

# Pan-Arctic Seasonal Summary for September 2011

## Persistence Based Forecast

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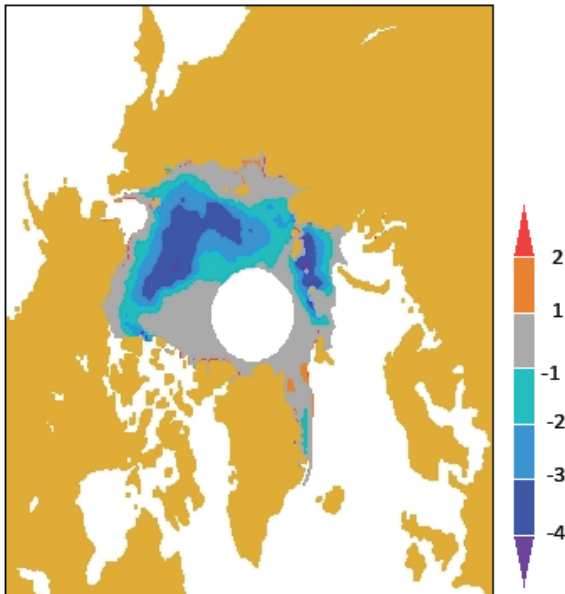
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***7-month lead forecast for September 2011 ice extent:  $4.48 \pm 0.63 \cdot 10^6 \text{ km}^2$***

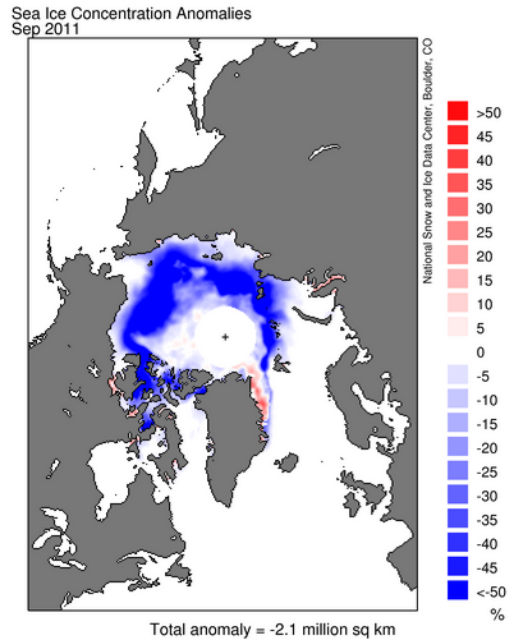
- *the uncertainty of  $\pm 0.63 \cdot 10^6 \text{ km}^2$  is equivalent to 0.62stdev*

***Verification:*** The actual September 2011 ice extent,  $4.61 \cdot 10^6 \text{ km}^2$ , falls within the predicted range. There is also a strong regional agreement between the forecast and actual ice concentration anomalies.

**FORECAST**  
(7-month lead)



**ACTUAL**



***Implication:*** The success of this forecast suggests that there may be considerable skill in persistence based forecasts at long lead times. This forecast for September 2011 ice concentration anomalies and calculated extent was based on February pan-Arctic ice concentration anomalies. The forecast was generated using canonical correlation analysis; the long-term trend was not removed.