

Alaska Regional Ports Strategic Trends Analysis

Presentation to

Alaska Regional Ports Conference

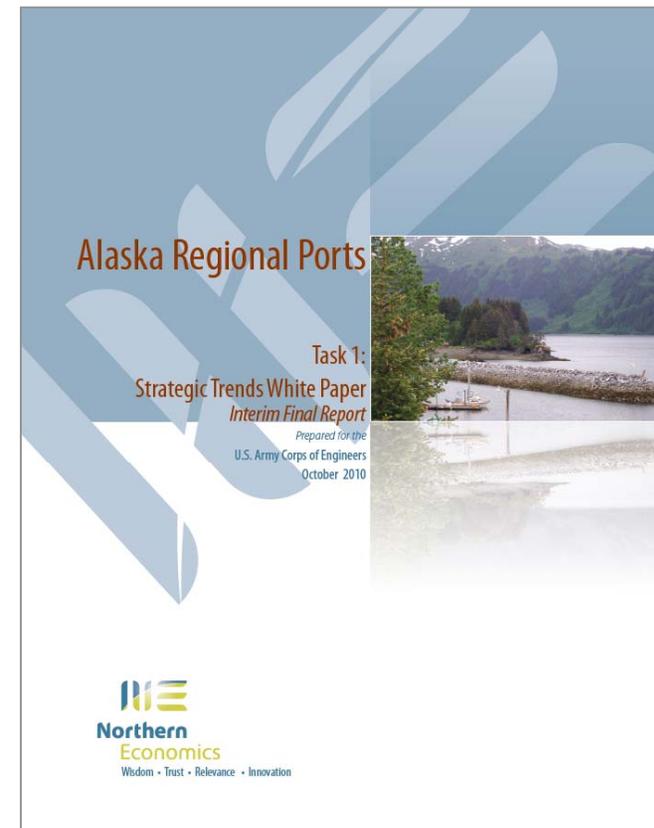
Patrick Burden

November 18, 2010



Agenda

- Scope of Work for Alaska Regional Ports Study
- Summary of Strategic Trends Analysis
- Preliminary Implications of Trends for Alaska
- Q&A



Alaska Regional Ports Scope of Work

■ Six tasks:

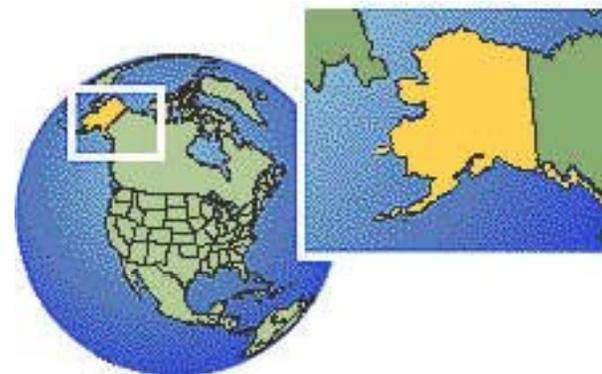
- Strategic trends
- Baseline assessment, existing port and harbor infrastructure
- Preliminary identification, regional and subregional port hubs
- Policy and plan development
- Regional ports and harbors conference
- Final plan preparation

Objectives of Strategic Trends Analysis

- Evaluate port needs from new shipping routes.
- Review international trade and maritime industry trends, shipping in Alaska's waters.
- What are future demands of the oil and gas industry?
- What are future demands from other resource-based industries?
- Evaluate impact of refuge harbors, emergency response, and USCG facilities.
- What are potential impacts on federal and state government port and harbor priorities?

Strategic Trends Report

- International Development in Maritime Operations and Facilities
- Trends in Demand for Alaska Maritime Operations and Facilities
- Assessment of Shipping and Port Development Issues in Alaska
- Port and Harbor Investment Needs and Financing Opportunities



International Developments in Maritime Operations and Facilities

- Global trade patterns and current trends
- Containerization
- Port privatization and global terminal operators
- Shipping line consolidation and alliances
- Transshipment hubs
- Vessel size
- Port infrastructure
- Intermodal transportation systems
- Shipping routes
- Fuel efficiency



Trends in Demand for Alaska Maritime Operations and Facilities

- Industry forecasts
- Resupply cargo
- Harbors of refuge, emergency response, and USCG facilities
- Environmental protection issues
- Sociocultural issues



Port Privatization, Global Terminal Operators

- Most port facilities in the U.S. originally developed by private industry
- Over time port ownership has evolved to a mix of private and public ownership
- More recently on a global basis, port ownership and/or management is being transferred to the private sector
- U.S. standard port model: public “landlord” port with majority of facilities leased to private vendors
- More U.S. port authorities are leasing marine terminals to multinational corporations that operate the facilities

Transshipment Hubs

- Defined: specialized ports or terminals handling mainly containers that do not enter or originate from the host country
- Carriers can also use regional hubs for transshipment to ports within a host country
- A carrier can service marginal markets with a hub, interchanging cargo at strategic crossing points, and gain economies from increased port and vessel utilization
- Key is strategic location relative to origins and destinations of seaborne trade

Intermodal Transportation Systems

- Deregulation in the early 1980s provided carriers incentive to combine and acquire other transport services.
- Modern ports interconnect with other transport modes; goods are transferred from sea to rail, road, and inland navigation, and vice versa.



- Inland accessibility is becoming a cornerstone in port competitiveness.
- Terminals are being designed with intermodality in mind: handling equipment, information technologies, continuous real-time access to cargo- and equipment-status data.

Traditional and New Shipping Routes

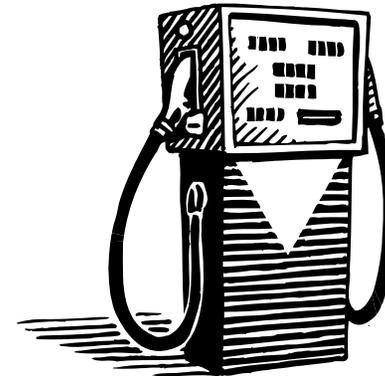
- Alaska sits astride the great circle route— westward offshore from the Alaska Peninsula, and through the Aleutian Islands (Unimak Pass, Tanaga Island Pass).
- Alternative global trade routes: the Northern Sea Route across Russia and the Northwest Passage across Canada.
- Impediments include seasonality, year-to-year variability, ice-class vessel requirements, vessel support and safety considerations, and geopolitical issues.



Graphic taken from *The Economist*, available at www.economist.com/node/8570527

Fuel Efficiency and Cost

- Fuel costs: 50% to 60% of total ship operating costs
- Ultra-low sulfur diesel (ULSD) must be used in marine vessels within 200 miles of U.S. coast starting in 2012
- Sept. 21, 2010 OPIS data showed #2 ULSD Anchorage “rack” price at \$3.13 per gallon or about \$0.70 (28%) more than Anacortes WA rack price



Harbors of Refuge

- A place of refuge is a location where a distressed ship can stabilize its condition, reduce hazards to navigation, and protect human life and the environment .
- Remote coastal Alaska communities generally lack the infrastructure and capabilities to respond to vessels in distress.
- Adak and Dutch Harbor are the primary ports of refuge for larger ships in Western and Arctic Alaska.
- Smaller vessels can find refuge in estuaries but navigation often requires local knowledge.

Preliminary Implications of Trends (1)

- Container lines will continue to purpose-build new ships for Alaska trade and port constraints.
- Increasingly larger container ships on North Pacific trade routes will call at Port of Dutch Harbor; dredging likely required in future.
- Industry can generally provide their infrastructure or pay to have others provide (e.g., Red Dog Mine).
- Reduction of fishing fleets makes it more difficult to achieve a positive benefit-cost ratio and justify construction of harbor facilities.

Preliminary Implications of Trends (2)

- Small and declining populations of many Alaska communities also make it difficult to achieve a positive benefit-cost ratio.
- Shallow water depths, seasonal demand, small community populations, and small volumes make it unlikely that an economically viable port of refuge can be developed in Northwest and Arctic Alaska.
 - National defense or potential for oil spills may override this perspective



Preliminary Implications of Trends (3)

- Barge service will remain a dominant transport mode in Southeast Alaska and will transport fuel, large equipment, and industrial supplies in Western and Arctic Alaska.
- Bypass mail to rural villages will remain as the major competitor to marine transport for consumer-related cargo other than fuel.
- Barge rates to Western Alaska are based on shipping from Seattle even if freight originates in Cook Inlet; development of marine infrastructure may not translate into cost savings for Alaska residents.

Preliminary Implications of Trends (4)

- Carriers trying to minimize number of calls at remote communities to reduce fuel costs for carrier and community requires more local storage.
- Barge operators have established regional and subregional hubs; investments in these locations can have the largest returns to the state and residents
- Where profitable, private industry has met marine transport needs (e.g., cruise ship docks in Whittier, Skagway, Icy Strait; cold storage facility and transshipment dock for seafood in Dutch Harbor).

Preliminary Implications of Trends (5)

- Private-public partnerships may have role in certain locations, but most ports and harbors are too small to be economically attractive.
- Ports and harbors need to increase their value to the user in order to justify increased rates necessary to make the facilities self-sustaining.



Thank You

- Questions?



880 H Street, Suite 210
Anchorage, Alaska 99501
Phone: (907) 274-5600
Fax: (907) 274-5601
Email: mail@norecon.com