

Predicting the Maritime Traffic of Tomorrow in the U.S. Arctic

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U.S. Committee on the Marine Transportation System

Arctic Waterways Safety Committee Meeting

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What is the CMTS?



We are a US Federal interagency coordinating committee

- Assess the adequacy of the marine transportation system (MTS)
- Promote integration of marine transportation with other transportation modes
- Coordinate and provide recommendations to Federal policy makers about MTS (25+ different agencies and departments)



Arctic Marine Transportation IAT

Purpose of the Arctic IAT

- Coordinate domestic marine transportation policies in the U.S. Arctic
- Address infrastructure requirements to support a safe and secure Arctic marine transportation system

Participating Agencies

- USCG
- NOAA
- MARAD
- DOT-OST
- USACE
- State
- TRANSCOM
- FAA
- DOI
- EPA
- DOE
- NMIO
- USARC



We are all striving towards safe and predictable Arctic waterways

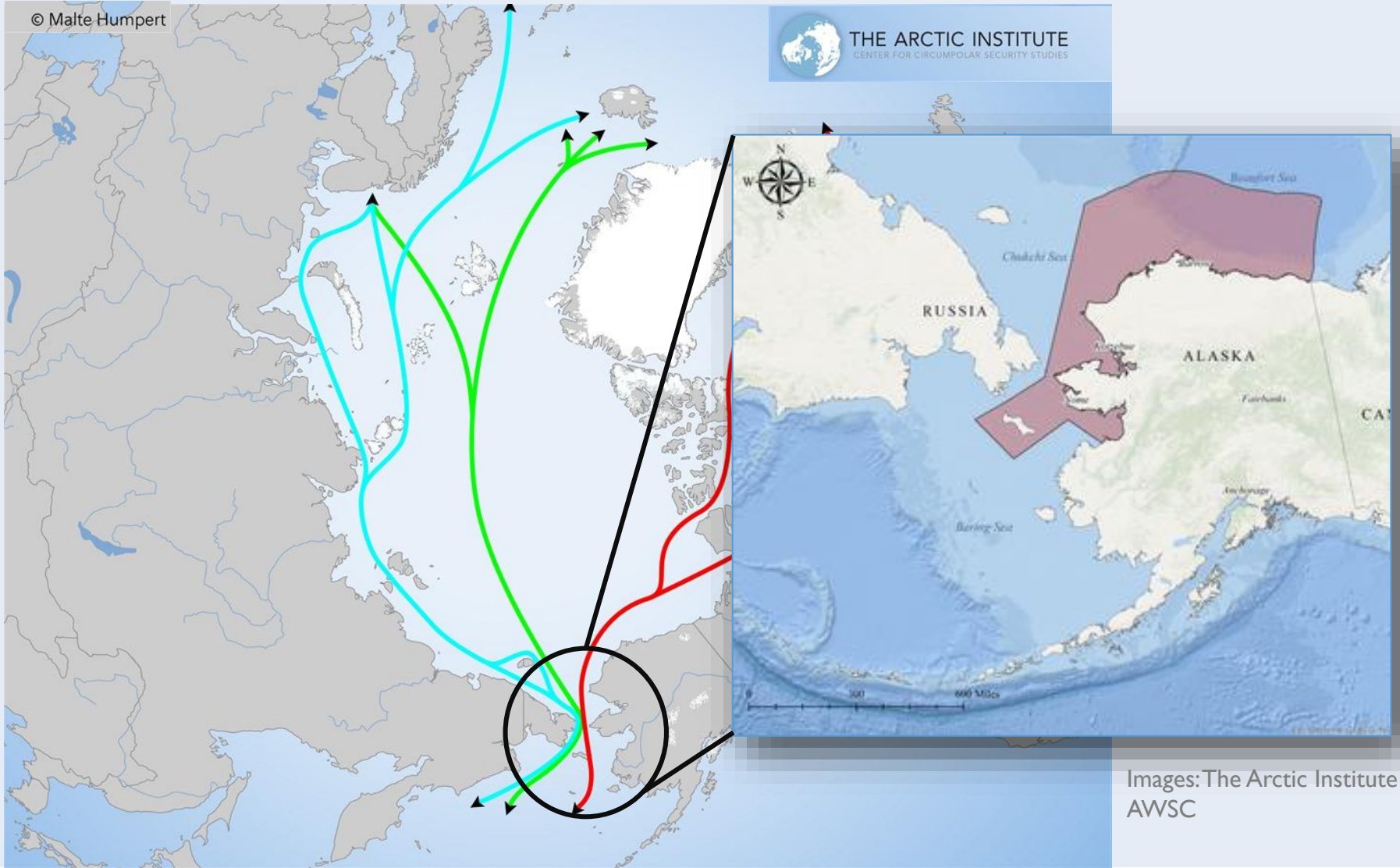
- Alignment in mission
 - Safe, secure, and integrated network
 - Reliable movement of people and goods
 - Predictable operating environment
 - Working to develop best practices

Predicting vessel traffic is integral to waterway safety.



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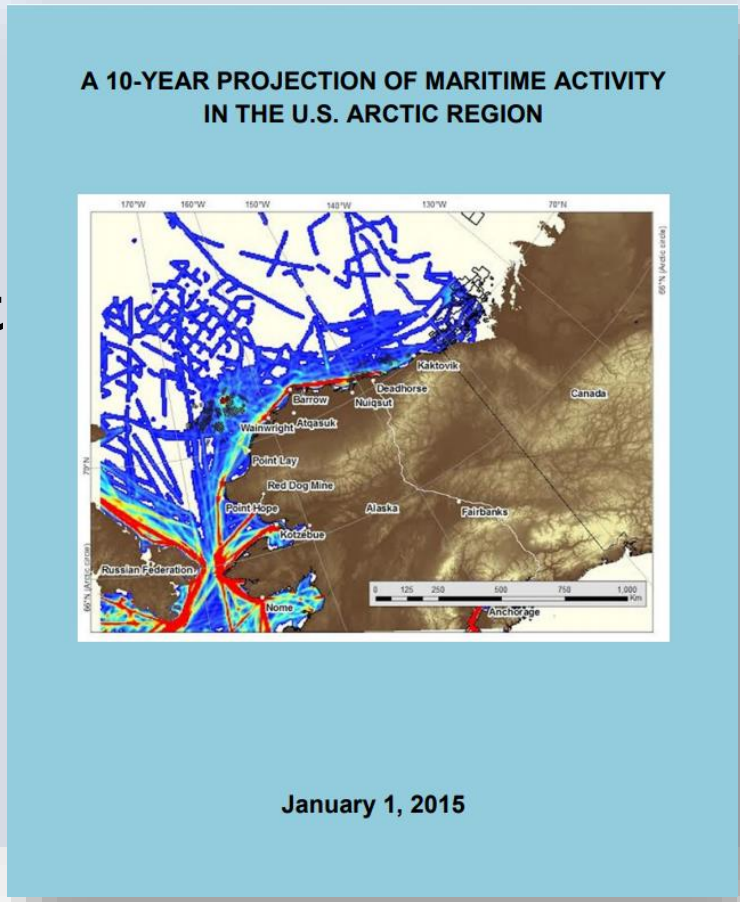
Images: The Arctic Institute & AWSC



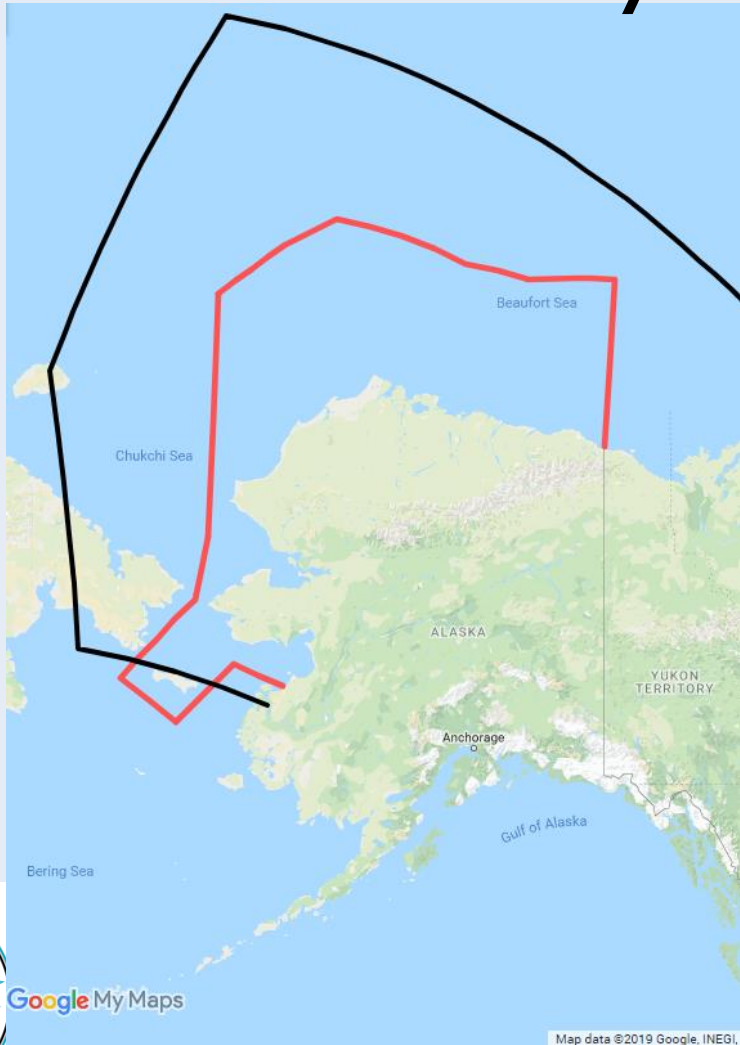
The Bering Strait is an artery of the Arctic.

Previous Work: 10-Year Projection of Maritime Activity in the Arctic Region

- CMTS submitted report to the White House in 2015
- Projected vessel and transit activity out to 2025
- Scenario-driven, with mix and match elements to project probable growth



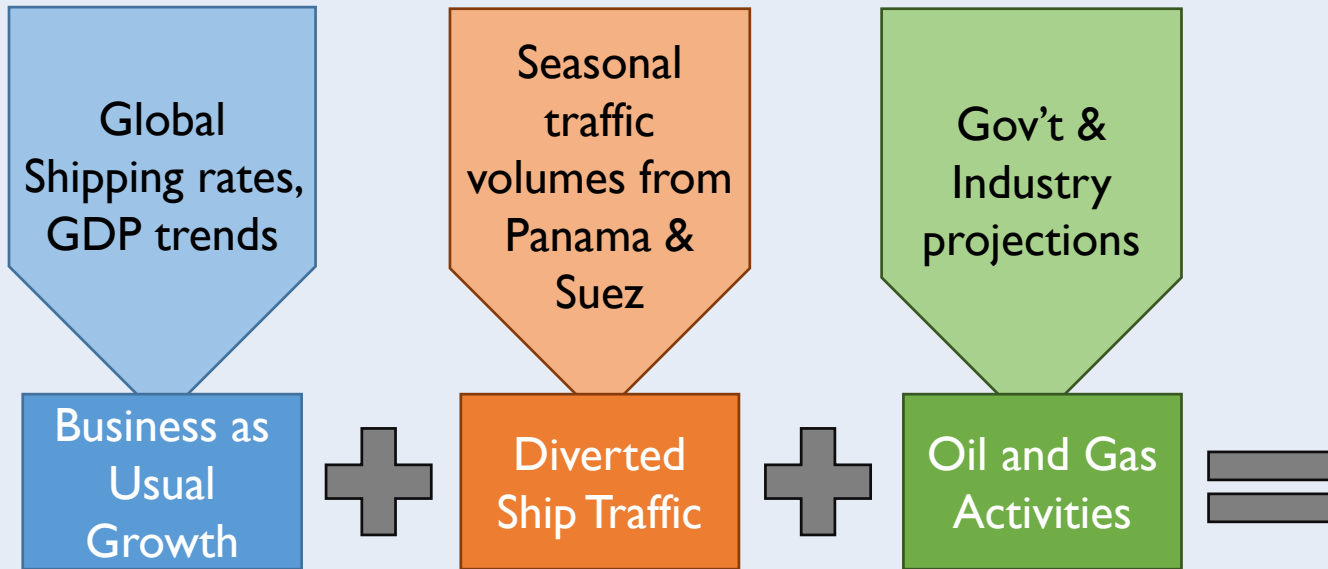
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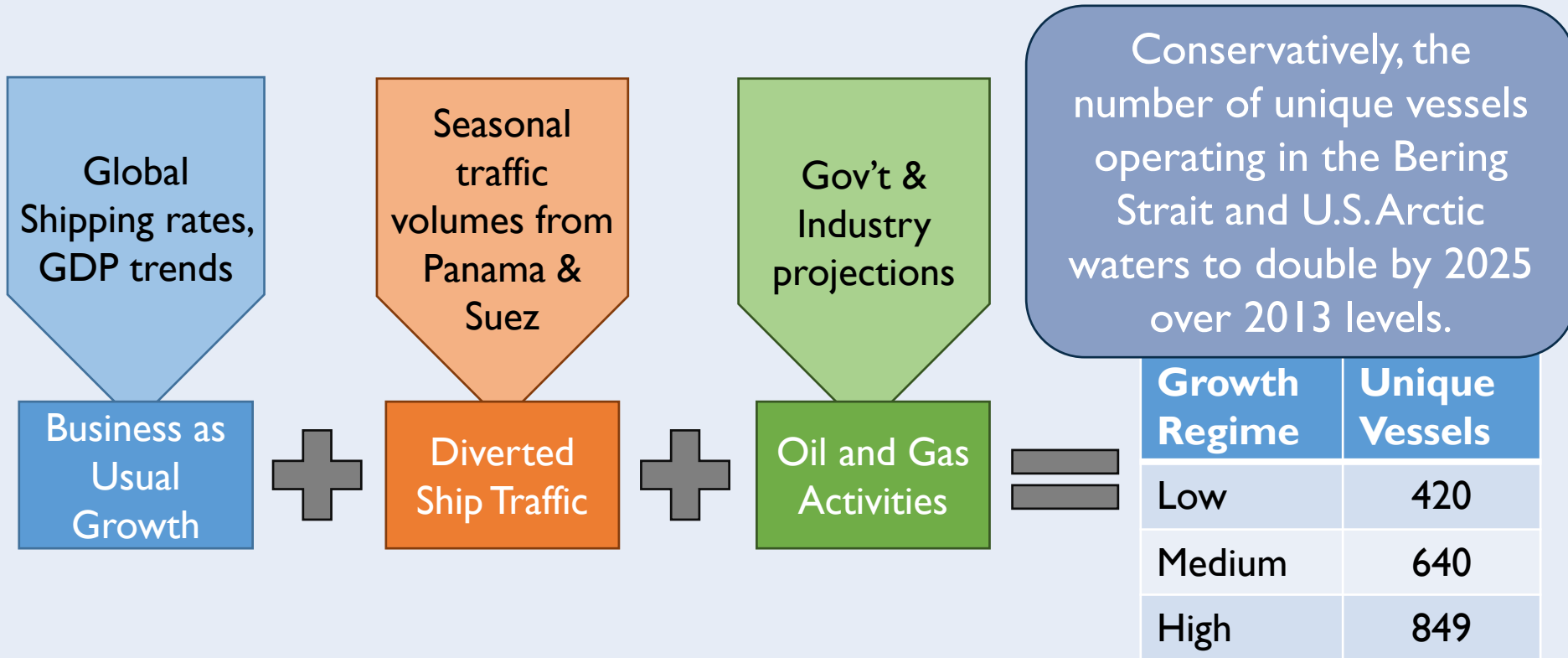
- Overlapping regions of interest
 - 2015 Projections report area in black
 - AWSC Area of Responsibility in red



Previous Work: 10-Year Projection of Maritime Activity in the Arctic Region



Previous Work: 10-Year Projection of Maritime Activity in the Arctic Region



**Projections were also fairly accurate so far:
Actual: 274 vessels in 2018; Projected 280 vessels by 2018**



Motivation for Updated Projections Report

Much has changed since 2015:

1. Research, government, and cruise-related traffic grew unexpectedly
2. Regional economic growth outpaced global growth predictors
3. Changes in offshore oil and gas activities
4. Steady increase in growth of MTS infrastructure



Towards the 2019 Projections Report

- Similar geographic region, with vessel activity from 2019-2030
- Aim to improve characterization and categorization of information and existing data
- Include more perspectives on what drives vessel activity and growth in the region
- Document methodology to repeat projections in future and/or for other regions
- Develop multiple scenarios to provide ranges of expected traffic



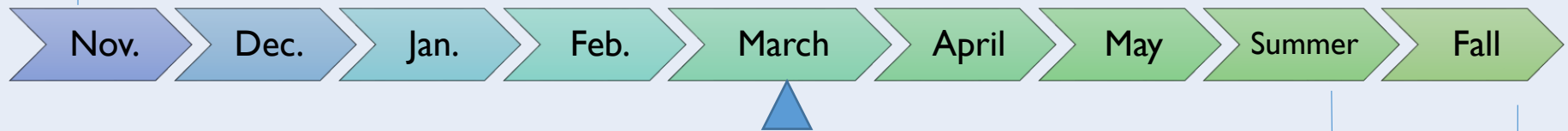
Towards the 2019 Projections Report: Workshop Outcomes

- Held a 2-day technical workshop in November 2018 with 41 participants from 9 different Federal agencies and 8 different marine shipping companies
- Additional drivers to be incorporated quantitatively:
 - LNG traffic from the Northern Sea Route
 - Price of oil, LNG, and other minerals from the region
 - Census data from the region (population, income, etc.)
 - Research vessel tracks and planned research in region
 - Traffic associated with infrastructure projects to combat climate change



Towards the 2019 Projections Report: Timeline

November: Began gathering data to inform updated projections



Summer: Release Arctic vessel activity projections report for Public Comment

Fall: Release final Arctic vessel activity projections report



Take Home Messages

- CMTS is developing an updated vessel activity projection for Arctic
 - Region of Interest aligns with AWSC Area of Responsibility
 - Projections will be out to 2030
- Invite and welcome feedback on the effort now and on report during our Public Comment period
- Final report due for release later this year



Thank you! Questions? Comments?

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Preliminary Findings from Technical Workshop

