

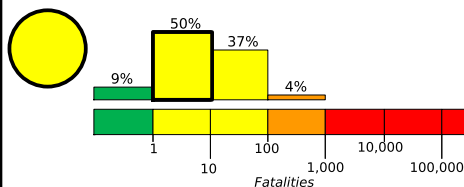
M 6.4, VALPARAISO, CHILE

Origin Time: Sat 2014-08-23 22:32:23 UTC (19:32:23 local)

Location: 32.70°S 71.44°W Depth: 32 km

Created: 3 weeks, 2 days after earthquake

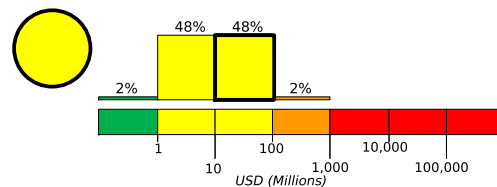
Estimated Fatalities



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 Chile.

Estimated Economic Losses

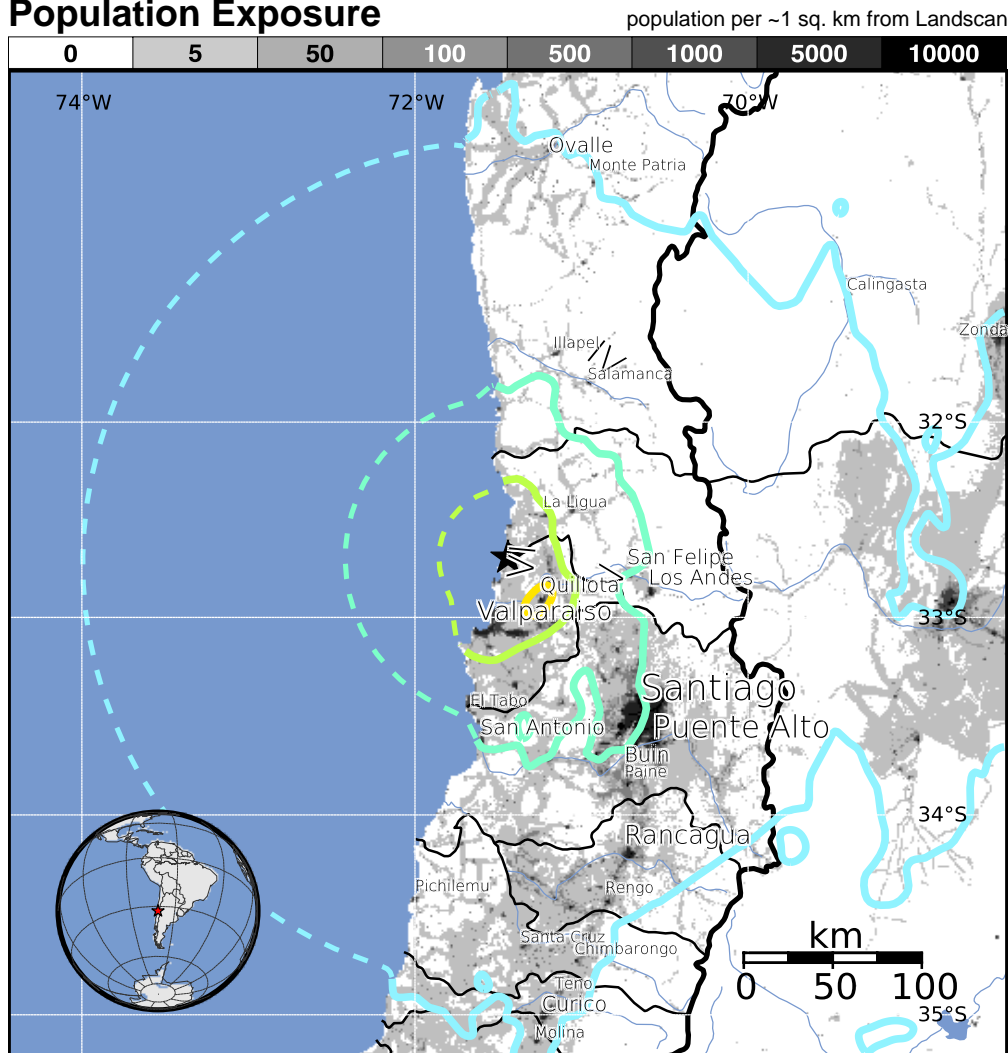


Estimated Population Exposed to Earthquake Shaking

ESTIMATED POPULATION EXPOSURE (k = x1000)	- - *	1,018k*	4,979k	5,115k	1,172k	137k	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
	Vulnerable Structures	none	none	none	Light	Moderate	Moderate/Heavy	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 some vulnerable structures exist. The predominant vulnerable building types are low-rise reinforced/confined masonry and adobe block construction.

Historical Earthquakes (with MMI levels):

Date (UTC)	Dist. (km)	Mag.	Max MMI(#)	Shaking Deaths
2003-06-02	55	5.5	VI(405k)	0
1997-10-15	202	7.1	VIII(3k)	7
1985-03-03	60	7.9	VII(7,023k)	177

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
VII Quillota	68k
VI Villa Alemana	97k
VI Vina del Mar	295k
VI Limache	36k
VI Quilpue	130k
VI Hacienda La Calera	49k
VI Valparaíso	282k
V Santiago	4,837k
IV Rancagua	213k
IV San Juan	447k
III Mendoza	877k

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: usb000s5rc