Large Event Memorandum #101

Myanmar 28th March 2025



• LIVE Huge quake kills at least 144 in Myanmar, with many trapped as buildings collapse in Thailand

Hundreds are also injured in Myanmar, according to an army general, as the 7.7 magnitude quake is felt in neighbouring countries.

Image and Headline courtesy of https://www.bbc.com/news 1605 GMT 28th March 2025 Also Map below right



The death toll was reported at 144 within 12 hours. This will inevitably rise, possibly substantially.



At 0621 (GMT) a Magnitude 7.7 quake struck near Mandalay;

Just 12 minutes later a secondary event (M = 6.4) occurred less than 40 km from the main shock.

Both were shallow events reported as 10 km depth. 1

There was very severe damage in **<u>Bangkok</u>** where a high rise building collapsed. A search for 80+ construction workers is under way.

Bangkok is approximately 1,000 km from the event epicentre.

Cities in neighbouring countries are: Dhaka (Bangladesh 600 km); Kunming (Yunnan, China, Population 8.5 million 760 km); Kolkata (India 800 km); Vientiane (Laos 800 km); Thimphu (Bhutan 900 km) and Hanoi (Vietnam 1,000 km).





M 7.7 - 2025 Mandalay, Burma (Myanmar) Earthquake

2025-03-28 06:20:54 (UTC) 22.013°N 95.922°E 10.0 km depth

The above headline and the ShakeMap to the right are both screenshots courtesy of the U S Geological Survey ("USGS").

Readers are referred to

https://en.wikipedia.org/wiki/2025 Myanmar

<u>earthquake</u> for a general review. Sources are generally given for those for whom provenance is important.

The maximum ground motion area is (roughly)

a North-South rectangle and hence the

reducing peak ground acceleration contours

roughly follow a similar shape



The Wikipedia Article includes the following section (at 28th March, 2025):

Estimations of losses

The USGS Prompt Assessment of Global Earthquakes for Response (PAGER) service estimated a 35 percent probability of economic losses between US\$10 billion and US\$100 billion and a 33 percent probability of economic losses exceeding US\$100 billion; higher estimates of economic losses exceed Myanmar's GDP of \$64.2 billion.[94] The service also estimated a 36 percent probability of deaths exceeding 100,000 and a 35 percent probability of deaths between 10,000 and 100,000.[3]

Even lower ends of the (admittedly very wide) ranges suggest a very serios economic and human event.

Earthquake Model "Tremblor": main takeaway

It reaffirms the difficulty of "early doors" estimations, The insurance industry in Myanmar is embryonic at best. The industry response/exposure in Thailand, however, will be interesting, given its 2011 Floods "wake up call".

When we establish catalogues for modelling we extend country extremes by 500 km. This has never been questioned and still seems reasonable. However, the experience here of substantial damage to single risks at a distance of 1,000 km supports the argument that a lower figure is optimistically benign!

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