Sea Ice Outlook
2019 August Report
Individual Outlook

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, Caixin Wang (Norwegian Meteorological Institute)
Mats Granskog, Sebastian Gerland (Norwegian Polar Institute)
Sarah Keeley (ECMWF)
Primary contact: Keguang Wang, total people 6

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.)

Include this submission in the July report only.

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.

"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.

With the initial field from EU CMEMS mecator ocean daily analysis on 5 July, we made assimilation with AMSR2 sea ice concentration and OSTIA SST. The metroms model is then used to make the seasonal forecast, with atmospheric forcing data from ECMWF SEAS5 June product. Then the September sea ice concentration is averaged over the all month, and the September ice extent is determined as the monthly mean over 15%.

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

With the initial field from EU CMEMS mecator ocean daily analysis on 5 July, we made assimilation with AMSR2 sea ice concentration and OSTIA SST. The metroms model is then used to make the seasonal forecast, with atmospheric forcing data from ECMWF SEAS5 June product. Then the September sea ice concentration is averaged over the all month, and the September ice extent is determined as the monthly mean over 15%.

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

AMSR2 sea ice concentration from University of Bremen.

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

from cmens mecator analysis:
ftp://nrt.cmems-du.eu/Core/GLOBAL_ANALYSIS_FORECAST_PHY_001_024/global-analysis-forecast-phy-001-024/2020/07/mercatorpsy4v3r1_gl12_mean_20200705_R20200708.nc

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:

[DynamicModelType]

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).