



Historical And Cartographic Survey In The Analysis Of Seismic Activity In West-Central Brazil: Emphasis In The Pantanal Sedimentary Basin

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Abstract

The construction of the country's seismic history was based on three research sources: a) paleoseismic or geological studies that search for evidence of earthquakes occurred in the last ten thousand years approximately, a period of time that corresponds to the geological time called Holocene; b) instrumental records, which provide more reliable data, since they come from seismographic stations and c) historical information that are considered as a tool to deepen the knowledge of Brazilian seismicity, researching what happened in the past, that is, searching for information about earthquakes which were not recorded: the "historical earthquakes". The present study consisted of a historical survey of the seismic activities of the West-Central Brazil, with emphasis on the Pantanal Sedimentary Basin during the period from 1744 to 1981. The sources of research used were: printed newspapers provided by the National Library of Rio de Janeiro and the Correio do Estado - MS. Among the surveys, 27 historical records were highlighted, 26 of which belong to the West-Central Brazil, 19 unpublished and 7 with additional information to those already listed in the book Seismicity of Brazil (1984), highlighting that 9 of these records occurred in the Pantanal Sedimentary Basin. Considering that the Brazilian Seismic Bulletin needs constant corrections of the data already obtained, especially those previous to the installations of seismographic stations, the incorporation of new information, mainly regarding the temporal and spatial analysis, allowed the enrichment of the Brazilian Seismic Catalog. In addition to this contribution, the macroseismic data of the earthquake occurred in Coxim in 2009 could be compared to the attenuation equation of Brazilian intensities, allowing a new epicentral location and magnitude.

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