

# **Infrasound Processing at the IDC and its Near-Term Development**

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The presentation will provide information about the status of the development of the Vienna International Data Centre (IDC) from the point of view of the long-term IDC Commissioning plan approved by the Working Group B of the Comprehensive Nuclear-Test-Ban Treaty (CTBT) Preparatory Commission (PrepCom).

The IDC has been using the Release 3 (upgrade) of the seismo-acoustic application software from the Prototype International Data Centre (pIDC) in Arlington, USA. The last delivery of the application software, so called R3-upgrade was delivered to Vienna at the end of September 2001 as a series of software patches. These have been evaluated and step-by-step installed on the IDC Testbed and on the IDC Operational System from which the IDC products are being distributed to the States Signatories on a daily basis.

Based on the request of the Working Group B a Mid-Term Plan for further IDC development was prepared. The Medium Term Plan breaks the remaining work into over 30 activities, under which there are a total of over 120 task areas. Among the most important activities are completion of software and processes necessary to satisfy several Treaty requirements, and establishment of the norms to ensure performance, quality and sustainability of IDC systems to a level satisfactory to the States Signatories. Infrasound data processing along with hydroacoustic data processing were identified as a priority.

In 2001 PTS issued the Request for Proposals for “Phase 1 of Establishment of Hydroacoustic and Infrasound Reference Database and Support for Enhancement of Hydroacoustic and Infrasound Data Processing”. First contracts were concluded. Information on the status of this Programme will be provided.

For several months the IDC was running off-line the PMCC detector integrated with the DFX program and results obtained were compared with those of the current automated processing.

Interactive data processing was used to study the data from individual stations to characterize them. French interactive PMCC Matlab based tool was used for this purpose. During these exercises an initial list of requirements for software for interactive processing of infrasound data was step-by-step created and will be used for software development in this important area.