

# M 7.9, Bougainville region, Papua New Guinea

Origin Time: 2017-01-22 04:30:22 UTC (Sun 15:30:22 local)  
Location: 6.2464° S 155.1718° E Depth: 135.0 km

Created: 11 weeks, 5 days after earthquake

### Estimated Fatalities

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

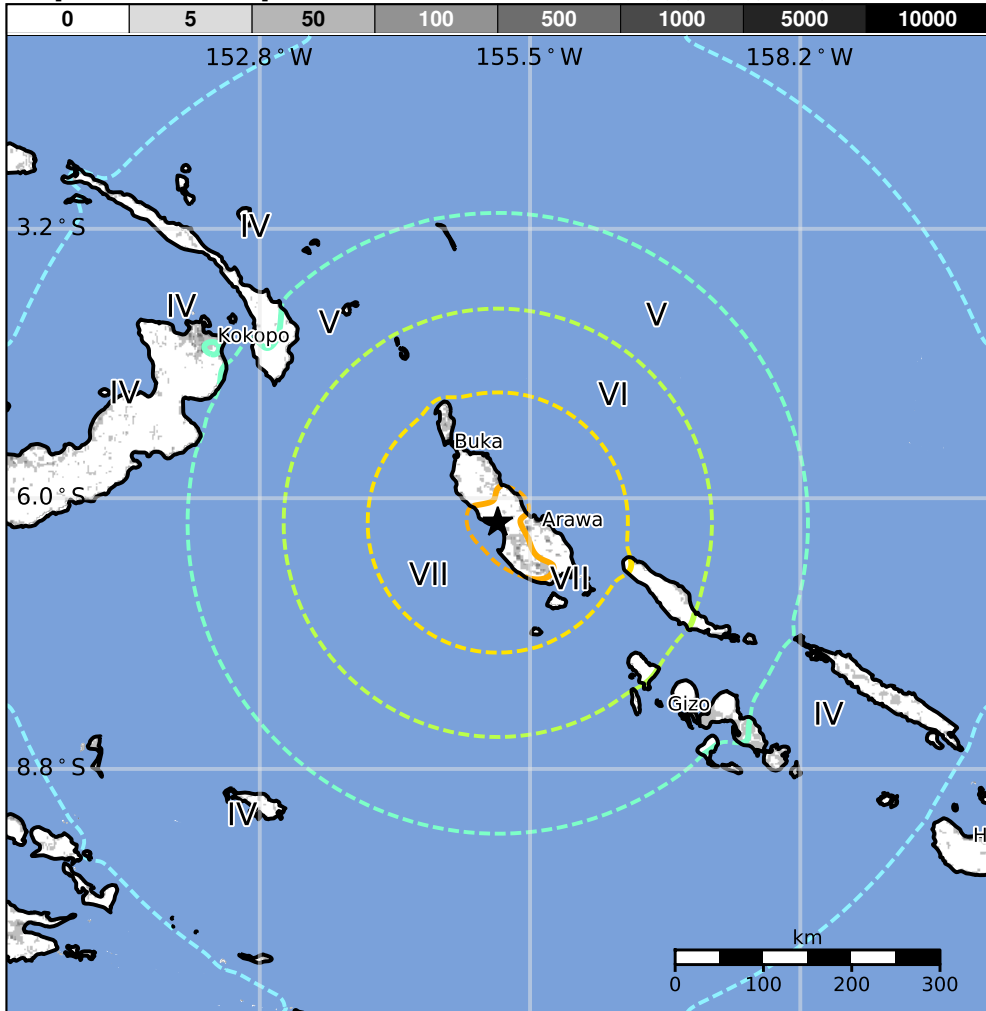
USD (Millions)

## Estimated Population Exposed to Earthquake Shaking

ESTIMATED POPULATION EXPOSURE (k=x1000)		—*	230k*	555k	157k	28k	146k	88k	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



## 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
2007-04-01	319	8.1	VIII(22k)	0
1996-04-29	33	7.2	VII(57k)	1
1983-12-21	373	6.2	VII(5k)	10

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	<b>Arawa</b>	40k
VII	Panguna	3k
VII	Kieta	4k
VII	<b>Buka</b>	<1k
V	<b>Gizo</b>	6k
IV	<b>Kokopo</b>	26k
IV	Kavieng	14k
IV	Buala	3k
III	<b>Honiara</b>	56k
III	Tulaghi	2k
III	Alotau	10k

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/us10007uph#pager>

Event ID: us10007uph