



# **British Virgin Islands**

## **Earthquake**

**24 January 2021**

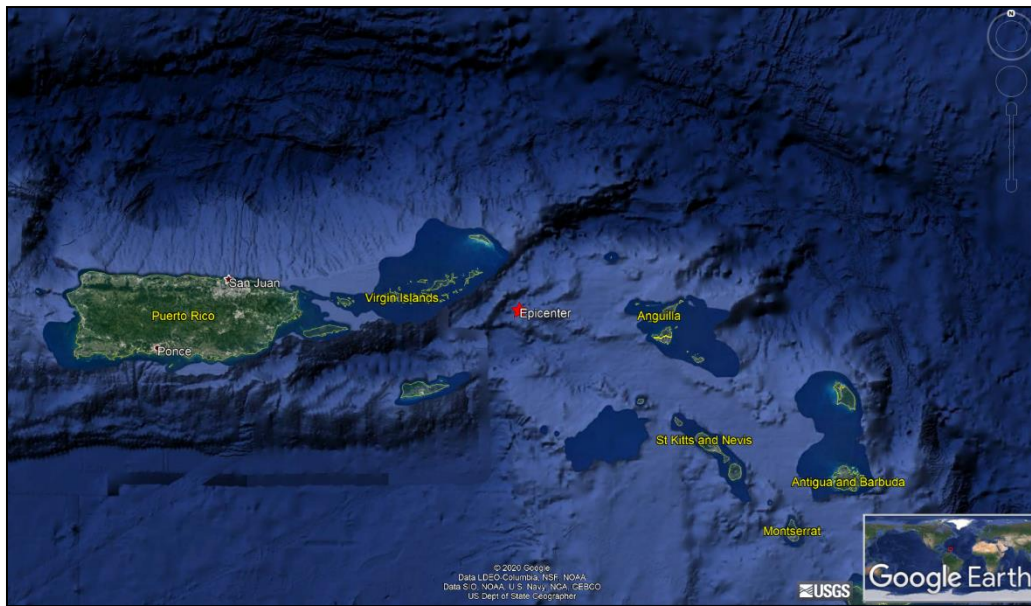
### **Preliminary Event Briefing**

**25 January 2021**

## 1 INTRODUCTION

A magnitude 5.4 earthquake occurred at 23:21:41 UTC on 24 January 2021, 62.5 km (38.8 mi) ESE of Road Town, British Virgin Islands; 92.3 km (57.4 mi) NE of Saint Croix, U.S. Virgin Islands and 167.3 km (104 mi) E of Fajardo, Puerto Rico. Initial estimates from the United States Geological Survey (USGS) located the epicentre of the event at 18.252°N, 64.071°W, and at a depth of 94.0 km (58.4 mi – Figure 1). The British Virgin Islands was the only CCRIF member country that was affected by the earthquake.

Preliminary runs of CCRIF’s loss model estimated no government losses for the British Virgin Islands and therefore no payout is due.



**Figure 1** Information from the Earthquake Hazards Program of the United States Geological Survey regarding the earthquake event on 24 January 2021 at 23:21:41 UTC. Source: USGS<sup>1</sup>

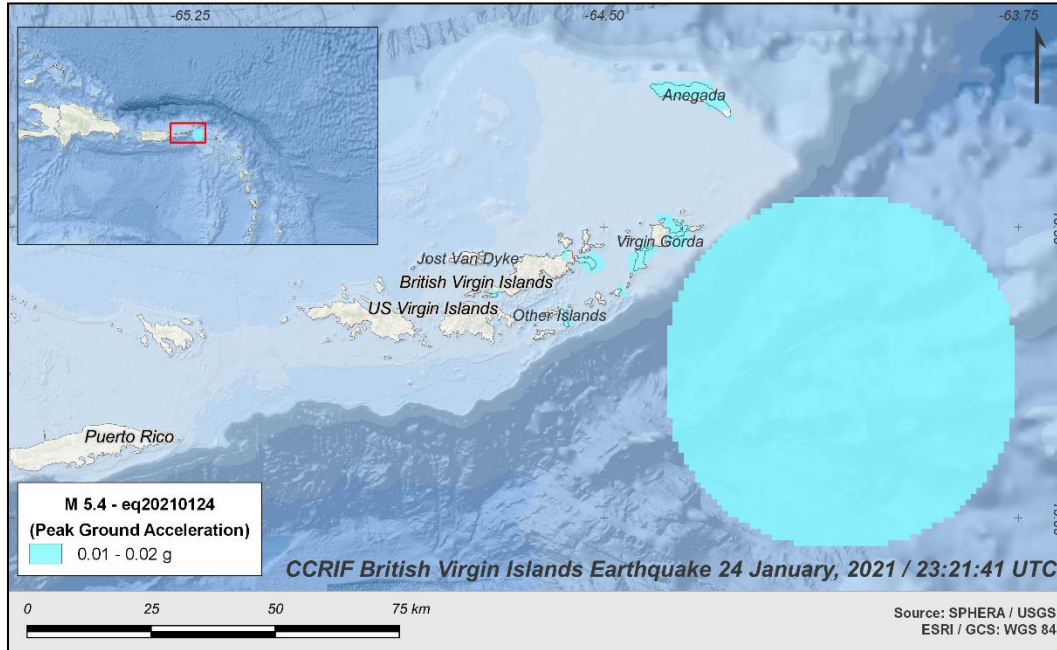
## 2 CCRIF MODEL OUTPUTS

Under CCRIF’s loss calculation protocol, a report using the CCRIF System for Probabilistic Hazard Evaluation and Risk Assessment (SPHERA) 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 0.02 g was estimated in the British Virgin Islands (Figure 2), but under SPHERA the earthquake generated a loss estimation of zero.

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<sup>1</sup> Download Event KML, United States Geological Survey, review date: 25 January 2021, available at: <https://earthquake.usgs.gov/earthquakes/eventpage/pr2021024007/executive>

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**Figure 2** Map showing the peak ground acceleration in the British Virgin Islands computed using SPHERA model following the magnitude 5.4 earthquake on 24 January at 23:21:41 UTC.  
Source: *USGS & CCRIF SPHERA EQ Model.*

### 3 IMPACTS

At the time of writing this report and according to information published in the local news<sup>2</sup> the earthquake was felt by the population but no injuries or damage to infrastructure were reported.

According to the USGS “*Did You Feel It?*” online tool<sup>3</sup>, in the British Virgin Islands within a radius of 112 km (69.6 mi) from the epicentre, 14 persons reported the earthquake as being a “light shake with no damage” (Mercalli intensity: IV).

### 4 TRIGGER POTENTIAL

Preliminary runs of CCRIF’s loss model generated no government losses for the British Virgin Islands for this earthquake and therefore no payout is due under the British Virgin Islands’ CCRIF policy for earthquake.

For additional information, please contact CCRIF SPC at: [pr@ccrif.org](mailto:pr@ccrif.org)

<sup>2</sup> Virgin Islands News Online (VINO), review date: 25 January 2021, available at: <http://www.virginislandsnews.com/en>

<sup>3</sup> Did You Feel It?, United States Geological Survey, review date: 25 January 2021, available at: <https://earthquake.usgs.gov/earthquakes/eventpage/pr2021024007/dyfi/responses>