

## CRUISE REPORT

Ship Name Robert D. Conrad Cruise No. 22-12/12A  
Departure 15 August 1979 From Roosevelt Roads, Puerto Rico  
Arrival 15 September 1979 At Roosevelt Roads, Puerto Rico  
18 September 1979 Bridgetown, Barbados  
Days at Sea 31 Days in Foreign Port 3

### Area of Operation:

Vicinity of eastern Puerto Rico and Virgin Islands — area of OBS deployment and refraction lines is bounded by 17°N-21°N and 63°W-66°W

### Program Description

During the OBS experiment, which began on August 15, 1979, 19 OBS drops were made and 18 successful recoveries were accomplished. Five OBS's were deployed in the vicinity of 19.1°N, 64.9°W for a period of 12 days. Three OBS's were dropped near 18.9°N, 64.2°W and recovered 18 days later. Two OBS's were deployed near the St. Croix basin at 18.3°N, 64.1°W for 6 days. Two other instruments were positioned at the west end of the Anegada Passage near 17.8°N, 65.5°W for 6 days. In the final portion of the project, six OBS's were deployed along the inner wall of the Puerto Rico trench (18.8°N, 65.0°W; 19.1°N, 65.5°W; 19.4°N, 65.4°W; 19.3°N, 65.0°W; 19.2°N, 64.7°W; 19.1°N, 64.2°W) and one in the Anegada Passage at 18°N, 65.2°W for a period of 30 days. All but one of these instruments were recovered.

In addition to the OBS drops, two shots of two tons each were detonated at 19.2°N, 65.1°W and 18.6°N, 64.2°W. Short refraction lines (about 50 km long) were shot near each OBS. A refraction line using 100 lb charges was shot between two land stations on the eastern end of St. Croix and the island of Vieques.

The program was supported by EAR 78-02610.

## Participants:

| <u>Name</u>    | <u>Title</u>                                      |
|----------------|---|
| Pomeroy, P.    | Chief Scientist*                                  |
| Murphy, A.     | Co-Chief Scientist*                               |
| Aiken, T.      | Co-Chief Scientist**                              |
| Leyden, R.     | Senior Scientist and<br>Explosives Coordinator*** |
| Bookbinder, R. | Co-Chief Scientist and<br>Senior Engineer****     |
| McCann, W.     | Scientist (Graduate)                              |
| Frankel, A.    | Scientist (Graduate)                              |
| Bitte, I.      | Senior OBS Technician                             |
| Gunther, G.    | Senior OBS Technician                             |
| Roessler, R.   | Electronic Technician                             |
| Jacobs, K.     | Electronic Technician                             |

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- \* Drs. Pomeroy and Murphy left ship at St. Thomas on 2 September 1979
- \*\* Tom Aiken joined the ship at St. Thomas on 2 September 1979 to serve as Co-Chief Scientist
- \*\*\* Bob Leyden left the ship at St. Thomas on 31 August after completing denotation of multi-ton calibration shots
- \*\*\*\* Bob Bookbinder on St. Thomas from August 25 to August 31, 1979