



SITUATION

- An earthquake of magnitude 7.8 M at a depth of 23 km occurred in the area north of Christchurch, in the South Island of New Zealand on 13 November at 11.02 UTC. The epicentre was located 53 km north-northeast of Amberley (Hurunui district). USGS PAGER indicated a shaking up to "Very Strong" for 240 000 people. Several strong aftershocks have been recorded in the area, with a maximum magnitude of 6.5 M.
- PTWC issued a Tsunami Threat Message few minutes after the event for the eastern coast of New Zealand and it was lifted 4 h 30 min later. Sea level measurements indicate that a tsunami occurred: a wave of about 1.5 m was detected in Kaikoura few minutes after the event. JRC calculations indicated a max. tsunami of about 1.5 m (GDACS Orange Alert); following online calculations reduced this initial estimation to 0.7 m.
- As of 14 November, media reported two dead, more than 20 people injured, over 1 000 people evacuated and several roads closed in northern Canterbury region. They also reported, that many schools will remain closed in the regions of Canterbury (South Island) and Wellington (North Island). As of the same date, the Ministry of Civil Defence and Emergency Management has issued a state of emergency for Kaikoura.
- Weather Forecast for the next 24 h: Heavy rain for western and northern areas of South Island and for central and southern areas of the North Island. Strong winds (gusts up to 140 km/h) for Taranaki, Wellington, Wairarapa and Marlborough.

Source: GDACS, USGS, PTWC-NOAA, MCDem, New Zealand Met Service, Local Media

Earthquake magnitude

- 4.0 – 5.0 M
- 5.0 – 6.0 M
- 6.0 – 7.0 M
- 7.0 – 8.0 M

Regions affected

Tsunami Travel Time

Max Coastal Wave Height (JRC)

- < 0.5 m
- 0.5 – 1m
- 1m – 1.5m

Max Wave Height m(JRC)

- 0.1 - 0.25
- 0.25 - 0.5
- 0.5 - 0.75
- 0.75 - 1
- 1 - 1.5
- 1.5 - 2
- 2 - 3
- >3

GDACS Alert

- Moderate event
- Potential local disaster

Modified Mercalli scale (MMI)
(showing intensities from Strong to Severe)

PERCEIVED SHAKING	Moderate	Strong	Very strong	Severe
Very light	6.2	12	22	40
POTENTIAL DAMAGE	4.7	9.6	20	41
INSTRUMENTAL INTENSITY	V	VI	VII	VIII

Legend:

- People dead
- People injured
- People evacuated
- Landslides