

and analysis of pilot Studies PTSAVH.A-PS1 and PTSAVH-A-PS2 on infrasound sensor calibration

The PTS Midterm Strategy (CTBT/PTS/INF.1249) defined for the 2014-2017 time period underlines for the infrasound technology the importance of ensuring data quality at both the station and network levels in order to maintain and improve the capability to detect events relevant to the CTBT. This includes the use of accurate and regularly calibrated measurement systems as specified in the draft Operational Manual for Infrasound Monitoring and the International Exchange of Infrasound Data (CTBT/WGB/TL-11,17/17/Rev.5). In order to review the state-of-the-art knowledge on infrasound sensors, the PTS organized two pilot studies, PTSAVH.A-PS1 and PTSAVH-A-PS2. These pilot studies are concerned with measurements of Self-Noise, Dynamic Range, Sensitivity, Frequency Response and Passband measurements on infrasound sensors. The participating Laboratories were CEA (Commissariat à l'Énergie Atomique), Los Alamos National Laboratory (LANL), SNL (Sandia National Laboratories), and Umiss (University of Mississippi) and the role of coordinator was undertaken by the CTBTO. Several MB2005 and Chaparral 50A infrasound sensors were circulated between participants. This presentation includes the measurement results from the participants, information about their calibration/measurement methods, and the comparison analysis leading to the assignation of equivalence degrees.

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