



Investigating 19th and early 20th century Earthquakes in the Eastern Cape Province (South Africa)

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The seismicity for the years between 1820 and 1936 of Grahamstown, a settlement located in the heart of the current Eastern Cape Province of South Africa, is investigated with recourse to contemporaneous documentary sources. This investigation led to the development of a seismic history incorporating consideration of the broader geo-political context of the Eastern Cape colonial territory at that time. Individual studies of five regional events, ranging from Mw 6 to 4, that were felt in Grahamstown during that period are presented. An additional earthquake that was not felt at Grahamstown was included to present the exhaustive approach adopted in the study of the seismicity of the area. Each earthquake study includes the development of a full set of intensity data points (IDPs), which are used to determine reappraised epicentral locations and magnitudes, some of which differ significantly from previously listed parameters. The results thus obtained highlight the value of seeking out additional contemporary sources from a variety of sources in different languages when revisiting the source parameters of earthquakes for which no or only very limited instrumental information is available.