USGS
science for a changing world

Earthquake Shaking Green Alert

GSN ANSS USAID FROM THE AMERICAN PEOPLE

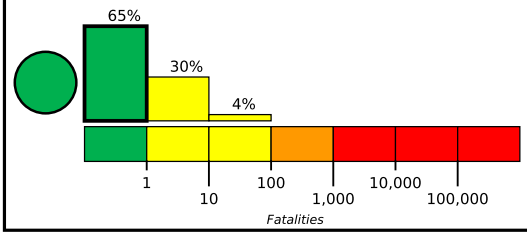
# M 5.4, 44 km W of Hengchun, Taiwan

Origin Time: 2022-06-28 13:43:29 UTC (Tue 21:43:29 local)
Location: 21.9956° N 120.3116° E Depth: 10.0 km

**PAGER Version 5**

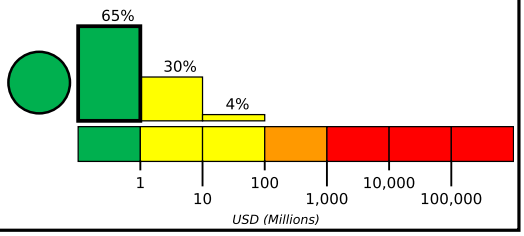
Created: 2 hours, 23 minutes after earthquake

## Estimated Fatalities




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

## Estimated Economic Losses



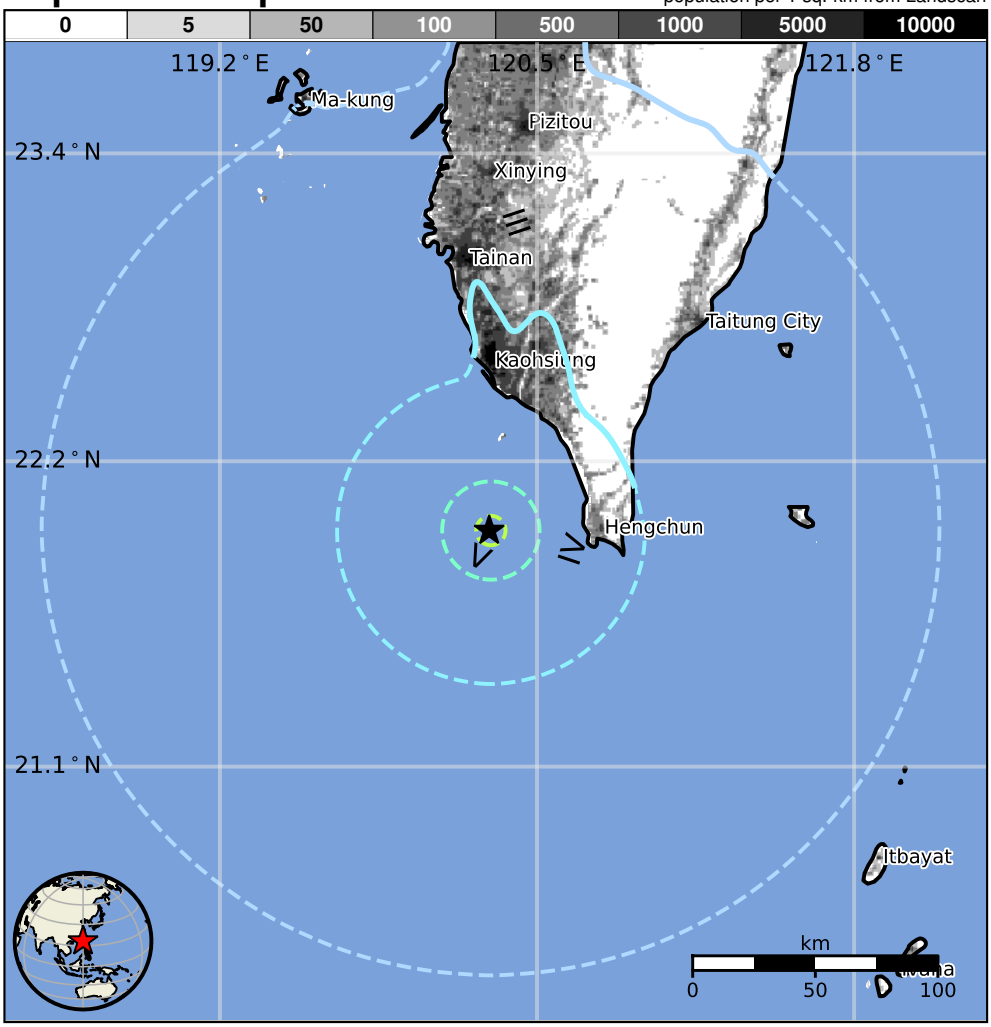

## Estimated Population Exposed to Earthquake Shaking

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| ESTIMATED POPULATION EXPOSURE (k=x1000) | | –* | 3,882k | 3,558k | 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 |
|---|---|---|---|---|
| 1994-09-16 | 175 | 6.7 | V(2,387k) | 5 |
| 2000-05-17 | 253 | 5.4 | VI(3k) | 3 |
| 1999-09-20 | 209 | 7.6 | IX(1,778k) | 2k |

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** | **Hengchun** | **31k** |
| **IV** | **Kaohsiung** | **1,520k** |
| IV | Fengshan | <1k |
| IV | Pingtung | <1k |
| **III** | **Tainan** | **771k** |
| **III** | **Xinying** | **<1k** |
| **III** | **Taitung City** | **110k** |
| III | Yujing | 17k |
| III | Douliu | 105k |
| II | Magong | 56k |
| II | Lugu | 20k |

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/us7000hkud#pager**

**Event ID: us7000hkud**