

2. UNDERWAY GEOPHYSICS ON LEG 101¹

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INTRODUCTION

Routine geophysical measurements were collected at intervals during Leg 101. Of the 898 n. mi covered by the leg, geophysical data were collected only as follows: (1) ODP Line 1, Miami, Florida, to Site 626; (2) ODP Line 2, Site 626 to Site 627; (3) ODP Line 3, southeastern entrance to Exuma Sound to Site 631; and (4) ODP Line 4, Site 631 to Site 632.

We were under way 5.3 days or 12% of the time spent at sea.

The on-board instrumentation included two precision echo sounders, seismic-reflection profilers, a TRANSIT satellite navigation system, and LORAN C. The instruments were maintained and operated by the ODP marine technicians in cooperation with the scientific party and the officers and crew of SEDCO-FOREX, Inc.

Because of technical and electronic problems during Leg 101, no magnetic data are available.

NAVIGATION

Navigation data were collected on the bridge by a Magnavox MX702A TRANSIT satellite receiver and a LORAN C. Positions were obtained with this system throughout the entire leg (Table 1).

BATHYMETRIC-DATA RECORDING

Bathymetric data were obtained with 3.5-kHz and 12-kHz echo sounders, using a Raytheon recorder system for the 3.5-kHz and an EDO 248C recorder for the 12-kHz. Unfortunately, as a result of poor placement of hull-mounted transducers relative to thrusters used for dynamic positioning, the quality of the recorded data is very poor.

SEISMIC-REFLECTION PROFILES

In this chapter, we present the seismic lines collected during Leg 101. These data were recorded with the following equipment and techniques.

Sources

The seismic sources used aboard the *JOIDES Resolution* during Leg 101 were one 400-in.³ water gun and one or two 80-in.³ water guns (see Table 2 for details).

Streamer Hydrophones

Either of two Teledyne streamers are available on winches at the fantail. Each contains 60 hydrophones and is 100 m long. The streamers are towed approximately 400 m behind the vessel. The towing depth was set by external depth depressors ("birds"). The hydrophone elements are then combined to procure a single signal.

Data Recording

The central part of the acquisition/processing system was a super-micro 561 Masscomp computer. It allowed data to be processed and displayed in real time on a 15-in.-wide Printonix high-resolution graphic printer (160 dots per in.). The raw data were recorded on a Cither tape, using an SEG-Y format and a density of 1600 bits/in.

Seismic data were also displayed in real time in analog format on two EDO 550 dry-paper recorders, using only streamers, amplifiers, and two band-pass filters (see Table 2 and Fig. 1).

SEISMIC-LINE REPROCESSING

ODP lines 1 and 2, recorded with the Masscomp computer, were reprocessed during the site occupation (reprocessing treatments applied are described in Table 3). The final data (see Fig. 5, Site 626 chapter, and Fig. 5, Site 627 chapter, this volume) were

¹ Austin, J. A., Jr., Schlager, W., Palmer, A. A., et al., 1986. *Proc., Init. Repts. (Pt. A), ODP, 101*.

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displayed on a 22-in.-wide Versatec plotter (200 dots per in.)
with the following parameters:

Traces per inch: 30.
Clip high: 0.10 in.
Clip low: -0.10 in.
Deflection: 0.10 in.
Plot start time: 500 ms.

Plot stop time: 2500 ms.
Variable area display.
Positive peaks to the right.

ACKNOWLEDGMENTS

The scientific party of Leg 101 thanks Mark Weiderspahn and Ali Tufayli of the University of Texas at Austin, who designed and wrote the seismic digital acquisition system.

Table 1. Navigation data for Leg 101.

Day	Month	Year	Time (UTC) ^a	North latitude		West longitude		Cumulative distance (n. mi)	Actual		Drift speed (kt)	Dead reckoning		Comments ^b	No.
				deg	min	deg	min		Speed (kt)	Course (deg)		Speed (kt)	Course (deg)		
31	1	1985	2330	25	45.37	79	57.39	0	6.5	126	2.0	7.6	140	lorc	3
31	1	1985	2353	25	43.9	79	55.2	2.5	6.4	126	2.0	7.4	140	c/cs	4
1	2	1985	0000	25	43.48	79	54.49	3.2	7.4	124	2.1	7.4	140	lorc	6
1	2	1985	0000	25	43.5	79	54.5	3.2	7.4	124	2.1	7.4	140	c/cs	7
1	2	1985	0003	25	43.3	79	54.1	3.6	7.5	124	2.1	7.5	140	c/cs	8
1	2	1985	0030	25	41.37	79	51.05	7.0	7.1	114	3.4	7.5	140	lorc	10
1	2	1985	0033	25	41.2	79	50.7	7.3	7.1	114	3.4	7.6	140	c/cs	11
1	2	1985	0046	25	40.6	79	49.1	8.9	7.7	102	3.4	7.4	128	c/cs	12
1	2	1985	0100	25	40.23	79	47.20	10.6	8.5	107	3.2	7.4	128	lorc	14
1	2	1985	0106	25	40.0	79	46.3	11.5	8.3	113	3.2	7.6	135	c/cs	15
1	2	1985	0130	25	38.70	79	42.89	14.8	7.1	117	2.4	7.6	135	lorc	17
1	2	1985	0130	25	38.7	79	42.9	14.8	7.2	117	2.4	7.7	135	c/cs	18
1	2	1985	0143	25	38.0	79	41.3	16.4	7.0	121	2.4	7.7	139	c/cs	19
1	2	1985	0200	25	36.96	79	39.46	18.4	7.8	121	2.4	7.7	139	lorc	21
1	2	1985	0205	25	36.6	79	38.8	19.0	7.8	118	2.4	7.6	136	c/cs	22
1	2	1985	0216	25	36.0	79	37.5	20.4	5.4	111	2.4	5.1	137	c/cs	23
1	2	1985	0230	25	35.50	79	36.14	21.7	5.3	104	2.9	5.1	137	lorc	25
1	2	1985	0235	25	35.4	79	35.7	22.2	5.2	103	2.9	4.9	136	c/cs	26
1	2	1985	0254	25	35.0	79	33.9	23.8	5.6	92	2.9	4.8	123	c/cs	27
1	2	1985	0303	25	35.0	79	33.0	24.6	6.8	71	2.9	4.8	92	c/cs	28
1	2	1985	0305	25	35.08	79	32.73	24.9	4.8	92	0	4.8	92	626A	30
1	2	1985	0305	25	35.1	79	32.7	24.9	0	90	0	0	—	c/cs	31
1	2	1985	0330	25	35.08	79	32.73	24.9	0	236	0	0	—	626A	33
3	2	1985	0930	25	34.87	79	33.08	25.2	0.5	38	0.5	0	—	626B	35
3	2	1985	1210	25	36.02	79	32.08	26.7	0	90	0	0	—	626C	37
5	2	1985	0600	25	36.02	79	32.08	26.7	0.1	270	0.1	0	—	626C	39
5	2	1985	1730	25	36.02	79	32.81	27.4	0	90	0	0	—	626D	41
9	2	1985	1130	25	36.02	79	32.81	27.4	3.1	10	3.1	0	—	626D	43
9	2	1985	1433	25	45.4	79	31.0	36.9	5.5	69	3.1	4.8	104	c/cs	44
9	2	1985	1434	25	45.5	79	30.9	37.0	7.1	22	3.1	4.1	31	c/cs	45
9	2	1985	1454	25	47.7	79	29.9	39.4	7.2	23	3.1	4.2	33	c/cs	46
9	2	1985	1500	25	48.31	79	29.60	40.1	7.6	26	3.5	4.2	33	lorc	48
9	2	1985	1510	25	49.5	79	29.0	41.3	7.5	27	3.5	4.0	35	c/cs	49
9	2	1985	1519	25	50.5	79	28.4	42.5	6.8	26	3.5	3.3	36	c/cs	50
9	2	1985	1530	25	51.57	79	27.82	43.7	6.4	27	3.2	3.3	36	lorc	52
9	2	1985	1545	25	53.0	79	27.0	45.3	6.9	28	3.2	3.8	36	c/cs	53
9	2	1985	1600	25	54.53	79	26.11	47.0	6.8	27	3.1	3.8	36	lorc	55
9	2	1985	1611	25	55.6	79	25.5	48.3	6.9	27	3.1	4.0	36	c/cs	56
9	2	1985	1630	25	57.60	79	24.39	50.5	6.8	27	3.0	4.0	36	lorc	58
9	2	1985	1641	25	58.7	79	23.8	51.7	6.8	27	3.0	3.9	36	c/cs	59
9	2	1985	1700	26	0.64	79	22.68	53.9	7.3	25	3.6	3.9	36	lorc	61
9	2	1985	1711	26	1.9	79	22.0	55.2	7.7	25	3.6	4.3	35	c/cs	62
9	2	1985	1715	26	2.3	79	21.8	55.7	9.6	27	3.6	6.2	35	c/cs	63
9	2	1985	1730	26	4.45	79	20.57	58.1	9.5	29	3.4	6.2	35	lorc	65
9	2	1985	1738	26	5.6	79	19.9	59.4	9.7	30	3.4	6.4	36	c/cs	66
9	2	1985	1757	26	8.2	79	18.2	62.5	9.8	32	3.4	6.6	40	c/cs	67
9	2	1985	1800	26	8.66	79	17.91	63.0	9.6	30	3.3	6.6	40	lorc	69
9	2	1985	1822	26	11.7	79	16.0	66.5	10.3	30	3.3	7.3	39	c/cs	70
9	2	1985	1831	26	13.1	79	15.1	68.1	10.4	4	3.3	7.1	2	c/cs	71
9	2	1985	1838	26	14.3	79	15.0	69.3	10.7	3	3.3	7.4	1	c/cs	72
9	2	1985	1900	26	18.19	79	14.77	73.2	11.0	357	3.7	7.4	1	lorc	74
9	2	1985	1908	26	19.7	79	14.9	74.7	10.9	357	3.7	7.2	1	c/cs	75
9	2	1985	1924	26	22.6	79	15.0	77.6	10.9	358	3.7	7.3	3	c/cs	76
9	2	1985	1949	26	27.1	79	15.2	82.1	11.0	359	3.7	7.3	4	c/cs	77
9	2	1985	2000	26	29.12	79	15.26	84.1	11.0	359	3.7	7.3	4	lorc	79
9	2	1985	2007	26	30.4	79	15.3	85.4	11.0	1	3.7	7.3	6	c/cs	80
9	2	1985	2030	26	34.61	79	15.23	89.6	11.3	2	4.0	7.3	6	lorc	82
9	2	1985	2037	26	35.9	79	15.2	90.9	11.3	1	4.0	7.3	5	c/cs	83
9	2	1985	2100	26	40.25	79	15.11	95.3	10.9	1	3.6	7.3	5	lorc	85
9	2	1985	2107	26	41.5	79	15.1	96.5	11.0	359	3.6	7.4	2	c/cs	86
9	2	1985	2123	26	44.5	79	15.1	99.5	11.1	358	3.6	7.5	0	c/cs	87
9	2	1985	2130	26	45.76	79	15.19	100.8	11.4	358	3.9	7.5	0	lorc	89
9	2	1985	2146	26	48.8	79	15.3	103.8	11.3	356	3.9	7.4	358	c/cs	90
9	2	1985	2200	26	51.42	79	15.51	106.4	11.4	356	3.9	7.4	358	lorc	92

Table 1 (continued).

Day	Month	Year	Time (UTC) ^a	North latitude		West longitude		Cumulative distance (n. mi)	Actual		Drift speed (kt)	Dead reckoning		Comments ^b	No.
				deg	min	deg	min		Speed (kt)	Course (deg)		Speed (kt)	Course (deg)		
9	2	1985	2214	26	54.1	79	15.7	109.1	11.4	356	3.9	7.5	358	c/cs	93
9	2	1985	2228	26	56.7	79	16.0	111.7	9.1	356	3.9	5.2	359	c/cs	94
9	2	1985	2229	26	56.9	79	16.0	111.9	11.3	356	3.9	7.4	359	c/cs	95
9	2	1985	2230	26	57.06	79	15.98	112.1	11.7	355	4.3	7.4	359	lorc	97
9	2	1985	2245	26	60.0	79	16.3	115.0	10.5	355	4.3	6.2	359	c/cs	98
9	2	1985	2247	27	0.3	79	16.3	115.4	10.7	355	4.3	6.4	359	c/cs	99
9	2	1985	2250	27	0.8	79	16.3	115.9	11.4	356	4.3	7.2	1	c/cs	100
9	2	1985	2300	27	2.75	79	16.48	117.8	11.2	359	4.0	7.2	1	lorc	102
9	2	1985	2307	27	4.1	79	16.5	119.1	11.3	360	4.0	7.3	2	c/cs	103
9	2	1985	2330	27	8.38	79	16.53	123.4	11.8	358	4.6	7.3	2	lorc	105
9	2	1985	2330	27	8.4	79	16.5	123.4	11.8	360	4.6	7.3	4	c/cs	106
10	2	1985	0000	27	14.27	79	16.57	129.3	11.5	0	4.2	7.3	4	lorc	108
10	2	1985	0000	27	14.3	79	16.6	129.3	11.2	360	4.2	7.0	4	c/cs	109
10	2	1985	0030	27	19.87	79	16.58	134.9	9.9	0	3.0	7.0	4	lorc	111
10	2	1985	0030	27	19.9	79	16.6	134.9	9.8	1	3.0	6.9	5	c/cs	112
10	2	1985	0047	27	22.6	79	16.5	137.7	7.5	0	3.0	4.6	6	c/cs	113
10	2	1985	0050	27	23.0	79	16.5	138.1	5.5	357	3.0	2.6	3	c/cs	114
10	2	1985	0059	27	23.8	79	16.6	138.9	5.5	356	3.0	2.5	2	c/cs	115
10	2	1985	0100	27	23.94	79	16.59	139.0	6.0	357	3.5	2.5	2	lorc	117
10	2	1985	0106	27	24.5	79	16.6	139.6	9.2	357	3.5	5.8	0	c/cs	118
10	2	1985	0109	27	25.0	79	16.7	140.0	10.5	357	3.5	7.0	359	c/cs	119
10	2	1985	0119	27	26.7	79	16.8	141.8	10.7	357	3.5	7.2	359	c/cs	120
10	2	1985	0126	27	28.0	79	16.8	143.0	8.1	356	3.5	4.7	359	c/cs	121
10	2	1985	0130	27	28.52	79	16.87	143.6	6.6	6	2.0	4.7	359	lorc	123
10	2	1985	0130	27	28.5	79	16.9	143.6	5.6	9	2.0	3.7	1	c/cs	124
10	2	1985	0141	27	29.5	79	16.7	144.6	5.1	28	2.0	3.1	31	c/cs	125
10	2	1985	0144	27	29.8	79	16.6	144.9	4.9	52	2.0	3.2	70	c/cs	126
10	2	1985	0149	27	30.0	79	16.2	145.3	7.2	64	2.0	5.8	77	c/cs	127
10	2	1985	0153	27	30.2	79	15.7	145.8	8.3	67	2.0	6.9	78	c/cs	128
10	2	1985	0200	27	30.61	79	14.70	146.7	9.3	72	2.5	6.9	78	lorc	130
10	2	1985	0203	27	30.7	79	14.2	147.2	9.7	75	2.5	7.4	81	c/cs	131
10	2	1985	0230	27	31.88	79	9.44	151.6	9.5	78	2.2	7.4	81	lorc	133
10	2	1985	0233	27	32.0	79	8.9	152.0	9.5	83	2.2	7.4	87	c/cs	134
10	2	1985	0242	27	32.2	79	7.3	153.5	9.5	88	2.2	7.5	93	c/cs	135
10	2	1985	0300	27	32.28	79	4.11	156.3	10.3	93	2.8	7.5	93	lorc	137
10	2	1985	0304	27	32.2	79	3.3	157.0	10.2	93	2.8	7.4	92	c/cs	138
10	2	1985	0308	27	32.2	79	2.6	157.7	10.2	93	2.8	7.4	93	c/cs	139
10	2	1985	0315	27	32.1	79	1.2	158.9	10.2	92	2.8	7.4	91	c/cs	140
10	2	1985	0320	27	32.1	79	0.3	159.7	10.0	85	2.8	7.3	82	c/cs	141
10	2	1985	0330	27	32.25	78	58.40	161.4	9.8	79	2.6	7.3	82	lorc	143
10	2	1985	0350	27	32.9	78	54.8	164.7	9.8	79	2.6	7.2	81	c/cs	144
10	2	1985	0400	27	33.17	78	52.96	166.3	9.4	76	2.3	7.2	81	lorc	146
10	2	1985	0419	27	33.9	78	49.7	169.3	9.3	77	2.3	7.1	82	c/cs	147
10	2	1985	0430	27	34.26	78	47.81	171.0	9.8	84	2.7	7.1	82	lorc	149
10	2	1985	0443	27	34.5	78	45.4	173.1	10.0	85	2.7	7.3	84	c/cs	150
10	2	1985	0501	27	34.8	78	42.0	176.1	10.1	86	2.7	7.4	86	c/cs	151
10	2	1985	0530	27	35.06	78	36.54	181.0	9.7	88	2.3	7.4	86	lorc	153
10	2	1985	0531	27	35.1	78	36.4	181.2	9.5	87	2.3	7.2	85	c/cs	154
10	2	1985	0600	27	35.30	78	31.21	185.7	9.9	84	2.7	7.2	85	lorc	156
10	2	1985	0601	27	35.3	78	31.0	185.9	9.9	81	2.7	7.2	81	c/cs	157
10	2	1985	0622	27	35.9	78	27.2	189.4	9.8	81	2.7	7.1	81	c/cs	158
10	2	1985	0630	27	36.07	78	25.70	190.7	8.6	75	1.8	7.1	81	lorc	160
10	2	1985	0650	27	36.8	78	22.6	193.5	8.5	71	1.8	6.9	77	c/cs	161
10	2	1985	0702	27	37.4	78	20.8	195.3	6.6	69	1.8	4.9	76	c/cs	162
10	2	1985	0706	27	37.5	78	20.3	195.7	6.0	70	1.8	4.4	78	c/cs	163
10	2	1985	0715	27	37.8	78	19.3	196.6	6.1	80	1.8	4.7	92	c/cs	164
10	2	1985	0730	27	38.10	78	17.65	198.1	4.7	92	0	4.7	92	627A	166
10	2	1985	0730	27	38.1	78	17.6	198.1	0	90	0	0	—	c/cs	167
10	2	1985	1930	27	38.10	78	17.65	198.1	0	90	0	0	—	627A	169
10	2	1985	2330	27	38.10	78	17.65	198.1	0	90	0	0	—	627B	171
17	2	1985	2245	27	38.10	78	17.65	198.1	0.5	190	0.5	0	—	627B	173
18	2	1985	1145	27	31.85	78	18.95	204.5	0	90	0	0	—	628A	175
19	2	1985	1915	27	31.85	78	18.95	204.5	0.6	200	0.6	0	—	628A	177
19	2	1985	2150	27	30.4	78	19.5	206.0	4.7	205	0.6	4.1	206	c/cs	178
19	2	1985	2200	27	29.7	78	19.9	206.7	4.4	201	0.6	3.8	201	c/cs	179
19	2	1985	2225	27	28.0	78	20.6	208.6	0.6	200	0.6	0	—	c/cs	180
20	2	1985	0505	27	24.39	78	22.10	212.4	0	90	0	0	—	629A	182
20	2	1985	0745	27	24.39	78	22.10	212.4	0.3	30	0.3	0	—	629A	184
20	2	1985	1730	27	26.94	78	20.43	215.4	0	90	0	0	—	630A	186
21	2	1985	1515	27	26.94	78	20.43	215.4	0	90	0	0	—	630A	188
21	2	1985	1700	27	26.94	78	20.43	215.4	0	90	0	0	—	630B	190
22	2	1985	0015	27	26.94	78	20.43	215.4	0	90	0	0	—	630B	192
22	2	1985	0030	27	26.94	78	20.43	215.4	0	90	0	0	—	630C	194
22	2	1985	0045	27	26.94	78	20.43	215.4	2.4	126	2.4	0	—	630C	196
22	2	1985	0435	27	21.6	78	12.1	224.5	6.4	120	2.4	4.0	116	c/cs	197

Table 1 (continued).

Day	Month	Year	Time (UTC) ^a	North latitude		West longitude		Cumulative distance (n. mi)	Actual		Drift speed (kt)	Dead reckoning		Comments ^b	No.
				deg	min	deg	min		Speed (kt)	Course (deg)		Speed (kt)	Course (deg)		
22	2	1985	0600	27	17.2	78	3.3	233.5	11.4	118	2.4	9.0	116	c/cs	198
22	2	1985	0630	27	14.5	77	57.6	239.2	9.4	116	2.4	7.1	113	c/cs	199
22	2	1985	0700	27	12.42	77	52.87	243.9	7.8	116	0.8	7.1	113	satl	201
22	2	1985	0700	27	12.4	77	52.9	243.9	9.1	117	0.8	8.4	115	c/cs	202
22	2	1985	0848	27	4.9	77	36.5	260.3	9.7	126	0.8	9.0	125	c/cs	203
22	2	1985	1200	26	46.5	77	8.4	291.4	9.3	124	0.8	8.6	122	c/cs	204
22	2	1985	1400	26	36.2	76	51.0	310.1	9.6	127	0.8	8.9	126	c/cs	205
22	2	1985	1403	26	35.9	76	50.5	310.6	9.8	147	0.8	9.0	147	c/cs	206
22	2	1985	1502	26	27.9	76	44.6	320.1	10.1	149	0.8	9.3	150	c/cs	207
22	2	1985	1859	25	53.7	76	22.1	359.9	9.8	148	0.8	9.0	148	c/cs	208
22	2	1985	1900	25	53.6	76	22.0	360.0	9.6	147	0.8	8.9	147	c/cs	209
22	2	1985	1911	25	52.1	76	20.9	361.8	9.6	147	0.8	8.8	147	c/cs	210
22	2	1985	1917	25	51.3	76	20.3	362.8	9.8	147	0.8	9.0	147	c/cs	211
22	2	1985	1948	25	47.1	76	17.3	367.8	10.2	147	0.8	9.4	147	c/cs	212
22	2	1985	2009	25	44.1	76	15.1	371.4	9.8	147	0.8	9.0	147	c/cs	213
22	2	1985	2023	25	42.2	76	13.7	373.6	10.1	147	0.8	9.3	147	c/cs	214
22	2	1985	2052	25	38.1	76	10.7	378.5	9.9	147	0.8	9.1	147	c/cs	215
22	2	1985	2108	25	35.9	76	9.1	381.1	9.8	147	0.8	9.0	147	c/cs	216
22	2	1985	2135	25	32.3	76	6.4	385.5	9.5	147	0.8	8.8	147	c/cs	217
22	2	1985	2205	25	28.3	76	3.5	390.3	9.6	147	0.8	8.8	147	c/cs	218
22	2	1985	2225	25	25.6	76	1.6	393.5	9.5	147	0.8	8.7	147	c/cs	219
22	2	1985	2255	25	21.7	75	58.7	398.2	9.7	147	0.8	8.9	147	c/cs	220
22	2	1985	2325	25	17.6	75	55.7	403.1	9.8	147	0.8	9.0	147	c/cs	221
22	2	1985	2355	25	13.5	75	52.8	408.0	9.7	147	0.8	8.9	147	c/cs	222
23	2	1985	0000	25	12.9	75	52.3	408.8	9.7	147	0.8	8.9	147	c/cs	223
23	2	1985	0003	25	12.5	75	52.0	409.3	7.1	146	0.8	6.4	146	c/cs	224
23	2	1985	0006	25	12.2	75	51.7	409.6	4.7	145	0.8	3.9	146	c/cs	225
23	2	1985	0014	25	11.7	75	51.4	410.2	4.3	146	0.8	3.5	147	c/cs	226
23	2	1985	0019	25	11.4	75	51.1	410.6	4.8	175	0.8	4.2	181	c/cs	227
23	2	1985	0023	25	11.0	75	51.1	410.9	5.3	187	0.8	4.8	193	c/cs	228
23	2	1985	0033	25	10.2	75	51.2	411.8	6.2	187	0.8	5.7	193	c/cs	229
23	2	1985	0037	25	9.8	75	51.3	412.2	6.1	168	0.8	5.5	171	c/cs	230
23	2	1985	0040	25	9.5	75	51.2	412.5	7.7	155	0.8	7.0	156	c/cs	231
23	2	1985	0043	25	9.1	75	51.0	412.9	9.3	147	0.8	8.5	148	c/cs	232
23	2	1985	0049	25	8.3	75	50.5	413.8	9.5	146	0.8	8.7	146	c/cs	233
23	2	1985	0119	25	4.4	75	47.5	418.6	9.5	146	0.8	8.7	146	c/cs	234
23	2	1985	0124	25	3.75	75	47.01	419.4	10.0	147	1.3	8.7	146	satl	236
23	2	1985	0149	25	0.3	75	44.5	423.5	10.1	147	1.3	8.9	146	c/cs	237
23	2	1985	0216	24	56.4	75	41.8	428.1	9.9	146	1.3	8.7	145	c/cs	238
23	2	1985	0242	24	52.8	75	39.2	432.4	7.1	146	1.3	5.8	144	c/cs	239
23	2	1985	0246	24	52.5	75	38.9	432.9	6.9	147	1.3	5.6	145	c/cs	240
23	2	1985	0250	24	52.1	75	38.6	433.3	9.7	146	1.3	8.4	145	c/cs	241
23	2	1985	0256	24	51.3	75	38.1	434.3	10.4	146	1.3	9.1	145	c/cs	242
23	2	1985	0309	24	49.4	75	36.7	436.5	10.4	146	1.3	9.2	145	c/cs	243
23	2	1985	0314	24	48.67	75	36.15	437.4	11.0	141	1.9	9.2	145	satl	245
23	2	1985	0345	24	44.2	75	32.3	443.1	11.2	141	1.9	9.4	144	c/cs	246
23	2	1985	0352	24	43.22	75	31.35	444.4	10.7	144	1.3	9.4	144	satl	248
23	2	1985	0415	24	39.9	75	28.7	448.5	10.6	143	1.3	9.3	143	c/cs	249
23	2	1985	0434	24	37.3	75	26.4	451.8	10.6	144	1.3	9.3	144	c/cs	250
23	2	1985	0531	24	29.1	75	19.8	461.9	10.4	144	1.3	9.1	144	c/cs	251
23	2	1985	0540	24	27.87	75	18.82	463.5	10.7	147	1.7	9.1	144	satl	253
23	2	1985	0541	24	27.7	75	18.7	463.7	10.7	151	1.7	9.1	149	c/cs	254
23	2	1985	0611	24	23.0	75	15.9	469.0	10.8	151	1.7	9.2	149	c/cs	255
23	2	1985	0641	24	18.3	75	13.0	474.4	10.9	151	1.7	9.2	149	c/cs	256
23	2	1985	0702	24	15.0	75	11.0	478.2	10.8	177	1.7	9.2	179	c/cs	257
23	2	1985	0705	24	14.4	75	11.0	478.8	11.2	178	1.7	9.6	181	c/cs	258
23	2	1985	0706	24	14.24	75	10.95	479.0	10.8	186	1.4	9.6	181	satl	260
23	2	1985	0726	24	10.7	75	11.3	482.6	10.8	186	1.4	9.6	181	c/cs	261
23	2	1985	0733	24	9.4	75	11.5	483.8	9.4	212	1.4	8.0	211	c/cs	262
23	2	1985	0735	24	9.1	75	11.7	484.1	7.4	218	1.4	5.9	218	c/cs	263
23	2	1985	0739	24	8.8	75	12.0	484.6	5.2	212	1.4	3.8	210	c/cs	264
23	2	1985	0744	24	8.4	75	12.2	485.1	4.5	206	1.4	3.1	200	c/cs	265
23	2	1985	0751	24	7.9	75	12.5	485.6	5.6	208	1.4	4.2	205	c/cs	266
23	2	1985	0801	24	7.1	75	13.0	486.5	5.8	215	1.4	4.4	214	c/cs	267
23	2	1985	0807	24	6.6	75	13.3	487.1	7.9	220	1.4	6.4	220	c/cs	268
23	2	1985	0811	24	6.2	75	13.7	487.6	8.6	219	1.4	7.2	219	c/cs	269
23	2	1985	0827	24	4.4	75	15.3	489.9	9.5	219	1.4	8.1	219	c/cs	270
23	2	1985	0842	24	2.6	75	16.9	492.3	9.9	220	1.4	8.5	220	c/cs	271
23	2	1985	0908	23	59.3	75	19.9	496.6	9.4	222	1.4	8.0	223	c/cs	272
23	2	1985	0938	23	55.8	75	23.4	501.3	9.5	227	1.4	8.0	229	c/cs	273
23	2	1985	1008	23	52.6	75	27.2	506.0	9.4	227	1.4	8.0	229	c/cs	274
23	2	1985	1016	23	51.7	75	28.2	507.3	9.4	221	1.4	8.0	222	c/cs	275
23	2	1985	1046	23	48.2	75	31.6	512.0	9.5	221	1.4	8.1	221	c/cs	276
23	2	1985	1100	23	46.5	75	33.2	514.2	9.5	220	1.4	8.0	220	c/cs	277
23	2	1985	1130	23	42.9	75	36.5	519.0	9.5	221	1.4	8.1	222	c/cs	278

Table 1 (continued).

Day	Month	Year	Time (UTC) ^a	North latitude		West longitude		Cumulative distance (n. mi)	Actual		Drift speed (kt)	Dead reckoning		Comments ^b	No.
				deg	min	deg	min		Speed (kt)	Course (deg)		Speed (kt)	Course (deg)		
23	2	1985	1200	23	39.3	75	40.0	523.7	9.6	222	1.4	8.1	223	c/cs	279
23	2	1985	1204	23	38.8	75	40.4	524.3	9.5	230	1.4	8.1	232	c/cs	280
23	2	1985	1218	23	37.4	75	42.3	526.6	9.7	228	1.4	8.3	230	c/cs	281
23	2	1985	1227	23	36.4	75	43.5	528.0	9.3	221	1.4	7.9	222	c/cs	282
23	2	1985	1230	23	36.1	75	43.8	528.5	6.8	219	1.4	5.3	219	c/cs	283
23	2	1985	1234	23	35.7	75	44.1	528.9	5.7	217	1.4	4.2	217	c/cs	284
23	2	1985	1240	23	35.3	75	44.5	529.5	6.3	213	1.4	4.8	211	c/cs	285
23	2	1985	1241	23	35.20	75	44.56	529.6	4.8	211	0	4.8	211	S631	287
23	2	1985	1241	23	35.2	75	44.6	529.6	4.9	210	0	4.9	210	c/cs	288
23	2	1985	1242	23	35.1	75	44.6	529.7	0	30	0	0	—	c/cs	289
24	2	1985	2345	23	35.20	75	44.56	529.8	0.6	27	0.6	0	—	S631	291
25	2	1985	0715	23	39.2	75	42.3	534.3	2.6	43	0.6	2.0	48	c/cs	292
25	2	1985	0751	23	40.3	75	41.2	535.8	4.0	208	0.6	4.6	208	c/cs	293
25	2	1985	0752	23	40.3	75	41.2	535.9	4.5	46	0.6	3.9	49	c/cs	294
25	2	1985	0808	23	41.1	75	40.2	537.1	4.0	50	0.6	3.5	54	c/cs	295
25	2	1985	0838	23	42.4	75	38.6	539.1	3.9	53	0.6	3.3	58	c/cs	296
25	2	1985	0856	23	43.1	75	37.5	540.3	3.6	53	0.6	3.1	58	c/cs	297
25	2	1985	0919	23	43.9	75	36.3	541.6	3.5	55	0.6	3.0	60	c/cs	298
25	2	1985	0942	23	44.7	75	35.1	543.0	3.5	59	0.6	3.0	65	c/cs	299
25	2	1985	1012	23	45.6	75	33.5	544.7	3.5	58	0.6	3.0	64	c/cs	300
25	2	1985	1040	23	46.5	75	31.9	546.4	3.5	54	0.6	3.0	59	c/cs	301
25	2	1985	1109	23	47.5	75	30.4	548.1	3.7	50	0.6	3.1	54	c/cs	302
25	2	1985	1139	23	48.7	75	28.9	549.9	3.7	50	0.6	3.1	54	c/cs	303
25	2	1985	1209	23	49.8	75	27.4	551.8	3.5	56	0.6	3.0	62	c/cs	304
25	2	1985	1222	23	50.3	75	26.7	552.5	3.5	63	0.6	3.0	70	c/cs	305
25	2	1985	1230	23	50.5	75	26.2	553.0	3.1	79	0.6	2.8	89	c/cs	306
25	2	1985	1233	23	50.49	75	26.07	553.2	2.8	89	0	2.8	89	S632	308
25	2	1985	1234	23	50.5	75	26.0	553.2	0	243	0	0	—	c/cs	309
25	2	1985	1845	23	50.44	75	26.13	553.3	0	90	0	0	—	632A	311
26	2	1985	1800	23	50.44	75	26.13	553.3	0	90	0	0	—	632A	313
27	2	1985	1115	23	50.44	75	26.13	553.3	0	90	0	0	—	632B	315
28	2	1985	2245	23	50.44	75	26.13	553.3	0.8	229	0.8	0	—	632B	317
1	3	1985	1615	23	41.31	75	37.41	567.1	0	90	0	0	—	S633	319
2	3	1985	1935	23	41.31	75	37.41	567.1	4.9	218	4.9	0	—	S633	321
3	3	1985	0219	23	15.2	75	59.7	600.2	0.4	133	4.9	4.9	43	c/cs	322
3	3	1985	0221	23	15.2	75	59.7	600.2	1.9	56	4.9	6.8	43	c/cs	323
3	3	1985	0300	23	15.9	75	58.5	601.5	6.2	337	4.9	9.6	4	c/cs	324
3	3	1985	0310	23	16.9	75	59.0	602.5	2.3	67	4.9	7.0	47	c/cs	325
3	3	1985	0330	23	17.2	75	58.2	603.3	4.9	64	4.9	9.6	51	c/cs	326
3	3	1985	0410	23	18.6	75	55.0	606.6	6.5	332	4.9	9.6	0	c/cs	327
3	3	1985	0420	23	19.6	75	55.5	607.7	2.8	272	4.9	4.0	4	c/cs	328
3	3	1985	0455	23	19.6	75	57.3	609.3	6.0	329	4.9	9.0	0	c/cs	329
4	3	1985	0500	25	23.02	77	18.88	753.3	9.0	0	0	9.0	0	S634	331
4	3	1985	0500	25	23.0	77	18.9	753.3	0	90	0	0	—	c/cs	332
8	3	1985	2230	25	23.02	77	18.88	753.3	0.6	342	0.6	0	—	S634	334
8	3	1985	2230	25	23.0	77	18.9	753.3	0.6	342	0.6	0	0	c/cs	335
9	3	1985	0136	25	24.78	77	19.50	755.2	1.5	326	1.5	0	0	satl	337
9	3	1985	0234	25	25.97	77	20.40	756.6	1.6	13	1.6	0	0	satl	339
9	3	1985	0304	25	26.73	77	20.20	757.4	0.8	3	0.8	0	0	satl	341
9	3	1985	0416	25	27.72	77	20.15	758.4	0.9	263	0.9	0	0	satl	343
9	3	1985	0452	25	27.66	77	20.72	758.9	0.8	121	0.8	0	0	satl	345
9	3	1985	0606	25	27.13	77	19.76	759.9	1.4	206	1.4	0	0	satl	347
9	3	1985	0644	25	26.31	77	20.21	760.9	0.2	167	0.2	0	0	satl	349
9	3	1985	1400	25	25.13	77	19.92	762.1	0	90	0	0	0	635A	351
9	3	1985	2015	25	25.13	77	19.92	762.1	0	313	0	0	0	635A	353
9	3	1985	2230	25	25.1	77	19.9	762.1	0	313	0	0	0	c/cs	354
10	3	1985	0200	25	25.18	77	19.98	762.1	0	90	0	0	0	635B	356
10	3	1985	2230	25	25.18	77	19.98	762.1	0	93	0	0	0	635B	358
12	3	1985	2030	25	25.11	77	18.35	763.6	0	90	0	0	0	635B	360
13	3	1985	1000	25	25.11	77	18.35	763.6	0	90	0	0	0	635B	361

^a UTC = Universal Coordinated Time.

^b lorc = LORAN C navigation; c/cs = change of course; satl = satellite navigation.

Table 2. Real-time recording parameters for seismic-reflection profiles.

	Line 1	Line 2	Line 3	Line 4
Start at:	Miami	Site 626	Exuma Sound	Site 631
End at:	Site 626	Site 627	Site 631	Site 632
Source:	One 400-in. ³ water gun	Two 80-in. ³ water guns	Two 80-in. ³ and one 400-in. ³ water guns	Two 80-in. ³ water guns
Streamer:	Port + stbd	Port	Port	Port
EDO 1:				
High cut:	160 Hz	160 Hz	160 Hz	160 Hz
Low cut:	30 Hz	30 Hz	30 Hz	35 Hz
Gain:				
Amp:	20 dB	80 dB	80 dB	Variable
Recorder:	Variable	Variable	Variable	Variable
EDO 2:				
High cut:	320 Hz	320 Hz	340 Hz	250 Hz
Low cut:	30 Hz	60 Hz	60 Hz	80 Hz
Gain:				
Amp:	20 dB	80 dB	80 dB	Variable
Recorder:	Variable	Variable	Variable	Variable

Table 3. Parameters for seismic-line reprocessing.

	Line 1	Line 2
Data window:	500 to 2500 ms	500 to 2500 ms
AGC:		
Response time:	500 ms	500 ms
Start time:	0 ms	0 ms
Gain:	100%	100%
Zero phase band-pass filter:		
High cut:	Variable	250 Hz
Low cut:	Variable	20 Hz

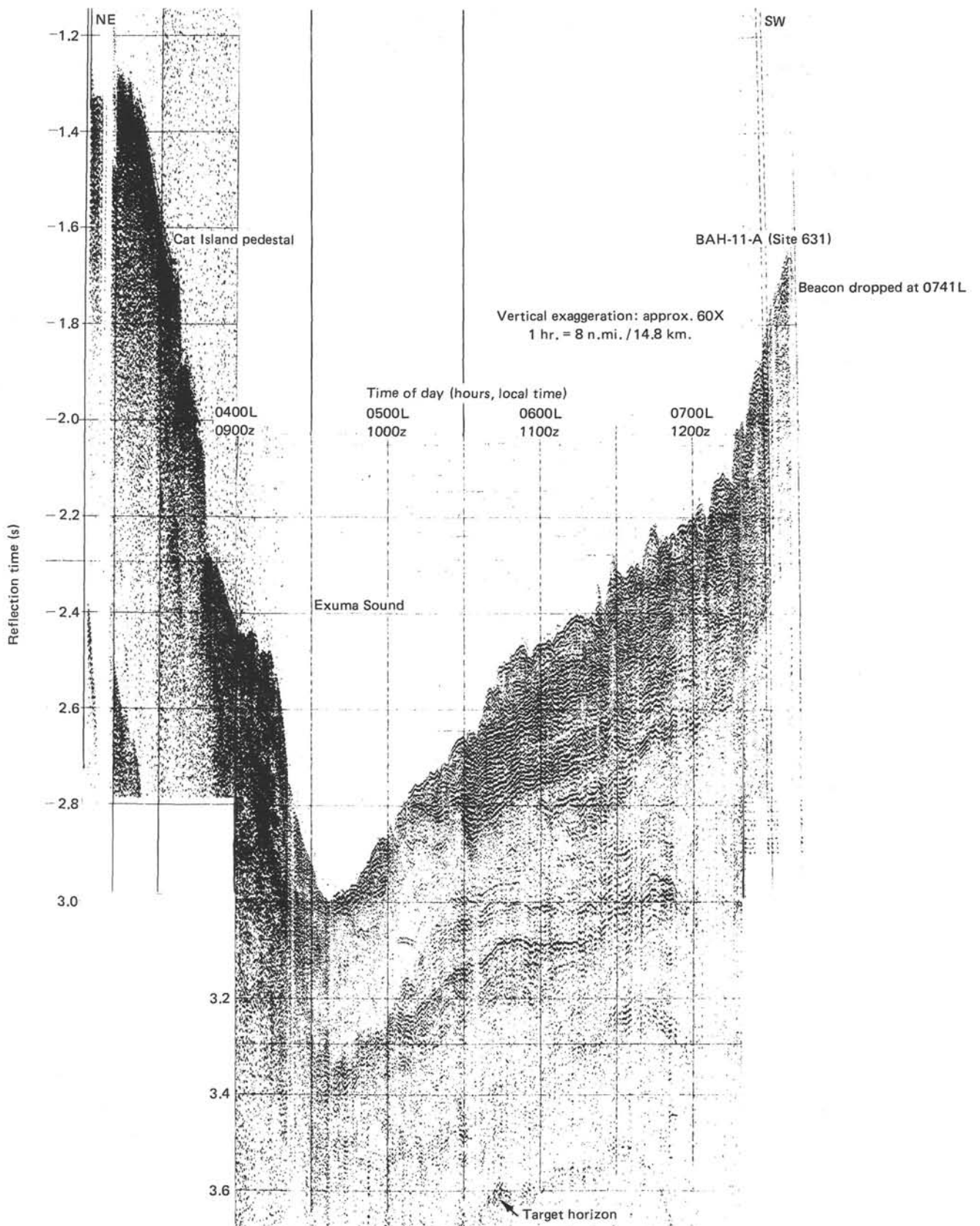


Figure 1. Analog version of seismic line 3, Exuma Sound to Site 631. One 400-in.³ water gun was firing before 0440 hr local time (L), one 80-in.³ water gun was firing from 0440 to 0530, and two 80-in.³ water guns were firing after 0530.