

Trinidad and Tobago Earthquake

16 April 2015

Event Briefing

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1 INTRODUCTION

A magnitude 5.2 earthquake occurred at 02:24:16 UTC (21:24:16 local time) on 16 April 2015 north west of Trinidad and Tobago. Initial estimates from the United States Geological Survey (USGS) locate the epicentre of the event at 10.859°N, 62.459°W, and at a depth of 76.5 km.

2 CCRIF MODEL OUTPUTS

Under CCRIF's loss calculation protocol, a CCRIF Multi-Peril Risk Estimation System (MPRES) report is required for any earthquake with a magnitude greater than 5.0 affecting at least one of the 16 member countries. Based on the MPRES footprint, CCRIF member countries affected by the earthquake on 16 April 2015 were Trinidad and Tobago and Grenada.

3 IMPACTS

In Trinidad and Tobago and Grenada, no damage was reported in the press by major news outlets (CMC, Caribbean360, Trinidad Express, Nation News (Barbados)).

The scale of this event was particularly small, with Peak Ground Acceleration (PGA) values below 0.005g as shown in Figure 1. Values less than 0.005g are correlated with Modified Mercalli Index (MMI) values of between II and III. These MMI values are associated with a perception of weak shaking with no potential for damage. Reports of the shaking confirmed these expected MMI values, which ranged from IV in Diego Martin, Trinidad to II in Saint Georges, Grenada. The MMI is a measure of the effect of an earthquake on the earth's surface. An intensity of II on the index is considered weak and felt only by a few persons at rest, especially on upper floors of buildings. An intensity of IV is considered light, felt indoors by many people, and awakening some at night. Dishes, windows and doors are disturbed and standing motor cars rock noticeably (USGS).

These reports are corroborated by preliminary runs of the CCRIF loss model that did not generate any government losses in Trinidad and Tobago or Grenada and therefore no payout is due.

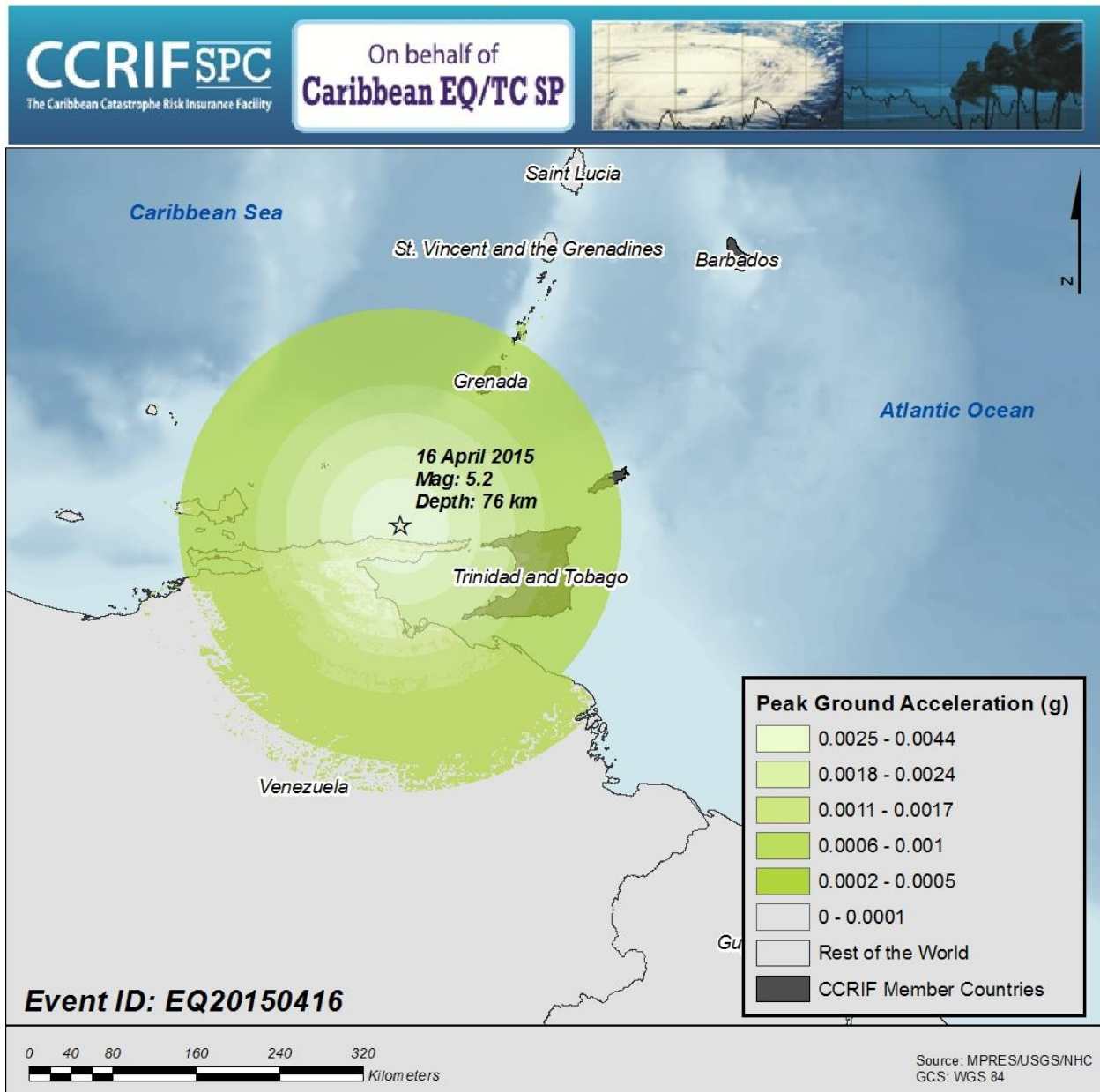


Figure 1: Map showing the peak ground acceleration following the magnitude 5.2 earthquake on 16 April 2015.
Source: USGS & CCRIF KAC/MPRES