

REGIONAL OUTLOOK Nares Strait

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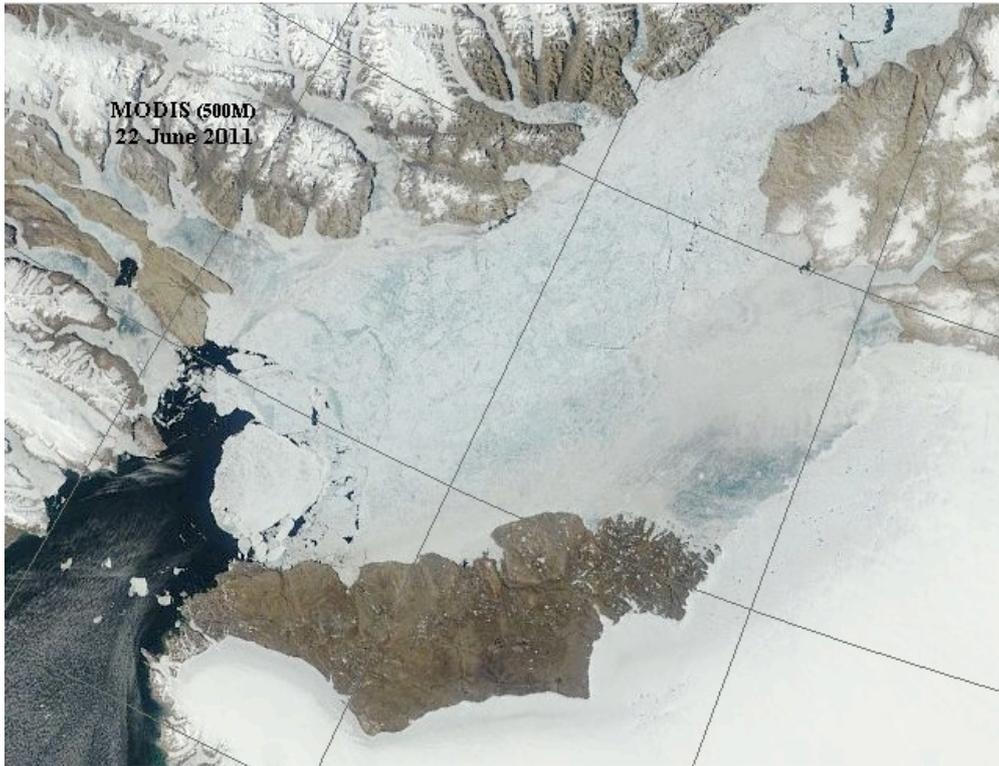
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In a previous report we described the formation of the Icebridge in the southern Kane Basin during the first days of February 2011 partly caused by the low temperatures of -25°C during the last week of January. Due to continuing low temperatures and a persistent southern wind during the following weeks an unusual 'apron' of new ice formed in the open-water area in front of the Icebridge.

After the relatively warm June at an average temperature of about $+0.5^{\circ}\text{C}$ (measured on Hans Island) the apron began disintegration by 17 June. However, due to a persistent southern wind actual break down of the apron and the Icebridge proper took place only by the end of the month. The MODIS scene of 22 June shows the 'broken apron' pushed back towards the Icebridge where as the 1 July scene clearly demonstrates the break down with large floes drifting southwards through the Smith Sound.

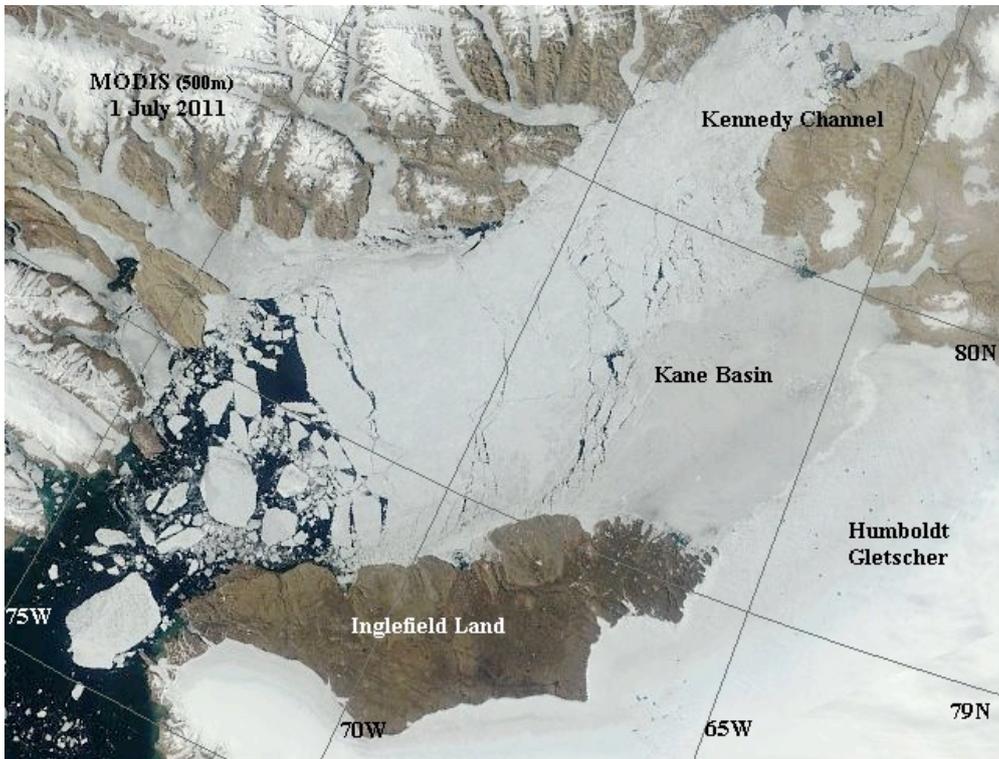
In parallel, it was noted that leads opened in the Kennedy Channel creating areas of open water while the canopy in the Robeson Channel remained stable. Thus, the northern boundary in the upper part of the Channel was intact at the end of June preventing southward drift of ice from the Lincoln Sea.

With these observations, including the fact that the ice canopy in the Nares Strait has a rather large fraction of new ice formed during the past winter we expect that migration of ice from the Lincoln Sea will be resumed by early in July - after about five months of small internal movements in the Lincoln Sea at very low air temperatures. With indications of multiple disintegration of the ice canopy in most of the Nares Strait a rather swift drift is likely to take place.



MODIS (500M)
22 June 2011

22 June 2011



MODIS (500m)
1 July 2011

Kennedy Channel

Kane Basin

80N

Humboldt
Gletscher

75W

Inglefield Land

70W

65W

79N

1 July 2011