Earthquake Shaking Green Alert

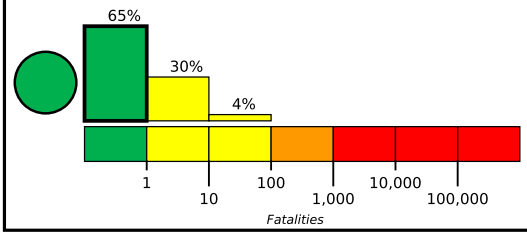
# M 5.3, 63 km E of Union, Philippines

Origin Time: 2024-02-12 02:03:06 UTC (Mon 10:03:06 local)
Location: 9.7204° N 126.6889° E Depth: 35.0 km

**PAGER Version 4**

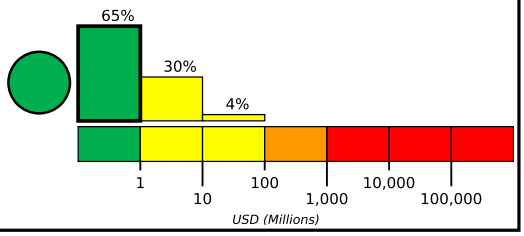
Created: 1 day, 2 hours after earthquake

## Estimated Fatalities




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

## Estimated Economic Losses



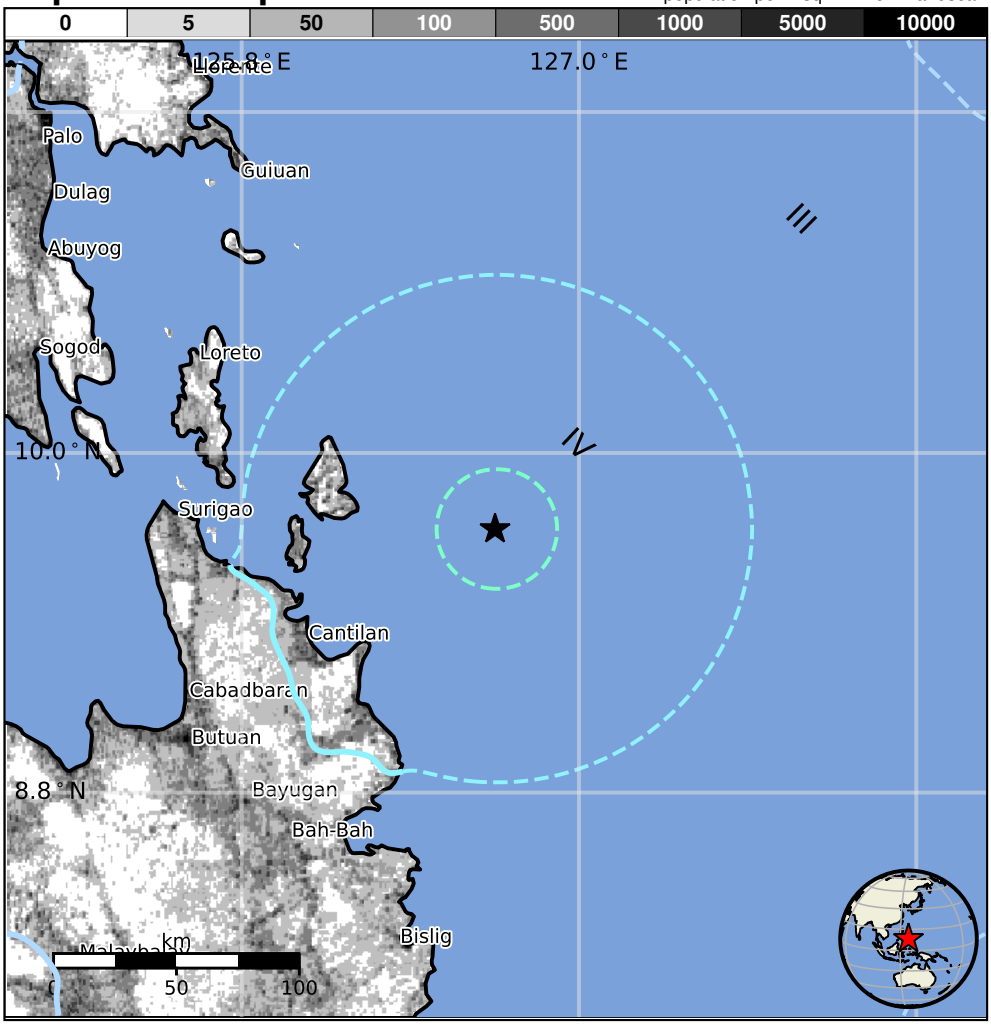

## Estimated Population Exposed to Earthquake Shaking

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| ESTIMATED POPULATION EXPOSURE (k=x1000) | | –* | 4,976k | 559k | 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 unknown/miscellaneous types and heavy wood frame construction.

### Historical Earthquakes

| Date (UTC) | Dist. (km) | Mag. | Max MMI(#) | Shaking Deaths |
|---|---|---|---|---|
| 1999-12-15 | 295 | 4.8 | VI(34k) | 1 |
| 1987-05-23 | 230 | 5.7 | VII(70k) | 1 |
| 1989-12-15 | 150 | 7.5 | VIII(1k) | 2 |

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 | Union | 2k |
| IV | Pilar | 2k |
| IV | General Luna | <1k |
| IV | Dapa | 9k |
| IV | Libas | 3k |
| IV | San Isidro | <1k |
| **III** | **Butuan** | **310k** |
| **III** | **Surigao** | **88k** |
| III | Libertad | 250k |
| III | Mariano | 71k |
| III | Panalanoy | 189k |

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/us7000lyiz#pager**

**Event ID: us7000lyiz**