

# M 5.1, NEAR THE EAST COAST OF HONSHU, JAPAN

Origin Time: Tue 2013-12-03 09:16:43 UTC (18:16:43 local)

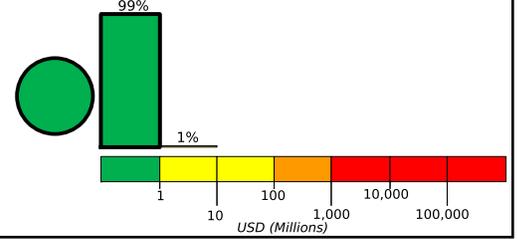
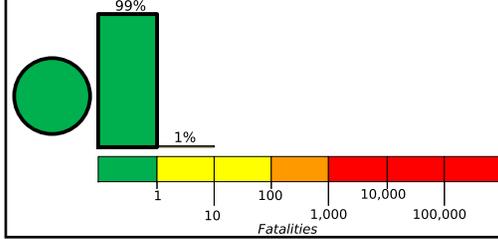
Location: 36.49°N 141.71°E Depth: 18 km

Created: 10 weeks, 3 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



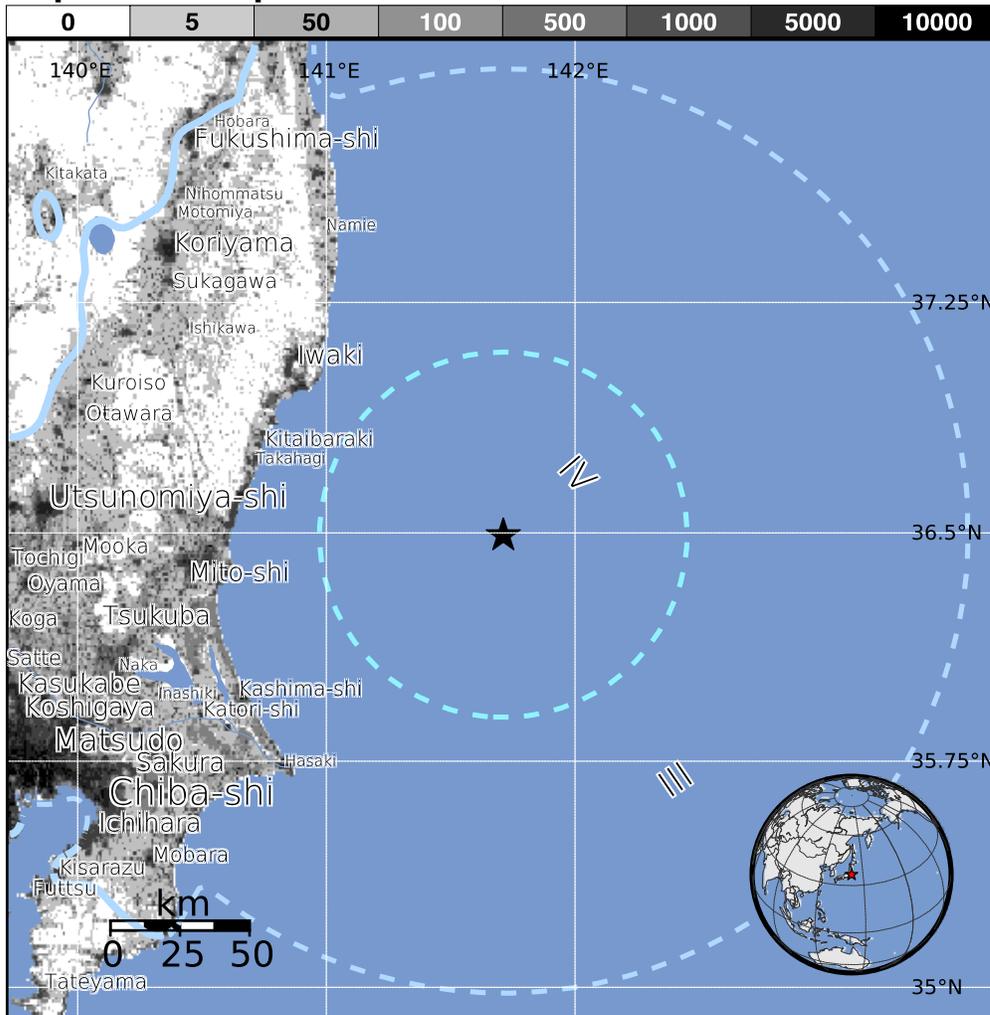
## Estimated Population Exposed to Earthquake Shaking

ESTIMATED POPULATION EXPOSURE (k = x1000)		--*	18,330k	34k	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 Landsat



### 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
1984-09-18	278	6.8	V(92k)	0
1980-09-23	187	5.3	V(12,718k)	1
1974-05-08	344	6.7	IX(30k)	27

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

## Selected City Exposure

from GeoNames.org

MMI City	Population
III Hitachi-Naka	157k
III Kitaibaraki	51k
III Oarai	19k
III Funaishikawa	35k
III Mito-shi	247k
III Iwaki	357k
III Chiba-shi	920k
III Utsunomiya-shi	450k
III Funabashi	561k
III Fukushima-shi	294k
III Kawasaki	1,307k

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: usb00019xu