

M 4.3, 13km SE of Lincoln, Montana

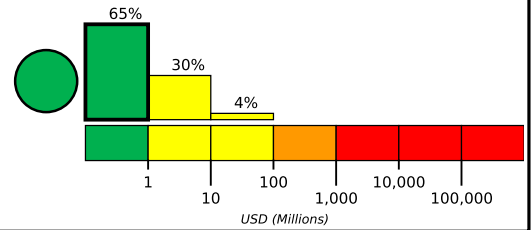
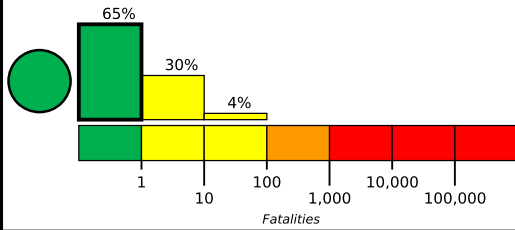
Origin Time: 2017-07-08 12:38:23 UTC (Sat 06:38:23 local)
Location: 46.8782° N 112.5330° W Depth: 12.5 km

Created: 4 days, 3 hours 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

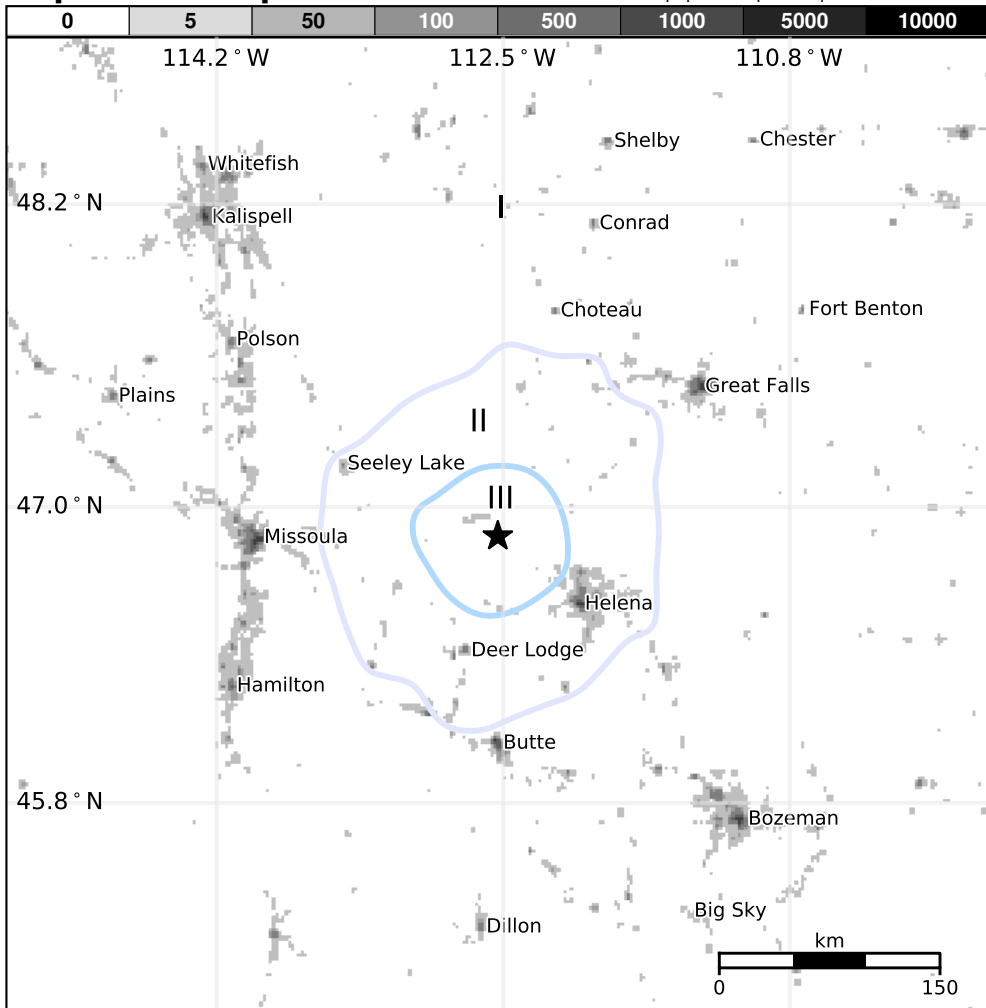


Estimated Population Exposed to Earthquake Shaking

ESTIMATED POPULATION EXPOSURE (k=x1000)	625k	124k	1k	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	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 resistant to earthquake shaking, though vulnerable structures exist. The predominant vulnerable building types are ductile reinforced concrete frame and reinforced masonry construction.

Historical Earthquakes

Date (UTC)	Dist. (km)	Mag.	Max MMI(#)	Shaking Deaths
2000-03-04	278	4.6	III(16k)	-
2005-07-26	164	5.6	VI(7k)	-
1983-10-28	326	6.9	VII(2k)	2

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
IV	Lincoln	1k
III	Helena Valley Northeast	3k
II	Helena Valley Northwest	3k
II	Deer Lodge	3k
II	Helena Valley Southeast	8k
II	Helena Valley West Central	8k
II	Helena	28k
II	Butte	34k
I	Missoula	67k
I	Great Falls	59k
I	Bozeman	37k

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/us1000985b#pager>

Event ID: us1000985b