

## SEARCH Regional Sea Ice Outlook 2010 Regional Summary

### Region of Interest: Western Parry Channel region of the Northwest Passage

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#### Seasonal Summary:

2010 experienced record low sea ice conditions within the Western Parry Channel/Northern Route of the Northwest Passage surpassing all previous low years (Figure 1). 2010 also surpassed 2007 in terms of duration of very low ice cover. These extremely low ice conditions reflect preconditioning of the ice cover due to record warm spring temperatures for the Western Canadian Arctic (Figure 2). As the mean temperature departures map shows, some Arctic areas are more than 6°C above normal, the warmest spring in the Western Canadian Arctic since 1948. These extremely warm conditions produced very early breakup in the M'Clure Strait region which was almost entirely all open water by the first week of June. During the months of August and September the sea level pressure pattern advected the remainder of the ice out of the region and forced the replenishing multi-year ice from the Queen Elizabeth Islands along Melville Island.

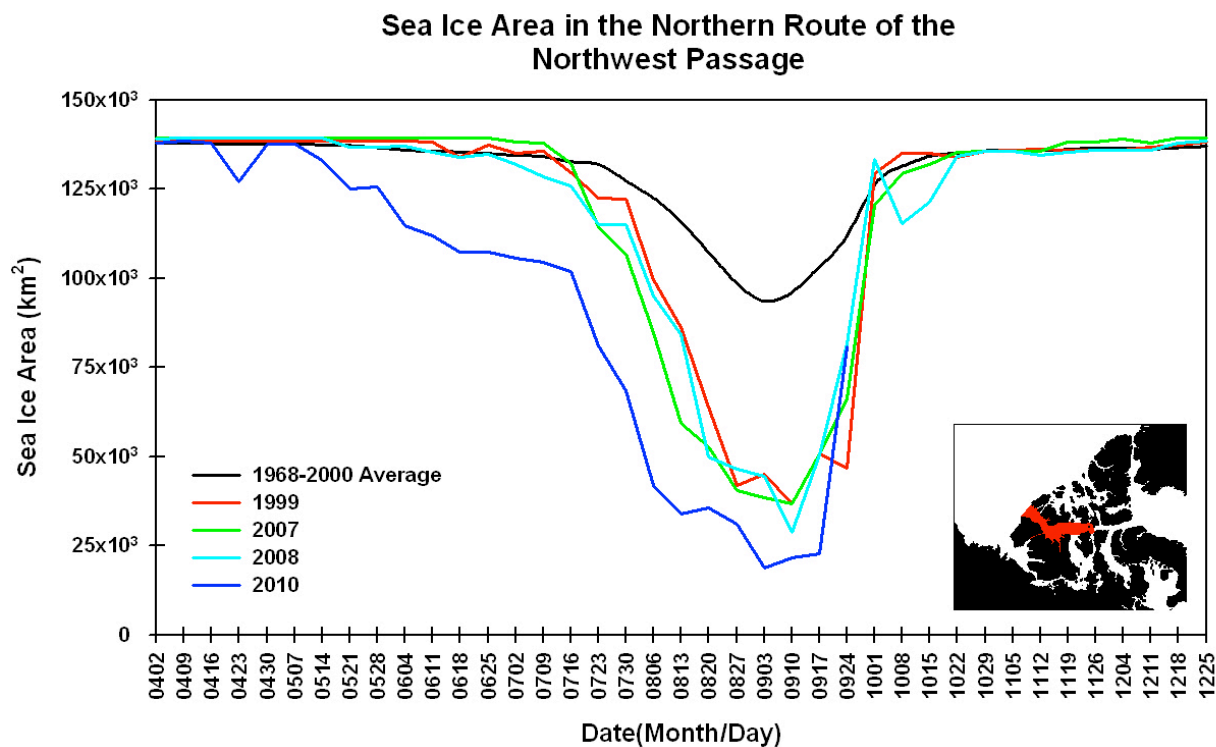


Figure 1. The graph shows the weekly sea ice area in the Western Parry Channel/Northern Route of Northwest Passage as of the end of September 2010. The blue line indicates 2010; the green line indicates 2007; the cyan line indicates 2008; the red line indicates 1999, and the black line indicates average area from 1968-2000. The data is from the Canadian Ice Service (Environment Canada).

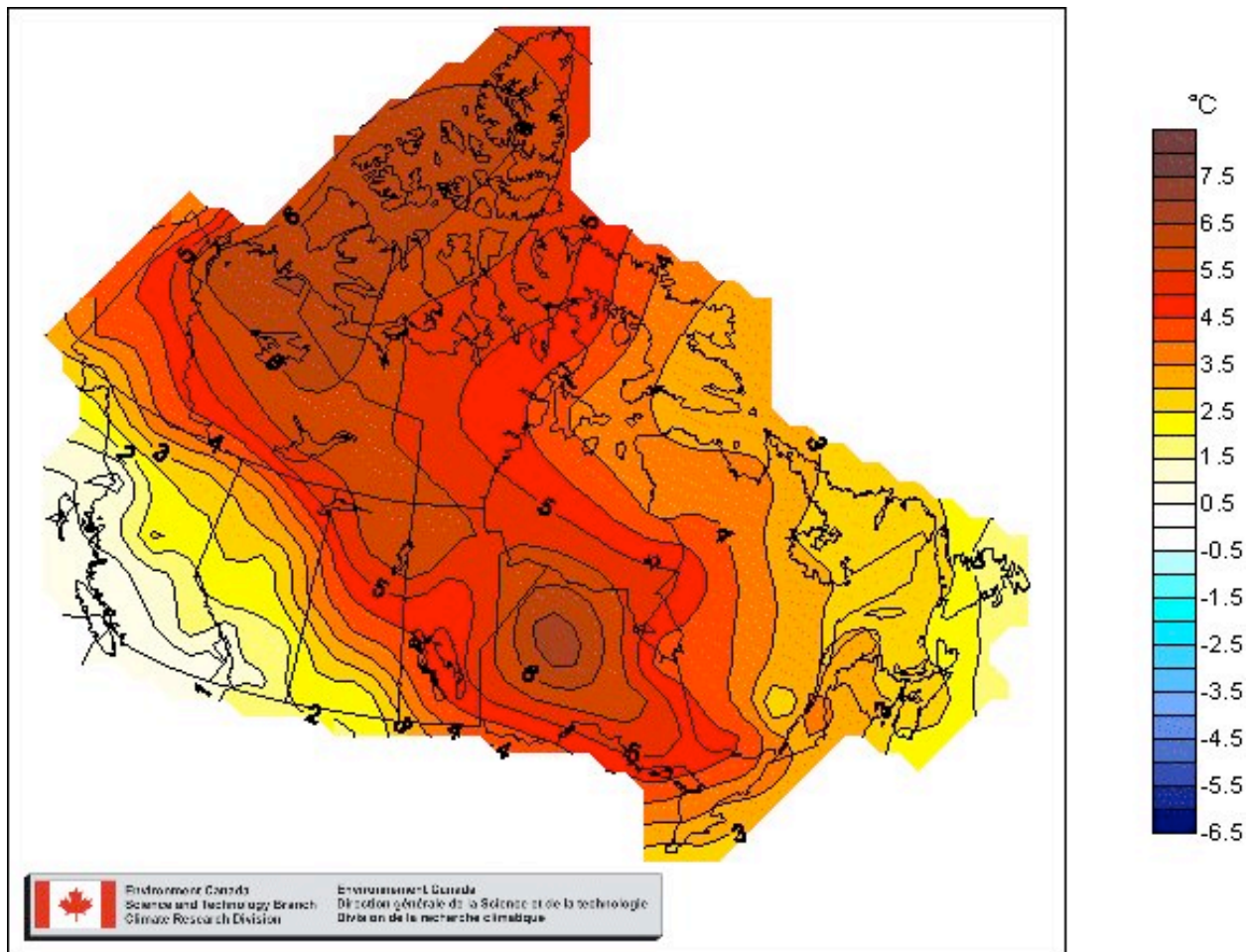


Figure 2. 2010 spring (April, May, June) surface temperature anomalies over Canada compared to the 1970-1999 average. Temperatures in the western Canadian Arctic were the warmest since records began in 1948.