Sea Ice Outlook
2017 August Report
Individual Outlook

Name of contributor or name of contributing organization:

Kay, Bailey, Holland (NCAR/CU)

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.

30 scientists affiliated with National Center for Atmospheric Research and/or University of Colorado at Boulder

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.)

Yes automatically include my contributions in July and August 2017

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.

4.08

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.

An informal pool of 30 climate scientists in early June 2017 estimates that the September 2017 ice extent will be 4.08 million sq. km. (std. dev. 0.48, min. 3.10, max. 5.09). Since its inception in 2008, the NCAR/CU sea ice pool has easily rivaled much more sophisticated efforts based on statistical methods and physical models to predict the September monthly mean Arctic sea ice extent (e.g. see appendix of Stroeve et al. 2014 in GRL doi:10.1002/2014GL059388 ; Witness the Arctic article by Hamilton et al. 2014 http://www.arcus.org/witness-the-arctic/2014/2/article/21066). We think our informal pool provides a useful benchmark and reality check for Sea Ice Prediction efforts based on more sophisticated physical models and statistical techniques.

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

An informal pool of 30 climate scientists in early June 2017 estimates that the September 2017 ice extent will be 4.08 million sq. km. (std. dev. 0.48, min. 3.10, max. 5.09). Guesses were collected by sending an e-mail out to the scientists.

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.

n/a

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).

The standard deviation, min, and max of our guesses serve as our uncertainty estimate: std. dev. 0.48, min. 3.10, max. 5.09

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

The uncertainty estimate is based on the scatter in entries in our informal pool.

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