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High-resolution seismic-reflection profiles collected
on western Long Island Sound

R/V UCONN Cruise 84-1

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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 USGS or Connecticut Geological and Natural History Survey.

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Cruise UCON 84-1 was conducted aboard the R/V UCONN during May 16-25, 1984 in an area of western Long Island Sound (fig. 1) between New Haven and Bridgeport, Conn. and Shoreham Beach and Northport, Long Island, N. Y. Funding for the study was provided by the Connecticut Geological and Natural History Survey and the U.S. Geological Survey. The study's purpose was to define and map the geology and shallow structure, to determine the geologic framework and Quaternary development, and to identify and map potential geologic hazards of the area.

Data were collected using an EG&G Uniboom seismic system. Seismic signals were triggered at 0.5-s intervals band-passed between 400 and 2,000 Hz and were recorded at a 0.25-s sweep rate. Navigation was by Loran-C; ship location was automatically recorded at 5-min intervals and manually recorded at pertinent times during the cruise.

Total Uniboom seismic-reflection profiles encompass 633.75 km (fig. 2). The Uniboom profiles are of good quality and have excellent resolution and good subbottom penetration except in areas where gas deposits attenuated the acoustic signal. A spreading gain format was implemented on the recorder to increase record contrast at deeper reflections.

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

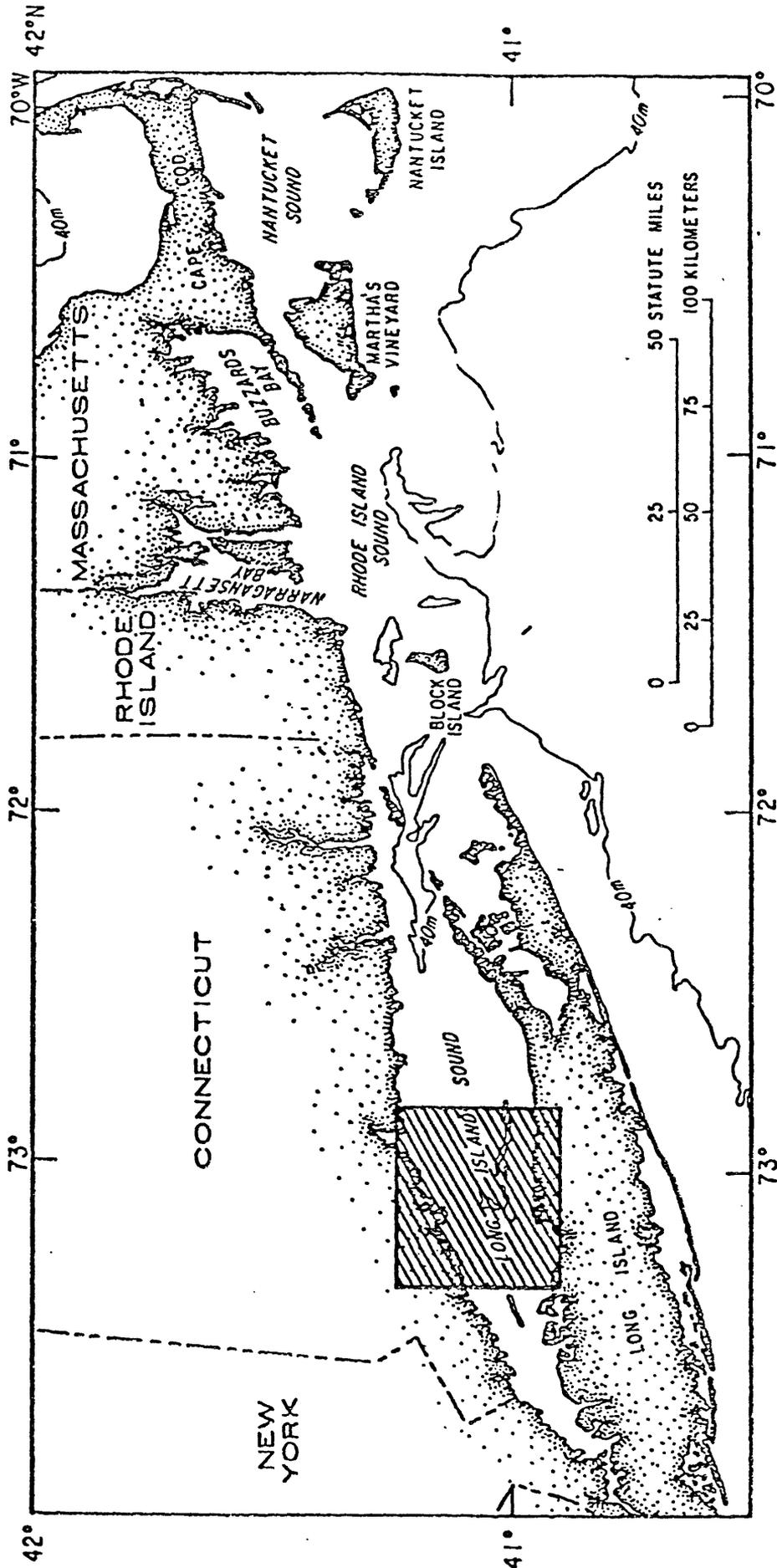


Fig. 1. Location of study area, R/V UCONN cruise UCON 84-1.

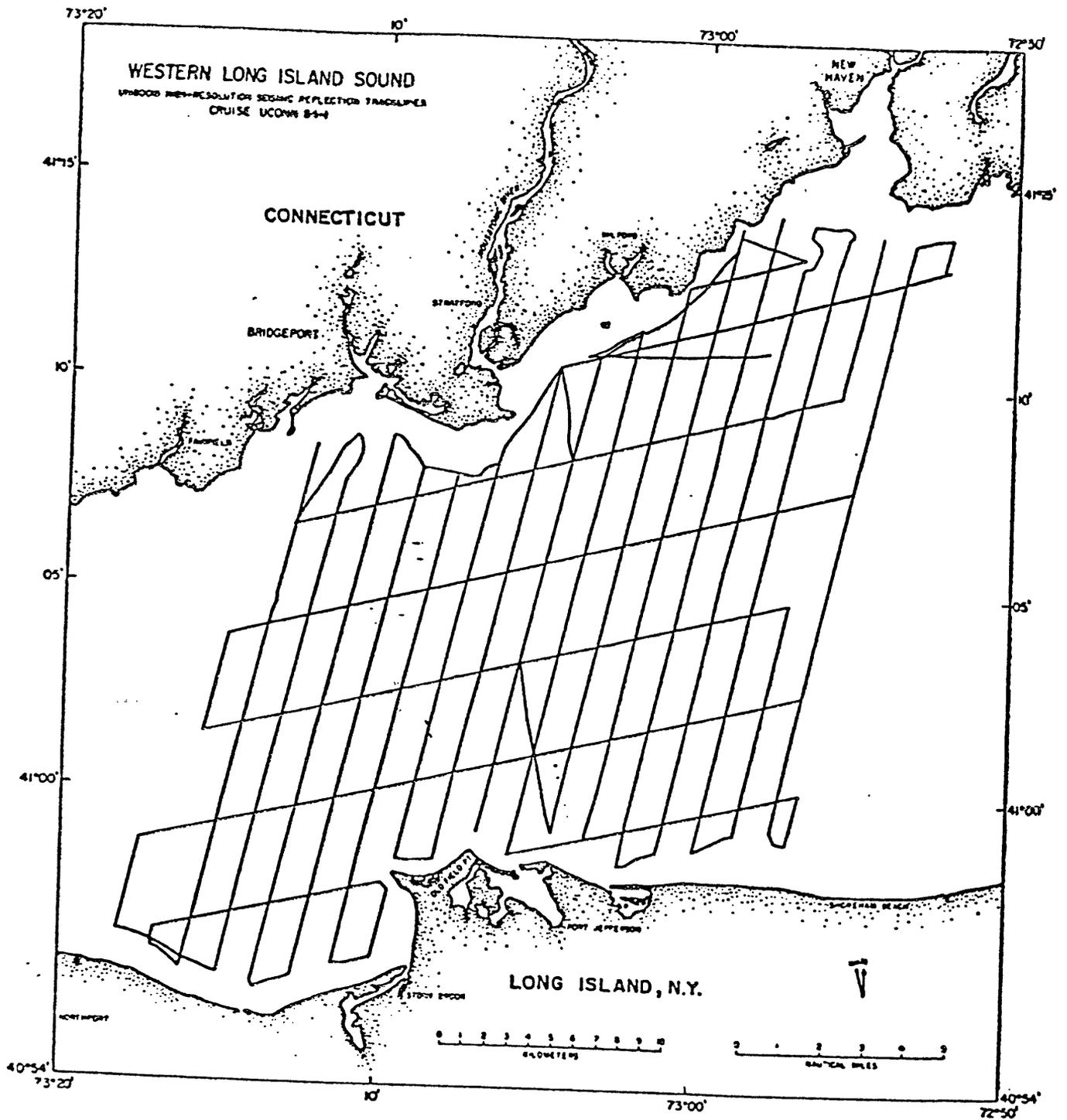


Fig. 2. Location of Uniboom tracks, R/V UCONN cruise UCON 84-L.