

~~P. H. Green Woods Hole~~
#77 005rpt

CRUISE REPORT - PUERTO RICO PROJECT

Cruise number: 77-02

Objective: Investigate Submarine Canyon off Rio de La Plata, north coast of Puerto Rico: coring, seismics, bathymetry.

Dates: 14 - 16 February 1977

Vessel and ship-days: R/V Eastward of Duke University, 3 days
Man-days, six

Personnel: J.V.A. Trumbull, Orrin Pilkey (Duke University & USGS) and various Duke and U.N.C. students

Equipment: Ewing piston-corer, 20-inch airgun seismic system, 3.5 KH profiler, radar navigation.

Results, comments: Twelve piston cores from canyon flanks and axis on shelf and slope. Flanks mostly clay with pelagic organisms but many terrigenous sand beds throughout penetration of 20 feet. Semi-indurated probably Tertiary clay and bent pipe in axial attempts. Seismic quality poor but inter-canyon sediments clearly unconformable on apparently smooth surface near axial depth of canyon. 3.5 KH_z good for selecting coring locations. Bathymetry & seismics to be compiled/interpreted in San Juan, Core cuts analyzed at Duke. Cores stored San Juan.

40 km 3.5 KH_z no ROSCOP. (Poh's)
call this 6 man days → cruise mainly Duke sponsored.

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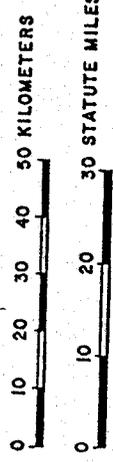
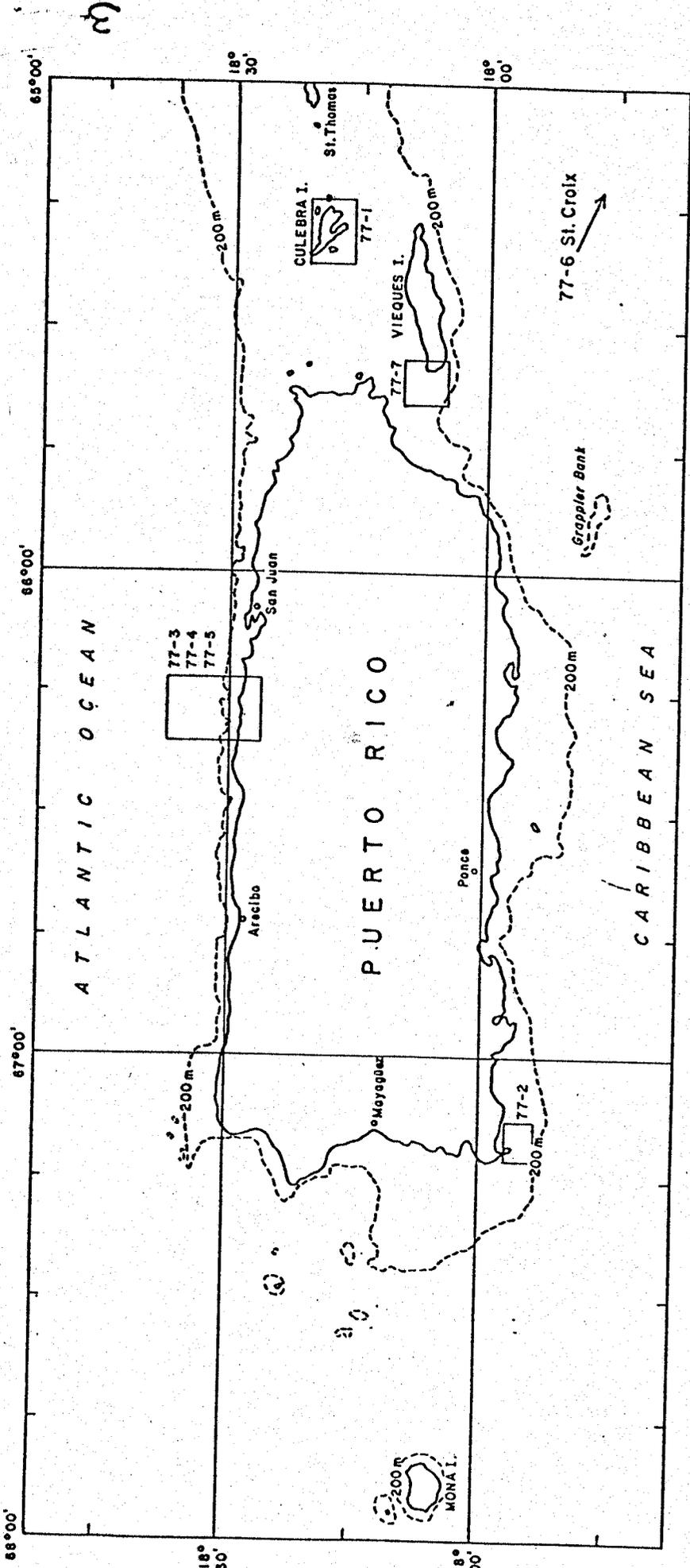
PUERTO RICE MARINE GEOLOGY CO-OP PROJECT

Tabulation of cruise data for fiscal year 1977. See map for area

FY-77

Cruise No.

- 77-1 5-8 Oct 76. Scuba recon. Culebra Island. Vessel, JEAN A, ship-days 4, man-days 12, Scuba dives 16.
- 77-2 18-21 Oct 76. Scuba dives to examine sedimentary features and emplace under-water marker stakes, Dahia Sucia area. Vessel JEAN A, ship-days 4, man-days 12, Scuba dives 19.
- 77-3 21-22 Jan 77. Emplaced current meters in Rio de la Plata submarine canyon in cooperation with Scripps Institution of Oceanography. Vessel JEAN A, ship-days 6 (USGS only), current-meter sets, 2.
- 77-4 25 Jan and 18 Feb 77. Recover current meters emplaced in previous cruise. Vessel JEAN A, ship-days 2, man-days 4 (USGS), current meters recovered, 2.
- #77005 77-5 14-16 Feb 77. Coring, seismic, and bathymetry, Rio de la Plata canyon. Vessel EASTWARD, ship-days 3 (USGS), piston cores 16, seismic line (airgun) 20 km echosounding at 3.5 kHz 120 km
- 77-6 13-21 May 77. Seismic recon for sand deposits at St. Croix, USVI, in cooperation with Bob Dill of West Indies Lab. of Fairleigh Dickenson Univ. (Basic reason for cruise was ship repairs available only in St. Croix.) Vessel JEAN A, ship-days 5, man-days 15, minisparker lines 220 km.
- 77-7 15 June - 1 July 77. Current measurements (drogue-tracking), bottom-sampling, and Scuba observations, Vieques Island. Vessel JEAN A, ship-days 17, man-days 47, current measurements 12, bottom samples 38, Scuba dives 18.



CRUISE TRACKS AND WORKING AREAS, FISCAL YEAR 1977
 PUERTO RICO MARINE GEOLOGY COOPERATIVE PROJECT

RECTANGLES INDICATES OPERATING AREAS