

Sea Ice Outlook
2019 July Report
Individual Outlook

Name of contributor or name of contributing organization:

Morison, James

Is this contribution from a person or group not affiliated with a research organization?

Name and organization for all contributors. Indicate primary contact and total number of people who may have contributed to your Outlook, even if not included on the author list.

**Do you want your June contribution to automatically be included in subsequent reports?
(If yes, you may still update your contribution via the submission form.)**

From June Submission

What is the type of your Outlook projection?

Heuristic

Starting in 2017 we are accepting both pan-Arctic and pan-Antarctic sea ice extent (either one or both) of the September monthly mean. As in 2016, we are also collecting Alaskan regional sea ice extent. To be consistent with the validating sea ice extent index from NSIDC, if possible, please first compute the average sea ice concentration for the month and then compute the extent as the sum of cell areas > 15%.

a) Pan-Arctic September extent prediction in million square kilometers.

3.8

b) same as in (a) but for pan-Antarctic. If your method differs substantially from that for the Arctic, please enter it as a separate submission.

c) same as in (b) but for the Alaskan region. Please also tell us maximum possible extent if every ocean cell in your region were ice covered.

"Executive summary" of your Outlook contribution (using 300 words or less) describe how and why your contribution was formulated. To the extent possible, use non-technical language.

email rec'd 11:00 pm (AKDT) on 12 June: Hi Betsy, Well we just got back from the historic last C-130H mission from USCG Air Station Kodiak. The long serving Hs are being replaced by the C-130J model. Our Seasonal Ice Zone Reconnaissance Survey (SIZRS) flight was successful. We flew up 150°W making oceanographic stations with expendable probes every degree from 72 to 76 and then flew back at higher altitude doing atmospheric dropsonde drops. Notable ice observations are that the ice edge has already retreated to 72°N and there was a lot of open water even up to 76°. The snow is already gone. I usually try to do a little more analysis of trends for the year around the Arctic Ocean and look at the AO, but no time for that; it's already midnight Pacific Daylight Time. To be any later and still be on the 12th, I'd have to be in Hawaii. So after exhausting if not exhaustive deliberation with my SIZRS colleagues over pizza at the last eatery still open Kodiak, and considering the ice we saw today, my fresh from looking out the window is 3.8 million square km average Sept 2019 ice extent. Method would be politely called heuristic, and as ever the outlook recognizes that this summer's weather trumps everything else and is for the most part unknowable. Best regards, Jamie

Brief explanation of Outlook method (using 300 words or less).

Tell us the dataset used for your initial Sea Ice Concentration (SIC).

Include source (e.g., which data center), name (algorithm), DOI and/or data set website, and date (e.g., "NSIDC NASA Team, <https://nsidc.org/data/nsidc-0081>, <https://doi.org/10.5067/U8C09DWVX9LM>).

Tell us the dataset used for your initial Sea Ice Thickness (SIT) used. Include name and date.

If you use a dynamic model, please specify the name of the model as a whole and each component including version numbers and how the component is initialized:

Not Specified

If available from your method.

a) Uncertainty/probability estimates:

Median

Ranges

Standard Deviations

b) Brief explanation/assessment of basis for the uncertainty estimate (1-2 sentences).

c) Brief description of any post processing you have done (1-2 sentences).