



Leeward Islands

Earthquake

17 June 2022

Preliminary Event Briefing

22 June 2022

1 INTRODUCTION

A magnitude 5.1 earthquake occurred at 10:48:11 UTC on 17 June 2022, 29.4 km (18.3 mi) SSW of The Valley, Anguilla; 44.3 km (27.5 mi) SSW of Sint Maarten and 32.1 km (20mi) SSW of Sandy Ground Village, Anguilla. Initial estimates from the United States Geological Survey (USGS) located the epicentre of the event at 18.472°N, 62.984°W, and at a depth of 34.1 km. Sint Maarten and Anguilla were the only CCRIF member countries where peak ground acceleration, computed with the CCRIF SPHERA EQ model, was greater than 0.01 g for this earthquake.

Preliminary runs of the CCRIF loss model for peak ground acceleration produced no government losses for Anguilla or Sint Maarten. Therefore no payouts under these countries' earthquake policies are due.

This event briefing is designed to review the modelled losses due to peak ground acceleration from the magnitude 5.1 earthquake event calculated by CCRIF's SPHERA EQ model for affected CCRIF member countries, to be analyzed with respect to members' earthquake policies.

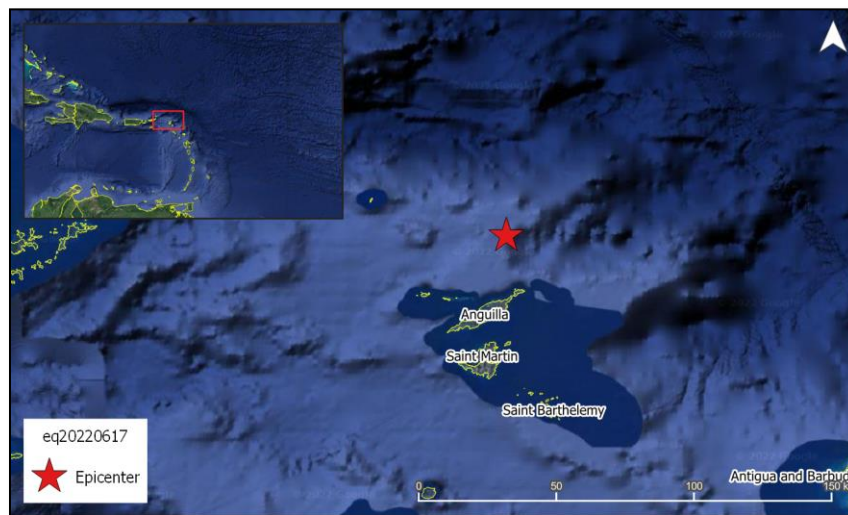


Figure 1 Information from the Earthquake Hazards Program of the United States Geological Survey regarding the magnitude 5.1 earthquake event on 17 June 2022 at 10:48:11 UTC. Source: USGS

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.

The peak ground acceleration (PGA) footprint is the output from the CCRIF SPHERA EQ model. Based on the SPHERA footprint for the magnitude 5.1 earthquake, a PGA of up to 0.03g was estimated in Anguilla (Figure 2), and in Sint Maarten a PGA of up to 0.02g was estimated (Figure 2). However, under SPHERA, the earthquake generated a loss estimation of zero for these member countries.

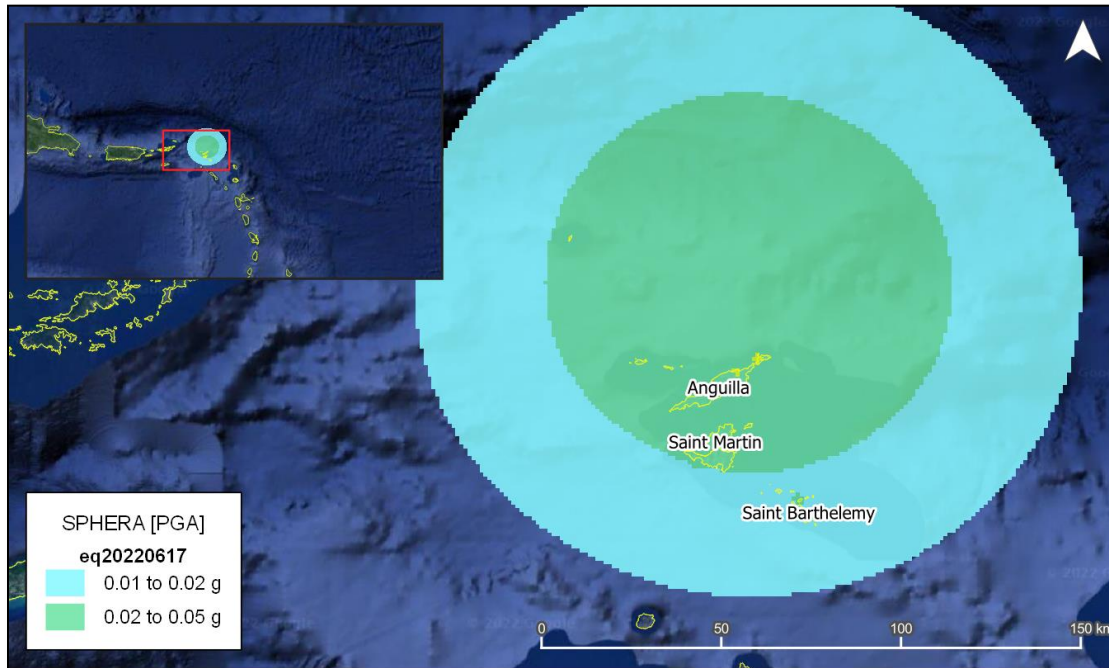


Figure 2 Map showing the peak ground acceleration in Anguilla and Sint Maarten computed using the SPHERA model following the magnitude 5.1 earthquake¹ on 17 June, 2022, at 10:48:11 UTC. Source: *USGS & CCRIF SPHERA EQ Model*.

3 IMPACTS

At the time of writing this report, there was no available information on damage or loss in Anguilla or Sint Maarten due to this earthquake.

According to the USGS “*Did You Feel It?*” online tool², 15 persons in Anguilla within a radius of 45 km (28 mi) from the epicentre reported the earthquake as being a “light shake with no damage” (Mercalli intensity: III - IV). In Sint Maarten, within a radius of 60 km (37.2 mi) from the epicentre, 44 persons reported the earthquake as being a “light shake with no damage” (Mercalli intensities: III - IV).

According to local media, there were no reports of damage or casualties as a result of this earthquake³.

¹ USGS, review date: 17 June 2022, available at: [M 5.1 - 29 km NNE of The Valley, Anguilla \(usgs.gov\)](https://www.usgs.gov/locations/country-profiles/anguilla)

² Did You Feel It?, United States Geological Survey, review date: 22 June 2022, available at: [DYI Responses](https://www.usgs.gov/locations/country-profiles/anguilla)

³ St Maarten news: [UPDATE! 5,1 Bad Earthquake New Reports of the Latest - St Maarten News](https://www.stmaartennews.com/news/2022/06/17/update-5-1-bad-earthquake-new-reports-of-the-latest-st-maarten-news)

4 TRIGGER POTENTIAL

Preliminary runs of the CCRIF loss model for peak ground acceleration produced no government losses for Anguilla or Sint Maarten. Therefore no payouts under these countries' earthquake policies are due.

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