

# World's biggest iceberg heads for disaster

The mass is now moving straight toward a remote south Atlantic island populated by penguins and seals. Scientists say a collision could cause a local, environmental catastrophe.

By **Marco Hernandez** and **Cassandra Garrison**

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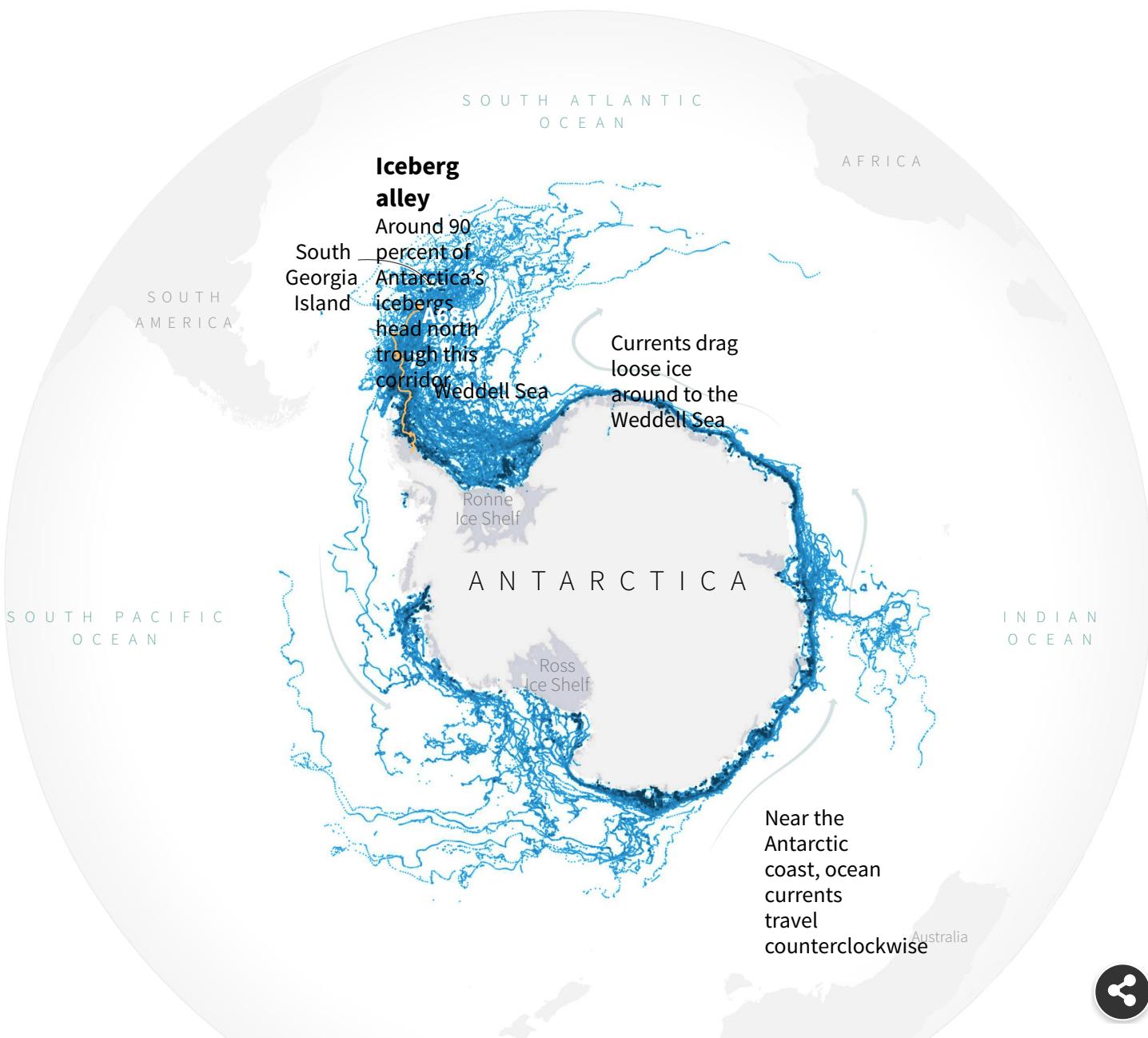
Iceberg A68a has been on a slow journey toward cataclysm.

The mass broke from the Antarctic peninsula's Larsen C ice shelf in July 2017 and headed slowly for the open ocean, sliding through the water for over two years until it hit the powerful Antarctic Circumpolar Current circling the southernmost continent.



And then, like a speed skater, it was on its way. The current propelled the berg on a fast track through what scientists call “iceberg alley,” a northeast route traveled by chunks of ice that break from the peninsula.

More than 90% of all icebergs calved from Antarctica end up traveling a near-coastal current, which moves clockwise around Antarctica before hitting the Weddell Gyre and slingshotting around to the Antarctic Circumpolar Current moving in the opposite direction. A68a broke off as a 5,800-square-kilometer mass behind that gyre, however, on the eastern side of the Antarctic peninsula. Still, the path it has taken is not uncommon. As the face of the Larsen C ice shelf has disintegrated in recent years, other bergs have traced a similar route as A68a.

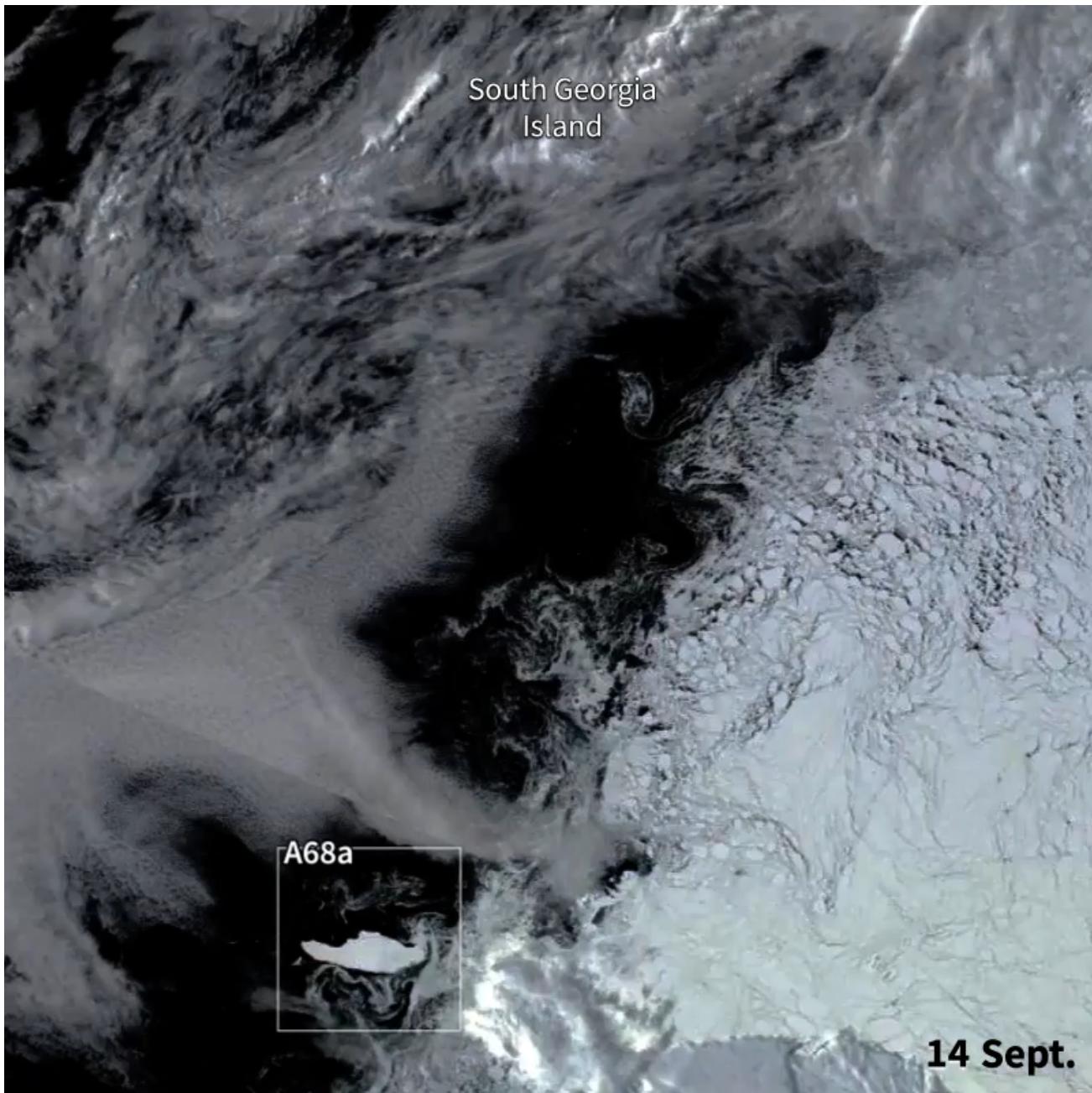


“Normally we’d expect these icebergs to break apart in the open ocean with all the wave action and turbulence,” said Geraint Tarling, a biological oceanographer with the British Antarctic Survey.

But not A68a. It’s now headed straight for South Georgia Island, a British overseas territory in the southern Atlantic, where within days it could smash into the remote world teeming with wildlife.

“It is really, really close, less than 50 kilometers away,” making a collision almost inevitable, Tarling told Reuters this week.





Timelapse of images captured by NASA's SUOMI satellite.

Scientists expect the iceberg to grind over the seabed, crushing the island's underwater life.

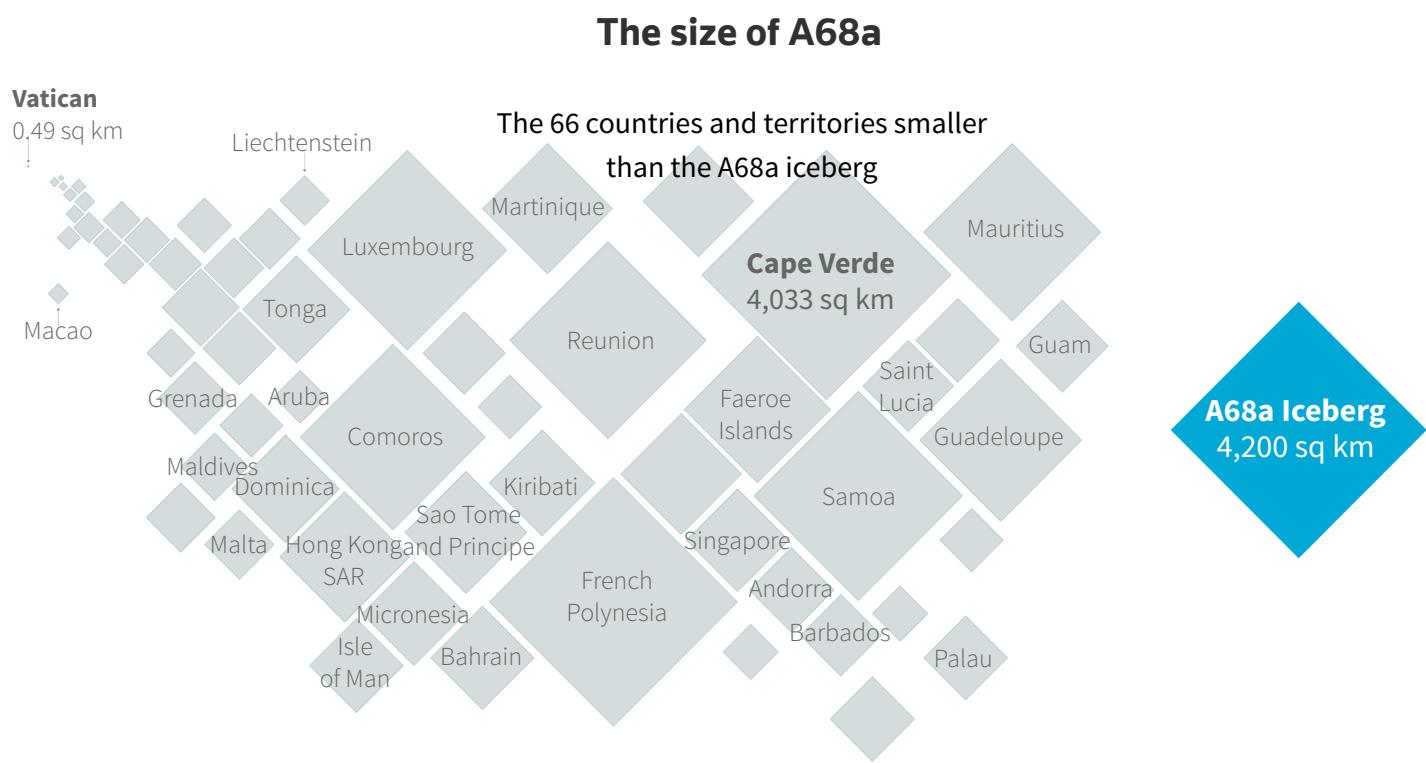
If the berg lodges at the island's flank, it could remain a fixture for up to 10 years before the ice melts or breaks away, Tarling said. That could block some of the island's 2 million penguins – including King penguins, Gentoos, Macaronis and Chinstraps – from reaching the waters to feed their young. The melting freshwater could also make the waters inhospitable for phytoplankton and other sea creatures that are crucial parts of the food chain.



"There's nothing that's really been that large before in scientific history that we've seen coming up to South Georgia," Tarling said.

The iceberg is larger than 66 countries or territories, including Singapore, Luxembourg and Brunei.

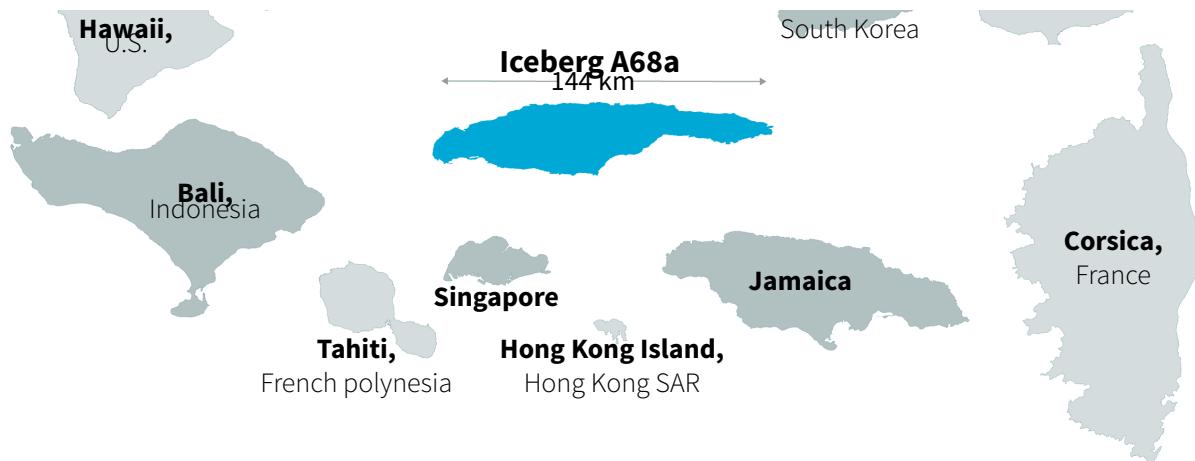
Here is how A68a compares.



The iceberg is comparable in size to many well-known islands. A68a is very similar in shape to Jamaica, almost as long as the U.S. territory Puerto Rico, and dwarfs China's Hong Kong Island as well as the Southeast Asian city state of Singapore.

Observers from the British Antarctic Survey told media that a flight last year over the A68a took about one and a half hours. The berg is so big, Royal Air Force pilots this week were unable to capture it all in one, single photograph.





## The climate debate

The saga of A68a has the scientific community debating if its calving was a consequence of climate change, and whether more such monster bergs are to come.

While icebergs are known to erratically break from glaciers and ice shelves every few years or so, there have been only five larger than A68a in the last 34 years. The biggest, B-15, measured 11,000 square kilometers when it broke from Antarctica's Ross ice shelf in March 2000.

But A68a surprised scientists for other reasons, too. "We had never seen a berg calve off as far inward as this iceberg," said Ted Scambos, a senior research scientist at the University of Colorado in Boulder. "The Larsen C that was left afterwards was smaller by quite a bit."





A view of the A68a iceberg from a Royal Air Force reconnaissance plane near South George Island, Nov. 18, 2020. UK Ministry of Defence/REUTERS

Whether climate change was directly, or partially, responsible for destabilizing Larsen C is a matter of debate. Scientists have limited understanding of how the ice behaved historically. The monitoring and tracking of polar icebergs began only in recent decades with the deployment of satellites. And the continent is influenced by other variables, including weather patterns in the tropics and strong winds.

Antarctica, however, is currently one of the fastest-warming places on Earth. Even at the South Pole, considered one of the planet's coldest spots, temperatures have risen at three times the rate of the global average over the last three decades, data show.

The warming has scientists concerned about ice melt. Antarctica holds enough freshwater that, should it eventually pour into the sea, it alone could raise sea levels by some 2.5 meters.

At sea, the iceberg has diminished only slightly from its original size and now measures 4,200-square-kilometer iceberg – even bigger than South Georgia Island – with a number



of smaller ice chunks bobbing nearby.

Images from a British Royal Air Force aircraft show the mass has been carved by the elements into smooth tunnels and curves in some places. The surface is marked by cracks and fissures.



A view of A68a iceberg from a Royal Air Force reconnaissance plane near South George Island, Nov. 18, 2020. UK Ministry of Defence/REUTERS

## Environmental catastrophe

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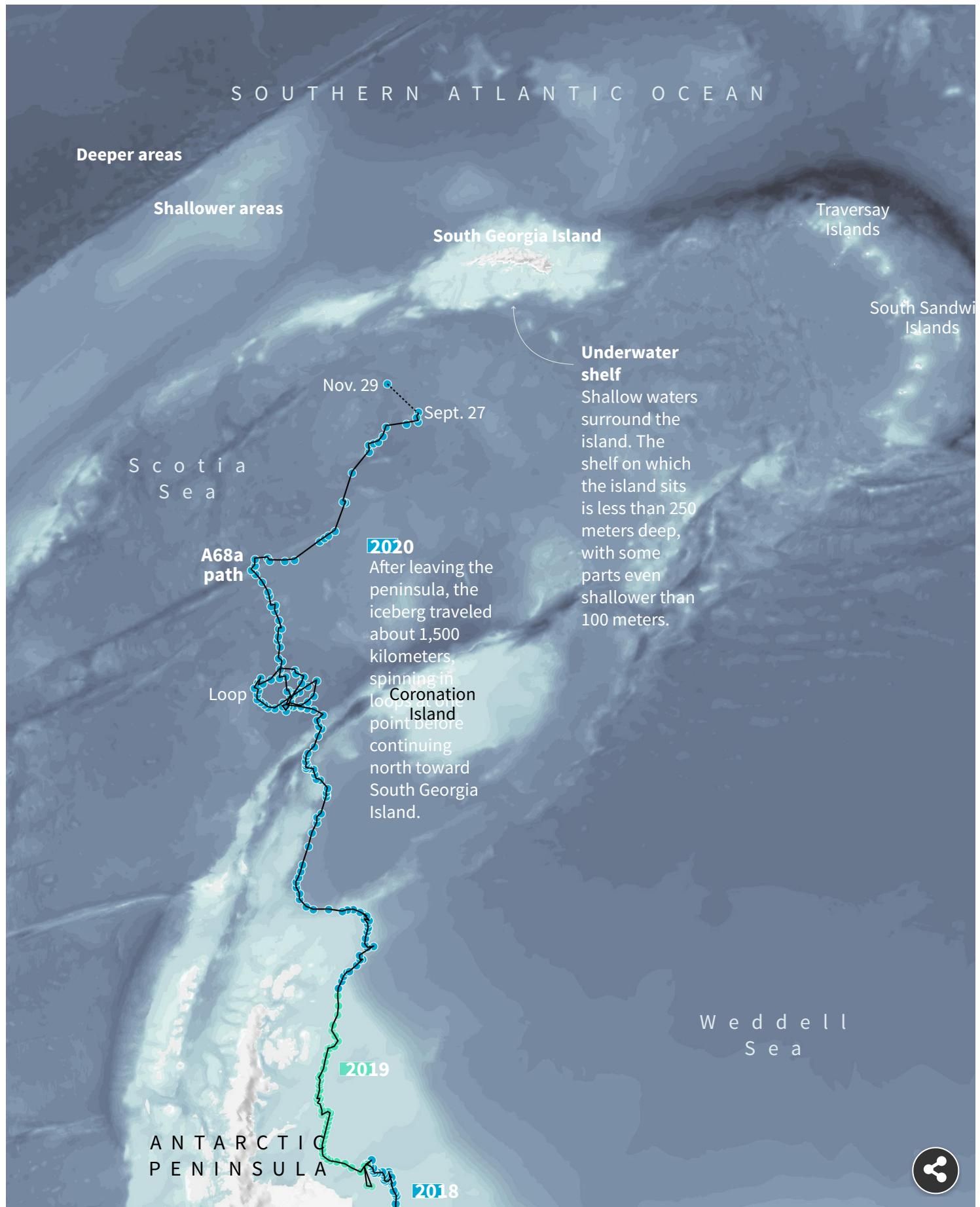
As the iceberg approaches, underwater obstacles begin to present themselves. If it comes close enough, it could run aground on the broad, underwater shelf that surrounds the island.

"What we're particularly worried about is that this iceberg doesn't have a very deep keel," Tarling said. "So the amount of iceberg under the water isn't as much as you would normally expect for an iceberg like this."

That means the berg could slide over the shelf and get "very close to the coastline," he said. "If it's gouging out, scouring the surface, you're devastating these populations on the



seabed."



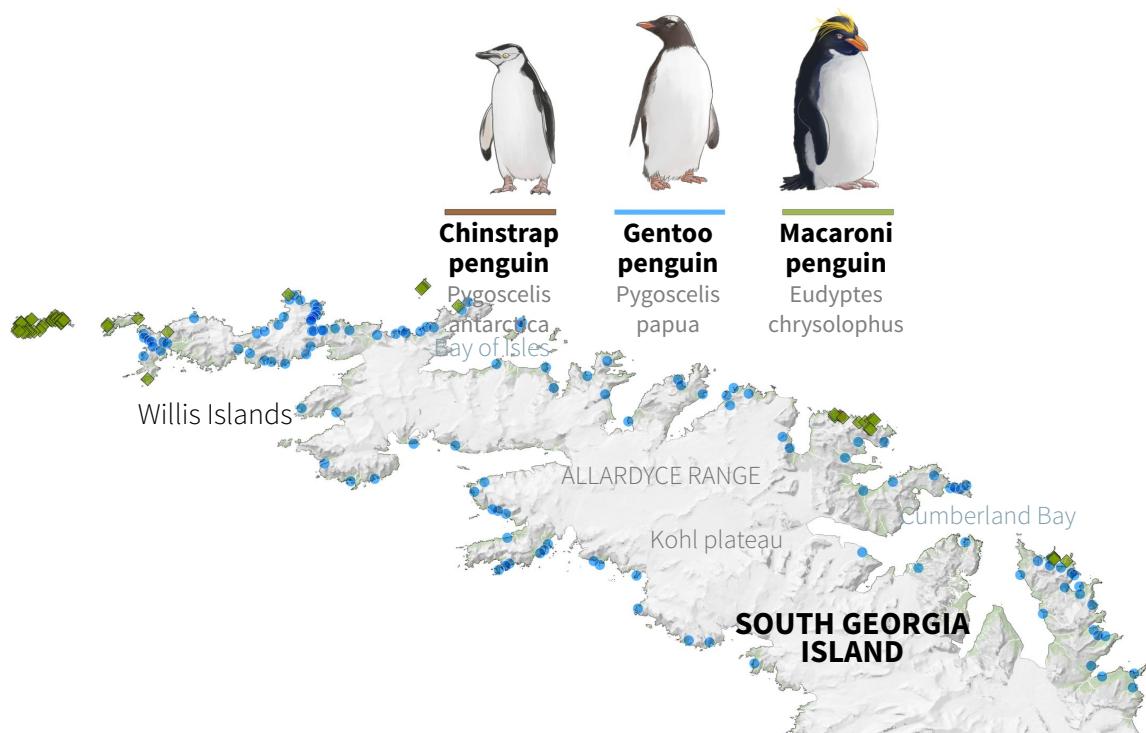


If A68a parks alongside South Georgia, the island wildlife could be in trouble, said Norman Ratcliffe, a seabird biologist at the British Antarctic Survey.

The resident King penguins typically spend 16 days making a round trip to collect food in their bellies which they then regurgitate for their young. If the trip takes much longer, chicks could go hungry and even die.

## Penguin island

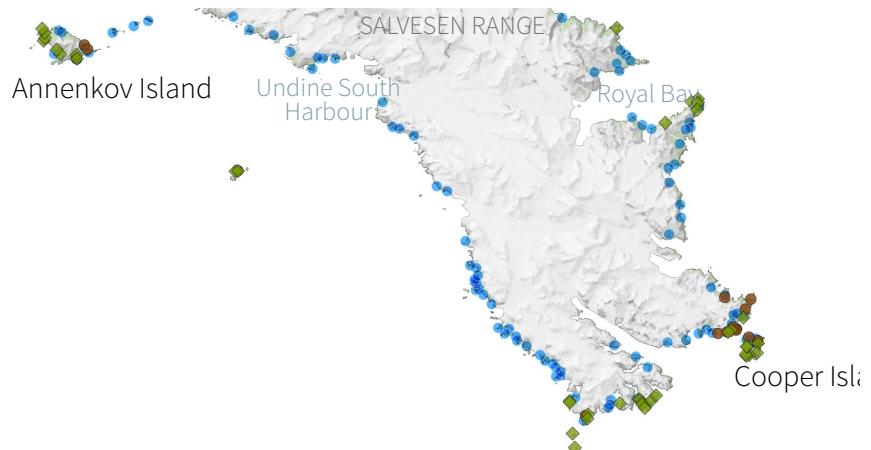
According to the IUCN, South Georgia Island is home to about 450,000 King penguins, among other species.





**King penguin**

Aptenodytes  
patagonicus  
(no geodata  
available)



The timing of the iceberg's likely collision couldn't be worse. Many penguin chicks are due to hatch near the end of December.

Ratcliffe estimates that, if this year's chicks die, that could eventually cut the island's penguin population by 10% because these chicks would not be around to reach breeding age.

"The chicks generally need to be fed daily, especially when they're very small," Ratcliffe said. "If they're not able to get that, it can be quite costly in terms of their survival. Gentoo penguins are quite prone to a complete colony failing if feeding conditions are poor."

Seals may fare better against the iceberg obstacle, as they produce milk to nurse their pups and can go longer than penguin parents without making trips to feed, Ratcliffe said.

Whether and when the berg hits the island, and how bad the damage might be, remains to be seen. For now, all scientists can do is watch the satellite footage - and wait.

#### **Correction:**

In an earlier version of this article, the story incorrectly stated the iceberg was a similar size to Jamaica. This has been changed to say a similar shape to Jamaica.

**By**

Marco Hernandez and Cassandra Garrison



## Sources

The Antarctic Iceberg Tracking Database, Brigham Young University - NASA.  
National Snow and Ice Data Center (NSIDC).  
Red List of Threatened Species (IUCN).  
British Antarctic Survey (BAS).  
GLIMS Glacier Database, Colorado University.  
Suomi-VIIRS satellite imagery, NASA.  
United Nations Statistics Division (UNSD).

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