

Civil and Scientific Application of IMS data Analysis for Volcano Monitoring with DTK-PMCC and Geotool Software

Tuesday 20 June 2023 09:52 (1 minute)

Everyday waveform data is detected and recorded by the seismic, hydroacoustic and infrasound stations (SHI) of the International Monitoring System produced by different sources coming from the earth, the oceans, and the atmosphere. In this study, signals of interest are the ones from volcanic sources, which can be put to wider civil and scientific use, from helping to save lives in case of major volcanic activity. Most volcanoes generate precursor signals before an eruption such as earthquakes, tremors, swarms, weak explosions, and landslides that SHI stations could record. A proper onset time detection, classification, and location of volcanic signals and with the support of an enormous catalog of event bulletins, crucial time can be gained in the prediction of a potential eruptive scenario and advice the authorities to evacuate the population before the intense lap of activity start. In this work, we will show some examples of SHI volcanic signals that can be analyzed interactively in an efficient way with the help of Geotool and DTK PMCC which are part of the NDC in a box software package, that available to Member States free of charge as part of the technical assistance through the capacity building and training.

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Promotional text

Advanced training focused on volcanic data analysis as part of the PTS Capacity building and Training activities is beneficiary for countries with continuous volcanic hazards and could be included as part of the regular Multiyear Capacity Building and Training Plan (MYAP).

Oral preference format

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Session Classification: Lightning talks: P1.3, P1.4, P5.2

Track Classification: Theme 5. CTBT in a Global Context: T5.2 Synergies with Global Challenges