

2010 Regional Sea Ice Outlook for Greenland Sea and Barents Sea July Contribution

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The monthly mean sea ice extent for June 2010 based on Norwegian ice charts produced primarily from passive microwave satellite data, supplemented with high resolution SAR imagery from 2007, is compared with the corresponding monthly mean for June for the previous years 2007-09 (Fig. 1), and with 30, 20, and 10 year averages for monthly means for the periods 79-08, 80-99 and 99-08 (Fig. 2).

For more details on the regions, see the corresponding report from the previous month (May data) and references given in there.

In the Greenland Sea, in general the sea ice extent in June 2010 differs only little from the previous years, and intercomparisons with the different means over 1-3 decades do not show substantial differences. The extent now in June 2010 is slightly larger in the south and slightly less in the north (Figs. 1 and 2).

In contrast, sea ice extent in the Barents Sea varies more both between years and with the decadal means. Most prominent, the area between Svalbard and Franz Josef Land had significantly less sea ice in 2010 compared with the past 3 years (June means, Fig. 1). A relatively large area south of Franz Josef Land was ice free in the June 2010 mean sea ice extent. This was ice covered in all years 2007-2009, and it also appears ice covered in the 1-3 decadal means shown in Fig. 2.

Compared with the previous month (May data), the situation relative to earlier years appears similar for the Greenland Sea. In the Barents Sea, differences with earlier years are largest in the north-western Barents Sea, whereas in May changes were largest in the north-eastern Barents Sea.

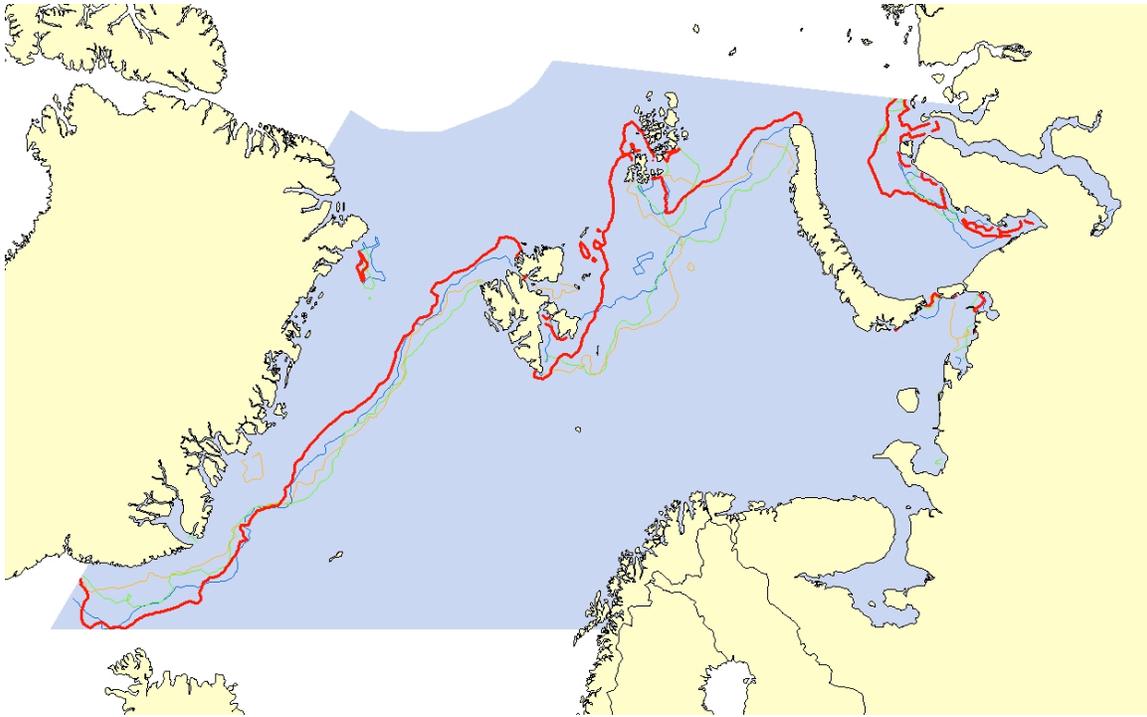


Fig. 1: Ice extent (monthly means, June) southern border of 30% ice concentration, in the Greenland Sea / Fram Strait and Barents Sea, based on passive microwave satellite data (red = June 2010, orange = June 2009, green = June 2008, blue = June 2007).

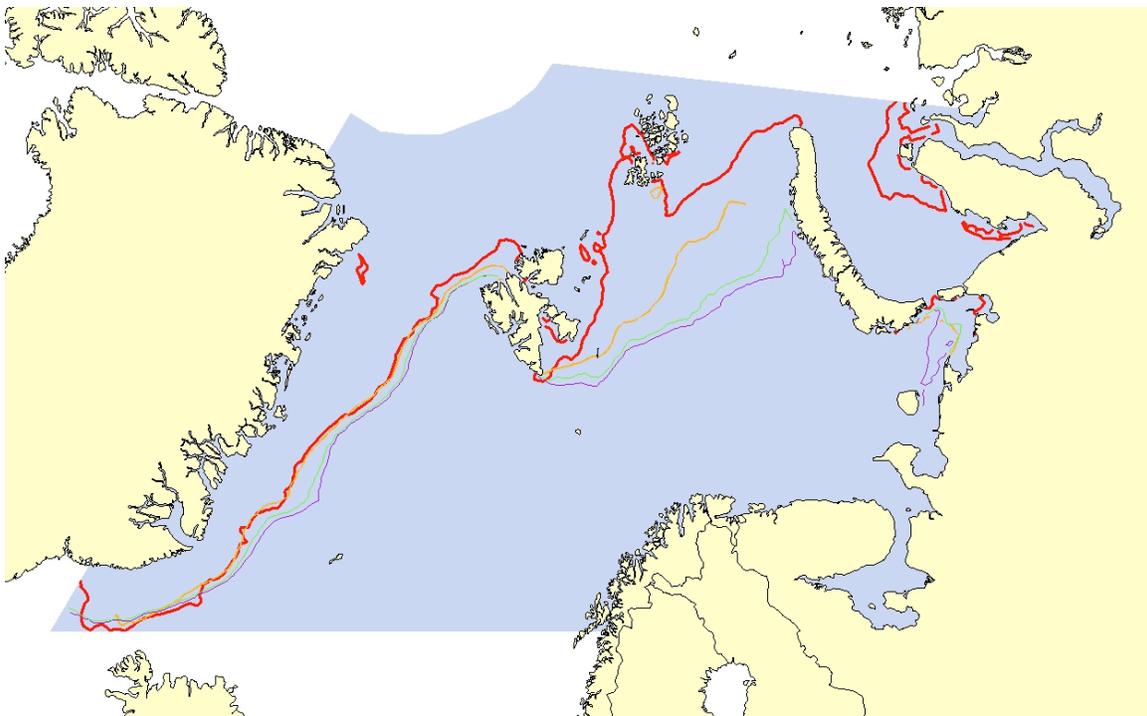


Fig. 2: Ice extent (monthly means, June) southern border of 30% ice concentration, in the Greenland Sea / Fram Strait and Barents Sea, based on passive microwave satellite data (red = June 2010, orange = mean June 1999-2008, green = mean June 1979-2008, purple = mean June 1980-1999).