National Earthquake Alerts Centre





FeltGrid

Geoscience Australia's FeltGrid provides near-real-time maps of publicly reported shaking intensity following an earthquake, and is derived from the Did-You-Feel-It (DYFI) system developed by USGS. FeltGrid has been introduced by Geoscience Australia to provide situational awareness support to Australian emergency management agencies, and the public.

The FeltGrid system operating at GA is an automated application which uses individual reports of observed shaking intensity and potential damage, received through GA's online 'Felt Report' form. The system translates these reports into a map of average reported shaking intensity, rendered at pre-set spatial scales on GA's earthquakes website (https://earthquakes.ga.gov.au/).

Average shaking intensity is presented in terms of the Modified Mercalli Intensity scale (MMI). As intensity refers to the 'real-world' effects actually experienced at a place, MMI is considered a more meaningful measure of severity for the non-scientist, than earthquake magnitude (source: USGS).

A FeltGrid is produced for any published earthquake for which GA receives more than two felt reports within a gridded cell. This includes small Australian earthquakes as well as large regional earthquakes which are felt in Australia - e.g., Banda Sea earthquakes felt in the Darwin area.

The FeltGrid appears on the website as soon as felt-reports are assigned to a published earthquake, and the FeltGrid updates automatically as new felt-reports are received and assigned, thereafter.

FeltGrid is rendered at four spatial scales, decreasing from 20x20km, to 10x10km, to 5x5km and down to 1x1km gridded squares, as you zoom in. The Felt Grid is colour coded to the MMI scale, and average MMI values for each grid-cell are displayed by clicking on each cell.

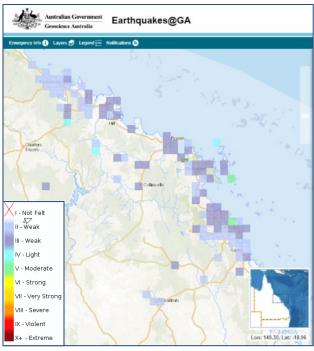


Figure: FeltGrid for the 15 April 20, ML 5.0 offshore Bowen earthquake. The FeltGrid combines information from nearly 1200 felt reports provided by members of the public through Geoscience Australia's earthquakes website.

Further Information

GA's implementation of FeltGrid, see: eCat 132512

For more information about the Modified Mercalli Intensity scale (MMI), see: https://www.usgs.gov/natural-hazards/earthquake-hazards/science/modified-mercalli-intensity-scale



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