

## Weekly report

Institut de physique du globe de Paris

Observatoire volcanologique et sismologique de Martinique

### Activity of Mount Pelée

Saint-Pierre, February 3, 2023 14:30 local time (GMT-4)

Between January 27, 2023 at 16h00 (GMT) and February 3, 2023 at 16h00 (GMT), the OVSM recorded **3 volcano-tectonic type earthquakes**, one of which had a preliminary magnitude estimated between 1.5 and 2.3 and which occurred on January 31, 2023 at 16:02 local time. This earthquake was located about 1 km below the summit of Mount Pelee. It is the strongest amplitude recorded by the OVSM since at least 2010. The analysis of this singular event is in progress and will be detailed in the monthly bulletin of January 2023.

The other two earthquakes are of very low energy (negative magnitudes) and identified as originating from one of the well known seismically active zones at Montagne Pelée, located between 1.0 and 1.4 km below the summit of the volcano.

These events are evidence of activity in the superficial hydrothermal system (pressurized fluid flow in a fractured medium) associated with the overall reactivation of the volcano observed since late 2018.

The OVSM also detected a deep, low-energy **hybrid earthquake** localized between 25 and 30 km below the volcano.

During the volcanic reactivation phases of volcanoes similar to Mount Pelee, it is usual to observe seismic activity that varies 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 reports of OVSM-IPGP are available at <http://www.ipgp.fr/fr/ovsm/actualites-communiques-publics-de-lovsm>. You can also find us on our Facebook and Twitter 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.