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International Scientific Studies of the Implementation of the CTBT Verification System (CTBT-ISS)

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Questions related to the CTBT verification regime may play a pivotal role in the decision of a State on whether to sign or ratify the Treaty. Considerable advances have been achieved in the past decade in technology and science relevant to the CTBT. It is appropriate to highlight these advances and to analyze various aspects of the build-up of the CTBT verification regime as a complement to political efforts made towards entry into force of the CTBT.

The purpose of this project is to carry out scientific studies and evaluations to address the readiness and the capability of the verification system of the CTBT in a coordinated international effort. The resulting new scientific material will assist States Signatories in their assessment of the verifiability of the Treaty. The work will be done by voluntary scientific institutions.

The scientific work will be carried out by national scientific institutions who will be encouraged to work in close cooperation with other such institutions. The work is focusing on a number of key issues identified during the planning phase; the study illustrated topics on these key issues, *inter alia*, assessment of the Seismic, Radionuclide, Infrasound and Hydroacoustic network, Atmospheric transportation modeling, System performance monitoring, Data fusion and the use of new approaches for data analysis. Institutions are also welcome to carry out studies on other issues relevant to CTBT verification regime and to present the results at the scientific conference in 2009 that will be organized as part of this project. **Keywords**: CTBT, Comprehensive Nuclear Test Ban Treaty verification, Seismic, Radionuclide, Infrasound and Hydroacoustic network, Atmospheric transportation modeling, System performance monitoring, Data fusion, Data analysis