

## **Lava dome extrusion in Nevados del Chillan volcano (Chile) December 2017: LP and tremor as dominant seismicity**

Fernando Gil -Cruz

SERNAGEOMIN, Southern Andes Volcano Observatory - OVDAS, Temuco, Chile (gilttremor@gmail.com)

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Fernando Gil-Cruz, Carolina Bravo, Carlos Eduardo Cardona, Cristian Cartes, Luis Enrique Franco, Erasmo Hernández, Jonathan Lazo, Daniela Pino, Jonathan Quijada, Juan José San Martín, Alberto Valderrama, Gabriela Velasquez

Reactivation of Nevados del Chillan volcanic complex initiated in December 2015 has been characterized by a dominance of LP events and tremor over VT seismicity. Some episodes of “screw- type” events also were recorded but its main seismic activity was, in general, seven episodes of minor vulcanian explosive activity since January 2016 in a mix of hydrothermal and magmatic activity, which reached up to 3 km heights. Energy of seismicity increased drastically in number and energy since December 1, 2017 with a new characteristic, LP and tremor events with harmonic character, showing up to ten overtones. Overflight on December 21 showed the formation of a crack of 40-50 m in the bottom of active crater, which develops to the extrusion of a lava dome, confirmed in a new overflight done in January 9, 2018. Here we make a characterization of seismicity related to this phenomenon.