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The 1748 Montesa (south-east Spain) earthquake, a singular event

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The Montesa earthquakes of 1748 took place in the south-east region of the Iberian Peninsula. Its location falls somewhat outside the seismic active region of southern Spain. The main shock took place on the 23 of March and was followed by a series of aftershocks, the largest on the 2 of April. Despite of the large number of documents with descriptions of the damage produced by this earthquake it has not been the object of a detailed seismological study. Documents described the damage in about 100 towns and villages over a wide area and it was felt in Valencia, Alcoy and Cartagena. The castle of Montesa was totally destroyed and the town of Xàtiva suffered heavy damage. The source region with seismic intensity IX extends about 15 km from Sellent to Enguera, along a possible fault of NE-SW direction. This is a singular event because it occurred in an area with an assigned low seismic risk where in the past very few large earthquakes have happened. This earthquake shows that a destructive earthquake may happen in the future in this region. The area affected by the earthquake has today a high industrial and tourist development.