Earthquake Shaking Green Alert

# M 5.7, 158 km E of Kokopo, Papua New Guinea

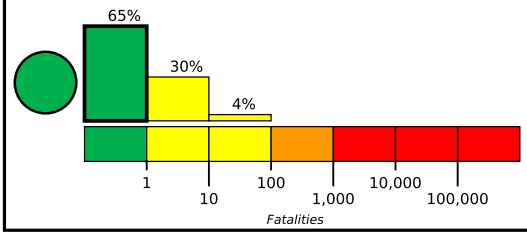
Origin Time: 2023-10-03 01:56:17 UTC (Tue 11:56:17 local)
Location: 4.5325° S 153.6839° E Depth: 86.0 km

**PAGER Version 5**

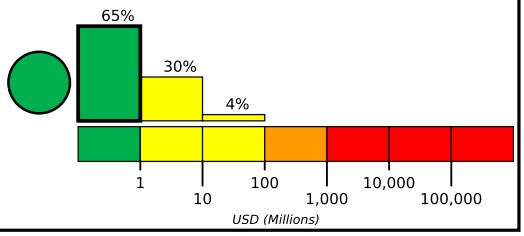
Created: 2 weeks, 6 days after earthquake

## Estimated Fatalities

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




## Estimated Economic Losses



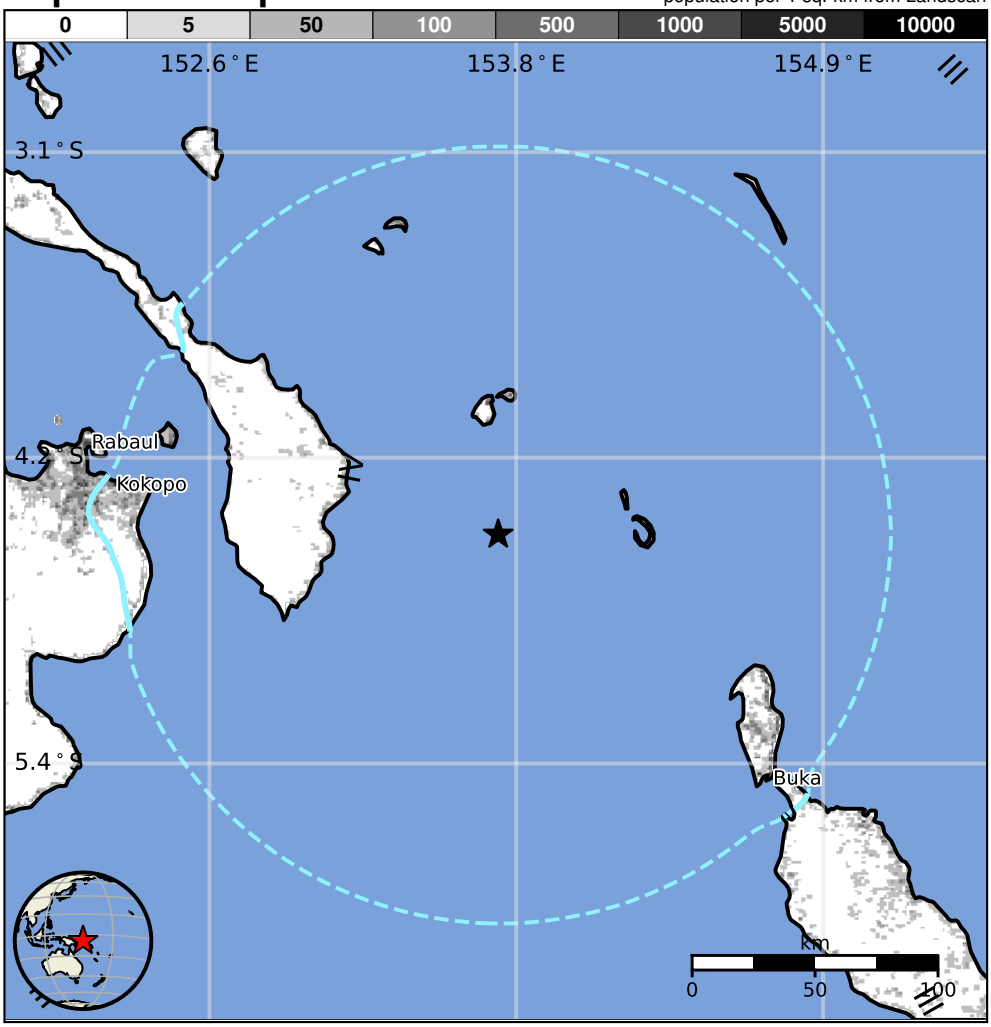

## Estimated Population Exposed to Earthquake Shaking

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| ESTIMATED POPULATION EXPOSURE (k=x1000) | | –* | 242k* | 282k | 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 |
|---|---|---|---|---|
| 1996-04-29 | 272 | 7.2 | VII(57k) | 1 |
| 1985-05-10 | 313 | 7.2 | VII(28k) | 1 |
| 1983-12-21 | 222 | 6.2 | VII(5k) | 10 |

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 |
|---|---|---|
| IV | **Buka** | **<1k** |
| III | **Rabaul** | **8k** |
| IV | **Kokopo** | **26k** |

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/us6000lce4#pager**

**Event ID: us6000lce4**