

SEA ICE OUTLOOK JULY CONTRIBUTION
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Executive Summary

This method is a simple statistical method that uses previous years' daily rates of extent change to project the 2015 daily extent through the end of September. The monthly average is then calculated from the September daily extents. This year, the last ten years (2005 – 2014) are used for the projection. This method yields a September 2015 extent of 5.09 (± 0.62) million sq km.

Type of Projection = statistical

September 2015 monthly average projection = 5.09 (± 0.62) million sq km

Explanation of Method

This method is a simple statistical method that uses previous years' daily rates of extent change to project the 2015 daily extent through the end of September. The monthly average is then calculated from the September daily extents. This year, the last ten years (2005 – 2014) are used for the projection because these years are more representative of recent conditions than using all years in the 35-year time series.

This method yields a September 2015 extent of 5.09 (± 0.62) million sq km. The large range in values, calculated from the standard deviation of the ten years, is due to the limited number of years used and the significant amount of variability in daily extent change rates between 1 July and 30 September. Using the standard 1981-2010 thirty-year climatology, the September extent is 5.50 million sq km. The lowest projected extent (from the last ten years), which is from the 2007 rates, is 4.25 million sq km, while the highest, from 2006 rates, is 6.13 million square kilometers. The daily extent trajectories for the two averages and the high and low years from the last decade are provided in the figure below.

There isn't much expected skill at this point because of the large range of extent loss rates that may still occur. However, it provides a reasonable envelop of physically realistic September extents. As September approaches, the envelop of possible extents narrows and hones in on the final observed extent. An update projection will plan to be submitted in August, using 2015 through 30 July.

Week of Daily Minimum Extent

The date of the minimum extent of the 2005-2014 average is 19 September, with a range between 11 September and 22 September. The mode date is 17 September and the median date is 16 September. Thus, the expected minimum date is during the week of 12-18 September.

