

**M 4.1, 11.1 km (6.9 mi) NE of Borrego Springs, CA**

Origin Time: Sun 2015-05-31 13:02:56 UTC (06:02:56 local)

Location: 33.31°N 116.28°W Depth: 11 km

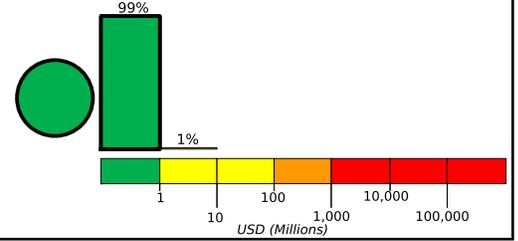
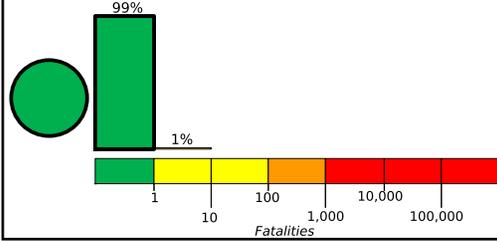
Created: 1 day, 4 hours after earthquake

**PAGER**  
**Version 6**

**Estimated Fatalities**

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

**Estimated Economic Losses**

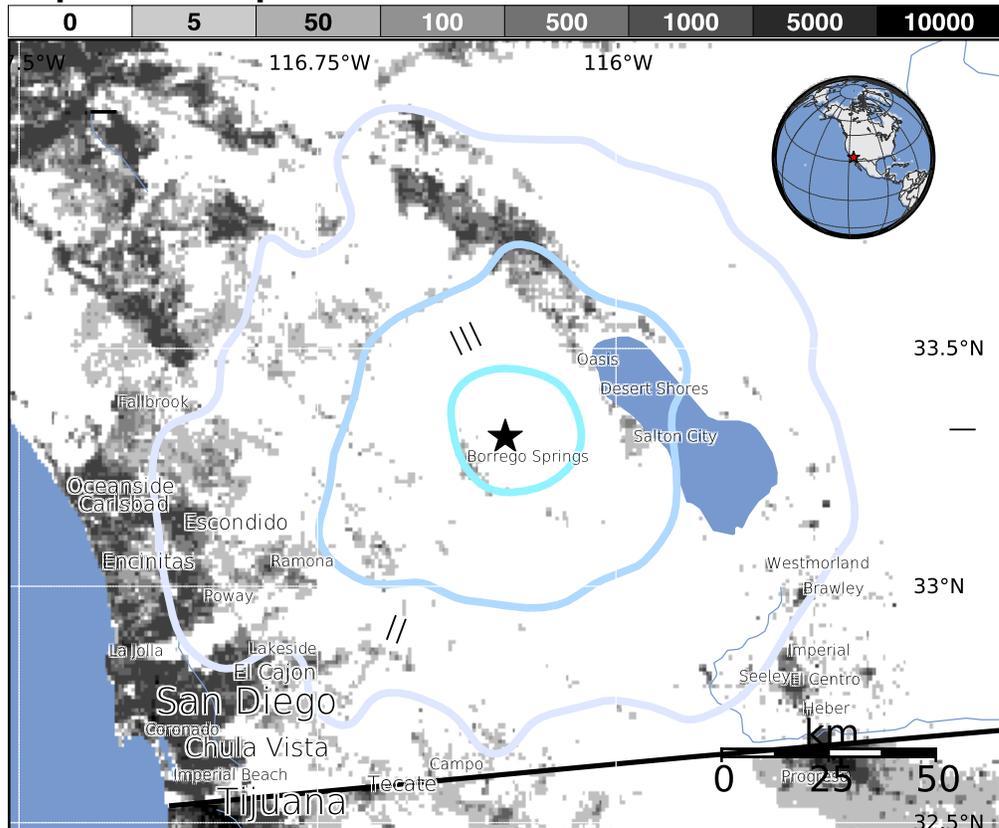


**Estimated Population Exposed to Earthquake Shaking**

ESTIMATED POPULATION EXPOSURE (k = x1000)	7,252k	1,060k	2k	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**



**Structures:**

Overall, the population in this region resides in structures that are highly resistant to earthquake shaking, though some vulnerable structures exist.

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

Date (UTC)	Dist. (km)	Mag.	Max MMI(#)	Shaking Deaths
1986-07-13	149	5.8	V(9,528k)	0
1991-06-28	190	5.6	VII(8k)	1
1994-01-17	232	6.7	IX(181k)	33

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
IV	Borrego Springs	3k
III	Desert Shores	1k
III	Oasis	7k
III	Salton City	4k
III	Julian	2k
III	Vista Santa Rosa	3k
I	Chula Vista	244k
I	Mexicali	597k
I	Tijuana	1,376k
I	San Diego	1,307k
I	Riverside	304k

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: ci37390968