



OVSM - IPGP – Friday 6th of August 2021 – 12h (local time, UTC-4h)

Weekly report on the activity of la Montagne Pelée

July 30 to August 6, 2021

Repairs to our computer systems damaged by lightning during the night of 29 to 30 June 2021 in the former observatory building are still in progress. To date, 82% of the seismic network and 86% of the GNSS network used for volcanic monitoring of la Montagne Pelée are back online. The OVSM IPGP team takes advantage of this event to speed up the modernization of the seismic network of la Montagne Pelée.

Between July 30, 2021 4 p.m. (UTC) and August 6, 2021 4 p.m. (UTC), the OVSM recorded at least 121 volcano-tectonic earthquakes of magnitude less than or equal to 0.8. These earthquakes were located inside the volcanic edifice between 0.1 km below the sea level and the surface. This superficial volcano-tectonic seismicity is associated with micro-fracturing in the volcanic edifice. During the reporting period, OVSM also recorded 1 hybrid-type earthquake. This signal, containing low frequencies, is associated with the presence of fluids (gas, hydro-thermal waters) within the volcanic edifice. None of these earthquakes were felt by the population.

An area of underwater gas emission was detected 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.

The alert level remains YELLOW: vigilance.

The Director's office of OVSM IPGP.