

# ALASKA DEEP DRAFT ARCTIC PORTS STUDY

ONGOING ARCTIC STUDIES / PROJECTS

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DATE	TITLE	Organization/Agency	ABSTRACT
March 26-29, 2013	<p><b>Responses of Arctic Marine Ecosystems to Climate Change, 28<sup>th</sup> Lowell Wakefield Fisheries Symposium</b></p>	University of Alaska	<p>The Arctic Ocean and its adjacent seas are undergoing rapid environmental changes, most notably in the extent and duration of sea ice cover. The biological consequences of these changes and their impacts on humans are complicated and therefore difficult to predict. For example, larger areas and a longer season of open water are likely to increase primary production, while low nutrient availability and more storm events may limit any such increases. Changes in the abundance and spatial distribution of some fish, birds, and mammals have been documented, but whether subarctic species will expand into the Arctic and how arctic species will respond to an extended ice-free season is highly uncertain. This symposium seeks to advance our understanding of present and future responses of arctic marine ecosystems to climate change at all trophic levels from plankton to marine mammals to humans by documenting and forecasting likely changes in environmental processes and the responses of species to those changes. We encourage contributions that focus on collaborative approaches to understanding and managing living marine resources in a changing Arctic and to managing human responses—locally, regionally, and globally—to changing arctic marine ecosystems. We believe that important insight and innovation will come from residents of the affected arctic communities.</p>
October 2012	<p><b>Study on Emerging Research Questions in the Arctic</b></p> <p><a href="http://www.nationalacademies.org/nrc/index.html">http://www.nationalacademies.org/nrc/index.html</a></p>	The National Research Council's (NRC)	<p>This study (sponsored by federal agencies including the USARC) is designed to provide guidance on future research questions in the Arctic over the next 10-20 years, identify the key scientific questions that are emerging in different realms of Arctic science and exploring both disciplinary realms (e.g., marine, terrestrial, atmosphere, cryosphere, and social sciences) and cross cutting realms (e.g., integrated systems science and sustainability science). The study will also help identify research infrastructure needs (e.g., observation networks, computing and data management, ship requirements, shore facilities, etc.) and collaboration opportunities.</p>

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Sept 2012	<b>North Slope Science Initiative Data Catalog</b> <a href="http://www.gina.alaska.edu/projects/ssi-catalog">http://www.gina.alaska.edu/projects/ssi-catalog</a>	University of Alaska	The NSSI Catalog portal provides GIS data services and project tracking in support of the North Slope Science Initiative as a public service to Alaska, the Nation, and the circum-arctic region. Project information and data is provided in formats through web data services and downloads that make science-based decision-making more efficient.
April 2012	<b>Aleutian Transshipment Port</b> <a href="http://www.institutenorth.org/">www.institutenorth.org/</a>	Institute of the North State of Alaska	The primary purpose of this research project will be to determine the feasibility of a transshipment hub in the Aleutian Islands capable of handling container ships of varying size for routes east and west across the Pacific, as well as north to the Atlantic.
Feb 2012	<b>Environmental Response Management Application (ERMA) for Arctic</b> <a href="http://response.restoration.noaa.gov/maps-and-spatial-data/environmental-response-management-application-erma/arctic-erma.html">http://response.restoration.noaa.gov/maps-and-spatial-data/environmental-response-management-application-erma/arctic-erma.html</a>	Interior Department's Bureau of Safety and Environmental Enforcement and the National Oceanic and Atmospheric Administration's Office of Response and Restoration	The system collects information and coordinates it with Geographic Information System-based mapping tools. In the Arctic, it would include information such as the extent and concentration of sea ice, ports and pipelines, and sensitive environmental areas.
Feb 2012	<b>Climate Downscaling Scenario Predictions</b> <a href="http://www.snap.uaf.edu">http://www.snap.uaf.edu</a>	John Walsh, University Alaska Fairbanks	Predictions for the northern Bering Sea/Bering Strait/Chuckchi Region
Feb 2012	<b>Historical Sea Ice Atlas</b>	John Walsh, University Alaska Fairbanks	An atlas combining and compiling in an electronic database all the historical sea ice records back to 1850.
Feb 2012	<b>Interactive Datasystem for Northern Bering Sea/Bering Strait/Chuckchi Region</b>	Molly McCammon, AOOS	Project is to develop an interactive datasystem for that same region with as much historical data as possible. Our focus is on information needed in the future for potential commercial fisheries development, but certainly that information will be useful for shipping issues/port development and oil and gas.

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May 16, 2011	<b>Alaska Statewide Digital Mapping Initiative - ADOT&amp;PF Digital Elevation Model (DEM) Arctic Ports and Harbors (Presentation)</b>	Nick Mastrodicasa	The Alaska Statewide Digital Mapping Initiative’s primary goal is acquire new and better maps statewide for Alaska and to make existing map products more easily available. Alaska does not have an adequate digital base map. The SDMI seeks to remedy this situation. The SDMI program will ultimately provide an accurate, current, seamless, statewide base map, made available over the internet, through open standards, free of charge to all. The target basemap is a statewide ortho-image, controlled by an appropriately scaled elevation model and ground control as required. The SDMI’s activities include: planning, public access, data acquisition and stakeholder relations.
May 2011	<b>ADOT&amp;PF Roads to Resources</b>	Al Clough, Project Manager	DOT is working with DNR and private sector to identify resource areas, develop a matrix-based system for access roads/infrastructure and priorities road projects for inclusion in state capital budget and for eventual design and construction. Current projects include Road to Umiat, Ambler Mining District and Road to Tanana and Klondike Industrial use Highway. <a href="http://www.dot.state.ak.us/roadstoresources/index.shtml">http://www.dot.state.ak.us/roadstoresources/index.shtml</a>
May 2011	<b>NOAA Arctic Activities</b>	Capt. David Zezula, NOAA	NOAA is moving forward to fill the gap in fundamental measurements. Hydrographic Survey Priorities will continue to be refined based on user input. Hydrographic Survey Operations in the Arctic will increase overall contract cost or ship budget. Logistical need for more ports/services in the Arctic to make effective use of limited operating season.
May 2011	<b>AIS (Automatic Identification System) and Satellite Transponders</b>	Ed Page, Marine Exchange of Alaska	Ed Page gave presentation at May 2011 Charrette discussing AIS Vessel Tracking and how it can aid in port planning, risk reduction, compliance monitoring and identification of high risk operations.
Apr. 2011	<b>Arctic Maritime and Aviation Transportation Infrastructure Initiative- Providing a Comparative Analysis of Port and Airport Infrastructure in Arctic Nations (Proposal)</b>	Institute of the North	The Arctic Maritime and Aviation Transportation Infrastructure Initiative (AMATII) is an outcome of the Arctic Council’s Arctic Marine Shipping Assessment (AMSA) and ongoing work of DOT and FAA. Initiative seeks to address the infrastructure deficit (lack of ports and harbors) by inventorying maritime and aviation assets in the Arctic. The study will include gap analysis, summary of findings, guidance document, 2012 Arctic Aviation Experts Conference, 2012 Arctic Port Response Infrastructure Conference and a database.

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N/A	<p><b>Ongoing Studies</b></p> <p><a href="http://www.alaska.edu/epscor/">http://www.alaska.edu/epscor/</a></p>	Alaska State Committee on Research (SCoR)	<p>Alaska EPSCoR improves Alaska's scientific capacity by engaging in research projects supported through National Science Foundation and state funds. The organization is engaged in a 5-year project entitled "Alaska Adapting to Changing Environments," which examines the mechanisms by which communities adapt to environmental and social change. Alaska EPSCoR also administers a cyberconnectivity grant at the University of Alaska (UA) and administered the recently-concluded PACMAN grant, which supported a joint Hawaii-Alaska study of precipitation in the North Pacific.</p> <p>Alaska EPSCoR has been awarded \$20 million by the National Science Foundation to conduct a five-year study of community adaptive capacity. The project, entitled "Alaska Adapting to Changing Environments (Alaska ACE)," will consist of three regional test cases focused on Juneau, the Kenai River watershed, and a set of villages in Interior and Arctic Alaska, linked together by a statewide Coordination, Integration and Synthesis Working Group.</p>
N/A	<p><b>Ongoing Studies</b></p> <p><a href="http://www.nmfs.noaa.gov/">http://www.nmfs.noaa.gov/</a></p>	National Marine Fisheries Service, National Oceanic and Atmospheric Administration	<p>NOAA's National Marine Fisheries Service is the federal agency, a division of the Department of Commerce, responsible for the stewardship of the nation's living marine resources and their habitat. NOAA's National Marine Fisheries Service is responsible for the management, conservation and protection of living marine resources within the United States' Exclusive Economic Zone (water three to 200 mile offshore). Using the tools provided by the Magnuson-Stevens Act, NOAA's National Marine Fisheries Service assesses and predicts the status of fish stocks, ensures compliance with fisheries regulations and works to reduce wasteful fishing practices. Under the Marine Mammal Protection Act and the Endangered Species Act, NOAA's National Marine Fisheries Service recovers protected marine species (i.e. whales, turtles) without unnecessarily impeding economic and recreational opportunities. With the help of the six regional offices and eight councils, NOAA's National Marine Fisheries Service is able to work with communities on fishery management issues. NOAA's National Marine Fisheries Service works to promote sustainable fisheries and to prevent lost economic potential associated with overfishing, declining species and degraded habitats. NOAA's National Marine Fisheries Service strives to balance competing public needs.</p>
N/A	<p><b>Ongoing Studies</b></p> <p><a href="http://www.arctic.gov/">http://www.arctic.gov/</a></p>	U.S. Arctic Research Commission	<p>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. USARC Commissioners facilitate cooperation among the federal government, state and local governments, and other nations with respect to basic and applied Arctic research.</p>

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N/A	<p><b>Ongoing Studies.</b></p> <p><a href="http://www.arctic-council.org/index.php/en/">http://www.arctic-council.org/index.php/en/</a></p>	Arctic Council	<p>The Ottawa Declaration of 1996 formally established the Arctic Council as a high level intergovernmental forum to provide a means for promoting cooperation, coordination and interaction among the Arctic States, with the involvement of the Arctic Indigenous communities and other Arctic inhabitants on common Arctic issues, in particular issues of sustainable development and environmental protection in the Arctic.</p>