USGS
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Earthquake Shaking — Yellow Alert

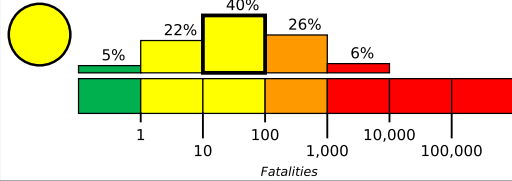GSN · ANSS · USAID FROM THE AMERICAN PEOPLE

M 7.4, 12 km SSW of Santa Mara Zapotitln, Mexico

Origin Time: 2020-06-23 15:29:05 UTC (Tue 10:29:05 local)
Location: 16.0291° N 95.9010° W Depth: 26.2 km
FOR TSUNAMI INFORMATION, SEE: tsunami.gov

PAGER
Version 4

Created: 5 hours, 16 minutes after earthquake

Estimated Fatalities

5% 22% 40% 26% 6%

1   10   100   1,000   10,000   100,000
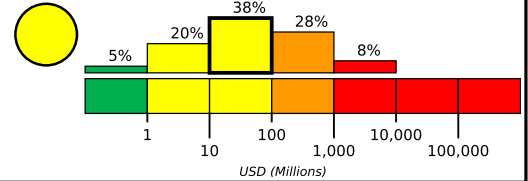*Fatalities*

Yellow alert for shaking-related fatalities and economic losses. Some casualties and damage are possible and the impact should be relatively localized. Past yellow alerts have required a local or regional level response.

Estimated economic losses are less than 1% of GDP of Mexico.
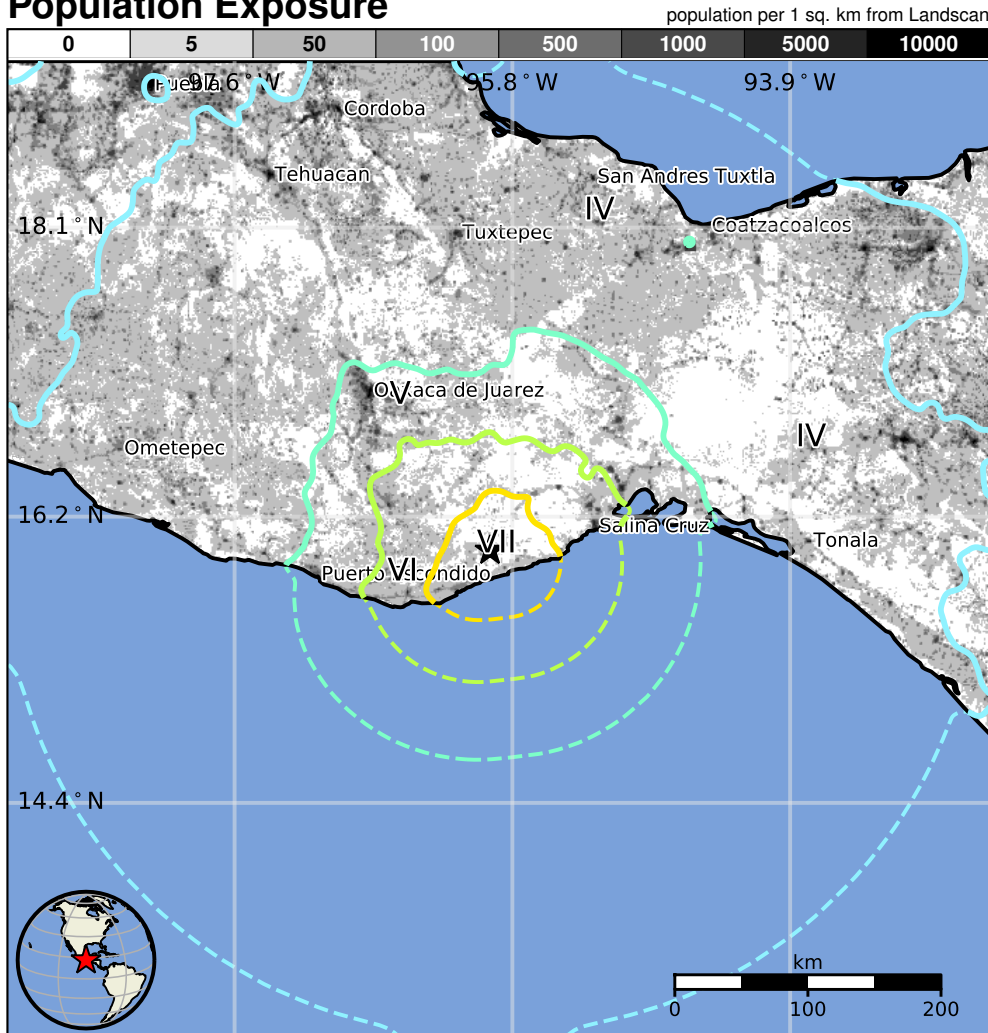
Estimated Economic Losses

5% 20% 38% 28% 8%

1   10   100   1,000   10,000   100,000
USD (Millions)

Estimated Population Exposed to Earthquake Shaking

ESTIMATED POPULATION EXPOSURE (k=x1000)		–*	4,226k*	14,610k	1,758k	733k	93k	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

0   5   50   100   500   1000   5000   10000

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 mud wall and adobe block with concrete bond beam construction.

Historical Earthquakes

Date (UTC)	Dist. (km)	Mag.	Max MMI(#)	Shaking Deaths
1980-10-24	344	7.1	VIII(11k)	65
1999-06-15	307	6.9	VI(178k)	16
1973-08-28	256	7.2	VII(847k)	600

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

Selected City Exposure

from GeoNames.org

MMI	City	Population
VII	El Coyul	2k
VII	Santa Maria Xadani	6k
VII	Santiago Astata	<1k
VII	San Pedro Huamelula	<1k
VII	Crucecita	15k
VII	Sector H Tres	3k
V	Oaxaca	263k
IV	Villahermosa	362k
IV	Tuxtla	481k
IV	**Puebla**	**1,590k**
III	Veracruz	568k

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/us6000ah9t#pager

Event ID: us6000ah9t