Looking for sea ice forecasts?

Wondering what the weather conditions are like up the coast?

Worried how shipping traffic overlaps with subsistence species in your area?

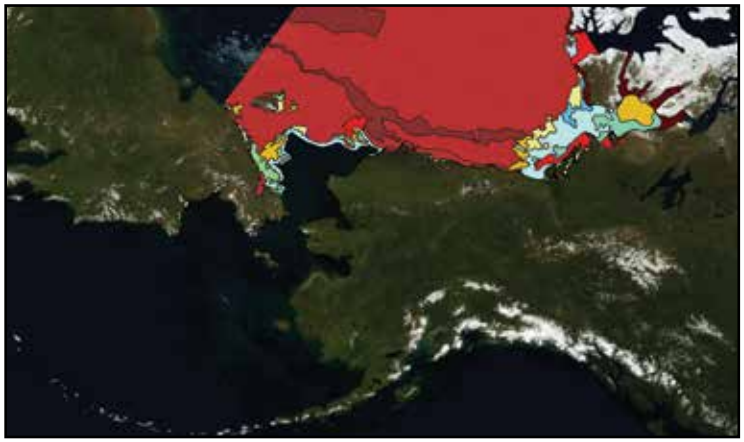
AOOS
ARCTIC PORTAL

AOOS Arctic Portal

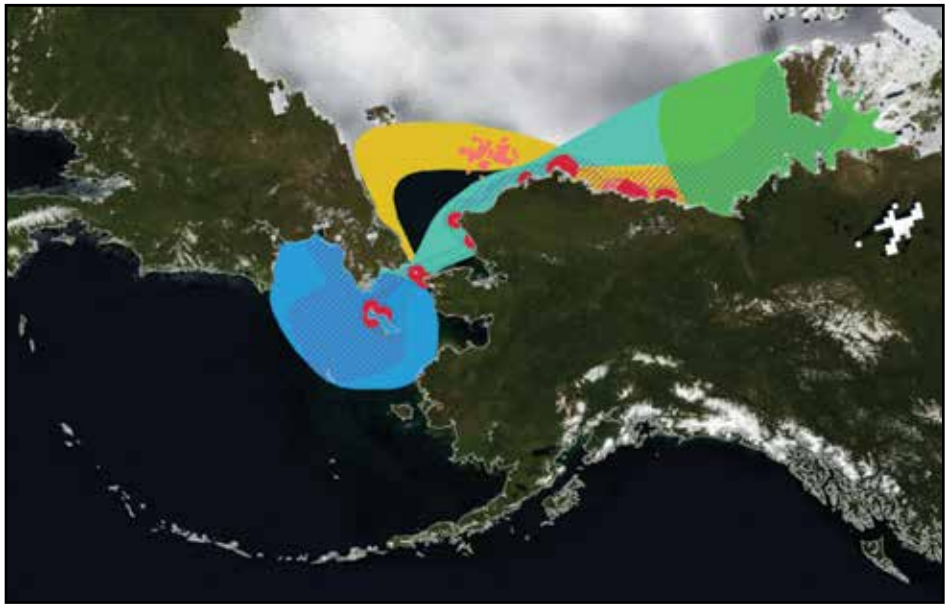
AOOS ARCTIC PORTAL

The Alaska Ocean Observing System (AOOS) provides easy access to real-time conditions, forecasts, and a variety of other ocean and coastal data. As part of the national Integrated Ocean Observing System, AOOS is a hub for finding and viewing map-based data. Visit www.aoos.org.

The AOOS Arctic Portal houses data from the Bering, Chukchi and Beaufort Seas, and was produced by a project called STAMP (see last page). Inside the portal, you can search for real-time weather conditions, sea ice forecasts, species distribution, historic ship tracks, oil & gas exploration locations, future climate projections, and more. One of the biggest strengths of the portal is the ability to look at different types of data on the same map.



This data layer shows the National Weather Service's sea ice concentration forecast. The 5-day forecast is updated three times a week.



This screenshot from the AOOS Arctic Portal shows seasonal bowhead whale distribution (blue, green, yellow), whaling community hunting areas (red), and active oil and gas leases (pink), as well as sea ice extent (white).

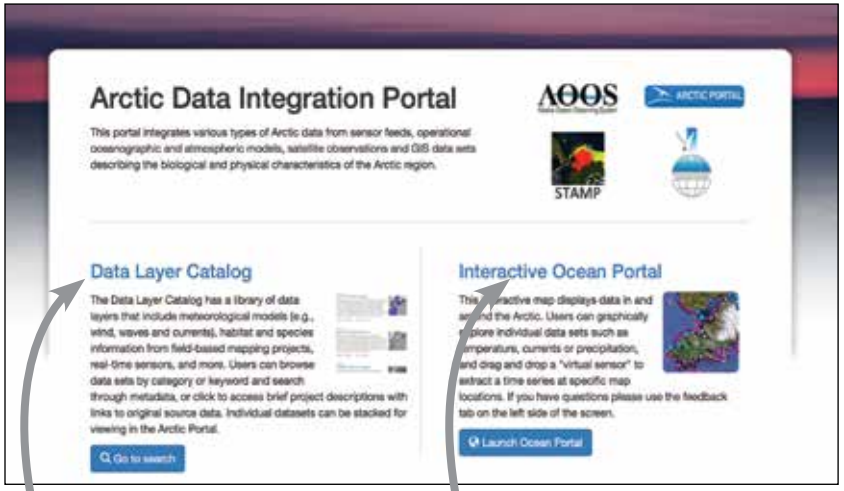
FEATURES

- Search for available data
- Choose your own base map (NOAA charts, topography, etc)
- Add, remove and adjust data layers in your map view
- View multiple data layers together
- See change over time using an interactive time slider
- Download data to your own computer

AOOS Arctic Portal

HOW THE PORTAL WORKS

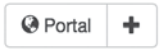
When you enter the Arctic Portal, you can begin at the Data Layer Catalog or the Interactive Ocean Portal.

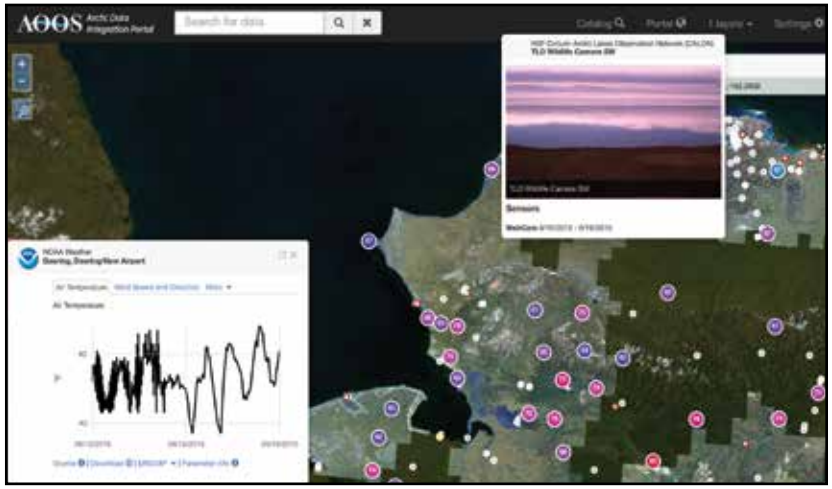


The Data Layer Catalog is like a library. You can search for data by category or type key words into a search box to find descriptions of the data sets, see a small picture, and view the source. This is a good place to start.

The Interactive Ocean Portal is where you can view the data on a larger map, zoom in and out, and add data layers on top of each other.

Once you have found a data layer you'd like to view, you can click "**Portal**" to display it on the larger map. You can always return to the Data Layer Catalog to add more data.





Dots represent stations around Alaska collecting real-time information. The graph at left shows temperature at the Deering airport, and the webcam at the top shows a wildlife observation station.

DATA HIGHLIGHTS

- Real-time weather conditions and webcams
- Sea ice coverage (historic and forecasted)
- Species distribution
- Social and economic data
- Locations of oil and gas activity
- Topography and bathymetry
- Administrative boundaries and human infrastructure (harbors, air strips)
- Locations of research instruments
- More data added monthly

PORTAL HIGHLIGHTS

FIND SEA ICE DATA - PRESENT AND PAST

The Arctic Portal offers several sea ice data layers, including both current forecasts and historic records going back to the 1850's. You can use an interactive time slider to look at daily or monthly maps and watch the how sea ice has changed over time. This "time slider" feature is available for other time-series data sets too.

Sea ice coverage on Oct 25, 1980 (Source: NSIDC)

Sea ice coverage on Oct 7, 2014 (Source: NSIDC)

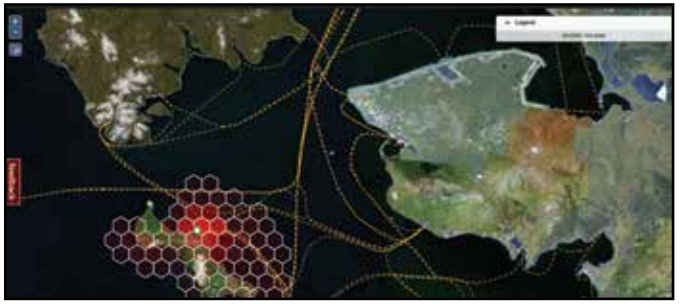
FLY THE COAST

For certain Arctic locations, you can "fly the coast" thanks to video and photos from the ShoreZone Alaska project. If you click on the red flight line in your area of interest, a window will appear and automatically start streaming video and photos. This imagery is currently available from Wales to Point Hope, as well as St. Lawrence Island. More will be added as it becomes available.

The view at left shows the ShoreZone flight line in blue/red. After clicking on a point of interest (see the dot along Cape Krusenstern) the corresponding imagery appears at left. Video can be streamed in low or high resolution depending on your internet speed.

OVERLAY DIFFERENT DATA SETS

Multiple data layers can be placed on the same map, which can provide additional insights. This map shows Alaska shipping lanes overlaid by summer halibut subsistence areas for St. Lawrence Island. The Arctic Portal will soon have a database of historic ship tracks thanks to data from the Marine Exchange of Alaska.



This screenshot shows subsistence data from the Bering Sea Subnetwork overlaid with Alaska shipping lanes.

ABOUT THE ARCTIC PORTAL

The AOOS Arctic Portal was made possible by a project called STAMP – Spatial Tools for Arctic Mapping and Planning. This project involved multiple partners and a 9-member advisory committee which communicated regional needs. NOAA's Regional Ocean Partnership program provided the funding for development over three years, and AOOS is committed to the long-term maintenance and expansion of the portal. Learn more at http://www.aoos.org/stamp/.

STAMP PARTNERS

- Alaska Ocean Observing System
- Axiom Data Science
- University of Alaska Anchorage - ISER
- University of Alaska Fairbanks - ACCAP
- The Nature Conservancy

STAMP ADVISORS

- Alaska Department of Fish & Game
- Audubon
- Kawerak, Inc.
- NOAA National Marine Fisheries Service
- North Pacific Fisheries Management Council
- North Slope Borough
- Northwest Arctic Borough
- Norton Sound Economic Development Council
- US Coast Guard

FEEDBACK WELCOME

The AOOS data portal is continually being updated with new features. We appreciate your thoughts and suggestions — look for the red feedback tab on the left side of each data tool, or contact us directly.

Alaska Ocean Observing System
1007 W. 3rd Ave Suite 100
Anchorage, AK 99501
www.aoos.org

Molly McCammon
Executive Director
mccammon@aoos.org

Rob Bochenek
Data Manager
rob@axiomadatascience.com