

Figure 1.—Tracklines of high-resolution seismic-reflection profiles acquired during 1974-1979.

MAPS SHOWING KINDS AND SOURCES OF ENVIRONMENTAL GEOLOGIC AND GEOPHYSICAL DATA COLLECTED BY  
THE U. S. GEOLOGICAL SURVEY IN THE BALTIMORE CANYON TROUGH AREA

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1980

INTRODUCTION

Exploration for petroleum on the Continental Shelf and Slope off the eastern United States has generated great interest in the quantity and quality of data available to evaluate the nature and magnitude of possible geological environmental hazards. This set of maps presents a compilation of publicly available geological and geophysical data acquired by the U.S. Geological Survey (USGS) in the Baltimore Canyon Trough area of the eastern United States Outer Continental Shelf and Slope. Funding for the collection and analysis of much of the data indicated in this report was provided by the U.S. Bureau of Land Management. Locations of blocks leased for petroleum development and locations of industry wells terminated or being drilled as of February 1980, as well as several other sampling sites, are included for comparison.

DESCRIPTION OF MAPS

Because of the density of data, it is shown on nine maps. Figure 1 shows tracklines of high-resolution seismic-reflection profiles from cruises made between 1974 and 1979. Systems used included air gun, 800-Joule sparker, Uniboom<sup>1</sup>, 3.5-kilohertz (kHz) profilers, and side-scan sonar. Individual cruise tracks, which can be identified by their areal pattern on figure 1, are shown at smaller scale on figures 5, 6, 7, 8, and 9.

Figure 2 shows the location of geological samples, borings, and drill holes in the area.

Figure 3 shows the trackline locations of non-proprietary, deep-penetration, 24- to 48-channel common-depth-point (CDP) seismic-reflection data acquired by the USGS.

Figure 4 shows the areal coverage of high-resolution seismic profiles, side-scan sonar, and 3.5-kHz profiles at one-half-mile line spacing, acquired by the USGS prior to Lease Sales 40 and 49 to investigate potential geologic hazards in those areas.

Figure 5 shows the areal coverage of long-range side-scan sonar data (GLORIA) acquired by the USGS in cooperation with the Institute of Oceanographic Sciences (United Kingdom) in October 1979.

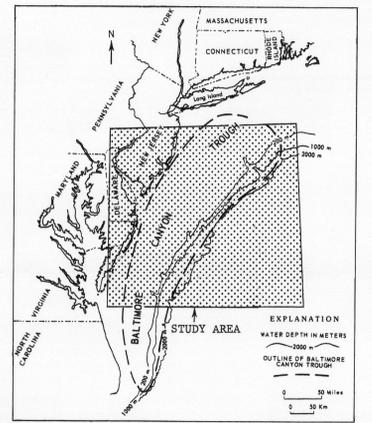
<sup>1</sup>Use of trade names in this publication is for descriptive purposes only and does not constitute endorsement by the U.S. Geological Survey.

EXPLANATION

FIGURE IN THIS REPORT	SHIP, CRUISE, AND YEAR	LINE KILOMETERS OF DATA, TOTAL FOR CRUISE (Cruise operations may include areas outside the map boundaries)				TOTAL KILOMETERS OF CRUISE TRACKLINE WITHIN MAP AREA
		Air gun	800-Joule sparker	Uniboom 3.5-kHz profiler	Side-scan sonar	
9	MT. MITCHELL (1974)	-	-	1,787	1,830	1,875
7	ATLANTIS II, 89 Leg 1, 2, 3 (1975)	7,460	1,610	1,418	7,645	6,600
8	Leg 4 (1975)	-	659	-	-	659
7	FAT, 620 (1976)	3,700	5,700	-	60	60
7	FAT, 621 (1976)	3,150	5,700	-	140	310
9	OCEANUS, 027 (1977)	-	-	442	400	740
9	ANNANDALE, 1-77 (1977)	-	-	377	-	377
9	STATE ARROW, 7861 (1978)	-	-	992	38	344
9	COLUMBUS BEELIN, 13789-C (1978)	2,800	2,100	-	5,100	22
9	JAMES M. GILLESPIE, GE 7802-4 (1978)	1,555	1,750	-	1,760	1,760
5	STARLELLA (1979)	3,400	-	-	-	5,440
						1,232

Specific cruise tracks may be identified by referring to figures 5 through 9.

Outer Continental Shelf blocks leased in Lease Sales 40 and 49  
BATHYMETRY IN METERS



Index map showing the outline of the Baltimore Canyon Trough. Study area is marked by the shaded pattern.

Units of Measurement

International System (SI or metric) units of measurement herein are used in preference to Customary (English) units. Some conversion factors are given below.

Multiply	By	To obtain
kilometers (km)	0.6214	miles (mi)
kilometers	0.540	nautical miles (nmi)
nautical miles	1.151	miles