

Review of the On-Site Inspection Equipment List and Recommendations for Possible Upgrades

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The on-site inspection (OSI) is the final component of the Comprehensive Nuclear-Test-Ban-Treaty (CTBT) verification regime that will help determine whether a nuclear explosion occurred; facts may also be gathered to determine who was responsible for the Treaty violation. The techniques include ground based, airborne, and laboratory elements. Because technologies involving some of the methods addressed in CTBT/PTS/INF.1573, which includes all OSI techniques identified under Part II of the Protocol to the CTBT, except drilling, have evolved over time, the goal of this work is to assist the Provisional Technical Secretariat in its efforts to refine the permitted equipment for OSI in order to quickly adjust the identified items on the list that have become obsolete. The review was conducted using all available documents, including the Treaty, the draft OSI Operational Manual, online discussions with field experts, OSI Workshops, etc.. As a result, some geophysical techniques such as, electrical conductivity measurements, passive and active seismic surveys and over-flight, have been reviewed and recommendations made. It is hoped that this effort will benefit the Provisional Technical Secretariat and OSI's activities for effective verification.

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Promotional text

The state of the art technologies of OSI equipment is critical to a successful verification. This work attempted to review some equipment that may be obsolete in the near future without compromising specification.

Oral preference format

in-person

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