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## **Vast cracks appear in Arctic ice**

By David Shukman

Environment correspondent, BBC News

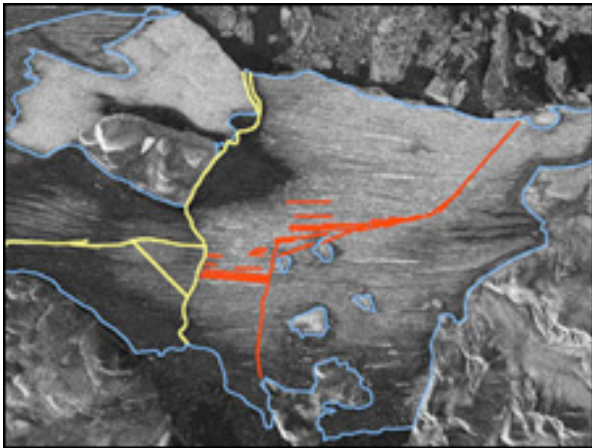
A Canadian expedition found the new cracks

Dramatic evidence of the break-up of the Arctic ice-cap has emerged from research during an expedition by the Canadian military.

Scientists travelling with the troops found major new fractures during an assessment of the state of giant ice shelves in Canada's far north.

The team found a network of cracks that stretched for more than 10 miles (16km) on Ward Hunt, the area's largest shelf.

The fate of the vast ice blocks is seen as a key indicator of climate change.



Satellite image of Ward Hunt Ice Shelf cracks

[Enlarge Image](#)

One of the expedition's scientists, Derek Mueller of Trent University, Ontario, told me: "I was astonished to see these new cracks.

"It means the ice shelf is disintegrating, the pieces are pinned together like a jigsaw but could float away," Dr Mueller explained.

According to another scientist on the expedition, Dr Luke Copland of the University of Ottawa, the new cracks fit into a pattern of change in the Arctic.

"We're seeing very dramatic changes; from the retreat of the glaciers, to the melting of the sea ice.

"We had 23% less (sea ice) last year than we've ever had, and what's happening to the ice shelves is part of that picture."

When ice shelves break apart, they drift offshore into the ocean as "ice islands",

transforming the very geography of the coastline.



Ayles Ice Island (BBC)

#### Mission to Ayles Ice Island

Last year, I was part of a BBC team that joined Dr Mueller and Dr Copland as they carried out the first research on Ayles Ice Island, an iceberg the size of Manhattan.

It has since split into two, each vast chunk of ice now 400 miles (640km) south of its original position.

The rapid changes in the Arctic have reignited disputes over territory.

The Canadian military's expedition was billed as a "sovereignty patrol", the lines of snowmobiles flying Canadian flags in a display of control.

After the record Arctic melting last year, all eyes are now on what happens to the sea ice this summer.

Although its maximum extent last winter was slightly greater than the year before, it was still below the long-term average.