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## Antarctic ice streams controlled by the Moon

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Scientists in Antarctica have found striking evidence for the influence of the Moon on large-scale terrestrial phenomena. The Moon, it now appears, influences the movement of ice flowing off the continent's glaciers.

In Antarctica streams of ice move large amounts of ice down from the centre of glaciers towards the ocean, dumping the ice far out into the sea, sometimes creating icebergs.

Some ice streams move rapidly, up to 1km (0.6 miles) per year; others are slow. The Rut-ford ice stream is a river of ice larger than the Netherlands, which drains the West Antarctic ice sheet. Scientists recently discovered a bizarre behaviour in this ice stream — it speeds up and slows down by as much as 20 per cent every two weeks.

This regular rhythm coincides with the fortnightly tidal cycle of the sea, when the gravitational pulls of the Moon and the Sun are either working together in large spring tides, or working against each other, in small neap tides.

The British Antarctic Survey glaciologist, Hilmar Gudmundsson, was amazed at these findings. "We've never seen anything like this before. The discovery that the spring-neap tidal cycle exerts such a strong influence on an ice stream tens of kilometres away is a total surprise. For such a large mass of ice to respond to ocean tides like this illustrates how sensitively the Antarctic ice sheet reacts to environmental changes."