



10-Year Projection of Maritime Activity in the US Arctic

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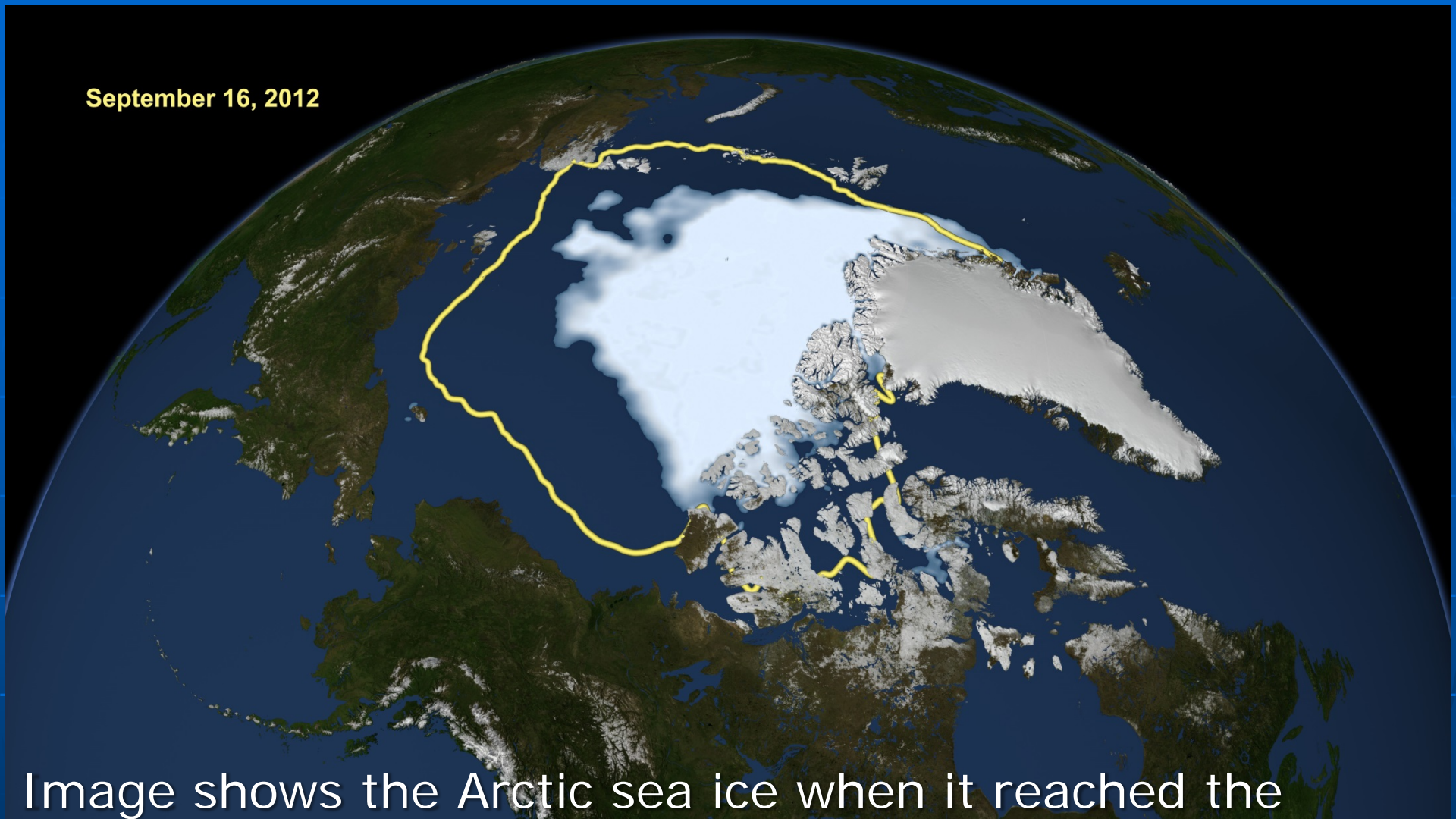


Image shows the Arctic sea ice when it reached the smallest extent ever recorded in more than three decades of satellite measurements, according to scientists from NASA and the National Snow and Ice Data Center(NSIDC).



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**THE BERING STRAIT – A MERE 44 NAUTICAL
MILES WIDE – IS THE PACIFIC GATEWAY TO
THE ARCTIC OCEAN.**

ARCTIC MARINE TRANSPORTATION AND DRIVERS

- 118% increase in maritime transits through the Bering Strait from 2008 to 2012.
- 13% of the world's undiscovered oil.
- 30% of world's undiscovered natural gas and natural gas liquids.
- The route to China via the Northwest Passage is 40 percent shorter than the traditional Panama Canal route.

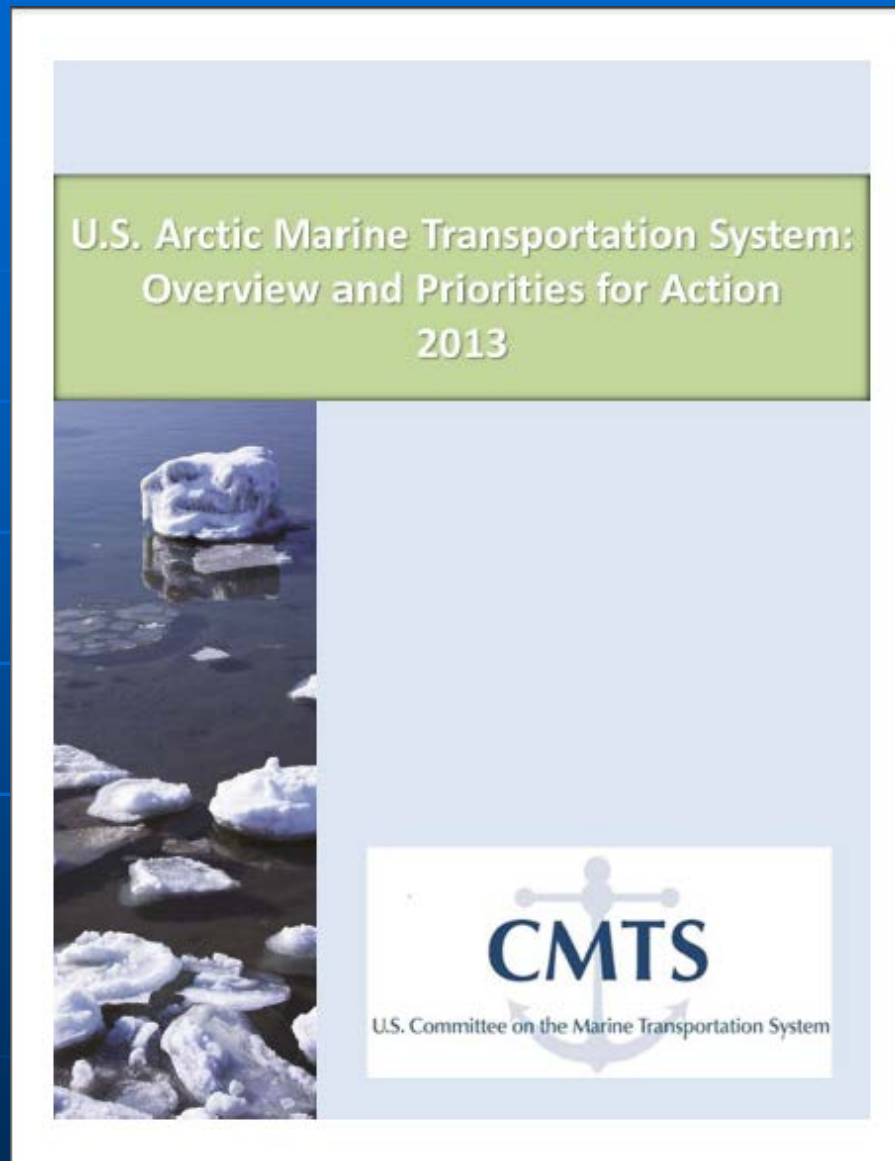
US Coast Guard and Marine Transportation Act of 2010

SEC. 307. ARCTIC MARINE SHIPPING ASSESSMENT IMPLEMENTATION (a) **PURPOSE** — *the purpose of this section is to ensure safe and secure maritime shipping in the Arctic including the availability of aids to navigation, vessel escorts, spill response capability, and maritime search and rescue in the Arctic.*

(c) COORDINATION BY COMMITTEE ON THE MARITIME TRANSPORTATION SYSTEM.—*The Committee on the Maritime Transportation System established under a directive of the President in the Ocean Action Plan, issued December 17, 2004, **shall coordinate the establishment of domestic transportation policies in the Arctic...***

CMTS U.S. Arctic MTS Report

- Review of Federal policies and reports regarding the U.S. Arctic MTS.
- Transportation Secretary Foxx submittal to President.
- Inventory of Federal services supporting the U.S. Arctic MTS.
- Issue papers on all 16 U.S. Arctic MTS components.



U.S. ARCTIC MTS ISSUE PAPERS

- Places of Refuge for Ships
- Areas of Heightened Ecological Significance
- Ports & Associated Facilities
- Geospatial Infrastructure
- Hydrographic Surveys & Nautical Charts
- Shoreline Mapping
- Aids to Navigation
- Communications
- Crew Standards
- Search and Rescue (SAR)
- Marine Weather & Sea Ice Forecasts
- Oceanographic and Real-Time Navigation Info
- Automatic Identification System (AIS)
- Vessel Escort & Icebreaking Services
- Environmental Response Management
- Polar Code /Guidelines for Ships Operating in Arctic Waters

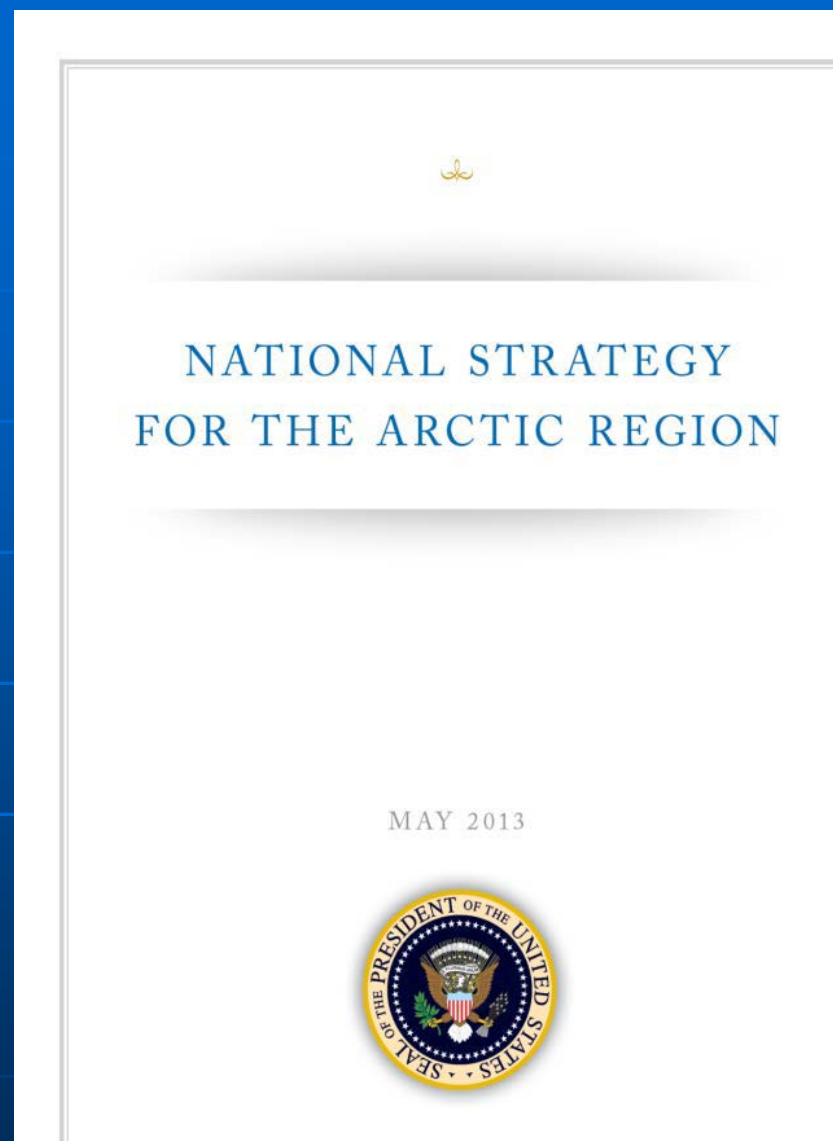
Released by WH on May 13, 2013

Sets forth the USG strategic priorities for the Arctic region.

Intended to position the U.S. to respond to challenges and emerging opportunities.

Builds upon existing initiatives by Federal, state, local and tribal authorities, private sector and international partners (including recommendations from draft CMTS report).

Issued Implementation Plan on January 2014.



National Strategy on the Arctic Region: Lines of Effort

1. Advance US Security Interests

DOT has been directed to address actions under infrastructure related to maritime (via the CMTS**) and aviation (via FAA)

2. Pursue Responsible Arctic Region Stewardship

DOT has supporting role.

3. Strengthening International Cooperation

DOT has supporting role.

NSAR IP ACTION ASSIGNED

- **U.S. National Strategy for the Arctic Region (NSAR) Implementation Plan (IP) action 1.1.1**
 - Complete a 10-year projection of maritime activity in the Arctic region by the end of 2014.
 - Action assigned to DOT and delegated to the Committee on the Marine Transportation System (CMTS) by Transportation Secretary Foxx as CMTS Chair
- **CMTS contracted with the International Council on Clean Transportation (ICCT)** as subject matter experts to assist U.S. Arctic Marine Transportation Integrated Action Team (IAT)

PROJECTION STUDY ELEMENTS

- Literature review and secondary research
- Review of current U.S. Arctic vessel patterns
 - Automatic Identification System (AIS) from 2011, 2012, and 2013.
- Economic development factors
 - Global fuel and vessel information from IMO, World bank and Panama and Suez Canal
- Vessel activity progression scenarios
 - Subject of public comment period/webinar

PROJECTIONS: COMBINATIONS OF THREE COMPONENTS

1. **Business as usual growth**

- Analyzed global shipping and GDP from World Bank, IMO, EPA and others
- Range from 1.3% -3.3% growth by 2025

2. **Diversion from other routes**

- Estimated diversion of four vessel types from the Panama and Suez from July-Nov
- Range from 2%-8% diversion in 2025

3. **Oil and gas exploration**

- Based on BOEM, NMFS, & industry projections
- Ranges from no growth to several exploration activities in the Beaufort and Chukchi in 2025

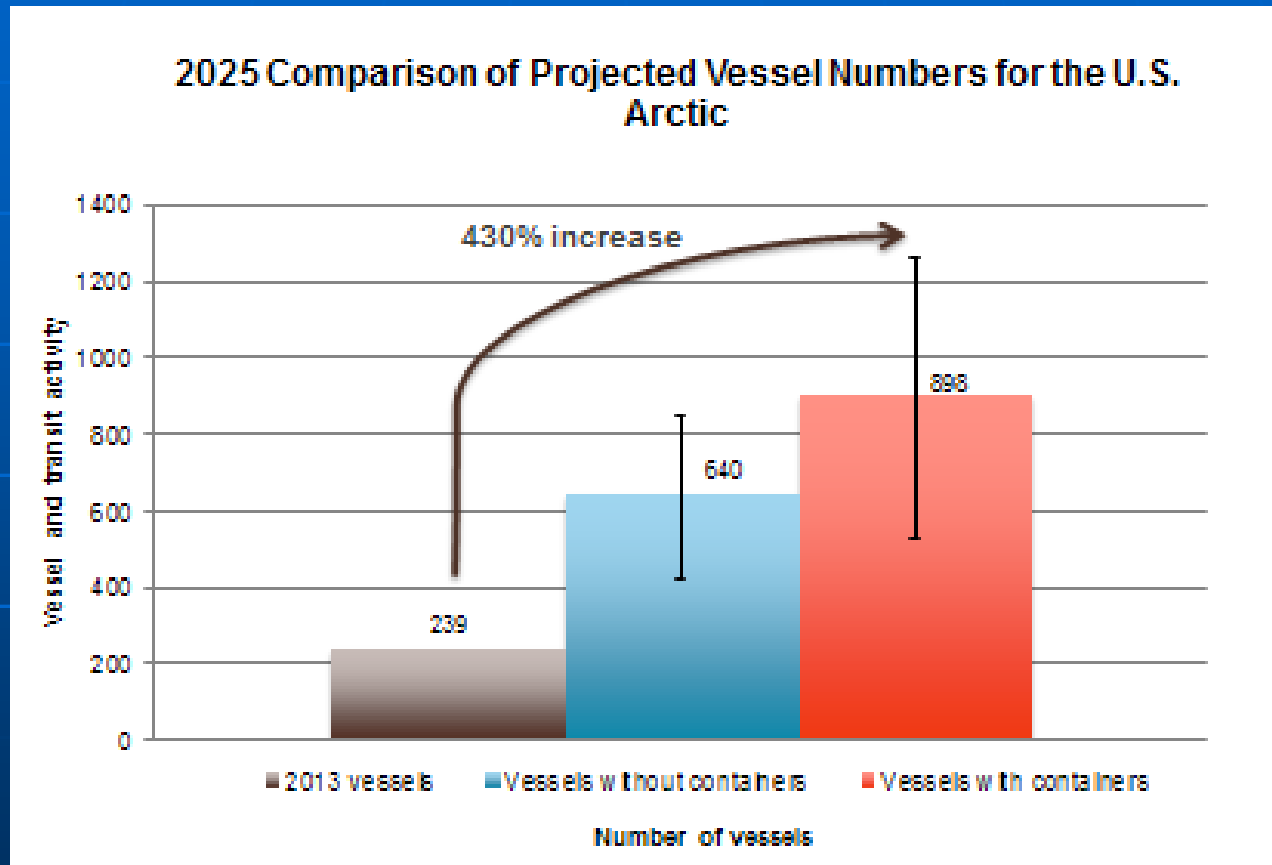
PERCENT INCREASE FOR PROJECTED VESSEL NUMBERS AND TRANSITS

- Total number of vessels may be small relative to other larger shipping lanes
- Relative growth and potential impact could be significant

Vessel and Transit Growth for the Bering Strait and North Slope in 2025



COMPARISON OF PROJECTED VESSEL NUMBERS FOR 2025



Error bars show the low and high projections for vessel numbers in 2025

OTHER CONSIDERATIONS

- **Climate and Infrastructure**
 - Ice-diminishment will impact Arctic accessibility
- **Community and Environmental**
 - Infrastructure will impact risk and response
 - Areas of high vessel activity overlap with environmental and community use (subsistence hunt, marine mammal habitat)

SUMMARY AND NEXT STEPS

- **Wide range of potential growth for 2025;**
75-430% increase
2000+ Bering Strait transits possible
- **Overlapping use among communities, shipping, and oil and gas**
- **Next Steps for 2015**
NSAR item 1.1.2: 10-year prioritization framework to coordinate the phased development of Federal infrastructure identified by Departments and Agencies



Report available at:
www.CMTS.gov

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