

Auxiliary Seismic Network of the International Monitoring System Challenges and Opportunities: An International Monitoring System Perspective

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The auxiliary seismic network of the International Monitoring System (IMS) is comprised of 120 seismic stations. It is designed to support the primary seismic network to increase detection accuracy, for earthquake monitoring and nuclear test detection. Some auxiliary stations have been designated as temporary substitute primary stations. Auxiliary seismic stations are deployed at remote areas around the globe, many are hard to access often in harsh climatic conditions and occasionally facing security issues; some are approaching or exceeded 15 years of age since certification. Thus equipment replacement must be considered and failure, obsolescence and replacements must be addressed with greater frequency. The Provisional Technical Secretariat (PTS) provides remote technical support for troubleshooting, training of station operators, implementation of authentication and data transport, in accordance with the terms of the CTBT Treaty (Article IV). However, support is limited if the resulting action requires financial expenditure from the PTS. The direct consequence of this limitation is amplified if the host country is not capable of meeting the maintenance costs, thus resulting in station outages sometimes prolonged. We discuss the performance of the auxiliary station network and recommend solutions for the short and long term to improve maintenance practices and achieve better results.

E-mail

irene.bianchi@ctbto.org

Promotional text

This presentation concerns the auxiliary seismic network of the International Monitoring System.

Oral preference format

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Primary authors: Ms BIANCHI, Irene (CTBTO Preparatory Commission); Mr PEREIRA, Jose (CTBTO Preparatory Commission)

Co-authors: Mr KOMIYAMA, Hideaki (CTBTO Preparatory Commission); Ms STEFANOVA, Stefka (CTBTO Preparatory Commission)

Presenter: Mr PEREIRA, Jose (CTBTO Preparatory Commission)

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