



ID: P4.5-349

Type: e-Poster

## of seismic, infrasound and hydro-acoustic stations in Australia and Antarctica during the COVID-19 Pandemic.

*Friday 2 July 2021 11:45 (15 minutes)*

Robust station design, good working relationships with local operators and remote access to station equipment are key factors that allowed Geoscience Australia (GA) to continue operating CTBTO stations in Australia and Antarctica with minimal downtime during the COVID-19 pandemic.

Travel restrictions within Australia due to the pandemic resulted in station maintenance only undertaken for one out of five Australian stations between December 2019 and November 2020.

Although Australian stations were minimally impacted, GA encountered problems with single elements at two Infrasound arrays. We were able to identify the outages, troubleshoot and determine the cause, and in one case rectify the problem and return the element to operation.

This was due to our ability to monitor station performance remotely to identify the outage, and remotely access station equipment to identify and troubleshoot the issue. We were able to engage with the local operator nearby the station with knowledge of the equipment and systems who could assist with equipment exchange and perform tests.

With travel restrictions lifting in Australia we are now able to reinstate regular maintenance visits of stations. However good planning, practices and remote technologies assisted in ensuring stations remained operational in Australia during the crisis.

### Promotional text

Detailed are challenges encountered in operating CTBTO stations during the COVID-19 Pandemic in Australia and Antarctica. Effective methods of station operation, monitoring and remote access to ensure availability of seismic, infrasound and hydro-acoustic are described.

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**Session Classification:** T4.5 e-poster session

**Track Classification:** Theme 4. Performance Evaluation and Optimization: T4.5 - Resilience of the CTBT Monitoring Regime, including Lessons Learned from the COVID-19 Pandemic