Earthquake Shaking **Green Alert**

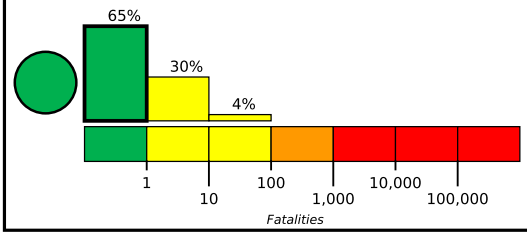
# M 4.7, 5 km SSW of Indios, Puerto Rico

Origin Time: 2020-12-24 17:33:47 UTC (Thu 13:33:47 local)
Location: 17.9461° N 66.8385° W Depth: 9.0 km

**PAGER Version 6**

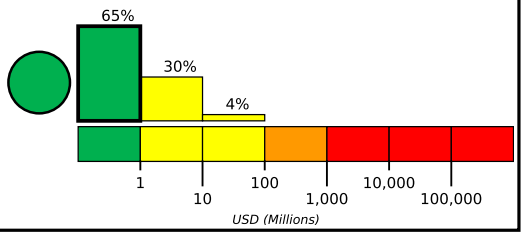
Created: 1 day, 0 hours after earthquake

## Estimated Fatalities




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

## Estimated Economic Losses



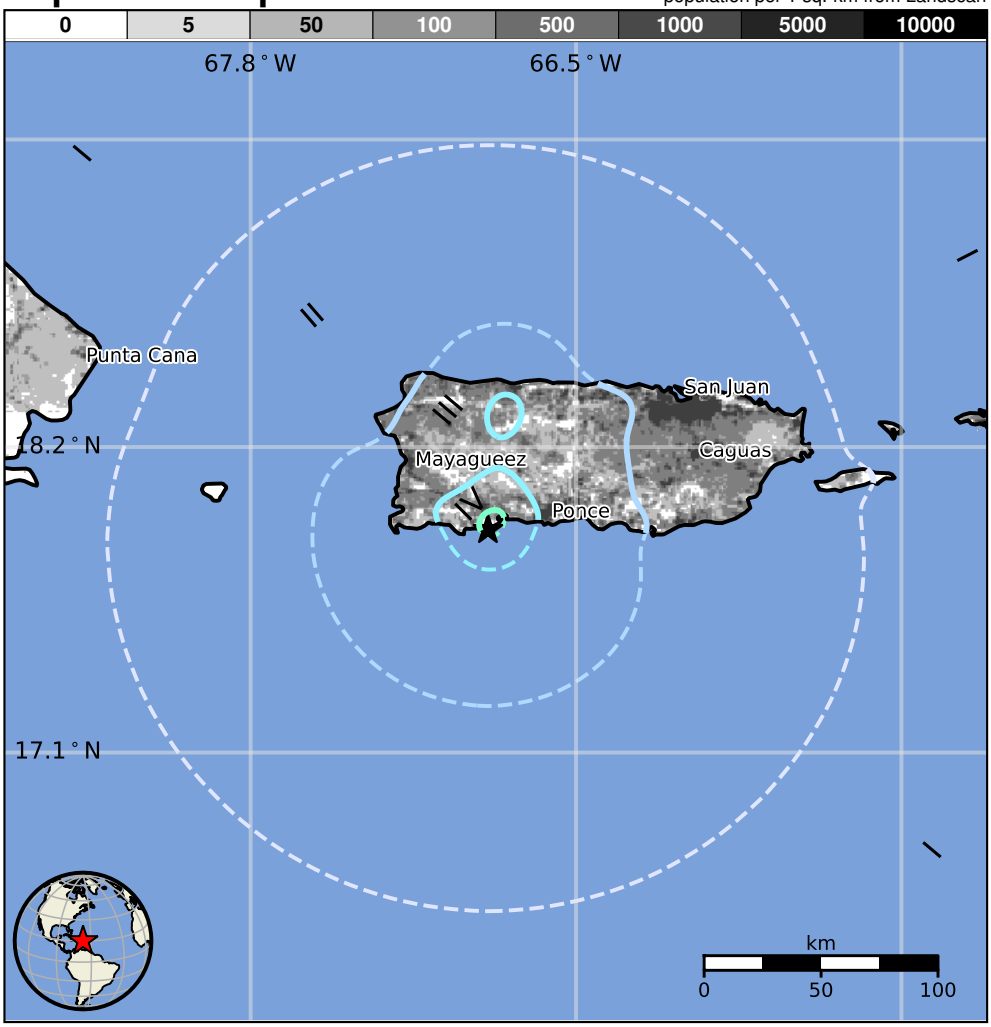

## Estimated Population Exposed to Earthquake Shaking

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| ESTIMATED POPULATION EXPOSURE (k=x1000) | | 139k* | 3,060k | 201k | 22k | 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 mud wall and informal (metal, timber, GI etc.) construction.

## Historical Earthquakes

| Date (UTC) | Dist. (km) | Mag. | Max MMI(#) | Shaking Deaths |
|---|---|---|---|---|
| 1979-03-23 | 236 | 6.6 | VI(605k) | 0 |
| 1980-11-12 | 335 | 5.9 | VII(87k) | – |
| 1984-06-24 | 267 | 6.7 | VII(326k) | 5 |

## Selected City Exposure

from GeoNames.org

| MMI | City | Population |
|---|---|---|
| V | Indios | 2k |
| V | Guayanilla | 5k |
| V | Magas Arriba | 1k |
| IV | Maria Antonia | 1k |
| IV | Fuig | 1k |
| IV | Palomas | 2k |
| **III** | **Ponce** | **153k** |
| II | Bayamon | 203k |
| II | Carolina | 170k |
| **II** | **San Juan** | **418k** |
| **II** | **Caguas** | **87k** |

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/pr2020359053#pager**

**Event ID: pr2020359053**