

D. Folger

CRUISE REPORT

79001

Ship name: R/V Jean A

Cruise No.: 79-2

Parent Project: Puerto Rico Marine Geology Co-op

Area of Operations: Following areas of Puerto Rican shelf:

- Luquillo
- Escollo de Arenas
- Cabo Rojo
- Mayaguez
- Aguadilla-Isabela

Dates: 5 - 14 February 1979

Science Party: Jim Trumbull (Chief Scientist)

- Kurt Grove
- Nelson Espinell, P.R. Dept. of Natural Resources
- José Muñiz, P.R. Dept. of Natural Resources
- Al Goodman, Woods Hole

Purpose and accomplishments of cruise:

1. Luquillo area: 448 km of 12 KHz echo-sounding on upper slope to map canyons. 42 Km of Uniboom lines to determine suitability of method and map potential sand deposit. Results excellent.
2. Escollo de Arenas: Two bulk sand samples (BS-1 and 2), 10 Km Uniboom lines, same purpose as above.
3. Cabo Rojo area: Four bulk sand samples (BS-3 thru 6), 48 surficial samples in potential sand deposit area (QPR 401 thru 448), 44 Km of Uniboom lines, to evaluate both the method and the sand deposit. Results superb.
4. Mayaguez area: 42 Km of 12 KHz echo-sounding needed to complete bathymetry of Mayaguez-Boqueron area.
5. Aguadilla - Isabela area: 60 Km of Uniboom lines to determine shallow structure of area being geologically mapped, 18 surface samples on two profiles off Isabela needed to supplement previous coverage (IPR 41-58).

Navigation: Precision range ring on Jean A radar.

Equipment: Uniboom system recording on EPC recorder; 12 KHz with new hull-mount transducer, Giff and Edo transceivers (both of which were Woods Hole cast-offs and both of which failed), and UGR recorder; Shipek sampler.

No. days at sea: 10 (ten)

- Comments:
1. Uniboom excellent on P.R. sand deposit, and good on uppermost slope down to 500 m.
 2. R/V Jean A in excellent slope, crew is superb.
 3. Radio communications inadequate, must find money to re-crystal our SSB radios.
 4. Al Goodman did an excellent job of keeping electronic gear running in different circumstances.
 5. We have gone about as far as possible with Radar navigation, and must start using Miniranger-type systems. An absolute necessity for serious work in sand-deposit areas.
 6. Two 12-KHz transceivers became inoperative and forced cancellation of one piece of needed work. Get two functioning Edo 248 transceivers down from Woods Hole surplus stocks. Eventual solution: buy a piece of new gear and stop using old cast-offs.
 7. Superb luck on the weather for winter here.