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Earthquake Shaking — Yellow Alert

GSN USAID FROM THE AMERICAN PEOPLE
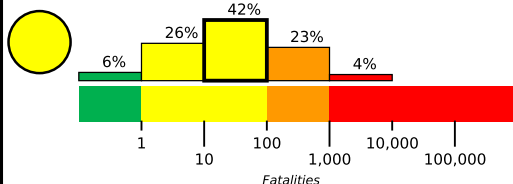
ANSS

PAGER
Version 10

M 7.5, 80km SW of Porgera, Papua New Guinea

Origin Time: 2018-02-25 17:44:44 UTC (Mon 03:44:44 local)
Location: 6.0699° S 142.7536° E Depth: 25.2 km
FOR TSUNAMI INFORMATION, SEE: tsunami.gov

Created: 5 weeks, 1 day after earthquake

Estimated Fatalities
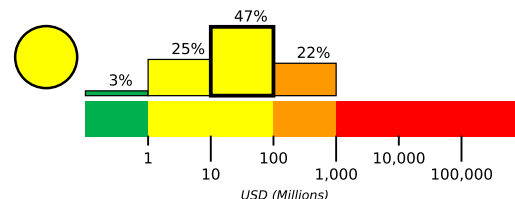
6% 26% 42% 23% 4%

1 10 100 1,000 10,000 100,000
Fatalities

Yellow alert for shaking-related fatalities and economic losses. Some casualties and damage are possible and the impact should be relatively localized. Past yellow alerts have required a local or regional level response.

Estimated economic losses are less than 1% of GDP of Papua New Guinea.
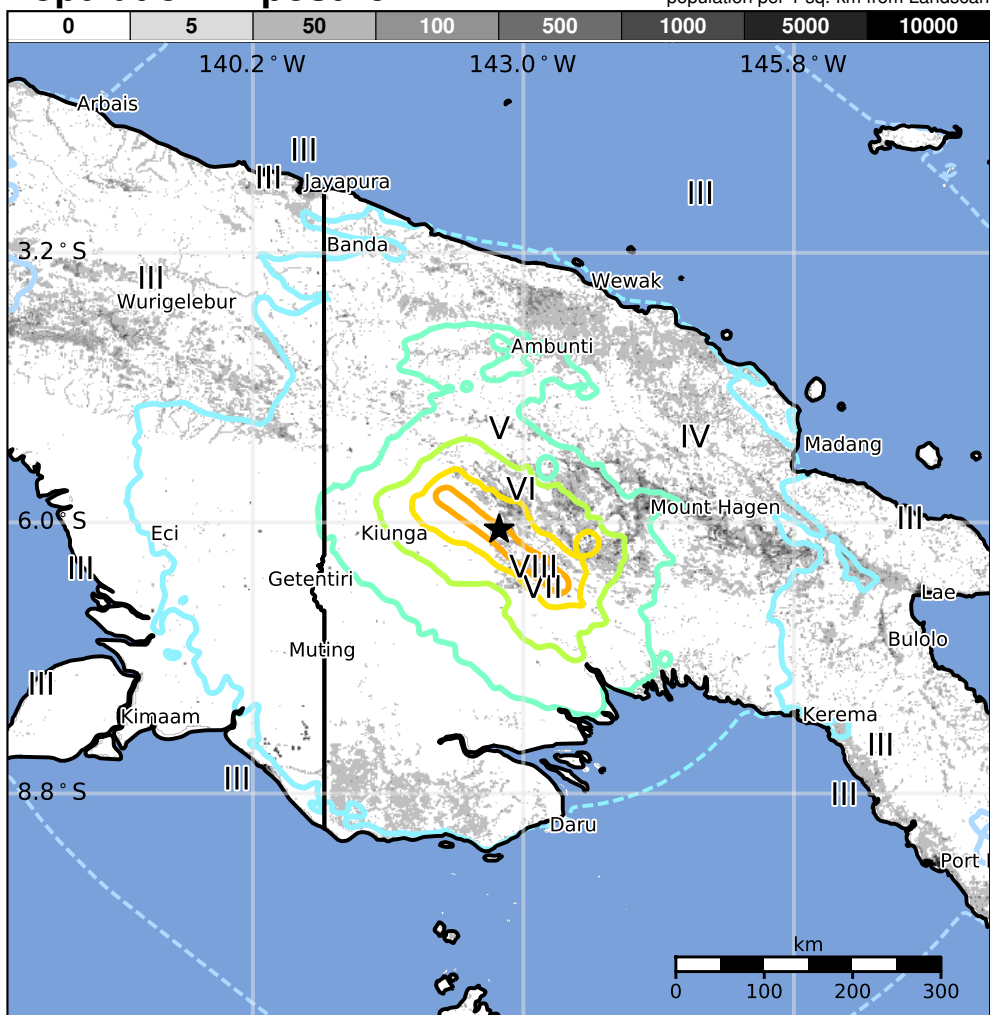
Estimated Economic Losses

3% 25% 47% 22%

1 10 100 1,000 10,000 100,000
USD (Millions)

Estimated Population Exposed to Earthquake Shaking

ESTIMATED POPULATION EXPOSURE (k=x1000)		–*	2,887k*	2,904k	821k	632k	331k	54k	2k	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

0	5	50	100	500	1000	5000	10000

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

Historical Earthquakes

Date (UTC)	Dist. (km)	Mag.	Max MMI(#)	Shaking Deaths
1976-10-29	353	6.8	IX(8k)	133
2002-09-08	313	7.6	IX(17k)	4
1976-06-25	340	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
VII	Mendi	26k
VII	Tari	8k
VI	Ialibu	7k
VI	**Mount Hagen**	**34k**
V	**Kiunga**	**12k**
V	Rauna	<1k
IV	Goroka	19k
IV	**Madang**	**27k**
III	**Lae**	**76k**
III	**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