#7921
Scan

Cruise Report

OCEANUS 67

6-13 August 1979

Stephanie Pfirman
U.S. Geological Survey
Woods Hole, MA 02543

Vessel: OCEANUS, Cruise 67

Area of Operations: Georges Bank and Mid-Atlantic Shelf

Dates: Depart Woods Hole 0925 6 August 1979

Arrive Woods Hole 0400 13 August 1979

Personnel:

Mike Palmieri, Master
Marlene Noble, USGS
John Moody, USGS
Rick Rendigs, USGS
Jim Howley, USGS
Nick Lefteriou, USGS

Brad Butman, Chief Scientist, USGS
Stephanie Pfirman, USGS
Carol Parmenter, USGS
Polly Shoukimas, USGS
Bill Strahle, USGS
John West, USGS
James Willingham, USGS (Corpus Christi)

Equipment:

Navigation: Northstar Loran C 6000
Conductivity-Temperature-Depth (CTD): PLESSEY
Grab Sampler: Smith MacIntyre
Gravity Core
Side scan: Klein
Uniboom

Objectives:

The OCEANUS 67 cruise was part of a continuing study of currents and sediment transport on the United States East Coast Continental Shelf. The objectives of the cruise were to:

1. Recover 1 tripod mooring
2. Recover 3 current meter moorings
3. Deploy 4 tripod moorings
4. Deploy 3 current meter moorings
5. Repair, replace, and deploy surface marker buoys as necessary
6. Obtain grab samples at all mooring locations
7. Obtain gravity cores from selected sites on the continental slope
8. Conduct hydrographic surveys (temperature and salinity), and limited suspended matter samples for talc analyses.
9. Conduct a sidescan survey of large scale bedforms on Georges Bank.

Narrative:

6 August	0925	Depart Woods Hole
		Underway to Mud Patch, Station Q
		Hydrographic observations (XBT,CTD)
	1632	Arrive at N2, Station Q
		Released current meter and transmissometer,subsurface mooring 1712
		Did not surface
	1814	Start drag
	1830	Robert Gordon injured, steam towards Woods Hole
	2007	Coast Guard pick up
		Return to Station Q
7 August	0011	Resume grappling for mooring 1712
	0406	Retrieve mooring
	0449	Grab sample at Station Q
	0720	Grab sample at Station P
	1055	Deploy Tripod 178, Station Q
	1157	Deploy current meter and transmissometer, subsurface mooring 1811,1812
	1215	Underway
		Hydrographic observations (XBT, CTD)
	1810	Gravity Core at N6
	1947	Complete hydrographic transect
		Underway to New Jersey Slope, Station F
8 August	0730	Arrive at Station F, deep tripod site
	0800	Begin bottom sample survey of slope (grabs and cores)
	0917	Finish survey
		Set surface buoy F with current meter, surface mooring 1791
	1245	Deploy deep tripod, mooring 1792
	1340	Underway to Station B

8 August	1550	Recover current meter, subsurface mooring 1722
	1626	Retrieve surface buoy B and current meter, surface mooring 1721
	2020	Retrieve surface buoy N
	2141	Grab sample at Station B
		Set surface buoy O with current meter, surface mooring 1801
	2250	Deploy tripod, mooring 177
	2336	Deploy current meter, subsurface mooring 1802
9 August	0010	Underway NE from Station B to start hydrographic transect
	0205	Begin hydrographic observations (XBT, CTD)
	0711	Begin depth survey at Station F
	0748	Complete depth survey
	0831	Core and talc samples on slope
	1015	Complete cross-shelf transect
		Underway to Georges Bank
10 August	0900	Arrive at Station K
	0925	Set surface buoy V with current meter, surface mooring 1821
	0933	Recover current meter and transmissometer,subsurface mooring 1751
	1035	Recover tripod, mooring 174
	1115	Retrieve surface buoy R
	1210	Set surface buoy E
	1458	Set surface buoy B
	1535	Deploy tripod, mooring 176
	1705	Deploy current meter and transmissometer, subsurface mooring 1822
	1734	Grab sample at Station K
	1735	Underway SE from Station K to start hydrographic transect
	2111	Begin hydrographic observations
11 August	0345	Grab and talc samples at Station A
	0822	Complete hydrographic transect
	1227	Start side-scan and uniboom survey of sand ridges on the top of Georges Bank

13 August	0630	Finish side-scan survey in Great South Channel
	1100	Complete depth survey near Nantucket
	1600	Arrive Woods Hole

Tabulated Information:

a. Days at Sea: 7

b. Instrumentation Recovered: 5

Area	Type	Mooring	Latitude	Longitude	Station
GB	CM,TR	1712	40°29.5'N	70°14.4'W	Q
MA	CM	1722	38°42.2'N	73°39.6'W	B
MA	CM	1721	38°42.5'N	73°39.6'W	B
GB	CM,TR	1751	41°02.2'N	67°33.7'W	K
GB	T	174	41°02.5'N	67°33.3'W	K

c. Instrumentation Deployed: 10

Area	Type	Mooring	Latitude	Longitude	Station
GB	CM,TR	1811	40°29.7'N	70°12.1'W	Q
GB	T	178	40°29.7'N	70°12.0'W	Q
MA	CM	1791	38°30.9'N	73°16.9'W	F
MA	T	1792	38°30.7'N	73°16.4'W	F
MA	CM	1801	38°42.2'N	73°39.6'W	B
MA	T	177	38°42.2'N	73°37.2'W	B
MA	CM	1802	38°42.4'N	73°39.0'W	B
GB	CM	1821	41°02.4'N	67°32.9'W	K
GB	T	176	41°02.1'N	67°33.2'W	K
GB	CM,TR	1822	41°02.2'N	67°33.0'W	K

d. Side-scan,high resolution surveys (Klein sidescan sonar, Uniboom):

Georges Shoal
Little Georges
Great South Channel

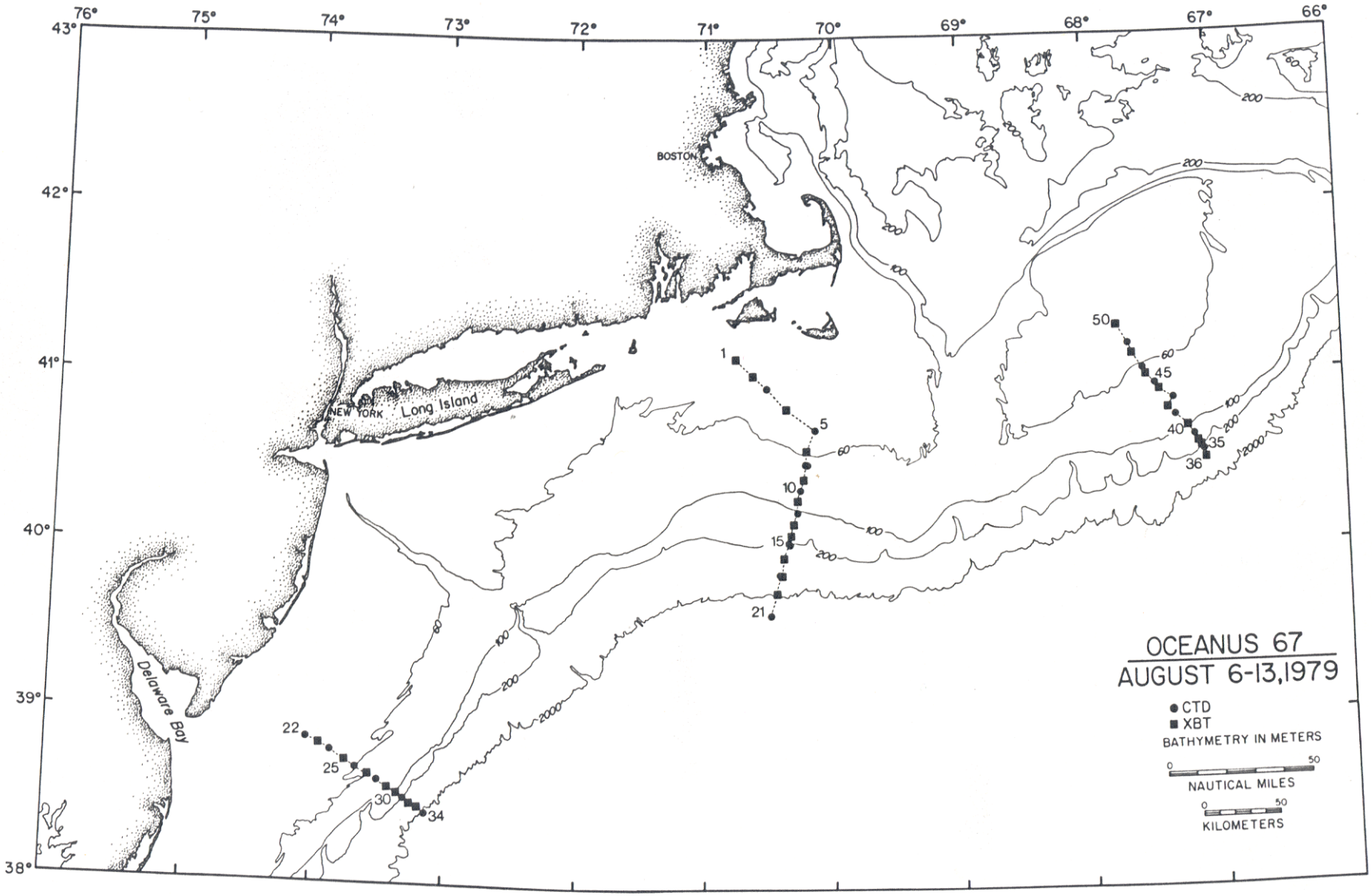
e. Hydrographic Stations: 59

XBT	28
CTD	23
Surface Salinity	47

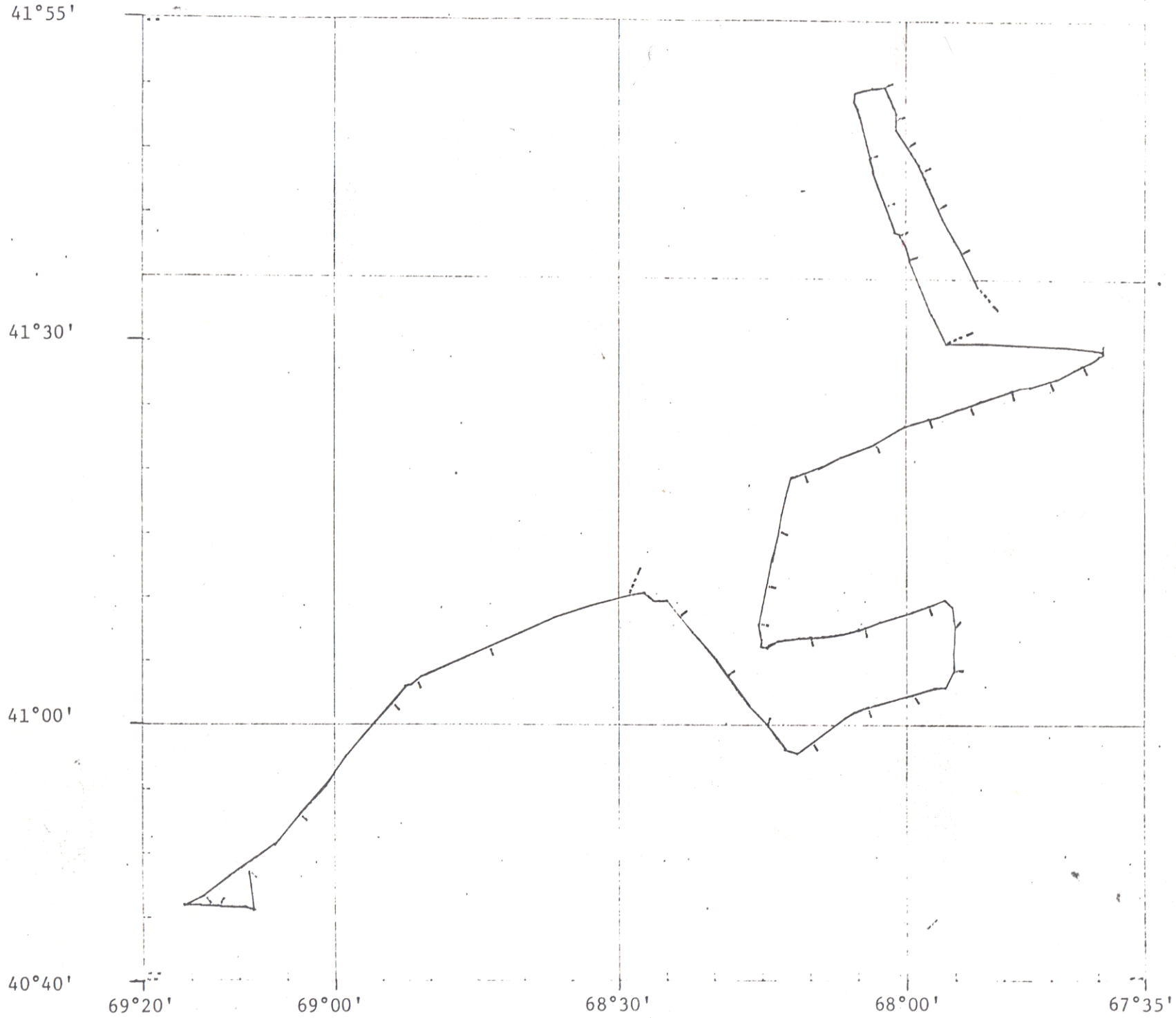
f. Other:

Grab Samples	12
Gravity Cores	3
Suspended Matter (talc)	15

CRUISE TRACK


OCEANUS 67
AUGUST 6-13,1979
● CTD
■ XBT
BATHYMETRY IN METERS
0 50
NAUTICAL MILES
0 50
KILOMETERS
BOSTON
NEW YORK
Long Island
Delaware Bay
76°
75°
74°
73°
72°
71°
70°
69°
68°
67°
66°
43°
42°
41°
40°
39°
38°
1
5
10
15
21
22
25
30
34
35
36
40
45
50
60
100
200
2000

TRACKLINE FOR SIDESCAN SURVEY


41°55'
41°30'
41°00'
40°40'
69°20'
69°00'
68°30'
68°00'
67°35'

HYDROGRAPHIC STATIONS

CRUISE OCEANUS 67

Sta.	(m) Depth	Latitude	Longitude	XBT	CTD	Surface Salinity	Date	Time	Station
1	35	41°07'0'N	70°46.1'W	X		X	8/6/79	1140	
2	47	41°01.2'N	70°38.9'W	X		X		1205	
3	43	40°56.0'N	70°31.6'W		X	X		1301	
4	49	40°49.3'N	70°22.1'W	X		X		1410	
5	46	40°41.6'N	70°09.0'W		X	X		1517	N1
6	59	40°34.5'N	70°13.2'W	X		X		1607	
7	68	40°29.5'N	70°12.7'W		X	X		1746	N2
8	67	40°29.6'N	70°12.5'W		X	X	8/7/79	0847	N2
9	76	40°24.8'N	70°14.7'W	X		X		1241	
10	86	40°20.7'N	70°16.1'W		X	X		1305	N3
11	93	40°17.2'N	70°17.4'W	X		X		1346	
12	103	40°13.0'N	70°17.9'W		X	X		1421	N4
12a	106	40°13.2'N	70°18.0'W	X		X		1426	N4
13	120	40°09.0'N	70°19.3'W	X		X		1444	
14	155	40°05.0'N	70°20.5'W	X		X		1502	
15	195	40°02.1'N	70°21.9'W		X	X		1519	N5
16	195	40°02.3'N	70°21.8'W		X			1538	N5
17	420	39°56.8'N	70°23.3'W	X		X		1621	
18	815	39°51.0'N	70°25.2'W		X	X		1707	N6
19	900	39°50.6'N	70°24.5'W	X				1838	N6
20	1915	39°44.5'N	70°26.7'W	X		X		1907	
21		39°36.7'N	70°29.3'W		X			1947	
22	41	38°53.0'N	74°01.8'W		X	X	8/9/79	0205	
23	43	38°50.0'N	73°56.2'W	X		X		0228	
24	48	38°47.7'N	73°51.6'W		X	X		0250	
25	53	38°44.2'N	73°44.7'W	X		X		0330	
26	61	38°42.5'N	73°39.9'W		X	X		0403	B
27	64	38°39.3'N	73°33.5'W	X		X		0455	
28	75	38°37.0'N	73°29.3'W		X	X		0520	
29	84	38°34.8'N	73°24.9'W	X		X		0600	
30	125	38°32.5'N	73°20.5'W	X		X		0620	
31	198	38°30.9'N	73°17.1'W		X			0643	F
32	902	38°28.8'N	73°14.4'W	X		X		0840	
33		38°37.5'N	73°10.8'W	X		X		0925	
34	1985	38°25.3'N	73°07.2'W		X	X		0943	
35	260	40°31.4'N	67°06.5'W		X	X	8/10/79	2111	
36	415	40°29.7'N	67°05.9'W	X		X		2247	
37	205	40°33.1'N	67°07.6'W	X		X		2321	
38	165	40°35.0'N	67°08.5'W	X		X	8/11/79	2333	
39	115	40°37.4'N	67°11.0'W		X	X		0007	
40	103	40°41.1'N	67°13.6'W	X		X		0050	
41	97	40°44.9'N	67°19.3'W		X	X		0132	
42	91	40°47.7'N	67°22.5'W	X		X		0202	
43	87	40°50.8'N	67°20.2'W		X	X		0328	
44	78	40°54.4'N	67°26.9'W	X		X		0427	
45	73	40°56.1'N	67°28.9'W		X	X		0529	
46	68	40°59.4'N	67°32.9'W	X		X		0615	
47	64	41°01.5'N	67°33.4'W		X	X		0644	K
48	52	41°07.4'N	67°39.2'W	X		X		0742	
49	50	41°10.5'N	67°41.5'W		X	X		0808	
50	40	41°17.7'N	67°46.3'W	X		X		0906	

TALC SAMPLES

CRUISE OCEANUS 67

STA	DEPTH	LATITUDE	LONGITUDE	NISKIN	BUCKET	DATE	TIME
C7	68	40°29.5'N	70°12.6'W	X		8/6/79	1738
C18	815	39°51.0'N	70°25.1'W	X		8/7/79	1707
MAB	62	38°42.1'N	73°39.9'W	X		8/8/79	2205
X32	855	38°29.0'N	73°14.1'W	X		8/9/79	0820
GBK	63	41°02.2'N	67°32.7'W	X		8/10/79	1555
C35	255	40°31.4'N	67°06.5'W	X			2130
C43	87	40°51.4'N	67°21.3'W	X		8/11/79	0245
51	37	41°25.8'N	67°47.0'W		X		1002
52	45	41°47.8'N	68°01.1'W		X		1714
53	33	41°37.9'N	68°00.3'W		X		2316
54	37	41°36.4'N	67°59.7'W	X			2300
55	35	41°29.3'N	67°39.6'W	X		8/12/79	0103
56	35	41°15.3'N	68°13.2'W		X		
57	45	41°00.3'N	68°06.8'W		X		
58		41°09.8'N	68°26.5'W		X		

BOTTOM SAMPLES

CRUISE OCEANUS 67

Sta.	Depth	Latitude	Longitude	Core	Grab	Date	Time	Station
4741	68	40°29.6'N	70°12.9'W		X	8/7/79	0450	Q
4742	67	40°29.6'N	70°13.3'W		X		0504	Q
4743		40°29.6'N	70°13.6'W		X		0517	Q
4744	76	40°27.7'N	70°33.0'W		X		0640	P
4745	76	40°27.6'N	70°33.3'W		X		0654	P
4746a	76	40°27.6'N	70°33.7'W		X		0707	P
4746b	815	39°50.9'N	70°24.3'W	X			1810	N6
4747	187	38°31.1'N	73°17.2'W		X	8/8/79	0800	F
4748	215	38°31.0'N	73°16.7'W		X		0817	F
4749	315	38°31.0'N	73°15.7'W		X		0910	F
4750	62	38°42.1'N	73°39.9'W		X		2141	B
4751	855	38°29.0'N	73°14.1'W	X		8/9/79	0831	
4752	64	41°02.4'N	67°32.4'W		X	8/10/79	1735	K
4753	685	40°28.6'N	67°05.5'W	X			2228	
4753	87	40°51.1'N	67°20.7'W		X	8/11/79	0308	A
				3	12			

Vessel OCEANUS

Cruise #67

SHIP LOG

LORAN LOG

Date	Time	GMT ~~Sta.~~	+/-.	Reading	N Latitude	W Longitude	Remarks
Begin	0925	1325					0925 Depart W.H.
	1108	1508	LC		41-12.2	70-52	C 135 C, Arm Sampler
	12 00	16 00	LC		41-03.6	70-41.9	
	12 30	16 30	"		40-58.8	70-36.0	
	12 38	16 38			40-57.5	70-34.5	
	13 00	17 00			40-56.0	70-31.6	12 50 HT. CTD Sta 3
	13 17	17 17			40-56.1	70-31.9	13 17 CTD Bad
	~~1326~~	~~1726~~					13 24 Dp Sta 3
	13 26	17 26	Sat		40-55.402	70-31.832	C 128 C Fl. 4K-3-11
	14 00	18 00	LC		40-50.5	70-24.1	14 04 C/C 125
	14 30	18 30	"		40-46.5	70-17.4	14 30 C/C 130
	15 00	19 00	"		40-42.1	70-11.4	
	15 12	19 12	LC		40-41.5	70-08.9	15 10 HT CTD 5
	1530	1930	LC		40-41.4	70-09.4	15 30 C 197 F/A
		1922	Sat		40-42.536	70-07.866	FIM 5-17-11
	1600	2000	LC		40° 35.6	70° 12.6	
	1630	2030			40°30.0	70°13.0	H/T Stn - Vandoos
							Coorsfs + Spds - Attpt
	1730	2130			40°30.0	70°13.0	Raise Mooring -
							Preparing to Trawl
	1940	2340		14233.5 43610.1			
	2003	0003					Haul away 2020 C 122
	2020 2045	0045	LC		40-40.3 40°40.4	70-28 70°24.3	
	2100	0100	LC		40-37.8	70-21.6	C 145

Vessel OCEANUS

Cruise #67

LORAN LOG

Date	Time	GMT ~~Stm~~	+/-.	Reading	N Latitude	W Longitude	Remarks
7 AUG	2130	0131					C/C 135T
	2150	0150	LC		40-29.6	70-12.8	H.T. ON STA
		6'16	Set		40-28.44	70-13.38	17-4-12
	0440	0840			40°30.0	70°13.0	H/T Grind Core
	0529	0929			"	"	Find Core Stn F/A 265
	0600	1000	LC		40°29.3	70°23.5	C/C 257°GY
	0634	1034	LC		40°27.6	70°32.8	H/T Core Stn
	0714	1114					Finish Cores F/A 084°
	0800	1200	LC		40-28.6	70-22.5	
	0825	1225	LC		40°29.7	70-12.4	H.T. ON BUOY STA CTD #5
							0906 CTD ABD.
							0935 4S TO SET SURFACE BUOY "P"
							0955 ANCHOR AWAY
	1054	1454	EAST BUOY 'P'		∅092°T 1.4 MI.		1054 TRIPOD SET ON BOTTOM
	1155	1555	MIDDLE BUOY		∅272°T 1.0 MI		1155 SET SUBSURFACE MOORING
	12'18	16'18	LC		40-29.5	70-13.0	12'16 C193° F echo
	12'18	16'18	Set		40-29.42	70-13.30	62-3-11
	1230	1630	LC		40-26.9	70-13.9	
	1300	1700	LC		40-20.45	70-15.9	1251 C/C 190 1255 C/C 185
	1326	1726	LC		40-20.7	70-16.1	1300 HT, CTD 10
	1400	1800	LC		40-13.8	70-17.9	1355 C191 F echo 1402 C/C 183
	1408	1808			40-12.9	70-17.9	1408 HT, CTD 12
	1424	1824			40-13.2	70-18.1	end Stn. C185

Vessel Delaware

Cruise 67

LORAN LOG

Date	Time	GMT Sta.	+/-.	Reading	N Latitude	W Longitude	Remarks
7 Aug	15	19	LC		40-05.5	70-20.4	1455 C/C 195 1505 C/C 200
	1520	1920	LC		40-02.1	70-21.7	1520 HT Ran CTD 13
	1553	1953	LC		40 02.2	70-21.4	Off. C195, Full
	1648	2048	LC		39°50.9	70°25.2	H/T CTD # 17
	1800	2200	LC		39°50.8	70°24.4	CODE OVER
	1828	2222 ~~2228~~	LC		39°50.8	70°24.4	24-4-11 Code Abd
					50.7	24.4	18 38 C195 Full
	1900	2300	LC		39°45.5	70°24.3	
	1922	2322	LC		39-40.5	70-27.9	
	1942	2342	LC		39°36.7	70°29.4	H/T CTD #18
	~~1942~~	~~2342~~	~~LC~~				
	2017	0017			39-36.3	70-29.2	END STA S/C 2435, Fa.
	2100	0100	LC		39-31.5	70-39.8	
	2106	0106	SAT	12°/05	39-30.699	70-41.298	
	2200	0200	LC		39-24.9	70-54.2	
	2300	0300	LC		39-18.3	71-09.1	C/C 2475.
	2316	0316	SAT	15°/04	39-16.664	71-12.741	
	2400	0400	LC		39-13.1	71-24.1	
8 Aug	0100	500	LC		39-08.3	71-39.9	C/C 244
	112	512	Sat		39-07.275	71-43.32	C/C 11
	200	600	LC		39-03.2	71-56.0	

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LORAN LOG

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1977 Date	+4 Time	GMT Sta.	+/-.	Reading	N Latitude	W Longitude	Remarks
8 Aug	3 00	7 00	LC		38-57.6	72-12.2	LC 241
	2 56	6 56	Sat		38-57.74	72-11.11	FIM 7-3-11
	3 38	7 38	LC		38-53.4	72-22.3	
	0400	0800	LC		38°50.9	72°28.2	
	0500	0900	LC		38°44.3	72°43.5	
	0600	1000	LC		38°37.6	72°59.0	
	0700	1100	LC		38°31.5	73°14.2	0720 UHS
	0754	1154	LC		38-31.1	73-17.2	0754 H.T. GRAB SAMPLE
	0818	1218	LC		38-31.0	73-16.8	2nd GRAB SAMPLE
	0838	1238	LC		38-31.0	73-16.3	CORE
	0852	1252	LC		38-31.0	73-16.0	2nd CORE
	0840	1240	Sat	NO FIM	38-30.904	73-15.999	
	0908	1308	LC		38-30.98	73-15.6	3rd GRAB SAMPLE
	1119	1519	LC		38-31	73-16.9	SET SURFACE MOORING "F"
		16 56	Sat	82-3-11	38-30.42	73-17.43	1330 Pulling Surf.
	13 35	17 35	LC		38°29.7	73-16.0	1338 Lost LC 300, 2nd
	14 00	18 00	LC		38-31.0	73-19.8	LC 305
	14 40	18 40	LC		38-35.9	73-28.8	
	15 00	19 00	LC		38-38.3	73-33.3	
	1530	1930	DR		38-42	73-39	H.T.
	1840				38-42.5	73-39.5	anchored Buoy "F"

Vessel Delaware

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LORAN LOG

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1979 +4 GMT

Date	Time	Sta.	+/-.	Reading	Latitude N	Longitude W	Remarks
8 Aug							
	2004	0004	LC		38-42.3	73-39.6	
	2030	0030					PICK UP SURFACE BUOY
	2010	0010	SAT	38°/03	38-42.24	73-39.444	
	2117	0117	LC		38-42.2	73-39.5	SET SURFACE MOORING
	2138	0138	LC		38-42.0	73-37.8	GRAB SAMPLE
	2233	0233	LC		38-42.2	73-37.1	SET TRIPOD
	2335	0335	LC	15-44482 42 62713	38-42.43	73-37.17	SET SUBSURFACE MOORING
							End Bottom Work
9 Aug	0 13	4 13	LC		38-43.0	73-37.2	C 303 CD 20 CC 315
							Trolling 0032 CC 302
	00 40	4 40	LC		38-47.0	73-45.0	CC 298
	01 01	5 01	LC		38-49.5	73-48.2	106 CC 288
	1 12	5 12	LC		38 50.6	73 53.1	
	1 25	5 25	LC		38-51.6	73-56.4	
	1 49	5 49	LC	33-3-12	38-52.6 38-53.0	74-01.1 74 01.8	CTD #22
	2 05	6 05	LC		38 52.8	74 01.9	CC 120 2.0
	2 20	6 20	LC		38-51.0	73-58.1	
	2 49	6 49	LC		38-47.7	73-51.6	246 HT, CTD 24
	3 29		LC		38-45.6	73-47.8	304 C120
	3 50	7 50	LC		38 42.2	73-39.6	355 HT, CTD 26
	4 29	8 29	LC		38-42.7	73-40.1	429 C120
		8 42	Sat	11-4-11	38-41.01	73-37.195	
	5 00	9 00	LC		39-38.9	73-32.6	
	5 16	9 16	LC		39-37.0	73-29.1	CTD 28
	5 40	9 40			36.9	29.4	C120

Vessel Albatross

Cruise 67

LORAN LOG

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1977 Date	Time	GMT Sta.	+/-.	Reading	N Latitude	W Longitude	Remarks
9 May	6 00	10 00			38-34.6	73-24.7	
	0634	1034			38 30.9	73 17.4	H/T CTD # 29
	0654	1054					End CTD beam Pos. chk. + depth survey
	0745	1145	LC		38 30.0	73 17.5	End Survey
	0806	1206	LC		38-29.2	73-14.1	H/T for Core
	0845	1245	LC		38-28.8	73-14.4	Fin Sta C/C 067°, FA.
	0900	1300	LC		38-30	73-10.5	
	0907	1307	LC		38-30.5	73-08.7	C/C 225
	0918	1318	LC		38-27.7	73-10.7	C/C 122
	0938	1338	LC		38-25.5	73-07.2	H/T. CTD # 34
	1016	1416	LC		38-25.1	73-07.7	Fin Sta C/C 066°, FA
	1100	1500	LC		38-28.6	72-55.9	
	1126	1526	Sat	10°/05'	38-30.563	72-48.588	
	1150	1550	Sat	36/4	38-32.36	72-41.86	
	12 00	16 00	LC		38-33.3	72-39.6	C/C 063
	13 00	17 00	LC		38-38.2	72-24.2	
	13 30	17 30	Sat	38/4	38-41.32	72-15.67	
	14 00	18 00	LC		38 43.9	72 09.7	
	15 00	19 00	LC		38-50.4	71-54.6	1452 C/C 052
	16 00	20 00	LC		38 59.0	71-41.0	
	1705	2105	LC		39 07.0	71 25.0	
	1800	2200	LC		39 13.1	71 11.3	
	1900	2300	LC		39 19.9	70 55.9	C/C 053 Tm 6 056

Vessel Oceanus

Cruise #67

LORAN LOG

Date	Time	GMT ~~Sta.~~	+/-.	Reading	N Latitude	W Longitude	Remarks
	Thur		Aug	9TH	'79		
Aug 9	1950	2350			39-26.273	70-43.440	
	2000	0000	LC		39-27.6	70-41.2	
	2022	0022	SAT	50°/03	39-30.59	70-35.457	
	2100	0100	LC		39-35.6	70-26.3	
	2200	0200	LC		39-44.2	70-12	
	2300	0300	LC		39-52.9	69-56.8	
Aug 10	00 02	4 02	LC		40-01.1	69 40.7	
	01 00	5 00	LC		40-08.4	69-25.8	
	2 00	6 00	LC		40-15.7	69-10.5	
	2 26	6 26	Sat	10/3	40-15.54	67-03.25	
	3 04	7 04	LC		40-23.3	68-53.9	
	400		LC		40-29.3	68-38.9	
	0500	0900	LC		40°35.6	68°24.0	C/C 051°
	0526	0926	SAT	20/03	40°38.698	68°15.882	
	0600	1000	LC		40°42.6	68°08.6	C/C 048° TMG 051
	0700	1100	LC		40°50.4	67°56.6	
	0702	1102	SAT	09/03	40°50.7	67°56.4	
	0726	1126	SAT	27/04	40-53.821	67-51.469	
	0730	1130	LC		40°54.6	67°50.6	
	0800	1200	LC		40-58.7	67-45	C/C 026

Vessel OCEANUS

Cruise 67

LORAN LOG

Date	Time	GMT ~~Zulu~~	+/-.	Reading	N Latitude	W Longitude	Remarks
10 AUG	0835 ~~1235~~	~~1235~~	LC		41-04.2	67-37.7	C/C 115°G.
	0853	1253	LC		41-02.5	67-34	HT. ON STA. V'YS
	0925	1325	LC		41-02.4	67-32.9	SET SURFACE BUOY 'N'
	0945	1345					RECOVER SUBSURFACE M
	1030	1430					RECOVER TRIPOD
	1120	1520					RECOVER SURFACE MOOR
	1208	1608					SET BUOY 'F'
	1704	2104			41°02.2	67°33.0	Anchor Aweigh
	1725	2125	2C		41°02.1	67°32.9	Grab Core over
	1740	2140	2C		41°02.4	67°32.3	Core Abd F/A 150°G
	1833		LC		40-54.0	67-27.8	c/c 155
	1847		LC		40-51.6	67-26.3	c/c 165
	1900	2300	2C		40°49.3	67°25.5	C/C 145°G
	1931	2331	LC		40°44.3	67°21.6	C/C 138°
	1950	2350	2C		40°41.9	67°19.3	
	2000	2400	LC		40-40.6	67-18.1	
	2100	0100	LC		40-32.5	67-08.0	
	2107	0107	LC		40-31.4	67-06.5	H.T. CTD + 3S + ~~CORE~~

Vessel OCEANUS

Cruise #67

LORAN LOG

Date (1979 +4 GMT)	Time	Sta.	+/-.	Reading	Latitude	Longitude	Remarks
10 AUG	2217	0217	LC		40-28.5	67-05.5	2155 S/C 180 FA
							2217 H.T. CORE
	2240				"	"	2240 S/C 330 FA
	2338	0338			40-36.115	67-09.568	2333 S/C 310 S
	2350	0350	LC		40-37.4	67-11.2	H.T. CTD STA. #39
11 AUG	0012	412	LC		40-36.6	67 08.9	0014 CTD ABP 0016 C 330 150 M
	032	432	LC		40-37.2	67-11.3	LC 312
	048	448	LC		40-41.1	67-11.3	LC 270 Stone Sh
	053	453	LC		40 41.4	67-14.5	C/C 310
	0100	500	LC		40 42.1	67-15.5	
	127	527	LC	31-3	40-44.08 40-44.8	67-18.1 67-19.3	HT, CTD 41
	137	537	LC		40.44.8	67 19.4	137 C 315 178 M
							152 C/C 330
	200	600	LC		40-47.5	67-22.4	C/C 355
	227	627	LC		51.6	21.8	220 C/C C/C 222 HT CTD 43
	245	645	LC		51.4	21.3	Mud Gr C
	251	651	LC	?	52.7	24.9	?
	254		LC	?	51.2	21.0	?
	305		LC		51.0	20.7	[illegible]
	320	720	LC		50.4	20.4	[illegible]
	341	741	LC		40-50.5	67-19.8	335 CTD [illegible]
	400	800	LC		40 51.7	67-22.4	346 C 310 150 M
	0502	0902	LC		40 54.9	67 27.3	
	0521	0921	LC		40' 54.5	67' 28.9	H/t Ctd
	0541	0941	LC		"	"	Ctd Nbd F/o 328'
	0600	1000	LC		40 57.8	67 31.2	

Vessel Oceanus

Cruise # C7

LORAN LOG

Date	Time (+4 - GMT)	Sta.	+/-.	Reading	N Latitude	W Longitude	Remarks
11 Aug '79			Saturday				
	0635	1035	LC		41°01.7	67°33.4	H.T. Ctd + Core
	0700	1100	LC		41°01.1	67°33.5	Ctd Abd H/A 325
	0714	1114					C/C 330
	0805	1205	LC		41-10.5	67-41.4	H.T. CTD
	0825	1225	LC		"	"	FIN STA 96 3456, FA
	0900	1300	LC		41-17	67-46.1	
	0935	1335	LC		41-25.1	67-46.2	H.T.
	1035	1435	LC		41-27	67-47	STREAM ~~SEA~~ SIDE SCAN ITEM 83334 FIN
	1100	1500	LC		41-28.7	67-48.5	
	12⁰⁰	16⁰⁰	LC		41-32.7	67-51.3	
	12¹⁵		LC		33.6	52.0	
	12³⁰		LC		34.7	52.9	12²⁰ Inc Spd 4.5k.
	12⁴⁵		LC		36.0	53.6	12²⁵ C/C 320 12⁴⁵ 3.5k 12⁵⁰ 4.5
	13⁰⁰	17⁰⁰	LC		41-37.0	67-54.3	
		17⁰⁸	Sat		41-37.71	67-54.88	
	13¹⁵		LC	41-3	41-38.0	67-55.1	
	13²³		LC		39.0	55.8	
	13⁴⁵		LC		41-39.7	67-56.3	
	14⁰⁰	18⁰⁰	LC		41-40.5	67-56.7	
	14¹⁵		LC		41-41.3	67-57.2	
	14³⁰		LC		41-42.1	67-57.6	
	15⁰⁰	19⁰⁰	LC		41-43.4	67-58.3	
	15³⁰	19³⁰	LC		41-44.4	67-59.1	
	1618	2018	LC		41°45.8	68°00.3	
	1641	2041	LC		41°46.5	68°00.9	C/C 340° 4

Vessel Oceanus

Cruise #67

LORAN LOG

Date	Time (+4)	Sta. (GMT)	+/-.	Reading	Latitude (N)	Longitude (W)	Remarks
11	Aug	Saturday		'79			
	1800	2200	LC		41°50.0	67°02.	C/C 250°q
	1855				41-49.1	67-05.6	SLOW TO CLEAR SHOR 18 52 C/C 162 5K
	1930	2330	LC		41°46.4	68°04.4	
	1949	2349			41°45.0	68°03.97	
	2000	2400	LC		41-44.3	68-03.7	
	2000	2400	SAT	NO FIX	41-44.247	68-03.829	
	2100	0100	LC		41-40.6	68-02	
	2200	0200	LC		41-38.3	68-00.6	C/C 156°T
	2300	0300	LC		41-36.4	67-59.7	S/A HAUL SIDE SCAN +
	2315	0315	LC		41-36.8	67-59.8	WATER STA., FIN STA SK 1605, FA
	24 00	04 00	LC		41-29.8	67-55.6	23 57 C/C 105
12 Aug	0012	412	Lat	80-4	41-30.475	67-42.267	002 C/C 095
			LC		41-29.74	67-52.23	
	00 55	455	LC		29.5	39.8	C/C 260
							0 57 HT, Sta
	130	530	LC		41-29.0	67-37.9	1 02 Stream C/C 246T, 4 km
	145				28.5	40.8	
	156	556	SAT	15/3	41-28.43	67-41.75	
			LC		41-28.35	67-41.50	
	200	600	LC		41-28.3	67 41.7	
	230	630	LC		41-27.6	67-43.5	
	300	700	LC		41-27.1	67-45.3	
	330	730	LC		41-26.6	67-47.3	

Vessel [illegible]

Cruise 67

LORAN LOG

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1979 Date	Time	GMT Sta.	+/-.	Reading	N Latitude	W Longitude	Remarks
12 AUG							STRONG CURRENT
	0400	0800	LC		41°26.3	67° 49.3	
	0430	0830	LC		41°25.7	67°51.4	B U
	0500	0900	LC		41°25.1	67°53.7	A A
	0530	0930	LC		41°24.5	67°55.9	S R TIME 246°
							E I
	0600	1000	LC		41°24.0	67°57.9	246° O
	0632	1032	LC		41°23.4	68°00.5	U
							S
	0700	1100	LC		41°22.0	68°03.4	
	0730	1130	LC		41°20.9	68°07.0	
	0800	1200	LC		41-19.8	68-10.7	
	0808	1208	LC		41-19.6	68-11.8	C/C BASE CO 191°T
	0900	1300	LC		41-15.1	68-13.3	
	1000	1400	LC		41-10.8	68-14.6	
	1100	1500	LC		41-07.9	68-15.3	
	1151	1551	LC		41-05.9	68-15.1	C TO BASE CO 076°T
	12 00	16 00	LC		41-6.5	68 14.4	
	12 30		LC		41-6.7	68-12.7	
	12 45		LC		41-6.8	68-11.1	
	13 00	17 00	LC		41-6.9	68-9.95	
	13 15		LC		41-7.0	68-8.6	
	13 30		LC		41 7.1	68-7.2	
	14 00	17 46	LC	243	41-07.33	68-05.58	1356 C Base C to 070
					41-7.7	68-4.2	
	14 15		LC		41-8.15	68-2.7	
	1430		LC		41-8.5	68-0.9	
	15 00		LC		41-9.4	67-57.7	
	15 15		LC		9.9	55.9	15 16 C/C 180° Base

Vessel DECANUS

Cruise 67

LORAN LOG

1979 Date	Time	GMT ~~Sta.~~	+/-.	Reading	N Latitude	W Longitude	Remarks
12 Aug	15 32	19 32	LC		41-09.1	67-55.3	15 42 Slow to Check Gear 15 52 40' Km.
	1600	2000	LC		41°07.5	67°55.0	
	1632	2022	SAT	07/03?	41°06.032	67°55.724	
	1635	2035	LC		41°05.2	67°55.3	
	1700	2100	LC		41°03.3	67°55.2	C/C 255° base
	1730	2130	LC		41°02.8	67°57.2	
	1736	2136	SAT	58/03	41°02.660	67°57.997	
	1800	2200	LC		41°02.3	67°59.5	
	1830	2230	LC		41°01.8	68°01.9	18 56 C/C 240 T
	1910	2310	LC		41°01.0	68°05.2	
	1946	2346			40 59.31	68 08.6	C/C 234° base
	2000	2400	LC		40-58.5	68-10	
	2015	0015	LC		40-57.6	68-11.7	C/base co. 322°T
	2100	0100	LC		40-59.9	68-14.4	
	2200	0200	LC		41-03.9	68-18.9	
	2300	0300	LC		41-08.6	68-23.7	
	2315	0315	LC		41 09.9	68-25	C/ base co 252 C.
	2330	0330	LC		41-09.8	68-26.7	S/A Haul side scan + Hit.
							For water sta
	2353	0353	LC		41-10.3	68-27.4	Fin sta SC 245 ~~220~~, PA.
13 Aug		4 48	Sat	50/3	41-06.88	68-41.04	
13 Aug	1 00	5 00	LC		41-05.9	68-43.9	

Vessel Oceanus

Cruise 67

LORAN LOG

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Date 1979	Time +4	Sta. GMT	+/-.	Reading	Latitude N	Longitude W	Remarks Loran C Grative
13 Aug	1 15	5 15	LC		41-04.8	68-47.4	
	1 32	5 32	LC		41 03.7	68-50.8	1 30 Start to stream
	1 47	5 47	LC		41-03.7	68-51.0	1 38 4 km, 222° Ro
	2 00	6 00	LC		41-03.5	68-51.3	1 54 3.5 km
	2 18		LC		03.2	51.8	2 10 C. Bank 232
	2 30		LC		03.1	52.2	2 36 Start to
	2 36		LC		.030	52.4	haul gear
		6 54	Net	5-4	41-02.12	68-53.32	2 47 200 RPM
	3 00		LC		41-01.4	68-54.2	3 04 c/c 220 Lorac then 230
	3 17				40-59.1	68-57.2	3 19 c/c 210
	3 32		LC		56.9	59.3	3 40 c/c 218
	4 00		LC		40-52.9	68 03.7	
	0446	0846	SOT		40°48.2	69° 11.3	
	0514	0914			40°45.9	69 15.6	c/c 040 2 kts
							Stream gear
	0600	1000	LC		40°45.8	69 11.7	
	0640	1040	LC		40°45.4	69°08.8	Good Abd F/A 350'6
							End Science
	0650	1050	LC		40°46.7	69 08.7	
	0700	1100	LC		40°48.8	69°09.0	c/c 341
	0720	1120					Reduce Spd Sound for S
	0730	113	LC		40°54.2	69°11.6	
	0800	1200	LC		40-59.2	69 14.1	
	0825	1225			-3.9	16.8	

Vessel OCEANUS

Cruise #67

LORAN LOG

Date	Time	GMT ~~Sta.~~	+/-.	Reading	Latitude	Longitude	Remarks
13 AUG.	0900	1300			41-09.9	69-21.8	C/C 337 S.
	1						
	1000	1400			41-22	69-29	
	1012	1412			41-24.6	69-30.5'	C/C 290 S.
							1025 V/S
	1056	1456			41-26.1	69-43.4	AT GREAT ROUND SHOAL B
	1						V/C PROCEED VE THROUGH
	1140	1540					AT GRC' BUOY
	11[55]		0.6 mi	from 13 Hyp	276	12[05]	CC 273 12[15] C/C 2
	12[20]	"	Buoy 15"	abm. 1	0.8 mi		
	12[57]	Buoy 18"		4 mi	C/C 277		
	14[45]	ARRIVAL					
	15[09]	Bow thruster not working — put out					
	into	Lund to await slack tide					