USGS
science for a changing world

Earthquake Shaking **Green Alert**

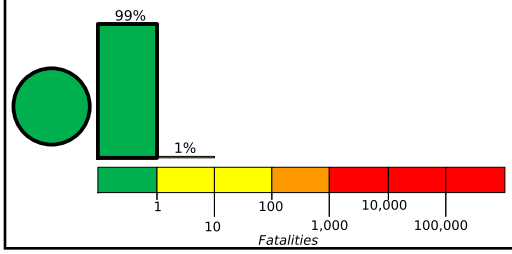
GSN ANSS USAID FROM THE AMERICAN PEOPLE

M 5.7, OFFSHORE TARAPACA, CHILE

Origin Time: Mon 2014-03-24 15:45:31 UTC (10:45:31 local)
Location: 19.59°S 70.82°W Depth: 17 km

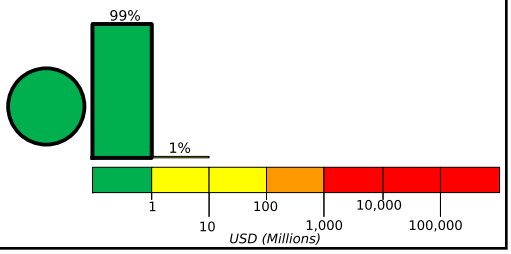
PAGER Version 5
Created: 6 weeks, 0 days after earthquake

Estimated Fatalities



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

Estimated Economic Losses



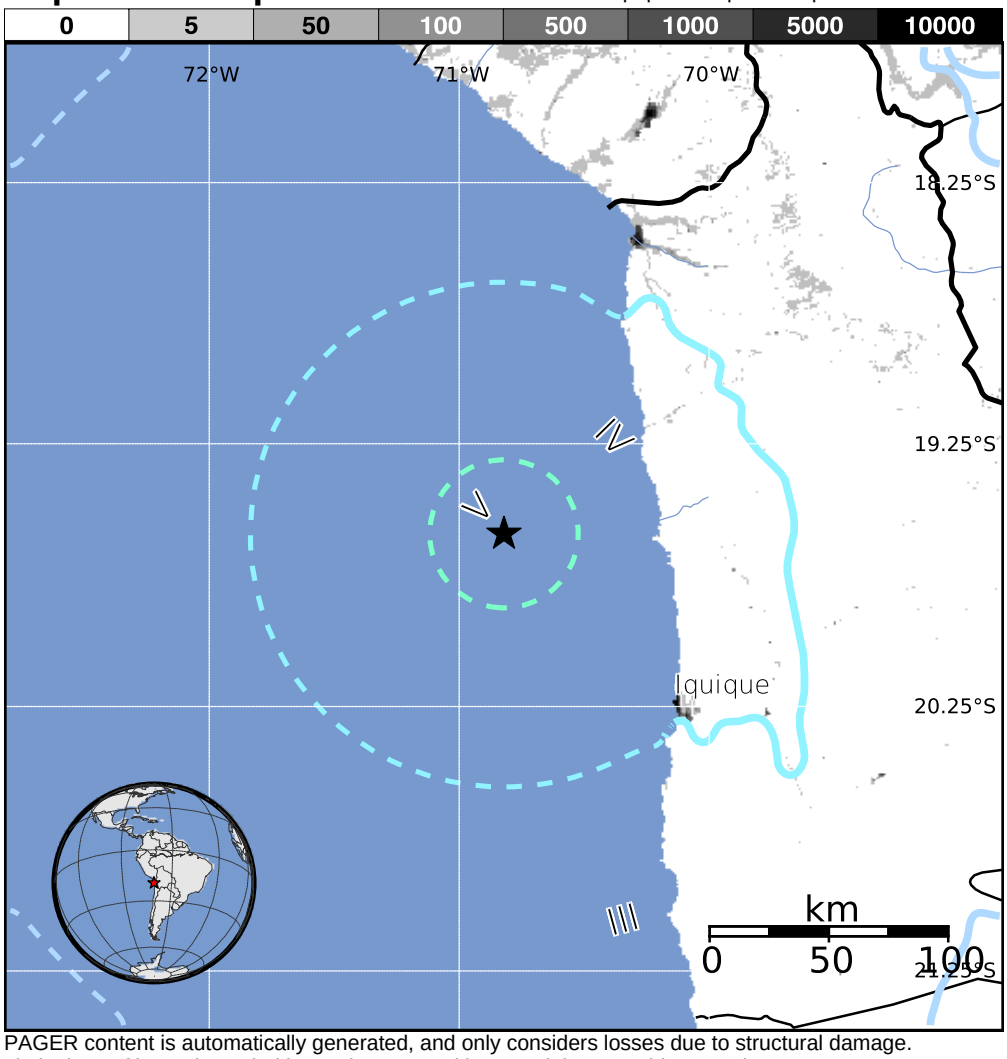
Estimated Population Exposed to Earthquake Shaking

ESTIMATED POPULATION EXPOSURE (k = x1000)		- -*	682k*	147k	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

population per ~1 sq. km from Landscan



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

Historical Earthquakes (with MMI levels):

Date (UTC)	Dist. (km)	Mag.	Max MMI(#)	Shaking Deaths
1995-07-30	398	5.6	VI(573)	0
1987-08-08	103	7.2	VIII(112)	5
1981-06-21	87	5.7	VII(6k)	10

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
III	**Iquique**	**227k**
III	Arica	186k
III	Las Yaras	< 1k
III	Tacna	280k
III	Pocollay	< 1k
III	Calana	< 1k
III	Sama Grande	< 1k
III	Putre	< 1k
III	Palca	< 1k

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: usc000nn3h