

## **Defining and developing usable sea ice information for Alaska's North Slope coastal communities**

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The climate, sea ice, and coastal regime of Alaska's North Slope have substantially changed over the last few decades. Consequently, local coastal communities increasingly face difficulty in assessing the significance of such change to their decision making environment, which includes issues relating to subsistence hunting of marine mammals, sea ice related hazards, coastal erosion, and offshore oil and gas development. Local planners and users of sea ice stand to benefit from improved access to relevant science-based sea ice information, especially sources capable of interfacing with local and traditional knowledge and observations. This presentation will outline a project that is working between the National Snow and Ice Data Center (NSIDC) and Alaska's North Slope Borough (NSB) to develop sea ice information tailored to the unique decisions facing coastal communities on Alaska's North Slope and their local ways of understanding and observing the environment. This project will work with local community decision makers and ice-users to define their broader information needs, preferred types of data products, and the technological, educational, or epistemological challenges they face in using science-based information. In close collaboration with the NSB's Department of Wildlife Management, a data and information management strategy will be developed to track how ice retreat is impacting community activities and the marine mammals they depend on. This strategy will ideally incorporate scientific research data, tailored sea ice information products, and local knowledge and observations. Lastly, a training program will be developed for NSB staff that summarizes the outcomes of this project and ultimately improves local access to relevant planning information. While this two-year collaborative project officially began in fall 2011, it is building from research, data management efforts, and lessons-learned by the Seasonal Ice Zone Observing Network – an affiliated project with ELOKA and integral partner in this effort.

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