

Failure Analysis for the SHI Networks

The International Monitoring System (IMS) is one of the four elements of the CTBTO verification regime. A part of the IMS is composed of seismic, infrasound and hydroacoustic stations participating to the underground, air, and underwater explosions monitoring. The minimum requirement in term of data availability (DA) for each of station is 98%. This means that each station should be able to send its data to the International Data Center (IDC) over 98% of the time, regardless of the challenging environment they are facing. When an issue occurs at a station, solutions are discussed through the IMS Report System (IRS). All the information gathered in the IRS are then processed in order to present statistics on the failure causes with the aim of taking actions from the lessons learned. Failure analysis are performed on a six-month basis since Nov. 2011 with the objective of triggering the required engineering activities, verifying that the implemented engineering solutions led to improvements on reliability, initiating further analysis when needed (root cause analysis) and using trends to anticipate future failures. The poster presents the approach of the analysis, the limitations and lessons learned from the past five years, and propose perspectives for complementary actions.

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