Name of contributor or name of contributing organization:

METNO SPARSE (Wang et al.)

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.

Keguang Wang, Jens Debernard, Nils Kristinsen, Caixin Wang, Thomas Lavergne, met.no
Sarah Keeley, ECMWF

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.)

This is a new submission.

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.

4.25

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.

This prediction is made by a coupled ocean-sea ice model, with surface atmospheric forcing from ECMWF seasonal forecast SEA5 product. The initial field was set on 15 Jan 2019, with the ocean field from climate January mean, and satellite observed sea ice concentration and sea ice thickness. we combine three 3-months forecasts of SEA5 from January, April and July to form the atmospheric forcing field. The sea ice concentration is assimilated in the model.

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

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

AMSR2 sea ice concentration from Bremen University, ASI Version 5.4,
https://seaice.uni-bremen.de/sea-ice-concentration/

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

The initial sea ice thickness is from a combination of the weekly CS2SMOS and daily SMOS, on 15 January 2019,
SMOS:
https://icdc.cen.uni-hamburg.de/thredds/fileServer/ftpthredds/smos_sea_ice_thickness/v3/
Weekly CS2SMOS: ftp://ftpsrv2.awi.de/sea_ice/product/cryosat2_smos/

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:

Ocean-sea ice

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).