

# Antarctic ice shelf 'hangs by a thread'

March 25 2008

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British Antarctic Survey has captured dramatic satellite and video images of an Antarctic ice shelf that looks set to be the latest to break out from the Antarctic Peninsula. A large part of the Wilkins Ice Shelf on the Antarctic Peninsula is now supported only by a thin strip of ice hanging between two islands. It is another identifiable impact of climate change on the Antarctic environment.

Scientists monitoring satellite images of the Wilkins Ice Shelf spotted that a huge (41 by 2.5 km) km<sup>2</sup> berg the size of the Isle of Man appears to have broken away in recent days – it is still on the move.

Glaciologist Ted Scambos from the University of Colorado alerted colleagues Professor David Vaughan and Andrew Fleming of the British Antarctic Survey (BAS) that the ice shelf looked at risk. After checking daily satellite pictures, BAS sent a Twin Otter aircraft on a reconnaissance mission to check out the extent of the breakout.

Professor Vaughan, who in 1993 predicted that the northern part of Wilkins Ice Shelf was likely to be lost within 30 years if climate warming on the Peninsula were to continue at the same rate, says,

“Wilkins is the largest ice shelf on the Antarctic Peninsula yet to be threatened. I didn’t expect to see things happen this quickly. The ice shelf is hanging by a thread – we’ll know in the next few days or weeks what its fate will be.”

Jim Elliott was onboard the BAS Twin Otter to capture video of the

breakout for Vaughan and colleagues. He says,

“I’ve never seen anything like this before – it was awesome. We flew along the main crack and observed the sheer scale of movement from the breakage. Big hefty chunks of ice, the size of small houses, look as though they’ve been thrown around like rubble – it’s like an explosion.”

The breakout is the latest drama in a region of Antarctica that has experienced unprecedented warming over the last 50 years. Several ice shelves have retreated in the past 30 years - six of them collapsing completely (Prince Gustav Channel, Larsen Inlet, Larsen A, Larsen B, Wordie, Muller and the Jones Ice Shelf.)

Professor Vaughan continues, “Climate warming in the Antarctic Peninsula has pushed the limit of viability for ice shelves further south – setting some of them that used to be stable on a course of retreat and eventual loss. The Wilkins breakout won’t have any effect on sea-level because it is floating already, but it is another indication of the impact that climate change is having on the region.” Ted Scambos of the University of Colorado says,

"We believe the Wilkins has been in place for at least a few hundred years. But warm air and exposure to ocean waves are causing a break-up."

Source: British Antarctic Survey

Citation: Antarctic ice shelf 'hangs by a thread' (2008, March 25) retrieved 20 April 2024 from <https://phys.org/news/2008-03-antarctic-ice-shelf-thread.html>

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