



Coastal and oceanic extreme waves 2008 - 2017

Title

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Description

Extreme wave events can damage marine ecosystems and affect coastal infrastructure, ocean-based industries, and other human activities. Changing wave characteristics can have impacts on natural systems, as most coastal and near-shore biological communities can be damaged or destroyed by extreme wave action (Ummenhofer & Mehl, 2017). In another example, extreme waves can disrupt ferries such as those crossing the Cook Strait. Sailings are often cancelled when significant wave heights exceed six metres. It is important to report on extreme waves to gain greater insight into their frequency, particularly as sea level and storm surges are projected to increase and can compound wave effects. In this dataset, an extreme wave event is defined as a continuous 12-hour period during which the significant wave height equals or exceeds one of three height thresholds: four, six, or eight metres. Four-metre-tall waves are considered extreme in the northern-most parts but are more common in the south. For the southern-most parts of New Zealand, eight-metre waves better represent extreme wave events.

Source

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