

# M 8.2, OFFSHORE TARAPACA, CHILE

Origin Time: Tue 2014-04-01 23:46:47 UTC (18:46:47 local)

Location: 19.61°S 70.77°W Depth: 25 km

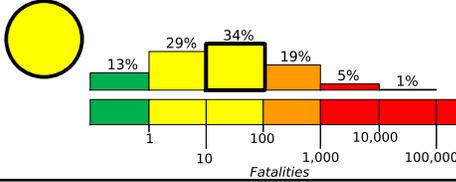
**FOR TSUNAMI INFORMATION, SEE: [tsunami.gov](http://tsunami.gov)**

Created: 69 weeks, 1 day after earthquake

## PAGER Version 9

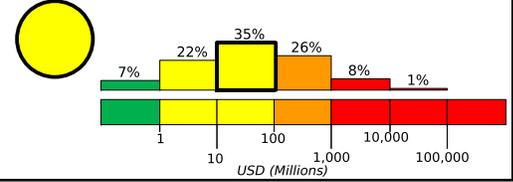
### Estimated Fatalities

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

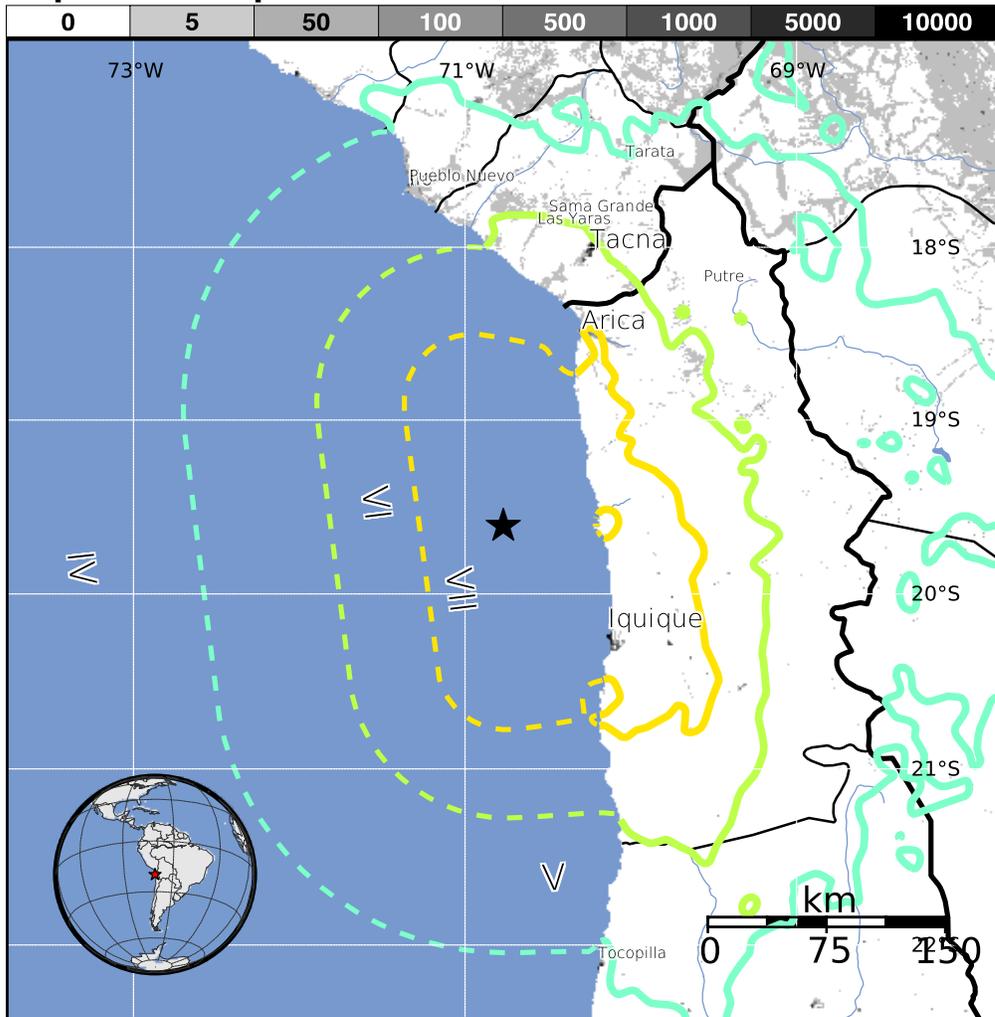


### Estimated Population Exposed to Earthquake Shaking

| ESTIMATED POPULATION EXPOSURE (k = x1000) | --*                   | --*    | 360k* | 240k     | 282k     | 501k        | 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 resistant to earthquake shaking, though some vulnerable structures exist.

### Historical Earthquakes (with MMI levels):

| Date (UTC) | Dist. (km) | Mag. | Max MMI(#) | Shaking Deaths |
|------------|------------|------|------------|----------------|
| 1995-10-12 | 386        | 5.5  | VII(245)   | 0              |
| 1987-08-08 | 108        | 7.2  | VIII(112)  | 5              |
| 1981-06-21 | 88         | 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 |
|---------------|------------|
| VII Iquique   | 227k       |
| VII Arica     | 186k       |
| VI Las Yaras  | < 1k       |
| VI Tacna      | 280k       |
| VI Pocollay   | < 1k       |
| V Sama Grande | < 1k       |
| V Ilo         | 53k        |
| V Moquegua    | 55k        |
| V Tocopilla   | 24k        |
| IV Mollendo   | 29k        |
| IV Patacamaya | 12k        |

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: usc000nzvd