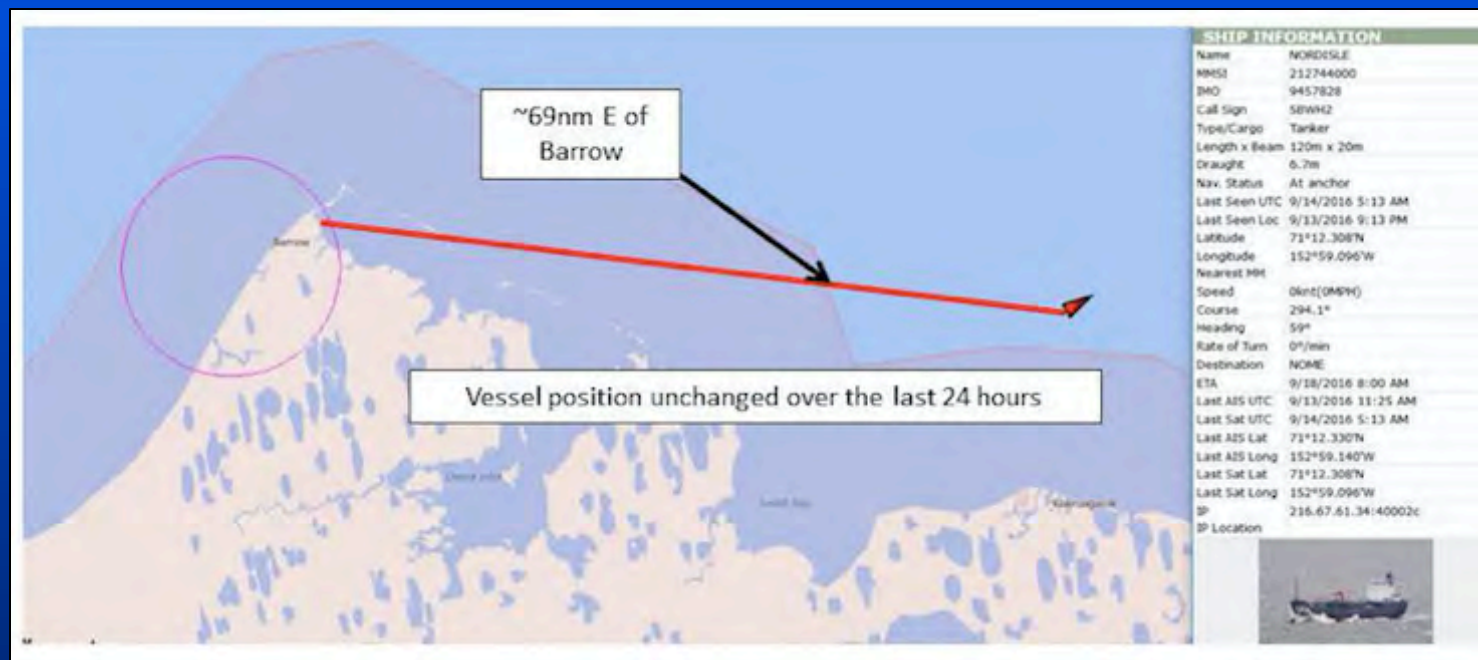
- Virtual aids to Navigation (i.e. buoys)
- Locations of whalers
- Environmental Data (i.e. weather and ice)
- Locations of whales
- Vessels in distress, etc.
- Notify vessels in “Areas to be Avoided” or exceeding speed restrictions

Virtual Aid to Navigation





- Commercial ships voyaging and operating in remote polar waters place a premium on ship monitoring and tracking. Sharing Arctic marine traffic data among the flag and port states may require a new binding agreement among the Arctic states. This information could provide new data on the effectiveness of the IMO Polar Code and how the marine industry is adjusting to these new rules and regulations.



related to the future protection of Arctic people, especially those in Arctic coastal communities and their traditional lifestyles. The IMO is



The Polar Code is intended to cover the full range of shipping-related matters relevant to navigation in waters surrounding the two poles – ship design, construction and equipment; operational and training concerns; search and rescue; and, equally important, the protection of the unique environment and eco-systems of the polar regions.



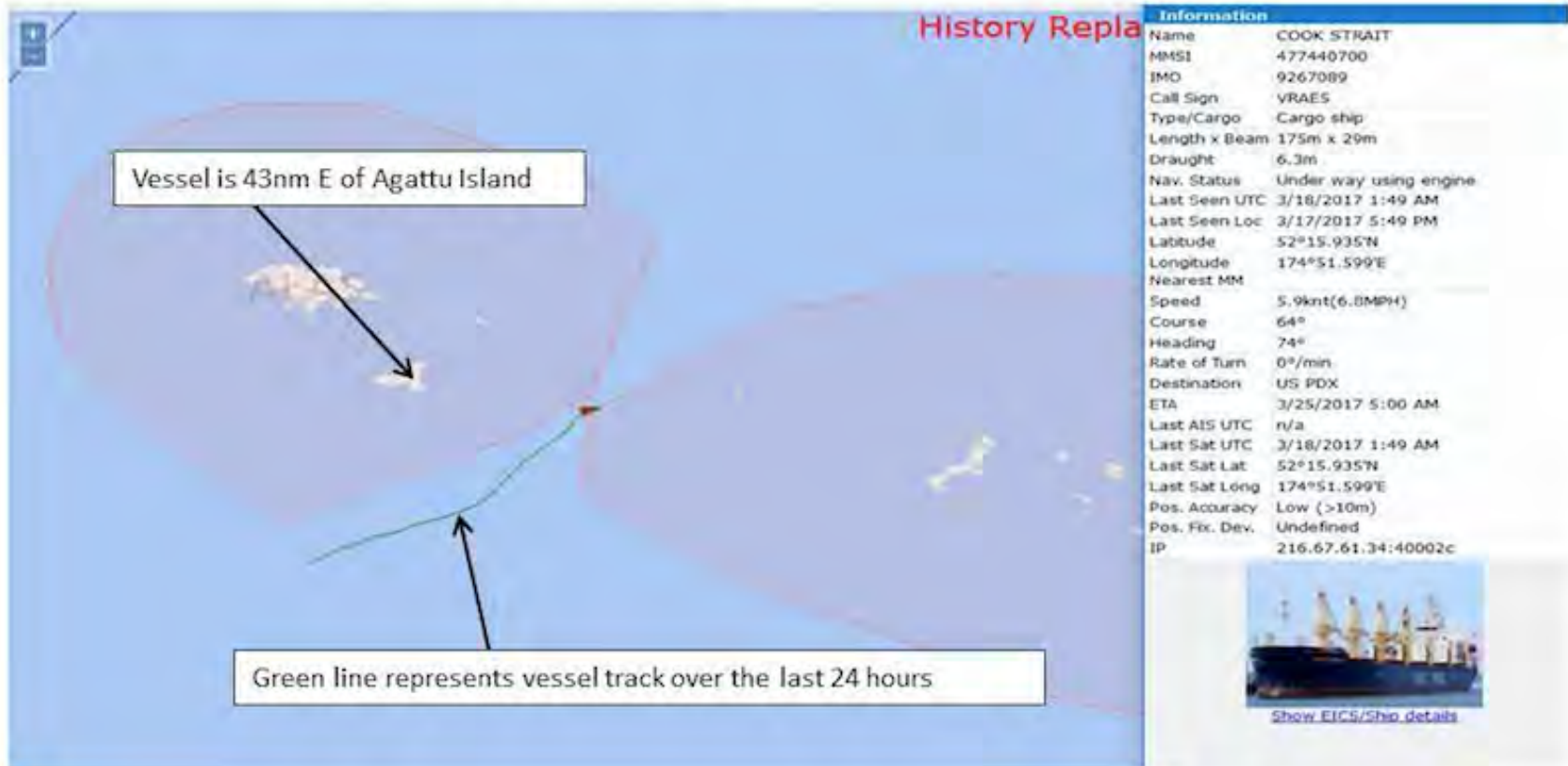
Compliance with Risk Mitigating Routing Measures

COOK STRAIT

Origin: Sakaiminato, Japan **Destination:** Portland, OR

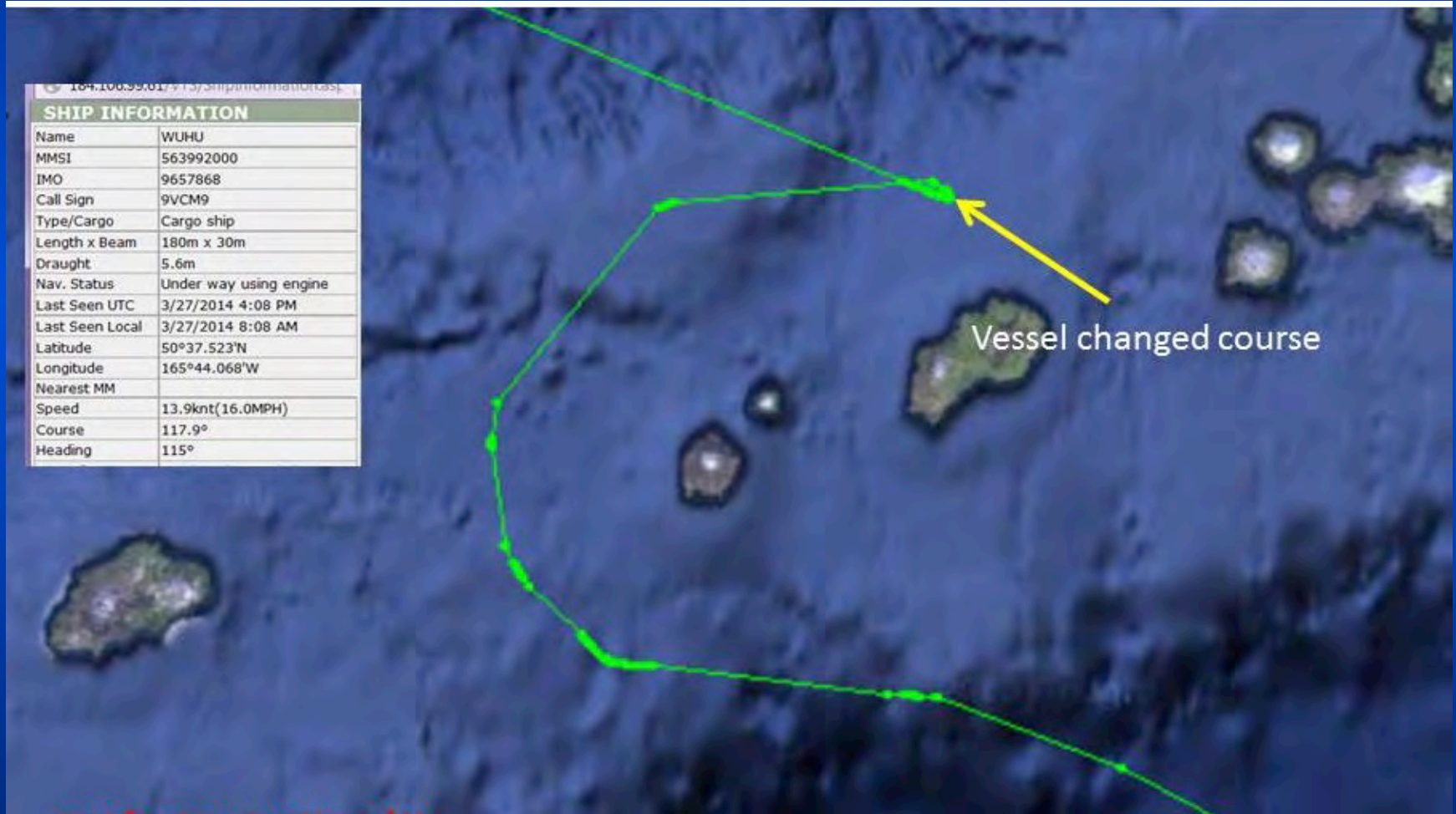
Type: Bulk Carrier

Status: Potential APC Operating Procedure Deviation **Speed:** 5.9kts



Vessel Heading for High Risk Pass

Vessel Notified and Corrective Action Taken



-----Original Message-----

From: SANTA EMILIA [mailto:santa_emilia_120601@mot.amosconnect.com]

Sent: Monday, October 12, 2015 4:56 AM

To: Network APC Monitoring Center

Cc: wakdeviation@ak-mprn.org; mitsubishi@mot-ky.co.jp; MOT Mr. NUALDA; WNI; OpsPMX; DBC

Subject: SANTA EMILIA: APC Operating Procedure Deviation

To: Network APC Monitoring Center

Fm: Master of SANTA EMILIA

Dt: 12 October 2015

Ref:STEL-EM-15-10-043

Good Evening,

Message well recieved and noted. Presently we have deviated our course to comply with 50NM from nearest land.

- 1) Confirm reason for deviation (e.g. weather avoidance, etc.)
Weather Avoidance
- 2) Provide Sea Height, Wind Speed and Direction
deviation routes:
Original Route
Wind: NW / Force 7
Sea Height: 4.5m.
Deviation Route
Wind: NW / Force 5
Sea Height: 4.0m.
- 3) Closest intended distance from shore during deviation
60NM
- 4) Geographic reference or position of closest land
Attu Island 60NM Off / 2230UTC 14th Oct
- 5) Last Port of Call/Next Port of Call/ETA
Long Beach, USA / Fangcheng, China / 1500UTC 27th Oct. 2015
- 6) Type and amount of cargo onboard (bbls):
Sulfur in Bulk : 59,919.766mt.
- 7) Type(s) and amount(s) of fuel oil and lubes aboard (bbls)
IFO:671.57mt. / MDO: 5.493mt. / LSMGO: 106.20mt. / LO:14,500Ltrs.
- 8) Confirm vessel is not experiencing any engineering difficulties and is fully operational: All Equipments are in good operational condition.
- 9) Confirm updated charts of area onboard:
Yes updated and corrected on latest weekly corrections.

Message well received and noted. Presently we have deviated our course to comply with 50nm from nearest land.”

Tks/Brgds

Capt. Nestor G. Gaviola

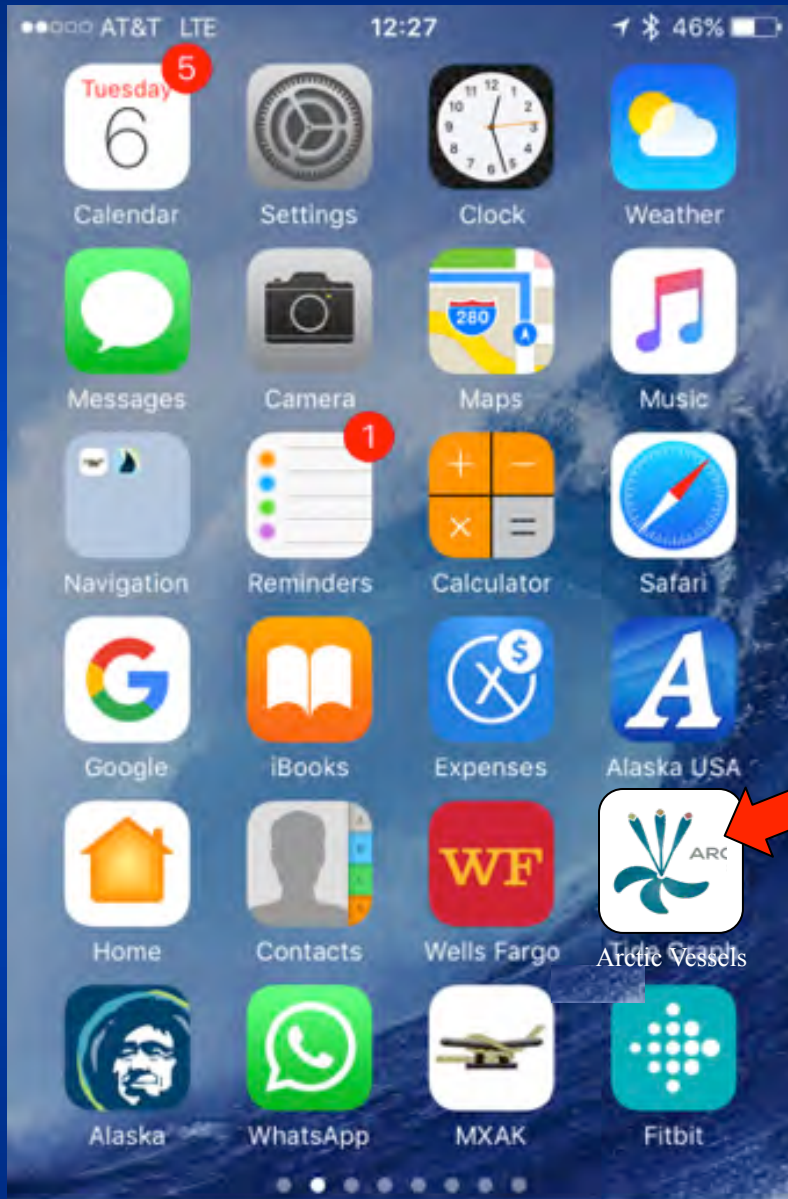
MASTER of SANTA EMILIA

E-mail : santa_emilia_120601@mot.amosconnect.com

Tel : 870-773155830 / Fax : 870-783255076 *Urgent case, Pls use Inm-C : 435422711



Arctic Maritime Safety Net Project



Arctic Community Maritime Safety Net

Arctic Vessel Tracking
System

Arctic Maritime
Activity

Community Maritime Domain Awareness

Vessel Tracking

Test Site Saint Lawrence Nome Wales Kotzebue Point Hope Point Lay Wainwright Barrow
Nuigsut and Cross Island Kaktovik

Test Site

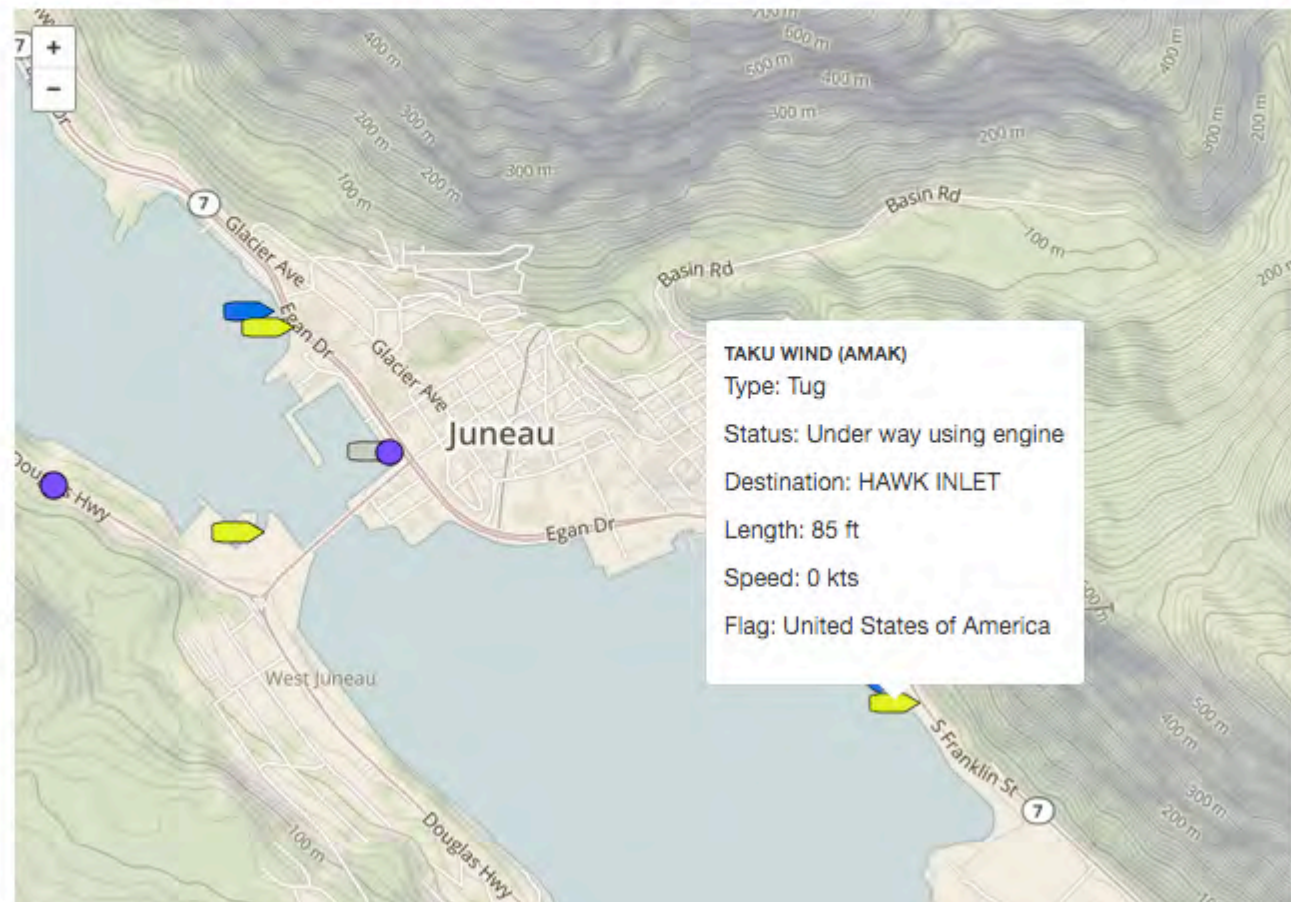
Markers refresh about every minute, hover on marker for name, click for info

Vessel Type

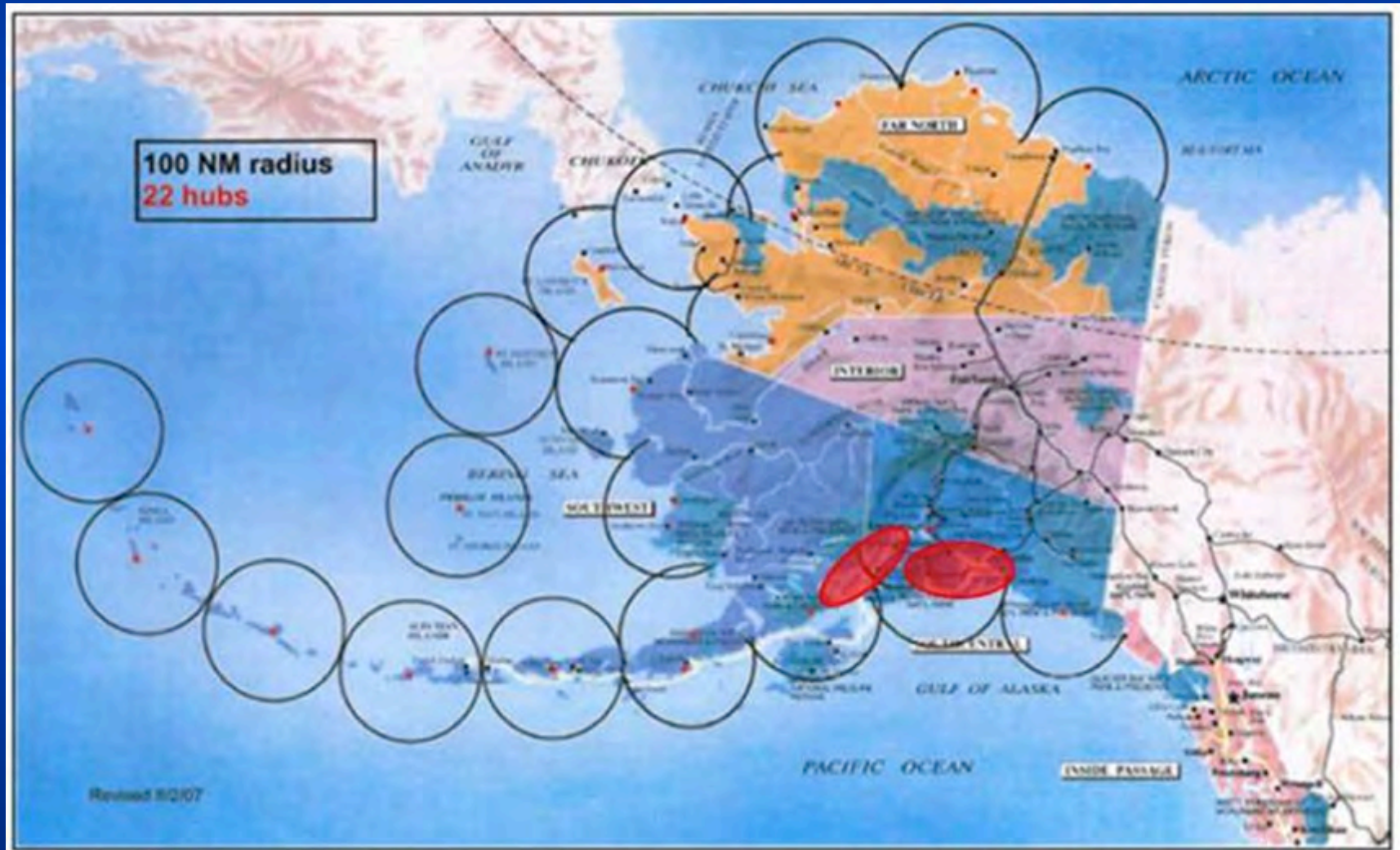
-  Pleasure
-  Tanker
-  Cargo
-  Towing
-  Passenger
-  Fishing
-  Pilot
-  Sailing
-  Other

DeLorme

-  inReach



Cost Prohibitive Federal Oil Spill Response Equipment Requirements



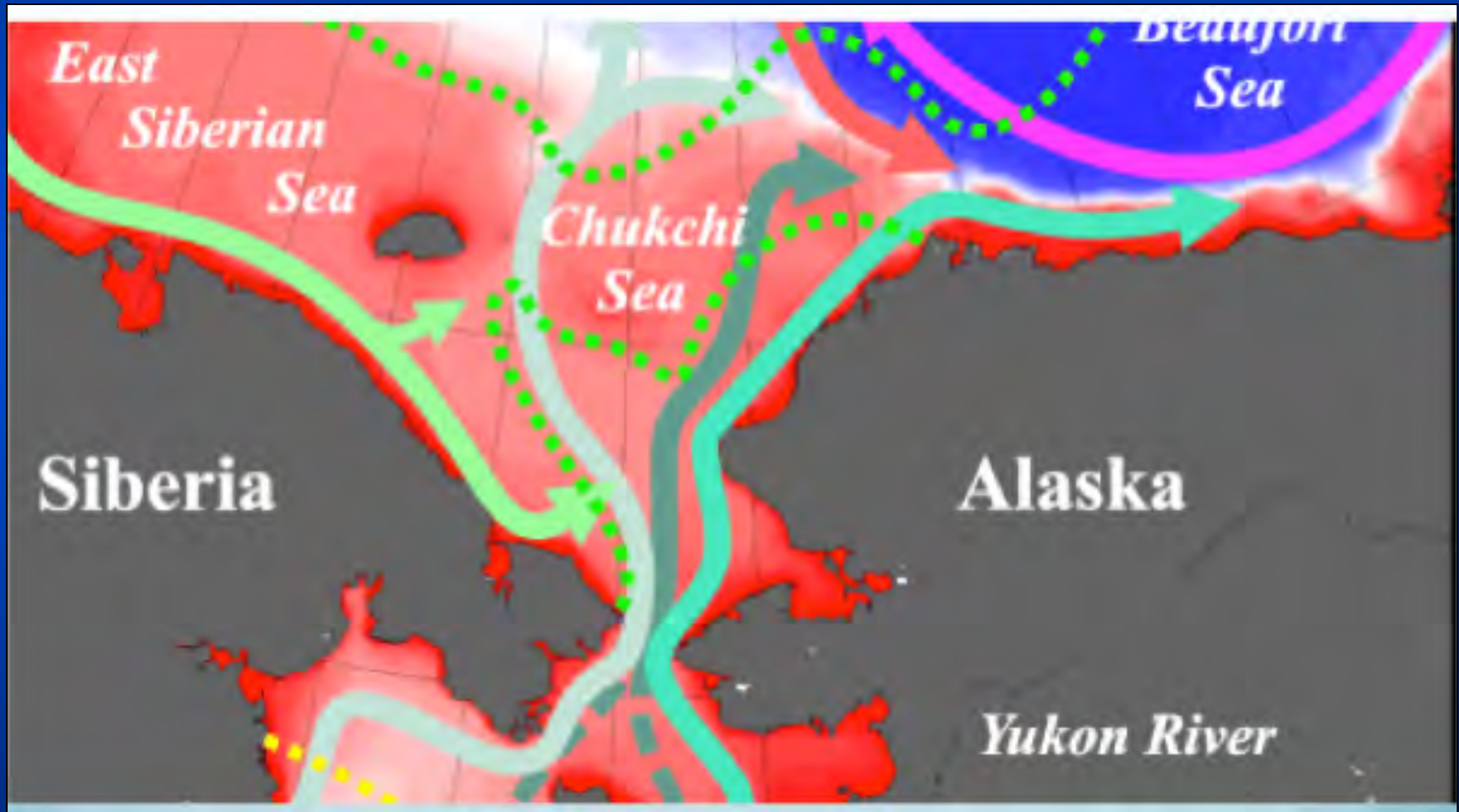
Arctic Economic Council



Fostering **circumpolar
business** partnerships

"The Arctic Economic Council underlines the importance of concrete rules to guide shipping in environmentally fragile locations to ensure highest safety and quality standards in the Arctic"

Arctic Circulation Patterns



Bering Strait Seaway

