SnT 2023 THE SCIENCE AND TECHNOLOGY CONFERENCE HOFBURG PALACE - Vienna and Online 19 TO 23 JUNE Use of the Auxiliar Seismic Station APG (AS-037) for the analysis of a seismic sequence in the North region of Guatemala Yani-Quiyuch, R. & Castro, D. Instituto Nacional de Sismología, Vulcanología, Meteorología e Hidrología, INSIVUMEH

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The mainshocks and the sequence of aftershocks may be associated with a segment of the Chixoy-Polochic fault in northern of Guatemala. Its production over time suggests a mainshock + aftershocks type seismic sequence.

Guatemala is located in a geographic region where three major tectonic plates interact, these are: Cocos, Caribbean and North America. The Auxiliary Seismic Station APG (AS-037) is located near the Motagua-Polochic fault system.



On 4 and 5 January 2018, two moderated earthquakes reported by the population were recorded in the northern region of Guatemala. These were characterized with the National Seismological Network (RSN). Another 33 earthquakes of smaller magnitude was recorded by the Auxiliary Seismic Station APG (AS-037) due to the high standards that its facility meets for its use in monitoring of possible nuclear explosions.



Results provided important information about the active seismic fault and the subsequent proposal to improve the RSN in the region. APG has been integrated into permanent monitoring routines, being one of the ones with the highest detectability of both local, regional and distant earthquakes