USGS science for a changing world

Earthquake Shaking Orange Alert

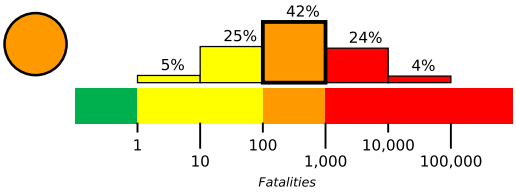
GSN USAID FROM THE AMERICAN PEOPLE ANSS

M 7.5, 89km SSW of Porgera, Papua New Guinea

Origin Time: 2018-02-25 17:44:44 UTC (Mon 03:44:44 local)
Location: 6.1488° S 142.7663° E Depth: 35.0 km
FOR TSUNAMI INFORMATION, SEE: tsunami.gov

PAGER Version 3
Created: 4 hours, 46 minutes after earthquake

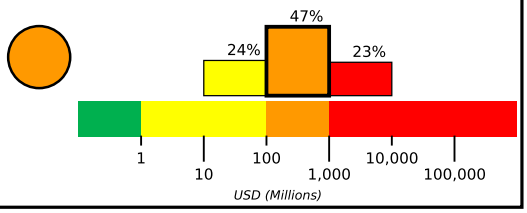
Estimated Fatalities



Orange alert for shaking-related fatalities and economic losses. Significant casualties and damage are likely and the disaster is potentially widespread. Past orange alerts have required a regional or national level response.

Estimated economic losses are 0-3% GDP of Papua New Guinea.

Estimated Economic Losses

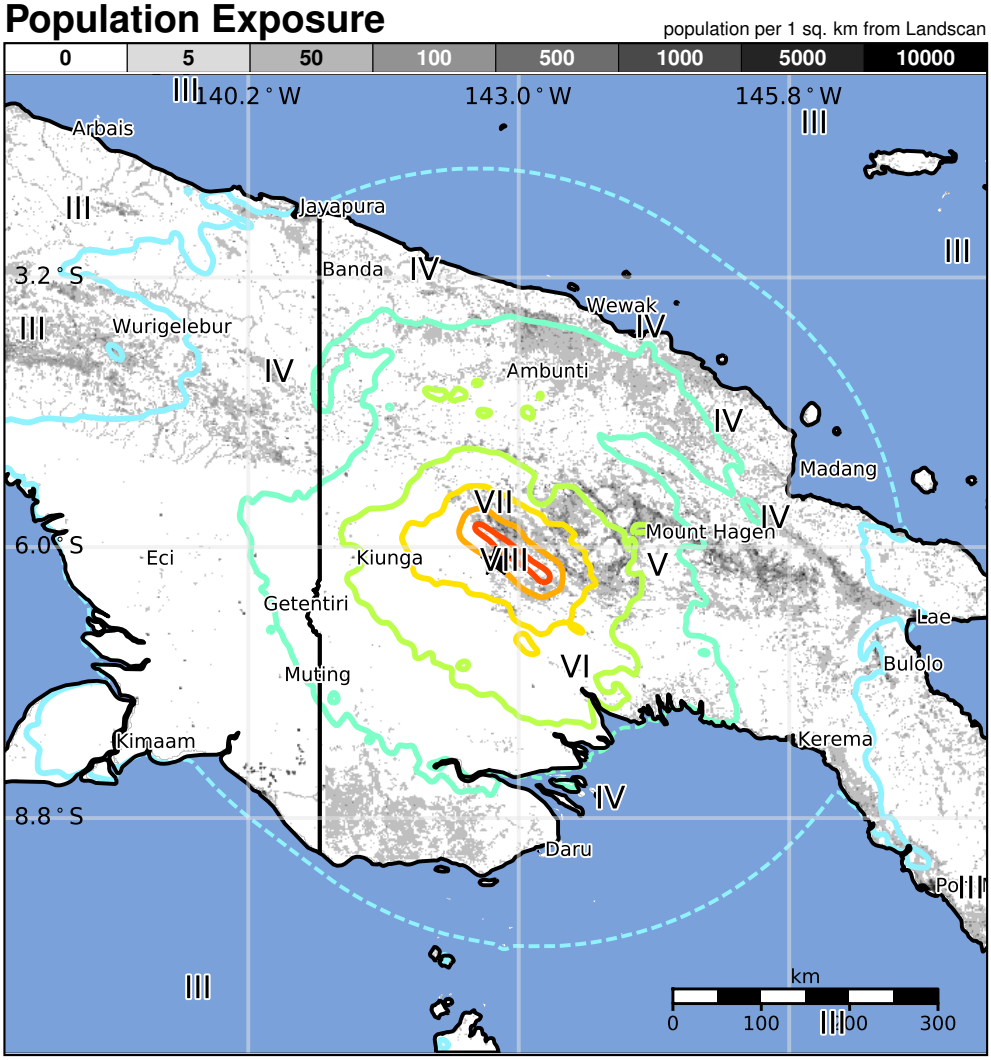


Estimated Population Exposed to Earthquake Shaking

ESTIMATED POPULATION EXPOSURE (k=x1000)		–*	1,387k*	3,583k	1,205k	809k	336k	270k	40k	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



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 unreinforced brick masonry and informal (metal, timber, GI etc.) construction.

Historical Earthquakes

Date (UTC)	Dist. (km)	Mag.	Max MMI(#)	Shaking Deaths
1984-03-27	382	6.4	VIII(4k)	0
1976-10-29	359	6.8	IX(8k)	133
1976-06-25	345	7.1	IX(18k)	422

Recent earthquakes in this area have caused secondary hazards such as tsunamis and landslides that might have contributed to losses.

Selected City Exposure

from GeoNames.org

MMI	City	Population
VIII	Tari	8k
VI	Mendi	26k
VI	Ialibu	7k
VI	**Mount Hagen**	**34k**
VI	Rauna	<1k
VI	Wabag	4k
IV	Goroka	19k
IV	**Madang**	**27k**
IV	**Lae**	**76k**
IV	**Jayapura**	**135k**
III	**Port Moresby**	**284k**

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/us2000d7q6#pager

Event ID: us2000d7q6