

PLANNING FOR A ROBUST INFRASTRUCTURE SYSTEM IN ALASKA'S ARCTIC

Alaska Arctic Policy Commission

Unalaska/Dutch Harbor

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Vision and Goals

- That, in Alaska's Arctic,
 - ▣ Planning address four aspects of access – legal, capital, infrastructure, knowledge; and
 - ▣ Infrastructure address resilience, safety and cost

And that Infrastructure is the focus area to be addressed, and
Planning the method with which it is addressed

Scope of Work

- Ports, Harbors, Places of Refuge, & Anchorages
- Telecommunications, Aids to Navigation, and Data Acquisition & Sharing
- Emergency Management & Response
- Transportation & Access to Resources
- Energy Extraction, Production & Delivery
- Human Resources, Workforce Development, Research, Education & Training
- Community & Economic Development

Facilitating Economic Development

- Infrastructure contributes to *economic growth* (acting through both supply and demand) as well as a peoples' quality of life. In an aggregate sense, the character and availability of infrastructure influences the marginal productivity of private capital.

- At the microeconomic level, this effect of infrastructure is seen specifically through:
 - ▣ Reduced costs of production.
 - ▣ Structural impact on demand and supply. Infrastructure contributes to diversification of the economy – in rural areas, for example, by facilitating growth of alternative employment and consumption possibilities.

A Systems-Approach

- A new focus on the development of an *infrastructure system* is necessary and timely. Regionalizing such a system – at an Arctic level – allows planning to take place that recognizes local and community concerns, and leverages unique assets.
- The State of Alaska, then, can consider as a fundamental aspect of its Arctic policy the active development of Arctic infrastructure.

Aspects of Infrastructure

Logistics – The movement of goods and material in and out of the state, and within the state.

Communication – In Alaska's Arctic, communications support domain awareness, vessel tracking, search and rescue operations, oil spill response activities, and much more.

Energy – Alaska must address the infrastructure to move energy internally to allow for cost effective development of resources and to minimize the high energy costs.

Security – Planning for this in Alaska's Arctic should recognize the role of Division of Homeland Security, the U.S Coast Guard, as well as recently negotiated Search and Rescue, and Oil Spill Response, agreements made under the auspices of the Arctic Council.

Access – Most importantly, all citizens, all businesses must have access to the infrastructure system, whether it is a road or a transmission line. Affordability is a critical underpinning of access.

Ports, Harbors, Places of Refuge, & Anchorages

- An analysis of suitable locations for a deep draft Arctic port has been conducted by USACE and DOT&PF, and identified two locations (Port Clarence and Nome) for potential development. It is noted that other efforts are also underway, including to examine Cape Blossom and Wainwright
- The Arctic Council has a number of projects underway that will provide a baseline assessment for marine infrastructure, including AMATII
- The Unified Plan identifies many of these resources, though there doesn't seem to be much public awareness of this effort
- New and updated nautical charts would facilitate this process
- A possible next step in reviewing marine infrastructure is a tiered system of evaluating these assets
- Planning should include social-ecological impact and benefit

Telecommunications, Aids to Navigation, and Data Acquisition & Sharing

- An endemic challenge for much of Alaska, especially rural Alaska, endangering lives and prohibiting the direct and immediate flow of communication/knowledge
- Alaska Marine Exchange AIS receivers are contributing to the body of knowledge, but multiple efforts exist that will facilitate greater Arctic domain awareness
- Coast Guard challenged by lack of communications in Arctic, as part of its planning for forward base operations
- Public/private/academic data acquisition and sharing remains a challenge, though progress is being made in certain cases for specific issues or projects
- How is private sector addressing this issue? Maritime industry?
- Is there a central repository for data? How to make data accessible...

Emergency Management & Response

- Public awareness of plans in place is minimal
- Great deal of planning, exercises, research and other efforts being conducted to address this issue, and Alaska is involved throughout, at multiple levels
- Reference Unified Plan, Division of Homeland Security, bi-national and multi-national activities
- “Increasing Alaska’s capability to respond increases our opportunities for economic development.”

Transportation & Access to Resources

- Complicated by “nested” ownership of land and resources
- Additionally challenged by public opinion driven by local concerns and outside interests, though this may have shifted over the last decade
- Broad consensus to “do it right”
- New roads, and transportation infrastructure in general, haven’t seen the level of investment that the rest of the U.S. has experienced – cost vs. value
- Transportation infrastructure facilitates access to resources, as well as the movement of peoples, goods, and services – fundamental building block of economic development
- An Arctic lens applied would focus on coastal infrastructure and destination shipping of future resources

Energy Extraction, Production & Delivery

- “With great energy wealth comes great energy responsibility”
- Alaska’s continues to experience some of the highest costs for fuel, heating and power in the nation, which in some areas of Alaska’s Arctic equals the amount spent on a mortgage or rent
- Alaska boasts a dramatic supply of energy resources, most located far away from population centers, thereby not experiencing the economy of scale needed for development
- Alaska’s energy policy lacks a strategy for implementation
- Little done in the way of value-added from energy resources
- Additional research should examine how other remote areas in the Arctic address energy issues

Human Resources, Workforce Development, Research, Education & Training

- Good examples of planning at Alaska Workforce Investment Board level, or within organizations such as the Alaska Process Industry Careers Consortium
- University of Alaska system and regional colleges/training centers are great assets, but to what extent these are connected to vision of/plan for Arctic workforce development unclear
- “Jobs to Alaskans” a common refrain, in Alaska’s Arctic – where risk is multiplied – that must be accompanied by “most qualified”
- Bar for Alaska’s Arctic should be set high, when met Alaska could export its expertise and knowledge
- Not enough attention being paid to unique Arctic environment, nor potential future industries/jobs
- AVTEC development of ice navigation simulator a shining example of preparing for the future

Community & Economic Development

- Many of Alaska's Arctic communities or regions have conducted Comprehensive Economic Development Strategies, as well as other community planning documents – these need to be reviewed and compiled for a more regional approach
- DCCED needs to be consulted for how it might implement an Alaska Arctic policy – what strategies might they include for addressing the priorities that come up
- Effective local governance – from city council to Borough – is necessary for community and economic development planning to reflect local realities

Alignment

- Planning for a Robust Infrastructure System in Alaska's Arctic cannot be done independently of other Working Groups or State of Alaska agencies, nor without taking into consideration national and international efforts, including Department of Interior, U.S. Arctic Strategy and the Arctic Council.
- Next steps will be to qualify those lines of effort.