

Same as June Outlook, with updated value for August:

The predicted sea ice extent range from early August initial conditions is (5.6 ± 0.25) million square kilometers.

Outlook of September 2014 sea ice extent based on operational NCEP CFSv2

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1 Arctic sea ice extent projection for September 2014

$(6.31 \pm 0.47) \times 10^6 \text{ km}^2$

2 Methods/Techniques

The outlook is based on a CFSv2 ensemble of 40 members initialized from May 25-Jun 3, 2014. The model's systematic bias based on previous forecasts has been removed. Forecast RMS errors, and anomaly correlation skill are estimated based on its historical forecasts for 1982-2013.

3. Rationale

The CFSv2 has some skill in predicting year to year variability of September sea ice minimum extent at lead time of three months.

4. Executive Summary

The projected Arctic sea ice extent from CPC based on NCEP ensemble mean CFSv2 forecast is $6.3 \times 10^6 \text{ km}^2$ with an estimated error of $\pm 0.47 \times 10^6 \text{ km}^2$.

5. Estimate of Forecast Skill

The skill estimated as the forecast correlation with observation based on retrospective forecasts for 1982-2013 is 0.78. Forecast uncertainty taken as the RMS error based on 1982-2013 retrospective forecasts is $0.47 \times 10^6 \text{ km}^2$.