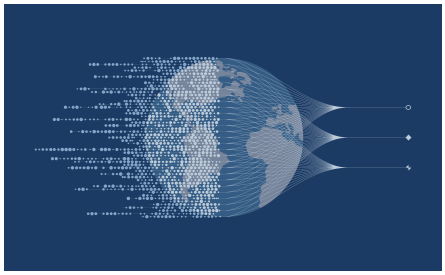

ID: **P3.5-818** Type: **E-poster**

Influence of Event Definition Criteria (EDC) on IDC SHI products and possible approaches to optimize it

Thursday 11 September 2025 11:00 (1 hour)

We assess the impact of the Event Definition Criteria (EDC) on the IDC bulletins from the perspective of introduced changes in IDC processing and growing number of IMS stations during the last decade.
Two main changes in IDC processing contributed to the increase SEL3 events reviewed by analysts – infrasound processing since 2016 and introduction of NET-VISA as additional associator to Global Association (GA) algorithm since mid 2017. 90% of the SHI IMS network segment is certified and around 87% is currently operational.
We also observe a growing discrepancy between number of events in the Late Event Bulletin (LEB) and the final product of IDC REB, starting from 4% in 2002 to 18% in 2011, reaching 25% in the last 5 years. Our analysis shows that most frequently LEB events do not meet EDC requirement for three primary stations.
Accumulated experience in processing and analysis over last ten year provides sufficient data to revise existing EDC and propose alternative approaches focused the quality of the products for verification purposes. We discuss possible ways to increase the number events in REB by changing of the EDC and/or using an alternative approach to these criteria.

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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