

Data Fusion automatic processing pipeline at CTBTO

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The International Monitoring System at the Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty continuously monitors the globe for nuclear explosions through seismic, infrasound, hydroacoustic, and radionuclide measurements to detect signals from possible nuclear explosions. The most complete understanding of the sources of measured signals can be achieved by combining the information from all four monitoring systems. The International Data Center automatically forms combined event hypotheses from the three waveform-based systems. The data fusion pipeline additionally combines waveform and radionuclide measurements to provide a complete view of possible fused events by correlating in space and in time the seismo-acoustic event locations with possible geographic source locations (Fields of Regard) for observations of CTBT-relevant radionuclides. These could be further studied by NDC analyst to investigate fused events that might possibly indicate a nuclear test event. In this presentation, we show the status of the data fusion pipeline and the browsing functionalities available to States Signatories. Ongoing developments as well as plans for future improvements will be discussed.

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Promotional text

The data fusion pipeline automatically combines waveform-based and radionuclide measurements to provide the most complete view of possible nuclear tests. The status and development plans will be presented.

Oral preference format

in-person

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