

Comments

I will first deal with the AMSR2 images. Then I will discuss the landfast ice edge. Finally, I will discuss the black areas along the snowmobile path.

The AMSR2 plot and images show a **major drop in the sea ice concentration**.

We have new observations about the landfast ice edge. In addition to our usual MODIS images, the Canadian Ice Service (CIS) processed a nice MODIS image that Marilee Pregitzer sent us. We clearly see the landfast ice edge.

In both this MODIS image and the usual ones, we clearly see a pocket of open water at the level of Broughton island.

In the MODIS images and on the new Sentinel-1 image, I observe four different regions from the coast seaward. My hypothesis is the following. I presume region A is the landfast ice, region B is a mixed region with open water and some residues of the landfast ice, region C is open water and region D is sea ice sheets.

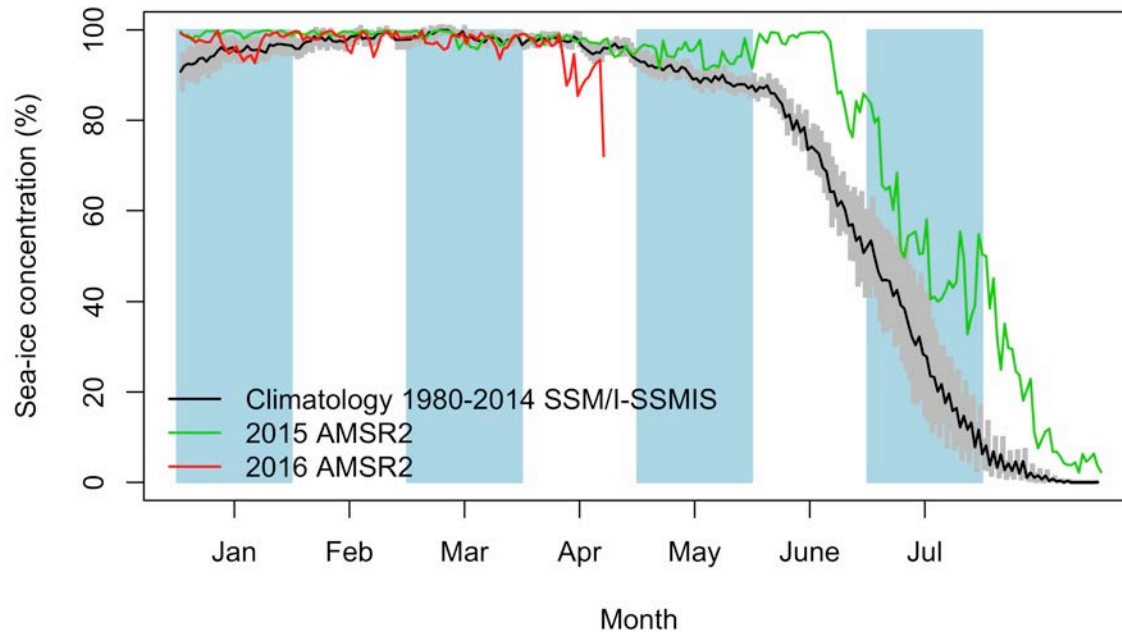
The distance between the ice camp and the landfast ice edge has shrunk from 31.7 km to 25 km in only one day. My hypothesis is the following. I presume the current of the new ice free water eroded the landfast ice edge.

I now discuss the topic of the black areas along the snowmobile path. Marilee Pregitzer of the CIS confirmed that the dark areas are regions of smooth ice: *I've consulted with our image analysts and they have confirmed the dark areas to be regions of smooth ice*. We still see the dark areas feature A at the southwest of Broughton island and feature B between the ice camp and the south shore of Broughton island. I indicate below the coordinates of the features in the case a colleague from the ice camp would be curious to check the areas in situ.

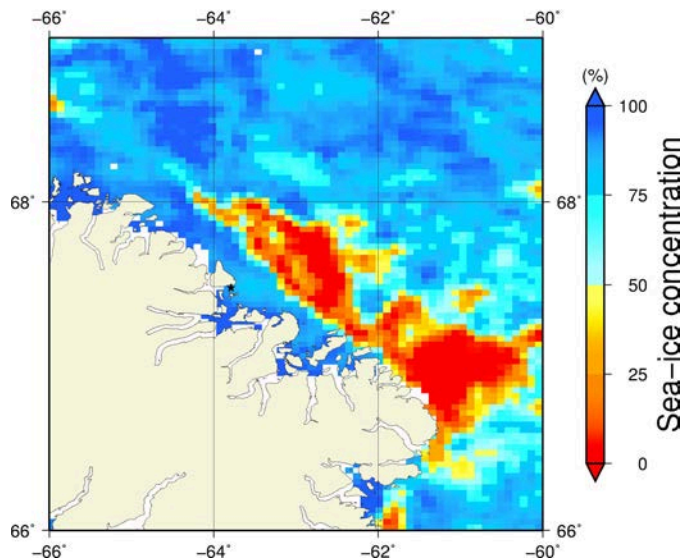
Feature A: 67.49995 N, -64.0534 E.

Feature B: 67.491905 N, -63.816086 E.

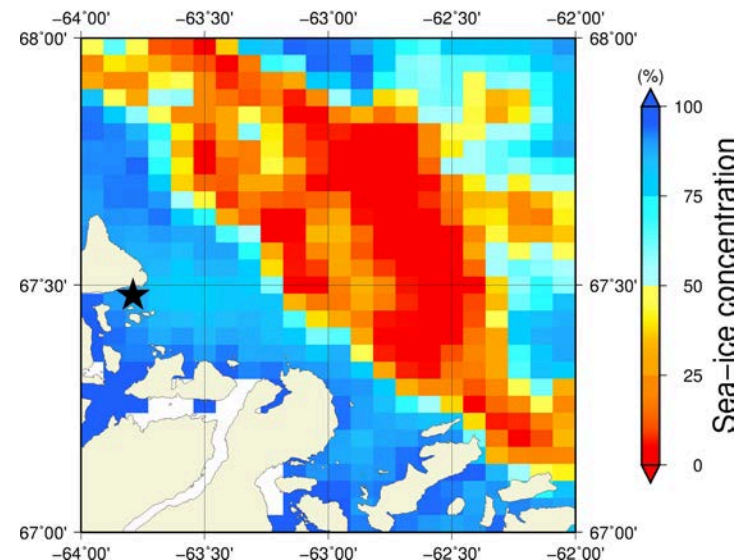
April 22nd (AMSR2) Sea - ice concentration in the region 66° to 69°N and -66° to -60°E



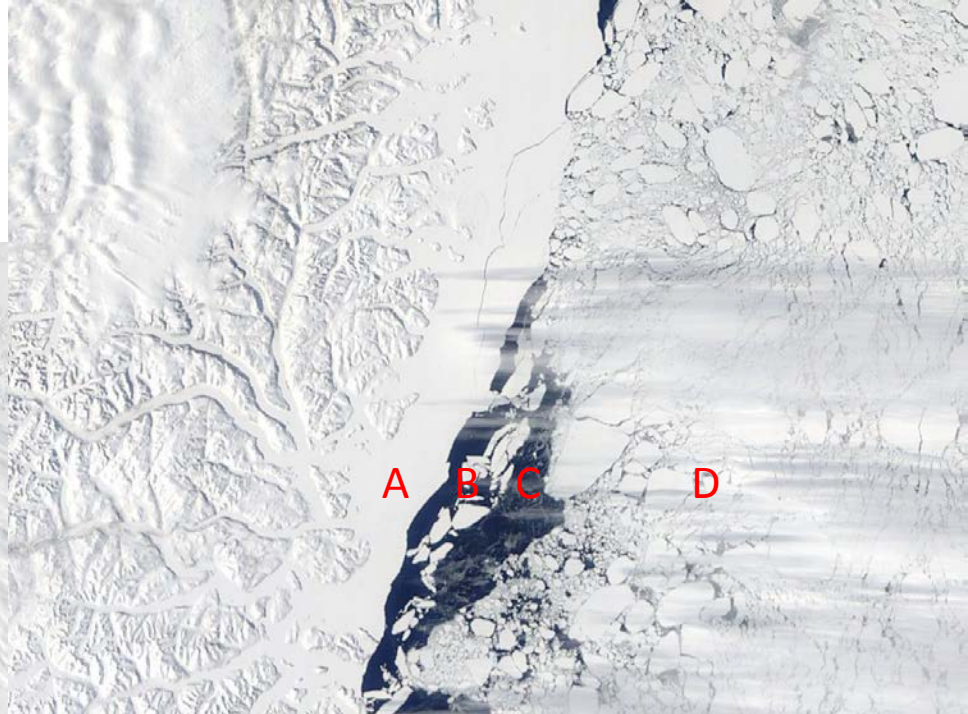
Overview



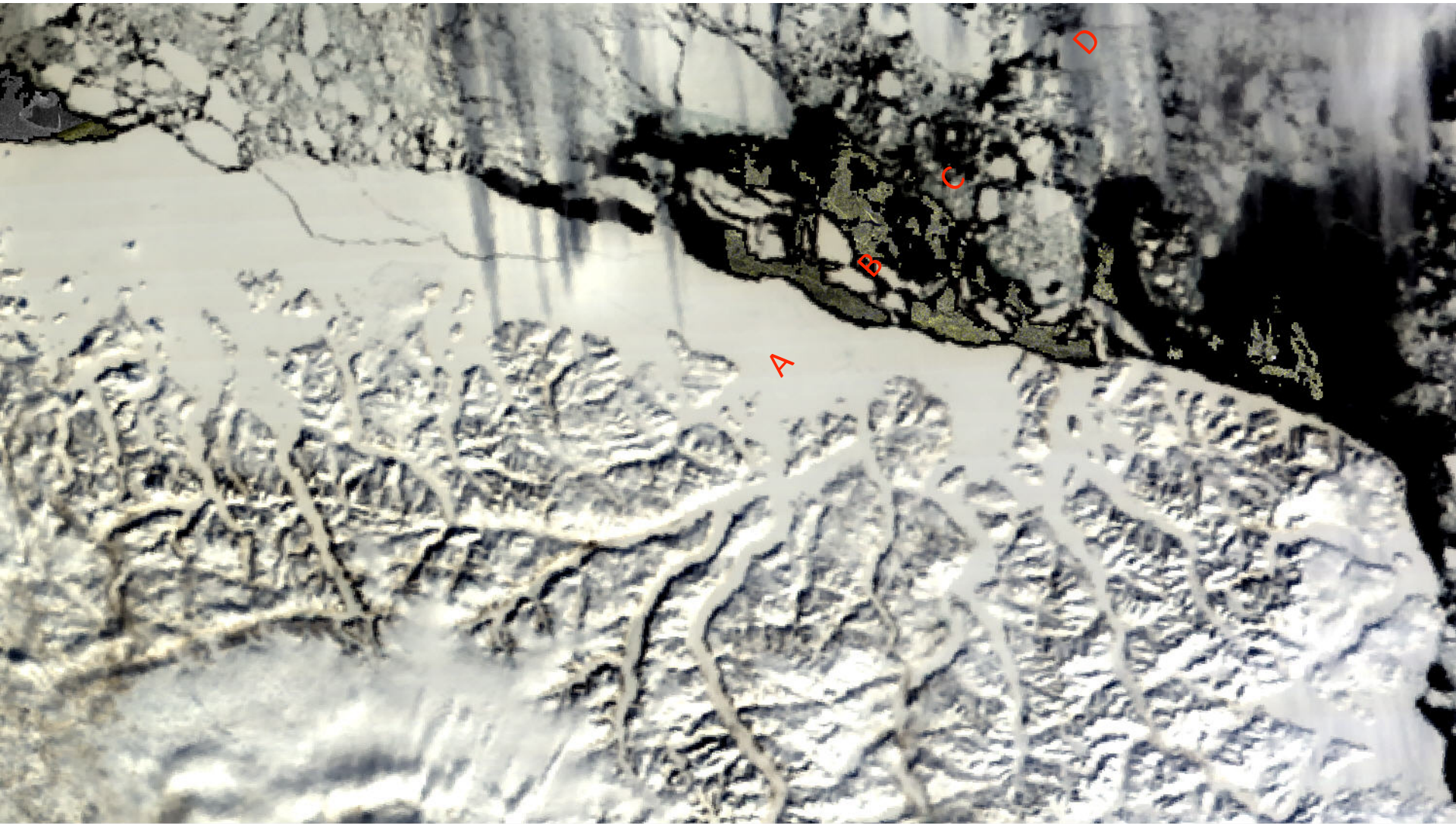
Zoom



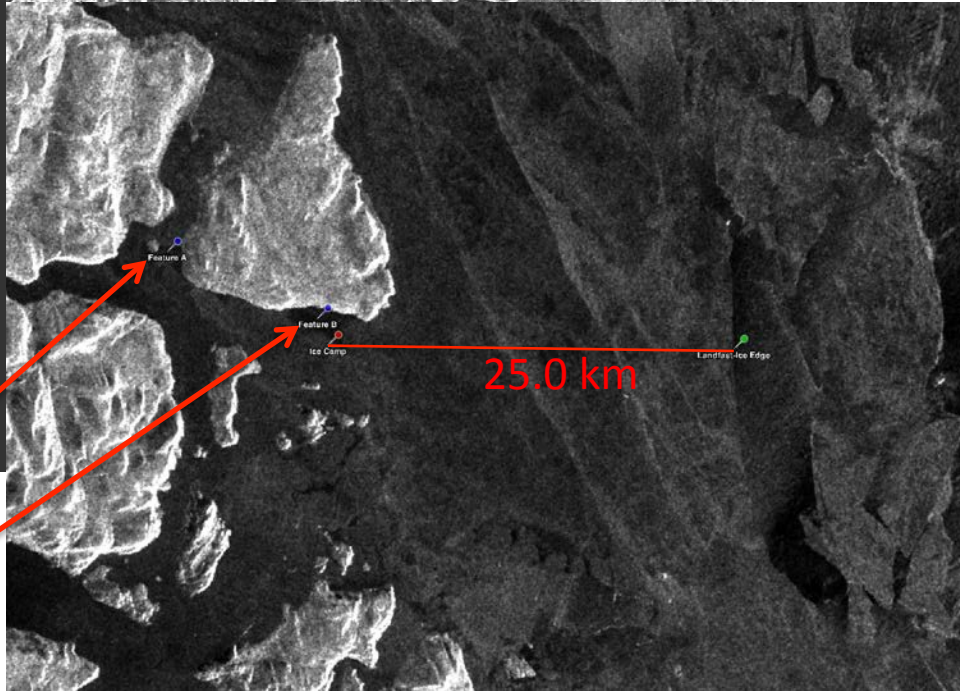
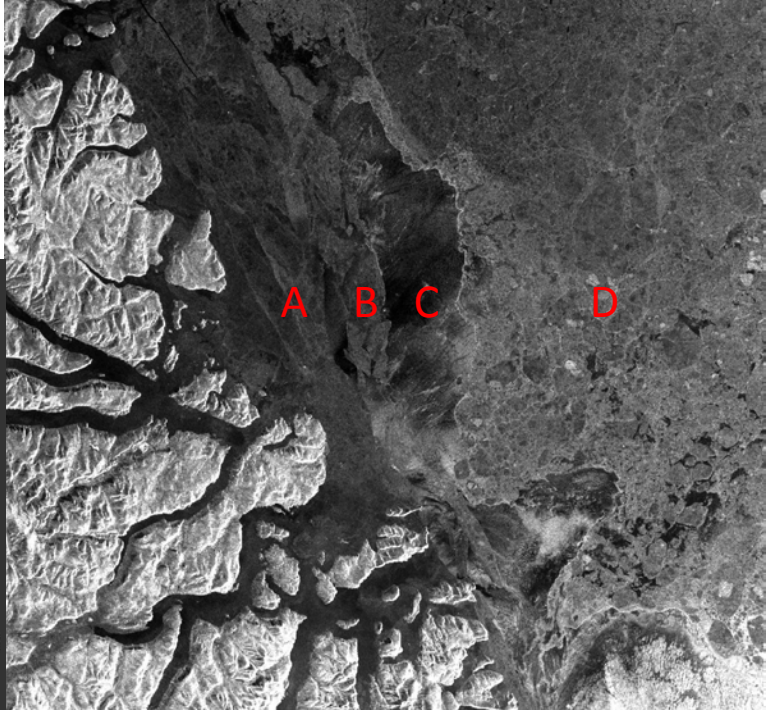
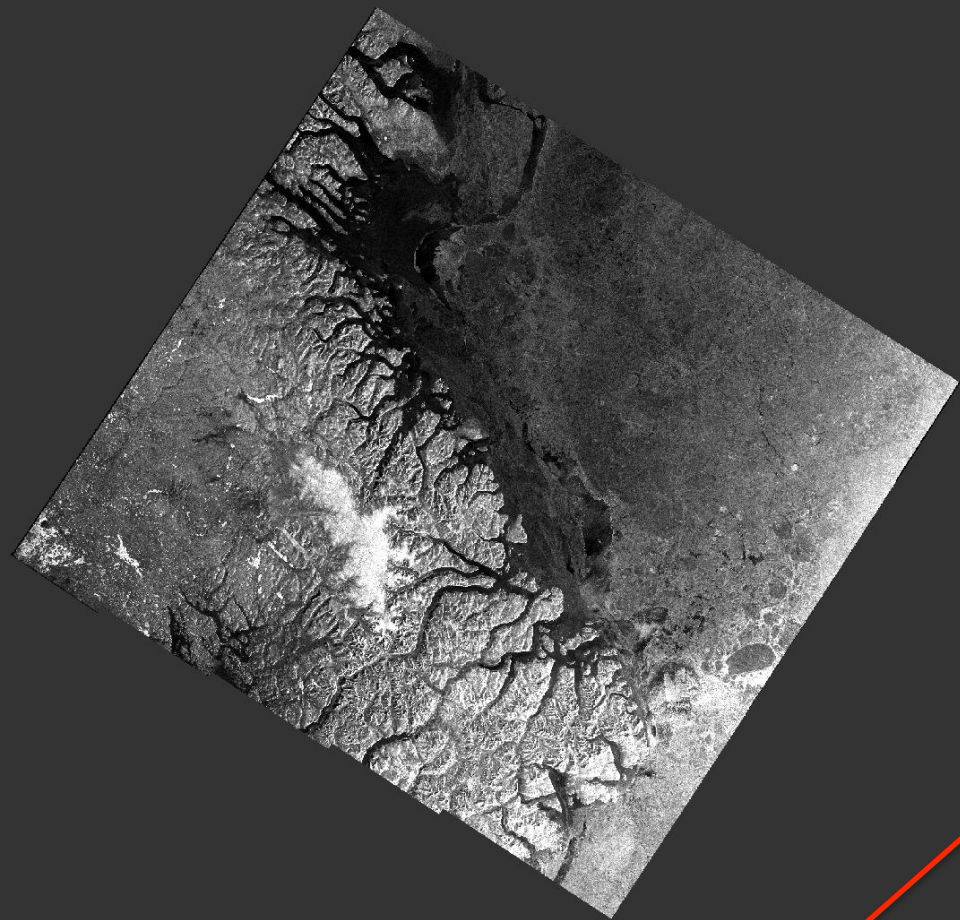
April 22nd (MODIS)



April 22nd (MODIS)
Processed by the Canadian Ice Service



April 22nd (Sentinel-1)



Feature A

Feature B