



Ocean and coastal extreme waves (6m), 2009

Title	Ocean and coastal extreme waves (6m), 2009
Creator	Stats NZ
Date	2009
Date	2019-10
Description	<p>These data estimate the occurrence of extreme wave events in coastal and oceanic waters for 2009, particularly for wave events where significant wave height exceeds a threshold of 6 metres and for a period of at least 12 hours. Significant wave height is defined as four times the square root of the variance of sea surface elevation due to wave motion.</p>
Source	<p>This index was generated using NIWA's operational wave forecasting model NZWAVE-12 (Gorman, 2016). This model has a 12-kilometre resolution and models wave heights. The model was created using: • wind from NIWA's NZLAM-12 weather forecast model • swell from NIWA's global wave forecast model We use a duration threshold of 12 hours as it allows semi-diurnal tides to cover their full low water to high water range. This means that there was both a high tide (when overtopping and damage to coastal infrastructure, for example, is most likely) and a low tide during an event. Gorman, R (2016). Extreme wave indices for New Zealand coastal and oceanic waters. NIWA Client Report HAM2016-014 prepared for the Ministry for the Environment.</p>
Coverage	-54.49219 143.2617 -20.82031 184.6289
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Subject	MARINE-Coasts
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