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Energy Model to Improve Data Availability of IMS, adapted to South America Seismic Stations site conditions.

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Remote places, away from crowded areas, where anthropic noise cannot affect the quality of the measurement characterize the site of installation of a seismological station. However, these sites are generally difficult to access, located in places where there are no traditional energy and communication systems, or the access to maintenance facilities affects its operability. This condition could for long periods affect the availability of the data generated by seismological stations connected to traditional energy systems, due to failures in the traditional electricity service. From this approach, the incorporation of autonomous energy systems is an alternative solution. However, in South America given the diversity of climates, with the presence of cloud forests, high vegetation and average precipitation levels between 350 and 2500 mm per year, the incorporation of autonomous energy systems to ensure the data availability of the seismic stations of the IMS - and therefore mission capable - represent a challenge. The purpose of this research is present a model for the incorporation of a stronger energy power system for IMS stations, adapting to South American region conditions. The results shared a contribution to improve IMS seismic station data availability, using an alternative system energy and considerations for its implementation.

Promotional text

Through the research, we can identify a potential and adaptive solution to improve the performance of the IMS seismic stations contributing to verification regime. Present this proposed in the Snt scenery is an opportunity to adjust and improve the research through the exchange.

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