



Quality Control Of Events Recorded By The Seismographic Station Of Chapadão Do Sul (C2Sb), Ms, Through The Seismogram Viewer Software (Seisgram2K)

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Abstract

The objective of this work was to analyze seismograms recorded by the seismographic station of Chapadão do Sul – MS (C2SB), corresponding to the period from 06/08/2012 to 12/31/2014, aiming at the quality control of the events reported globally (catalog of earthquakes located by the National Earthquake Information Center (NEIC) – USGS), recorded at the station and those actually confirmed after user analysis, considering teleseisms (> 1000 km), regional (101-1000 km) and local earthquakes (up to 100 km). Seismogram Viewer - Seisgram2K was used to quantify and to validate the results of seismographic analysis. Seismic data for the second half of 2012 were not used due to lack of time availability. For the years 2013 - 2014 there was a total of 2,316 events recorded, including teleseisms, regional and local seisms recorded by the C2SB station. For 2013, 763 earthquakes were recorded by the station, from which 288 were confirmed and in 2014 there was the confirmation of 1,377 of the 1,553 earthquakes recorded. With the confirmation of the data, a greater number of events were found in the State of Minas Gerais followed by the State of Rio Grande do Norte and Mato Grosso recorded by the Chapadão do Sul station (C2SB), establishing a significant result with the NEIC catalog for local and regional events. The seismographic station presents a mean percentage of complete data in the order of 63% of its operation, which is equivalent to the monitoring of 9,125 h or 730 days. The quality control of the events reported and recorded by the seismographic station of Chapadão do Sul (C2SB) has presented an increase of gradual reliability in the period from 06/08/2012 to 12/31/2014.

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