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High-resolution seismic-reflection profiles and sidescan-sonar records collected on Block Island Sound by U.S. Geological Survey, R/V ASTERIAS, cruise AST 81-2

Sally W. Needell and Ralph S. Lewis[2]

Cruise AST 81-2 was conducted aboard the R/V ASTERIAS during September 10-18, 1981, in Block Island Sound (fig. 1) by the U.S. Geological Survey. It was funded in part by the Connecticut Geological and Natural History Survey. The purpose of the study was to define and map the geology and shallow structure, to determine the geologic framework and late Tertiary to Holocene history, and to identify and map any potential geologic hazards of Block Island Sound.

The survey was conducted using an EG&G Uniboom seismic system and an EDO Western sidescan-sonar system. Seismic signals were band-passed 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. In all, 702 km of seismic-reflection profiles (fig. 1) and 402 km of sidescan-sonar records were collected. Navigation was by Loran-C, and the ship position was recorded at 5-minute intervals. Seismic-reflection profiling is continuous and good in quality. Sidescan-sonar records are varied in quality; coverage was intermittent and eventually terminated owing to difficulties with the recorder.

Original records can be seen and studied at the U.S. Geological Survey Data Library at Woods Hole, MA 02543. Microfilm copies of the seismic-reflection profiles and the sidescan sonographs can be purchased only from the National Geophysical and Solar-Terrestrial Data Center, NOAA/EDIS/NGSDC, Code D621, 325 Broadway, Boulder, CO 80303 (telephone 303-497-6338).

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[1] This report is preliminary and has not been reviewed for conformity with U.S. Geological Survey editorial standards. Use of trade names in this report is for descriptive purposes only and does not constitute endorsement by the USGS.

[2] Connecticut Geological and Natural History Survey, Hartford, Conn. 06115

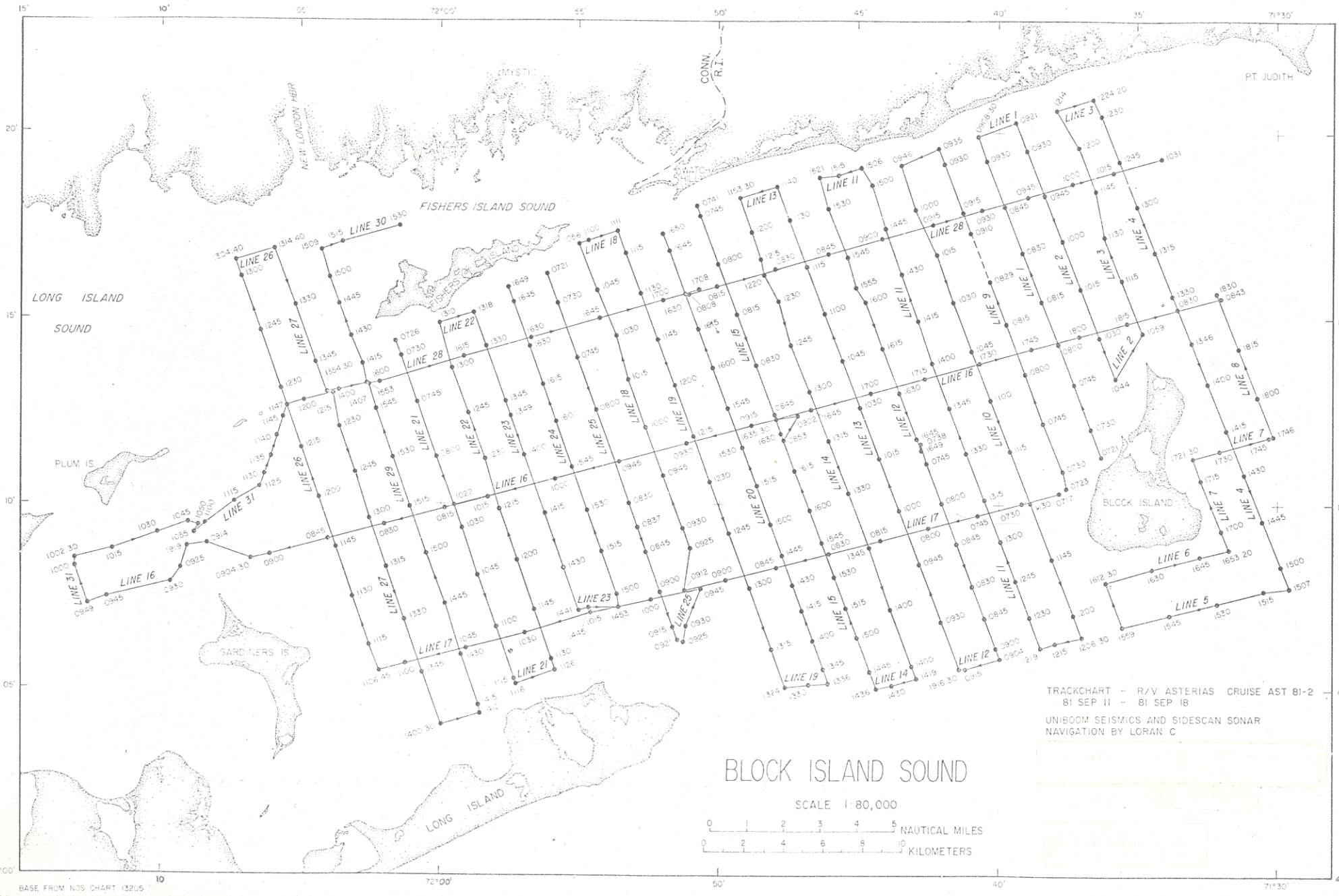

Figure 1. Locations of tracks, R/V ASTERIAS cruise AST 81-2