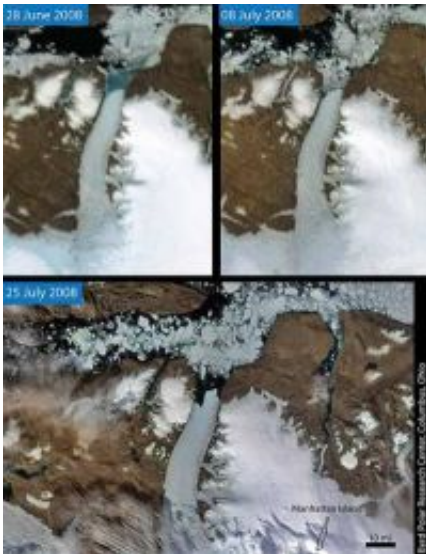


# Satellite images show continued breakup of 2 of Greenland's largest glaciers

August 21 2008

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A 29 sq. km. (11 sq. mi.) area of the Petermann Glacier in northern Greenland (80°N, 60°W) broke away between July 10th and by July 24th. Petermann has a floating section 16 km (10 mi) wide and 80 km (50 mi) long, that is, 1295 sq. km (500 sq mi); the longest floating glacier in the Northern Hemisphere. Photo courtesy Byrd Polar Research Center, Ohio State University

Researchers monitoring daily satellite images here of Greenland's glaciers have discovered break-ups at two of the largest glaciers in the last month. They expect that part of the Northern hemisphere's longest floating glacier will continue to disintegrate within the next year.

A massive 11-square-mile (29-square-kilometer) piece of the Petermann

Glacier in northern Greenland broke away between July 10th and by July 24th. The loss to that glacier is equal to half the size of Manhattan Island. The last major ice loss to Petermann occurred when the glacier lost 33 square miles (86 square kilometers) of floating ice between 2000 and 2001.

Petermann has a floating section of ice 10 miles (16 kilometers) wide and 50 miles (80.4 kilometers) long which covers 500 square miles (1,295 square kilometers).

What worries Jason Box, an associate professor of geography at Ohio State, and his colleagues, graduate students Russell Benson and David Decker, all with the Byrd Polar Research Center, even more about the latest images is what appears to be a massive crack further back from the margin of the Petermann Glacier.

That crack may signal an imminent and much larger breakup.

"If the Petermann glacier breaks up back to the upstream rift, the loss would be as much as 60 square miles (160 square kilometers)," Box said, representing a loss of one-third of the massive ice field.

Meanwhile, the margin of the massive Jakobshavn glacier has retreated inland further than it has at any time in the past 150 years it has been observed. Researchers believe that the glacier has not retreated to where it is now in at least the last 4,000 to 6,000 years.

The Northern branch of the Jakobshavn broke up in the past several weeks and the glacier has lost at least three square miles (10 square kilometers) since the end of the last melt season.

The Jakobshavn Glacier dominates the approximately 130 glaciers flowing out of Greenland's inland into the sea. It alone is responsible for

producing at least one-tenth of the icebergs calving off into the sea from the entire island of Greenland, making it the island's most productive glacier.

Between 2001 and 2005, a massive breakup of the Jakobshavn glacier erased 36 square miles (94 square kilometers) from the ice field and raised the awareness of worldwide of glacial response to global climate change.

The researchers are using images updated daily from National Aeronautics and Space Administration satellites and from time-lapse photography from cameras monitoring the margin of these and other Greenland glaciers. Additional support for this project came from NASA.

Source: Ohio State University

Citation: Satellite images show continued breakup of 2 of Greenland's largest glaciers (2008, August 21) retrieved 3 May 2024 from <https://phys.org/news/2008-08-satellite-images-breakup-greenland-largest.html>

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