

of the Upgraded Jamaica Seismic Network for Monitoring and Research in the Caribbean

Friday, 23 June 2023 09:21 (1 minute)

Recent upgrades to the seismic network in Jamaica has significantly improved the country's capacity for seismic monitoring and scientific research. The network now includes 13 broadband sensors, 12 short period seismometers and 42 strong motion accelerographs installed across the island. Devastating historical events including the infamous 1692 and 1907 earthquakes underscores the need for Jamaica to strengthen its monitoring and research programs. The Earthquake Unit is now well positioned to make further contributions to national development and by extension the Caribbean region. Data from local and regional networks will be incorporated with CTBTO's International Data Centre data from the IMS for civil applications and research. These advancements in conjunction with the use of SeisComP for real time data acquisition and processing will contribute to developing a robust monitoring program for the country where rapid hypocentre and magnitude solutions for events can be achieved. The upgrades will also support research initiatives and assist with refining the velocity structure model for the island along with focal mechanism solutions to better understand the seismicity and tectonics of the northern Caribbean. In addition to supporting microzonation surveys, the improved network will also be utilized for developing a tsunami early warning system and local seismic hazard models.

E-mail

kevintankoo@gmail.com

Promotional text

Contributes to scientific developments supporting the national needs of Jamaica. Improvements to the network highlights opportunities to strengthen the community and for collaborations. This work is an indicator of the impact of the CTBTO capacity building and training programs.

Oral preference format

in-person

Primary author: TANKOO, Kevin (Earthquake Unit, The University of the West Indies, Mona Campus, Jamaica)

Co-author: Mr WILLIAMS, Paul (Earthquake Unit, The University of the West Indies, Mona Campus, Jamaica)

Presenter: TANKOO, Kevin (Earthquake Unit, The University of the West Indies, Mona Campus, Jamaica)

Session Classification: Lightning talks: P5.3, P5.4

Track Classification: Theme 5. CTBT in a Global Context: T5.3 Regional Empowerment