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Saint-Pierre, Friday 8 January 2021, 12h (UTC -4)

Weekly report on the activity of la Montagne Pelée for the period from 1st January 2021 to 8th January 2021

The seismicity of volcanic origin began a new period of increase since January 1, 2020. None of these earthquakes were felt by the population.

Between January 1, 2021 4:00 p.m. UT (local time + 4h) and January 8, 2021 4:00 p.m. UT (local time + 4h), the OVSM recorded at least 65 volcano-tectonic earthquakes of magnitude less than or equal to 1. This volcano-tectonic seismicity is characterized by high frequencies and associated with micro-fracturing in the volcanic structure.

During the period of this report, the OVSM recorded a significant number (249) of long-period type earthquakes in a volcanic tremor-type signal distributed over 2 periods, between 00h00-02h00 UT on 3 January (for 2 hours) and between approximately 21h00 on 3 January and 02:00 UT on January 4 (for 5 hours). We also recorded 2 isolated long-period type earthquakes. These signals containing low frequencies are associated with the migration of fluids into the volcanic edifice. As during the previous volcanic tremor episode of November 8-9, 2020, volcano-tectonic seismicity reappeared a few days later the observation of the volcanic tremor, i.e. as January 6.

During phases of volcanic reactivation, it is common for periods of increased seismic activity to alternate with phases of lower seismic activity. The seismicity of volcanic origin remains above the average base level recorded between January 1, 2015 and April 2019 (the date of the start of its increase).

The occurrence of a new period of a few hours of volcanic tremor with low frequencies clearly indicate an ongoing perturbation of the hydrothermal system (the zone inside the volcanic edifice where interactions occur between hot magmatic gases and fluids, infiltrated rain water and the host rock) probably generated by the circulation of hot and pressurized fluids of hydrothermal and / or magmatic origin.

This report and the monthly OVSM-IPGP bulletins are available at <http://www.ipgp.fr/fr/ovsm/actualites-communiqués-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.