

## 6. UNDERWAY GEOPHYSICAL MEASUREMENTS FROM *GLOMAR CHALLENGER*, DEEP SEA DRILLING PROJECT LEG 50, AND MULTICHANNEL SEISMIC-REFLECTION PROFILE OF *R/V METEOR*, CRUISE 3902

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We present here the navigation and underway geophysical measurements (bathymetry, magnetics, seismic-reflection profiles) obtained from *Glomar Challenger* during Leg 50, and a multichannel seismic-reflection profile obtained by *R/V Meteor* on cruise 3902 along a track close to a line between Sites 415 and 416.

The *Glomar Challenger* left Funchal, Madeira, at 2335 hours on 11 September 1976 and sailed to the area of Site 415, where a short site survey was made; the acoustic beacon was dropped at Site 415 at 1346 hours on 13 September. The ship left the site at 2305 hours on 28 September and steamed to Site 416, along a track about 50 km west of the multifold seismic line run by *Meteor*. The seismic-profile records along this part of the *Glomar Challenger* track show for the most part only the relatively shallow reflectors, owing to imperfect functioning of the equipment. The ship then turned east from this track to a position close to Site 370 (drilled on Leg 41), where an anchor was made to make a crew change at 2155 hours on 26 October, arriving at 1600 hours on 28 October. The ship departed Funchal again at 0025 hours on 29 October and arrived at the site at 1459 hours on 30 October. Drilling operations ended at Site 416 at 1500 hours; the ship steamed across Site 416 while profiling, then on to Funchal to end Leg 50 on 10 November. The ship's track is shown in Figure 1, and navigation data are shown in Table 1. Errors are generally less than 1 mile. Table 1 also gives the regional magnetic values at each navigational point, using the reference field of Fabiano and Peddie (1969).

Bathymetric soundings, magnetic measurements, and seismic-profile records were made over the entire track, except for the immediate vicinity of the port of Funchal. The magnetic and bathymetric profiles are displayed together in Figure 2, and the seismic-profiler records are shown in Figure 3 in the back pocket of this volume. The seismic records were recorded on a dry-paper EDO recorder, using two air guns (20 and 40 in<sup>3</sup> firing chambers) as a sound source. Depths are labeled along the sides of the records in two-way reflection time, in seconds. Times and dates are shown along the records, and

the drill sites and certain major bathymetric features are labeled. The times during which the seismic profiler was recording are shown beneath the bathymetric profile (Figure 2) by black bars.

The *R/V Meteor* multifold profile is shown in Figure 4, and a track chart for the profile is shown in Figure 5.

The technical specifications for the *Meteor* 3902 profile are:

Sound source: Two 300-in<sup>3</sup> air guns  
Streamer: 12-trace Geomechanique, 1500 meters long, 1200 hydrophones

Shot-point spacing: 50 meters  
Recording: 24-trace MDS-8 digital unit  
Processing: Raytheon RDS 500 computer  
Input tape format SEGB9, 800BPI, sampling rate 4 milliseconds  
Steps:

(1) Uniprep, (2) Suprsor, (3) Amplitude correction, (4) Velocity analysis, (5) Horizontal stacking, 12-fold, (6) Frequency filter: low cut 8-15 Hz, high cut 55-65 Hz, (7) Display

Navigation: Integrated Indas satellite navigation system.

In order that the reader may be free to interpret the profiler record without any guidance from us, none of the key reflectors has been labeled. A discussion of the correlation between drill results and seismic reflectors is included in the site reports in this volume. An interpretation of the *Meteor* 3902 profile by the shipboard party is shown in a figure in the Site 416 report.

### ACKNOWLEDGMENTS

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### REFERENCES

Fabiano, E. G., and Peddie, N. U., 1969. Grid values of total magnetic intensity I.G.R.F., 1965: *U.S. ESSA Tech. Rept.*, v. 38, p. 55.

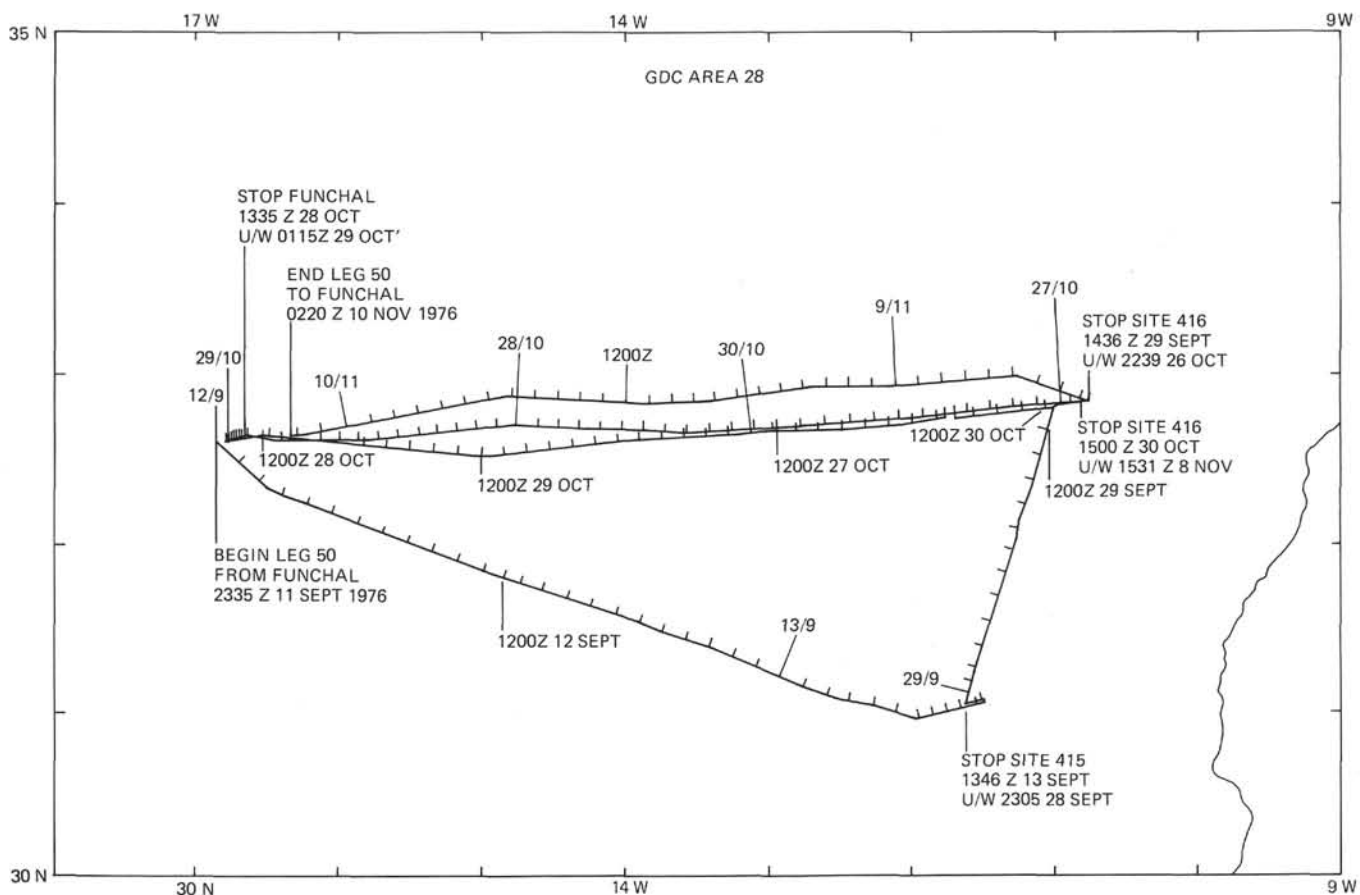


Figure 1. Track of Glomar Challenger during Leg 50.

TABLE 1  
Navigation Data, D/V Glomar Challenger, Leg 50

Date	Time	Latitude		Longitude		Dist.	Actual		Drift		Dr		Cmnt.	Dist.	Drift Time	No
		Deg.	Min.	Deg.	Min.		Speed	Cse.	Speed	Hed.	Speed	Cse.				
11 Sept. 76	2335	32	38.25	-16	54.39	0.0	5.8	137	1.4	186	5.0	125	Satl	0.0	0.0	3
11 Sept. 76	2344	32	37.6	-16	53.7	0.9	9.7	132	1.4	186	9.0	125	C/S			4
12 Sept. 76	219	32	20.8	-16	31.6	26.0	9.4	118	1.4	186	9.0	110	C/C			5
12 Sept. 76	256	32	18.04	-16	25.51	31.8	9.8	109	0.8	95	9.0	110	Satl	4.6	3.3	7
12 Sept. 76	442	32	12.49	-16	6.22	49.0	9.5	113	0.6	150	9.0	110	Satl	1.4	1.8	9
12 Sept. 76	556	32	8.00	-15	53.43	60.8	9.5	111	0.5	125	9.0	110	Satl	0.8	1.2	11
12 Sept. 76	744	32	1.95	-15	34.61	77.8	9.6	110	0.6	103	9.0	110	Satl	0.9	1.8	13
12 Sept. 76	830	31	59.5	-15	26.4	85.2	9.6	109	0.6	103	9.0	109	C/C			14
12 Sept. 76	834	31	59.28	-15	25.71	85.8	9.2	112	0.5	174	9.0	109	Satl	0.6	0.8	16
12 Sept. 76	930	31	56.09	-15	16.29	94.4	9.8	111	0.8	135	9.0	109	Satl	0.5	0.9	18
12 Sept. 76	1020	31	53.15	-15	7.35	102.6	9.3	113	0.7	173	9.0	109	Satl	0.8	0.8	20
12 Sept. 76	1056	31	50.97	-15	1.28	108.2	9.5	109	0.5	109	9.0	109	Satl	0.5	0.6	22
12 Sept. 76	1110	31	50.2	-14	58.8	110.4	9.0	109	0.5	109	8.5	109	C/S			23
12 Sept. 76	1116	31	49.95	-14	57.79	111.3	9.8	108	1.3	105	8.5	109	Satl	0.2	0.3	25
12 Sept. 76	1125	31	49.5	-14	56.1	112.8	6.3	108	1.3	105	5.0	109	C/S			26
12 Sept. 76	1330	31	45.4	-14	41.4	126.0	10.3	108	1.3	105	9.0	109	C/S			27
12 Sept. 76	1410	31	43.21	-14	33.69	132.9	9.0	108	0.1	351	9.0	109	Satl	3.9	2.9	29
12 Sept. 76	1556	31	38.22	-14	16.06	148.7	9.1	109	0.1	101	9.0	109	Satl	0.2	1.8	31
12 Sept. 76	1752	31	32.51	-13	56.48	166.3	8.5	112	0.6	250	9.0	109	Satl	0.3	1.9	33
12 Sept. 76	1914	31	28.22	-13	43.77	178.0	9.2	107	0.4	47	9.0	109	Satl	0.9	1.4	35
12 Sept. 76	2018	31	25.37	-13	32.78	187.8	9.2	110	0.3	154	9.0	109	Satl	0.5	1.1	37
12 Sept. 76	2122	31	22.00	-13	22.01	197.5	9.0	115	0.9	203	9.0	109	Satl	0.3	1.1	39
12 Sept. 76	22 2	31	19.47	-13	15.65	203.5	9.0	113	0.7	204	9.0	109	Satl	0.7	0.7	41
12 Sept. 76	2310	31	15.44	-13	4.74	213.7	9.1	112	0.5	185	9.0	109	Satl	0.8	1.1	43
13 Sept. 76	155	31	6.0	-12	37.5	238.8	5.1	114	0.5	185	5.0	109	C/S			44

TABLE 1 - Continued

Date	Time	Latitude		Longitude		Dist.	Actual		Drift		Dr		Cmnt.	Dist.	Drift Time	No
		Deg.	Min.	Deg.	Min.		Speed	Cse.	Speed	Hed.	Speed	Cse.				
13 Sept. 76	2 2	31	5.80	-12	36.87	239.4	5.7	110	0.7	114	5.0	109	Satl	1.4	2.9	46
13 Sept. 76	222	31	5.2	-12	34.8	241.3	9.7	109	0.7	114	9.0	109	C/S			47
13 Sept. 76	230	31	4.7	-12	33.4	242.6	9.7	101	0.7	114	9.0	100	C/C			48
13 Sept. 76	346	31	2.39	-12	19.30	254.9	8.2	98	0.8	296	9.0	100	Satl	1.3	1.7	50
13 Sept. 76	410	31	1.9	-12	15.5	258.2	8.2	108	0.8	296	9.0	109	C/C			51
13 Sept. 76	5 8	30	59.44	-12	6.76	266.1	8.8	107	0.3	344	9.0	109	Satl	1.2	1.4	53
13 Sept. 76	558	30	57.3	-11	58.6	273.4	5.0	73	0.3	344	5.0	77	C/CS			54
13 Sept. 76	654	30	58.62	-11	53.38	278.1	5.5	78	0.5	87	5.0	77	Satl	0.6	1.8	56
13 Sept. 76	758	30	59.8	-11	46.7	283.9	3.0	79	0.5	87	2.5	77	C/S			57
13 Sept. 76	8 0	30	59.9	-11	46.6	284.0	5.5	78	0.5	87	5.0	77	C/S			58
13 Sept. 76	928	31	1.56	-11	37.41	292.1	5.6	77	0.6	76	5.0	77	Satl	1.3	2.6	60
13 Sept. 76	948	31	1.98	-11	35.30	293.9	6.1	76	1.1	72	5.0	77	Satl	0.2	0.3	62
13 Sept. 76	1026	31	2.90	-11	30.96	297.7	4.7	79	0.3	236	5.0	77	Satl	0.7	0.6	64
13 Sept. 76	1035	31	3.0	-11	30.2	298.4	4.9	343	0.3	236	5.0	347	C/C			65
13 Sept. 76	1045	31	3.8	-11	30.4	299.3	5.3	256	0.3	236	5.0	257	C/C			66
13 Sept. 76	1232	31	1.5	-11	41.2	308.8	4.7	79	0.3	236	5.0	77	C/C			67
13 Sept. 76	1322	31	2.2	-11	36.7	312.7	5.3	256	0.3	236	5.0	257	C/C			68
13 Sept. 76	1346	31	1.72	-11	39.11	314.8	5.0	257	0.0	0	5.0	257	S415	1.2	3.3	70
13 Sept. 76	1346	31	1.7	-11	39.1	314.8	0.0	0	0.0	0	0.0	500	Stop			71
28 Sept. 76	23 5	31	1.72	-11	39.11	314.8	1.5	8	1.5	8	0.0	500	Dr	0.1	369.3	73
28 Sept. 76	23 5	31	1.7	-11	39.1	314.8	6.4	20	1.5	8	5.0	23	U/W			74
28 Sept. 76	2320	31	3.2	-11	38.5	316.4	5.4	19	1.5	8	4.0	23	C/S			75
28 Sept. 76	2330	31	4.1	-11	38.1	317.3	5.5	15	1.5	8	4.0	17	C/C			76
28 Sept. 76	2345	31	5.4	-11	37.7	318.7	4.5	14	1.5	8	3.0	17	C/S			77
29 Sept. 76	130	31	12.99	-11	35.51	326.5	3.9	18	0.9	22	3.0	17	Satl	3.6	2.4	79
29 Sept. 76	140	31	13.6	-11	35.3	327.1	6.9	18	0.9	22	6.0	17	C/S			80
29 Sept. 76	240	31	20.2	-11	32.8	334.0	9.9	17	0.9	22	9.0	17	C/S			81
29 Sept. 76	316	31	25.86	-11	30.72	340.0	9.2	17	0.2	26	9.0	17	Satl	1.7	1.8	83
29 Sept. 76	438	31	37.85	-11	26.37	352.5	8.9	16	0.2	228	9.0	17	Satl	0.3	1.4	85
29 Sept. 76	550	31	48.05	-11	22.83	363.2	8.6	19	0.5	153	9.0	17	Satl	0.2	1.2	87
29 Sept. 76	736	32	2.43	-11	16.86	378.4	8.6	2	2.4	270	9.0	17	Satl	1.0	1.8	89
29 Sept. 76	8 4	32	6.45	-11	16.73	382.4	9.0	20	0.4	106	9.0	17	Satl	1.2	0.5	91
29 Sept. 76	8 9	32	7.2	-11	16.4	383.2	5.0	22	0.4	106	5.0	17	C/S			92
29 Sept. 76	818	32	7.9	-11	16.1	383.9	9.0	20	0.4	106	9.0	17	C/S			93
29 Sept. 76	934	32	18.61	-11	11.56	395.4	9.2	19	0.4	79	9.0	17	Satl	0.7	1.5	95
29 Sept. 76	954	32	21.50	-11	10.38	398.4	9.3	16	0.3	334	9.0	17	Satl	0.2	0.3	97
29 Sept. 76	12 5	32	41.0	-11	4.0	418.6	5.3	14	0.3	334	5.0	17	C/S			98
29 Sept. 76	1225	32	42.7	-11	3.4	420.4	9.3	16	0.3	334	9.0	17	C/S			99
29 Sept. 76	1244	32	45.47	-11	2.50	423.3	8.8	17	0.2	213	9.0	17	Satl	1.0	2.8	101
29 Sept. 76	1310	32	49.1	-11	1.2	427.1	8.9	88	0.2	213	9.0	87	C/C			102
29 Sept. 76	1331	32	49.3	-10	57.5	430.2	8.9	86	0.2	213	9.0	85	C/C			103
29 Sept. 76	1350	32	49.5	-10	54.1	433.1	6.7	81	0.2	213	6.8	80	C/CS			104
29 Sept. 76	1430	32	50.16	-10	48.89	437.5	7.0	88	1.0	163	6.8	80	Satl	0.3	1.8	106
29 Sept. 76	1436	32	50.18	-10	48.06	438.2	6.8	80	0.0	0	6.8	80	S416	0.2	0.1	108
29 Sept. 76	1436	32	50.2	-10	48.1	438.2	0.0	0	0.0	0	0.0	500	Stop			109
26 Oct. 76	2239	32	50.18	-10	48.06	438.2	1.3	97	1.3	97	0.0	500	Dep	0.1	656.0	111
26 Oct. 76	2239	32	50.2	-10	48.1	438.2	5.5	268	1.3	97	6.8	270	U/W			112
26 Oct. 76	2240	32	50.2	-10	48.2	438.3	5.5	266	1.3	97	6.8	268	C/C			113
26 Oct. 76	2310	32	50.0	-10	51.4	441.1	8.3	267	1.3	97	9.6	268	I/S			114
27 Oct. 76	0 0	32	49.6	-10	59.7	448.0	8.3	267	1.3	97	9.6	268				115
27 Oct. 76	038	32	49.24	-11	5.95	453.3	8.2	266	1.4	99	9.6	268	Satl	2.6	2.0	117
27 Oct. 76	134	32	48.73	-11	15.04	460.9	8.2	264	1.6	109	9.6	268	Satl	1.4	0.9	119
27 Oct. 76	412	32	46.52	-11	40.48	482.4	8.1	262	1.8	118	9.6	268	Satl	4.1	2.6	121
27 Oct. 76	5 0	32	45.6	-11	48.1	488.9	8.1	264	1.8	118	9.6	270	C/C			122
27 Oct. 76	526	32	45.23	-11	52.23	492.4	7.2	264	2.6	108	9.6	270	Satl	2.3	1.2	124
27 Oct. 76	558	32	44.80	-11	56.78	496.3	8.3	263	1.6	126	9.6	270	Satl	1.4	0.5	126
27 Oct. 76	626	32	44.35	-12	1.38	500.2	8.6	264	1.4	131	9.6	270	Satl	0.8	0.5	128
27 Oct. 76	650	32	44.0	-12	5.5	503.6	8.6	266	1.4	131	9.6	272	C/C			129
27 Oct. 76	712	32	43.78	-12	9.18	506.7	8.8	267	1.2	136	9.6	272	Satl	1.1	0.8	131
27 Oct. 76	814	32	43.23	-12	19.93	515.8	8.7	266	1.3	133	9.6	272	Satl	1.3	1.0	133
27 Oct. 76	1148	32	41.26	-12	56.63	546.7	7.9	266	1.9	117	9.6	272	Satl	4.7	3.6	135
27 Oct. 76	1514	32	39.54	-13	28.98	574.0	8.1	270	1.6	102	9.6	272	Satl	6.4	3.4	137
27 Oct. 76	16 6	32	39.54	-13	37.30	581.0	7.6	269	2.1	101	9.6	272	Satl	1.4	0.9	139

TABLE 1 — *Continued*

Date	Time	Latitude		Longitude		Dist.	Actual		Drift		Dr		Cmnt.	Dist.	Drift Time	No
		Deg.	Min.	Deg.	Min.		Speed	Cse.	Speed	Hed.	Speed	Cse.				
27 Oct. 76	1615	32	39.5	-13	38.7	582.2	7.5	275	2.1	101	9.6	276	C/C			140
27 Oct. 76	1722	32	40.19	-13	48.63	590.6	7.7	274	1.9	103	9.6	276	Satl	2.7	1.3	142
27 Oct. 76	1754	32	40.50	-13	53.52	594.7	7.6	273	2.1	108	9.6	276	Satl	1.1	0.5	144
27 Oct. 76	19 4	32	40.91	-14	4.03	603.6	7.0	273	2.6	103	9.6	276	Satl	2.5	1.2	146
27 Oct. 76	1926	32	41.06	-14	7.09	606.2	7.5	271	2.2	113	9.6	276	Satl	1.0	0.4	148
27 Oct. 76	2022	32	41.20	-14	15.46	613.2	7.2	268	2.6	118	9.6	276	Satl	2.1	0.9	150
27 Oct. 76	21 6	32	41.04	-14	21.74	618.5	7.4	273	2.2	105	9.6	276	Satl	2.0	0.7	152
27 Oct. 76	2340	32	42.17	-14	44.33	637.5	7.0	273	2.6	104	9.6	276	Satl	5.7	2.6	154
28 Oct. 76	0 0	32	42.3	-14	47.1	639.9	7.0	273	2.6	104	9.6	276				155
28 Oct. 76	015	32	42.4	-14	49.2	641.6	7.1	265	2.6	104	9.6	270	C/C			156
28 Oct. 76	128	32	41.62	-14	59.40	650.3	6.9	265	2.8	102	9.6	270	Satl	4.8	1.8	158
28 Oct. 76	230	32	41.01	-15	7.87	657.4	6.8	263	2.9	106	9.6	270	Satl	2.9	1.0	160
28 Oct. 76	418	32	39.56	-15	22.34	669.7	6.7	259	3.3	114	9.6	270	Satl	5.3	1.8	162
28 Oct. 76	445	32	39.0	-15	25.9	672.7	6.6	267	3.3	114	9.6	276	C/C			163
28 Oct. 76	5 8	32	38.86	-15	28.86	675.2	7.6	264	2.7	132	9.6	276	Satl	2.8	0.8	165
28 Oct. 76	548	32	38.35	-15	34.85	680.3	7.1	264	3.0	124	9.6	276	Satl	1.8	0.7	167
28 Oct. 76	620	32	37.98	-15	39.32	684.1	7.1	264	3.0	127	9.6	276	Satl	1.7	0.5	169
28 Oct. 76	645	32	37.6	-15	42.8	687.1	7.0	269	3.0	127	9.6	280	C/C			170
28 Oct. 76	736	32	37.52	-15	49.91	693.0	7.0	269	3.0	126	9.6	280	Satl	3.9	1.3	172
28 Oct. 76	8 6	32	37.47	-15	54.09	696.5	6.8	270	3.1	123	9.6	280	Satl	1.5	0.5	174
28 Oct. 76	1215	32	37.2	-16	27.8	724.9	6.7	277	3.1	123	9.6	285	C/C			175
28 Oct. 76	1230	32	37.4	-16	29.7	726.6	6.6	284	3.1	123	9.6	290	C/C			176
28 Oct. 76	1250	32	37.9	-16	32.3	728.8	7.2	256	3.1	123	9.6	270	C/C			177
28 Oct. 76	1255	32	37.8	-16	32.9	729.4	6.6	284	3.1	123	9.6	290	C/C			178
28 Oct. 76	13 0	32	37.92	-16	33.57	729.9	6.7	288	3.0	115	9.6	290	Dr	15.5	4.9	180
28 Oct. 76	1315	32	38.4	-16	35.5	731.6	7.0	260	3.0	115	9.6	270	C/C			181
28 Oct. 76	1330	32	38.11	-16	37.51	733.3	10.3	269	0.7	259	9.6	270	Dr	1.5	0.5	183
28 Oct. 76	1335	32	38.1	-16	38.5	734.2	0.7	259	0.7	259	0.0	500	Stop			184
29 Oct. 76	115	32	36.50	-16	48.70	742.9	1.0	275	1.0	275	0.0	500	VIS	8.8	11.8	186
29 Oct. 76	115	32	36.5	-16	48.7	742.9	8.7	72	1.0	275	9.6	74	U/W			187
29 Oct. 76	148	32	38.00	-16	43.30	747.7	9.2	77	0.7	204	9.6	74	Radr	0.6	0.5	189
29 Oct. 76	210	32	38.75	-16	39.40	751.1	9.0	74	0.6	254	9.6	74	Radr	0.3	0.4	191
29 Oct. 76	210	32	38.7	-16	39.4	751.1	9.0	90	0.6	254	9.6	89	C/C			192
29 Oct. 76	236	32	38.75	-16	34.75	755.0	8.5	95	1.4	229	9.6	89	Radr	0.3	0.4	194
29 Oct. 76	3 0	32	38.4	-16	30.7	758.4	5.2	99	1.4	229	6.2	89	C/S			195
29 Oct. 76	310	32	38.3	-16	29.7	759.3	8.5	95	1.4	229	9.6	89	C/S			196
29 Oct. 76	6 0	32	36.14	-16	1.06	783.5	8.5	95	1.5	231	9.6	89	Satl	4.9	3.4	198
29 Oct. 76	714	32	35.21	-15	48.69	793.9	7.5	96	2.3	245	9.6	89	Satl	1.9	1.2	200
29 Oct. 76	744	32	34.79	-15	44.25	797.7	8.5	96	1.5	227	9.6	89	Satl	1.2	0.5	202
29 Oct. 76	1144	32	31.29	-15	4.02	831.8	8.1	93	1.6	251	9.6	89	Satl	6.2	4.0	204
29 Oct. 76	1210	32	31.1	-14	59.9	835.3	8.0	84	1.6	251	9.6	82	C/C			205
29 Oct. 76	1332	32	32.24	-14	46.89	846.3	8.1	83	1.5	257	9.6	82	Satl	2.9	1.8	207
29 Oct. 76	1614	32	34.91	-14	21.08	868.2	7.9	86	1.8	243	9.6	82	Satl	4.1	2.7	209
29 Oct. 76	1656	32	35.28	-14	14.50	873.8	7.9	84	1.7	253	9.6	82	Satl	1.3	0.7	211
29 Oct. 76	19 8	32	37.14	-13	53.99	891.1	7.8	87	2.0	240	9.6	82	Satl	3.8	2.2	213
29 Oct. 76	2336	32	38.78	-13	12.60	926.0	8.0	84	1.6	254	9.6	82	Satl	8.8	4.5	215
30 Oct. 76	0 0	32	39.1	-13	8.8	929.2	8.0	84	1.6	254	9.6	82				216
30 Oct. 76	124	32	40.38	-12	55.58	940.5	7.9	90	2.1	231	9.6	82	Satl	2.9	1.8	218
30 Oct. 76	240	32	40.38	-12	43.73	950.4	8.6	89	1.5	221	9.6	82	Satl	2.7	1.3	220
30 Oct. 76	332	32	40.57	-12	34.92	957.8	8.2	89	1.8	230	9.6	82	Satl	1.3	0.9	222
30 Oct. 76	4 0	32	40.7	-12	30.4	961.6	8.1	86	1.8	230	9.6	80	C/C			223
30 Oct. 76	430	32	40.91	-12	25.59	965.7	8.2	87	1.8	224	9.6	80	Satl	1.8	1.0	225
30 Oct. 76	518	32	41.23	-12	17.78	972.3	8.4	86	1.5	226	9.6	80	Satl	1.5	0.8	227
30 Oct. 76	6 8	32	41.8	-12	9.5	979.3	8.4	82	1.5	226	9.6	77	C/C			228
30 Oct. 76	744	32	43.58	-11	53.70	992.7	8.6	79	1.1	243	9.6	77	Satl	3.6	2.4	230
30 Oct. 76	816	32	44.5	-11	48.4	997.3	8.6	84	1.1	243	9.6	82	C/C			231
30 Oct. 76	828	32	44.6	-11	46.3	999.0	7.0	352	1.1	243	7.4	0	C/CS			232

TABLE 1 – Continued

Date	Time	Latitude		Longitude		Dist.	Actual		Drift		Dr		Cmnt.	Dist.	Drift Time	No
		Deg.	Min.	Deg.	Min.		Speed	Cse.	Speed	Hed.	Speed	Cse.				
30 Oct. 76	833	32	45.2	-11	46.4	999.6	7.2	342	1.1	243	7.4	350	C/C			233
30 Oct. 76	838	32	45.8	-11	46.7	1000.2	8.6	84	1.1	243	9.6	82	C/CS			234
30 Oct. 76	856	32	46.0	-11	43.6	1002.7	6.4	85	1.1	243	7.4	82	C/S			235
30 Oct. 76	9 2	32	46.1	-11	42.8	1003.4	8.0	187	1.1	243	7.4	180	C/C			236
30 Oct. 76	915	32	44.4	-11	43.1	1005.1	8.6	84	1.1	243	9.6	82	C/CS			237
30 Oct. 76	1050	32	45.71	-11	26.98	1018.7	8.5	83	1.1	251	9.6	82	Satl	3.4	3.1	239
30 Oct. 76	1236	32	47.44	-11	9.18	1033.8	8.6	83	1.0	251	9.6	82	Satl	2.0	1.8	241
30 Oct. 76	13 0	32	47.8	-11	5.1	1037.2	8.6	76	1.0	251	9.6	75	C/C			242
30 Oct. 76	14 0	32	50.0	-10	55.2	1045.8	5.2	88	1.0	251	6.2	85	C/CS			243
30 Oct. 76	1415	32	50.0	-10	53.7	1047.1	5.2	84	1.0	251	6.2	82	C/C			244
30 Oct. 76	1420	32	50.1	-10	53.2	1047.5	6.4	84	1.0	251	7.4	82	C/S			245
30 Oct. 76	1434	32	50.23	-10	51.42	1049.0	6.6	84	0.9	244	7.4	82	Satl	2.1	2.0	247
30 Oct. 76	1452	32	50.4	-10	49.1	1051.0	6.6	93	0.9	244	7.4	90	C/C			248
30 Oct. 76	1453	32	50.4	-10	49.0	1051.1	6.7	99	0.9	244	7.4	95	C/C			249
30 Oct. 76	1455	32	50.4	-10	48.7	1051.3	6.7	104	0.9	244	7.4	100	C/C			250
30 Oct. 76	1457	32	50.3	-10	48.4	1051.5	6.8	115	0.9	244	7.4	110	C/C			251
30 Oct. 76	15 0	32	50.18	-10	48.06	1051.9	7.4	110	0.0	0	7.4	110	S416	0.4	0.4	253
30 Oct. 76	15 0	32	50.2	-10	48.1	1051.9	0.0	0	0.0	0	0.0	500	Stop			254
8 Nov. 76	1531	32	50.18	-10	48.06	1051.9	0.5	77	0.5	77	0.0	500	Dep	0.1	216.5	256
8 Nov. 76	1531	32	50.2	-10	48.1	1051.9	7.0	292	0.5	77	7.4	290	U/W			257
8 Nov. 76	1614	32	52.08	-10	53.54	1056.9	6.9	290	0.5	116	7.4	290	Satl	0.4	0.7	259
8 Nov. 76	1634	32	52.85	-10	56.12	1059.2	7.7	287	0.6	235	7.4	290	Satl	0.2	0.3	261
8 Nov. 76	1656	32	53.66	-10	59.35	1062.0	6.3	288	1.1	119	7.4	290	Satl	0.3	0.4	263
8 Nov. 76	17 1	32	53.8	-11	0.0	1062.5	8.5	289	1.1	119	9.6	290	C/S			264
8 Nov. 76	1814	32	57.19	-11	11.66	1072.9	8.5	292	1.2	93	9.6	290	Satl	1.4	1.3	266
8 Nov. 76	1850	32	59.1	-11	17.3	1078.0	8.4	265	1.2	93	9.6	266	C/C			267
8 Nov. 76	2316	32	55.86	-12	1.51	1115.3	8.0	268	1.6	78	9.6	266	Satl	6.1	5.0	269
9 Nov. 76	0 0	32	55.6	-12	8.5	1121.2	8.0	268	1.6	78	9.6	266				270
9 Nov. 76	030	32	55.5	-12	13.3	1125.2	8.1	270	1.6	78	9.6	268	C/C			271
9 Nov. 76	142	32	55.46	-12	24.82	1134.8	8.7	271	1.0	64	9.6	268	Satl	3.9	2.4	273
9 Nov. 76	152	32	55.5	-12	26.6	1136.3	8.1	271	1.0	64	9.0	268	C/S			274
9 Nov. 76	328	32	55.65	-12	42.00	1149.3	7.7	264	1.4	109	9.0	268	Satl	1.8	1.8	276
9 Nov. 76	345	32	55.4	-12	44.6	1151.5	7.7	262	1.4	109	9.0	266	C/C			277
9 Nov. 76	7 6	32	51.8	-13	15.2	1177.4	8.3	262	1.4	109	9.6	266	C/S			278
9 Nov. 76	748	32	51.02	-13	22.12	1183.3	7.7	261	2.1	105	9.6	266	Satl	6.0	4.3	280
9 Nov. 76	815	32	50.5	-13	26.2	1186.7	7.6	269	2.1	105	9.6	272	C/C			281
9 Nov. 76	1030	32	50.04	-13	46.49	1203.8	8.3	268	1.4	116	9.6	272	Satl	5.7	2.7	283
9 Nov. 76	1053	32	49.9	-13	50.3	1207.0	8.3	272	1.4	116	9.6	276	C/C			284
9 Nov. 76	1216	32	50.42	-14	3.86	1218.4	8.2	272	1.5	119	9.6	276	Satl	2.6	1.8	286
9 Nov. 76	1336	32	50.76	-14	16.89	1229.4	7.8	273	1.9	109	9.6	276	Satl	2.1	1.3	288
9 Nov. 76	1422	32	51.06	-14	23.98	1235.3	7.7	273	2.0	108	9.6	276	Satl	1.5	0.8	290
9 Nov. 76	1522	32	51.46	-14	33.10	1243.0	8.3	274	1.4	110	9.6	276	Satl	2.0	1.0	292
9 Nov. 76	1648	32	52.23	-14	47.20	1254.9	7.7	277	1.9	94	9.6	276	Satl	2.0	1.4	294
9 Nov. 76	17 5	32	52.5	-14	49.8	1257.1	7.8	262	1.9	94	9.6	264	C/C			295
9 Nov. 76	1712	32	52.35	-14	50.86	1258.0	8.3	261	1.4	104	9.6	264	Satl	0.8	0.4	297
9 Nov. 76	1858	32	49.95	-15	8.02	1272.6	8.5	258	1.4	119	9.6	264	Satl	2.6	1.8	299
9 Nov. 76	2224	32	44.15	-15	41.89	1301.6	8.7	259	1.2	122	9.6	264	Satl	5.0	3.4	301
10 Nov. 76	0 0	32	41.5	-15	58.1	1315.5	8.7	259	1.2	122	9.6	264				302
10 Nov. 76	0 8	32	41.32	-15	59.47	1316.7	8.9	260	1.0	127	9.6	264	Satl	2.1	1.7	304
10 Nov. 76	130	32	39.1	-16	13.7	1328.9	8.8	264	1.0	127	9.6	268	C/C			305
10 Nov. 76	212	32	38.50	-16	21.00	1335.0	10.5	262	1.4	214	9.6	268	RadR	2.1	2.1	307
10 Nov. 76	217	32	38.4	-16	22.0	1335.9	7.1	259	1.4	214	6.2	268	C/S			308
10 Nov. 76	220	32	38.34	-16	22.49	1336.3	7.1	259	0.0	0	6.2	268	Dr	0.2	0.1	309



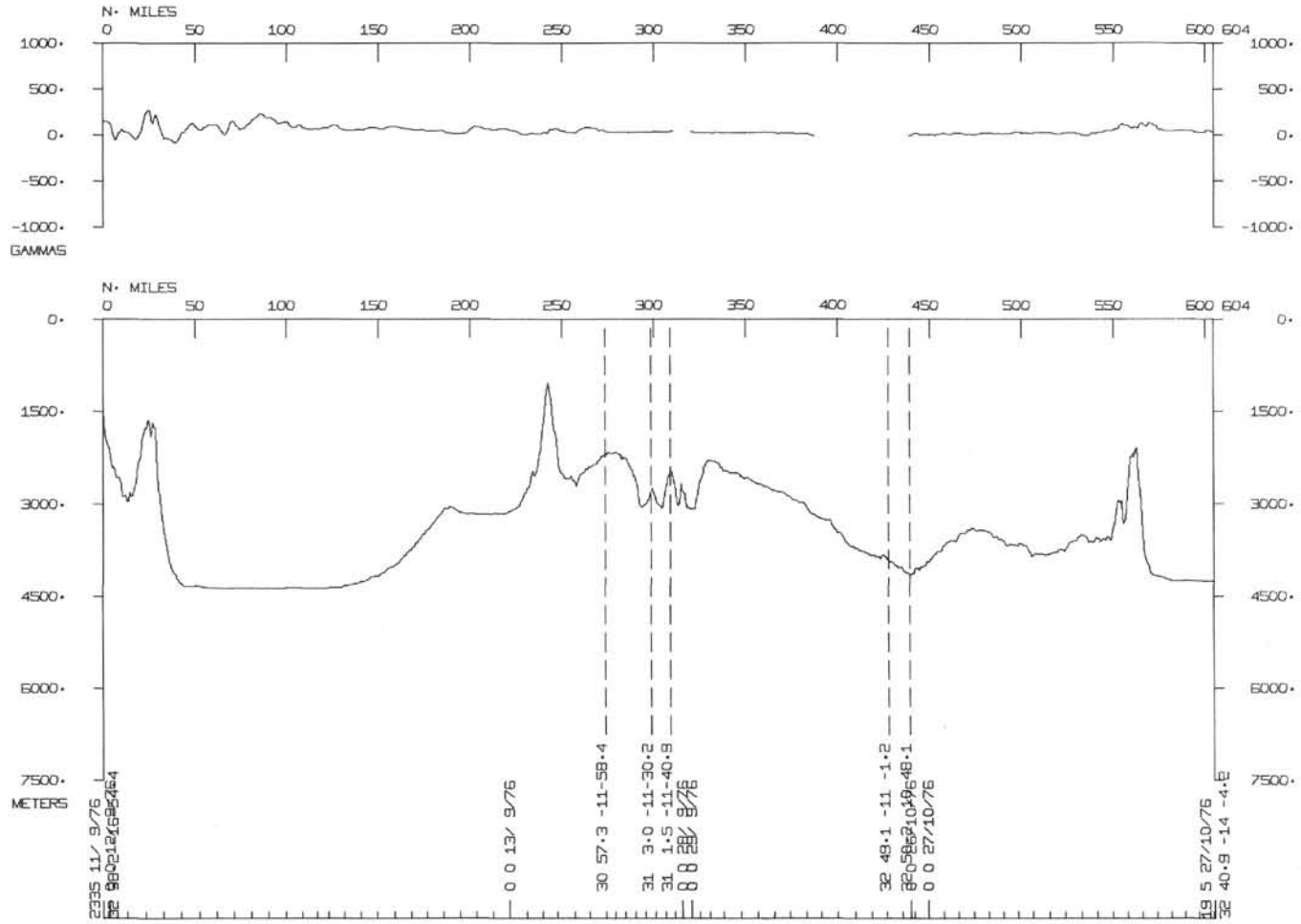


Figure 2. Magnetic and bathymetric profiles along track of Glomar Challenger during Leg 50.

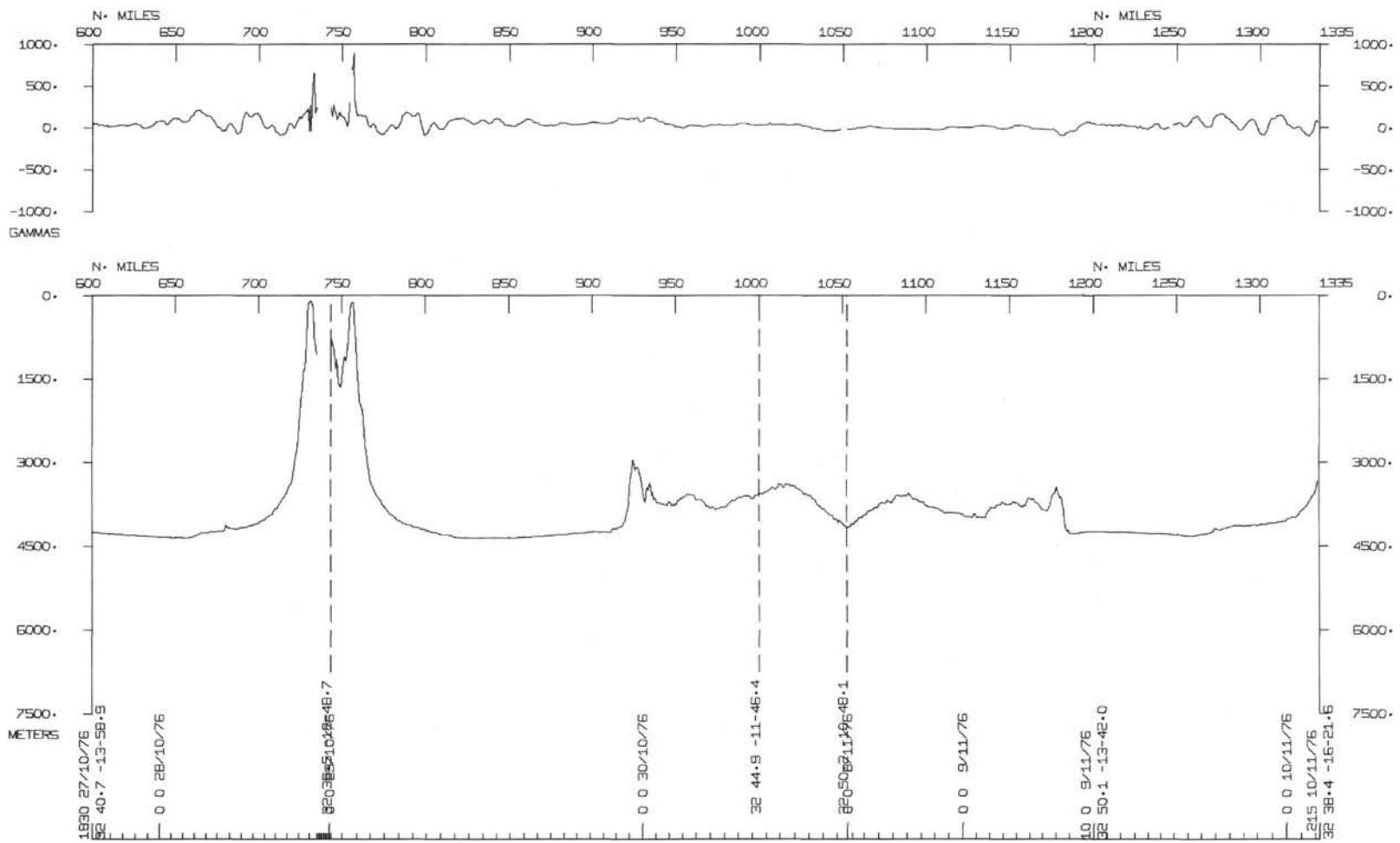


Figure 2. (Continued).

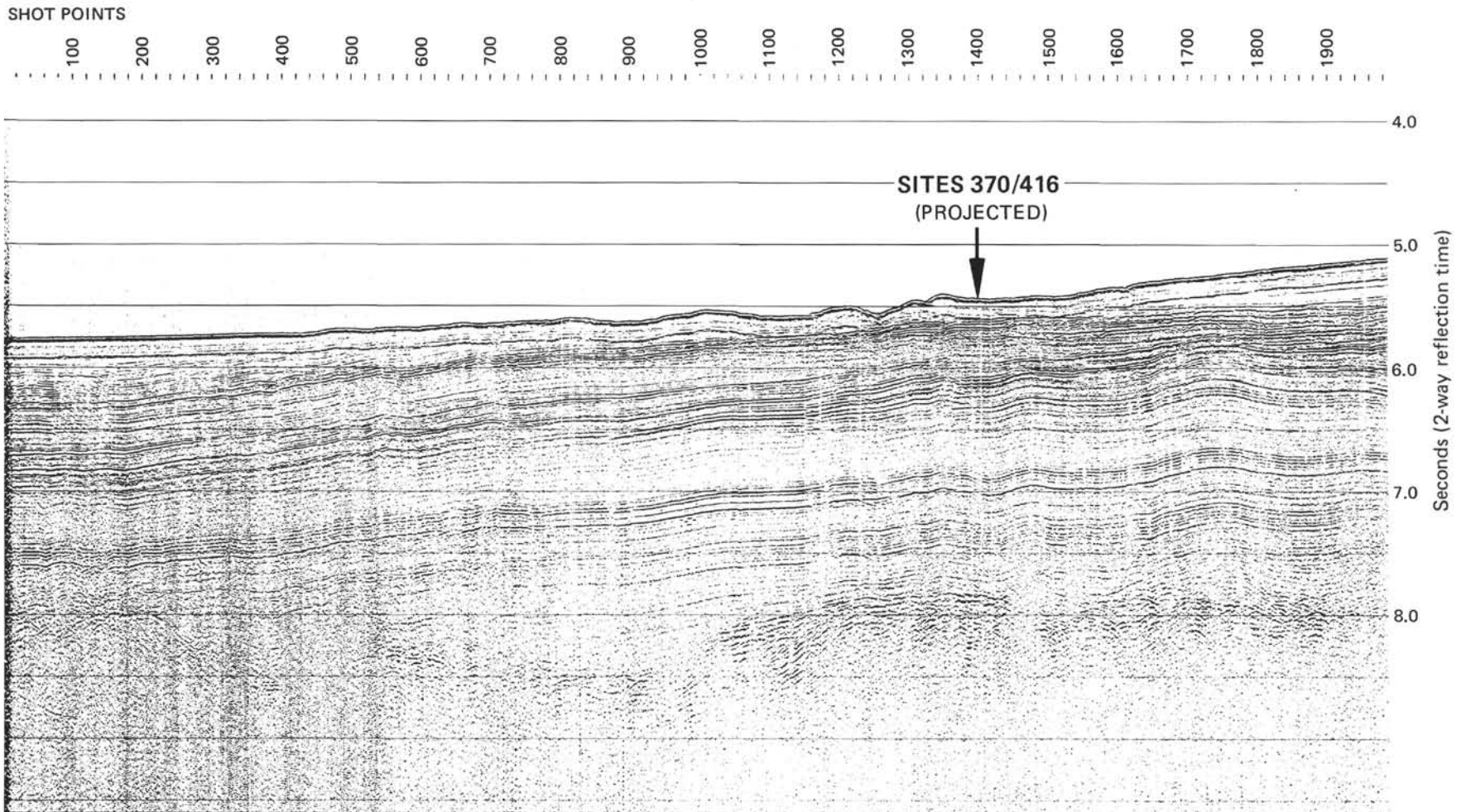


Figure 4. *Multifold seismic profile made from R/V Meteor during cruise 3902.*



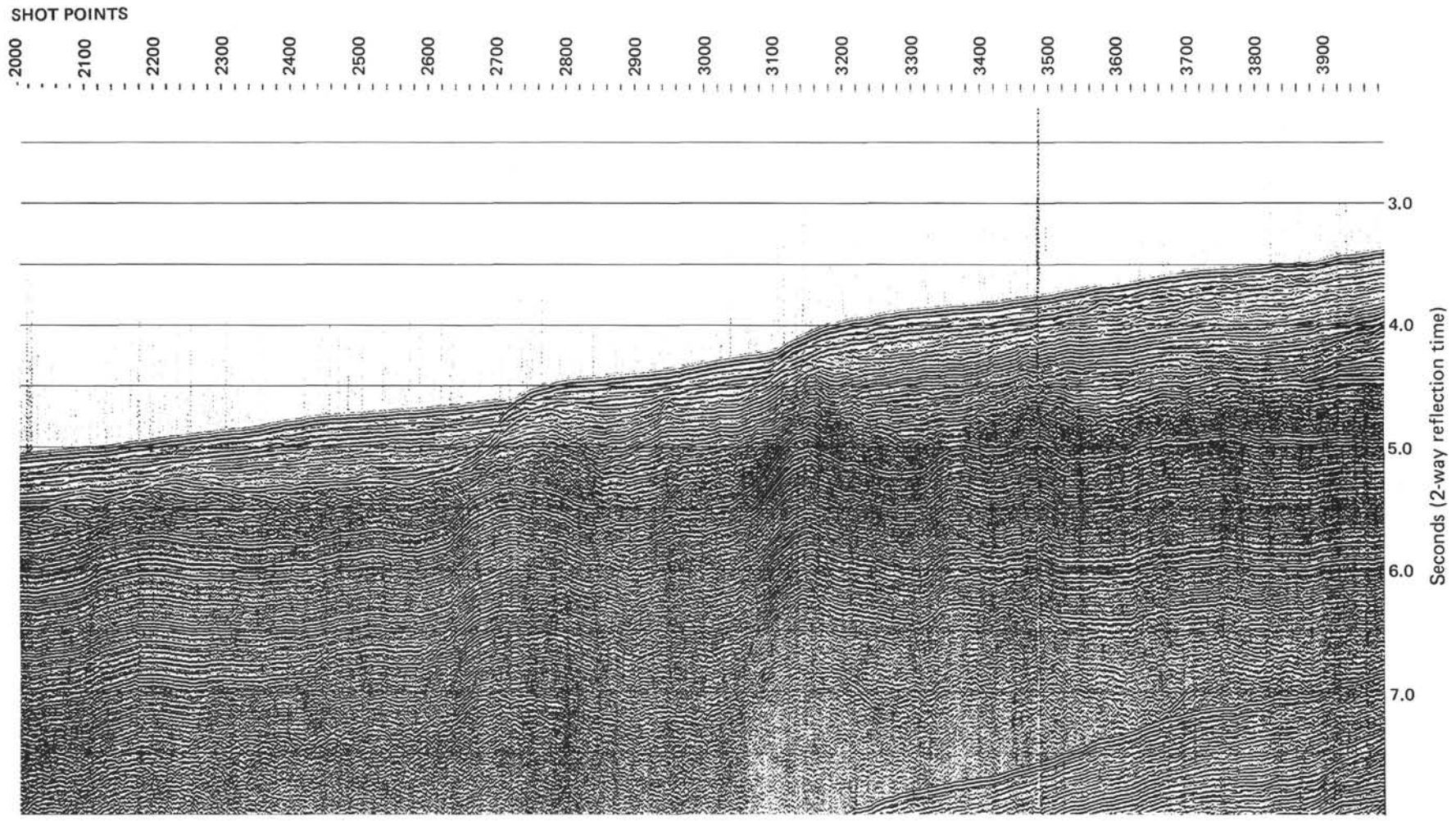


Figure 4. (Continued).

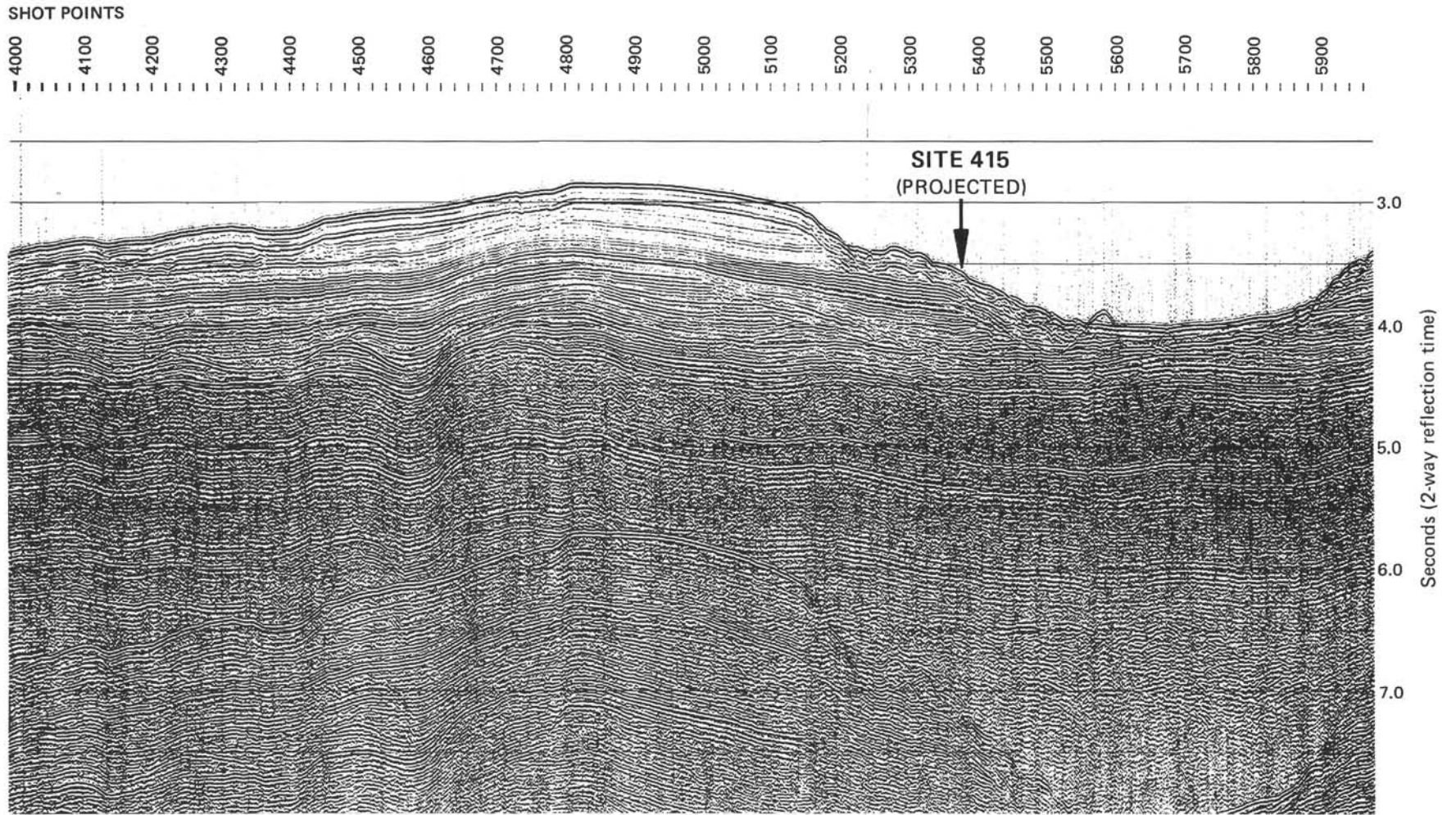


Figure 4. (Continued).

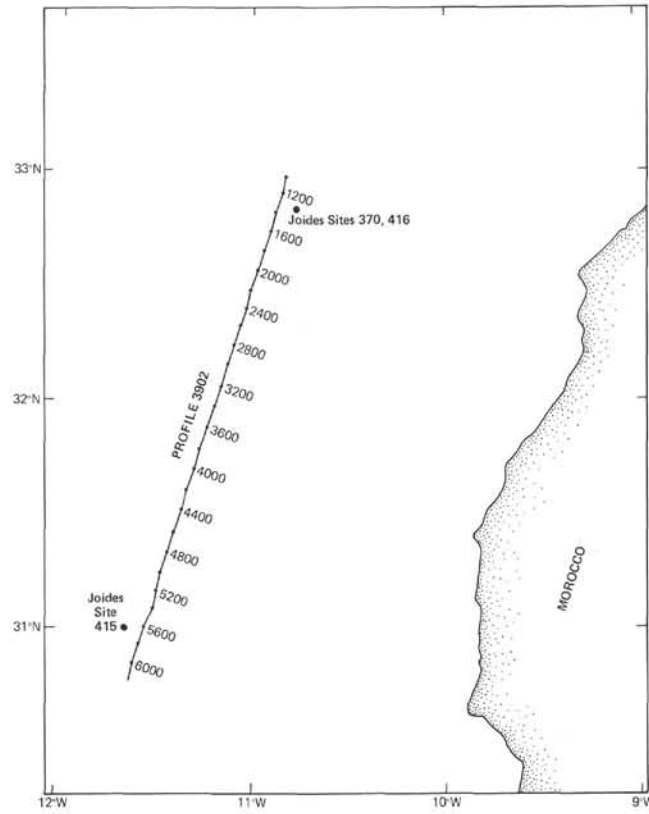


Figure 5. Portion of track of R/V Meteor on cruise 3902, showing line covered by Figure 4.