USACE/DOT&PF ALASKA DEEP-DRAFT ARCTIC PORTS PLANNING CHARRETTE

Anchorage, Alaska • May 16-17, 2011

CHARRETTE SUMMARY

Facilitation and Summary By:

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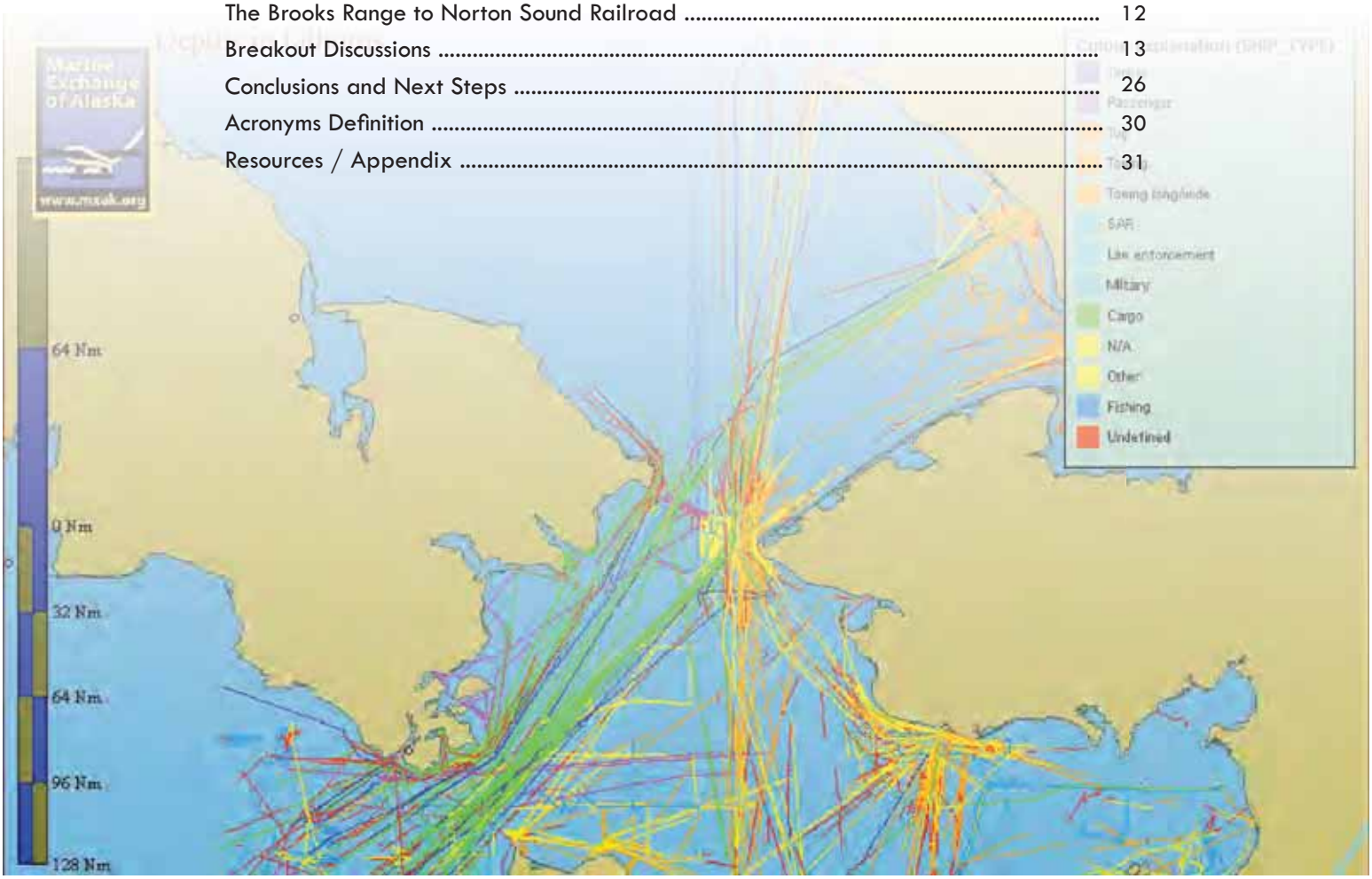


Image: Bering Strait Vessel Tracks, 2010

Introduction and Objectives

This is the summary report on the Arctic Deep-Draft Ports Planning Charrette hosted by the USACE and DOT&PF on May 16-17, 2011. The goal of the meeting was to start the process of joint planning for U.S. Arctic ports in Alaska, responding to the opportunity of study funding through the State of Alaska.

Governor Parnell has identified state funds for FY12-14 to be matched with federal funds to underwrite a three-year joint study effort for Arctic Port development. The purpose of the future port was defined by the state of Alaska as: "*To promote economic development, employment, job training, and education in the State of Alaska, including areas of rural Alaska with historically high rates of unemployment, through the development and construction of an Arctic Port that will attract new industry, expand international trade opportunities, and broaden and diversify the economic base in Alaska in a safe, reasonable, and efficient manner.*"

Representatives of state and federal agencies and organizations worked with panels and breakout sessions to lay the foundation for future Arctic ports. The essential challenge was to optimize state and federal interests with the drivers of economic development. This report summarizes the panel presentations of policy and context, and the interactive exchanges. The Appendix includes the agenda, press release and state/federal agency mission statements, with weblinks to the presentation powerpoints and additional relevant resources.

The charrette articulated the initial scope and issues for the Port Study to be conducted over the next three years, including discussions of the boundaries and conditions of the Arctic, vessel parameters and traffic, port siting criteria, and elements for inclusion in the port study process. The charrette

Roger Maggard, Capt. Bob Pawlowski, and Major Russ Price

supported the continued alignment of state, federal, tribal and private interests as the next step of partnerships required to deliver solutions to the many identified Arctic needs. USACE and DOT&PF will begin the Arctic Port study process in late summer 2011, including engagement of tribal, community and industry stakeholders, international governments, Arctic industry, USCG, Navy, and Department of Homeland Security.

The charrette was chosen as the particular meeting format that could deliver the necessary outcomes to set the foundation for the Arctic Port Study. Charrette is the name for a small cart that was ridden in the late 19th century by French architectural students, riding and working to deliver their projects on deadline. The form has evolved to mean an intense focused session with participants bringing cross-sector experience and expertise. Typically, a charrette includes at least 2 days for the thinking to mature. It is characterized by iterative working sessions that ultimately align to generate specific outcomes.

Previous related work by USACE and DOT&PF included two conferences (2008 and 2010) of stakeholders and a commissioned study through Northern Economics (NEI) to develop the framework for a Statewide Ports and Harbors Plan. Please see: http://www.poa.usace.army.mil/en/cw/AKPortsStudy.htm).

Welcome and Introduction

As hosts, Colonel Koenig and DOT&PF Commissioner Marc Luiken welcomed participants and spoke to the underlying issues of climate change and globalization leading to the strategic importance of Alaska to U.S. interests in the Arctic. The complexity of multiple goals for Arctic ports coupled with uncertain state and federal budgets points to the need for collaborative public/private partnerships.

Senator Mark Begich has a history of promoting Arctic interests, as demonstrated in seven pieces of legislation introduced in 2009 known as the Inuvikput Package (including S.203, S.204, S.205, S.1227 and S.1229). Schawna Thoma, Special Assistant for Community and Legislative Affairs for Senator Begich, represented the Senator and urged participants to take the next steps to maintain sovereignty in light of increased Arctic traffic and activity, and to seize the moment to diversify the Alaska economy. Schawna noted the Senator's call for the U.S. to sign the Law of the Sea Treaty.

Senator Lisa Murkowski was represented by Bob Walsh who read her letter (See Appendix) encouraging the charrette participants to recognize the importance of port infrastructure in light of increasing attention to Arctic issues. Senator Murkowski recently accompanied Secretaries Clinton and Salazar to Greenland for the Ministerial meeting of the Arctic Council. An international Search and Rescue agreement was signed, including boundaries of coverage and responsibility.

Colonel Reinhard Koenig
Commander, Alaska District, USACE

Commisioner Marc Luiken
DOT&PF

Arctic Context

To set the stage for participant discussions, Lawson Brigham and Ed Page spoke to the shipping conditions and marine traffic in the Alaskan Arctic now.

Dr. Lawson Brigham, Professor of Geography and Arctic Policy at UAF, summarized his work on the 2009 Arctic Marine Shipping Assessment (AMSA), designed to enhance Arctic Marine Safety, protect Arctic people and the environment, and build Arctic marine infrastructure. The AMSA report includes 17 recommendations for implementation by the U.S.

AMSA findings included the inferior status of marine charts, few places of refuge, limited emergency response capacity or salvage, limited communications and navigation aids, nominal U.S. maritime presence, and the lack of any U.S. Arctic ports.

Brigham noted that no one is forecasting year-round navigation in the Arctic. It is not anticipated that there will be an ice-free port in the Arctic anytime soon. This means that there may need to be multiple ports, some with seasonal use/access only.

Brigham highlighted key planning issues for the future port, including intermodal transport, search and rescue, staging for emergency response, access to marine activity, security and repairs, communication and observation hub. The AMSA effort and update has involved workshops with indigenous communities and stakeholders.

Captain Ed Page, Executive Director of the Marine Exchange of Alaska, spoke to the Automatic Identification System (AIS) now installed at 79 sites throughout Alaska. Vessel identification is provided in real-time as a tool for risk assessment and reduction. AIS is also a tool for monitoring and compliance. Ed demonstrated the increased vessel activity along the coast of Alaska, from U.S. and foreign sources.

Page identified a checklist for port development including:

- sufficiently deep waters
- adequately charted waters
- aids to navigation
- development of risk reduction measures
- monitoring of compliance
- marine pilots
- tugs
- facilities
- related infrastructure (cranes, staging and land transport)

Dr. Lawson Brigham, Professor of Geography and Arctic Policy, University of Alaska Fairbanks

Captain Edward Page, Marine Exchange of Alaska

Federal Interests Panel – U.S Air Force and U.S. Coast Guard

Colonel Kevin Brown, Director of Plans and Policy, U.S. 11th Air Force (USAF) and U.S. Alaskan Command (ALCOM), advised that the Unified Arctic Command Plan had recently been signed by President Obama, and spoke to the ALCOM agenda in the Arctic. Homeland Defense is the highest priority mission, but there is no assigned maritime component. The secondary mission is search and rescue, which requires upland support facilities, such as airports and helipads, and extensive collaboration with other agencies.

Captain Adam Shaw, Chief of Prevention with USCG 17th District, noted that there is water where ice used to be. Vessel activity is increasing each year, including cargo operations to support rural Alaska. Due to expanding demand and development of oil and gas and mineral resources in Alaska, this trend is likely to continue. The Bering Strait is the only way in or out of the Arctic, and thus the strategic location for USCG monitoring.

U.S. Arctic Policy goals include:

- National security
- Protecting the Arctic environment and resources
- Ensuring that natural resource management and economic development is sustainable
- Strengthening cooperation among Arctic nations
- Involving indigenous communities in decision making
- Enhancing scientific monitoring and research.

Federal Interests Panel: LCDR David Zezula, Captain Adam Shaw and Colonel Kevin Brown

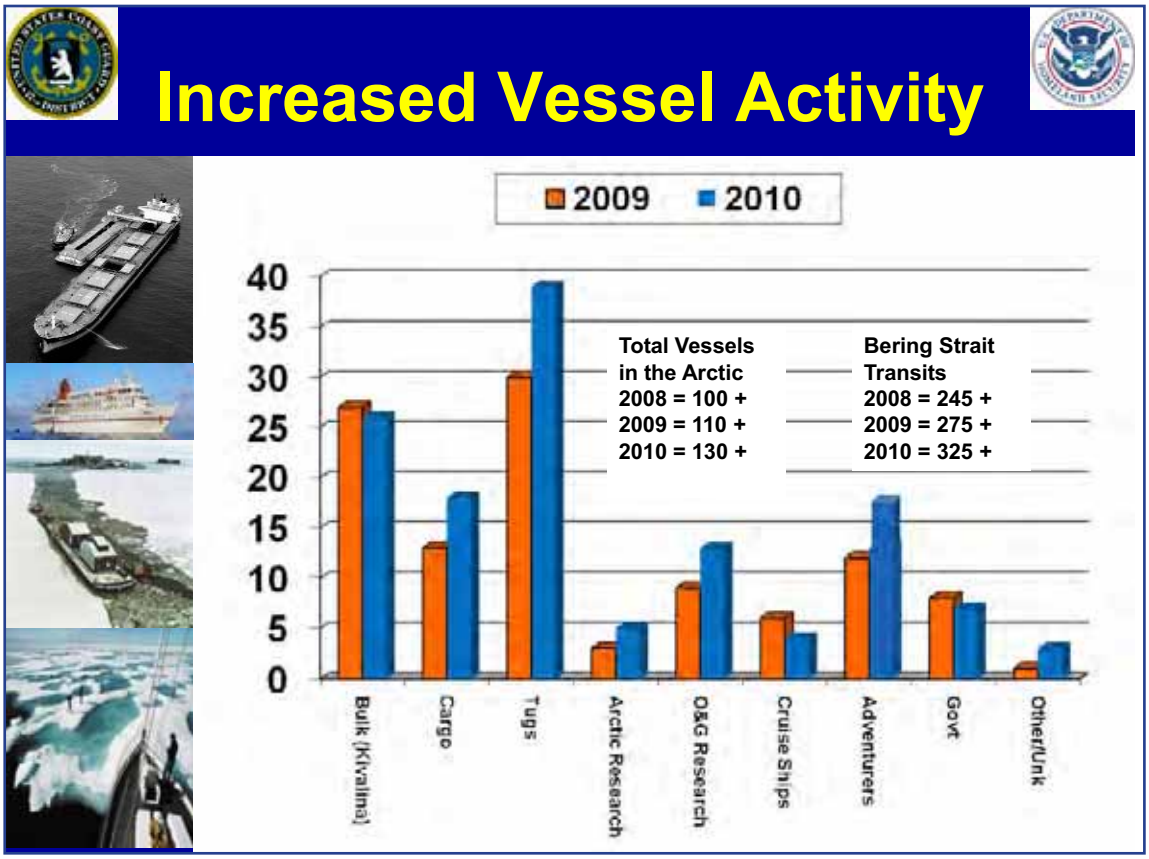
Further national direction from National Security Presidential Directive 66 and Homeland Security Presidential Directive 25 (NSPD-66/HSPD-25) includes the following:

- Develop greater capabilities and capacity to protect U.S. air, land and sea borders in the Arctic.
- Increase Arctic maritime domain awareness to protect maritime commerce, critical infrastructure and key resources.
- Preserve the global mobility of the U.S. military and civilian vessels and aircraft through the Arctic region.
- Project a sovereign U.S. maritime presence in the Arctic in support of essential U.S. interests, and
- Encourage the peaceful resolution of disputes in the Arctic region.

The USCG has broad authorities, informally summarized as:

- to protect humans from the oceans, rivers and lakes; and
- to protect oceans, rivers and lakes from the humans; and
- to protect good humans from bad humans on those same oceans, rivers and lakes.

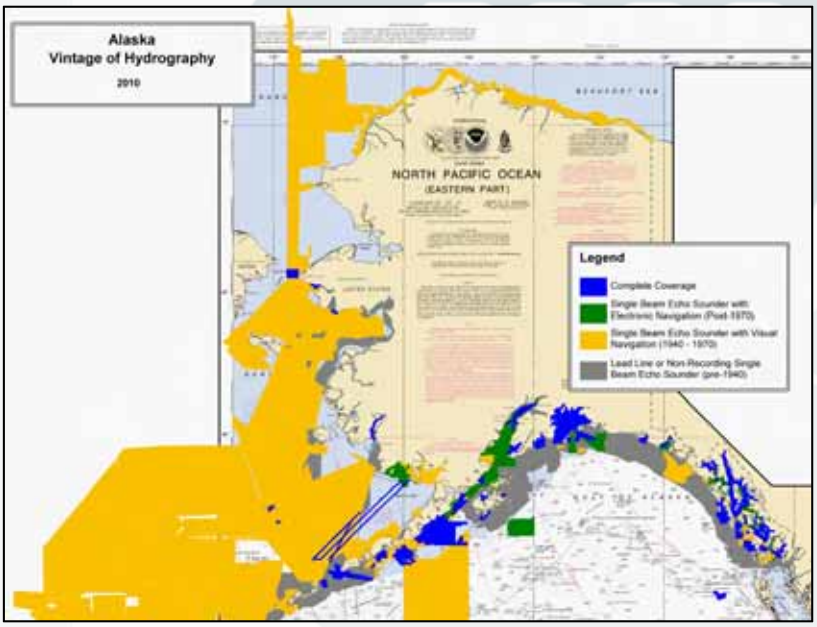
In working to meet this mandate in Alaska, the USCG has observed that infrastructure is insufficient, effective communication is lacking, small boats and short-range helicopters are ineffective, icebreakers or ice-hardened vessels are required to support helicopters, input from indigenous people is important, and operations are very expensive.



Federal Interests Panel - NOAA

LCDR David Zezula spoke to NOAA's Arctic activities from a hydrographic and fleet perspective. Most hydrographic data in Alaska was gathered with 1940's technology. NOAA is working to improve baseline measures and vertical data stations so that mapping is accurate and complete. National water level observation network, Center for Operational Oceanographic Products and Services (CO-OPS), is also gathering tide data.

Current State of Hydrography in Alaska



NOAA has 4 ships working the Arctic for hydrographic surveys and fisheries research. The extent of endurance is 22 days, as defined by food supply. Fuel is also a constraint as there is only one supplier of fuel in the Arctic. Due to the scale of the geography, 1/3 of the time is spent transiting. NOAA ships (230 feet long with 28 foot draft) are not designed to work in ice conditions. NOAA is moving forward to fill data gaps, but hydrographic survey priorities are primarily defined by users. Arctic operations will require increased budget and upland support facilities to make effective use of the limited operating season.

NOAA does not have an expressed need for an Arctic port, but "If you build it, we will use it." In response to question, Captain Shaw noted that the future USCG cutter would have a draft of 23.5 feet and would need 30 feet of draft with 400 feet of mooring. The range of draft for USCG would be 30-35 feet. At this time, USCG has only one ice-breaker and insufficient assets to meet the Arctic mission in Alaska.

Other participant questions triggered further discussion of the constraints to travel. Capt. Shaw noted that crew transfer is an issue as well as fuel and food. An airstrip is required for efficient operations. There is only one USCG navigational aid in the Arctic established in Barrow last year. Bathymetric data gathered is often not transferred to nautical charts for a long time due to international standards review.

Although maintaining national sovereignty is part of U.S. Arctic policy, the federal government was not seen by all to be the driver for a new Arctic Port. The federal agencies could pay some of the rent, but not supply the inital capital investment. This is a shift from previous federal policy to investments in port facilities in response to military concerns, such as WWII. Resource development was seen as the more likely driver by most participants. Balancing these interests to address Arctic issues remains central.

Congressman Don Young

Congressman Don Young acknowledged there has been significant increased interest in the Arctic, by the United States as well as other Arctic nations. Climate changes have expanded the window of time the Arctic is free of ice during the summer. He emphasized the great opportunity that climate change has created to access and develop minerals and fossil fuels in Alaska. Development of these natural resources could generate a new wealth for our nation.

Congressman Young has introduced H.R. 4576, The Arctic Deep Water Sea Port Act. This legislation would require a study and report on the feasibility and potential of establishing a deep water sea port in the Arctic to protect and advance strategic United States interests within the evolving and ever more important region. This bill is companion legislation to S.2849 introduced by Senator Murkowski in December 2009. This legislation will provide for a study to determine what strategic capabilities this deep water port should provide as well as the most favorable location. Senator Begich introduced the 7-bill Inuvikput Package (including S.203, S.204, S.205, S.1227 and S.1229) for development, sovereignty and safety.

"The United States is an Arctic nation because of Alaska, and Alaska will provide the gateway to our nation's future," said Rep. Young. "We have the opportunity now to address the prospects of industry years down the road and how we can use changing Arctic conditions to our advantage. Now is the time to be investing in our infrastructure and laying the groundwork. As other countries develop interests in this region, we need to ensure the protection of the U.S.' interests and make moves now to lay our claim."

Congressman Don Young

New ports and related infrastructure will be challenging and take considerable effort, regulatory streamlining and funding. With a sound proposal, there is the capacity to obtain government funding, with the balance coming from private finance. He noted that "you can't cut a budget into prosperity."

Congressman Young challenged each individual in attendance to build something substantive from the meeting, reminding participants that the Arctic is our nation's future. He encouraged the charrette participants to think "out of the box" and "cut through the red tape".

State Interests Panel

The passage of time has resulted in decreased sea ice. Once 80 feet thick at the time of Captain Cook, Arctic ice is now about 10 feet thick. This is leading to increased marine traffic as noted by Dr. Lawson Brigham and Captain Ed Page. State agencies and organizations recognize the enhanced opportunities for mining and related infrastructure development.

Tom Crafford, Director of the Office of Project Management and Permitting, Department of Natural Resources (DNR), spoke for **Al Clough**, Special Assistant to the DOT&PF Commissioner for Roads to Resources, an Alaska infrastructure initiative to access resource development. Crafford spoke to the evolution of the Alaska Highway System, noting that the Klondike Highway (Skagway) was the last major new road project in 1978. The state has identified areas for resource development, and has begun to consider roads for access to Foothills West (Umiat Oil and Gas), to Ambler Mining District and to Western Alaska via the Road to Nome.

Funding for these projects is likely to be through public/private partnerships. The state may be able to support through AIDEA, bonds, general funds and other vehicles. The state's interest is in economic development, jobs and expansion of local economies. There are significant environmental challenges to both the mining operations and the road development.

Steve Borell, Executive Director of the Alaska Mining Association, noted that the mining industry in Alaska has generally (88%) built its own infrastructure. Steve reviewed the existing Alaska mines and the ports they use for supplies and export. Ports discussed included Juneau, Skagway, Seward, Valdez, Nome, Cordova, Anchorage, Whittier, Greens Creek (3), Delong Mountains for Red Dog and Kensington (2).

There are 7 mine projects now developing new or upgraded ports: Wishbone Hill (Port Mackenzie), Chuitna (near Tyonek), Donlin (Kuskokwim near Aniak), Niblack (Niblack Bay), Pebble (Iniskin Bay), Bokan Mountain (Prince Wales Island) and Western Arctic Coal (Delong Mountains and Nome/Port Clarence). In many cases, there are questions of upland support facilities and services. Additional information on the extensive reserves and mining operations in Alaska can be found at: www.alaskaminers.org. The scale of mineral resources was demonstrated with the statement that Alaska may have as much coal as the rest of the country put together.

Participants discussed the state of Alaska mapping, in that Mars is better mapped than Alaska. The Digital Elevation Modeling project is now underway and will result in more accuracy and a baseline for future data gathering. http://www.alaskamapped.org/

Despite the large reserves, productive coal mines in the Arctic will be challenged by the inability to ship year-round. This means that it is hard to compete due to increased cost of infrastructure without corresponding revenues. Rail and road links are part of the state's response to this question. Participants expressed different assessments of the potential constraints of land ownership. Encouraging more mining investment and activity is part of building a more cost effective system.

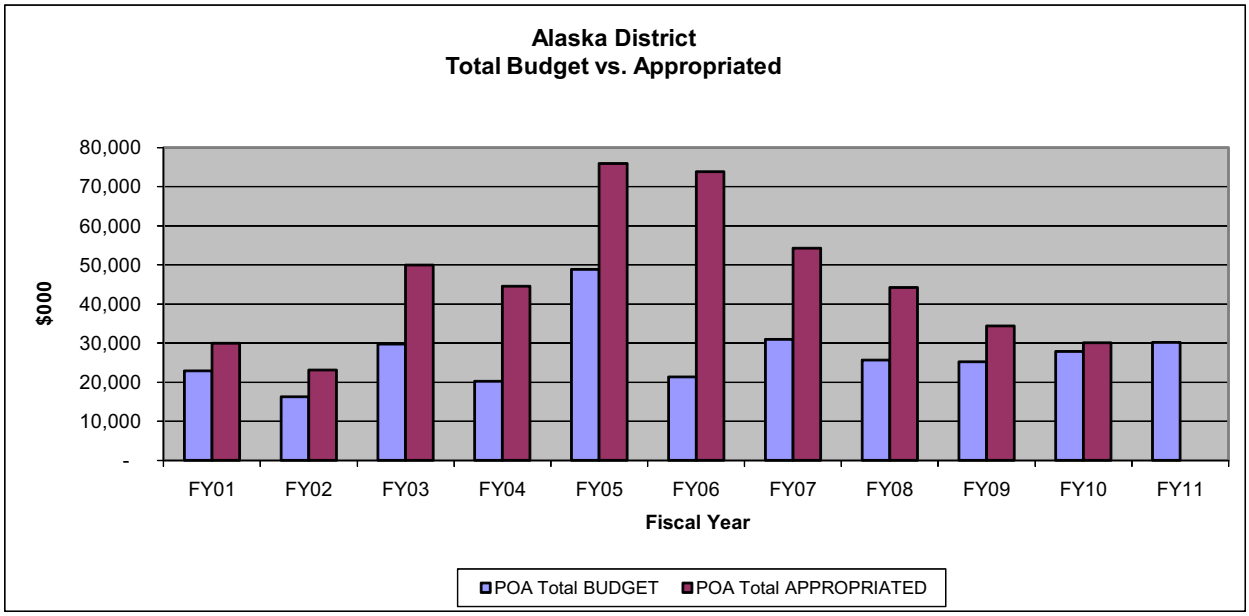
The element of time was discussed from several perspectives. A phased approach to port development may be required as some of the emergency response and life safety needs are here now with increased marine traffic. Interim solutions might include mooring buoys, lightering and other marine infrastructure.

Funding Options Panel

Jim Hemsath, Deputy Director for Finance at AIDEA spoke to the role of AIDEA as a standalone agency responsible to generate its own fund sources, primarily through a loan participation program. The Commercial Finance Division actually owns assets. AIDEA and DOT&PF have partnered in the expansion of the Ketchikan Shipyard, where the M/V Susitna ferry was recently built. AIDEA also owns the Skagway Ore Terminal, serving the Yukon. AIDEA owns the Delong Mountain Terminal (DMTS) at Red Dog Mine. AIDEA anticipates 50% increase in vessel traffic at DMTS in 2011 over 2010 levels. Barges dock at the port and lighter to the ship. New legislation allows AIDEA to be part rather than full owner. AIDEA can fund ports for economic development, job creation and infrastructure. Jim advised that a deep water port has to be multipurpose and multimodal.

Steve Boardman, USACE, presented a compelling story of diminished funding for USACE projects, both capital and operations and maintenance. Projects are funded through cost-sharing. The last appropriation for Alaska Regional Ports was in 2009. Maintaining existing ports and harbors is the major expense for USACE in Alaska now. Steve is actively reprogramming funding to support about three projects per year, as the USACE is now operating on funds appropriated from previous years. The number of projects needed nationwide continues to grow while the funding decreases. Alaska projects must compete with all projects nationwide. The lack of non-federal dollars is a problem for many projects.

Alaska District Civil Works Program FY01 – FY11



Funding Options Panel

Jeff Ottesen, Director of Program Development for DOT&PF, advised that there is no single pool of money to support port infrastructure. Public port financing is quite diverse. Ports are usually supported with user fees and partially subsidized by local and state governments. Port capital nationally is now going to ports that will receive larger vessels due to Panama Canal widening.

The Federal Aid Highway Program is no longer fully funded from user taxes; Congress has been adding General Funds for several years. Most ports in Alaska have been funded privately and in some cases, like Valdez, supported publicly. The delivery of a port is easily a 20-year process to accommodate the need for planning, design and construction, as well as plan of finance. There are four primary choices for funding depending on whether we use our money or someone else's, and whether we pay now or in the future.

Four Choices for Funding

Who Pays? / When?	Our Money	Other's Money
Now	Direct appropriation from GF (Example state or local capital budget)	Appropriation from Federal Government (Example: Federal Earmarks)
Future (Borrowing)	Our Children (Example: GO Bonds)	Other's Children (Example: Stimulus)

One approach is to pursue public/private partnerships (PPPs). The cost and risk of the endeavor is borne by the users, rather than taxpayers. This approach requires a strong business case to cover risk and ensure profit for the private investor. The duration of private ownership can vary, with transfer of the asset to government as a common end point. Fitting PPPs to Alaska is likely to require government help as the economics are 'thin,' as the scale of the geography is significant while the population is low. AIDEA is likely to continue to be of support. There are other funding mechanisms that could be considered, such as Industrial Use Highways (IUH) used for the Klondike Highway.

If we examine primary needs for a port now, they are mainly federal: sovereignty, homeland protection, resource protection, search and rescue, offshore resources. This argues for significant federal initiative in developing an Arctic port solution. There is a strong national rationale for Arctic maritime presence.

Jeff reminded us that we should open our eyes wider to include Russia, Canada, coal shipping to South Korea and the full world system of ports and markets. Canada has developed a Northern Strategy that clearly outlines its role in sovereignty, environment, social and economic development and governance. It would be useful for the U.S. to capture the message of its Arctic policy in a more marketable and reproducible form. The policy exists, but is not well known nationally or in Alaska.

Funding Options Panel

Schawna Thoma, Special Assistant for Community and Legislative Affairs for Senator Begich, indicated that Congressional appropriations are not yet clear for FY11 budget. There is significant concern for the federal deficit, so money for infrastructure is challenged. Ports are needed, but so is related equipment, such as icebreakers. In the 'no earmark' world today, funding requires more creativity and diversity. Senator Begich introduced the 7-bill Inuvikput Package (including S.203, S.204, S.205, S.1227 and S.1229) for development, sovereignty and safety.

Participants discussed the constraints and relevance of the USACE benefit/cost analysis for the Alaska situation. There is a growing understanding of an extended U.S. Arctic agenda in national security, sovereignty and safety. Federal users/tenants could pay some of the rent, but are unlikely to underwrite the initial capital expenditures. However, there is precedent for capital funding by the Federal Government as demonstrated by a federally funded special interest port at Kings Bay Base, Georgia for the Trident Submarines.

Funding Options Panel: Schawna Thoma, Jeff Ottesen, Steve Boardman and Jim Hemsath.

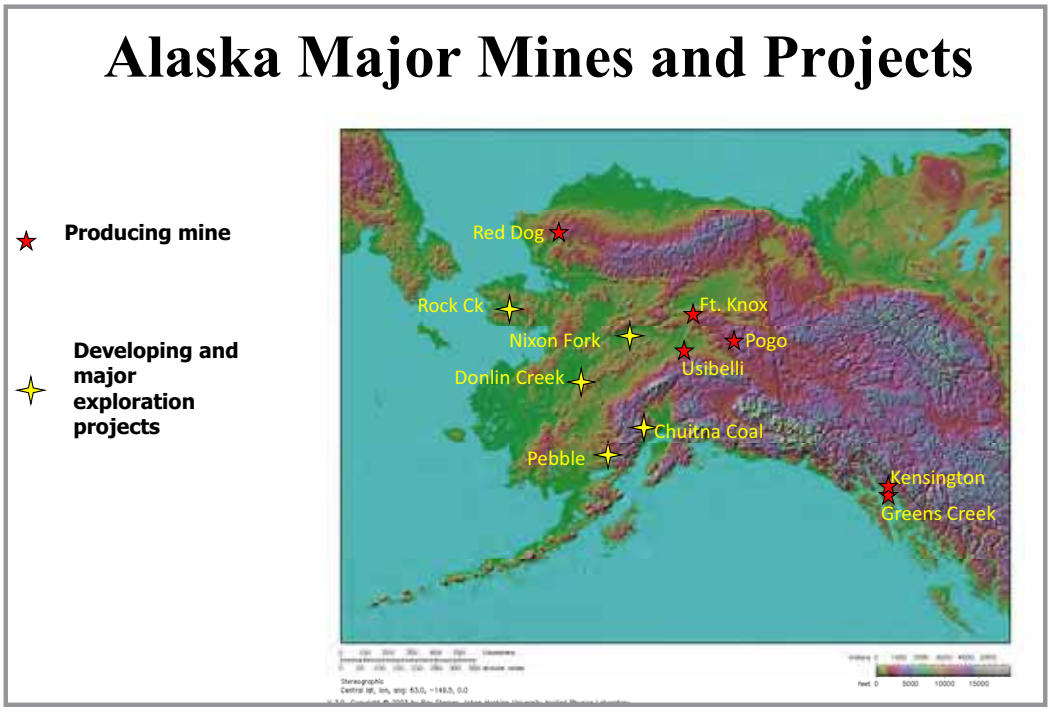
The Brooks Range to Norton Sound Railroad

Steve Borrell, Alaska Mining Association

Steve Borell, Executive Director of Alaska Mining Association, illustrated the details of specific mining products being shipped now from particular Alaska ports, highlighting a history of custom-made port infrastructure solutions. He noted the potential to change the scale of Alaska mining with a focus on coal.

Steve presented an approach to carrying coal and metal concentrates from Northwest Alaska to a year-round deepwater port in Nome by rail. The 350-mile railroad would then provide transportation for fuel and supplies back to the mines and villages of the area. One of the primary drivers is the ASRC fee-simple coal from one to five large mines. The system would link with Red Dog Mine. It was clear that one mine would not justify the railroad, even with the potential of 10M tons/year for the 30-year mine life.

However, there are sufficient reserves for ASRC to lease other areas with the same potential to other major coal companies for parallel development. This strategic venture would justify the cost of the railroad, and enlist the support of Congressional representatives associated with the other coal mining companies. Coal from the Brooks Range could be used to fuel a coal-fired generating plant. This plant would produce a very economical supply of electricity for Red Dog Mine and nearby communities.



Breakout #1: How Do We Define "Arctic"?

The Arctic has been defined by temperature, ice, law, politics and geographic features, such as the Yukon and Kuskokwim delta.

- One international definition is the area where the average temperature for the warmest month is below 10 degrees Centigrade (50 degrees Fahrenheit). See Figure 1.

- In U.S. law, the Arctic Research and Policy Act describes the Arctic as north of the Yukon, except it also includes most of the Aleutian Chain. The boundary of Figure 2 also notes the inclusion of all contiguous seas: the Arctic Ocean, Beaufort Sea, Bering and Chukchi seas, as well as the Aleutian Chain.

- The language of the Alaska appropriation for the Arctic Port Planning Study defines the Arctic as all Alaska waters north of Nunivak Island, 30 miles offshore of the Yukon and Kuskokwim Delta.

The charrette included a broad-ranging discussion on the boundaries of the Arctic and the study area for future Port Planning efforts.

- Lawson Brigham defined the Arctic as all locations with ice cover.

- Some defined the Arctic as north of the Aleutian Chain, excluding the existing deepwater port at Dutch Harbor. Others included the Aleutians and recognized that there will be more than one port solution in the Arctic, including Dutch Harbor, and possibly Russian and Canadian ports.

- All agreed that the Bering Straits are the chokepoint that needs to get priority attention to the north and south.

- Many used the Arctic Circle as the boundary, including the northern seas.

- Nunivak Island was considered the southern boundary of an Arctic that is now unserved by deepwater port.

- Providenya offers an international Arctic Port of value in the new Search and Rescue agreement of the Arctic Council. "Arctic" is beyond Alaska.

- The USCG is based in Kodiak and now serves the entire coast of Alaska. North of Kodiak is "Arctic".

Figure 1.

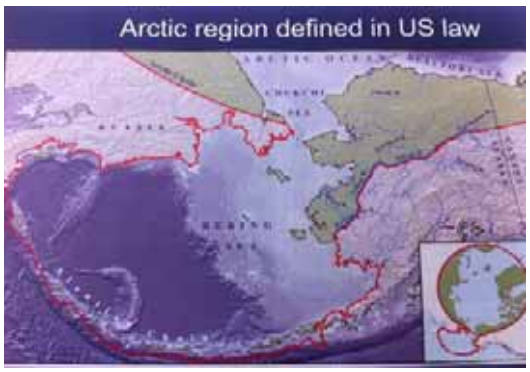


Figure 2.

Breakout #2: Vessel Parameters and Traffic Over the Next 20+ Years

This breakout exercise was designed to elicit a discussion of potential Arctic marine traffic and activities over the next 20 years, with the inclusion of specific vessel parameters. Working from a prepared matrix, participants were asked to work together to envision the future.

GENERAL COMMENTS

- Traffic will increase and a corresponding liability will be generated in terms of spill response, search and rescue, life safety. About 4-5 incidents per year could be forecast, including both transit and destination traffic. In 2010, there were about 390 passages through the Bering Straits (extrapolated by Capt. Ed Page). Ed Page spoke to 25% normalized growth annually in recent years.

- The range of vessels presently using the Arctic includes the large bulk carriers employed at Red Dog Mine, the large gas liquid concentrates tanker that transited the Bering Straits in 2010, and the small cruise ships that are transiting the Northwest Passage. Research vessels, oil exploration vessels, and other public and military vessels were also identified.

- Deep-draft port access for tugs and barges allows transfer of cargo from seagoing to riverine barges for delivery to communities upriver without having to lighter between barges, eliminating double-handling.

- The offshore operations for oil and gas development and the nature of vessels and equipment employed raised the question of whether an Arctic Port would be needed, when the vessels could maintain an Arctic offshore operation without a dependence on a land-based facility. The use of gravel islands in Prudhoe Bay was noted.

- Bilateral transportation to Russia and Canada must be included. This is a national and international issue.

- Desired depths ranged from minus 20-50 feet.

- Vessel parameters ranged from 200 to 1,200 feet in length.

- Identified uses included spill response, mineral export, national security and life safety, scientific research, tourism, fishing processors, transit traffic, fuel supply, oil and gas support.

- Marine solutions could include extension of existing or new ports with trestles, dolphins and lightering.

- It is critical to plan upland services and facilities to support marine traffic: food, water, crews, utilities, repairs, heliport.

- Private interests are likely to initiate a port development for a very particular use. Federal interests will plan to use what is developed.

- Port development is a lengthy process. Optimistically, a port could be delivered within about 20 years, but there are needs to be met in the interim, including search and rescue and oil spill response.

Breakout #2: Compilation Matrix - Arctic Port Vessel Parameters

VESSEL LENGTH	DRAFT DEPTH	PORT STRUCTURES	USE/NAME	OTHER/COMMENTS
200’	25’	Dock, fuel, shelter	Tugs, support vessels	
230’	28’	300’ Berthing		NOAA
250’	14’	Reefer space	Fishing: processors/ catchers	Harbor facility? Breakwater, etc., airport (jet)
400’	25’	Cranes, container infrastructure	Container barges	Marine services – utilities/ re-supply Intermodal connection
400’	25’	Small dock. Transfer system-Fuel 3M gallons	Jumbo barge (fuel)	Marine hoteling services – utilities
400’	29’ + 5’	500’ dock/ mooring	Ice breakers	Marine hoteling services – utilities/ resupply Breakwater, Intermodal connection
425’	35’-40’	Fuel, Airport, dock, supplies, potable water, power		USCG ice breakers
450’	30’	500’ Berthing		Shell support vessel
600’ minimum	25’-42’	800’ dock/ mooring	Cruise ship	Marine hoteling services – passenger processing, Souvenirs – airport access
600’ - 650’	38’	800’ dock/ mooring	Bulkers/solids/ concentrates	Marine hoteling services – utilities/ re-supply Intermodal connection
800’	35’ – 40’	Bulk loading system (conveyer)	Container ships	Marine hoteling services – utilities re-supply Intermodal connection
839’	30’ + 10’	Roll-on, roll-off compatible support	Roll-on, roll-off vessels	Marine hoteling services – utilities/re-supply intermodal connection
900’	45’			GLC tanker Russian
1200’	50’ +	Pipeline, dock face, storage	Crude oil	
1200’	50’ +	Conveyor, dock face, arms	Ore/coal export	New Panamax ideal 1200’ x 50’+
NS	15’ - 20’		Off -shore supply ships	
NS	20’ - 28’	Fuel, Airport, dock, supplies, potable water, power		NOAA research

NS = Not Specified

Breakout #2: Compilation Matrix - Arctic Port Vessel Parameters

VESSEL LENGTH	DRAFT DEPTH	PORT STRUCTURES	USE/NAME	OTHER/ COMMENTS
NS	25'	Dock/ramp	Mining supplies, equipment	Tankers/ fuel barge Container ship/ barge Multiple boats berthing capacity
NS	30'		Fuel tankers	
NS	35'	Fuel, Airport, dock, supplies, potable water, power	Healy	Coast Guard cutters
NS	45'		Panamax	Red Dog
NS	45' +?	Conveyors, dolphins		Concentrate carrier
NS	45' +	Dolphins, conveyors breakwater		Coal carrier
NS	Cape class 65'	Trestle		

NS = Not Specified

Breakout #3: Port Siting Criteria

Participants were given a structured matrix to develop port-siting criteria, including a discussion of what it would take to satisfy and achieve each of the criteria, as well as a relative ranking of importance. These siting criteria were: national security, environment, economic development, infrastructure, life safety, sustainability, land ownership, spill response, socioeconomics.

The ranking discussion reflected the recognition that national security is a top goal for an Arctic port, but it was not ranked highly as it is not considered to be a driver for the future siting. Generating national interest is key for federal support and investment. **Economic development of resoruces and private partnerships were highly ranked as driving forces in future port siting**, followed by the physical conditions and capacity to provide supporting infrastructure and services.

GENERAL COMMENTS

- There is growing interest in the Arctic as discussed by Lt. Gov. Mead Treadwell, just back from Arctic Council meetings in Greenland where a multinational agreement on Search and Rescue responsibility was signed. A new survey on infrastructure was approved for delivery through the Institute of the North.

- One port will not fit all needs. There could be multiple port solutions, and some solutions that do not require new ports, such as mooring buoys and lightering.

- "If you build it, we will use it." Resource development and private industry will drive siting and development. Other state and federal agencies will use what is developed. National security is unlikely to be the driver for port development, as it was in WWII, yet maintaining a presence is key for U.S. sovereignty. Current base for USCG is Kodiak.

- Partnerships are necessary to fund and operate ports.

- Upland infrastructure is a critical element of a successful port. Existing infrastructure should be leveraged. New infrastructure needs to be included within the capital cost estimates.

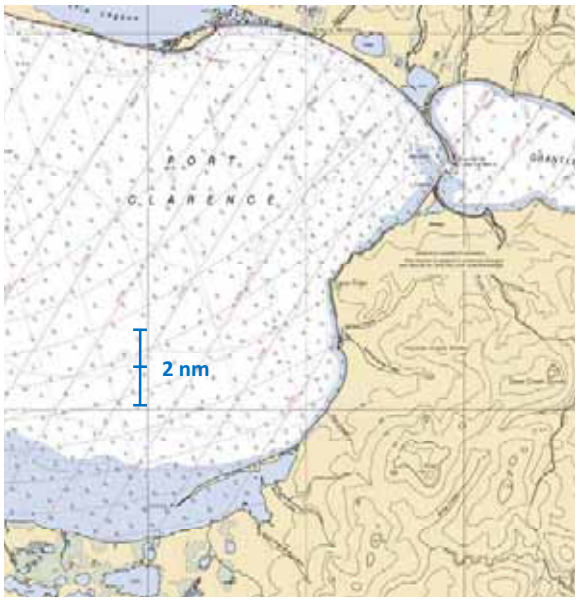
- Port use may be seasonal or year-round, depending on future temperature, actual location, technology and investment (as in ice-hardened vessels).

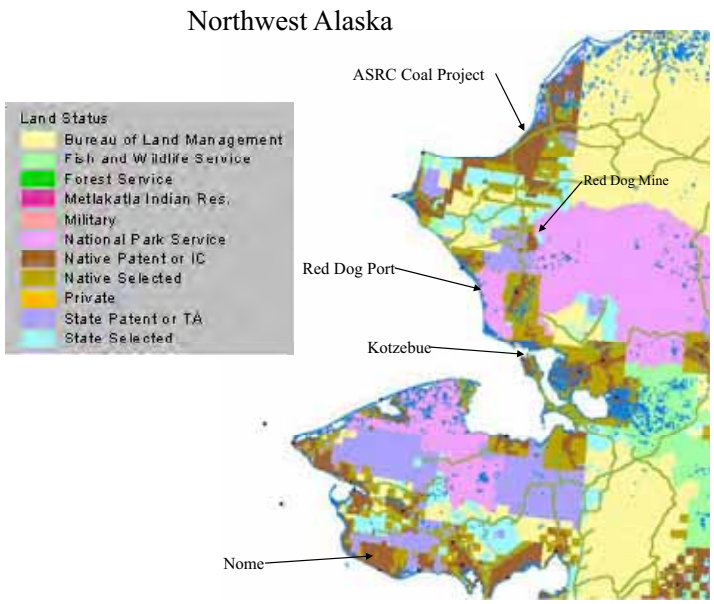
- Any Arctic port development must be responsive to subsistence use and resources.

Breakout #3: Port Siting Criteria

- Potential sites noted in discussions included:
  - Mekoryuk on Nunivak Island
  - St. Michael in Norton Sound above the Yukon River mouth
  - Cape Darby for rock and gravel
  - Cape Nome for rock and gravel
  - Nome with deepening existing port
  - Teller and Port Clarence, as deep water shelter south of Bering Straits
  - Cape Blossom in Kotzebue Sound
  - Delong Mountain Transportation System for the Red Dog mine
  - Prudhoe Bay

- Alaska is a gateway for trans-Pacific and trans-Arctic traffic. There is the potential to consider the development of a port system with Russia, Canada, Greenland and other European nations/destinations. This international and national role needs to be communicated to Congress and the Administration as part of the funding strategy.





Breakout #3: Compilation Matrix Port Siting Criteria

CRITERIA	WHAT IS NEEDED TO MEET CRITERIA
National Security *USCG/NOAA/ Navy* *USACE/ ALCOM*	• The Federal government needs to maintain a physical presence (marine and aviation) as part of the mission of demonstrating sovereignty. • Build it and Federal government will use it. The Federal government is currently conducting missions in the Arctic. A deep-draft port in the Arctic will support and improve current operations. • The Port will need to include uplands real estate with airport, berths, marine services such as repairs, intermodal connections. • A communication and outreach plan would provide necessary education and awareness about the national interests served by an Arctic deep-draft port.
Environmental	• Assessment of environmental interests will require consultations, a streamlined environmental process, a focused decision-making protocol. • Maintaining subsistence is a high priority environmental concern, including protection of endangered species, water quality, fishing grounds. • Other environmental variables include wind, waves, ice, meteorology, geographic location, water depth, marine mammals, endangered species, uplands characteristics.
Economic Development	• Port siting must meet industry needs for resource extraction and transport, industry incentives, Federal/ state partnerships. Resource development is the primary driver of siting. • Siting for economic development requires assessment of physical features, accessibility to resources and associated uplands, and business plan for long-term jobs, sustainability. • Intermodal connections figure prominently in the continued sustainability of the port, including stimulation of additional development. • Land status will influence siting in terms of community support or resistance, and in terms of the recipient of taxes and improvements. Who will benefit?
Infrastructure *Dock/Pier/Airport Port Facility*	• Infrastructure must be flexible to support industry needs, and multiple uses such as Search and Rescue (e.g., 6500-foot airport runway), Homeland Security and others, public and private. • Siting needs to include infrastructure for marine support services: billeting, warehousing, airport, helicopter facility, stores, repair, potable water, sewage facilities and fuel, proximity to construction materials. • Siting also needs to consider related community infrastructure, such as school, hospital, energy generation. • Intermodal links are desired to leverage the port investment and deliver maximum benefit.

Breakout #3: Compilation Matrix Port Siting Criteria

CRITERIA	WHAT IS NEEDED TO MEET CRITERIA
Life Safety *Vessel response, SAR/ safe harbor*	• Increased traffic means increased incidents. There is already a need for ice-hardened equipment, tugs and escorts. • The port site should be in a central location in the area north of Kodiak USCG base. It should consider the nature of potential incidents and related medical facilities. • Search and Rescue (SAR) will include marine and air rescues, small vessels, on and off-shore activities, ice-breaking, public and private. • SAR needs space for equipment, airport, storage, warehousing, lodging, lay down space, oil-recovery space, surge capacity, proximity to potential spill sites.
Sustainability *Physical/economic*	• Port siting needs to address sustainability in economic terms of solid business plan; clear operations planning; state, federal and local relationships. • A port and related upland infrastructure need to have skilled labor and repair facilities in order to stay fully operating and safe. This would also include the capacity for dredging to maintain the required depth. • Proximity to a community and commercial development is key to sustainability, in terms of services and available workforce. • The port needs to have a system of user fees, leases and tariffs to accommodate tenants. • Public support in terms of industry incentives and government tenants is part of the business approach.
Land Ownership	• Land use is complex. Development and regulation needs a focused consortium of interests with capacity for expedited decision-making, or a single determining role, such as an "Arctic Czar." • Mapping of multiple land interests (Native, CSUs, State, Federal) is critical to identification of land tenure conflicts affecting port siting and related infrastructure location.
Socioeconomics- *Tribal consultations, Subsistence users*	• Involve tribes/ local communities in the process of siting. • Pursue local community benefit as well as statewide, private and federal benefits of resource development, including jobs. • Be attentive to limiting impacts on subsistence resources.
Physical	• Depth, geography, approaches, natural deep water or dredging. • Physical research is required by federal agencies and UA. • Climate change requires increased international coordination.
Finance	• Siting will be influenced by who pays, local support, and partnership mechanisms to build (capital) and maintain (operations) a port.
Timing	• Phased expansion is advised. • Navigation infrastructure resources are required sooner than full port development. • Provide response prevention and support as soon as possible due to increased marine traffic.

Breakout #4: Port Study Outline for Proposed Arctic Deep-Draft Ports

INTRODUCTION

A draft study outline for the proposed Arctic Deep-Draft Ports was discussed in Breakout #4. Following are General Comments, and a new Study Outline based on the compilation of participant comments. This information will be used by DOT&PF and the USACE in development of the Arctic Ports Planning Study.

GENERAL COMMENTS

Audience. Define the audience for the Planning Study before the process is scoped.

Stakeholders. Develop the Planning Study with active engagement of industry, communities, tribes, local government and other affected stakeholders.

Context. Discuss the Planning Study within the context of what is next, and clarify how the report will be used. The charrette should be referenced in the Study. The status and connection the Statewide Ports and Harbors Plan should be acknowledged.

Format/Organization. The USACE has an existing protocol for planning and publication of plan documents. The NEPA/permitting standard sequence could provide the underlying organization. The Draft Study Outline reviewed was generally supported as indicative of the information required.

Sites. Specific port sites/regions were suggested including: Nome, Kivalina, Kotzebue, Port Clarence, Cape Darby, Cape Blossom, Red Dog, St. Michael; Chukchi Sea, Beaufort Sea and Bering Straits.

Site evaluation process. The criteria for site selection should include the charrette input from Breakout #3. The evaluation and selection process should be transparent. The evaluation needs to look at a range of sites and clearly identify those that have been excluded, discarded, short-listed, preferred. An evaluation matrix is recommended.

Geography. Add Canada, Russia and the rest of the Arctic to the Study to recognize the relationship of Alaska ports, politics and climate to the rest of the Arctic ports system. Recognize the U.S. Arctic (ports) as a matter of national and international significance.

Costs/Revenues. In addition to order of magnitude estimates for capital costs, participants recommended inclusion of operations and maintenance costs, life-cycle costs and also potential revenues.

Timing. Some issues need to be addressed now, such as life safety. Early actions could include mooring buoys and other interim solutions. Port development is a 20+ year process.

Need. The participants confirmed the need for Arctic ports.

Breakout #4: Port Study Outline for Proposed Arctic Deep-Draft Ports

COMPILED STUDY OUTLINE

1.0 Executive Summary

2.0 Introduction

- 2.1 Study Purpose – local, national and international
- 2.2 Study Scope: Needs and Opportunities
- 2.3 Background with definition of "Arctic waters," "deep-draft," "Arctic port"
- 2.4 Legislative Summary: State (budget) and Federal (authority/appropriation)
- 2.5 Congressional and Legal Context: bills by Alaska Congressional delegation; Jones Act and other relevant laws; Law of the Sea

3.0 Driving Factors

- 3.1 Introduction
- 3.2 National Security-Homeland Security, DMVA, Navy, NORAD
- 3.3 Life Safety, Ports of Refuge, Distressed Vessels-USCG
- 3.4 Mineral Resources Exports
- 3.5 Oil & Gas (including oil spill response)
- 3.6 Other commercial: fishing, tourism, global trans-shipping

4.0 Potential Port Sites

- 4.1 Introduction
- 4.2 Port Sites
  - 4.2.1 Port Location 1
  - 4.2.1 Port Location 2
  - 4.2.3 Port Location 3 or more

5.0 Land Access

- 5.1 Land Ownership
- 5.2 Land Use

Breakout #4: Port Study Outline for Proposed Arctic Deep-Draft Ports

5.3 Other: availability of material resources

6.0 Environmental Constraints (Summary discussion only)

6.1 Stakeholder Consultation

6.2 Desktop Study of existing materials

6.2.1 Marine Conservation, Marine Mammals

6.2.2 Estuarine and River Mouth Environments

6.2.3 Fish Habitat Protection Areas

6.2.4 Shipwrecks

6.2.5 National Reserves

6.2.6 Significant Wetlands

6.2.7 Protected Flora

6.2.8 Protected Fauna

6.2.9 Cultural Resources, SHPO

6.2.10 Socioeconomic and Subsistence

6.2.11 Environmentally Sensitive Areas-ESA

6.3 Summary and Recommendations

7.0 Vessel parameters

7.1 Beam, draft, weight, type, use

7.2 Traffic

8.0 Design Criteria

8.1 Water levels (tides, storms, currents, seasonal ice duration/dimensions)

8.2 Wave heights (fetch)

8.3 Geotechnical

8.4 Bathymetry

8.5 Sea Ice Conditions

Breakout #4: Port Study Outline for Proposed Arctic Deep-Draft Ports

9.0 Port Sites – Evaluation based on Siting Criteria (Breakout #3)

- 9.1 Introduction
- 9.2 Port Sites
  - 9.2.1 Port Location 1
  - 9.2.1 Port Location 2
  - 9.2.3 Port Location 3 or more

10.0 Port Structures

- 10.1 Introduction
- 10.2 Causeway/trestles/conveyors
- 10.3 Breakwaters, armoring, dolos
- 10.4 General Purpose Berth/Bulk Berth
- 10.5 Caissons, seasonal
- 10.6 Offshore gravel islands
- 10.7 Mooring Buoys and breakwater jacks
- 10.8 Fuel berth/unloading and loading

11.0 Port Layout Concepts

- 11.1 Port Site One
- 11.2 Port Site Two
- 11.3 Port Site Three

12.0 Shore-based Infrastructure Requirements

- 12.1 General
- 12.2 Shore-based structures
- 12.3 Shore based services: fuel, water, power
- 12.4 Access to intermodal transport: aviation, roads, rail

13.0 Port Concept Order of Magnitude Cost Estimates

- 13.1 General, including potential partners and allocations of costs
- 13.2 Dredging Costs
- 13.3 Breakwater/Causeway Costs

Breakout #4: Port Study Outline for Proposed Arctic Deep-Draft Ports

13.4 Wharf/Dock Structure Costs

13.5 Miscellaneous Port Structures

13.6 Related Uplands Infrastructure and Transportation Costs

13.7 Survey and Investigation Costs

13.8 Operations & Maintenance, Life-Cycle Cost Estimates

13.9 Potential Income/Revenues

13.10 Total Port Development Order of Magnitude Costs Estimate

14.0 Schedule - Planning Study, Funding, Design and Construction including early phasing to respond to life safety and spill response/prevention

15.0 Conclusion

15.1 General

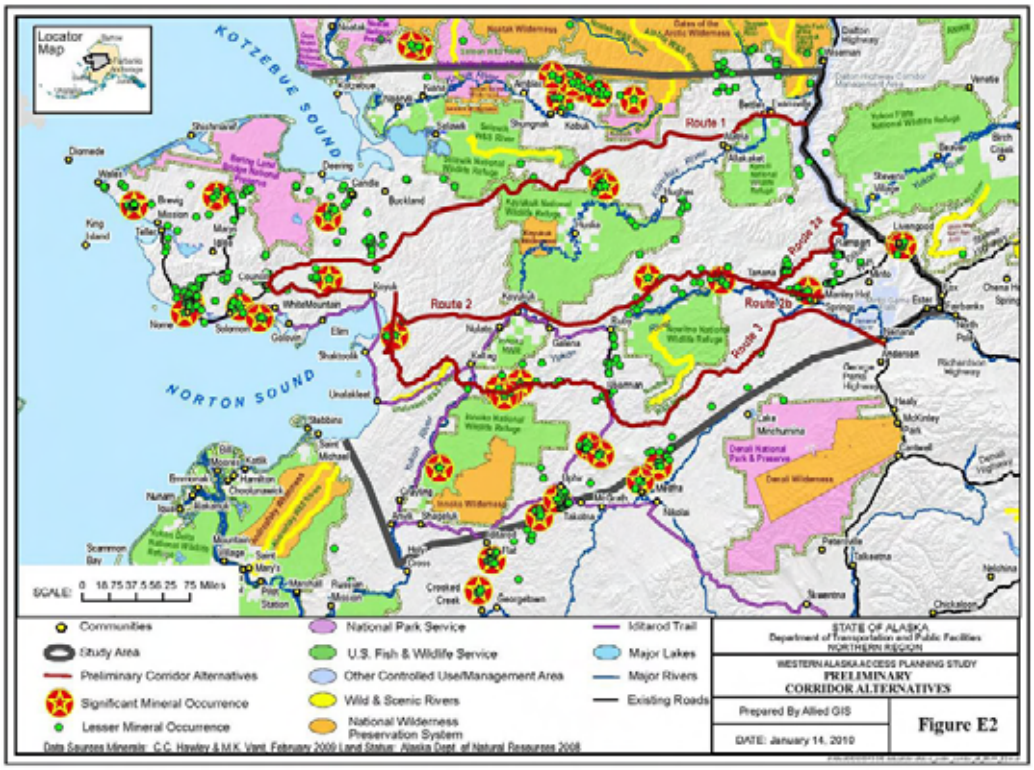
15.2 Port Site 1

15.3 Port Site 2

15.4 Port Site 3

16.0 Future Work

17.0 References



Road to Nome

Conclusion and Next Steps

The last breakout of the charrette was a discussion of Next Steps. The group looked at four questions to articulate what is needed to move forward.

1. What is clear?
2. What is unclear?
3. What are next steps for you/your agency?
4. What else is needed for a successful Arctic ports planning study?

COMPILATION OF COMMENTS

1. What's Clear?

All participants agreed on the need for an Arctic port or ports with related marine and upland infrastructure, and on the need for the proposed study.

U.S. national sovereignty requires that the U.S. maintain a presence in the Arctic.

Development of an Arctic port or ports is an international event involving Russia, Canada, Greenland and Europe.

Arctic traffic is growing, and with it the related requirement to respond to potential incidents with spill response, Search and Rescue, vehicles in distress, etc.

The need for emergency response exists now. More immediate responses could be mooring buoys and increased airfield facilities, while waiting for future port.

There is no obvious existing natural site for a deep-draft port in Western Alaska.

A new Arctic Port or Ports will require public and private partnerships to build and maintain. Resource extraction is the likely driver for economic development and for initiating port development.

There are many potential uses and users for Arctic ports.

2. What's Unclear?

Fund sources (capital and operating) are unknown. Will the driver be private resource and economic development by the state? And/or will Congress underwrite as part of national security and sovereignty? How will this come together?

Federal policy is not clear about what is required. What is the federal agenda and commitment for an Arctic Port?

Is the state and federal political will sufficient to drive a port?

Location of future port or ports is unknown.

Potential partners and mechanisms to leverage the partnerships are not defined. Private sector, industry, tribal and community stakeholders have not yet been engaged.

How many ports do we actually need due to multiple users and the state's geography?

The actual process for decision-making in selection of port sites and investment is not defined.

Much NOAA charting and DNR mapping is insufficient so that the physical setting, opportunities and constraints are not known.

Conclusion and Next Steps

3. Agency Follow-up

- The USACE and DOT&PF will review and develop a summary of the charrette in two formats: executive summary as Power Point and narrative summary for use in developing the Port Study. They will send to participants before 15 July.
- A participant list with agency names and contact information will be sent to charrette participants by USACE.
- Presentation powerpoints will be posted online and a weblink emailed to participants in the next month. Email notification of posting will be sent to participants.
- Press release will be sent out by DOT&PF and USACE. http://www.dot.state.ak.us/comm/pressbox/arch_2011/PR11-2528.shtml
- DOT&PF will set up a project website for future outreach on the project.
- DOT&PF and USACE will meet to develop a Study Plan, Schedule and Budget after the Governor approves the budget with study appropriation. It was recommended that a Steering Committee be convened to support the project team. Future work will need to include an industry-focused ports meeting to develop project need and partners, as well as community engagement.
- NOAA will continue with priority charting program.
- DOT&PF will continue Digital Elevation Modeling Program to provide better information of uplands.
- USCG will provide the opportunity for charrette participants to view the Bering Straits and existing Arctic traffic as part of bimonthly overflights.
- The Institute of the North will pursue the newly scoped Arctic Maritime and Aviation Transportation Infrastructure Initiative. The Port Study will integrate information with this effort, building on the Arctic Marine Shipping Assessment by the Arctic Council.
- DOT&PF to plan delivery of more immediate solutions regarding installation of mooring buoys and construction of hangars and other airport improvements to enhance airfield support.

4. Particular Needs for Successful Ports Planning Study

- Broaden outreach. Add industry, tribal and community engagement and support.
- Define the audiences and eventual role of the Ports Planning Study.
- Recognize the underlying need for a rational system of multiple ports in Alaska and Outside, including improved airfields and mooring buoys.
- Inventory resources, both onshore and offshore. Environmental data and model projections need to be reviewed and/or developed.
- Pursue strategic communications within Alaska, Lower 48 and Congress about the strategic location of Alaska, and the need for a U.S. presence and emergency coverage of the Arctic.
- Obtain release of High Latitude Study from USCG.

Conclusion and Next Steps

- Work with Congressional delegation to shape the national message on security and life safety so that federal support will be forthcoming. Support the US signing of the Law of the Sea.
- USACE/DOT&PF to maintain progress reporting to Northern Waters Task Force, Institute of the North, Congressional delegation and affected agencies so that needs and resources are identified and leveraged.
- Work with existing efforts to avoid duplication and maximize resources. Particular opportunities for collaboration include:
  - The Institute of the North's 2012 Arctic Port Response Infrastructure Conference.
  - Ongoing implementation of the Arctic Marine Shipping Assessment agenda to build Arctic marine infrastructure, enhance safety and protect Arctic people and the environment.
- Incorporate outcomes from UAF Workshop, 25-27 July 2011: "The Arctic Ocean Beyond National Jurisdiction."

Mike O'Hare, AK National Guard and Charrette Participant

Eric Taylor, DOT&PF and Don Fore, USACE

Randy Ruaro and Lt. Gov. Mead Treadwell

Colonel Kevin Brown, USAF-ALCOM

Tom Crafford, DNR and Jeff Ottesen, DOT&PF

Drue Pearce, Crowell Moring and Nils Andreassen, Institute of the North

Acronym Definitions

AIDEA	Alaska Industrial Development and Export Authority
ALCOM	Alaska Command (combined military command of the U.S. armed forces in Alaska)
AMSA	Arctic Marine Shipping Assessment
ASRC	Arctic Slope Regional Corporation
CSU	Conservation System Units
DNR	Department of Natural Resources
DOT&PF	Department of Transportation and Public Facilities
ESA	Endangered Species Act
LEDPA	Least Environmentally Damaging Practicable Alternative
NEPA	National Environmental Policy Act
NOAA	National Oceanic and Atmospheric Administration
NSPD66/HSPD25	National Security Presidential Directive 66 and Homeland Security Presidential Directive 25, Arctic Region Policy
O&M	Operations and Maintenance
PPP	Public-Private Partnership
UAF	University of Alaska Fairbanks
U.S.	United States
USACE	United States Army Corps of Engineers
USAF	United States Air Force
USCG	United States Coast Guard

Resources / Appendix

The following supplementary resource handouts, materials and links were used during the planning and/or were distributed among attendees following the meeting.

Attached Resources

- Charrette agenda, May 16-17, 2011
- Selected agency mission statements about the Arctic
- Senator Lisa Murkowski's letter to the charrette participants, May 16, 2011
- List of charrette participants

Useful website links

- Charrette Speaker Presentations available on USACE website: http://www.poa.usace.army.mil/en/cw/AKPortsStudy.htm
- Press release issued by DOT&PF, May 18, 2011: http://www.dot.state.ak.us/comm/pressbox/arch_2011/PR11-2528.shtml
- U.S. Navy Arctic Roadmap, October 2009: http://www.navy.mil/navydata/documents/USN_artic_roadmap.pdf
- Northern Waters Task Force: http://www.housemajority.org/coms/anw/anw_background_26.php
- Arctic Marine Shipping Assessment and Update: http://www.institutenorth.org/programs/arctic-advocacy-infrastructure/arctic-maritime/arctic-marine-shipping-assessment
- Arctic Governance in an Era of Transformative Change: Critical Questions, Governance Principles, Ways Forward: http://www.arcticgovernance.org/
- Alaska Miner's Association Reference Materials: http://www.alaskaminers.org/
- Planning for Alaska's Regional Ports and Harbors, January 2011, Northern Economics, Inc.: http://www.poa.usace.army.mil/en/cw/AKPortsStudy.htm
- Alaska Climate Change Sub-Cabinet: http://www.climatechange.alaska.gov/
- ION Infrastructure Study Outline for Arctic Council: http://www.institurenorth.org
- Digital Elevation Model and Statewide Digital Mapping Initiative (SDMI): http://www.alaskamapped.org/
- Inuvikput package introduced by Senator Mark Begich in 2009: http://begich.senate.gov/public/index.cfm/arcticpolicy
- USCG, Alaska District: http://www.uscg.mil/d17/
- NOAA, Alaska Region: http://www.regions.noaa.gov/alaska/alaska_region_team.html

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ALASKA DEEP-DRAFT ARCTIC PORTS PLANNING CHARRETTE

MAY 16 – 17, 2011
Dena'ina Civic and Convention Center, Ballroom E

AGENDA

Monday, May 16, 2011

7:30 – 8:00	Coffee/muffins and networking	
8:00 – 8:05	Welcome/Introduction by USACE	Col. Reinhard Koenig Commander, Alaska District
8:05 – 8:10	Welcome/Introduction by DOT&PF	Commissioner Marc Luiken, DOT&PF
8:10 – 8:20	Messages from Congressional Leadership	Schawna Thoma, Sen. Begich Office Bob Walsh, Sen. Murkowski Office
8:20 – 8:30	Agenda Overview/Goals for Conference	Sarah Barton, Facilitator RISE Alaska, LLC
8:30 – 8:50	***The Pirate Game***	Table Discussions & Report Out
8:50 – 9:00	Arctic Marine Shipping Assessment	Dr. Lawson Brigham, University of Alaska Fairbanks
9:00 – 9:15	Marine Exchange of Alaska	Captain Edward Page, Marine Exchange of Alaska
9:15 – 10:00	***Breakout #1****: Define Arctic Geography*	Table Discussions & Report Out
10:00 – 10:15	Morning Break	
10:15 – 11:30	**Panel One: Federal Interests**	LCDR David Zezula, NOAA Captain Adam Shaw, USCG Colonel Kevin Brown, USAF-ALCOM
11:30 – 11:50	Congressional Remarks / Q&A	Congressman Don Young
11:50 – 1:30	Lunch Break (on your own)	
1:30 – 3:00	**Panel Two: State Interests**	Steve Borell, Alaska Miners Assoc. Tom Crafford, Dept. of Natural Resources Al Clough, Roads to Resources, DOT&PF
3:00 – 3:15	Afternoon Break	
3:15 – 4:15	***Breakout #2:*** *Arctic Vessel Parameters*	Table Discussions & Report Out
4:15 – 4:30	Overview of Day 1 and Wrap-Up	Sarah Barton, Facilitator

ALASKA DEEP-DRAFT ARCTIC PORTS PLANNING CHARRETTE

MAY 16 – 17, 2011
Dena'ina Civic and Convention Center, Ballroom E

AGENDA

Tuesday, May 17, 2011

7:30 – 8:00	Coffee/muffins and networking	
8:00 – 8:10	Introduction/Insights from Day 1	Sarah Barton, Facilitator
8:10 – 8:15	Overview of Day 2	Sarah Barton, Facilitator
8:15 – 9:45	**Panel Three: Funding Options**	Jim Hemsath, AIDEA Jeff Ottesen, DOT&PF Steve Boardman, USACE Schawna Thoma, Sen. Begich Office Bob Walsh, Sen. Murkowski Office
9:45 – 10:00	Morning Break	
10:00 – 12:00	***Breakout #3:*** *Port Siting Criteria*	Table Discussions & Report Out
12:00 – 12:45	Lunch Presentation (Lunch provided in room)	Steve Borell, Alaska Miners Assoc.
12:45 – 1:00	Presentation of Draft Study Outline for Deep Draft Arctic Port	Sarah Barton, Facilitator
1:00 – 2:30	***Breakout #4:*** *Mark-up of Draft Study Outline*	Table Discussions & Report Out
2:30 – 2:45	Afternoon Break	
2:45 – 3:30	***Breakout #5:*** *Next Steps*	Table Discussions & Report Out
3:30 – 4:30	Closing and Wrap-Up	Sarah Barton, Facilitator

ALASKA DEEP DRAFT ARCTIC PORTS
INVOLVED AGENCIES AND THEIR MISSIONS

U.S. ARMY CORPS OF ENGINEERS

http://www.poa.usace.army.mil/en/cw/AKPortsStudy.htm

USACE, in collaboration with State and Federal agencies, is developing a comprehensive plan to meet future navigation improvement needs in the Arctic. As sea ice diminishes and previously developed world-wide resources dwindle, technology improvements make the economic viability of resource extraction in the arctic more attractive. The State of Alaska is interested in establishing new, or improving existing, ports and infrastructure for exporting coal, oil, gas, and minerals. These same ports would also serve the State and Federal interests in National/Homeland Security and Defense, commercial and subsistence fishing, research vessel operations, emergency preparedness and response, tourism, and support of northern communities and Native Peoples.

ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES:

http://www.dot.state.ak.us/

Their mission is to provide for the safe movement of people and goods and the delivery of state services. It plans, designs, construct, operates, and maintains quality, safe, efficient sustainable transportation and public facilities that meet the needs of Alaska's diverse population, geography, and growing economy.

ALASKA DEPARTMENT OF NATURAL RESOURCES:

http://dnr.alaska.gov/

Who we are: The Department of Natural Resources' goal is to contribute to Alaska's economic health and quality of life by protecting and maintaining the state's resources, and encouraging wise development of these resources by making them available for public use.

What we do: The Department of Natural Resources manages all state-owned land, water and natural resources, except for fish and game, on behalf of the people of Alaska. When all land conveyances from the federal government are completed, the people of the state will own land and resources on 104 million acres: Approximately 90 million acres have been conveyed so far. The state owns approximately 65 million acres of tidelands, shorelands, and submerged lands and manages 34,000 miles of coastline. The state also owns the freshwater resources of the state, a resource that equals about 40% of the entire nation's fresh water flow.

How we are organized: The department is currently organized into eight divisions http://dnr.alaska.gov/commis/pic/divisions.htm that reflect its major programs:

1. Agriculture <http://dnr.alaska.gov/commis/ag/
2. Coastal & Ocean Management <http://www.dnr.state.ak.us/acmp/
3. Forestry <http://dnr.alaska.gov/commis/forestry/
4. Geological & Geophysical Surveys <http://www.dggs.dnr.state.ak.us/

5. Mining, Land & Water <http://dnr.alaska.gov/commis/mlw/
6. Oil&Gas <http://www.dog.dnr.state.ak.us/oil/
7. Parks and Outdoor Recreation <http://dnr.alaska.gov/commis/parks/
8. Support Services <http://dnr.alaska.gov/commis/ssd/

ALASKA DNR's DIVISION OF COASTAL AND OCEAN MANAGEMENT (DCOM):
http://dnr.alaska.gov/coastal/acmp/

DCOM regulates the state's Coastal Management Plan, a federal program managed by NOAA. The Alaska Coastal Management Program provides stewardship for Alaska's rich and diverse coastal resources to ensure a healthy and vibrant Alaskan coast that efficiently sustains long-term economic and environmental productivity.

ALASKA INDUSTRIAL DEVELOPMENT AND EXPORT AUTHORITY:
http://www.aidea.org/

Their mission is to promote, develop and advance economic growth and diversification in Alaska by providing various means of financing and investment.

DENALI COMMISSION:
http://www.denali.gov/

The Denali Commission has interest in innovation in Arctic civil infrastructure and recognize that transportation in the defined US Arctic will benefit from having deep draft access for moving products to and from the Arctic river systems. Presently, the Denali Commission is working on barge landings for rural rivers in conjunction with the USACE that will improve handling of goods and petroleum products in rural communities.

Bob Pawlowski has an extensive background in navigation from days with NOAA's coast survey, has worked closely with the Immediate Action Working Group, is working with AVTEC on Arctic ice navigator training, and has been a contributor to the Arctic Marine Shipping Assessment for the Bering Straits Case Study.

NORTHERN WATERS TASK FORCE:
http://www.housemajority.org/coms/anw/anw_background_26.php

House Concurrent Resolution 22 establishes the Alaska Northern Waters Task Force to facilitate regional coordination and State of Alaska leadership in the ongoing development of the United States' policies related to the opening of Arctic marine transportation routes, national security, and resource development. The task force will comprise Legislators from Northwestern Alaska, leaders from Arctic communities, and key federal agencies. Together, they will assess and facilitate the creation of a joint state and federal entity to coordinate United States and Alaska interests that result from the opening of Arctic waters.

Perennial ice in the circumpolar Arctic waters is reducing in size at a rate of nine percent per decade. Arctic nations such as Norway, Canada and Russia are proactively promoting and defending their interests in increasingly ice-free areas. As the only Arctic state in this nation, Alaska has a unique role and interest in the development and evolution of U.S. policy in its northernmost region.

The creation of the Alaska Northern Waters Task Force anticipates increased federal attention to navigation routes, resource development, military activity and commerce in the Arctic. HCR 22 foresees the future creation of a joint federal/state commission that guides interagency and inter-jurisdiction actions in the Arctic. It provides an opportunity for Alaska's Legislature and Arctic communities to assume a proactive role in shaping such a body, and ensures that Alaska's unique interests are strongly represented.

In the execution of its responsibilities, the Alaska Northern Waters Task Force will hold hearings in the northern communities of Barrow, Nome and Kotzebue, as well as Anchorage. By meeting in these regions, the task force will be able to seek guidance and feedback from the residents of the regions most likely to experience impacts from increased activity in the Arctic.

The Alaska Northern Waters Task Force will deliver its findings to the Alaska Legislature in January 2012, including legislative proposals for consideration.

U.S. NORTHERN COMMAND and the NORTH AMERICAN AEROSPACE DEFENCE COMMAND, or NORAD:
http://www.norad.mil/

Citing the Arctic's growing importance, the Pentagon announced in April that Northern Command would take on responsibility for military operations in the Arctic and Alaska. Previously, that responsibility was shared by the U.S. Northern, Pacific and European commands.

NORAD is a joint U.S.-Canada command that defends the two countries from airborne threats and monitors maritime traffic off their shores.

Northern Command, formed after the Sept. 11, 2001, terrorist attacks, is responsible for defending the U.S. homeland and helping civilian authorities handle such emergencies as the Texas wildfires in April and the 2010 Gulf of Mexico oil spill. It provided aerial firefighting tankers, equipment airlifts and other assistance in those events.

"And in order to be prepared for that, we have to keep our eye on the defense side of it, the security side of it, the environmental side of it, search and rescue, the safety side of it," Admiral James Winnefeld said in a recent interview at his headquarters at Peterson Air Force Base, Colo.

Winnefeld and NORAD'S deputy commander, Canadian Forces Lt. Gen. Marcel Duval, said more ships in the Arctic Ocean — and more jetliners crossing Arctic skies — could mean more emergencies.

Sea traffic is still light, with only about 25 ships a year currently crossing the maritime Arctic boundary between Alaska and the Yukon. But that number is increasing by 10-15% a year, according to NORAD statistics.

Civilian air traffic over the Arctic is booming. U.S. and Canadian aviation agencies report more than 9,600 civilian flights across the North Pole in 2010, up nearly 21% from 2008.

The U.S. Geological Survey estimated in 2008 that the Arctic Circle has about 90 billion barrels of undiscovered oil, 1,670 trillion cubic feet of natural gas and 44 billion barrels of natural gas liquids. Combined, that would total 22% of the world's undiscovered petroleum resources. About 84% of those oil and gas reserves are estimated to be offshore.

If Northern Command is called on to help control an Arctic oil spill, weather and vast distances present formidable challenges, Winnefeld said.

"It takes about five times as long to do anything in the Arctic as it does anywhere else in the world just because the environment is so harsh up there," he said.

UNITED STATES ARCTIC RESEARCH COMMISSION:
http://www.arctic.gov/

The Arctic Research Policy Act of 1984 established USARC. Its principal duties are to develop and recommend an integrated national Arctic research policy and to assist in establishing a national Arctic research program plan to implement the policy.

The United States Arctic Research Commission was established by the Arctic Research and Policy Act of 1984 (as amended, Public Law 101-609). The Commission's principal duties are (1) to establish the national policy, priorities, and goals necessary to construct a federal program plan for basic and applied scientific research with respect to the Arctic, including natural resources and materials, physical, biological and health sciences, and social and behavioral sciences; (2) to promote Arctic research, to recommend Arctic research policy, and to communicate our research and policy recommendations to the President and the Congress; (3) to work with the National Science Foundation as the lead agency responsible for implementing the Arctic research policy and to support cooperation and collaboration throughout the Federal Government; (4) to give guidance to the Interagency Arctic Research Policy Committee (IARPC) to develop national Arctic research projects and a five-year plan to implement those projects; and (5) to interact with Arctic residents, international Arctic research programs and organizations and local institutions including regional governments in order to obtain the broadest possible view of Arctic research needs.

USARC's seven Commissioners, appointed by the President, include four members are from academic or research institutions; two members from private industry undertaking commercial activities in the Arctic; and one member from among the indigenous residents of the US Arctic. The Director of the National Science Foundation serves as an ex-officio member.

The Commission staff consists of an Executive Director, Communications Specialist and Administrative Assistant in the principal office in Arlington, VA, and a Deputy Executive Director in the Anchorage, AK office. Advisors are appointed by the Commission on an "as needed" basis to provide information and advice on particular research needs and issues of concern to the Commission, review draft documents of the Commission and convey information of importance on the various scientific and engineering disciplines they represent.

The Commission holds business meetings and conducts public hearings in Alaska and elsewhere to

receive input, and makes site visits and field trips to research facilities and projects throughout the Arctic. It co-sponsors, with IARPC, the publication of the Journal—Arctic Research of the United States. A summary of the Commission's activities is published annually in the Commission's Annual Report. Major recommendations of the Commission on Arctic research policy, program priorities, and coordination are published in the Commission's biennial Report on Goals and Objectives for Arctic Research, as well as the Commission's Special Report series.

ARCTIC COUNCIL:
http://www.arctic-council.org/

The Arctic Council was established in 1996 with the signing of the Ottawa Declaration. Since then, the Council has gradually evolved from addressing environmental issues only, to currently serving as the preeminent forum where challenges and opportunities facing the eight Arctic States and their peoples are addressed. Its Member States are: Canada, Denmark (including Greenland and the Faroe Islands), Finland, Iceland, Norway, Russia, Sweden and the United States of America.

The Arctic is undergoing significant change. In the years to come, these changes will present Arctic stakeholders with a line of new challenges, as well as opportunities, as the region gradually begins to open up as a result of climate change. How will this trend affect the peoples living in the Arctic? How will it affect the fragile biodiversity of the region? And how will the Arctic States and its Peoples address the challenges and opportunities of tomorrow in the Arctic?

INSTITUTE OF THE NORTH:
http://www.institutenorth.org/

The Institute of the North is a 501(c)3 non profit specializing in how to utilize and care for the resource-rich commons for the benefit of those living in and on the commons. Areas of special study include Alaska, the many regions of the Arctic and other areas of the world that are wealthy in both human cultures and natural resources. Our legacy work has focused on Arctic infrastructure and policy; and often participating in Arctic Council working groups and projects.

Nils Andreassen is the Point of Contact for the Institute of the North.

MARINE EXCHANGE OF ALASKA:
http://www.mxak.org/

The Marine Exchange of Alaska is a non-profit maritime organization located in Juneau, Alaska that has developed a vessel tracking network in Alaska to aid safe, secure, efficient and environmentally sound maritime operations. Through the installation and operation of 80 AIS (Automatic Identification System) receiving radios, the Marine Exchange has acquired and compiled data on vessel operations throughout Alaska from the Arctic, west to Adak and south to Ketchikan that can be accessed to aid the planning of port projects and waterways management.

Captain Ed Page, USCG (Retired) is the first Executive Director of the Marine Exchange which was established in 2001. Prior to his present position he served in the Coast Guard for 29 years following his graduation from the Coast Guard Academy in 1972 and had assignments as

Captain of the Port LA/LB and Chief of Marine Safety and Environmental Protection for the 17th Coast Guard District which covers Alaska.

COMMITTEE ON THE ARCTIC MARITIME TRANSPORTATION SYSTEM:
http://www.cmts.gov

The Coast Guard Authorization Act of 2010 mandates that the Committee on the Maritime Transportation System (CMTS) coordinate the establishment of domestic transportation policies in the Arctic necessary to ensure safe and secure maritime shipping in the Arctic. They will prepare a report that will include sections on the current and desired state of the Arctic MTS, gaps that need to be addressed, recommendations, and potentially a plan for improving the Arctic Maritime Transportation System (MTS) in coordination with user demand.

UNITED STATES NAVY: (email response)
http://www.navy.mil/

I understand your interest in securing Navy participation in this event, but we are unable to attend for 2 reasons:

First, it's a little short-fused and our staff is already committed to other activities.

Second, we have not yet completed our Capabilities Based Assessment for the Arctic. This assessment is intended to develop future Arctic requirements for the Navy, including potential modifications to platforms and implications for infrastructure. We'll finish this assessment this summer, and we will use it to develop an official position on Navy infrastructure requirements in the Arctic.

Please note that we do not have a current requirement for a deep water port in the region. Existing infrastructure is sufficient for us to execute our required training and operations in support of national security objectives.

It's understandable that the Alaska congressional delegation would support such development, but our current requirements defined in NSPD-66, the Navy's Maritime Strategy, the 2010 QDR, and the Navy Arctic Roadmap are driving our assessments and actions.

All the best,

CAPT Tim Gallaudet, Ph.D.
Deputy Director, Task Force Climate Change
Office of the Oceanographer of the Navy

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RE: ALASKA DEEP-DRAFT ARCTIC PORTS CHARETTE

May 16, 2011

Good Morning. I am sorry I can't join you today for your discussions about an Arctic Deep Water Port. It is a subject that I have been working on for a number of years and I am pleased that the conversation is continuing to progress. I commend the Alaska region of the Army Corps of Engineers for taking the lead to put together today's program and lead the discussion.

It is an exciting and unprecedented time in the Arctic. We know that the environmental changes occurring in the region are happening at a dramatic rate, but the political response has been much slower.

I believe that United States interest and leadership on Arctic issues may have recently turned a corner. Last week, I had the good fortune to accompany Secretaries Clinton and Salazar to Nuuk Greenland for the Ministerial meeting of the Arctic Council. The meeting was historic for a number of reasons, but most significant in that it was the first time a member of Congress and Secretary of State have attended an Arctic Council meeting. I believe this signifies a new prioritization and attention by the United States government on the Arctic region. It is long overdue, in my mind, but a result that I am excited about and looking forward to helping lead a national conversation about the strategic importance of the Arctic to the United States. An Arctic deep-draft port is a crucial piece of the necessary infrastructure and a topic that I will continue to raise and highlight as we move forward with a national dialogue.

For today's charette, you have some of the top experts in the State of Alaska on Arctic issues along with key people from State and Federal agencies. I am anxious to hear the results of your discussions and look forward to working with all of you to achieve the results we all desire.

The challenges are many, but the goal of developing and building a deep-draft port in the Arctic is so crucial to the economic future of Alaska that we must move forward. Thank you all for participating in today's charette and I hope you have a stimulating and productive day.

Sincerely,

Lisa Murkowski

United States Senator

Thank You to the Charrette Participants

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DOT&PF

Nils Andreassen
Institute of the North

Captain David Arzt
Alaska Marine Pilots

Sarah Barton
RISE Alaska

Steve Boardman
USACE Alaska District

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Congressman Don Young
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