

M 6.8, CELEBES SEA

Origin Time: Wed 2009-10-07 21:41:13 UTC (05:41:13 local)

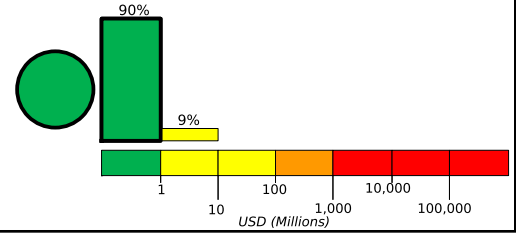
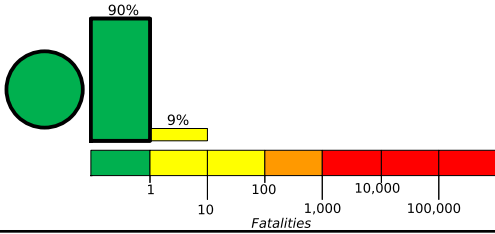
Location: 4.07°N 122.53°E Depth: 574 km

Created: 50 weeks, 1 day 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



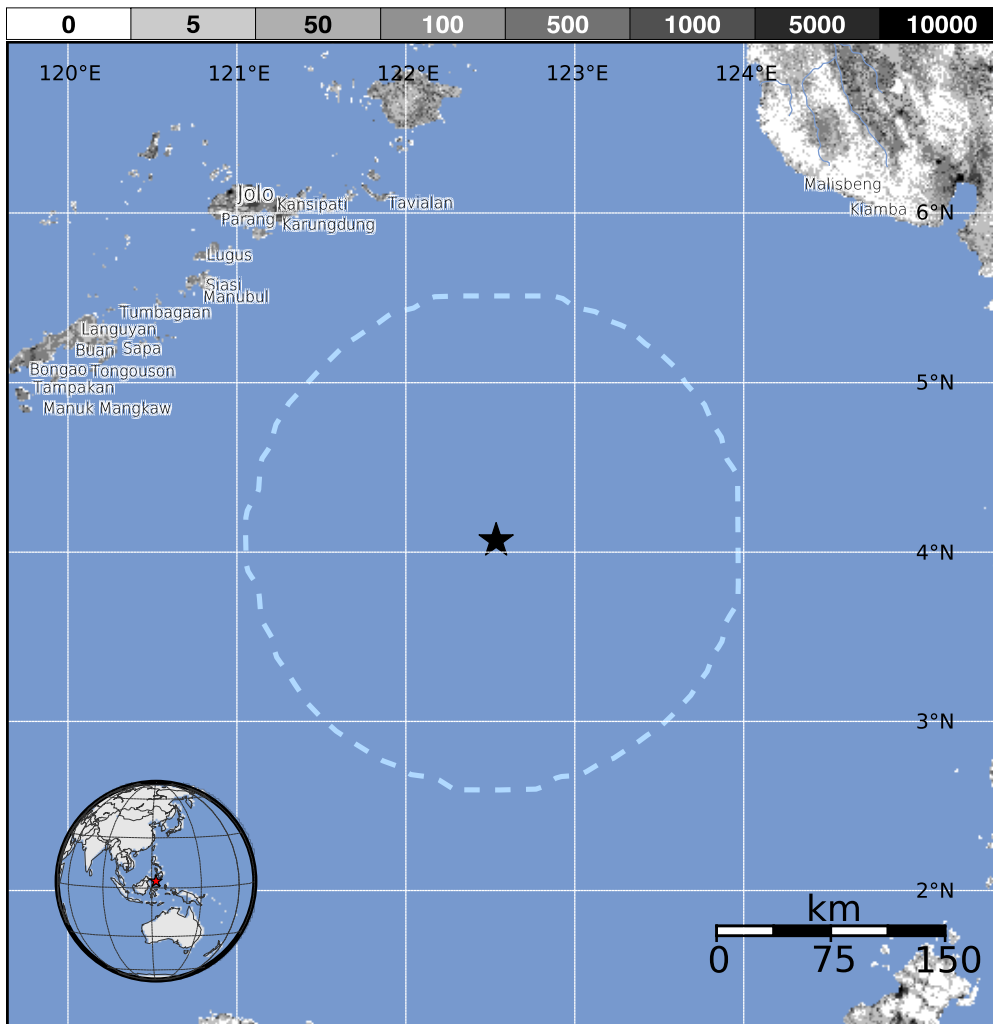
Estimated Population Exposed to Earthquake Shaking

ESTIMATED POPULATION EXPOSURE (k = x1000)		--*	6,498k	0	0	0	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	Moderate/Heavy	Heavy	V. Heavy
	Vulnerable Structures	none	none	none	Light	Moderate	Moderate/Heavy	Heavy	V. Heavy	V. Heavy

*Estimated exposure only includes population within the map area.

Population Exposure

population per ~1 sq. km from Landsat



Structures:

Overall, the population in this region resides in structures that are a mix of vulnerable and earthquake resistant construction.

Historical Earthquakes (with MMI levels):

Date	Dist. (km)	Mag.	Max MMI(#)	Shaking Deaths
1999-05-18	226	5.9	V(75k)	0
2005-02-05	163	7.1	III(15,484k)	2
2002-03-05	285	7.5	VIII(12k)	15

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
II	Tavialan	2k
II	Karungdung	7k
II	Kanlagay	2k
II	Kalang	2k
II	Andalan	3k
II	Kungtad	2k
II	Zamboanga	458k
II	Koronadal	126k
II	Manado	452k
II	Bitung	137k
II	Digos	116k

bold cities appear on map

(k = x1000)

PAGER content is automatically generated, and does not consider secondary hazards in loss calculations. Limitations of input data, shaking estimates, and loss models may add uncertainty.

<http://earthquake.usgs.gov/pager>

Event ID: us2009mlcb