

# Tsunami Threat Level Map

## Quick Statistics

**Earthquake size and source:**  
M8.9, near east coast of Honshu Japan

**Time of earthquake:**  
1846 NZDT 11/03/2011

**First estimated tsunami arrival time in NZ:**  
0623 NZDT 12/03/2011  
(North Cape)



### NOTE:

1. The stated threat levels may apply to any one of the series of waves generated by the event and not necessarily to the first wave. The first wave is not always the largest or highest and waves are likely to continue for many hours.
2. The threat levels suggest the largest wave at any coastal point inside the zone. Wave heights will vary within a zone.
3. The amplitudes do not include the tidal state (sea level) at the time the wave reaches the shore.
4. The estimate is for the maximum expected wave amplitude at shore. Run-up can be up to twice as high on steep slopes onshore near the coast, i.e. a wave measuring 5m at shore can run up as high as 10m on-land near the shore.
5. The colours used to illustrate threat levels do not relate to the colours used for evacuation zones (red, orange, yellow – see *Tsunami Evacuation Zones DGL08/08, MCDEM*).
6. The expected wave amplitudes (crest to sea level) at the shore are likely to be different to measurements given in PTWC bulletins. PTWC measurements are taken at sea level gauges in the open ocean or at coastal points off-shore from New Zealand. MCDEM information represents the official threat estimates.

Maximum expected amplitude at shore	Threat definition
<20cm	No threat
20cm-1m	Threat to beach, harbours, estuaries & small boats
1m-3m	Minor land threat
3m-5m	Moderate land threat
5m-8m	High land threat
8m+	Severe land threat

Last updated: 0120 NZDT 12/03/2011