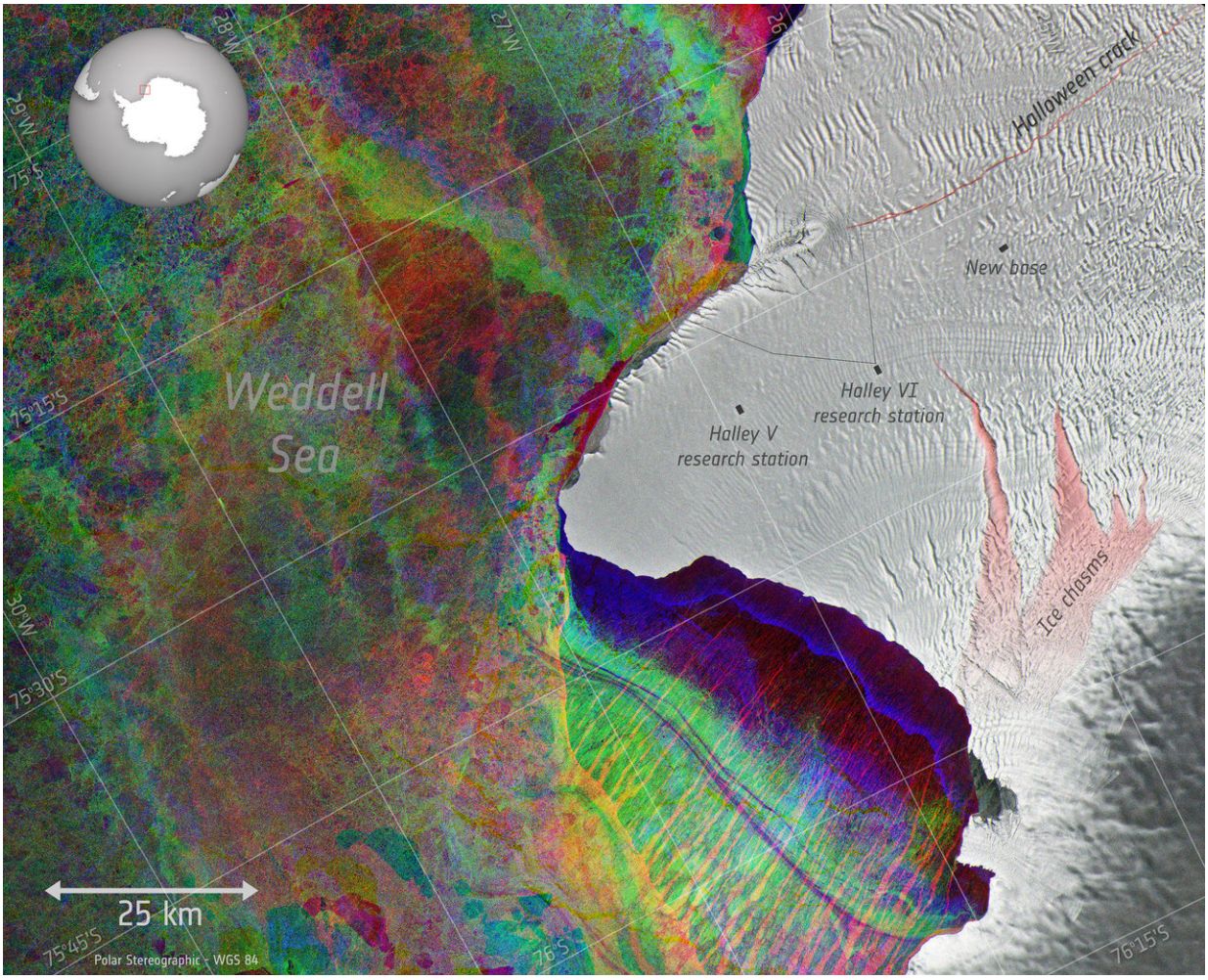
Image: The 'Halloween crack' on Antarctica's Brunt Ice Shelf

October 31 2017



Credit: contains modified Copernicus Sentinel data (2017), processed by ESA, CC BY-SA 3.0 IGO

In this image from the Copernicus Sentinel-1 satellite mission, we can see the location of the 'Halloween crack' on Antarctica's Brunt Ice Shelf, highlighted in red. The former and current locations of the British Antarctic Survey's Halley research stations are also marked.

Discovered on 31 October 2016, the swiftly lengthening Halloween crack prompted the temporary withdrawal of staff from the Halley VI research station for the duration of the 2017 Antarctic winter. Information from the Copernicus Sentinel-1 and Sentinel-2 satellites helped in making this decision.

The base had already been moved 23 km inland during last Antarctica's summer months because another ice chasm (highlighted in red) had begun to show signs of growth.

In this image, Sentinel-1's radar was also able to pick up lines in the snow and ice marking the researchers' routes from the former location of the Halley VI station to the coast and to the Halloween crack. To help us identify them, these lines have been coloured in black.

This image was created by combining three Sentinel-1 radar scans in September and October. The colours in the Weddell Sea indicate changes in sea ice between the acquisitions. A 'polynya' – an area of open water surrounded by ice – is visible in the lower-central part of the image.

Provided by European Space Agency

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