



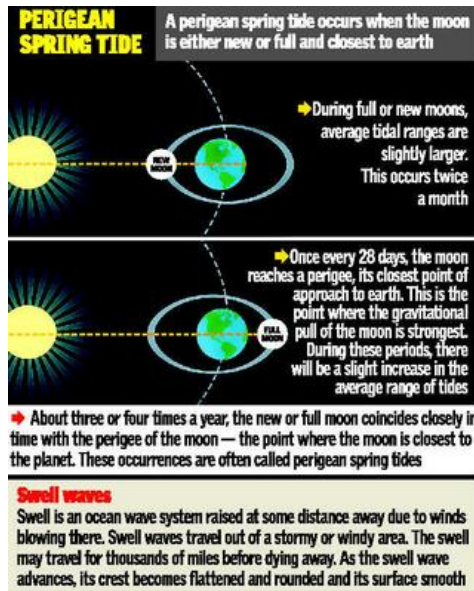
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Spring tide, swell waves caused tidal flooding



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The tidal flooding and high wave activity reported from parts of the southern Kerala coast over the past few days were caused by the combined effect of a perigean spring tide and high swell waves originating in the southern Indian Ocean, according to scientists at the Indian National Centre for Ocean Information Services (INCOIS), Hyderabad.

While the freak flooding since August 29 had triggered panic along the Alappuzha coast, the Vizhinjam coast in Thiruvananthapuram was battered by high waves, affecting fishing activities.

The INCOIS issued a tidal flood alert on August 29, followed by a high wave warning for the coastal belt from Vizhinjam to Kasaragod for Tuesday and Wednesday.

Spring tides are especially strong high tides that occur during the full moon and new moon when the sun and moon are aligned with the earth, resulting in a collective gravitational pull on the earth's water.

When spring tide coincides with high swell waves, it results in coastal erosion and flooding.

It is estimated that the tidal surge since August 29 is two metres high.

A perigean spring tide, also known as King tide, occurs during a Supermoon when the moon is closest to the earth (less than 3,60,000 km) during its orbit. Supermoons during the year 2015 are January 20 (new moon), February 18 (new moon), March 20 (new moon), August 29 (full moon), September 28 (full moon) and October 27 (full moon).

According to T.M. Balakrishnan Nair, Head, Ocean Science and Information Services group, INCOIS, the perigean spring tide on August 29 had coincided with high swell waves that originated in the southern Indian Ocean near Australia.

Triggered by turbulent weather conditions, such swells are known to propagate northward to the Arabian Sea and Bay of Bengal, causing freak flooding along the southern Indian coast.

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