

**M 5.7, PANAMA-COSTA RICA BORDER REGION**

Origin Time: Mon 2013-05-27 09:41:14 UTC (04:41:14 local)

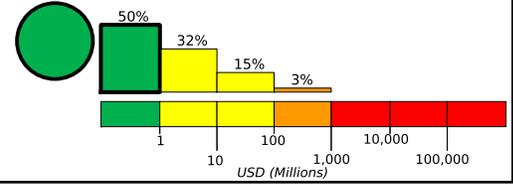
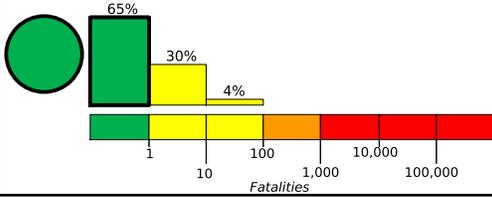
Location: 9.39°N 82.65°W Depth: 11 km

Created: 1 week, 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**



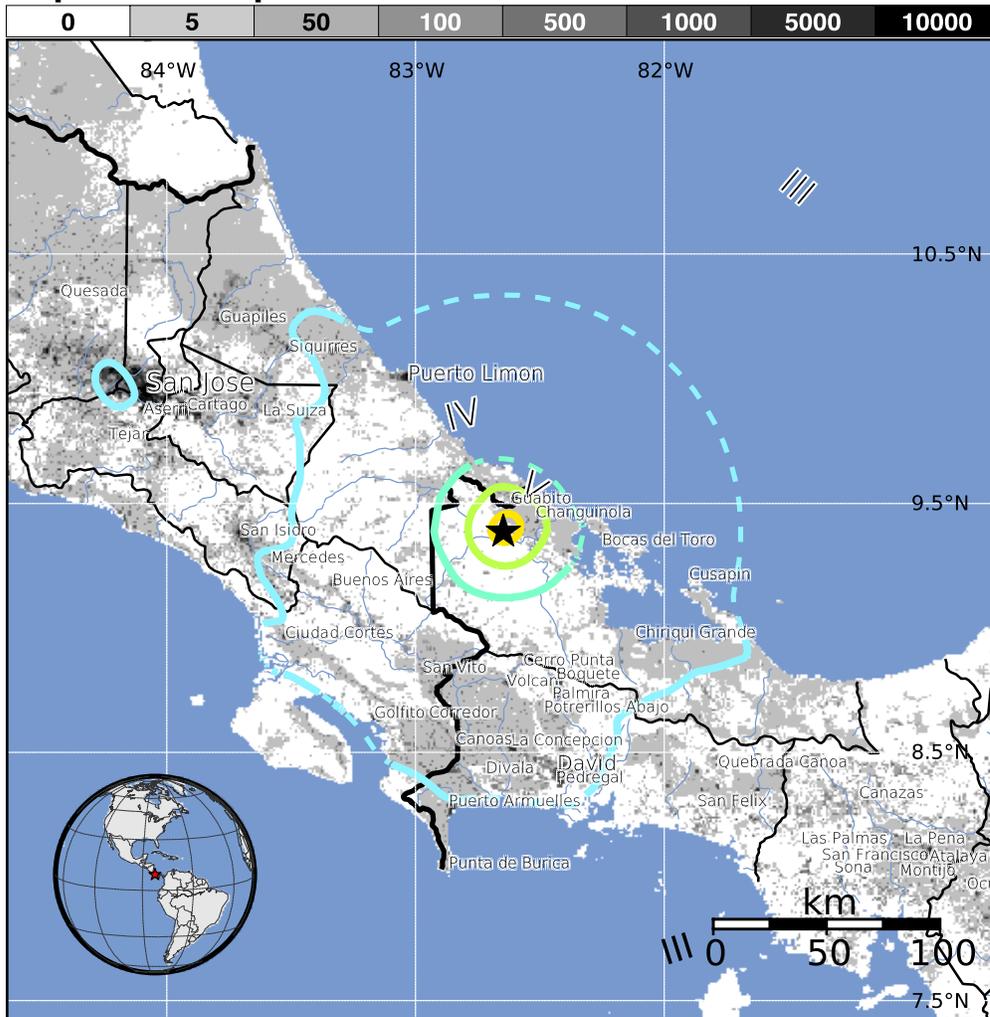
**Estimated Population Exposed to Earthquake Shaking**

ESTIMATED POPULATION EXPOSURE (k = x1000)	- -*	2,995k*	2,084k	22k	63k	2k	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 vulnerable to earthquake shaking, though some resistant structures exist. The predominant vulnerable building types are unreinforced brick masonry and mud wall construction.

**Historical Earthquakes (with MMI levels):**

Date (UTC)	Dist. (km)	Mag.	Max MMI(#)	Shaking Deaths
1997-04-01	182	6.1	VII(9)	0
1991-05-04	29	6.2	VIII(14k)	2
2003-12-25	116	6.5	VIII(53k)	2

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

**Selected City Exposure**

from GeoNames.org

MMI City	Population
<b>VI Guabito</b>	<b>6k</b>
<b>VI Changuinola</b>	<b>23k</b>
<b>VI Sixaola</b>	<b>2k</b>
<b>VI Barranco</b>	<b>1k</b>
<b>V Almirante</b>	<b>8k</b>
<b>IV Bocas del Toro</b>	<b>10k</b>
<b>IV Puerto Limon</b>	<b>63k</b>
<b>IV David</b>	<b>83k</b>
<b>IV San Jose</b>	<b>335k</b>
<b>IV Alajuela</b>	<b>47k</b>

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.

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

Event ID: usb000h700