



Bathymetric Survey Puerto Rico Trench/NOAA

SUMMARY:

Puerto Rico and the Virgin Islands are located at an active plate boundary between the North American plate and the northeast corner of the Caribbean plate. Plate movements have caused large magnitude earthquakes and devastating tsunamis. The risk to life and economic infrastructure is high, because 4 million U.S. citizens live along the coastlines of Puerto Rico and the Virgin Islands.

INVESTIGATORS:

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DESCRIPTION:

Our long-term objective is to provide the understanding needed to approach the problems of assessment, education and mitigation of tectonic hazards in Puerto Rico and the Virgin Islands. Our short term objective is to analyze the relevant existing data, to acquire high-resolution swath (bathymetry and backscatter), topographic, and seismic reflection data to define fault systems across the region.

START DATE OF PROJECT:

01-OCT-2002

END DATE OF PROJECT:

30-SEP-2003

LOCATION:

Puerto Rico

APPROACH:

Analysis of relevant existing geological and geophysical data and analysis of earthquake records are in progress culminating in a submitted paper, in two prepared m/s, and in several abstracts. NOAA has committed to funding 6 days of multibeam bathymetry data in the Puerto Rico Trench. We plan to dive along the edge of coral reefs surrounding Puerto Rico and document the depth to different depths of terraces to investigate whether the coastline is undergoing vertical tectonic movements.

IMPACT/RESULTS:

Impact of this work is intended to improve the safety of residents and to protect coastal resources in the Puerto Rico/Virgin Islands regional with regard to earthquakes and tsunamis.