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Earthquake Shaking Green Alert

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# M 5.4, 89 km SSE of Panguna, Papua New Guinea

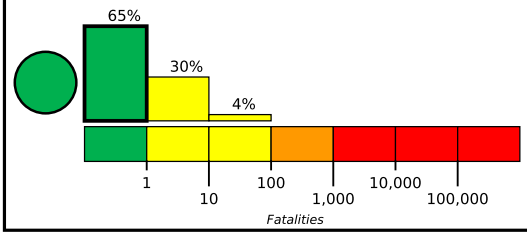
Origin Time: 2020-11-16 22:45:26 UTC (Tue 09:45:26 local)
Location: 7.0917° S 155.7314° E Depth: 69.9 km

**PAGER Version 1**

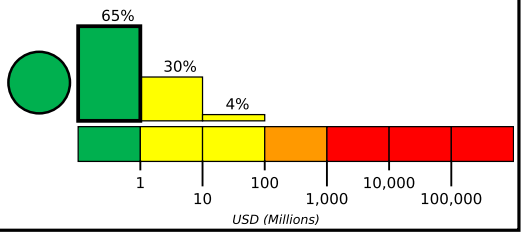
Created: 21 minutes, 59 seconds after earthquake

## Estimated Fatalities

Green alert for shaking-related fatalities and economic losses. There is a low likelihood of casualties and damage.




## Estimated Economic Losses



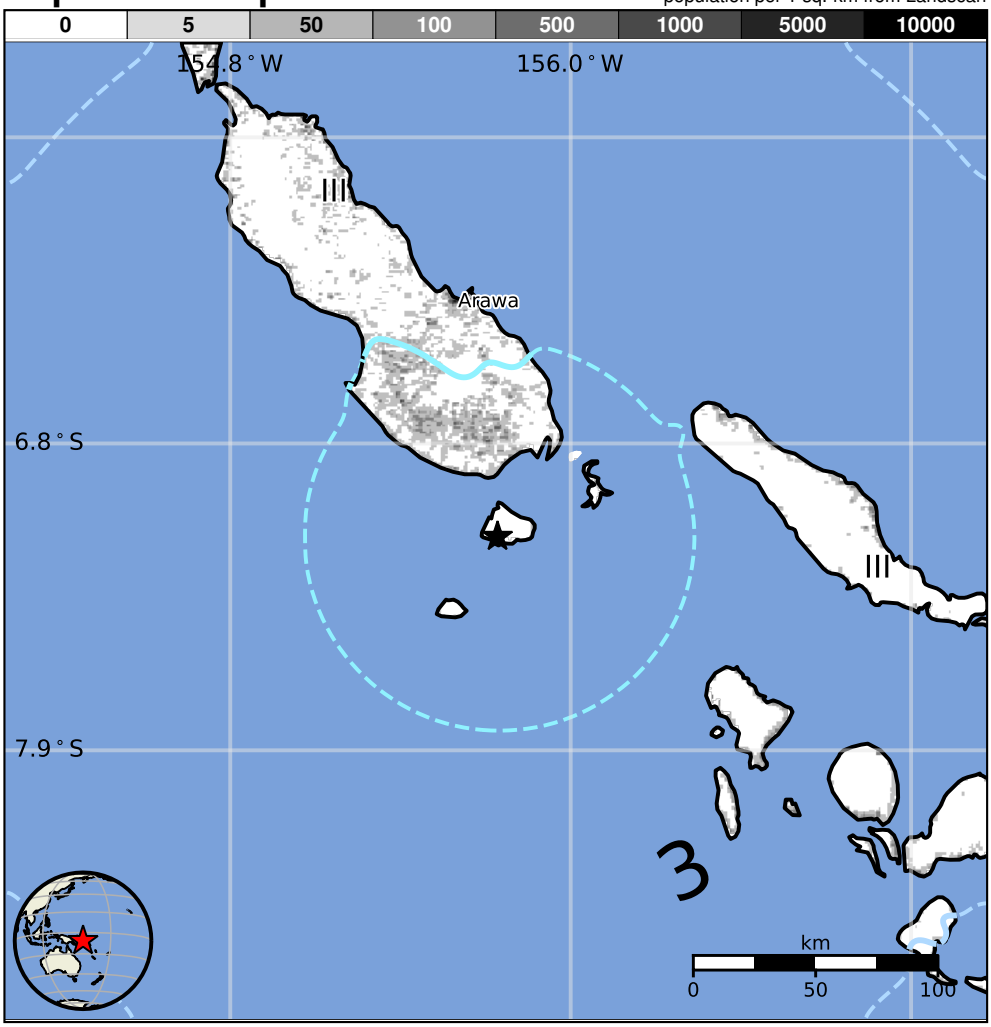

## Estimated Population Exposed to Earthquake Shaking

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| ESTIMATED POPULATION EXPOSURE (k=x1000) | | –* | 226k | 87k | 0 | 0 | 0 | 0 | 0 | 0 |
| ESTIMATED MODIFIED MERCALLI INTENSITY | | I | II-III | IV | V | VI | VII | VIII | IX | X+ |
| PERCEIVED SHAKING | | Not felt | Weak | Light | Moderate | Strong | Very Strong | Severe | Violent | Extreme |
| POTENTIAL DAMAGE | Resistant Structures | None | None | None | V. Light | Light | Moderate | Mod./Heavy | Heavy | V. Heavy |
| | Vulnerable Structures | None | None | None | Light | Moderate | Mod./Heavy | Heavy | V. Heavy | V. Heavy |

*Estimated exposure only includes population within the map area.

## Population Exposure

population per 1 sq. km from Landscan




## Structures

Overall, the population in this region resides in structures that are a mix of vulnerable and earthquake resistant construction. The predominant vulnerable building types are informal (metal, timber, GI etc.) and unreinforced brick masonry construction.

## Historical Earthquakes

| Date (UTC) | Dist. (km) | Mag. | Max MMI(#) | Shaking Deaths |
|---|---|---|---|---|
| 2007-04-01 | 208 | 8.1 | VIII(22k) | 0 |
| 1975-07-20 | 88 | 7.9 | VIII(48k) | – |
| 1996-04-29 | 92 | 7.2 | VII(57k) | 1 |

Recent earthquakes in this area have caused secondary hazards such as landslides that might have contributed to losses.

## Selected City Exposure

from GeoNames.org

| MMI | City | Population |
|---|---|---|
| III | Buka | <1k |
| III | Panguna | 3k |
| III | Kieta | 4k |
| III | Gizo | 6k |
| **III** | **Arawa** | **40k** |

bold cities appear on map. (k=x1000)

PAGER content is automatically generated, and only considers losses due to structural damage. Limitations of input data, shaking estimates, and loss models may add uncertainty.

**https://earthquake.usgs.gov/earthquakes/eventpage/us7000cfwd#pager**

**Event ID: us7000cfwd**