



Earthquake on 29 November, 2007 in Martinique: impact on Guadeloupe

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Strong earthquake with magnitude 7.4 occurred on November 29, 2007 at 19:00 UTC (3 pm of local time) in the Lesser Antilles (the Caribbean Sea). Its epicenter is located in the Martinique Passage (between Dominica and Martinique); coordinates are: 14.943°N, 61.244°W, depth 146.2 km. The intensity of the earthquake is estimated on Guadeloupe from IV to V according to MSK scale. Great panic was observed in several regions of Guadeloupe (Pointe-a-Pitre, Baie-Mahault), 40 persons needed medical treatment. Children were evacuated from schools, which were closed up to Monday, December 3. Some slight damage (broken small objects, cracked walls) was observed everywhere on the island. In general, the buildings were not damaged, but in Abymes a house was injected by a big stone which fall from nearest hill and in St Francois roads near shore were damaged. The inspections of Guadeloupe coastal zone between Gosier and St Francois made 2 hr after the earthquake and on next day showed the absence of tsunami traces, no witness reports of unusual water level oscillations were available. Numerical simulation of this event in the framework of shallow water theory confirms that possible tsunami should have been too small: maximal elevation is 5 cm and depression – 40 cm.