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'Understanding volcanoes and society: the key for risk mitigation'



Seismic monitoring of the 2015-16 eruption of Momotombo volcano, Nicaragua

Virginia Tenorio¹, Martha Navarro¹, Wilfried Strauch¹

¹Instituto Nicaragüense De Estudios Territoriales (INETER), Managua, Nicaragua

Momotombo volcano, Nicaragua, erupted on December 1, 2015, after 110 years of inactivity. We present the results of the seismic monitoring of the volcano before and during the eruption. The eruption was preceded by a seismic swarm and seismic tremor several days and hours before the beginning of the activity. Seismic tremor increased drastically when the lava fountaining began in the central crater. The lava flow which reached a distance of 3 km from the crater was accompanied by strong seismic tremor. Lava fountaining and flow ceased on December 8. In January and February 2016, the volcano presented several strong explosion in the crater followed by pyroclastic flows which reached distances up to 2.2 km. The occurrence of volcanotectonic (VT) seismic events and characteristic patterns of the tremor permitted the prediction of the explosions and the emission of warnings to the civil protection authorities.