



## Number of extreme wave events exceeding 4m in oceanic regions, 2008–15

### Metadata

#### File Identifier

252d34de-3967-2425-161c-a09f62a34294

#### Language

eng

#### Character Set

##### Character Set Code

utf8

#### Hierarchy Level

##### Scope Code

dataset

#### Hierarchy Level Name

dataset

### Contact

#### Responsible Party

##### Organisation Name

Environmental Reporting, Ministry for the Environment and Statistics New Zealand

##### Position Name

Analyst

#### Contact Info

##### Contact

##### Address

##### Address

##### Delivery Point

23 Kate Sheppard Place, PO Box 10362

##### City

Wellington 6143

##### Country

New Zealand

##### Electronic Mail Address

Environmental.Reporting@mfe.govt.nz

**Role****Role Code**

distributor

**Date Stamp****Date**

2016-10-23

**Metadata Standard Name**

ANZLIC Metadata Profile: An Australian/New Zealand Profile of AS/NZS ISO 19115:2005, Geographic information - Metadata

**Metadata Standard Version**

1.1

**Reference System Info****Reference System****Reference System Identifier****Identifier****Code**

2193

**Identification Info****Data Identification****Citation****Citation****Title**

Number of extreme wave events exceeding 4m in oceanic regions, 2008–15

**Date****Abstract**

Extreme wave indexes estimate the occurrence of extreme wave events in coastal and oceanic waters. Extreme wave indexes estimate the number of times a significant wave height exceeds one of three threshold values for at least 12 hours in 24 marine regions. The three wave-height thresholds are four metres, six metres, and eight metres. This indicator estimates the exceedances of wave-height thresholds for each year from 2008 to 2015 in oceanic regions around New Zealand. Significant wave height is a measure of the 'typical' wave height in a place over a time period. It is four times the standard deviation of the water surface if, for example, you were to measure water moving up and down a jetty piling for an hour. The largest individual wave will typically have a height around twice the significant wave height. We use three wave-height thresholds because of the regional variation in extreme wave events. In general, the north experiences less exposure to consistently strong winds, and the waves generated by them, than the south. Four-metre tall waves are considered extreme in the northern-most parts of New Zealand but are more common in the south. For the southern-most parts of New Zealand, eight-metre waves better represent extreme wave events. This dataset relates to the number of extreme wave events exceeding the four metre threshold in oceanic regions.

## Status

### Progress Code

completed

## Point Of Contact

### Responsible Party

#### Organisation Name

Environmental Reporting, Ministry for the Environment and Statistics New Zealand

#### Position Name

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### Role

#### Role Code

distributor

## Resource Maintenance

### Maintenance Information

#### Maintenance And Update Frequency

##### Maintenance Frequency Code

irregular

## Resource Format

### Format

#### Name

\*.xml

#### Version

Unknown

## Descriptive Keywords

### Keywords

#### Keyword

New Zealand

Type

Keyword Type Code

theme

Thesaurus Name

Citation

Title

ANZLIC Jurisdictions

Date

Edition

Version 2.1

Edition Date

Date

2008-10-29

Identifier

Identifier

Code

<http://asdd.ga.gov.au/asdd/profileinfo/anzlic-jurisdic.xml#anzlic-jurisdic>

Cited Responsible Party

Responsible Party

Organisation Name

ANZLIC the Spatial Information Council

Role

Role Code

custodian

Descriptive Keywords

Keywords

Keyword

MARINE

Keyword

MARINE-Biology

Keyword

FAUNA-Vertebrates

Keyword

ECOLOGY-Habitat

Keyword

BOUNDARIES

Type

Keyword Type Code

theme

Thesaurus Name

Citation

Title

ANZLIC Search Words

Date

Edition

Version 2.1

Edition Date

Date

2008-05-16

Identifier

Identifier

Code

<http://asdd.ga.gov.au/asdd/profileinfo/anzlic-theme.xml#anzlic-theme>

Cited Responsible Party

Responsible Party

Organisation Name

ANZLIC the Spatial Information Council

Role

Role Code

custodian

Resource Constraints

Legal Constraints

Use Limitation

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Access Constraints

Restriction Code

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##### Restriction Code

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## Language

eng

## Character Set

### Character Set Code

utf8

## Topic Category Code

environment

## Extent

### EX \_ Extent

#### Geographic Element

##### EX \_ Geographic Description

###### Identifier

###### Authority

###### Citation

###### Title

ANZMet Lite Country codelist

###### Date

###### Edition

Version 1.0

###### Edition Date

###### Date

2009-03-31

###### Identifier

###### Identifier

###### Code

<http://asdd.ga.gov.au/asdd/profileinfo/anzlic-country.xml#Country>

###### Cited Responsible Party

###### Responsible Party

###### Organisation Name

ANZLIC the Spatial Information Council

###### Role

Role Code

custodian

Code

nzl

Extent

EX \_ Extent

Geographic Element

EX \_ Geographic Bounding Box

160.609831-171.200739-55.949296-25.888259

Distribution Info

Distribution

Transfer Options

Digital Transfer Options

On Line

Online Resource

Linkage

URL

<https://data.mfe.govt.nz/layer/53503-number-of-extreme-wave-events-exceeding-4m-in-oceanic-regions-200815/>

Data Quality Info

DQ \_ Data Quality

Scope

DQ \_ Scope

Level

Scope Code

dataset

Level Description

Scope Description

Other

dataset

Lineage

LI \_ Lineage

Statement

Source: NIWA Method: We only include wave events where the relevant height threshold was exceeded for a minimum of 12 hours. 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. We estimate extreme wave indexes for 24 regions around New Zealand, comprising 18 coastal and six oceanic regions. The 18 coastal regions cover the area from the shoreline to 100km from the coast and correspond to those used by the MetService for marine weather forecasts. The six oceanic regions cover New Zealand's Exclusive Economic Zone. The indexes were generated using NIWA's operational wave forecasting model (NZWAVE-12). This model has a 12km resolution and models wave heights using: - wind from NIWA's NZLAM-12 weather forecast model - swell from NIWA's global wave forecast model For

more information on methodology, including limitations, please refer to Gorman (2016).

#### Metadata Constraints

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##### Access Constraints

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