USGS
science for a changing world

Earthquake Shaking Green Alert

GSN ANSS USAID FROM THE AMERICAN PEOPLE

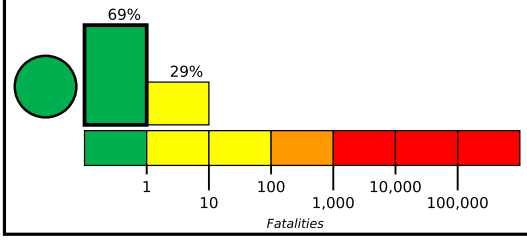
M 4.7, 5 km S of Gunica, Puerto Rico

Origin Time: 2020-06-28 06:45:05 UTC (Sun 02:45:05 local)
Location: 17.9192° N 66.9057° W Depth: 9.8 km

PAGER Version 3

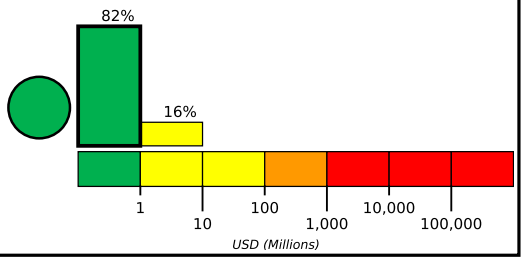
Created: 2 hours, 2 minutes after earthquake

Estimated Fatalities



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

Estimated Economic Losses



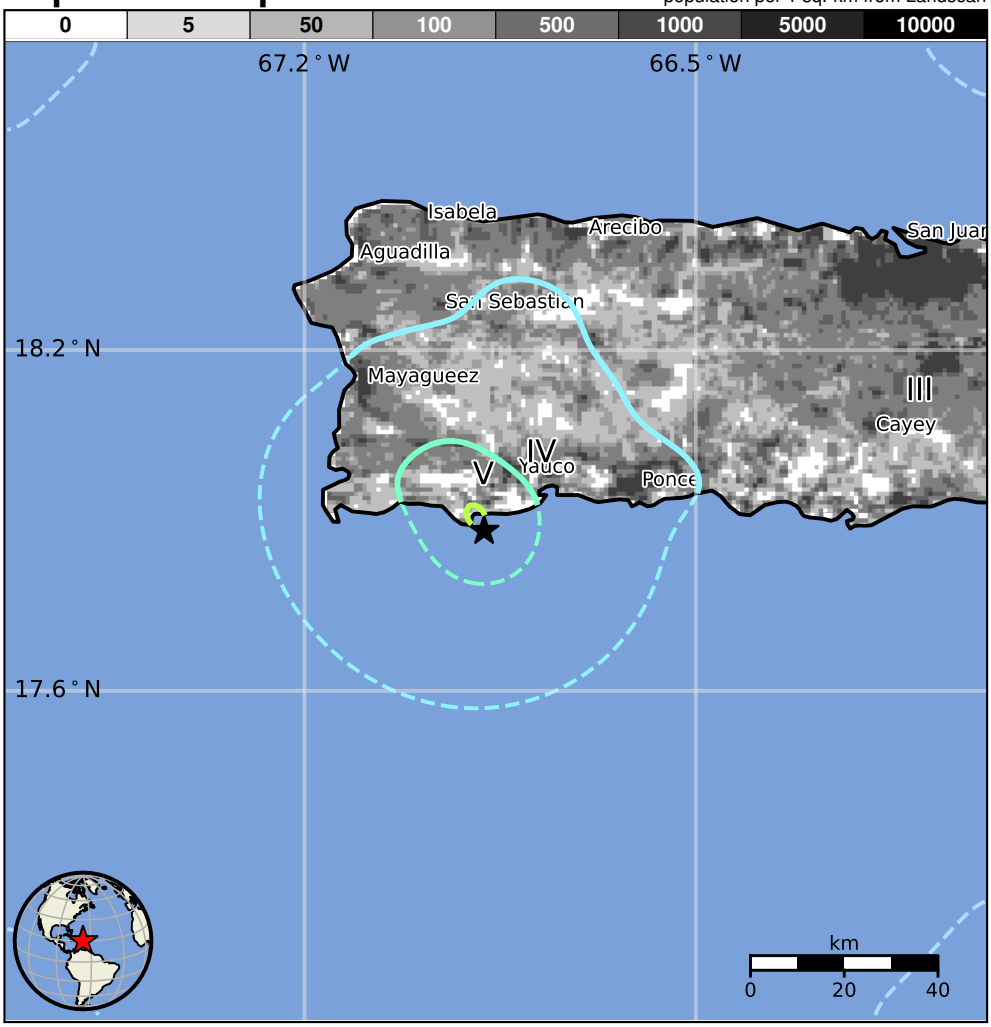
Estimated Population Exposed to Earthquake Shaking

ESTIMATED POPULATION EXPOSURE (k=x1000)		–*	2,320k*	503k	59k	11k	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 resistant to earthquake shaking, though vulnerable structures exist. 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	229	6.6	VI(605k)	0
1980-11-12	331	5.9	VII(87k)	–
1984-06-24	260	6.7	VII(326k)	5

Selected City Exposure

from GeoNames.org

MMI	City	Population
VI	Fuig	1k
VI	Guanica	9k
V	Maria Antonia	1k
V	Palomas	2k
V	Liborio Negron Torres	1k
V	Sabana Grande	9k
IV	**Ponce**	**153k**
III	Bayamon	203k
III	**San Juan**	**418k**
III	Carolina	170k
III	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/us7000adgx#pager

Event ID: us7000adgx