



# Nicaragua

## Earthquake

**21 May 2021**

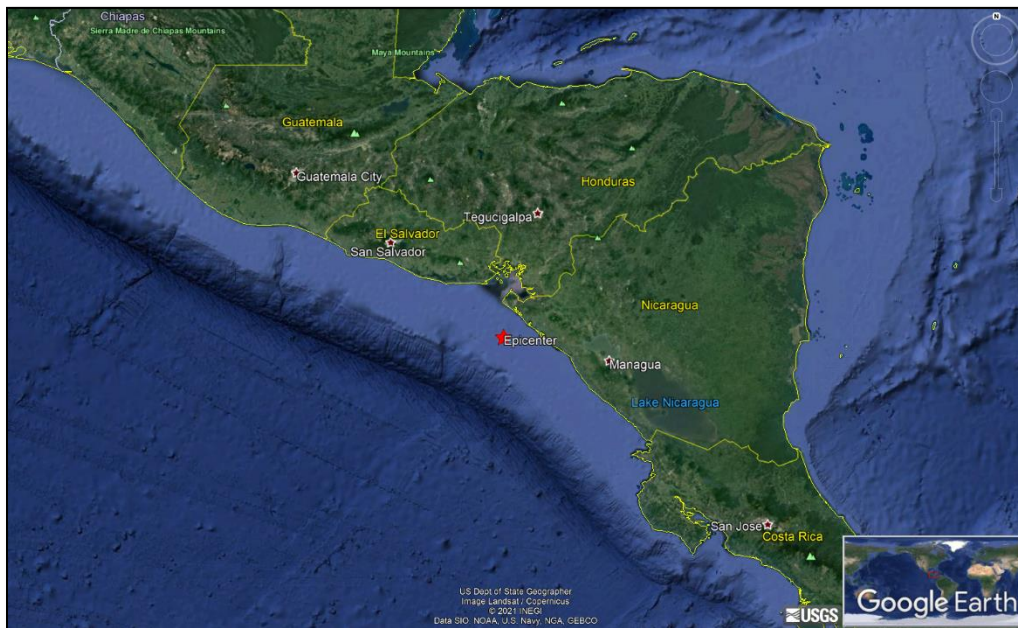
## Final Event Briefing

**31 May 2021**

## 1 INTRODUCTION

A magnitude 5.5 earthquake occurred at 22:19:51 (UTC) on 21 May 2021, 40.7 km (25.3 mi) SW of Jiquilillo, Nicaragua; 55.1 km (34.3 mi) W of Corinto, Nicaragua and 62.7 km (38.9 mi) WSW of Chinandega, Nicaragua. Estimates from the United States Geological Survey (USGS) located the epicentre of the event at 12.456°N, 87.680°W, and at a depth of 55.8 km (34.7 mi – Figure 1). Nicaragua 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 Nicaragua 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 21 May 2021 at 22:19:51 UTC. Source: USGS<sup>1</sup>

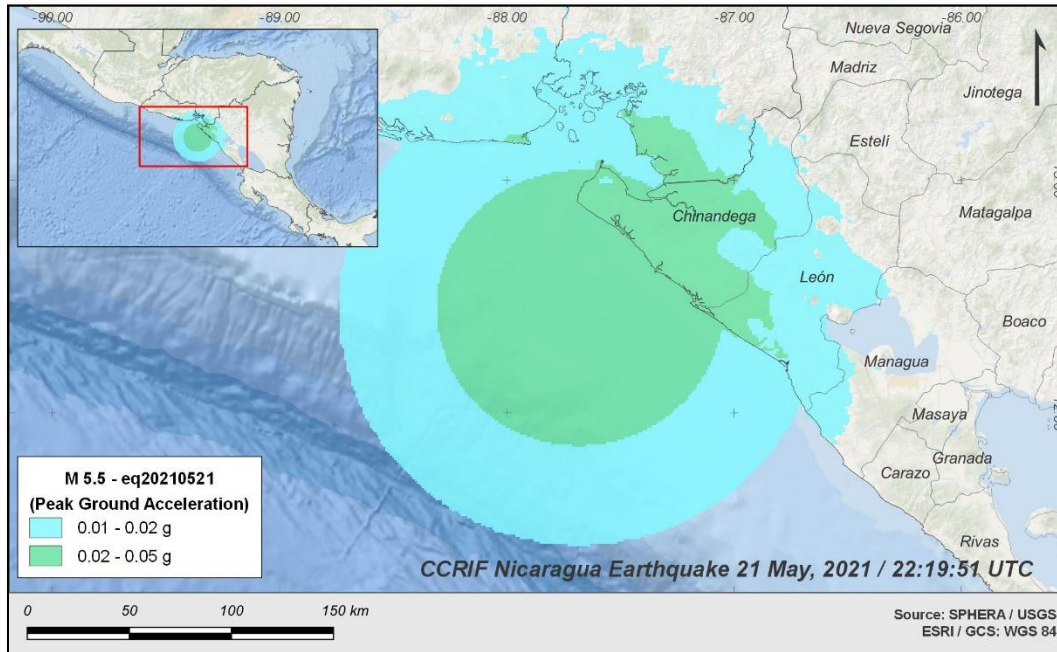
## 2 CCRIF MODEL OUTPUTS

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 0.05 g was estimated in Nicaragua (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: 31 May 2021, available at: <https://earthquake.usgs.gov/earthquakes/eventpage/us7000e57b/executive>

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**Figure 2** Map showing the peak ground acceleration in Nicaragua computed using SPHERA model following the magnitude 5.5 earthquake on 21 May at 22:19:51 UTC.

Source: *USGS & CCRIF SPHERA EQ Model.*

### 3 IMPACTS

Ten days after the earthquake’s occurrence and according to information published in the local news<sup>2 3</sup>, the earthquake was felt by the population but no injuries to persons or damage to infrastructure were reported.

According to the USGS “*Did You Feel It?*” online tool<sup>4</sup>, 13 persons in Nicaragua within a radius of 177 km (110 mi) from the epicentre reported the earthquake as being a “weak shake with no damage” to “moderate shake with very light damage” (Mercalli intensities: III to V).

### 4 TRIGGER POTENTIAL

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

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

<sup>2</sup> La Prensa, review date: 23 May 2021, available at: [‘Sismo de 5.8 grados sacude varios departamentos de Nicaragua’](#)

<sup>3</sup> El 19 Digital, review date: 23 May 2021, available at: [‘Reportan sismo de 5.7 en el Pacífico de Nicaragua’](#)

<sup>4</sup> Did You Feel It?, United States Geological Survey, review date: 31 May 2021, available at: <https://earthquake.usgs.gov/earthquakes/eventpage/us7000e57b/dyfi/responses>