SEA ICE PREDICTION NETWORK (SIPN)

Template for Pan-Arctic Sea Ice Outlook Core Contributions
August Report (Using July Data)

*Required

1. *Contributor Name(s)/Group

Mr. Persistence

2. *Type of Outlook projection
   ___model _**X**__statistical ___heuristic

If you use a model, please specify:
Model Name Persistence
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)

5.20 or 5.0 or 4.6 x 10^6 km^2

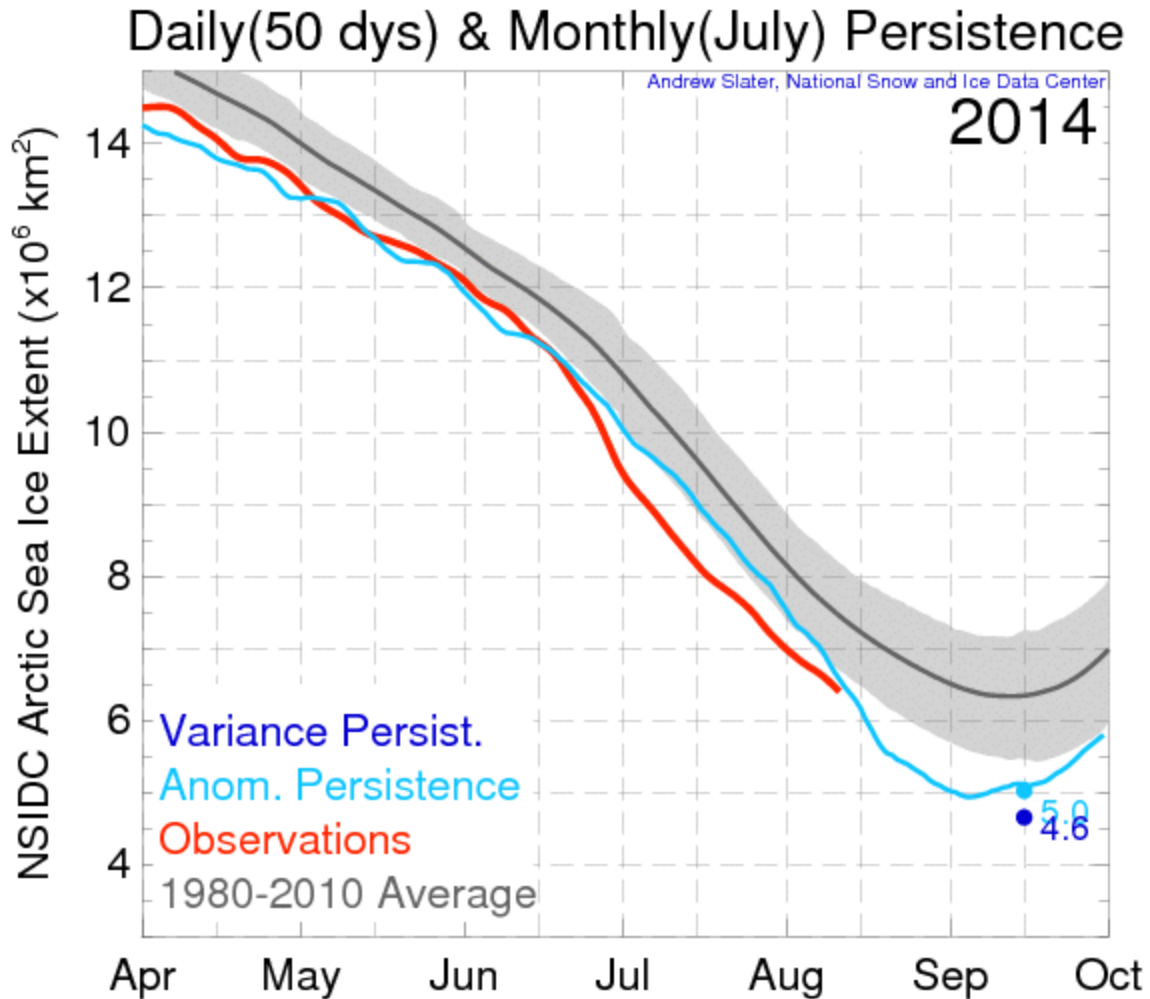4. *Short explanation of Outlook method (1-3 sentences)

Persistence can be computed in several ways. I have looked out to Sept. for the sake of comparison.

1) Daily anomaly persistence at 50 days lead time (so that I can go all the way to Sep 30th), then compute mean for Sept = 5.2

2) Persist the absolute anomaly from July to Sept (using NSIDC monthly value, not mean of daily). Sept = 5.0

3) Persist the standard normal deviate from July to Sept (using NSIDC monthly). Labeled as "Variance Persistence". Sept = 4.6

Persistence has skill at the 50 day timescale – of order 0.38 – 0.40 for as per Schroder et al. 2014 (for 1995-2013).

Daily(50 dys) & Monthly(July) Persistence

Andrew Slater, National Snow and Ice Data Center

2014

NSIDC Arctic Sea Ice Extent ($\times 10^6$ km^2)

Variance Persist.
Anom. Persistence
Observations
1980-2010 Average

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

Have not computed uncertainty ... I should have, sorry.

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

7. * "Executive summary" about your Outlook contribution
1-3 sentences, to be used in Outlook summary: say in a few sentences what your Outlook contribution is and why. To the extent possible, use non-technical language.

Three different types of persistence forecasting at 50-day or 2 month lead time. The methods contain some skill at this timescale.