

Sea Ice Outlook
2017 July Report
Individual Outlook

Name of contributor or name of contributing organization:

Wanqiu Wang, Thomas Collow, Jinlun Zhang

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.

Name and organization: Climate Prediction Center. Primary contact: Wanqiu Wang. Total number of people: 3

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?

Dynamic Model

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.

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.

0.42. maximum possible extent is 3.97

"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.

The outlook is calculated 0.5X0.5 grid output

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

The outlook is from CPC experimental dynamical ensemble forecast. The ensemble includes 20 forecast members.

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.

Climate Forecast System Reanalysis

Dataset of initial Sea Ice Thickness (SIT) used (include name and date):

PIOMAS, June 21-25, 2017

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:

Model name: CFSv2pp

Information about components:

Component	Name	Initialization
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Atmosphere:	GFS	CFSR
Ocean	MOM4p0	CFSR
Ice	SIS	PIOMAS

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).

0.26

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

Bias has been removed based on 10 year handcast. Uncertainty is based on ensemble spread (standard deviation from ensemble mean).

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

Bias has been removed based on 10 year handcast. Uncertainty is based on ensemble spread.