

ALASKA'S DEEP-DRAFT ARCTIC PORT AT NOME

BOOSTING REGIONAL EMPLOYMENT
DRIVING ALASKA'S ECONOMY
SUPPORTING NATIONAL SECURITY

April 2021

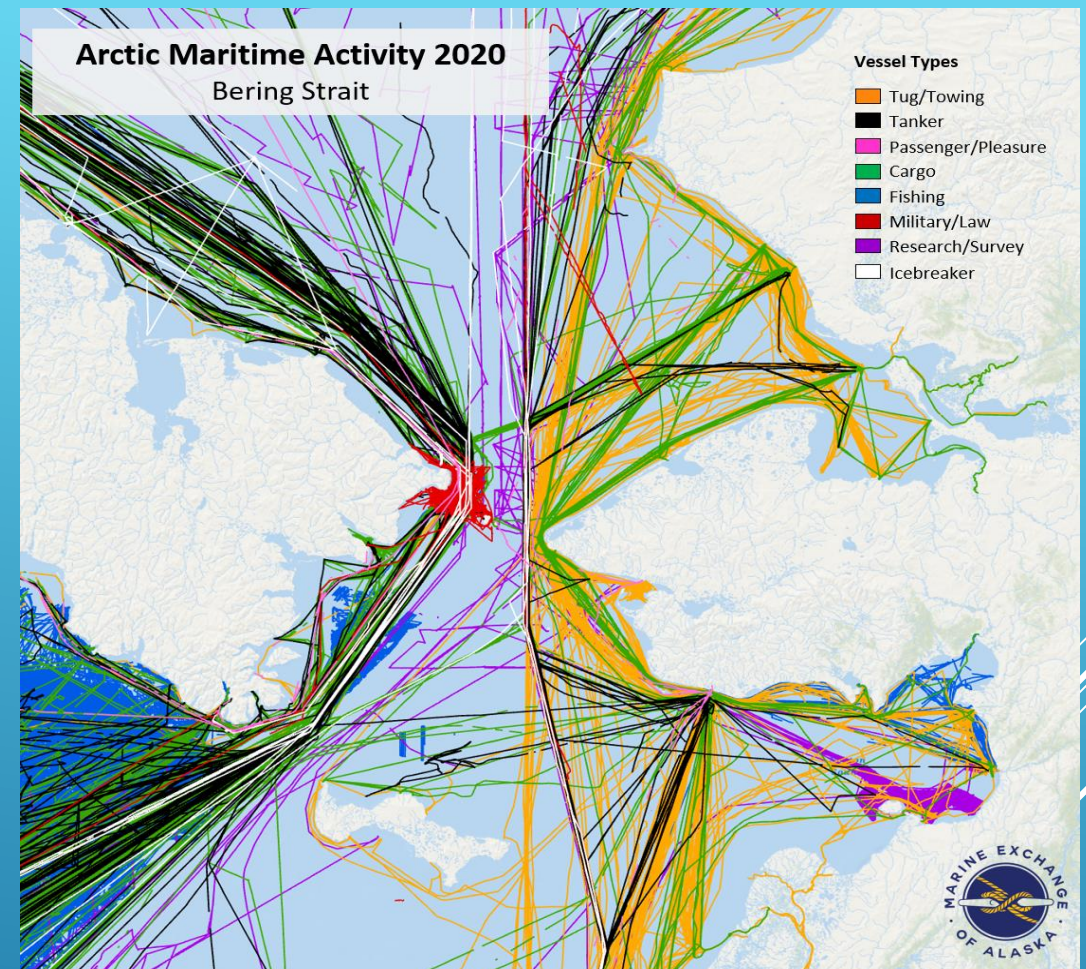
Alaska State Legislature
Senate Transportation Committee



HUB PORT OF NOME SERVES:

- 35+ Western and Northern AK coastal and river communities with cargo, fuel, equipment & gravel.
- Cruise ship traffic for resupply and pax exchange
- Tankers/Tugs-Barges for crew changes/stores & medical
- Government vessels for research/charting
- DHS/DOD fleets for refuel, resupply, stores and shore leave

Year	Northbound	Southbound	Total
2009	136	126	262
2010	128	114	242
2011	124	115	239
2012	154	162	316
2013	171	173	344
2014	130	125	255
2015	232	220	452
2016	158	182	340
2017	164	196	360
2018	183	175	358
2019	241	236	477
2020	260	290	550

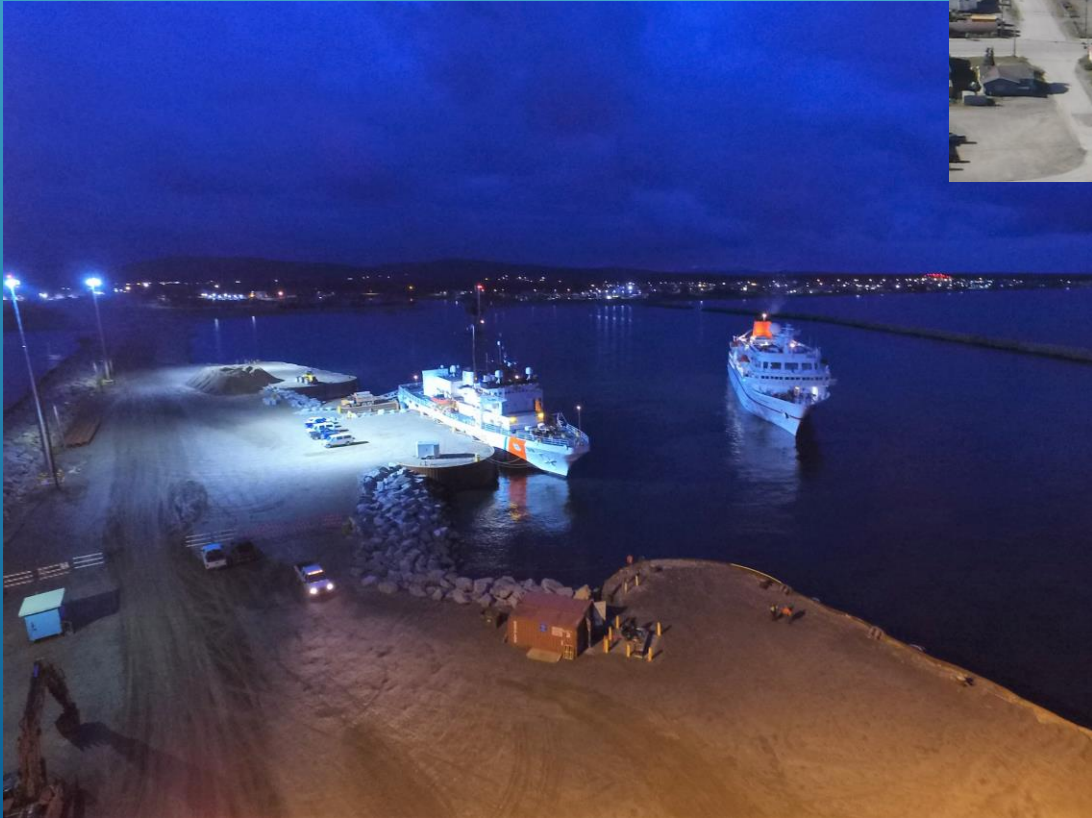


Graphic shows extent of vessel movement during the ice-free season, despite the remoteness of the area.

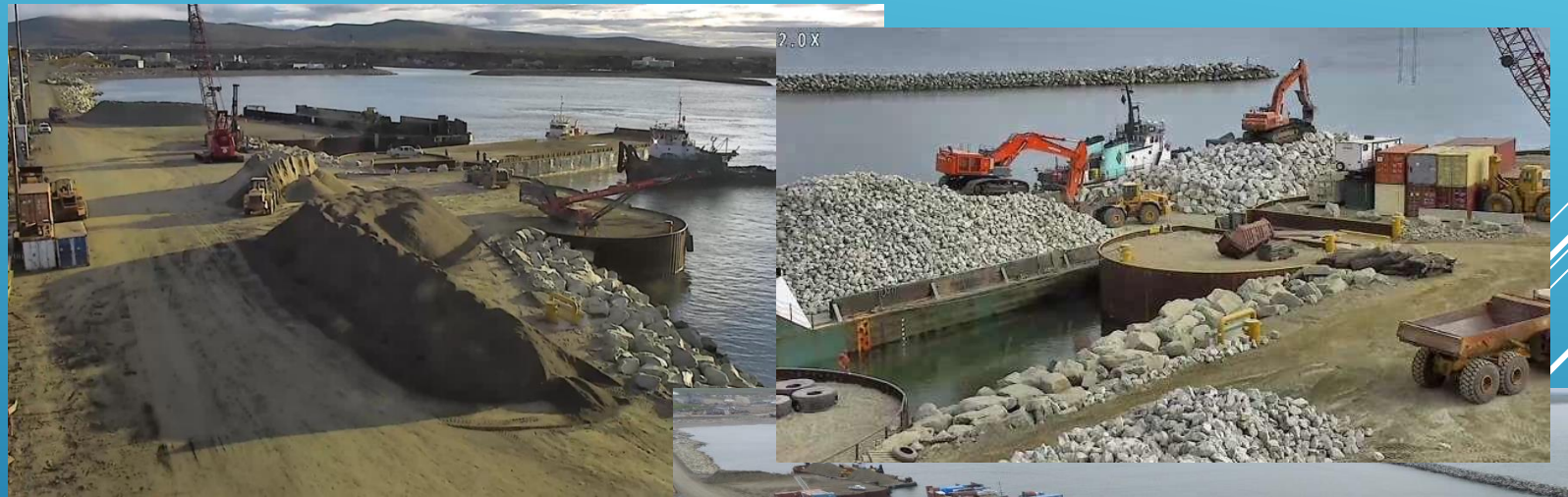
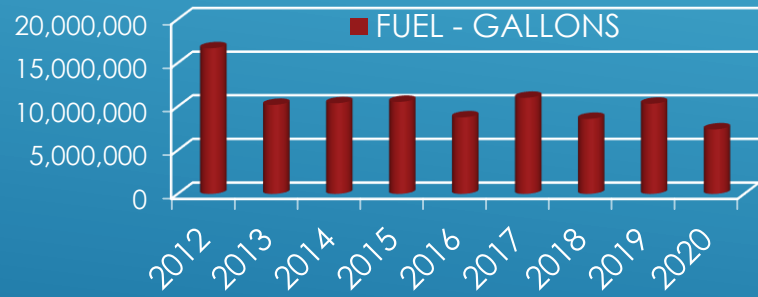
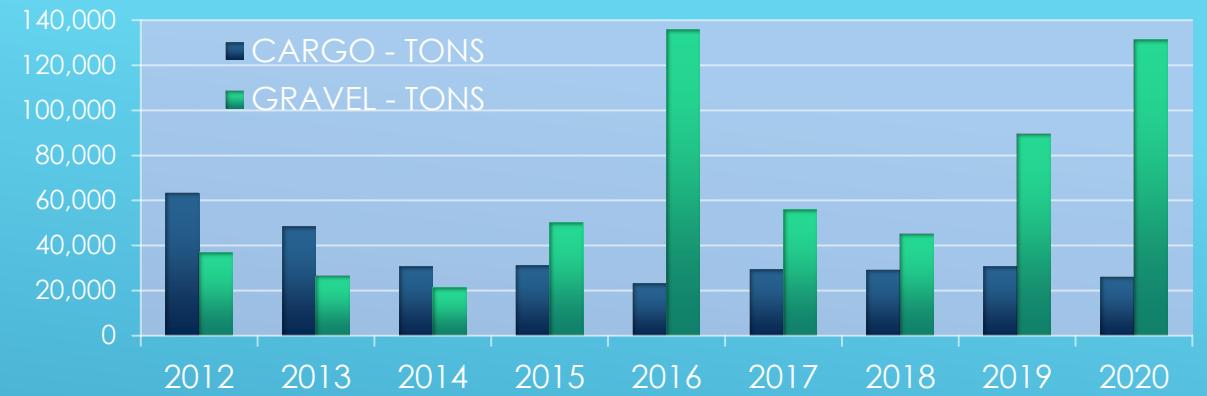
Table shows exponential growth in Bering Strait transits, both south & north

SHIP RESUPPLY:

Whether a USCG, NOAA, Cruise ship or foreign government vessel, Nome has become the last port call before, and after, transiting the NWP – and demand continues to grow.



COMMODITY MOVEMENT



- Transshipment of cargo, fuel and equipment
- Export of armor stone, cobble, crushed gravel & sand
- Staging of project equipment for regional development

RECENT PORT IMPROVEMENTS

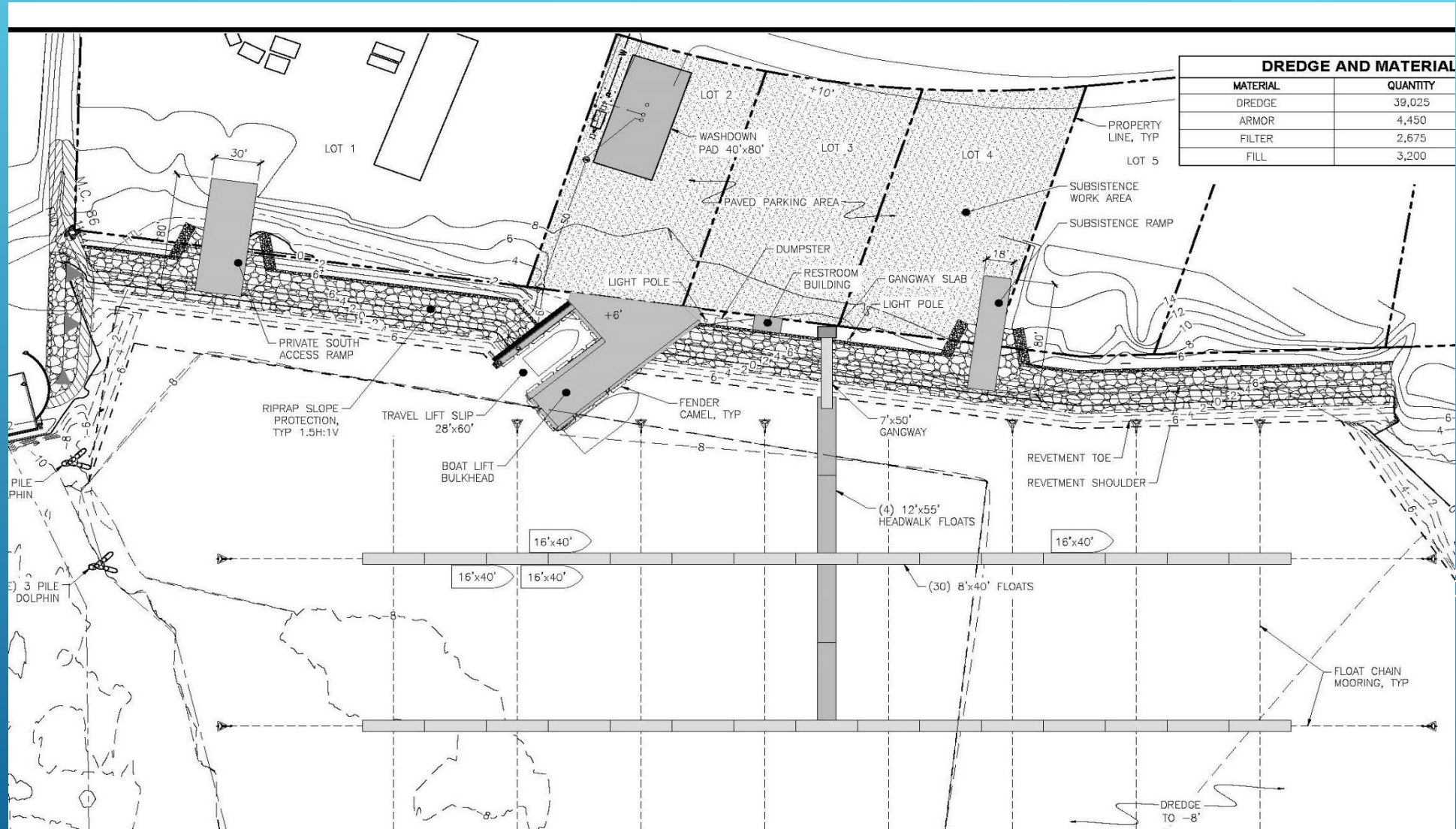
PROJECT TITLE	SCOPE OF WORK	STATUS	COMPLETION DATE	FUNDING SOURCE AMOUNT	
				(red = Port \$)	
CSWY MIDDLE DOCK	Construct 3rd sheetpile dock on Cswy w/roto ramp	ORION MARINE CONTRACTORS	OCT 2015	NSEDC, EDA/SOA	\$8M
<i>Authorized project Change Order</i>	Extend concrete ramp to minimize erosion loss during storms	ORION MARINE CONTRACTORS	JUNE 2016	SOA Grant	
SEAWALL EROSION REPAIR	Repair seawall from long-term storm erosion - replace missing core rock and armor stone (with rock salvaged from Mid Dock Project Construction)	ORION MARINE CONTRACTORS	JULY 2016	SOA Grant	\$750K
THORNBUSH SITE DEVELOP.	Developed 9 of 18-acre parcel for uplands demand	Q TRUCKING	JUNE 2017	SOA GO & DC-108 GRANTS	\$1.375
SNAKE RIVER DREDGING OF EXPANSION MOORAGE AREA	Additional dredging to -8' MLLW along west bank of Snake River to accommodate light draft anchorage (and future Snake River Moorage Floats Project)	Q TRUCKING	JUNE 2018		
SECURITY CAMERA SYSTEM	Install 24 camera security system in Port/Harbor w/desktop stations, server, software and fiber connections	ARCTIC FIRE & SECURITY NJUS - PK ELECTRIC	MAR 2018	DHS CITY	\$202K \$115K
WESTGOLD DOCK EMERGENCY REPAIR - SHEETPILE/TAILWALL	Remove/replace sheetpile and tail wall at cells 5/6 to restore the integrity of the dockface	STG/PND/Q TRUCKING	SEPT 2019	PORT FUNDS	\$1.46M

CORPS CAP 107 DEEPEN/EXPAND FEDERAL DREDGE LIMITS - STUDY



PRELIMINARY SKETCH OF EXPANDED FEDERAL LIMITS – DEEPENED TO -12' MLLW

SNAKE RIVER DEVELOPMENT – FUNDING PHASE



CONCEPTUAL LAYOUT OF MOORAGE SYSTEM & SHORESIDE DEVELOPMENT

PORT WASTE RECEPTION FACILITY AT NOME



HOW THE **POLAR** CODE PROTECTS THE ENVIRONMENT

OIL

DISCHARGES
Discharge into the sea of oil or oily mixtures from any ship is prohibited

STRUCTURE
Double hull and double bottom required for all oil tankers, including those less than 5,000dwt (A/B ships constructed on or after 1 January 2017)

HEAVY FUEL OIL
Heavy fuel oil is banned in the Antarctic (under MARPOL). Ships are encouraged not to use or carry heavy fuel oil in the Arctic

LUBRICANTS
Consider using non-toxic biodegradable lubricants or water-based systems in lubricated components outside the underwater hull with direct seawater interfaces

SEWAGE

DISCHARGES I
No discharge of sewage in polar waters allowed (except under specific circumstances)

TREATMENT PLANTS
Discharge is permitted if ship has an approved sewage treatment plant, and discharges treated sewage as far as practicable from the nearest land, any fast ice, ice shelf, or areas of specified ice concentration

DISCHARGES II
• Sewage not comminuted or disinfected can be discharged at a distance of more than 12nm from any ice shelf or fast ice
• Comminuted and disinfected sewage can be discharged more than 3nm from any ice shelf or fast ice

GARBAGE

PLASTICS
All disposal of plastics prohibited (under MARPOL)

FOOD WASTES I
Discharge of food wastes onto the ice is prohibited

FOOD WASTES II
Food wastes which have been comminuted or ground (no greater than 25mm) can be discharged only when ship is not less than 12nm from the nearest land, nearest ice shelf, or nearest fast ice

ANIMAL CARCASSES
Discharge of animal carcasses is prohibited

CARGO RESIDUES
Cargo residues, cleaning agents or additives in hold washing water may only be discharged if: they are not harmful to the marine environment; both departure and destination ports are within Arctic waters; and there are no adequate reception facilities at those ports. The same requirements apply to Antarctic area under MARPOL

CHEMICALS

DISCHARGES
Discharge of noxious liquid substances (NLS) or mixtures containing NLS is prohibited in polar waters

INVASIVE SPECIES

INVASIVE AQUATIC SPECIES
Measures to be taken to minimize the risk of invasive aquatic species through ships' ballast water and biofouling

BACKGROUND INFO

❄️ THE INTERNATIONAL CODE FOR SHIPS OPERATING IN POLAR WATERS WILL ENTER INTO FORCE ON 1 JANUARY 2017

❄️ IT APPLIES TO SHIPS OPERATING IN ARCTIC AND ANTARCTIC WATERS; ADDITIONAL TO EXISTING MARPOL REQUIREMENTS

❄️ IT PROVIDES FOR SAFE SHIP OPERATION AND PROTECTS THE ENVIRONMENT BY ADDRESSING THE UNIQUE RISKS PRESENT IN POLAR WATERS BUT NOT COVERED BY OTHER INSTRUMENTS

DEFINITIONS

SHIP CATEGORIES
Three categories of ship designed to operate in polar waters in:
A) at least medium first-year ice
B) at least thin first-year ice
C) open waters/ice conditions less severe than A and B

FAST ICE: Sea ice which forms and remains fast along the coast, where it is attached to the shore, to an ice wall, to an ice front, between shoals or grounded icebergs

ICE SHELF: A floating ice sheet of considerable thickness showing 2 to 50m or more above sea-level, attached to the coast

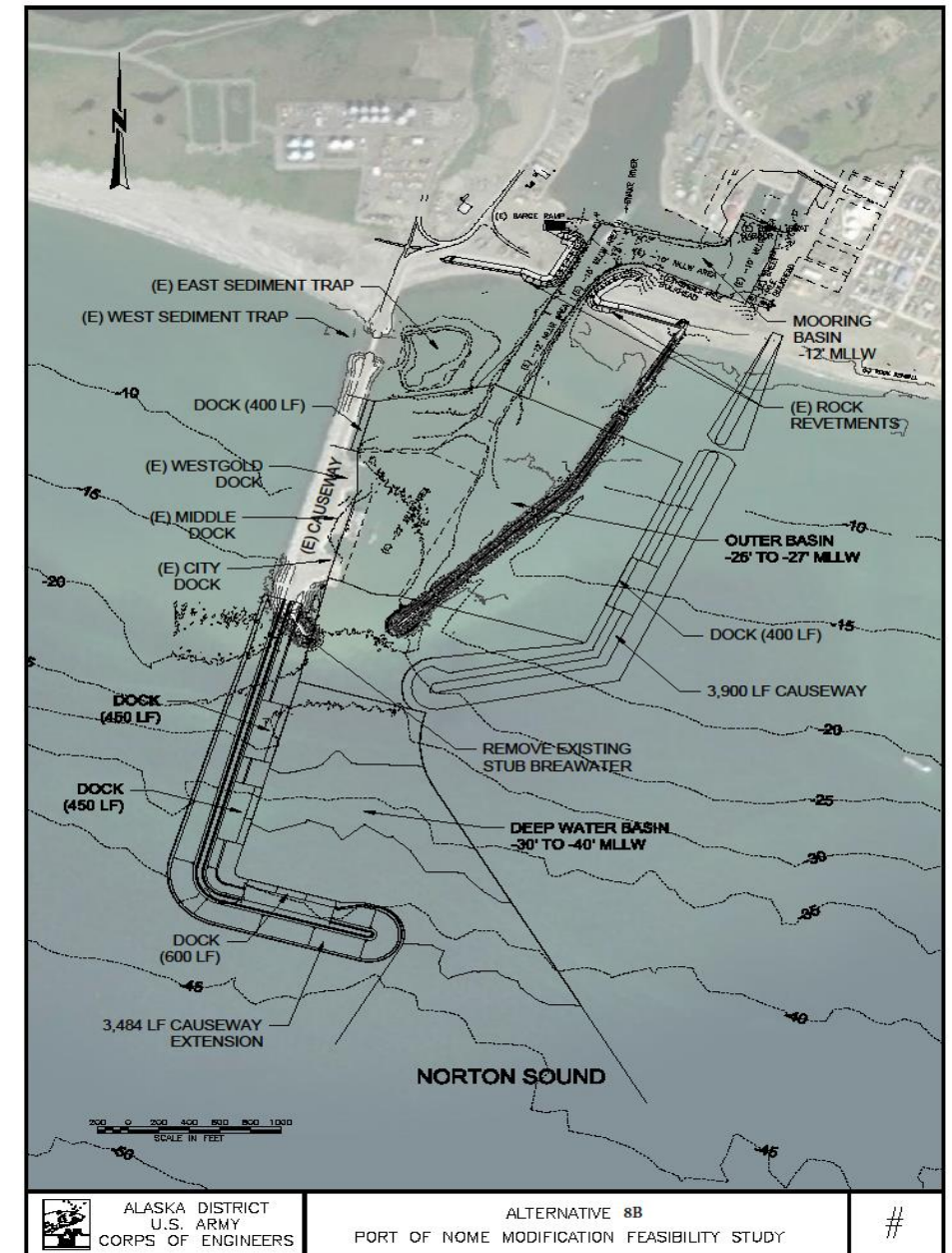
INTERNATIONAL MARITIME ORGANIZATION

PWRF Components	Estimated Costs
Incinerator/Solid Waste Haul Truck	\$ 2,832,000
Wastewater Holding Pond	\$ 2,455,000
Sewage Haul Truck	\$ 203,000
Wastewater Holding Tank at Dock	\$ 174,000
Bilge Treatment Facility/Haul Truck	\$ 3,286,000
Total Costs	\$ 8,500,000

PORT EXPANSION – DESIGN PHASE

116th Congress Authorized Project for Design and Construction as:

- Extend Causeway 3,500 ft., construct 3 docks in deep water basin at -40 ft.
- Remove east breakwater completely
- Construct new 3,900 ft. Causeway with 400 ft dock in existing outer basin dredged to -28 ft.
- Expansion provides 5 additional docks
- Increases dock capacity by 2,400 LF



TARGETED BENEFITS OF DEEP-DRAFT PORT AT NOME

National Security & Life Safety

- Critical refuel/resupply support for SAR
- Strengthen U.S. presence in Arctic

Environmental Safety

- Reducing need for offshore fuel transfers
- Regional staging for OSR assets

Economic/Cultural Sustainability

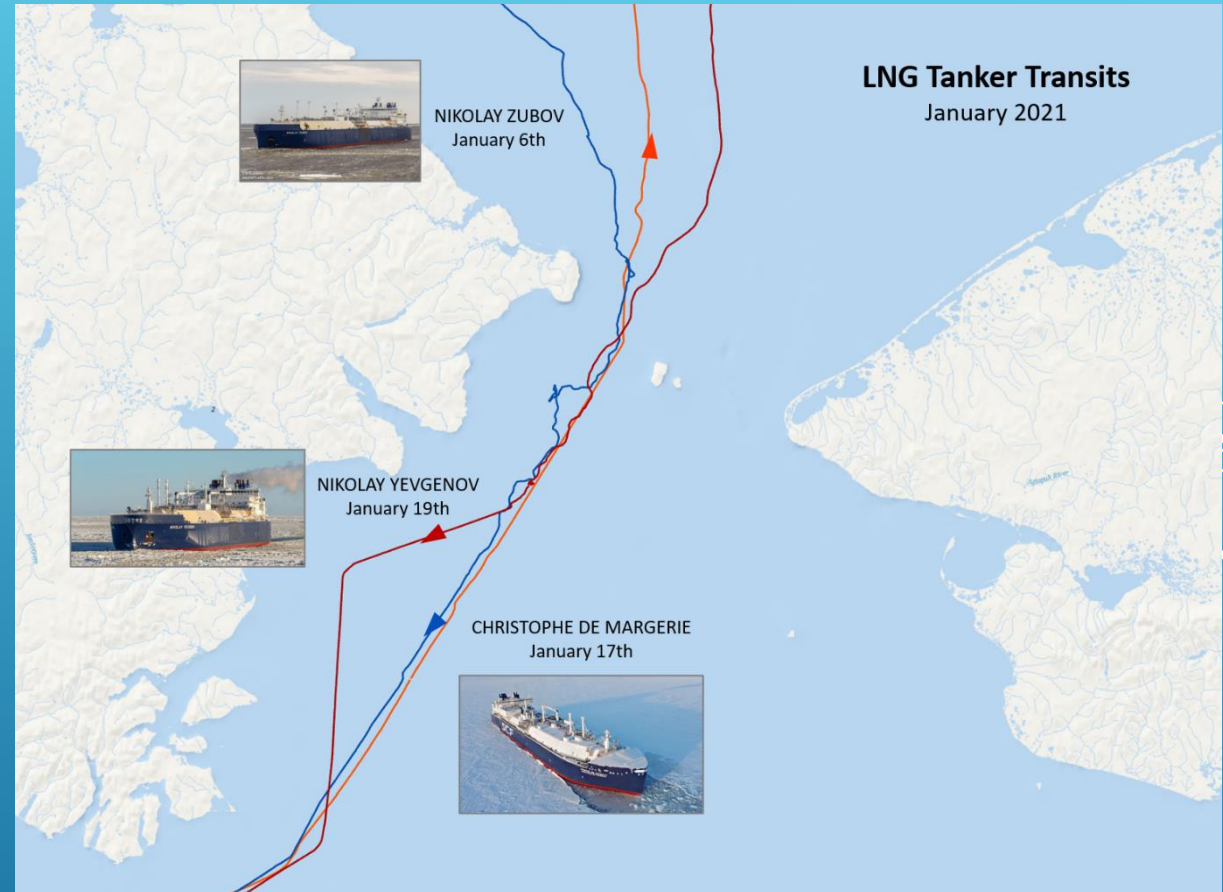
- Lowering regional transportation costs
- Bringing economic opportunity to the region

Research

- Enhanced mission hub support

Tourism

- Support increased ship calls with more ice-hardened vessels in construction





Sept 2020

FOR MORE INFORMATION:

U.S. Army Corps of Engineers – Port of Nome Modification Feasibility Study:

<https://www.poa.usace.army.mil/Portals/34/docs/civilworks/publicreview/portofnome/FinalNomeIFREA29May2020signed.pdf?ver=2020-06-02-192545-533>

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