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Earthquake Shaking Green Alert

GSN ANSS USAID FROM THE AMERICAN PEOPLE

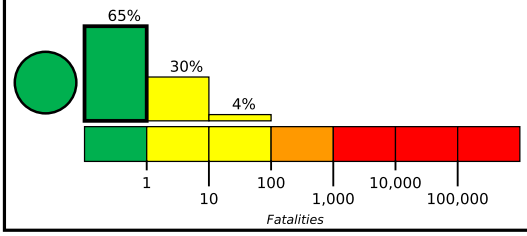
# M 5.7, 40 km ENE of Barcelona, Philippines

Origin Time: 2023-12-02 16:19:47 UTC (Sun 00:19:47 local)
Location: 8.3159° N 126.7668° E Depth: 62.4 km

**PAGER Version 3**

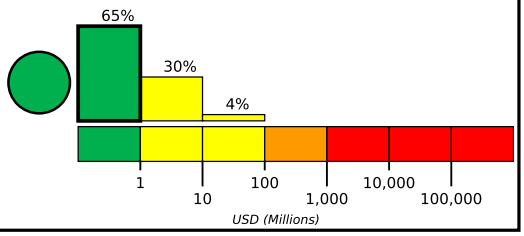
Created: 1 day, 0 hours after earthquake

## Estimated Fatalities




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

## Estimated Economic Losses



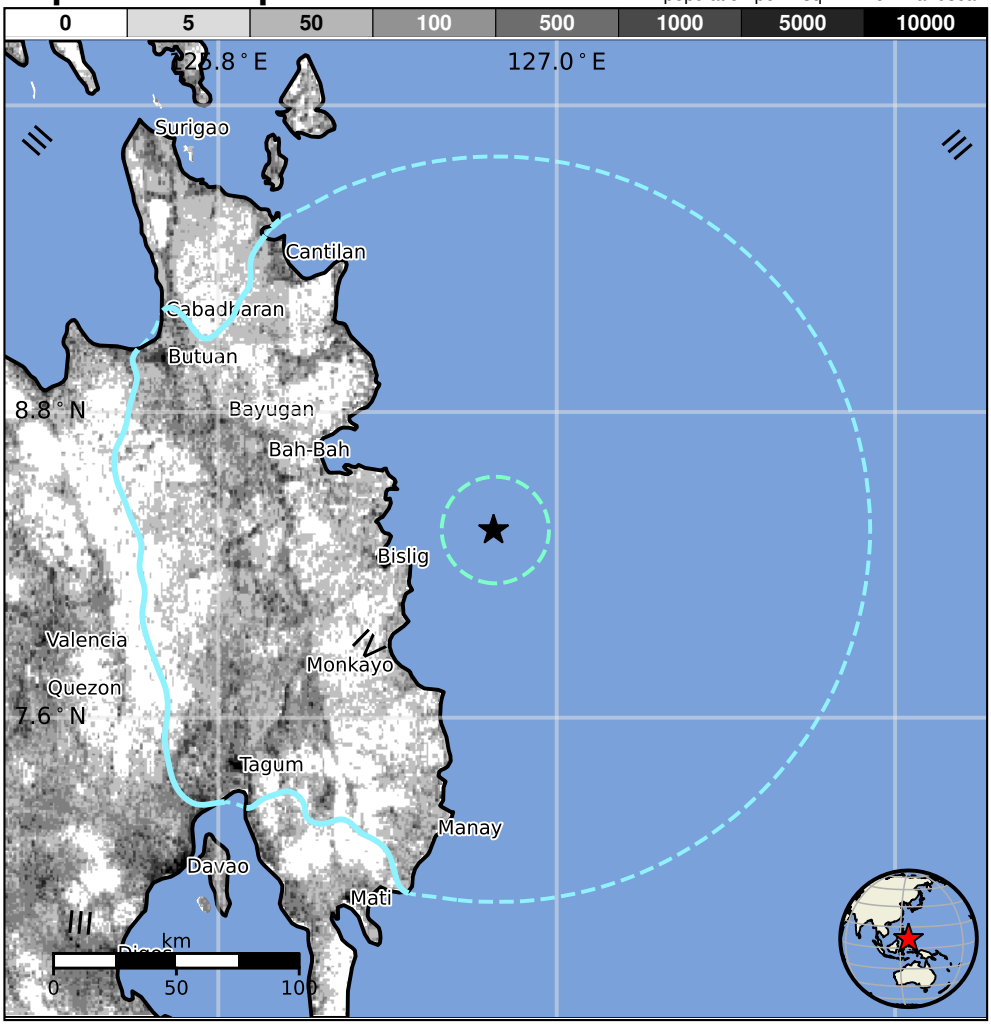

## Estimated Population Exposed to Earthquake Shaking

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| ESTIMATED POPULATION EXPOSURE (k=x1000) | | –* | 5,557k* | 4,367k | 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 |
|---|---|---|---|---|
| 1987-05-23 | 145 | 5.7 | VII(70k) | 1 |
| 1990-02-08 | 284 | 6.7 | VIII(96k) | 1 |
| 2002-03-05 | 380 | 7.5 | VIII(12k) | 15 |

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 | Hinatuan | 10k |
| **IV** | **Bislig** | **68k** |
| IV | Barcelona | 4k |
| IV | Loyola | 3k |
| IV | Tidman | 3k |
| IV | Santa Maria | 2k |
| **IV** | **Butuan** | **310k** |
| IV | Magugpo | 233k |
| IV | Libertad | 250k |
| **III** | **Davao** | **1,213k** |
| **III** | **Digos** | **116k** |

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/us7000lfif#pager**

**Event ID: us7000lfif**