



Antigua and Barbuda

Earthquake

10 September 2021

Final Event Briefing

20 September 2021

1 INTRODUCTION

A magnitude 5.0 earthquake occurred at 00:43:19 UTC on 10 September 2021, 53.7 km (33.4 mi) NE of Anse-Bertrand, Guadeloupe; 69.7 km (43.3 mi) NNE of Sainte-Anne, Guadeloupe and 71.5 km (44.4 mi) ESE of Falmouth, on the island of Antigua in Antigua and Barbuda. Estimates from the United States Geological Survey (USGS) located the epicentre of the event at 16.811°N, 61.149°W, and at a depth of 45.1 km (28 mi – Figure 1). Antigua and Barbuda was the only CCRIF member country where peak ground acceleration, computed with the CCRIF System for Probabilistic Hazard Evaluation and Risk Assessment (SPHERA) model, was greater than 0.01 g for this earthquake.

Final runs of CCRIF’s loss model estimated no government losses for Antigua and Barbuda and therefore no payout under the country’s earthquake policy is due.

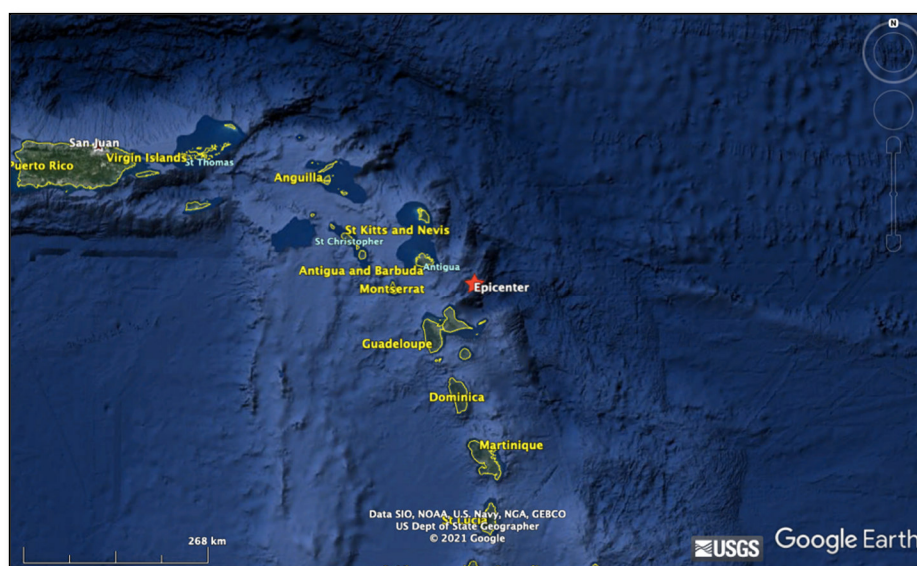


Figure 1 Information from the Earthquake Hazards Program of the United States Geological Survey regarding the earthquake event on 10 September 2021 at 00:43:19 UTC. Source: USGS¹

2 CCRIF MODEL OUTPUTS

Under CCRIF’s loss calculation protocol, a report using the CCRIF SPHERA model is produced for any earthquake with a magnitude greater than or equal to 5.0 that occurs within the region monitored by CCRIF and which generates a peak ground acceleration of at least 0.01 g in one or more grid cells of at least one CCRIF member country. Based on the SPHERA footprint for this earthquake, peak ground acceleration of up to 0.019 g was estimated in Antigua and Barbuda (Figure 2), but under SPHERA, the earthquake generated a loss estimation of zero.

¹ Download Event KML, United States Geological Survey, review date: 20 September 2021, available at: <https://earthquake.usgs.gov/earthquakes/eventpage/us7000f9vl/executive>

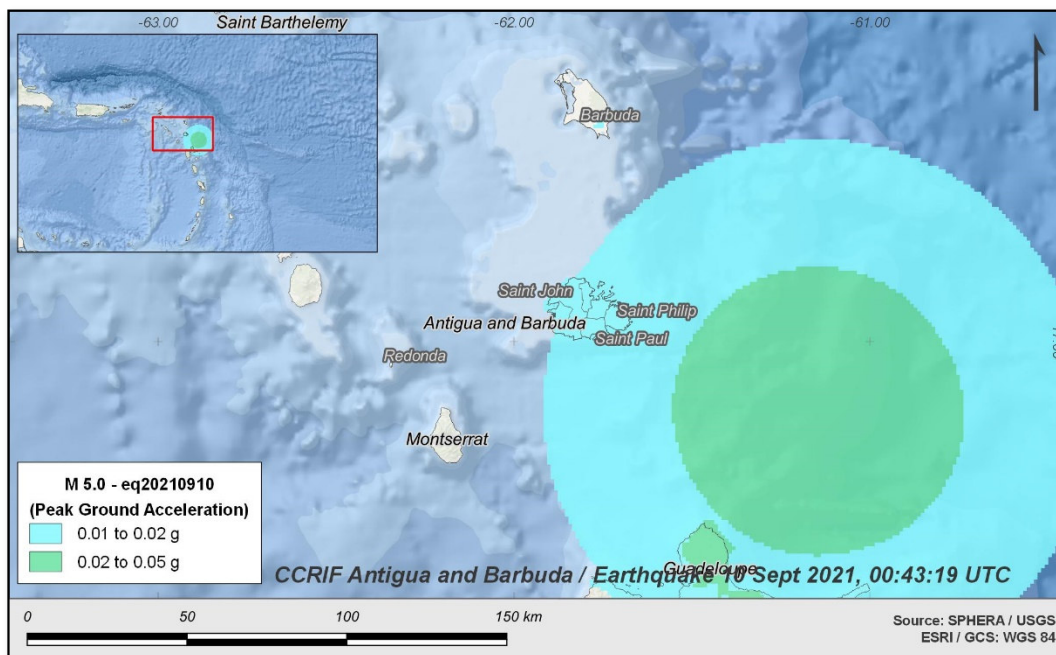


Figure 2 Map showing the peak ground acceleration in Antigua and Barbuda computed using SPHERA model following the magnitude 5.0 earthquake on 10 September at 00:43:19 UTC.

Source: *USGS & CCRIF SPHERA EQ Model.*

3 IMPACTS

Ten days after the earthquake’s occurrence, no information was available related to damages or losses in Antigua and Barbuda due to this earthquake.

According to the USGS “*Did You Feel It?*” online tool², 10 persons in Antigua and Barbuda within a radius of 124 km (77 mi) from the epicentre reported the earthquake as being a “weak shake with no damage” (Mercalli intensity: II - III).

4 TRIGGER POTENTIAL

Final runs of CCRIF’s loss model generated no government losses for Antigua and Barbuda for this earthquake and therefore no payout is due under the country’s CCRIF earthquake policy.

For additional information, please contact CCRIF SPC at: pr@ccrif.org

² Did You Feel It?, United States Geological Survey, review date: 20 September 2021, available at: <https://earthquake.usgs.gov/earthquakes/eventpage/us7000f9vl/dyfi/responses>