

## Explaining the beast from the east

A person walks in front of the San Francesco di Paola Basilica during a snowfall. | Photo Credit: [AP](#)

Countries in Europe are grappling with extreme cold weather conditions, with meteorological departments warning of heavy snowfall and further deep-freeze on Thursday. The temperature is reported to have dropped below -20 degree Celsius in parts of Europe as the Storm Emma is also expected to hit. More blizzards are expected throughout the weekend.

The cold weather has been dubbed "The Beast from The East" in Britain, "Siberian bear" by the Dutch, and "snow cannon" by the Swedes.

### Why is Europe so cold?

It has been triggered by a phenomenon known as Sudden Stratospheric Warming (SSW). SSW occurs when there is a jump in temperatures in the stratosphere which is often linked to the onset of colder winters.

The Arctic Circle is experiencing a much warmer winter compared to Europe over the past few days. The stratospheric warming due to the rise in temperature over the Arctic has 'wobbled' the jet stream which brings mild air from the Atlantic to UK. The end result is that cold air from eastern Europe and Russia (hence, 'beast from the east') is driven towards the western parts of the continent, including the UK.

"When an SSW brings easterly winds this tends to alter the weather patterns slightly in Europe, weakening areas of low pressure and moving the jet stream further south. This leads to high pressure over the North Atlantic, 'blocking' that flow of mild Atlantic air and dragging in cold air from the continent to the east," explains the U.K. [Met Office](#).

The extreme event continues to unfold in the high [#Arctic](#) today in response to a surge of moisture and "warmth"

2018 is well exceeding previous years (thin lines) for the month of February. 2018 is the red line. Average temperature is in white (<https://t.co/kO5ufUWrKq>) [pic.twitter.com/cLeMxSxvWo](https://pic.twitter.com/cLeMxSxvWo)

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