SEA ICE PREDICTION NETWORK (SIPN)

Template for Pan-Arctic Sea Ice Outlook Core Contributions

July 2015 Report (Using June Data)

1. *Contributor Name(s)/Group

Andrew Slater

2. *Type of Outlook projection
___model _**X**_ 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 _**X**_, Ocean___, Forcing___

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

4.53 ± 0.52 x **10^6 km^2**

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

I have extended my model prediction out to a lead time of 85 days. The method is effectively the same as my "standard" 50 day forecast.

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

At 85 days the method does actually have skill, when measured over the period 1995-2013 and applying a similar skill metric to that used in Schroder *et al.* 2014. The skill level is only of order 0.10-0.15, but it is real skill nonetheless. (Compare that to an anomaly persistence forecast which has zero skill at this lead time.)

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

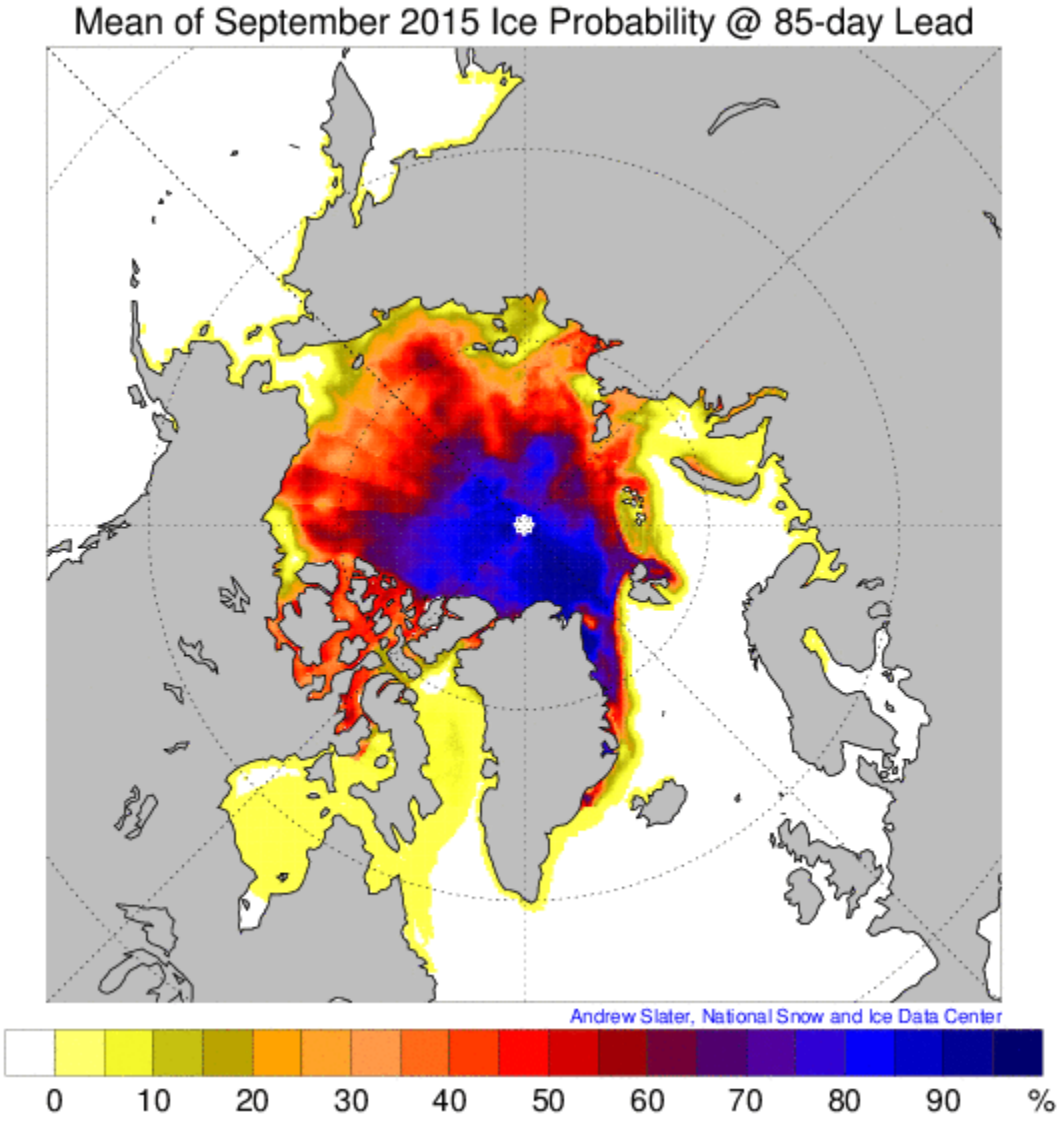
0.52 x 10^6 km^2

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

0.52 x 10^6 km^2 is the RMSE of my results for Sept. mean at 85-days over the period 1995-2013. I am less confident this year than prior years due to the unusually large region of mid-range concentration. The model is designed for 50-day lead time; I would change things for an 85-90 day forecast.

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.

I have extended my forecast method to an 85 day lead time so as to forecast all days in September. The method does have a low level of real skill (taken over 1995-2013). Results contain a large uncertainty at this lead time.



The current ice situation is interesting as there is a very large portion (ESS, Chukchi, and Beaufort) with mid-range concentrations and recent warmth:

http://cires1.colorado.edu/~aslater/ARCTIC_TAIR/

Might we see a rapid loss of ice extent in the near future? My 50-day forecast suggests so …