



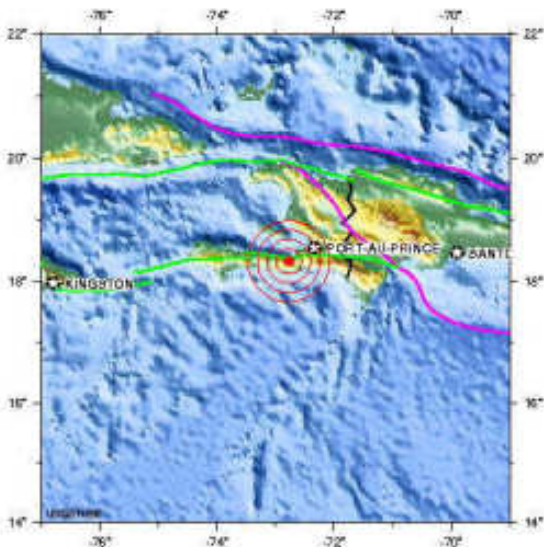
Earthquake Hazards Program

Preliminary Earthquake Report

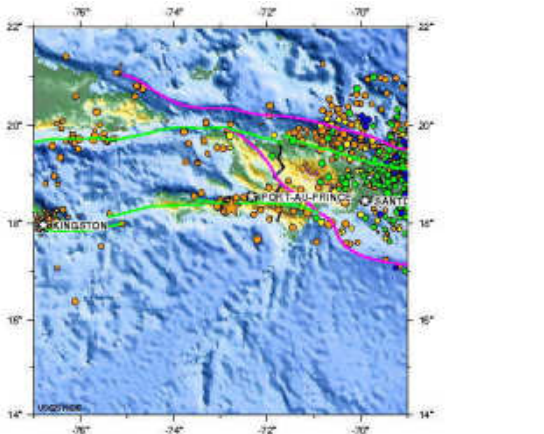
Magnitude 4.7 HAITI REGION

Thursday, January 14, 2010 at 08:15:42 UTC

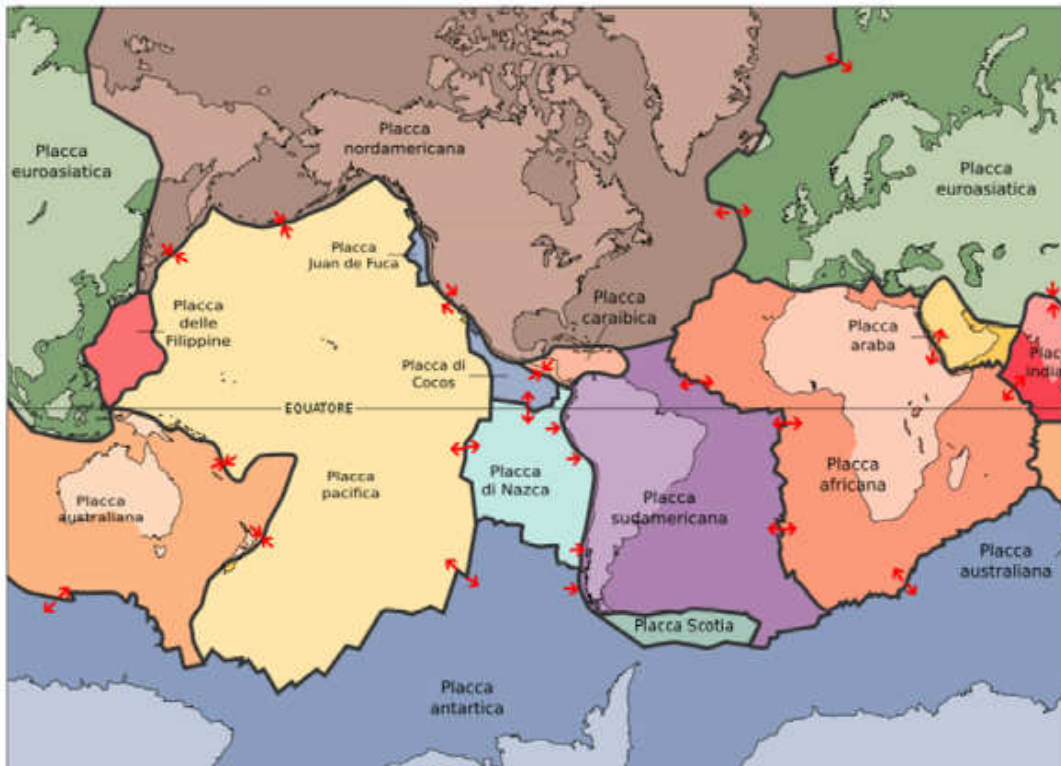
<b>Magnitude</b>	<b>4.7</b>
<b>Date-Time</b>	Thursday, January 14, 2010 at 08:15:42 (UTC) - Coordinated Universal Time Thursday, January 14, 2010 at 03:15:42 AM local time at epicenter <a href="#">Time of Earthquake in other Time Zones</a>
<b>Location</b>	18.33N 72.77W
<b>Depth</b>	10.0 kilometers
<b>Region</b>	HAITI REGION
<b>Distances</b>	50 km (30 miles) WSW of PORT-AU-PRINCE, Haiti 105 km (65 miles) E of Les Cayes, Haiti 170 km (105 miles) SSW of Cap-Haitien, Haiti 1125 km (700 miles) SE of Miami, Florida
<b>Location Uncertainty</b>	Error estimate: horizontal +/- 10.4 km; depth fixed by location program
<b>Parameters</b>	Nst=22, Nph=22, Dmin=171.1 km, Rms=1.47 sec, Erho=10.4 km, Erzz=0 km, Gp=77.0 degrees
<b>Source</b>	USGS NEIC (WDCS-D)
<b>Event ID</b>	us2010rfaq



HAITI REGION  
2010 01 14 08:15:42 UTC 18.33N 72.77W Depth: 10.0 km, Magnitude: 4.7  
Earthquake Location



HAITI REGION  
2010 01 14 08:15:42 UTC 18.33N 72.77W Depth: 10.0 km, Magnitude: 4.7  
Seismicity 1990 to Present



Overall, the population in this region resides in structures that are vulnerable to earthquake shaking, though some resistant structures exist. On June 24, 1984 (UTC), a magnitude 6.7 earthquake 329 km East of this one struck the Dominican Republic, with estimated population exposures of 320,000 at intensity VII and 2,964,000 at intensity VI, resulting in an estimated 5 fatalities. Recent earthquakes in this area have caused landslides that may have contributed to losses.

Exposure Summary | Full City Exposure List | Downloads

#### Estimated Population Exposed to Earthquake Shaking

Est. Modified Mercalli Intensity	Est. Population Exposure	Perceived Shaking	Potential Structure Damage	
			Resistant	Vulnerable
X	332k	Extreme	V. Heavy	V. Heavy
IX	2,246k	Violent	Heavy	V. Heavy
VIII	314k	Severe	Moderate/Heavy	Heavy
VII	571k	Very Strong	Moderate	Moderate/Heavy
VI	1,049k	Strong	Light	Moderate
V	7,201k	Moderate	V. Light	Light
IV	5,887k*	Light	none	none
III	-*	Weak	none	none
I	-*	Not Felt	none	none

\*Estimated exposure only includes population within calculated shake map area

#### Population Exposure

Population per -1 sq. km. from LandScan



#### Selected Cities Exposed

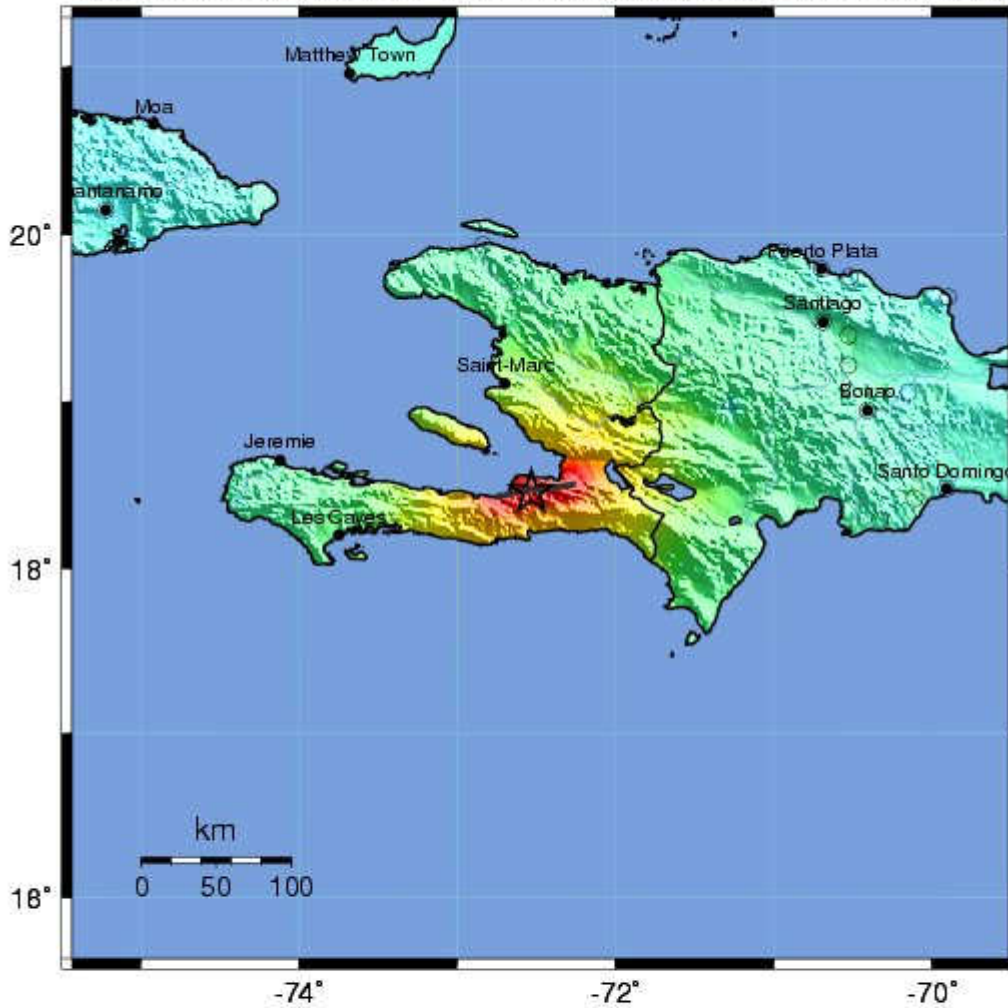
MMI	City	Pop.
X	Grand Goave	5k
IX	Port-au-Prince	1,235k
IX	Cap-Haïtien	442k
IX	Delmas 73	353k
IX	Pétionville	100k
IX	Colin des Bouquets	9k
VI	Miragoane	8k
V	Vernabas	49k
IV	Santiago de los Caballeros	559k
III	Santo Domingo	2,200k
III	Guantanamo	273k

#### Shaking Intensity



# USGS ShakeMap : HAITI REGION

Tue Jan 12, 2010 21:53:10 GMT M 7.0 N18.46 W72.53 Depth: 13.0km ID:2010rja6



Map Version 7 Processed Wed Jan 13, 2010 06:53:11 PM MST – NOT REVIEWED BY HUMAN

PERCEIVED SHAKING	Not felt	Weak	Light	Moderate	Strong	Very strong	Severe	Violent	Extreme
POTENTIAL DAMAGE	none	none	none	Very light	Light	Moderate	Moderate/Heavy	Heavy	Very Heavy
PEAK ACC.(%g)	<.17	.17-1.4	1.4-3.9	3.9-9.2	9.2-18	18-34	34-65	65-124	>124
PEAK VEL.(cm/s)	<0.1	0.1-1.1	1.1-3.4	3.4-8.1	8.1-16	16-31	31-60	60-116	>116
INSTRUMENTAL INTENSITY	I	II-III	IV	V	VI	VII	VIII	IX	X+