

Sea Ice Outlook
2023 June Report
Individual Outlook

Name of contributor or name of contributing organization:

Okhotsk Sea Ice Museum

Is this contribution from a person or group not affiliated with a research organization?

Yes, this contribution is from a "Citizen Scientist."

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.

Okhotsk Sea Ice Museum

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?

Mixed/Other

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.

4.27

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.

According to the JMA sea ice data, the regression extent in 2023 will be 3.97 million km², but last two years (2021 and 2022) variation from regression values were 0.60 million km², which would be caused by the reduction of greenhouse gases due to behavioral restrictions due to COVID-19 (Corona Effect). This variation is thought to be due to the reduction of greenhouse gases due to behavioral restrictions due to COVID-19.

In 2023, this effect will be halved as behavioral restrictions have been considerably relaxed. Therefore, we added 3.0 , which is half the Corona Effect, to the previous regression value of 3.97, resulting in 4.27 million km².

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

Using the JMA sea ice data, the regression line of the sea ice extent was calculated with Excel, and the deviation from the regression line of each year's data was considered.

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:

If available from your method.

a) Uncertainty/probability estimates:

Median

4.27

Lower error bound

3.97

Lower error bound

4.57

Standard Deviation

0.2

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

Natural phenomena are capricious.

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

Nothing