

Sea Ice for Walrus Outlook 2018 Season Update

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IARPC Sea Ice Collaboration Team

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Sea Ice for Walrus Outlook (SIWO)

A cross-boundary collaboration

WHAT

Weekly forecasts of weather and sea ice conditions combining operational sea-ice products, model forecasts, and local observations

WHY

To provide subsistence hunters, local communities, and marine resource managers with practical, regional information on weather and sea ice conditions

FUNDING



MANAGEMENT



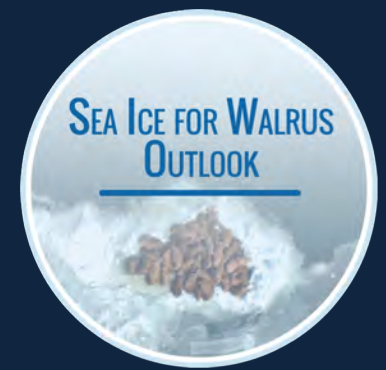
PARTNERS



Indigenous
sea ice
experts



Background



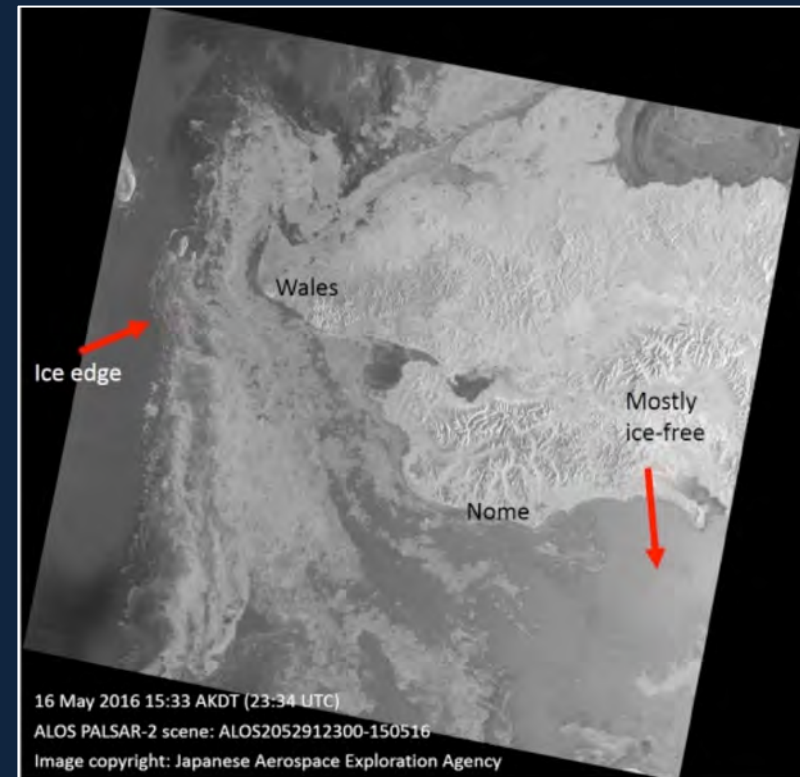
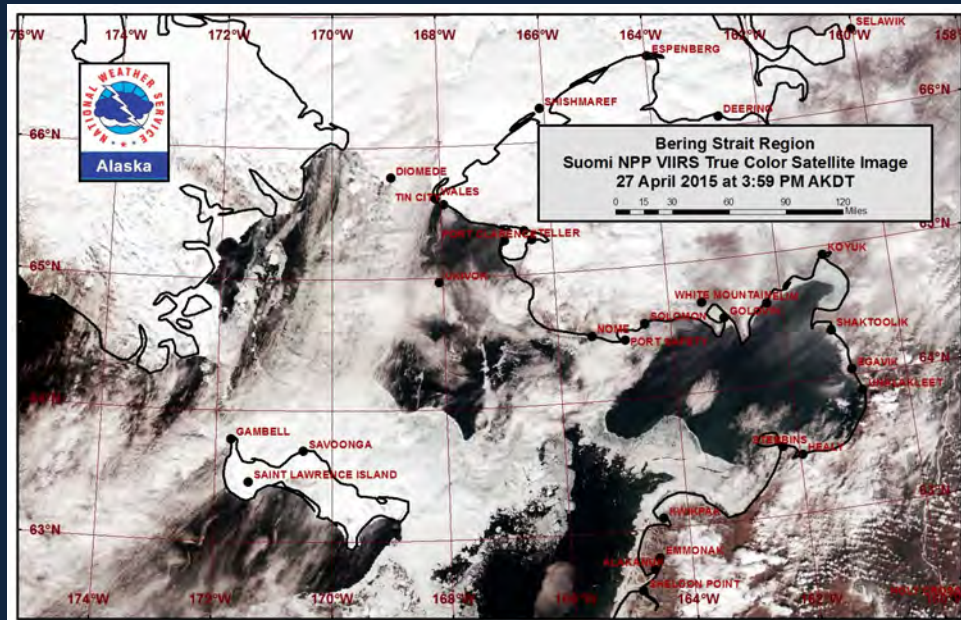
- SIWO launched in 2010 in response to community needs in the Bering Strait
- Format – Weekly forecasts during spring
- Integration of scientific information and local observations
 - Combined summary of current conditions, ice and weather forecasts, remote sensing imagery, and local observations
- Accessible format – Web, social media

Weekly Outlooks

Sea Ice Products

Remote sensing Data

- NASA Aqua & Terra MODIS (Visible & IR)
- SNPP – VIIRS (Visible, IR, and Day-Night-Band)
- Sentinel-1a and -1b (Synthetic Aperture Radar)



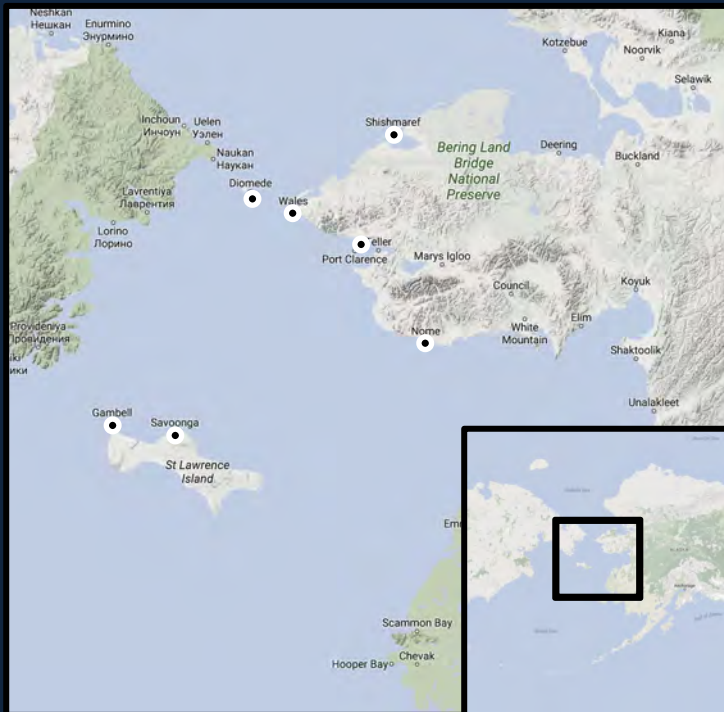
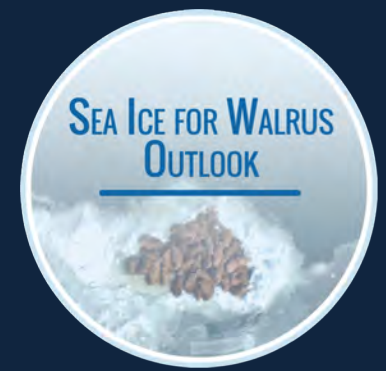
Weekly Outlooks

Model Forecasts

- Forecast discussion
 - Weather system/wind synopsis
 - Temperature trends
 - Assessment of ice conditions relevant to walrus



2018 Local Observers



60 reports from local observers in 2018

Wales – Robert Tokeinna, Jr.

Shishmaref – Curtis Nayokpuk

Brevig Mission – Marcus Barr

Nome – Frank (Boogles) Johnson, II

Savoonga – Aqef (Brandon) Waghiyi

Gambell – Clarence Irrigoo, Jr.

Diomedes – Opik Ahkinga

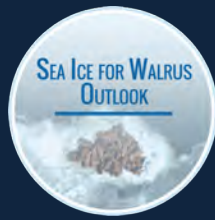
Weekly Outlooks

Local Observations

- Local observations presented alongside scientific information with equal emphasis
- Platform for sharing of knowledge and observations among Bering Strait communities



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Weekly Outlooks

Local Observations

- Local observations valuable to scientists, industry, and shipping/transportation
- Provides validation of scientific observations, imagery, and models



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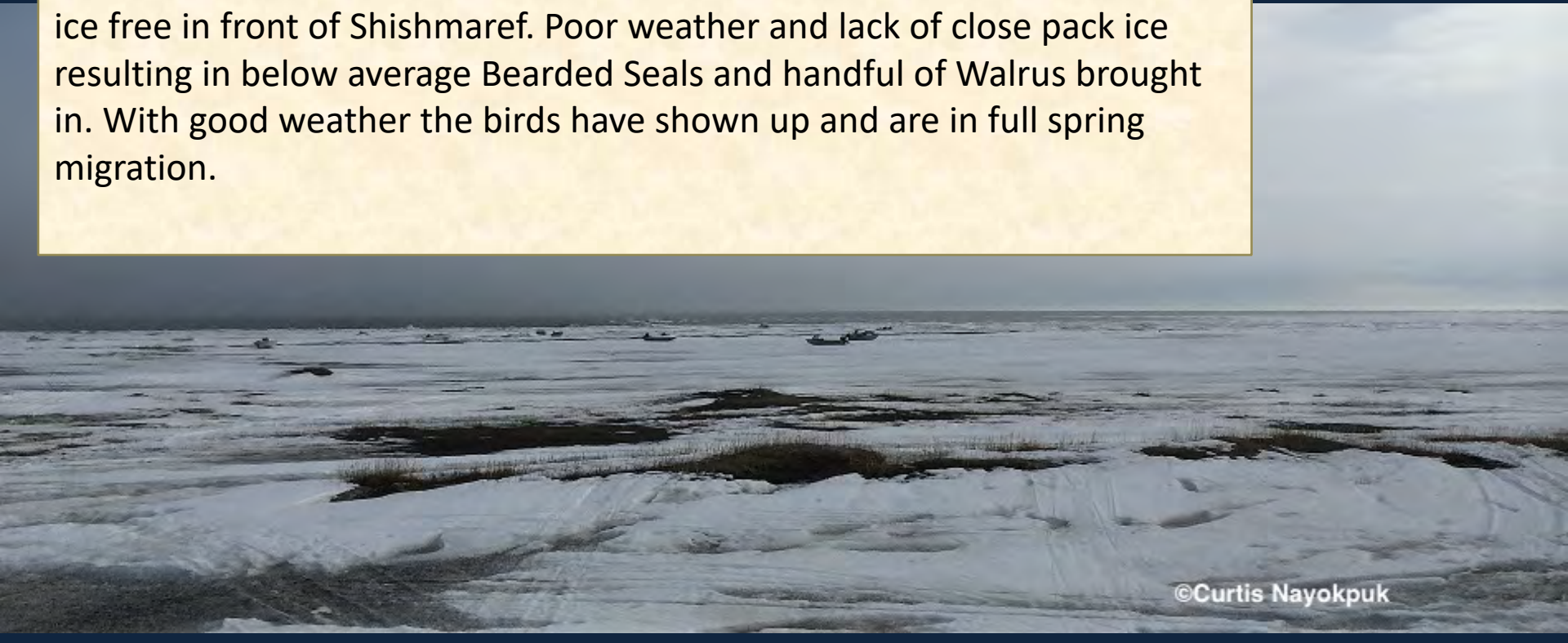
Weekly Outlooks

Local Observations

Observations from Shishmaref

11 May 2018 – Curtis Nayokpuk

Fog and 3 ft. chop with north wind at 14 this morning. Crews have been hunting 25 to 30 miles east or west in remaining pack ice now with ocean ice free in front of Shishmaref. Poor weather and lack of close pack ice resulting in below average Bearded Seals and handful of Walrus brought in. With good weather the birds have shown up and are in full spring migration.



Weekly Outlooks

Local Observations

Observations from Wales

11 May 2018— Robert Tokeinna, Jr.

This week lots of motion in the ice and water. Local boat crews were catching bearded seals and walrus. Bunch of cranes were harboring around the mountain during the week of fog we had. More recently, the water between the local Corporation building and airport has found its way to drain into Village creek which also led to Village Creek to drain also. We have been snowing with warm weather to follow then cool down to further stop thawing around town but seems to be that spring doesn't want to let go of winter. Temperatures were in the lower teens to upper 30s with dense fog for the most part of the week while ending the drought of no planes for 7 days due to soft runway or dense fog. Wales ended the week with warm temperate weather and now blowing from the north at 15-20 with gusts to 30. Looking at the pictures, there is no ice with the exception of small chunks below the school. Locals report the ice to be 10 plus miles up the coast with shorefast ice moving in that direction also.

Looking Ahead

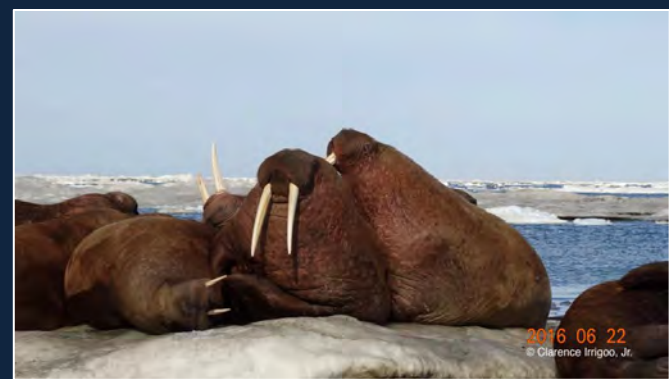


- 2019 will be the 10th season of SIWO!
- Seeking support for community workshop to steer future direction of SIWO
- Watch for fall article in Witness the Arctic



IARPC Sea Ice Collaboration Team performance element

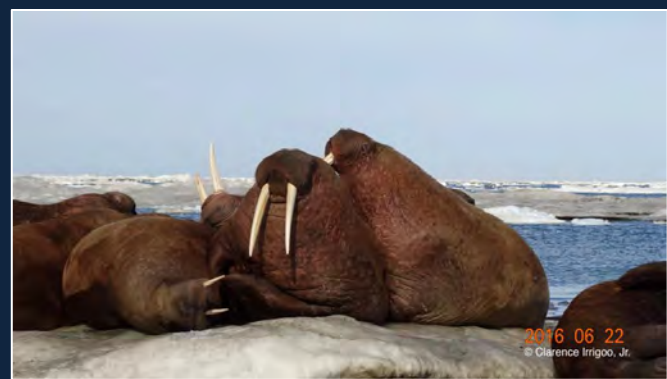
- **3.3.2** Support a collaborative network of scientists and stakeholders to advance research on sea ice predictability and prediction at a variety of time and space scales and communicate new knowledge, understanding, and tools to broader audiences.



SEA ICE FOR WALRUS
OUTLOOK

Get the Outlook!

- Visit the SIWO website
 - <https://www.arcus.org/search-program/siwo>
- Receive weekly outlook emails
- Find us on Facebook
 - <https://www.facebook.com/seaiceforwalrus/>
- Join ARCUS as an organization or individual!
 - <https://www.arcus.org/>



Arctic Research Consortium of the United States

Connecting Arctic Research Across Boundaries



ARCUS catalyzes interdisciplinary thinking, acting, and educating, which produces collaborative partnerships.