

## Weekly report

Institut de physique du globe de Paris

Observatoire volcanologique et sismologique de Martinique

### Activity of Mount Pelée

Saint-Pierre, August 22, 2025, 17:15 local time (GMT-4)

The volcanic activity has increased significantly this week with **659 volcanic earthquakes** observed.

Between August 15, 2025 at 16:00 (UTC) and August 22, 2025 at 16:00 (UTC), the OVSM has recorded:

- **655 volcano-tectonic** type earthquakes. Among them, 19 have a duration magnitude greater than  $M_d = 0.5$ , with the largest having a magnitude of  $M_d = 1.1$ . The others are of lower energy. 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.
- **4 shallow hybrid** type earthquakes, with a maximum local magnitude  $M_{lv} = 0.8$ , located approximately 1 km below the domes of Mount Pelée in the same area as the volcano-tectonic earthquakes. Hybrid seismic signals are enriched in low frequencies and are associated with the presence of fluids (gas, hydrothermal fluids) in the volcanic edifice.

These earthquakes mainly occurred during a first sequence that began on August 13 at around 23:30 (UTC) and ended on August 19 at around 01:00 (UTC), and during a second sequence that began on August 21 at around 22:00 (UTC) and which is still ongoing.

No earthquake was felt by the population.

The week before, the OVSM had recorded **218 earthquakes** of volcanic origin. As of August 22, and during the last 4 weeks, the OVSM recorded a total of 1320 volcanic earthquakes, and an average of **330 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](mailto:infos@ovmp.martinique.univ-ag.fr)

The information in this document cannot be used without explicit reference to it.