

Seismic Activity in Southern Puerto Rico

FIELD UPDATE: January 15, 2020

Team: Jenniffer M. Santos-Hernández, Jaylin Soto Quintana

Page | 1

- On January 13, we visited the Municipalities of Ponce, Yauco, and Guayanilla. The number of residents in shelters has increased and, although we are not able to estimate the number of families not in shelters, who are staying outside of their homes, we observed numerous smaller camps.
- This field update touches upon observations related to shelters, services to evacuees, and donations. The update only provides observations of the areas visited.
- A 5.2 MI earthquake was felt on January 15. Table 1 outlines the reported events that had an intensity above 5.0. According to the Secretary of Housing, Fernando Gil, is currently estimated that 1,569 houses are damaged.
- Puerto Rico’s central government assigned \$2M each to the Municipalities of Guayanilla, Guánica, Ponce, Peñuelas, Yauco, and Utuado from Puerto Rico’s Emergency Fund. Another 11 municipalities received an allocation of \$250,000. The Fiscal Oversight and Management Board for Puerto Rico is allowing the State government to use the Emergency Fund until January 31, 2020, for emergency services in response to the recent earthquakes. A Presidential disaster declaration is not available at this time, although it is expected that one would be signed this week.
- Other Municipalities in the region are reporting damage and a great deal of uncertainty and concern among their residents (e.g., Lajas, San Germán, Mayagüez, Utuado, Lares, Adjuntas, Maricao, Las Marías, Sabana Grandes).
- The Municipality of San Juan allocated \$500,000 to support affected residents and opened two shelters, a tent shelter with capacity for 188 evacuees located next to Coliseo Roberto Clemente and another at Coliseito Pedrín Zorrilla with capacity for 400 evacuees.

Table 1: Earthquakes above 5.0 MI (Source: USGS, PR Seismic Network)

Date	Magnitude
December 28	5.0
January 7	6.4

January 10	5.2
January 11	5.2
January 11	5.9
January 15	5.2

Certified and Improvised Shelters



Image 1: Base Camp at Pista Atlética de Guánica (Athletic Track)

In Ponce, we visited Vocational School Bernardino Cordero Bernard and the Emergency Operations Center. From there we moved to Guánica where we visited the shelter located by Coliseo Mariano “Tito” Rodríguez, the downtown area, the base camp established at Pista Atlética de Guánica (Athletic Track), and the improvised camp at the baseball field of Comunidad La Luna. The governor of Puerto Rico, Wanda Vázquez Garced, delegated the responsibility of establishing the camp shelter in Guánica, and other municipalities, to the National Guard and the Department of Corrections. The Department of Housing will provide administration/coordination services at camp bases. In Yauco, we visited the shelter located at Yauco stadium.

Overall the number of residents has increased. Below is the composition of the shelter population at the time of our visit.

Table 2: Age structure of the population at visited shelters (Source: Shelter Registration Tables)

	0-2 yrs	3-6	7-12	13-17	18-21	22-65	66 +	Total
Vocational School, Ponce, PR	28	66	101	53	29	499	174	950
Coliseo Tito Rodríguez, Guánica, PR	11	31	34	26	33	272	128	535

Yauco Stadium	39	37	93	69	75	669	169	1150
---------------	----	----	----	----	----	-----	-----	------

The only shelter that had a visible whiteboard, that included the current population, special needs, and updates, was the vocational school at Ponce. The use of whiteboards for updates may allow residents to be more informed about the situation and services scheduled.

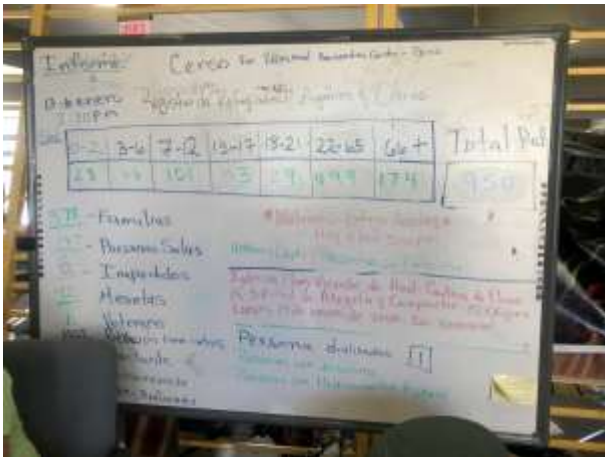


Image 2: Whiteboard at Vocational School in Ponce

We are concerned with the display of rifles by the National Guard. Overall there is a more pronounced military presence. In prior days, state and municipal police, along with the National Guard, were offering security at shelters. However, only very few soldiers were carrying rifles. Other camp shelters are located in Yauco, Guayanilla, and Ponce.

According to the Department of Housing, as of Jan. 14th, there are 29 public shelters distributed in fifteen municipalities and 8,023 evacuees registered. Puerto Rico’s central government assigned \$2M each to the Municipalities of Guayanilla, Guánica, Ponce, Peñuelas, Yauco, and Utuado.

The Department of Housing is processing applications for housing assistance through Section 8 vouchers and HUD emergency housing grants, temporary rent through the Home Program (~720 vouchers available through different programs).

At shelters, there is a concern for digestive and respiratory diseases. Although few cases had been reported, these were starting to emerge.

Donations

There are differences in the volume of donations received at different shelters. Those differences might be related to location. The shelter at Yauco Stadium, located by Rd. 2, the main freeway, received numerous donations. On Monday night, after residents had received supplies, there was still a substantial amount of supplies located next to the registration area.

Page | 4



Image 3: Donations at Yauco Stadium (Jan. 13, 2020)

Although local groups are organizing numerous aid drives, supplies may not reach locations where they are most needed or do not match the changing needs. This situation is consistent with previous research. For example, coordinators from the Department of Housing in Guanica could not locate sheets for residents transferred to the base camp. During the transfer of bed-bound evacuees, some of their belongings got wet, and dry sheets were needed. Another example could be that although an organization distributed VISA gift cards with \$200, those who are alone at the shelter or without transportation could not use the money received.

The coordination with incoming groups is also a challenge for shelter administrators. There is limited space for storage at the shelters, and some groups deliver supplies regardless of whether or not they are needed.

During our visits to the affected Municipalities, we have noticed communities with a great extent of severe housing damage, subdivisions (in Spanish, urbanizaciones) where houses have the same type of defect or failure, and others that will require substantial repairs. There are also dozens of historical structures and landmarks that have been compromised. These areas will demand a great number of financial resources for cleanup, mitigation, reconstruction, and recovery. One of the challenges in Puerto Rico, when it comes to eligibility for housing recovery assistance, is that a substantial amount of residents do not have titles to their properties. Therefore, in the context of Puerto Rico, the extent of damage to homes is a major concern.



Image 4: Structures damaged in downtown Guánica (from left to right, house damaged, Departamento de la Familia, Residencial Jardines de Guánica, Escuela Intermedia Agripina Seda, Residencial Luis Muñoz Rivera.

Services

There is a need for care services. Base camps are established to provide sites where services with different agencies can be offered. Paramedics transferred bedbound residents, who were staying at the tent shelter next to Coliseo Mariano “Tito” Rodríguez, to the base camp established at Pista Atlética de Guánica (Athletic Track) after 7:00 pm on January 13, 2018. The area was still at an early stage. Services were not available, and, at the time, porta-potties were located far from residents with disabilities. The tent for evacuees with disabilities did not have flooring, and there were rocks on the grass. There was a great deal of coordination taking place but very limited assistance to disabled and bed-bound evacuees.

Service providers have difficulty identifying residents whose homes are damaged or destroyed, inside and outside of shelters. The same challenge is present in the distribution of aid.

There is an ongoing public discussion and disagreement regarding the need to relocate residents outside of the affected area. Geologist Jose Molinelli, from Puerto Rico, recommended the relocation of affected residents outside of the affected area, given the prolonged seismic sequence taking place. Engineer Kit Miyamoto, from California, discarded the need to relocate residents in a press conference held by the Governor’s office.