Sea Ice Outlook 2017 June Report Individual Outlook

Name of Contributor of Name of Contributing Organization:

Sanwa elementary school

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

Yes this contribution is from a Citizen Scientist"es this contributi"""es this contribution "

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.

Arata Iihoshi,Naoto Aokihara,Manato Ikegami,Hinata Umayahara,Kou Umeoka,Yusaku Kaihara,Yusei Kishimoto,Harutsugu Sadakiyo,Taisei Sugihara,Ryomei Tamura,Kou Teragauchi,Tetsuya Fujii,Taiyo Yamamoto,Kota Yokoyama,Kazuki Wakabayashi,Mizuki Kawakami,Mao Kojo,Momoka Saegusa,Sayo Shigeto,Yuna Hayashida,Miharu Fukushima,Sakuya Fukuman and Miki Hisanaga. Total number is 23.(The total number of students is 21.)

Do you want your June contribution to be automatically included in subsequent reports? (If yes, you may still update your contribution via a form like this one.)

Yes automatically include my contributions in July and August 2017

What is the type of you outlook projection?

Heuristic

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 the maximum possible extent if every ocean cell in your region were ice covered.

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"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.

Monthly mean ice extent in September will be about 4.43 million square kilometers. We estimated the minimum ice area through discussion among 21 students based on the ice map from 2004 to 2016.

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

We first estimated the total ice area for September of 2004,2006,2008,2010,2012,2014 and 2016 from the ice concentration map,by approximating the ice cover with a triangle or trapezoid and so on.Based on this rough estimation, we discussed a yearly change of the ice area and calculated the ice area of this September.

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.

Sea ice Velocity is not used.

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

Sea ice Thickness is not used.

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:

A dynamic model is not used.

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).
- b) Brief explanation/assessment of basis for the uncertainty estimate (1-2 sentences).
- c) same as in (b) but for the Alaskan region. Please also tell us the maximum possible extent if every ocean cell in your region were ice covered. See https://www.arcus.org/sipn/sea-ice-outlook/2017/june/call in the section on "Instructions for Submitting an Alaskan Regional Outlook"

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d) Raw (and/or post processed) forecasts for this year and retrospective forecasts in an excel spreadsheet with one year on each row and ensemble member number on columns (specifying whether raw or post processed).