M7.0 Haiti Earthquake of 12 January 2010

**Tectonic Setting**

**Epicentral Region**

**Historic Earthquakes and Tsunami 1492 - 2004**

**TEOTHCHE SUMMARY**

The Haiti earthquake of January 12, 2010, occurred in the boundary region between the Caribbean and North American plates. This plate boundary is dominated by left lateral shear, and seismicity is concentrated along a 500 km long segment of this boundary in the northwestern Caribbean. Faults in this region are part of the chain of faults that extend south along the Caribbean. The Haiti earthquake was an Mw 7.0 earthquake, located about 20 km offshore, near the town of Port-de-Paix, close to the capital city of Port-au-Prince.

**EXPLANATION**

**Mag 7.0**

- **Main Shock**
- **Aftershocks**

**Earthquake Magnitude**

- 5.00 - 5.99
- 6.00 - 6.99
- 7.00 - 7.99
- 8.00 - 8.99

**Earthquake Depth**

- 10 - 19 km
- 20 - 39 km
- 40 - 100 km

**Data Sources**

- Earthquake and tsunami catalogs, World Data Center for Earthquakes.
- Moment tensors and focal mechanisms, Global CMT Project.
- Centennial Catalog, magnitudes greater than 5.5. From 1900 - 1963, earthquakes shown are from Engdahl and Johnson (1975). For 1964 - 2002, earthquakes are from Engdahl and Villaseñor (2002).

**References**


USGS, National Earthquake Information Center

NOAA, National Geophysical Data Center

NIMA and ESRI, Digital Chart of the World


IASPEI, Centennial Catalog (1900 - 1999) and extensions (Engdahl and Villaseñor, 2002)

CUT (2D and 3D topography) (Western, 1988)

EARTHQUAKE SUMMARY MAP

EARTHQUAKES AND SEISMIC HAZARD

**Estimated Population Exposed to Earthquake Shaking**

**Population Exposure**

- **Selected City Exposure**
- **Area of Exposure**

**Significant Earthquakes Map (M ≥ 7.0)**

**Earthquake Map**

- **Epicentral Region**
- **Historic Earthquakes**

**Note:** Historic earthquakes in the interior and near coast of Central America are not included in this figure.