79004

Cruise Report

OCEANUS 58

27-29 March 1979

Brad Butman
U. S. Geological Survey
Woods Hole, MA 02543

Vessel: OCEANUS, Cruise 58

Area of Operations: Georges Bank

Dates: Depart Woods Hole 1530 27 March 1979

Arrive Woods Hole 1000 29 March 1979

Personnel:

Paul Howland, Master
Marlene Noble, U.S.G.S.
Rick Rendigs, U.S.G.S.
Brad Butman, Chief Scientist, U.S.G.S.
Stephanie Pfirman, U.S.G.S.
Nick Lefteriou, U.S.G.S.

Equipment:

Navigation: Northstar Loran C 6000
Grab Sampler: Smith MacIntyre

Objectives:

The OCEANUS cruise was part of a continuing study of currents and sediment transport on the United States East Coast Continental Shelf. The purpose of the cruise was to:

1. Deploy 1 tripod
2. Deploy 1 subsurface current mooring
3. Set 1 surface buoy
4. Grapple for dragged current mooring
5. Obtain grab sample
6. Conduct hydrographic observations (temperature-XBT)

Narrative:

27 March	1530	Depart Woods Hole
28 March	0200	Start hydrographic section (XBT) across Stations A and K (GB)
	0430	Complete hydrographic section
	0600	Arrive Station K
	0700	Set surface buoy, 1 missing
	0845	Deploy tripod 174
	1010	Deploy subsurface current mooring (175)
	1055	Obtain grab sample
	1115	Depart for "lost" mooring (161)
	1200	Range and bearing to lost mooring; attempt grapple
	1900	Recover release and anchor; current meter missing
	1930	Underway to Station Q; start hydrographic section XBT along shelf
29 March	0455	Arrive Station Q; 2 lit buoys—O.K.
	0740	Complete hydrographic section
	1000	Arrive Woods Hole

Tabulated Information:

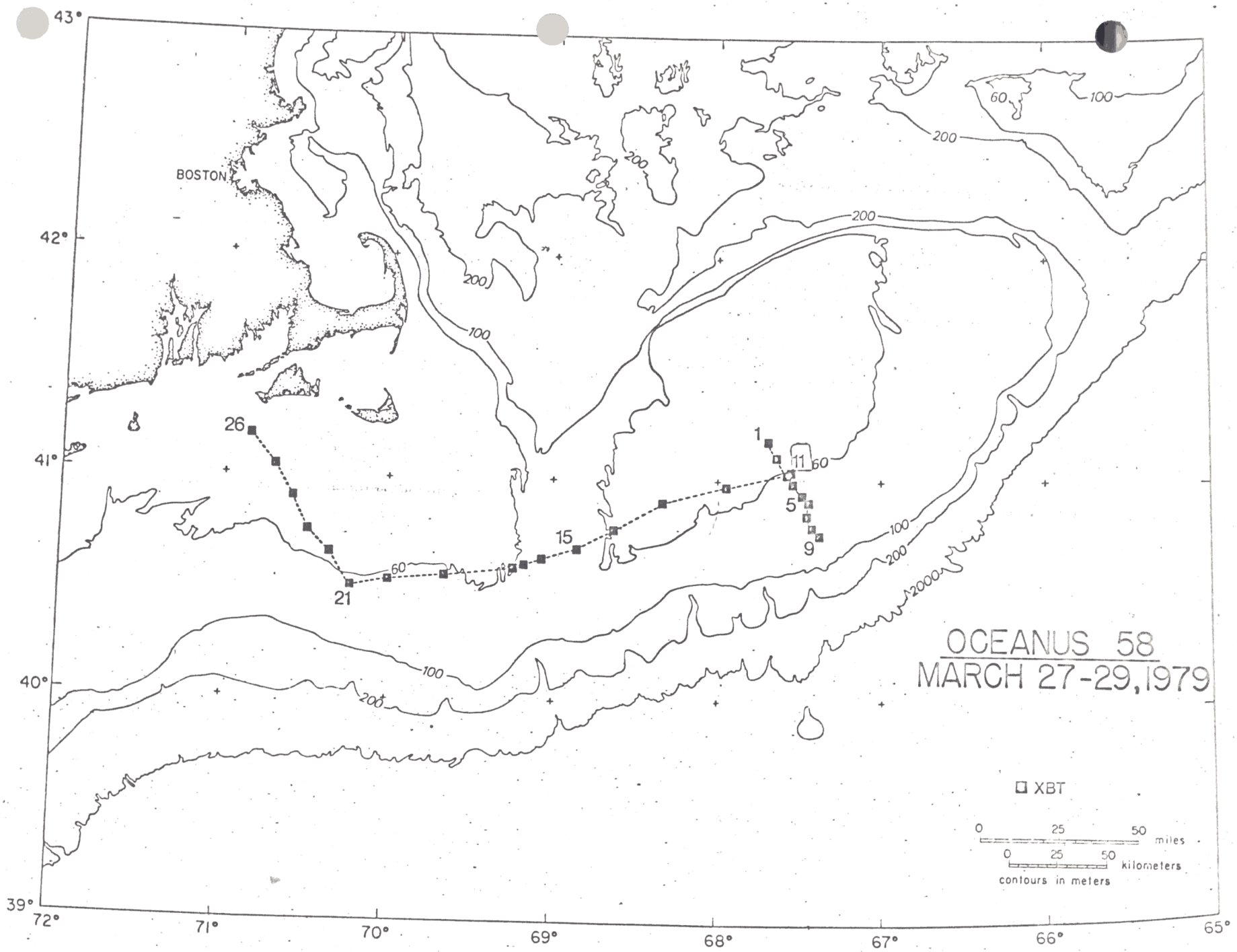
a. Days at Sea: 3

b. Instrumentation Deployed:

Area	Type	Mooring	Latitude	Longitude	Station
GB	T	174	41°02.4'N	67°33.6'W	K
GB	CM,TR	175	41°02.2'N	67°33.7'W	K

c. Stations:

XBT	24
Surface Salinity	24
Surface Grab Samples	1


OCEANUS 58
MARCH 27-29, 1979
BOSTON
XBT
0 25 50 miles
0 25 50 kilometers
contours in meters
43°
42°
41°
40°
39°
72°
71°
70°
69°
68°
67°
66°
65°
60
100
200
2000
1
5
9
11
15
21
26

SCALE

APPENDIX I

Surface Sample List

Station No.	Type	Latitude	Longitude	Station
4740	Surface grab	41°02.5'N	67°32.8'W	K

APPENDIX II

OCEANUS 58 Hydrographic Station List

Station No.	Depth (m)	Latitude	Longitude	XBT	CTD	Surface Salinity	Date	Time
1	51	41°10.4'N	67°41.9'W	X		X	3/28/79	0208
2	57	41°06.2'N	67°38.7'W	X		X		0228
3	58	41°01.9'N	67°34.7'W	X		X		0250
4	69	40°59.5'N	67°32.2'W	X		X		0302
5	74	40°56.8'N	67°29.2'W	X		X		0320
6	81	40°54.3'N	67°26.6'W	X		X		0332
7	84	40°50.7'N	67°27.9'W	X		X		0403
8	90	40°47.9'N	67°25.3'W	X		X		0418
9	96	40°45.6'N	67°22.6'W	X		X		0433
11	65	41°02.4'N	67°33.5'W	X		X		1110
12	59	40°58.1'N	67°57.7'W	X		X		2015
13	47	40°53.9'N	68°20.0'W	X		X		2130
14	59	40°46.5'N	68°38.1'W	X		X		2310
15	68	40°41.7'N	68°51.3'W	X		X	3/29/79	0028
16	73	40°38.4'N	69°04.1'W	X		X		0110
17	77	40°36.7'N	69°10.5'W	X		X		0130
18	52	40°35.5'N	69°14.6'W	X		X		0148
19	68	40°33.2'N	69°39.0'W	X		X		0305
20	63	40°32.6'N	70°00.3'W	X		X		0408
21	66	40°30.4'N	70°13.7'W	X		X		0455
22	57	40°39.1'N	70°21.6'W	X		X		0535
23	54	40°45.7'N	70°29.7'W	X		X		0610
24	52	40°54.7'N	70°35.4'W	X		X		0655
25	49	41°02.9'N	70°42.4'W	X		X		0740

APPENDIX III

OCEANUS 58 Bridge Log

Vessel OCEANUS

Cruise 58

LORAN LOG

Date	Time	Sta.	+/-.	Reading	Latitude	Longitude	Remarks
	+5	GMT			NORTH	WEST	TUES, MARCH 27, 1979
				1542 CAST OFF ALL LINES			
				1550 DEPARTURE WH #1 & #2 V/C 1 spd			
				to GRS			
2140	1640						Attempt TO RIG TRANSDUCER
2200	1700						S/C 097G, IFA
2237	1737						abeam Cross Rip
	0023	1923	VB		41-26	69-43.2	GRS BUOY @ 4C 099G
	2013	0113	X Z	37484.7 69993.4	41-24.8	69-28.0	C/C 102° G
	2104			37389.7 700210			
		0230	Sat	25°/3	41-21.57	69-04-82	
	2210	0310		37271.2 70056.6	41-20.4	68-54.8	
	2306			37165.5 49094.9	41-17.5	68-37.8	C/C 098

Vessel OCEANUS

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LORAN LOG

Date	Time	Sta.	+/-.	Reading	Latitude	Longitude	Remarks
	+5	GMT			NORTH	WEST	WED MARCH 28, 1979
	0000	0500		37 060.1 41 124.6	41 14.8	68 21.5	(BAD SNR ON "70" STA "2")
							0000 C/C 096° g 0016 C/C 094° g
	0028	0528		37 002.1 49 140.7	41 13.4	68 14.4	0021 C/C 091° g 0024 C/C 086° g
				70 133.2			0029 C/C 080° g
	0040	0540		36 976.4 49 145 5	41 12.9	68 13.9	
				70 137.5			
	0100	0600		36 931.8 49 152.0	41 13.0	68 03.0	(LOW SNR STA "2")
							0114 C/C 093°
	0200	0700		36 811.4 49 180.6	41 10.7	67 44.2	
				(70 183) (CYCLE WNG ON)			0208 C/C 145° g XBT
	0300	0800		36 800.0 49 237.2	41 00.2	67 32.7	0252 XBT
				70 225.5			
	0323	0823		36 795.4 49 260.1	40 56.0	67 28.5	XBT-0323
							0335 C/C 150° g
							0345 D S/A
	0404	0904	X Y	36 826.4 49 288	40-50.7	67-27.3	C/C 135° G, C/S 210 RPM
			Z	70 267.4			
	0437	0937	X Y	36 825.3 49 318.8	40-45.5	67-22.5	C/C 330G.
			Z	70 292.4			
	0510	1010	X Y	36 808.1 49 284.3	40-51.8	67-26	
	0508	1008	SAT	65 9/03	40-51.201	67-26.327	

Vessel OCEANUS

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LORAN LOG

Date	Time	GMT ~~Sta.~~	+/-.	Reading	N Latitude	W Longitude	Remarks
28 MAR	0544	1044					4C 340G
	0604	1105			41-02.5	67-34	V4S4 SITE 'K'
	0700	1200					SGT SURFACE MOORING
	0745	1245		X Y	36788.4 49227.5		TRIPOD SGT
	1109	1609	X Y	36788.3 49227.5			Site "K"
			Z	70216.9	41-02.6	67-33.5	
							1117-S/C 232-G 41
	1147			36852.6 49234.8	40-59.5	67-39.0	H-T

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Date	Time	Sta.	+/-.	Reading	Latitude	Longitude	Remarks
	+5	GMT			NORTH	WEST	MARCH 28 · 1979
	1200				40·49	67·39	1210 COMMENCE RANGING
	1600				"	"	& GRAPPLING FOR
							INSTRUMENT PACKAGE
	1700			36852.2 49233.2			
				70220.7			
	1900	2400	LC		41-00.3	67-39.7	S/C 253G, 60 KV.
							1927 FA-210RPM
	1930	0030	X Y	36 875.9 49 229.6	41-00	67-42.7	
			Z	70 216.9			
	2000			36955.9 49226.5	40·58.9	67-52.0	C/C 248 · G
	2028	0128	Sat	67°/3	40-57.6	67-59.98	
	2102	0202	X Y	37116.1 49226.0	40·55.7	68-10.2	
	2202	0302	X Z	37262.7 70202.2	40-53.0	68·26.5	C/C 245 · G
							2300 · C/C 150 · G
	2332	0432		37396.6 49271.5			H-T cl/by surface
				70224.6	40-45.2	68·37.1	mooring (EG&G,)
							0340 S/C 253·G 41

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Date	Time	Sta.	+/-.	Reading	Latitude	Longitude	Remarks
	+5	GMT			NORTH	WEST	MARCH 29, 1979
	0004			37468.1 70223.5	40.43.0	68.44.5	XBT'S TAKEN AT:
	0100			37 620.0 70 223.1	40.39.4	69.01.0	0028, 0110, 0130, 0148, & 0305.
	0200			RA ON LIGHTSHIP	40 34.5	69.18.0	0200 C/C 265°6
							0215 C/C 270°g
	0305			37945.2 70204.4	40.33.4	69 38.4	0315 C/C 268°g
	0400	0900	X Y	38 085.1 49 441.1	40-32.7	69-56.5	
			Z	70 185.5			0430 C/C 240G
	0450	0950	X Y	38 225.4 49 533.2	40-30.2	70-12.6	V C/S AT SITE N-3'
			Z	70 177.9			
							0455 S/C 325°G, FA
	0524	1024	SAT	64°/03	40-35.612	70-18.647	
	0600	1100	X Z	38 216.9 70 100.2	40-43.3	70-25.3	
	0606	1106	SAT	28°/03	40-44.25	70-26.304	
	0700	1200	Y Z	49 420.4 70 026.4	40-55.5	70-35.8	
	0820	1320	Ra		41-12.0	70-50.3	0820 SW Shoal ~~0~~
							.3 mi - Var Co

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Date	Time	Sta.	+/-.	Reading	Latitude	Longitude	Remarks
	+5	GMT			N	W	March 29, 1979
	0901				41-21.8	70-52.0	Devil Buoy, → cl/by
	0924				41-26.1	70-46.8	ROBINSON'S HOLE BUOY ← cl/by
	0950						ARRIVAL WH #1 & #2
							DOCKSIDE 1001