

Sea Ice Outlook
2017 July Report
Individual Outlook

Name of contributor or name of contributing organization:

Christian John

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

Yes this contribution is from a "Citizen Scientist"

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.

none

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

No do not use my prediction this month in later months

What is the type of your Outlook projection?

Statistical

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.

4.903

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.

My contribution is based on the idea that Temperature of Sea-Surface and Air Temperature (70-90N) can be used to explain most of the Year to Year Variability of September Sea-Ice-Extent, it is able to show that both can work as a proxy for the strength of Extent Melt to September. While Longterm-Trend is mainly caused by human induced climate change, i therefore argue that the Year to Year variability can explained by Temperature-Variability

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

The used Method is based on linear Regression for all Variables and rewrite the Residuals back on the Longterm-Trend of September Sea Ice Exent. For the Outlook i use data from NSIDC(September-Extent), ERSSTv4 and NCEP-Reanalysis on the Domain 70-90N from 1979-2016

For scheme: http://www.directupload.net/file/d/4772/znvo8u8x_png.htm

For Performance: http://www.directupload.net/file/d/4772/gkq9usbq_png.htm

Tell us the dataset used for your initial Sea Ice Concentration (SIC). Include name and date (e.g., "NASA Team, May 2017"). We also encourage you to submit initial fields to the dropbox, see <https://www.arcus.org/sipn/sea-ice-outlook/2017/june/call> in the section on "Submitting Figures and Gridded Data of Full Spatial Fields (Optional) of Forecasts and Initial Conditions" for detailed instructions. Required if sea Ice concentration is used.

Dataset of 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:

If available from your method for pan-Arctic extent prediction, please provide

a) Uncertainty/probability estimate such as median, ranges, and/or standard deviations (specify what you are providing).

Uncertainty: (standard deviation)

June: 0.37 Mio km²

June/July: 0.34 Mio km²

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

The uncertainty is the standard deviation of the residual error between observation and model

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