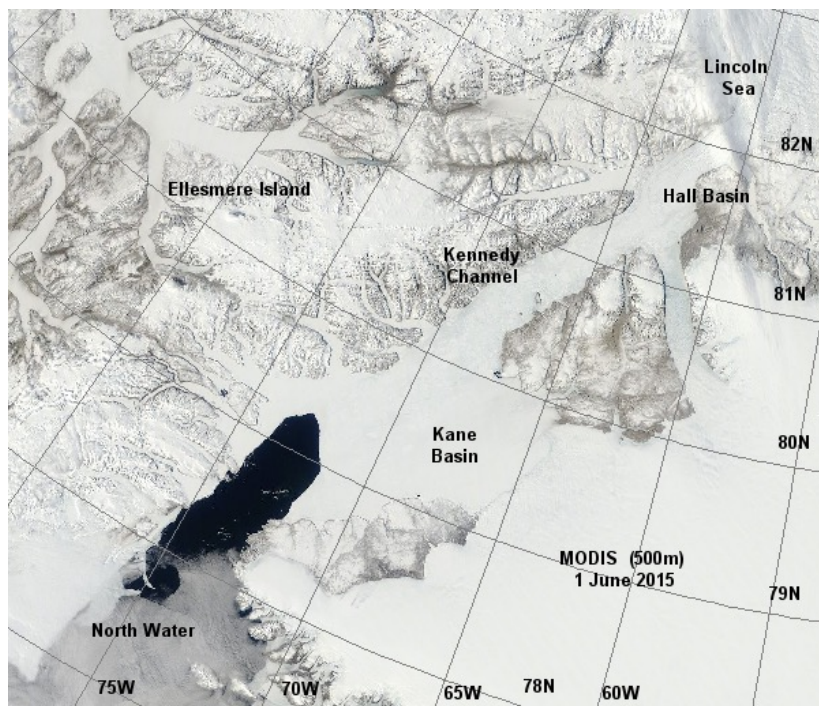


## 2015 Sea Ice Outlook Regional Submission - Nares Strait

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### Nares Strait

This MODIS scene shows the ice situation in the narrow Nares Strait between Ellesmere Island, Canada, and Greenland by the beginning of June 2015. It is characterized by the 'barrier' in Kane Basin off the coast of Ellesmere Island formed in early February stopping effectively the transport of ice from the Lincoln Sea to North Water and Baffin Bay by 12 February. The stagnant ice in the Strait has therefore increased in thickness subject to the prevailing low temperatures of the winter. This will also be the case in the Lincoln Sea that has shown very little activity since then. In the Strait new ice forms south of the barrier to drift into the North Water. At this time of the year, however, no ice will form due to higher temperatures, leaving the Strait open as seen above

The situation is nearly the same as that in 2014 with a barrier about 50 km more to the northeast. The MODIS scene above shows two small areas of open water, one at entrance to Flogler Fiord between Backe and Knud Peninsulae (79.11°N, 75.99°W) and another at Kap Jackson, the southwest corner of Washington Land (80.04N, 67.17°W). They are the first signs of changes in the area observed almost every spring.

Air temperatures recorded by the automatic weather station on Hans Island in the very center of the Kennedy Channel (80.83°N, 66.46°W) show nearly the same pattern this year as in 2014 but with weekly average temperatures six to eight degree lower in May 2015 than in May 2014 (Week Nos. 19 to 22). In the first week of June (Week No.23) the temperature difference is expected to be smaller. In 2014 moderate northern winds prevailed by the end of May whereas we observe southern winds in the same period in 2015.

The lower temperatures in 2015 will strengthen the present barrier compared with that in 2014. We may therefore expect a break-down of the barrier a little later than in 2014. i.e. in the period 24 to 26 June. After this the south-going ice drift will be resumed and eventually the Lincoln Sea will contribute to the drift by the end of the month. If the southern winds continue over a longer period this may happen earlier by three to four days.