

# M 4.2, 14km NE of Julian, CA

Origin Time: 2017-12-07 00:33:15 UTC (Wed 16:33:15 local)  
Location: 33.1473° N 116.4810° W Depth: 10.0 km

## PAGER Version 2

Created: 14 minutes, 15 seconds after earthquake

### Estimated Fatalities

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

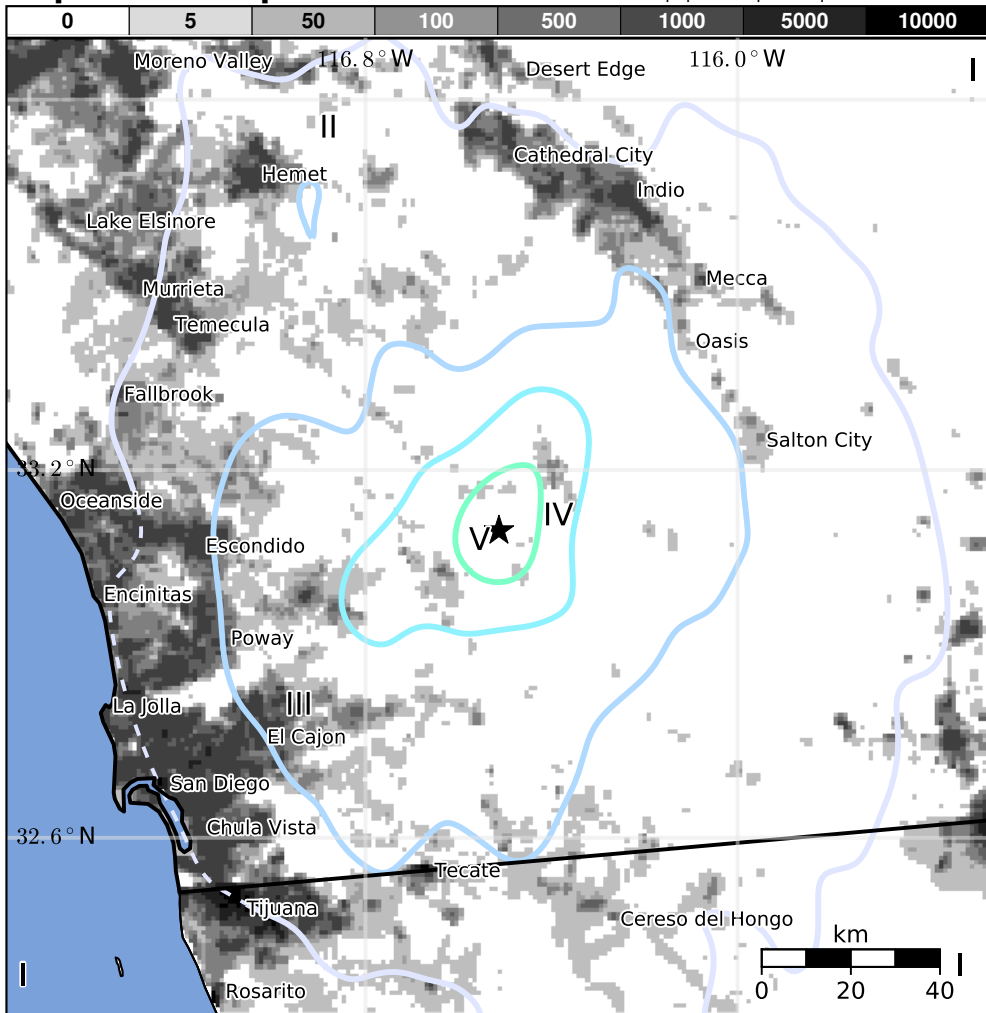
### Estimated Economic Losses

## Estimated Population Exposed to Earthquake Shaking

ESTIMATED POPULATION EXPOSURE (k=x1000)	2,511k*	6,244k	41k	3k	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	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 highly resistant to earthquake shaking, though some vulnerable structures exist. The predominant vulnerable building types are unreinforced brick masonry and reinforced masonry construction.

## Historical Earthquakes

Date (UTC)	Dist. (km)	Mag.	Max MMI(#)	Shaking Deaths
1991-06-28	186	5.6	VI(1,267k)	1
1992-06-28	115	7.3	VIII(23k)	1
1971-02-09	224	6.6	IX(21k)	65

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
V	Borrego Springs	3k
IV	Julian	2k
IV	San Diego Country Estates	10k
IV	Ramona	20k
III	Poway	48k
III	Lakeside	21k
II	Chula Vista	244k
II	San Diego	1,307k
II	Tijuana	1,376k
I	Riverside	304k
I	Mexicali	597k

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.

bold cities appear on map.

(k=x1000)