

## SEA ICE PREDICTION NETWORK (SIPN)

### Template for Pan-Arctic Sea Ice Outlook Core Contributions

August 2016 Report (Using July Data)

1. \*Contributor Name(s)/Group

Andrew Slater

2. \*Type of Outlook projection

\_\_\_model  statistical \_\_\_heuristic

If you use a model, please specify:

Model Name SPIE

Components of the model: Atmosphere\_\_\_, Ocean\_\_\_, Ice\_\_\_, Land\_\_\_, Coupler\_\_\_

For non-coupled model: Ice , Ocean\_\_\_, Forcing\_\_\_

3. \*September monthly average projection (in million square kilometers)

**4.39 ± 0.35 × 10<sup>6</sup> km<sup>2</sup>**

4. \*Short explanation of Outlook method (1-3 sentences)

I have extended my model prediction out to a lead time of 54 days. The method is effectively the same as my "standard" 50 day forecast.

<http://cires.colorado.edu/~aslater/SEAICE/>

The method has real skill (as measured by Schröder *et al.* [2014]) at 54 days over the period 1995-2013.

5. Projection uncertainty/probability estimate (only required if available with the method you are using)

About 0.35 × 10<sup>6</sup> km<sup>2</sup>, probably a tiny bit higher

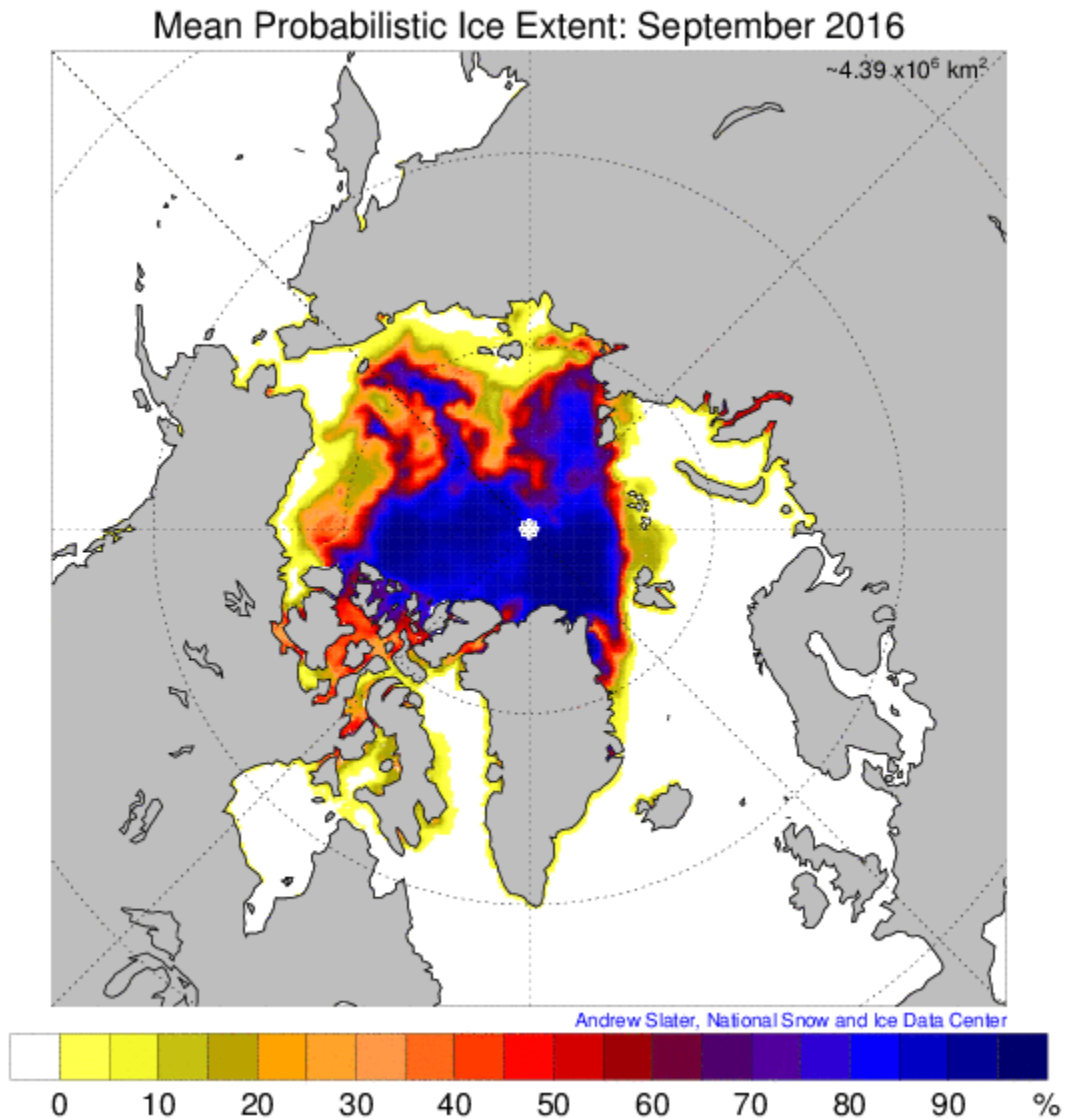
6. Short explanation/assessment of basis for the uncertainty estimate in #5 (1-2 sentences)

0.35 × 10<sup>6</sup> km<sup>2</sup> is the RMSE of my results for Sept. mean at 50-days over the period 1995-2013.

7. \* "Executive summary" about your Outlook contribution

In a few sentences what your Outlook contribution is and why. To the extent possible, use non-technical language.

This is a 54-day lead time probabilistic forecast, covering all days in September. Exactly how much of the Chukchi and ESS will melt out is uncertain. Did the warm spring impact the thickness more than is visible in current imagery? Since early July, 2016 has been in the vicinity of 2007, 2011 and 2012 extents (but by August the low concentrations of 2012 set the future pattern). Extent is 6.13 at date of issue;  $1.74 \times 10^6 \text{ km}^2$  is the difference to the forecast mean. I would be surprised if my forecast was excessively low, though one never knows. The weather will govern the remaining details.



Winter and spring was very warm, but since July normal to cool temperatures had returned. [http://cires1.colorado.edu/~aslater/ARCTIC\\_TAIR/](http://cires1.colorado.edu/~aslater/ARCTIC_TAIR/)