



POINT THOMSON
PROJECT



Point Thomson Project- Marine Safety and Conflict Avoidance

Arctic Waterways Safety Commission

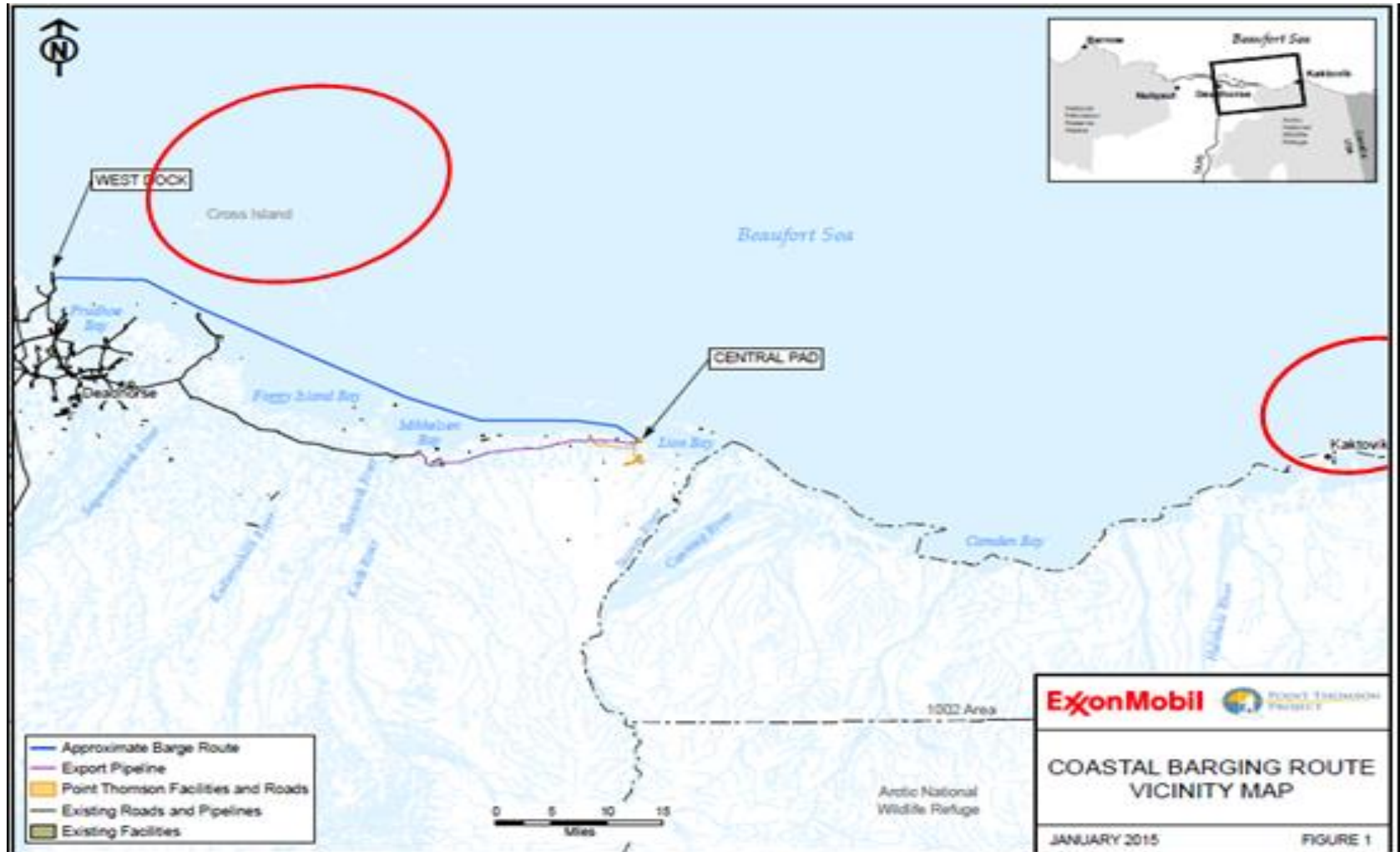
December 10, 2015



ExxonMobil

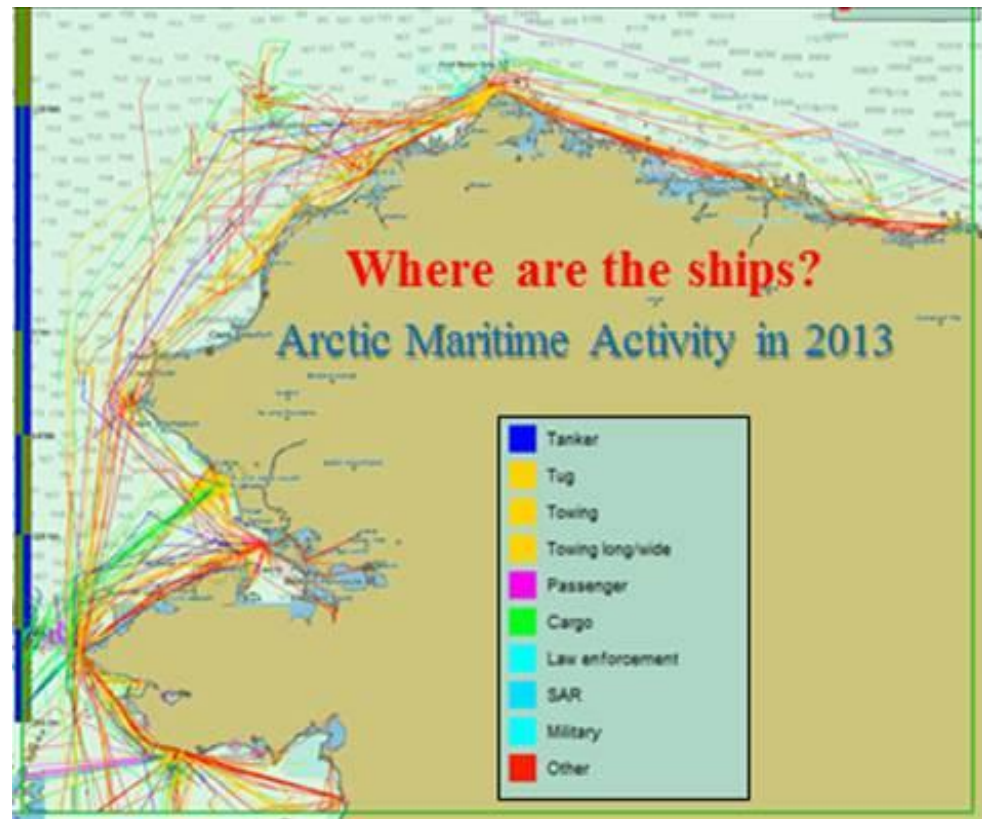


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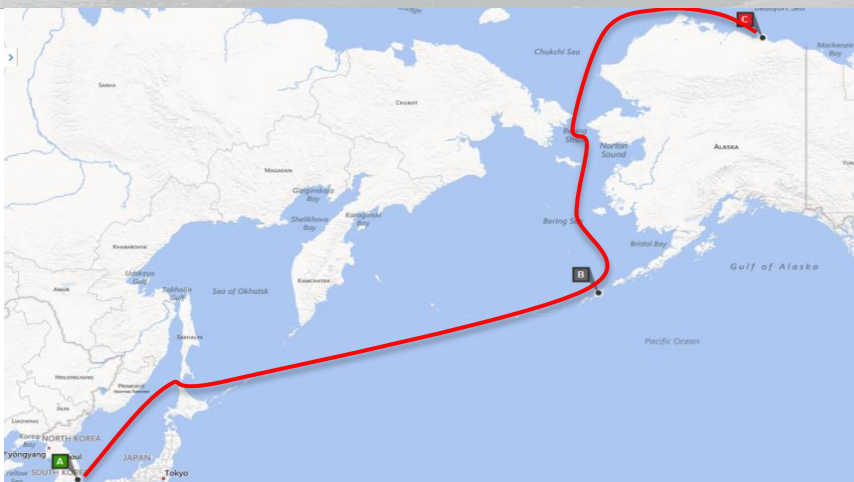
Process Module Transport



Loading Injection Compressor Module in Korea



Towing Module near Dutch Harbor



4,000-mile journey to Point Thomson



Module Arriving at Central Pad

Overview of Communication Technology

VHF Radios

- Lack of Repeating Antennas
- Limited by hardware on boats
- Only useful for ship-ship Coms
- “Line of sight” only

Satellite Phones

- Can be used worldwide
- Limited battery life
- Voice use only
- Dropped calls and lack of coverage is common

Delormes

- Send text and email messages worldwide- to computers, phones and other units
- Trigger an SOS for immediate help
- Long battery life
- No voice communication
- Multiple users can be tracked via private website

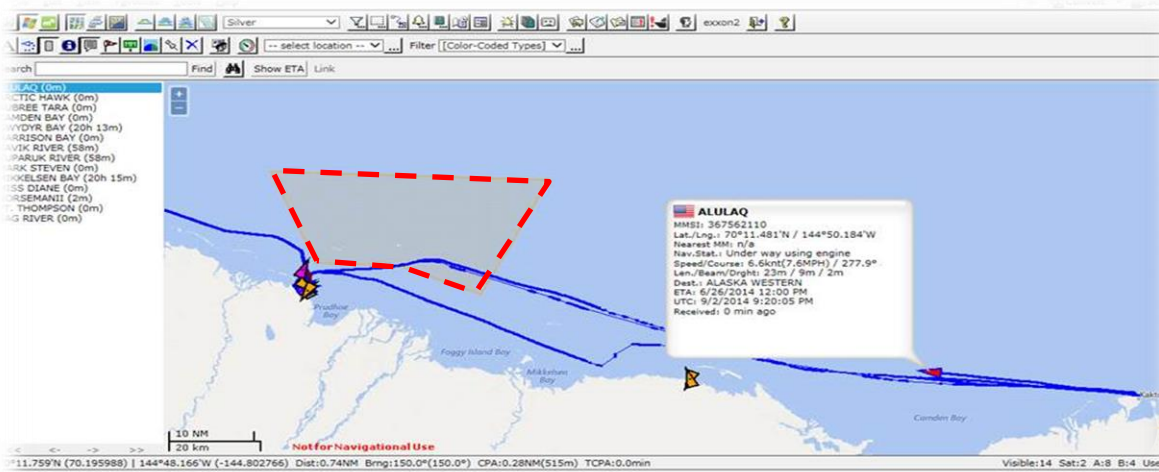
AIS

- Vessels can be tracked via MXAK website
- 10 AIS receivers in the Arctic
- Small unit size and long battery life
- Can be turned on and off easily
- Small vessel appear to other larger vessels



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2015 Marine Exchange Program





Conflict Avoidance with Subsistence Whalers



**Sept 9, 2015
Fuel Tanker**



**Sept 11, 2015
Cruise Ship**



**Sept 7, 2015
Cruise Ship**



**Prudhoe
Bay**

**Point
Thomson**

Kaktovik

10 NM
20 km

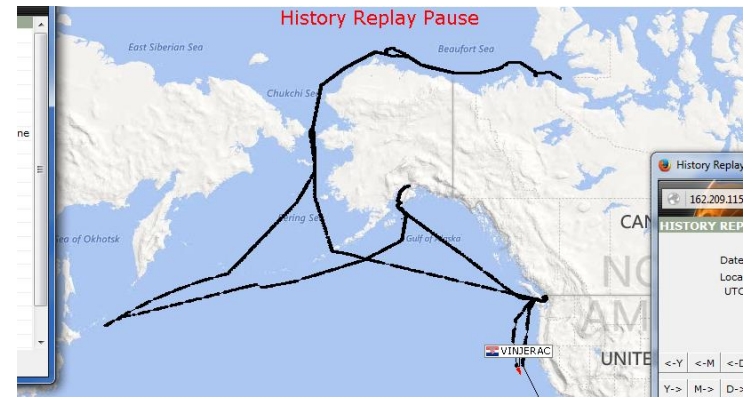
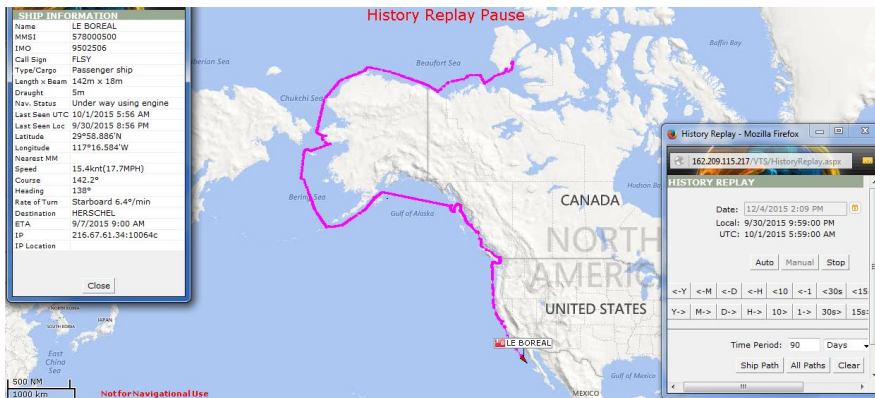
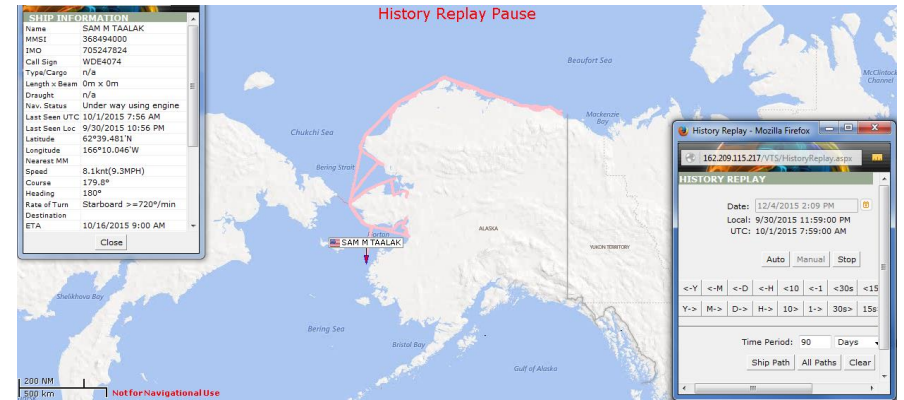
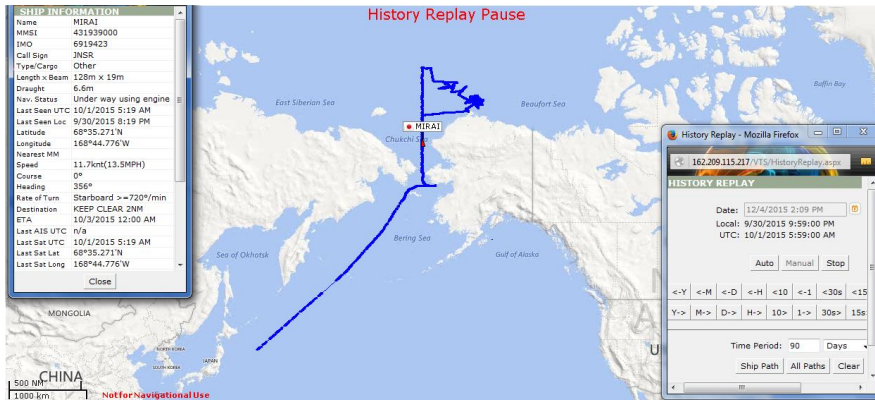


Nuiqsut Com Center



Kaktovik Com Center

Vessel Tracking Software - Interface





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Quyanaqpak!

