

UNITED STATES DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

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High-resolution seismic-reflection profiles and  
sidescan-sonar records collected on western Rhode Island Sound,  
R/V Neecho cruise NE-80-1

by

Sally W. Needell<sup>1</sup>, Charles J. O'Hara<sup>2</sup>, and Harley J. Knebel<sup>1</sup>

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This report is preliminary and has not been reviewed for conformity with U.S. Geological Survey editorial standards and stratigraphic nomenclature. Any use of trade names is for descriptive purposes only and does not imply endorsement by the USGS.

<sup>1</sup>U.S. Geological Survey  
Woods Hole, MA 02543

<sup>2</sup>Minerals Management Service  
Vienna, VA 22180

Cruise NE-80-1 was conducted aboard the R/V NEECHO during July 9-17, 1980 (leg 1) and September 29-October 3, 1980 (leg 2) in western Rhode Island Sound (fig. 1) by the U.S. Geological Survey. The purpose of the study was to determine the geologic framework and Quaternary development of the area, to define and map the geology and structure, to identify and map potential geologic hazards, and to map the sedimentary environments of the inner Continental Shelf south of Narragansett Bay.

The data were obtained using an EG&G Uniboom seismic system and an EDO Western sidescan-sonar system. Seismic signals were band-pass filtered between 400 and 4,000 Hz and were recorded at a quarter-second sweep rate. Sidescan sonographs were collected at a 100-m scan range to each side of the ship track. Navigation was by Loran-C, and the ship position was recorded at 5-minute intervals.

The data included 580 km of Uniboom seismic-reflection profiles and 580 km of sidescan sonographs. The Uniboom profiles are continuous and very good in quality; they have good resolution and subbottom penetration. The sidescan sonographs are also continuous and are very good in quality for identifying major bed forms and characteristics of the sea floor.

Original records can be seen and studied at the U.S. Geological Survey offices, Woods Hole, MA 02543. Copies of the seismic-reflection profiles and the sidescan sonographs can be purchased only from the National Geophysical Data Center, NOAA-E64, 325 Broadway, Boulder, CO 80303 (telephone 303/497-6338).

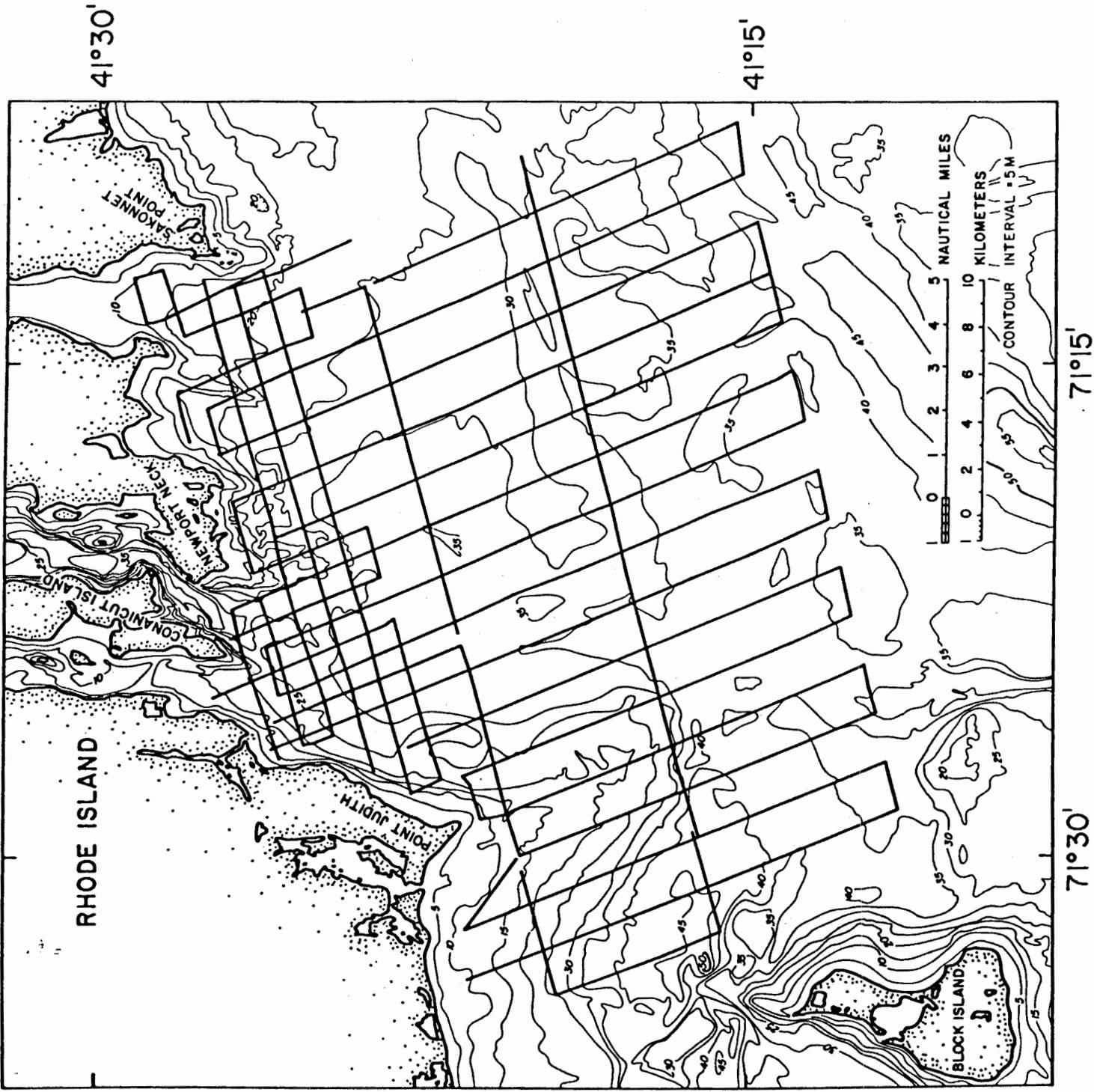


Figure 1. Location of Uniboom tracks, R/V NEECHO cruise NE-80-1.