Earthquake Shaking **Green Alert**

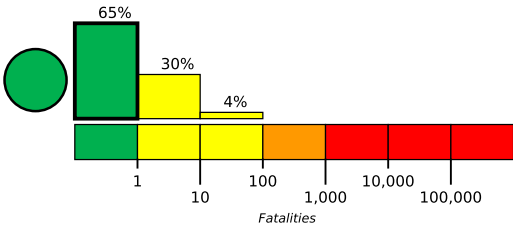
M 5.8, 5km ESE of Cantilan, Philippines

Origin Time: 2019-07-12 20:42:55 UTC (Sat 04:42:55 local)
Location: 9.3088° N 126.0242° E Depth: 11.8 km

PAGER Version 2

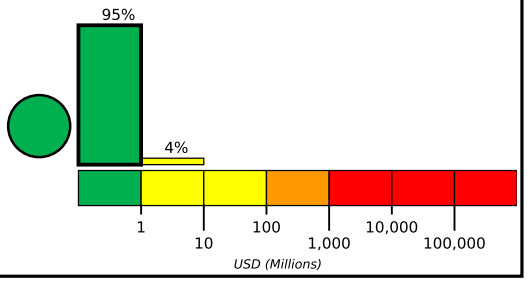
Created: 2 hours, 2 minutes after earthquake

Estimated Fatalities



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

Estimated Economic Losses



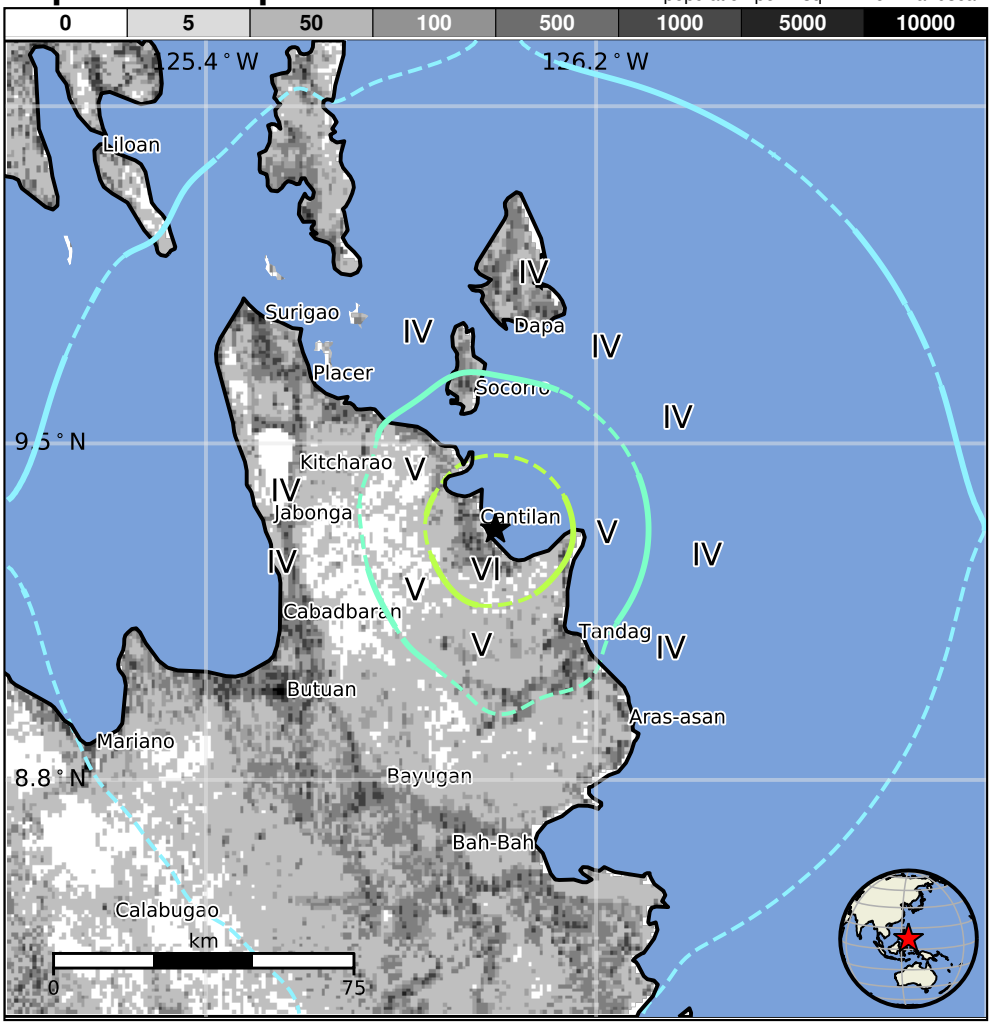
Estimated Population Exposed to Earthquake Shaking

ESTIMATED POPULATION EXPOSURE (k=x1000)		–*	525k*	2,536k	279k	79k	26k	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 reinforced concrete and unknown/miscellaneous types construction.

Historical Earthquakes

Date (UTC)	Dist. (km)	Mag.	Max MMI(#)	Shaking Deaths
1987-05-23	155	5.7	VII(70k)	1
1990-02-08	161	6.7	VIII(96k)	1
1989-12-15	127	7.5	VIII(1k)	2

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

Selected City Exposure

from GeoNames.org

MMI	City	Population
VII	**Cantilan**	**9k**
VI	Madrid	3k
VI	Parang	3k
VI	Carmen	3k
VI	Panikian	2k
VI	Lanuza	2k
IV	**Butuan**	**310k**
IV	Libertad	250k
IV	**Surigao**	**88k**
IV	**Bayugan**	**41k**
IV	**Mariano**	**71k**

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/us70004j9u#pager

Event ID: us70004j9u