Sea Ice Outlook

2023 June Report

Individual Outlook

Name of contributor or name of contributing organization:

UCLouvain

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.

UCLouvain

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.)

[Do you want your contribution for this month to automatically be included in subsequent reports?]

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.

2.95

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.

18.53

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.

0.18

"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.

See above

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

See above

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

NA

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

NA

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:

NEMO4.2/SI3 ocean--sea ice model, forced by ERA5 reanalysis. 10 ensemble members are generated by prescribing the atmospheric forcing from the 10 previous years. All initial states are identical, coming from a forced integration until 31 May 2023 (same model, same atmospheric forcing). No bias correction was applied.

If available from your method.
a) Uncertainty/probability estimates:

Median

2.95

Lower error bound

2.28

Lower error bound

4.03

Standard Deviation

0.54

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

See above

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

No post-processing