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ABSTRACTS

RÉSUMÉS

SEISMIC ACTIVITY IN BRAZIL IN THE PERIOD 1560 - 1980

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Most of the Brazilian territory occupies the South American pre-cambrian shields, having a low level of seismic activity typical of intraplate regions. Earthquakes occurred in Brazil since 1560 have been analysed in the present study by using, in most of the cases, macroseismic data contained in historical documents, newspaper reports and early compilations of Brazilian tremors published since 1859. Original reports were consulted, when possible, in order to define the seismic parameters of these events. For some significant events occurred during the last 100 years further search was carried out in the localities where the tremor was felt obtaining additional information from local newspapers or through personal reports of some witnesses. This permitted the construction of isoseismal maps and definition of felt areas. Instrumental data has been used for the more recent events, especially those occurred after 1975 when most of the Brazilian seismographic stations were installed.

During the period of study not a single catastrophic seismic event has occurred in Brazil and few events have produced intensities up to VII MM, causing more emotional effects and concern than any considerable material damage. Most of the reported events were tremors felt mainly near the Atlantic coast line, which is also the region with the highest population density. A list of all seismic events collected in this study includes an evaluation of the type of each event and in some cases values of intensity and magnitude, and information of the date and place of occurrence. These events were plotted on a tectonic map of Brazil in order to correlate the seismic activity with the main tectonic features of the Brazilian territory.