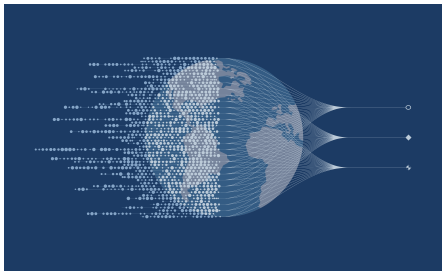

ID: **P3.5-307** Type: **E-poster**

Analysis of IDC REB Bulletins with NEIC Seismological Bulletin

The International Data Centre (IDC) of the Comprehensive Nuclear Test Ban Treaty Organization (CTBTO) processes and analyses data from the International Monitoring System (IMS). This effort culminates in the daily production of the Reviewed Event Bulletin (REB), recognized as one of the most comprehensive global seismic bulletins.

This study compares the IDC REB bulletins with those produced by the National Earthquake Information Center (NEIC), one of the major organizations producing seismological bulletins, over a 20-year period (2004–2024). Specifically, we assess the consistency of events with IDC magnitudes (mb) greater than 4, identifying events that are either missed or uniquely included by the IDC. By examining discrepancies in epicenter locations, we aim to pinpoint regions with significant location differences and investigate whether these discrepancies correlate with global and regional network coverage or are randomly distributed.

Additionally, we explore potential connections between location discrepancies and the use of travel time, azimuth, and slowness correction models. Our findings aim to enhance the understanding of global seismic monitoring accuracy, contributing to improved data integration, event detection, and correction models.

E-mail

Ehsan.QORBANI.CHEGENI@ctbto.org

Primary author: Mr QORBANI CHEGENI, Ehsan (CTBTO Preparatory Commission)

Co-authors: ALAMNEH, Fekadu Kebede (Addis Ababa University); Mr RAMBOLAMANANA, Gerard (CTBTO Preparatory Commission); Mr GRAHAM, Gerhard (CTBTO Preparatory Commission)

Presenter: Mr QORBANI CHEGENI, Ehsan (CTBTO Preparatory Commission)

Session Classification: P3.5 Analysis of Seismic, Hydroacoustic and Infrasound Monitoring Data

Track Classification: Theme 3. Monitoring and On-Site Inspection Technologies and Techniques: T3.5 Analysis of Seismic, Hydroacoustic and Infrasound Monitoring Data