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Seismic-reflection and sidescan-sonar data collected off eastern Cape Cod, Massachusetts, during April 1979

by Harley J. Knebel

The U.S. Geological Survey collected 98 line kilometers each of single-channel seismic-reflection profiles and sidescan-sonar records over the inner shelf off eastern Cape Cod, Massachusetts, during April 1979 (fig. 1). The data were obtained during cruise NE-1-79 of the R/V NEECHO. The purposes of the survey were: (1) to study the development of barrier islands; (2) to document the frequency and rate of migration of inlets that breach barrier islands; and (3) to define the characteristics of shoreface ridges on a barrier island.

The survey utilized two acoustic systems. Information about the bottom was obtained by using an EDO Western[1] model 606 sidescan-sonar system (100 kHz). Profiles of the subbottom were collected by an EG&G Uniboom transducer (400-4,000 Hz) and a Del Norte streamer. Positional control for all tracklines was provided by a shore-based Miniranger system and by LORAN-C.

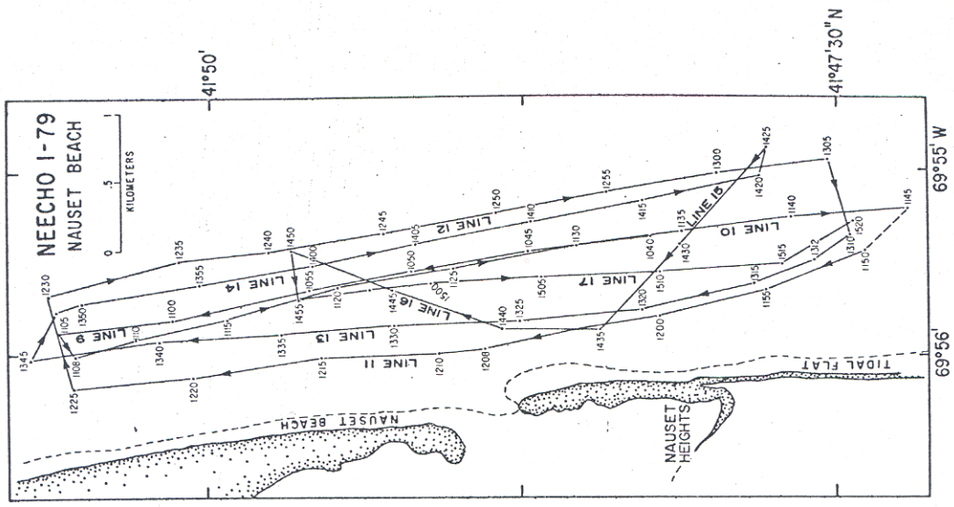
The quality of the records generally is very good. However, subbottom penetration did vary somewhat from place to place during the survey due to the nature of the bottom sediments and to the presence or absence of buried channels.

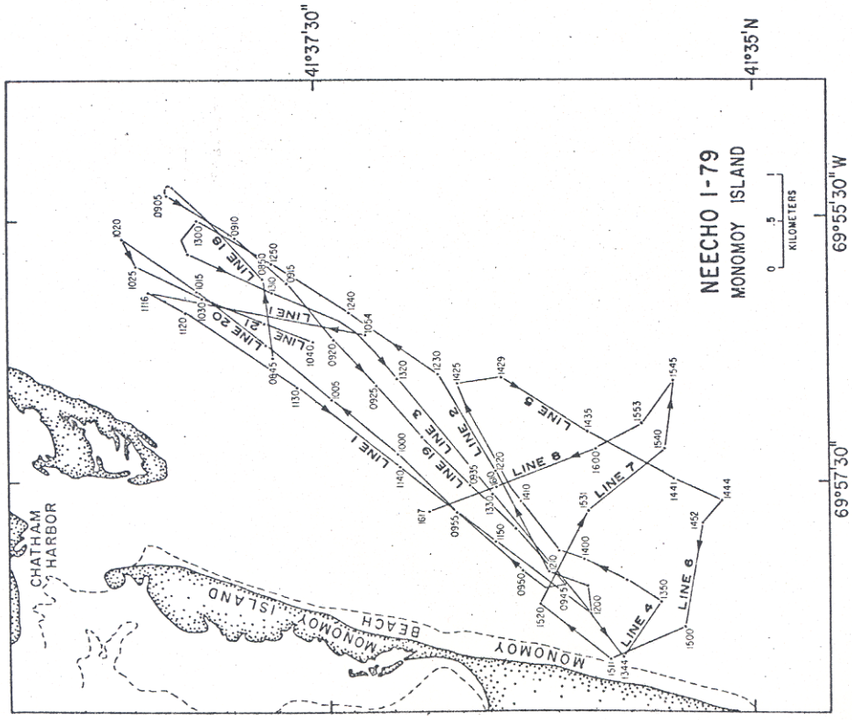
The original records may be examined at the U.S. Geological Survey, Woods Hole, MA 02543. Microfilm copies of the data are available for purchase from the National Geophysical and Solar-Terrestrial Data Center, NOAA/EDIS/NGSDC, Code D621, 325 Broadway, Boulder, CO 80303 (303-497-6338).

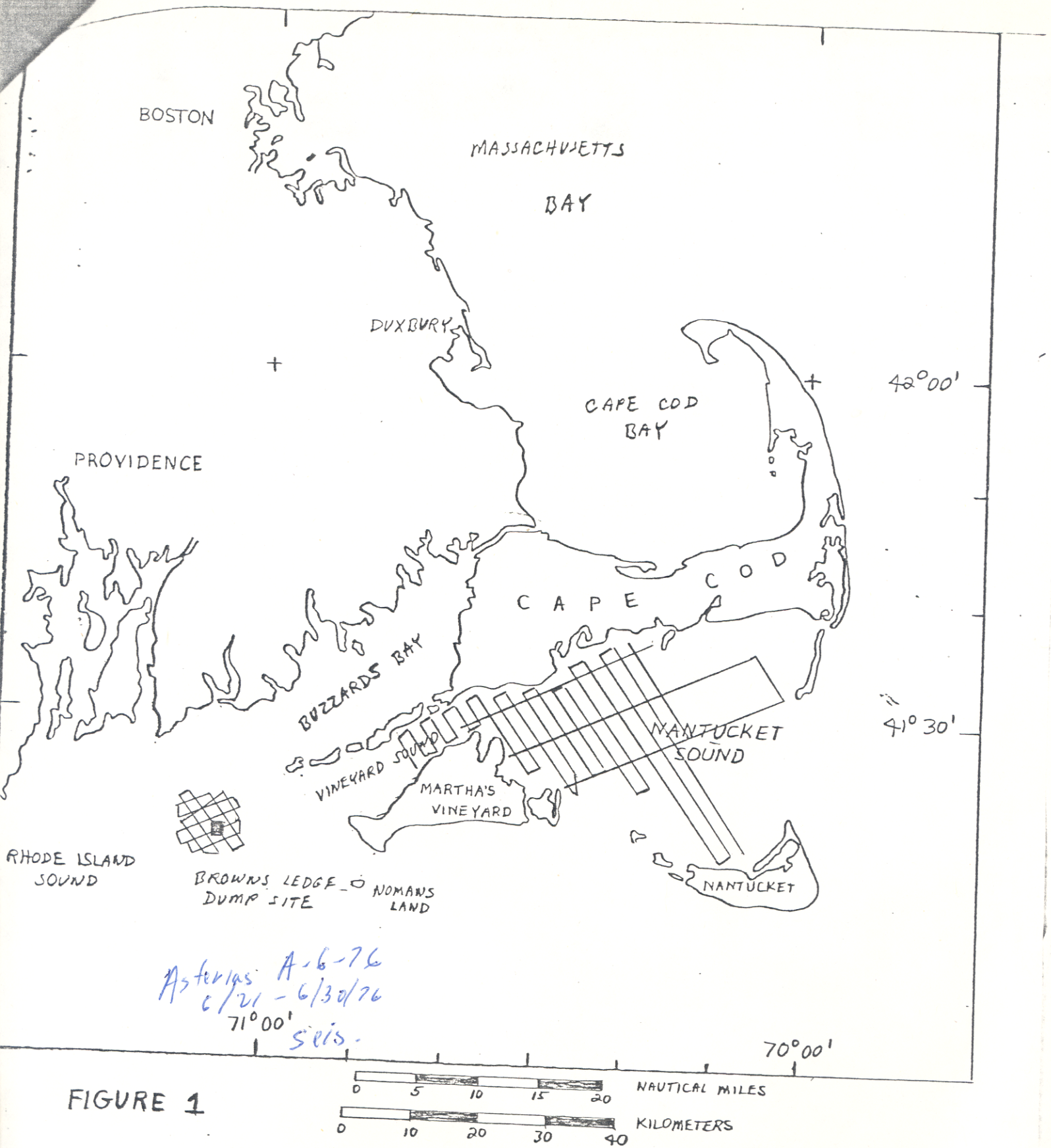
1. Use of tradenames in this report is for descriptive purposes only and does not constitute endorsement by the U.S. Geological Survey.

This report is preliminary and has not been reviewed for conformity with U.S. Geological Survey editorial standards.

Fig. 1


NEECHO I-79
NAUSET BEACH
KILOMETERS
41°50'
41°47'30"N
69°55'W
69°56'
LINE 9
LINE 10
LINE 11
LINE 12
LINE 13
LINE 14
LINE 15
LINE 16
LINE 17
NAUSET BEACH
NAUSET HEIGHTS
TIDAL FLAT


NEECHO I-79
MONOMOY ISLAND
KILOMETERS
41°37'30"
41°35'N
69°55'30"W
69°57'30"
LINE 1
LINE 2
LINE 3
LINE 4
LINE 5
LINE 6
LINE 7
LINE 8
LINE 19
LINE 20
LINE 21
CHATHAM HARBOR
MONOMOY ISLAND
MONOMOY BEACH



Asterigas A-6-76
6/21 - 6/30/76
Seis.

FIGURE 1