

## Empowering Venezuelan Seismological Service for Scientific and Civil Applications: Integrating IMS Technologies and Capacity-Building for Enhanced Regional Monitoring

LIGHTNING TALK

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- National Data Centres (NDCs) are crucial national technical organizations responsible for advising their authorities on verifying the Comprehensive Nuclear-Test-Ban Treaty (CTBT). Standardizing processes and providing essential hardware, software resources, technologies and techniques for monitoring, acquisition, processing, and data analysis are vital for optimizing the use and interpretation of data generated by the IMS.
- The capacity-building program empowers more countries to actively participate in nuclear-test-ban verification through intensive technical training courses for experts. This program equips NDCs with the necessary knowledge and tools for capacity strengthening while promoting international cooperation through meeting spaces and scientific-technical exchanges.
  Combined with the NDC4All initiative, this enhances the verification regime's effectiveness and aligns with global efforts to improve monitoring through scientific development and cooperation.
- This work presents the results of strengthening NDC Venezuela through the capacity-building program. It details how the acquired skills and tools from this program, along with regional NDC cooperation, have optimized NDC Venezuela and empowered the Venezuelan Seismological Service for scientific and civil applications. This showcases the integration of IMS waveform technologies for monitoring regional seismic and tsunamigenic activity, and developing forensic seismology, thereby reinforcing local and regional capacities to address national and international needs.
- We cordially invite you to explore our poster and share your insights or suggestions for future enhancements.

