



OVSM - IPGP – Friday 27th of August 2021 – 12h (local time, UTC-4h)

Weekly report on the activity of la Montagne Pelée

August 20 to 27, 2021

The seismic network and the GNSS network used for volcanic monitoring of la Montagne Pelée are operational as before the night of 29 to 30 June 2021 during which lightning damaged the computer systems in the former observatory building. The OVSM IPGP team took advantage of this event to modernize part of the seismic network of la Montagne Pelée.

Between August 20, 2021 4 p.m. (UTC) and August 27, 2021 4 p.m. (UTC), the OVSM recorded at least **19** volcano-tectonic earthquakes of magnitude less than or equal to 0.4. These earthquakes were located inside the volcanic edifice between 0.6 km and 0.8 km below the surface. This superficial volcano-tectonic seismicity is associated with micro-fracturing in the volcanic edifice. None of these earthquakes were felt by the population.

An area of underwater gas emission is observed at shallow depths between St Pierre and the Prêcheur. The IPGP is currently organizing field surveys to map this area of gas emissions, undertake physico-chemical measurements and sampling of these fluids in order to constrain the origin of the degassing and to evaluate its possible relationship with the hydrothermal system of Mount Pelée. This kind of phenomena is common at submarine volcanic sites, active or not, for example in Dominica or Italy. The analyses underway by the OVSM IPGP will determine the possible relationship of this underwater degassing with the unrest recorded at Mount Pelée by the observatory since 2019. This new site is monitored by the OSVM.

A main zone of strongly degraded, browned and dead vegetation is still observed on the southwest flank of Montagne Pelée, between the upper Claire River and the Chaude River, above their confluence.

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/>.

The alert level remains YELLOW: vigilance.

The Director's office of OVSM IPGP.