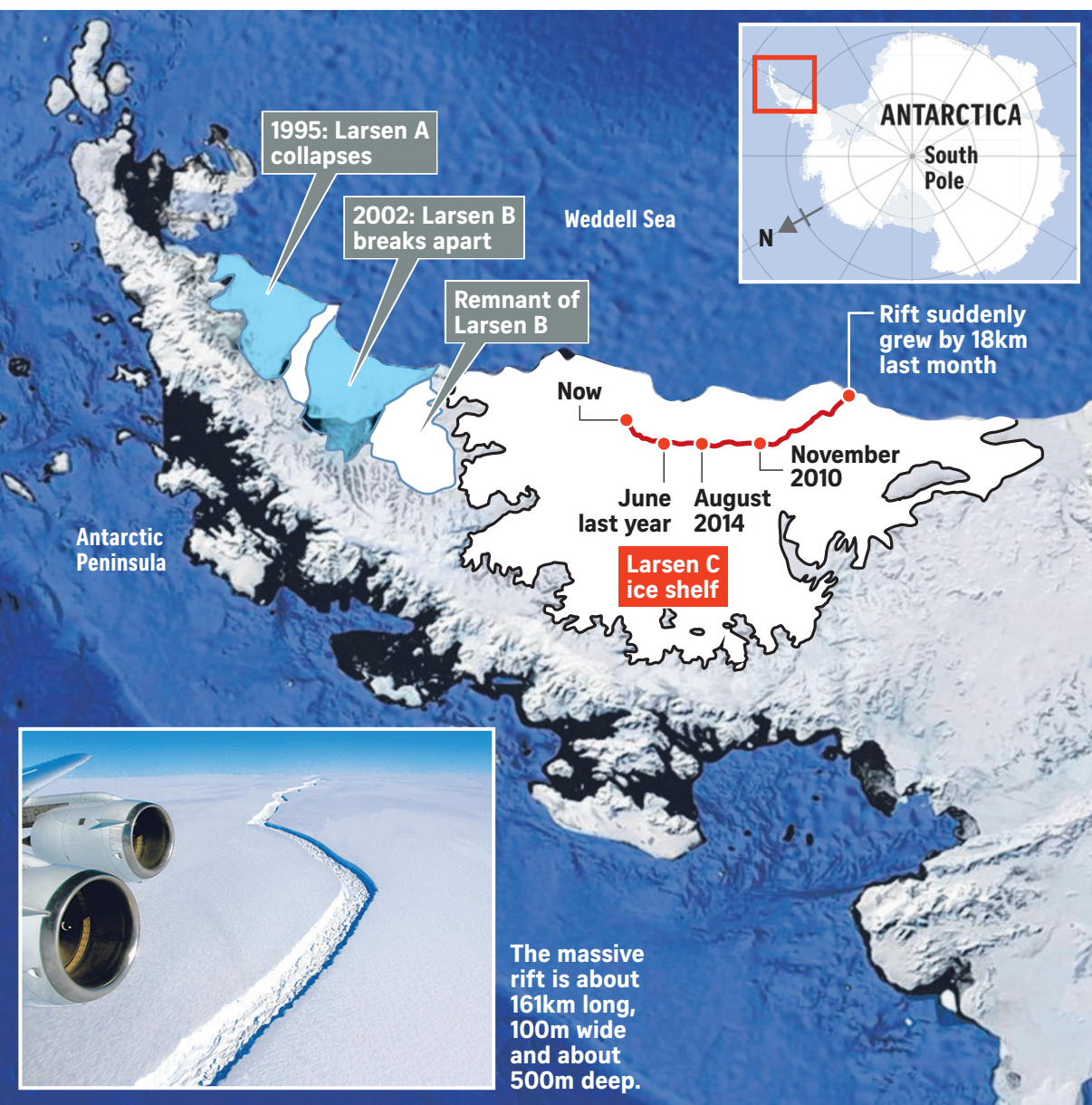
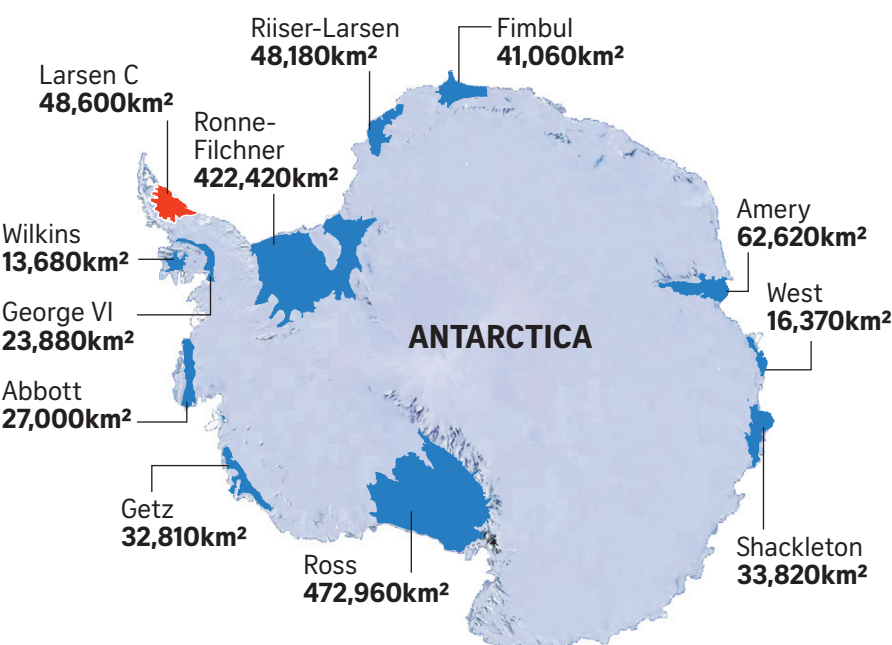


Rift in Larsen C ice shelf

Scientists warn that Antarctica's fourth-largest ice shelf is nearing breaking point. A huge crack abruptly appeared in the Larsen C ice shelf last month, and has been growing dramatically since.



ICE SHELVES ON ANTARCTICA



HOW BIG WILL THE BROKEN-OFF ICE BE?

- Once the section of Larsen C ice shelf breaks off, it will produce an iceberg about 350m thick, covering an area as big as 5,000km²,

roughly seven times the size of Singapore.

- Because the ice shelf is floating in the ocean, the break-up would not directly raise sea levels.
- With the mass of ice shelf gone from Larsen C, glacial ice could slip into the sea unhindered, and global sea levels might rise by an estimated 10cm.

WHAT IS AN ICE SHELF?

- A permanent floating sheet of ice which connects to a land mass.
- Most of the world's ice shelves hug the coast of Antarctica.
- An ice shelf can also form wherever ice flows from land into cold ocean waters.

WHAT IS HAPPENING TO ICE SHELVES?

- Calving occurs when ice shelves split and create large icebergs. The slow ice separation normally takes months to years.
- Ice shelves generally recover over decades following a calving.
- But in the last 30 years, scientists observed a series of unusual ice shelf collapses on the Antarctic Peninsula.
- The collapses in previous years happened over a period of weeks, leaving a soup of chunky ice and small icebergs. The remaining ice shelves retreated by as much as 90 per cent, and several have experienced repeated collapses.

WHAT CAUSES AN ICE SHELF TO COLLAPSE?

- Climate change such as warmer air and water temperatures, increased melt on the ice shelf surface and retreating sea ice.
- As sea ice decreases, more waves buffet the ice shelves. The largest waves can buckle and bend an ice shelf, increasing instability and contributing to a collapse.

