

Weekly report

Institut de physique du globe de Paris

Observatoire volcanologique et sismologique de Martinique

Activity of Mount Pelée

Saint-Pierre, May 2, 2025, 16:00 local time (GMT-4)

Volcanic activity remained high this week, with **137 volcanic earthquakes** observed.

Between April 25, 2025 at 16:00 (UTC) and May 2, 2025 at 16:00 (UTC), the OVSM has recorded:

- **107 low-energy volcano-tectonic** type earthquakes. These earthquakes were clearly identified as originating from one of the well-known seismically active zones on Mount Pelée, located between 1.0 and 1.4 km below the summit of the volcano. Superficial volcano-tectonic seismicity is associated with micro-fracturing in the volcanic edifice related to the overall reactivation of the volcano observed since late 2018.
- **22 long-period** type earthquakes. 18 of these earthquakes were located and their depth is between 17 and 40 km. Their magnitude ranges from $M_{lv} = 0.4$ to $M_{lv} = 1.2$. Deep long-period events contain only low frequencies and are associated with the circulation of magmatic fluids deep within the Mont Pelée volcanic system.
- **8 deep hybrid** earthquakes located at depths between 22 and 37 km, with magnitudes ranging from $M_{lv} = 0.6$ to $M_{lv} = 2.15$. Hybrid seismic signals are enriched in low frequencies and are also generally associated with the circulation of magmatic fluids in the deep part of Mount Pelée volcanic system.

The preliminary hypocenters of the localized long-period and deep hybrid earthquakes are mainly concentrated in two zones: one to the south-west of Mont Pelée at 17 to 23 km depth, and the other to the south-east of Mont Pelée, at 30 to 40 km depth.

No earthquake was felt by the population.

The week before, the OVSM had recorded **201 earthquakes** of volcanic origin. As of May 2, and during the last 4 weeks, the OVSM recorded a total of 388 volcanic earthquakes, and an average of **97 volcanic earthquakes** per week.

During phases of volcanic unrest on volcanoes similar to Mount Pelée, it is usual to observe seismic activity that varies over time in intensity and frequency.

For more details on longer-term observations and interpretations of volcanic activity, please refer to the monthly bulletins of the OVSM.

The alert level is currently YELLOW: vigilance.

The Director's office of OVSM-IPGP.

Informations

The data in this report are preliminary and subject to change depending on their subsequent analysis.

The reports of OVSM-IPGP, including detailed monthly bulletins, are available at <https://www.ipgp.fr/observation/ovs/ovsm/>. You can also find us on our [Bluesky](#) et [Facebook](#) accounts. Locations of volcano-tectonic and tectonic earthquakes determined by the OVSM-IPGP are available in real-time at <https://renass.unistra.fr/fr/zones/les-antilles/>.

To receive the weekly report by email, simply request it at: infos@ovmp.martinique.univ-ag.fr

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