Ciesielski, P. F., Kristoffersen, Y., et al., 1988
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4. UNDERWAY GEOPHYSICS[1]

Yngve Kristoffersen[2], Dean L. Merrill[3], and Shipboard Scientific Party[4]

INTRODUCTION

Geophysical data were collected during Leg 114 of the Ocean Drilling Program (ODP) during transit to sites and surveys at site locations. The *JOIDES Resolution* traveled 5585 nmi from East Cove, Falkland Islands, to Port Louis, Mauritius. Magnetic data were collected for 4260 nmi, bathymetry data for 1525 nmi, and seismic-reflection data for 190 nmi. Of the 59.9 days spent at sea, 20.8 days were spent in transit.

Shipboard geophysical instrumentation included two precision echo-sounders, a magnetometer, and a single-channel seismic-reflection system including digital recording and a satellite navigation system. These instruments were maintained and operated by ODP marine technicians, in cooperation with the scientific party and the officers and crew of SEDCO-FOREX, Inc.

NAVIGATION DATA

Navigation data were collected on the ship's bridge by a Magnavox MX4400 GPS (Global Positioning System) receiver, which was used as the primary positioning system. A transit satellite navigation system, including a dual-channel Magnavox MX 702A receiver integrated with the gyro and speed sensor, was used as the secondary positioning system. Continuous GPS coverage was available for approximately 14 hr per day during the cruise. Satellite fixes and the course- and speed-change information (Table 1) were used to develop the Leg 114 navigation data base. This data base was created from the shipboard bridge log, the underway geophysical log, and the satellite navigation data. The final navigation file was completed by the Geological Data Center at Scripps Institution of Oceanography.

A plot of the ship's track for Leg 114 is shown in Figure 1. Enlarged navigation plots for each site vicinity are shown in Figures 2 through 6.

BATHYMETRIC DATA

Bathymetric data were obtained with both 3.5-kHz (Raytheon) and 12-kHz (EDO-248C) echo-sounders. Unfortunately, because of the nonoptimal transducer location, the quality of data collected when the ship was traveling at speeds greater than 6 kt is poor. A total 1525 nmi of bathymetric coverage was collected during Leg 114. A summary of the bathymetry data is displayed in Figure 7.

MAGNETIC DATA

A Geometrics 801 proton precession magnetometer was towed behind the ship while in transit to the Leg 114 sites and en route to Port Louis, Mauritius. At the start of the 11-day transit from the last site to port, the track was deviated slightly to obtain the first optimum profile of magnetic anomaly 34 east of the Meteor Rise. A plot of residual total magnetic intensity along the Leg 114 track is shown in Figure 7.

SEISMIC-REFLECTION DATA

One hundred ninety nmi of single-channel seismic-reflection data was collected during Leg 114. Profile locations are shown in Figures 2 through 6. Copies of the records are available from the Data Base Supervisor, Ocean Drilling Program. The seismic data acquisition system and parameters were as follows:

Source

A single 80-in.^{3} water gun suspended from the fantail was generally used as the seismic source on the *JOIDES Resolution* during Leg 114. Two similar guns, with a total volume of 160 in.^{3}, were used during the acquisition of lines 1 and 2. Gun synchronization was within 1 ms, but the source depth was difficult to control and was generally too deep (>6 m) for optimum high-resolution seismic data acquisition. During the prevailing unfavorable weather conditions, the source depth varied considerably because of the heave of the ship.

Receiver

A 100-m-long Teledyne streamer was towed approximately 500 m behind the vessel. The towing depth was monitored by pressure sensors, but there was no provision to control streamer depth except by the ship's speed or the offset distance from the ship to the active hydrophone section. Unfavorable weather conditions caused poor depth control that resulted in towing depths generally too deep (6–22 m) for high-resolution work.

Data Recording

Seismic data were displayed in real time in analog form, after amplification and band-pass filtering, on two EDO 550 recorders. The parameters are given in Table 2. The summed signals from the hydrophones were also recorded in digital form by a super micro 561 Masscomp computer after they were filtered by a 30–250-Hz band-pass filter. This unit was also used for processing and display in real time on a 15-in.-wide Printronix high-resolution graphic printer (160 dots/in). The raw data were recorded on magnetic tape in SEG-Y format at a density of 1600 bpi. The recording parameters are given in Table 2.

Processing

Seismic lines recorded with the Masscomp were reprocessed at the Seismological Observatory, University of Bergen, on a VAX 11/780 using DISCO software. The basic processing sequence includes a running three-trace mix (weights 1:2:1) and band-pass filtering before display. The processing parameters are given in Table 3.

Seismic Noise

The amplitude of the seafloor reflection is about 25 dB above the ambient noise level for data acquired in sea states 2–3 and 15 dB above under storm conditions (Fig. 8). Additionally, the noise spectrum is slightly broader under calm seas than in rough weather. A running three-trace mix applied during processing improves the S/N ratio by about 3 dB.

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[1] Ciesielski, P. F., Kristoffersen, Y., et al., 1988. *Proc. ODP, Init. Repts.*, 114: College Station, TX (Ocean Drilling Program).

[2] Seismological Observatory, University of Bergen, Allegaten 41, N-5014 Bergen, Norway.

[3] Ocean Drilling Program, Texas A&M University, 1000 Discovery Drive, College Station, TX 77840.

[4] Shipboard Scientific Party is as given in the list of Participants preceding the contents.

Table 1. Satellite navigation and course- and speed-change data used to generate Leg 114 track line plots shown in Figures 1 through 6.

Date (1986)	Julian day	Time (UTC)	Latitude(s) (deg)	(min)	Longitude(s) (deg)	(min)	Distance (nmi)	Actual speed (kt)	Actual course (deg)	Comments[a]
March										
14	73	1715	51	56.85	−58	8.61	0.0	13.4	88	DR
14	73	1750	51	56.50	−57	55.90	7.8	13.4	88	c/cs
14	73	1838	51	56.10	−57	38.50	18.6	13.3	88	c/cs
14	73	1906	51	55.80	−57	28.40	24.8	13.3	87	c/cs
14	73	1924	51	55.60	−57	21.90	28.8	13.4	87	c/cs
15	74	1239	51	41.90	−51	8.00	260.4	13.2	94	c/cs
15	74	1242	51	42.00	−51	6.90	261.1	12.9	104	c/cs
15	74	1244	51	42.10	−51	6.20	261.5	13.0	89	c/cs
15	74	1247	51	42.10	−51	5.20	262.2	13.3	92	c/cs
15	74	1545	51	43.50	−50	1.30	301.8	13.4	92	c/cs
15	74	1600	51	43.70	−49	55.80	305.2	13.5	91	c/cs
15	74	1618	51	43.70	−49	49.20	309.3	13.3	91	c/cs
15	74	1625	51	43.80	−49	46.60	310.8	13.7	91	c/cs
15	74	2314	51	46.00	−47	14.30	405.2	13.4	90	c/cs
15	74	2349	51	46.00	−47	1.50	413.1	13.2	90	c/cs
16	75	0103	51	46.10	−46	35.00	429.5	13.1	90	c/cs
16	75	0134	51	46.10	−46	23.90	436.4	13.2	90	c/cs
16	75	0156	51	46.20	−46	16.00	441.3	13.3	89	c/cs
16	75	0209	51	46.10	−46	11.30	444.2	13.0	88	c/cs
16	75	1959	51	39.40	−39	50.30	680.3	13.4	88	c/cs
16	75	2011	51	39.30	−39	45.90	683.1	13.6	88	c/cs
16	75	2019	51	39.20	−39	42.90	684.9	13.2	88	c/cs
16	75	2027	51	39.20	−39	40.00	686.7	13.0	97	c/cs
16	75	2037	51	39.40	−39	36.50	688.9	12.9	101	c/cs
16	75	2044	51	39.70	−39	34.10	690.5	13.3	88	c/cs
16	75	2107	51	39.60	−39	25.70	695.7	13.4	88	c/cs
16	75	2120	51	39.50	−39	20.90	698.6	13.2	88	c/cs
17	76	1211	51	34.00	−33	59.40	898.4	13.0	92	c/cs
17	76	1219	51	34.10	−33	56.50	900.1	12.8	92	c/cs
17	76	1229	51	34.10	−33	53.00	902.3	13.3	90	c/cs
17	76	1239	51	34.20	−33	49.30	904.6	13.1	87	c/cs
17	76	1249	51	34.00	−33	45.70	906.8	13.4	85	c/cs
17	76	1254	51	33.90	−33	43.90	908.0	13.1	87	c/cs
17	76	1320	51	33.70	−33	34.60	913.8	13.2	87	c/cs
17	76	1335	51	33.50	−33	29.10	917.2	13.2	88	c/cs
17	76	1345	51	33.50	−33	25.50	919.4	12.6	51	c/cs
17	76	1347	51	33.20	−33	25.00	919.9	13.3	62	c/cs
17	76	1352	51	32.70	−33	23.40	921.0	14.1	61	c/cs
17	76	1415	51	30.10	−33	15.70	926.4	13.6	66	c/cs
17	76	1421	51	29.50	−33	13.70	927.8	11.5	64	c/cs
17	76	1423	51	29.40	−33	13.10	928.2	8.8	62	c/cs
17	76	1426	51	29.20	−33	12.50	928.6	6.9	56	c/cs
17	76	1430	51	28.90	−33	10.30	930.0	5.7	61	DR
17	76	1430	51	28.90	−33	10.30	930.0	5.0	64	c/cs
17	76	1439	51	28.60	−33	9.20	930.8	5.3	62	c/cs
17	76	1505	51	27.51	−33	5.96	933.0	5.1	60	698
17	76	1505	51	27.50	−33	6.00	933.0	0.0	90	c/cs
19	78	1745	51	27.51	−33	5.96	933.0	0.4	62	698
20	79	0100	51	26.03	−33	1.52	936.2	1.8	223	DR
20	79	0100	51	26.00	−33	1.50	936.2	4.8	117	c/cs
20	79	0111	51	26.40	−33	0.30	937.1	3.8	91	c/cs
20	79	0113	51	26.40	−33	0.10	937.2	5.0	118	c/cs
20	79	0115	51	26.50	−32	59.80	937.4	3.3	75	c/cs
20	79	0116	51	26.50	−32	59.70	937.4	2.2	348	c/cs
20	79	0118	51	26.40	−32	59.80	937.5	3.0	278	c/cs
20	79	0121	51	26.40	−32	60.00	937.6	3.5	237	c/cs
20	79	0125	51	26.50	−33	0.30	937.9	5.8	240	c/cs
20	79	0128	51	26.70	−33	0.70	938.2	6.6	241	c/cs
20	79	0140	51	27.30	−33	2.50	939.5	7.4	241	c/cs
20	79	0150	51	27.90	−33	4.30	940.7	6.9	240	c/cs
20	79	0155	51	28.20	−33	5.10	941.3	6.9	243	c/cs
20	79	0158	51	28.40	−33	5.60	941.6	7.1	242	c/cs
20	79	0205	51	28.70	−33	6.70	942.5	6.8	243	c/cs
20	79	0211	51	29.00	−33	7.70	943.1	6.7	243	c/cs
20	79	0215	51	29.25	−33	8.35	943.6	5.1	240	SN
20	79	0216	51	29.30	−33	8.50	943.7	5.0	246	c/cs
20	79	0235	51	29.90	−33	10.80	945.3	5.1	246	c/cs
20	79	0247	51	30.40	−33	12.30	946.3	5.2	246	c/cs
20	79	0258	51	30.70	−33	13.70	947.2	5.2	247	c/cs
20	79	0309	51	31.10	−33	15.10	948.2	5.2	249	c/cs
20	79	0310	51	31.15	−33	15.23	948.3	4.8	247	SN
20	79	0320	51	31.50	−33	16.40	949.1	4.9	249	c/cs
20	79	0334	51	31.90	−33	18.10	950.2	4.7	247	c/cs
20	79	0351	51	32.40	−33	20.10	951.6	4.3	246	c/cs
20	79	0359	51	32.60	−33	21.00	952.1	4.9	248	c/cs

Table 1 (continued).

Date (1986)	Julian day	Time (UTC)	Latitude(s) (deg)	(min)	Longitude(s) (deg)	(min)	Distance (nmi)	Actual speed (kt)	Actual course (deg)	Comments[a]
March										
20	79	0410	51	32.97	−33	22.29	953.0	4.5	247	SN
20	79	0413	51	33.10	−33	22.60	953.2	4.9	247	c/cs
20	79	0421	51	33.30	−33	23.60	953.9	4.4	247	c/cs
20	79	0426	51	33.40	−33	24.10	954.3	4.5	251	c/cs
20	79	0430	51	33.50	−33	24.60	954.6	3.9	247	c/cs
20	79	0445	51	33.90	−33	26.10	955.5	4.3	244	c/cs
20	79	0450	51	34.10	−33	26.60	955.9	9.4	92	c/cs
20	79	0455	51	34.10	−33	25.30	956.7	12.9	87	c/cs
20	79	0500	51	34.06	−33	23.58	957.8	13.3	81	SN
20	79	0500	51	34.10	−33	23.60	957.8	13.4	81	c/cs
20	79	0530	51	33.00	−33	13.00	964.5	13.5	82	c/cs
20	79	0600	51	32.10	−33	2.20	971.2	13.4	81	c/cs
20	79	0630	51	31.00	−32	51.60	977.9	13.4	84	c/cs
20	79	0700	51	30.30	−32	40.90	984.6	13.8	87	c/cs
20	79	0730	51	29.90	−32	29.80	991.5	13.2	88	c/cs
20	79	0800	51	29.70	−32	19.20	998.1	13.1	90	c/cs
20	79	0830	51	29.70	−32	8.70	1004.6	13.3	90	c/cs
20	79	1030	51	29.70	−31	26.00	1031.2	14.1	98	c/cs
20	79	1130	51	31.80	−31	3.60	1045.3	13.3	93	c/cs
20	79	1200	51	32.10	−30	52.90	1052.0	13.0	96	c/cs
20	79	1220	51	32.60	−30	46.00	1056.3	10.9	96	c/cs
20	79	1225	51	32.60	−30	44.50	1057.2	8.2	94	c/cs
20	79	1230	51	32.70	−30	43.40	1057.9	7.5	88	c/cs
20	79	1239	51	32.60	−30	41.60	1059.0	6.4	77	c/cs
20	79	1243	51	32.60	−30	40.90	1059.5	5.5	87	c/cs
20	79	1245	51	32.54	−30	40.62	1059.7	4.2	94	699
20	79	1245	51	32.50	−30	40.60	1059.7	0.0	90	c/cs
26	85	1730	51	32.54	−30	40.62	1059.7	0.2	229	699
26	85	2215	51	33.20	−30	41.90	1060.7	5.1	270	c/cs
26	85	2223	51	33.20	−30	43.00	1061.4	4.6	299	c/cs
26	85	2226	51	33.10	−30	43.30	1061.6	4.3	253	c/cs
26	85	2228	51	33.10	−30	43.50	1061.7	4.8	205	c/cs
26	85	2229	51	33.20	−30	43.60	1061.8	5.2	167	c/cs
26	85	2230	51	33.30	−30	43.50	1061.9	5.1	118	c/cs
26	85	2232	51	33.40	−30	43.30	1062.1	4.6	77	c/cs
26	85	2234	51	33.35	−30	43.05	1062.2	5.7	90	GPS
26	85	2235	51	33.30	−30	42.90	1062.3	5.8	100	c/cs
26	85	2253	51	33.60	−30	40.10	1064.1	6.4	92	c/cs
26	85	2315	51	33.70	−30	36.30	1066.4	6.4	89	c/cs
26	85	2330	51	33.68	−30	33.77	1068.0	5.5	78	GPS
26	85	2338	51	33.50	−30	32.60	1068.8	6.1	80	c/cs
26	85	2345	51	33.40	−30	31.50	1069.5	6.4	81	c/cs
26	85	2359	51	33.20	−30	29.10	1071.0	5.7	80	c/cs
27	86	0000	51	33.20	−30	29.00	1071.1	5.7	80	c/cs
27	86	0004	51	33.10	−30	28.40	1071.4	5.5	77	c/cs
27	86	0009	51	33.00	−30	27.60	1071.9	5.5	75	c/cs
27	86	0027	51	32.60	−30	25.10	1073.6	5.5	74	c/cs
27	86	0035	51	32.35	−30	23.92	1074.3	6.9	75	SN
27	86	0038	51	32.30	−30	23.40	1074.7	7.1	83	c/cs
27	86	0055	51	32.03	−30	20.16	1076.7	6.5	88	SN
27	86	0110	51	32.00	−30	17.60	1078.3	6.5	90	c/cs
27	86	0115	51	31.98	−30	16.69	1078.8	5.7	85	700
27	86	0129	51	31.90	−30	14.60	1080.2	5.9	86	c/cs
27	86	0150	51	31.70	−30	11.30	1082.2	0.0	266	c/cs
April										
3	93	1500	51	31.98	−30	16.69	1085.6	3.0	115	700
3	93	1615	51	33.50	−30	11.20	1089.3	8.8	97	c/cs
3	93	1620	51	33.63	−30	10.05	1090.1	7.5	91	SN
3	93	1625	51	33.60	−30	9.00	1090.7	12.7	90	c/cs
3	93	1634	51	33.70	−30	6.00	1092.6	13.4	96	c/cs
3	93	1635	51	33.70	−30	5.60	1092.8	12.4	90	c/cs
3	93	1640	51	33.70	−30	4.00	1093.9	13.1	96	c/cs
3	93	1644	51	33.80	−30	2.60	1094.7	12.1	96	c/cs
3	93	1645	51	33.80	−30	2.20	1094.9	12.7	91	c/cs
3	93	1652	51	33.80	−29	59.90	1096.4	13.3	95	c/cs
3	93	1700	51	34.00	−29	57.00	1098.2	12.8	96	c/cs
3	93	1713	51	34.30	−29	52.60	1101.0	13.2	95	c/cs
3	93	1728	51	34.50	−29	47.30	1104.3	12.9	96	c/cs
3	93	1741	51	34.80	−29	42.80	1107.1	12.6	97	c/cs
3	93	1748	51	35.00	−29	40.40	1108.5	13.4	97	c/cs
3	93	1750	51	35.08	−29	39.73	1109.0	12.8	95	SN
3	93	1756	51	35.20	−29	37.70	1110.3	12.1	94	c/cs
3	93	1800	51	35.20	−29	36.40	1111.1	12.8	95	c/cs
3	93	1809	51	35.40	−29	33.30	1113.0	12.2	95	c/cs
3	93	1814	51	35.50	−29	31.70	1114.0	12.9	94	c/cs

Table 1 (continued).

Date (1986)	Julian day	Time (UTC)	Latitude(s) (deg)	(min)	Longitude(s) (deg)	(min)	Distance (nmi)	Actual speed (kt)	Actual course (deg)	Comments[a]
March										
3	93	1821	51	35.60	−29	29.30	1115.5	12.2	95	c/cs
3	93	1824	51	35.60	−29	28.30	1116.1	12.7	96	c/cs
3	93	1829	51	35.70	−29	26.60	1117.2	12.9	95	c/cs
3	93	1831	51	35.80	−29	25.90	1117.6	11.5	98	c/cs
3	93	1834	51	35.90	−29	25.00	1118.2	12.5	95	c/cs
3	93	1844	51	36.00	−29	21.60	1120.3	12.4	96	c/cs
3	93	1857	51	36.30	−29	17.30	1123.0	12.8	96	c/cs
3	93	1902	51	36.40	−29	15.60	1124.0	12.5	96	c/cs
3	93	1910	51	36.55	−29	12.95	1125.7	13.0	96	SN
3	93	1912	51	36.60	−29	12.30	1126.1	13.1	96	c/cs
3	93	1924	51	36.90	−29	8.10	1128.7	12.9	93	c/cs
3	93	1950	51	37.10	−28	59.10	1134.3	13.1	93	c/cs
3	93	1955	51	37.20	−28	57.30	1135.4	13.4	96	c/cs
3	93	2000	51	37.30	−28	55.50	1136.5	12.9	94	c/cs
April										
3	93	2016	51	37.60	−28	50.00	1140.0	12.6	96	c/cs
3	93	2021	51	37.70	−28	48.30	1141.0	13.3	96	c/cs
3	93	2035	51	38.00	−28	43.40	1144.1	13.1	98	c/cs
3	93	2040	51	38.20	−28	41.60	1145.2	12.8	97	c/cs
3	93	2051	51	38.50	−28	37.90	1147.5	13.4	96	c/cs
3	93	2059	51	38.70	−28	35.00	1149.3	13.0	94	c/cs
3	93	2109	51	38.70	−28	33.30	1150.4	13.0	97	c/cs
3	93	2114	51	39.00	−28	29.80	1152.6	13.7	95	c/cs
3	93	2116	51	39.00	−28	29.10	1153.0	12.9	93	c/cs
3	93	2122	51	39.10	−28	27.00	1154.3	13.5	95	c/cs
3	93	2124	51	39.10	−28	26.30	1154.8	12.5	97	c/cs
3	93	2130	51	39.30	−28	24.28	1156.0	11.7	99	GPS
3	93	2131	51	39.30	−28	24.00	1156.2	12.2	99	c/cs
3	93	2144	51	39.70	−28	19.70	1158.9	12.4	99	c/cs
3	93	2155	51	40.10	−28	16.10	1161.2	12.6	100	c/cs
3	93	2205	51	40.45	−28	12.80	1163.3	12.9	100	GPS
3	93	2205	51	40.50	−28	12.80	1163.3	12.3	97	c/cs
3	93	2209	51	40.60	−28	11.50	1164.1	12.8	101	c/cs
3	93	2214	51	40.80	−28	9.80	1165.1	12.3	100	c/cs
3	93	2227	51	41.20	−28	5.50	1167.8	12.3	100	c/cs
3	93	2233	51	41.40	−28	3.60	1169.0	12.1	98	c/cs
3	93	2240	51	41.60	−28	1.30	1170.5	12.4	100	c/cs
3	93	2248	51	41.90	−27	58.70	1172.1	13.0	100	c/cs
3	93	2253	51	42.10	−27	57.00	1173.2	12.1	101	c/cs
3	93	2257	51	42.20	−27	55.70	1174.0	12.6	98	c/cs
3	93	2300	51	42.33	−27	54.69	1174.6	12.1	98	GPS
3	93	2301	51	42.40	−27	54.40	1174.8	12.5	97	c/cs
3	93	2306	51	42.50	−27	52.70	1175.9	11.7	100	c/cs
3	93	2310	51	42.63	−27	51.46	1176.7	12.9	100	SN
3	93	2318	51	42.90	−27	48.70	1178.4	13.0	99	c/cs
3	93	2326	51	43.20	−27	46.00	1180.1	12.7	108	c/cs
3	93	2328	51	43.30	−27	45.30	1180.5	12.6	101	c/cs
3	93	2330	51	43.39	−27	44.66	1180.9	11.2	97	GPS
3	93	2335	51	43.50	−27	43.16	1181.9	12.6	103	SN
3	93	2336	51	43.50	−27	42.80	1182.1	13.1	101	c/cs
3	93	2344	51	43.90	−27	40.10	1183.8	12.7	100	c/cs
3	93	2349	51	44.10	−27	38.40	1184.9	13.0	100	c/cs
4	94	0000	51	44.46	−27	34.59	1187.3	12.3	98	GPS
4	94	0000	51	44.50	−27	34.60	1187.3	12.3	98	c/cs
4	94	0003	51	44.60	−27	33.60	1187.9	12.2	99	c/cs
4	94	0022	51	45.20	−27	27.40	1191.8	12.9	101	c/cs
4	94	0024	51	45.30	−27	26.80	1192.2	12.2	99	c/cs
4	94	0027	51	45.40	−27	25.80	1192.8	12.7	99	c/cs
4	94	0030	51	45.57	−27	24.77	1193.4	12.6	100	GPS
4	94	0031	51	45.50	−27	24.40	1193.6	12.1	102	c/cs
4	94	0042	51	46.00	−27	20.90	1195.9	11.8	101	c/cs
4	94	0047	51	46.20	−27	19.40	1196.8	12.5	99	c/cs
4	94	0055	51	46.42	−27	16.72	1198.5	13.3	98	SN
4	94	0055	51	46.40	−27	16.70	1198.5	13.1	101	c/cs
4	94	0102	51	46.70	−27	14.30	1200.0	12.8	101	c/cs
4	94	0109	51	47.00	−27	11.90	1201.5	12.9	98	c/cs
4	94	0115	51	47.20	−27	9.90	1202.8	12.2	104	c/cs
4	94	0118	51	47.30	−27	8.90	1203.4	12.6	101	c/cs
4	94	0120	51	47.39	−27	8.24	1203.9	12.2	100	SN
4	94	0128	51	47.70	−27	5.60	1205.5	12.4	98	c/cs
4	94	0140	51	48.00	−27	1.70	1208.0	11.8	100	c/cs
4	94	0143	51	48.10	−27	0.70	1208.5	12.8	97	c/cs
4	94	0153	51	48.40	−26	57.30	1210.7	12.0	96	c/cs
4	94	0201	51	48.50	−26	54.70	1212.3	12.4	97	c/cs
4	94	0215	51	48.90	−26	50.10	1215.2	11.7	95	c/cs
4	94	0224	51	49.00	−26	47.30	1216.9	12.0	92	c/cs

Table 1 (continued).

Date (1986)	Julian day	Time (UTC)	Latitude(s) (deg)	(min)	Longitude(s) (deg)	(min)	Distance (nmi)	Actual speed (kt)	Actual course (deg)	Comments[a]
April										
4	94	0230	51	49.07	−26	45.32	1218.1	12.0	94	SN
4	94	0234	51	49.10	−26	44.00	1218.9	12.5	93	c/cs
4	94	0243	51	49.20	−26	41.00	1220.8	11.8	94	c/cs
4	94	0249	51	49.30	−26	39.10	1222.0	12.2	97	c/cs
4	94	0254	51	49.50	−26	37.50	1223.0	12.2	95	c/cs
4	94	0301	51	49.60	−26	35.20	1224.4	12.0	99	c/cs
4	94	0307	51	49.80	−26	33.20	1225.6	13.0	97	c/cs
4	94	0314	51	50.00	−26	30.80	1227.2	12.3	96	c/cs
4	94	0319	51	50.10	−26	29.10	1228.2	12.9	95	c/cs
4	94	0322	51	50.10	−26	28.10	1228.8	12.1	94	c/cs
4	94	0335	51	50.30	−26	23.90	1231.5	12.0	104	c/cs
4	94	0337	51	50.40	−26	23.20	1231.9	12.4	97	c/cs
4	94	0345	51	50.60	−26	20.60	1233.5	12.0	99	c/cs
4	94	0357	51	51.00	−26	16.70	1235.9	12.3	99	c/cs
4	94	0405	51	51.30	−26	14.10	1237.5	12.0	97	c/cs
4	94	0413	51	51.50	−26	11.60	1239.1	12.0	96	c/cs
4	94	0425	51	51.70	−26	7.70	1241.6	11.9	95	c/cs
4	94	0428	51	51.80	−26	6.70	1242.1	12.2	95	c/cs
4	94	0433	51	51.90	−26	5.10	1243.2	13.1	93	c/cs
4	94	0436	51	51.90	−26	4.00	1243.8	12.1	96	c/cs
4	94	0445	51	52.11	−26	1.10	1245.6	12.4	98	SN
4	94	0445	51	52.10	−26	1.10	1245.6	12.8	97	c/cs
4	94	0451	51	52.30	−25	59.60	1246.9	10.9	97	c/cs
4	94	0453	51	52.30	−25	58.50	1247.3	9.3	102	c/cs
4	94	0456	51	52.40	−25	57.70	1247.7	7.2	110	c/cs
4	94	0501	51	52.60	−25	56.80	1248.3	7.6	105	c/cs
4	94	0503	51	52.70	−25	56.40	1248.6	10.5	100	c/cs
4	94	0508	51	52.80	−25	55.00	1249.5	12.0	97	c/cs
4	94	0518	51	53.10	−25	51.80	1251.5	12.4	96	c/cs
4	94	0524	51	53.20	−25	49.80	1252.7	12.6	95	c/cs
4	94	0537	51	53.50	−25	45.40	1255.4	13.0	94	c/cs
4	94	0540	51	53.52	−25	44.36	1256.1	11.6	93	SN
4	94	0541	51	53.50	−25	44.00	1256.3	11.4	99	c/cs
4	94	0551	51	53.80	−25	41.00	1258.2	12.0	97	c/cs
4	94	0552	51	53.80	−25	40.70	1258.4	10.4	96	c/cs
4	94	0557	51	53.90	−25	39.30	1259.2	11.5	96	c/cs
4	94	0602	51	54.00	−25	37.70	1260.2	11.0	96	c/cs
4	94	0605	51	54.09	−25	36.86	1260.8	12.6	95	SN
4	94	0607	51	54.10	−25	36.20	1261.2	12.0	97	c/cs
4	94	0615	51	54.30	−25	33.60	1262.8	10.6	99	c/cs
4	94	0620	51	54.50	−25	32.20	1263.7	9.9	99	c/cs
4	94	0632	51	54.80	−25	29.00	1265.6	12.1	96	c/cs
4	94	0639	51	54.90	−25	26.80	1267.0	12.8	94	c/cs
4	94	0645	51	55.00	−25	24.70	1268.3	13.2	95	c/cs
4	94	0653	51	55.20	−25	21.80	1270.1	13.8	97	c/cs
4	94	0655	51	55.20	−25	21.10	1270.5	12.4	95	c/cs
4	94	0702	51	55.40	−25	18.80	1272.0	12.8	91	c/cs
4	94	0710	51	55.40	−25	16.00	1273.7	12.7	92	c/cs
4	94	0716	51	55.40	−25	14.00	1275.0	13.4	87	c/cs
4	94	0718	51	55.40	−25	13.20	1275.4	12.6	92	c/cs
4	94	0725	51	55.46	−25	10.85	1276.9	12.0	86	SN
4	94	0726	51	55.40	−25	10.50	1277.1	12.5	89	c/cs
4	94	0731	51	55.40	−25	8.80	1278.2	11.7	87	c/cs
4	94	0738	51	55.40	−25	6.60	1279.5	12.3	87	c/cs
4	94	0741	51	55.30	−25	5.60	1280.1	11.9	85	c/cs
4	94	0749	51	55.20	−25	3.00	1281.7	12.3	84	c/cs
4	94	0756	51	55.00	−25	0.70	1283.1	11.6	86	c/cs
4	94	0759	51	55.00	−24	59.80	1283.7	11.7	91	c/cs
4	94	0804	51	55.00	−24	58.20	1284.7	12.3	88	c/cs
4	94	0814	51	54.90	−24	54.90	1286.7	12.0	87	c/cs
4	94	0829	51	54.70	−24	50.10	1289.7	11.8	85	c/cs
4	94	0839	51	54.60	−24	46.90	1291.7	11.7	82	c/cs
4	94	0847	51	54.30	−24	44.40	1293.3	12.0	81	c/cs
4	94	0857	51	54.00	−24	41.20	1295.3	11.7	81	c/cs
4	94	0900	51	53.90	−24	40.20	1295.8	12.8	80	c/cs
4	94	0902	51	53.90	−24	39.60	1296.3	11.8	79	c/cs
4	94	0905	51	53.80	−24	38.60	1296.9	12.1	90	c/cs
4	94	0914	51	53.80	−24	35.70	1298.7	11.9	90	c/cs
4	94	0922	51	53.80	−24	33.10	1300.3	11.8	98	c/cs
4	94	0930	51	53.99	−24	30.57	1301.8	12.2	100	DR
4	94	0933	51	54.10	−24	29.60	1302.4	12.0	98	c/cs
4	94	0940	51	54.30	−24	27.30	1303.8	12.2	100	c/cs
4	94	0948	51	54.60	−24	24.70	1305.5	12.1	97	c/cs
4	94	0953	51	54.70	−24	23.10	1306.5	12.1	102	c/cs
4	94	0955	51	54.78	−24	22.48	1306.9	11.5	102	SN
4	94	1000	51	55.00	−24	21.00	1307.8	11.6	100	c/cs

Table 1 (continued).

Date (1986)	Julian day	Time (UTC)	Latitude(s) (deg)	(min)	Longitude(s) (deg)	(min)	Distance (nmi)	Actual speed (kt)	Actual course (deg)	Comments[a]
April										
4	94	1008	51	55.30	−24	18.50	1309.4	11.8	99	c/cs
4	94	1016	51	55.50	−24	16.00	1311.0	11.6	97	c/cs
4	94	1021	51	55.60	−24	14.40	1311.9	10.1	97	c/cs
4	94	1023	51	55.70	−24	13.90	1312.3	11.7	95	c/cs
4	94	1031	51	55.80	−24	11.30	1313.8	10.9	94	c/cs
4	94	1034	51	55.80	−24	10.50	1314.4	11.4	97	c/cs
4	94	1039	51	56.00	−24	8.90	1315.3	11.8	96	c/cs
4	94	1044	51	56.10	−24	7.30	1316.3	11.8	100	c/cs
4	94	1049	51	56.20	−24	5.80	1317.3	11.2	100	c/cs
4	94	1054	51	56.40	−24	4.30	1318.2	12.2	98	c/cs
4	94	1100	51	56.57	−24	2.31	1319.5	11.9	103	GPS
4	94	1101	51	56.60	−24	2.00	1319.7	11.0	101	c/cs
4	94	1106	51	56.80	−24	0.50	1320.6	11.5	106	c/cs
4	94	1116	51	57.30	−23	57.50	1322.5	11.6	104	c/cs
4	94	1124	51	57.70	−23	55.10	1324.1	11.7	101	c/cs
4	94	1127	51	57.80	−23	54.20	1324.6	10.2	104	c/cs
4	94	1129	51	57.90	−23	53.60	1325.0	11.6	103	c/cs
4	94	1130	51	57.92	−23	53.32	1325.2	12.3	96	GPS
4	94	1137	51	58.10	−23	51.00	1326.6	12.1	97	c/cs
4	94	1142	51	58.20	−23	49.40	1327.6	12.7	97	c/cs
4	94	1147	51	58.30	−23	47.70	1328.7	12.1	97	c/cs
4	94	1152	51	58.40	−23	46.00	1329.7	12.5	96	c/cs
4	94	1200	51	58.60	−23	43.36	1331.3	11.4	96	GPS
4	94	1200	51	58.60	−23	43.40	1331.3	10.7	95	c/cs
4	94	1202	51	58.60	−23	42.80	1331.7	11.6	97	c/cs
4	94	1207	51	58.80	−23	41.20	1332.7	10.8	97	c/cs
4	94	1210	51	58.80	−23	40.40	1333.2	11.6	95	c/cs
4	94	1218	51	59.00	−23	37.90	1334.7	10.8	94	c/cs
4	94	1228	51	59.10	−23	35.00	1336.5	10.7	90	c/cs
4	94	1240	51	59.10	−23	31.50	1338.7	6.8	91	c/cs
4	94	1315	51	59.20	−23	25.00	1342.7	3.9	85	c/cs
4	94	1330	51	59.10	−23	23.50	1343.6	1.7	154	c/cs
4	94	1335	51	59.20	−23	23.40	1343.8	6.0	106	c/cs
4	94	1400	51	59.89	−23	19.46	1346.3	7.4	118	GPS
4	94	1400	51	59.90	−23	19.50	1346.3	6.1	81	c/cs
4	94	1405	51	59.80	−23	18.60	1346.8	5.1	77	c/cs
4	94	1431	51	59.30	−23	15.10	1349.0	5.6	86	c/cs
4	94	1438	51	59.30	−23	14.10	1349.6	4.4	75	c/cs
4	94	1442	51	59.20	−23	13.60	1349.9	4.0	68	c/cs
4	94	1447	51	59.10	−23	13.10	1350.3	6.3	75	c/cs
4	94	1448	51	59.10	−23	12.90	1350.4	7.1	96	c/cs
4	94	1449	51	59.10	−23	12.70	1350.5	1.3	138	c/cs
4	94	1450	51	59.08	−23	12.72	1350.5	0.0	90	701
12	102	0945	51	59.08	−23	12.72	1350.5	2.2	144	701
12	102	1030	51	0.40	−23	11.20	1352.1	3.8	294	c/cs
12	102	1055	51	59.73	−23	13.53	1353.7	7.4	313	GPS
12	102	1100	51	59.30	−23	14.30	1354.3	7.4	313	c/cs
12	102	1130	51	56.77	−23	18.60	1358.0	5.6	307	GPS
12	102	1200	51	55.11	−23	22.21	1360.8	6.0	305	GPS
12	102	1200	51	55.10	−23	22.20	1360.8	8.9	306	c/cs
12	102	1205	51	54.60	−23	23.20	1361.6	10.9	302	c/cs
12	102	1215	51	53.70	−23	25.70	1363.4	11.6	304	c/cs
12	102	1230	51	52.08	−23	29.54	1366.3	11.1	303	GPS
12	102	1300	51	49.03	−23	37.06	1371.8	10.1	293	GPS
12	102	1440	51	42.50	−24	2.26	1388.7	10.1	295	SN
12	102	1600	51	36.90	−24	22.00	1402.2	9.8	282	c/cs
12	102	16.25	51	36.06	−24	28.45	1406.3	10.1	283	SN
12	102	1630	51	35.90	−24	29.80	1407.1	9.2	290	c/cs
12	102	1720	51	33.24	−24	41.33	1414.8	9.7	288	SN
12	102	1730	51	32.70	−24	43.80	1416.4	9.7	283	c/cs
12	102	1750	51	32.02	−24	48.87	1419.6	8.1	286	SN
12	102	1800	51	31.60	−24	50.90	1421.0	7.9	287	c/cs
12	102	1830	51	30.50	−24	57.00	1424.9	8.1	297	c/cs
12	102	1900	51	28.60	−25	2.80	1429.0	8.0	291	c/cs
12	102	1915	51	27.87	−25	5.76	1431.0	11.5	296	SN
12	102	2000	51	24.10	−25	18.20	1439.6	5.9	299	c/cs
12	102	2030	51	22.70	−25	22.40	1442.5	11.6	304	c/cs
12	102	2100	51	19.51	−25	30.10	1448.3	13.5	305	SN
12	102	2100	51	19.50	−25	30.10	1448.3	7.5	304	c/cs
12	102	2120	51	18.12	−25	33.42	1450.8	6.8	309	SN
12	102	2130	51	17.40	−25	34.80	1452.0	9.7	311	c/cs
12	102	2135	51	16.88	−25	35.80	1452.8	8.0	312	SN
12	102	2235	51	11.48	−25	45.23	1460.8	7.6	318	SN
12	102	2300	51	9.10	−25	48.70	1463.9	8.3	307	c/cs
12	102	2325	51	7.07	−25	53.05	1467.4	8.4	306	SN
12	102	2345	51	5.40	−25	56.70	1470.2	9.6	305	c/cs

Table 1 (continued).

Date (1986)	Julian day	Time (UTC)	Latitude(s) (deg)	(min)	Longitude(s) (deg)	(min)	Distance (nmi)	Actual speed (kt)	Actual course (deg)	Comments[a]
April										
13	103	0000	51	4.00	−25	59.80	1472.6	10.6	313	c/cs
13	103	0030	51	0.40	−26	6.00	1477.9	8.5	314	c/cs
13	103	0045	50	58.90	−26	8.40	1480.1	8.2	314	c/cs
13	103	0105	50	56.99	−26	11.54	1482.8	6.4	312	GPS
13	103	0115	50	56.27	−26	12.80	1483.9	7.7	309	SN
13	103	0123	50	55.60	−26	14.10	1484.9	5.8	308	c/cs
13	103	0130	50	55.21	−26	14.91	1485.6	5.5	311	GPS
13	103	0131	50	55.10	−26	15.00	1485.7	5.3	285	c/cs
13	103	0133	50	55.10	−26	15.30	1485.9	5.5	273	c/cs
13	103	0143	50	55.10	−26	16.70	1486.8	4.9	272	c/cs
13	103	0202	50	55.00	−26	19.20	1488.3	5.0	271	c/cs
13	103	0219	50	55.00	−26	21.50	1489.8	5.2	268	c/cs
13	103	0230	50	55.03	−26	22.97	1490.7	6.7	268	GPS
13	103	0235	50	55.05	−26	23.86	1491.3	5.7	263	SN
13	103	0249	50	55.20	−26	25.90	1492.6	5.8	264	c/cs
13	103	0302	50	55.30	−26	27.90	1493.8	5.8	245	c/cs
13	103	0304	50	55.40	−26	28.20	1494.0	6.2	217	c/cs
13	103	0305	50	55.49	−26	28.30	1494.1	6.1	222	SN
13	103	0306	50	55.60	−26	28.40	1494.2	6.3	188	c/cs
13	103	0315	50	56.50	−26	28.60	1495.2	6.6	180	c/cs
13	103	0317	50	56.70	−26	28.60	1495.4	6.0	145	c/cs
13	103	0318	50	56.80	−26	28.50	1495.5	5.4	105	c/cs
13	103	0320	50	56.80	−26	28.20	1495.7	5.4	87	c/cs
13	103	0328	50	56.80	−26	27.10	1496.4	5.7	89	c/cs
13	103	0352	50	56.80	−26	23.50	1498.7	5.8	90	c/cs
13	103	0401	50	56.79	−26	22.12	1499.5	6.3	91	702
13	103	0411	50	56.80	−26	20.40	1500.6	6.0	91	c/cs
13	103	0412	50	56.80	−26	20.30	1500.7	6.1	89	c/cs
13	103	0430	50	56.80	−26	17.40	1502.5	7.9	93	c/cs
13	103	0440	50	56.80	−26	15.30	1503.8	5.7	93	c/cs
13	103	0450	50	56.90	−26	13.80	1504.8	3.7	283	c/cs
13	103	0500	50	56.80	−26	14.70	1505.4	0.1	270	c/cs
16	106	0100	50	56.79	−26	22.12	1510.1	0.6	293	702
16	106	0145	50	56.60	−26	22.70	1510.5	2.6	275	c/cs
16	106	0205	50	56.50	−26	24.10	1511.4	6.1	272	c/cs
16	106	0218	50	56.50	−26	26.20	1512.7	7.0	272	c/cs
16	106	0228	50	56.50	−26	28.10	1513.8	6.0	310	c/cs
16	106	0230	50	56.30	−26	28.30	1514.0	4.8	269	c/cs
16	106	0231	50	56.30	−26	28.40	1514.1	3.7	220	c/cs
16	106	0232	50	56.40	−26	28.50	1514.2	2.8	172	c/cs
16	106	0233	50	56.40	−26	28.50	1514.2	3.7	102	c/cs
16	106	0235	50	56.50	−26	28.30	1514.3	5.6	89	c/cs
16	106	0240	50	56.40	−26	27.50	1514.8	4.4	92	c/cs
16	106	0300	50	56.50	−26	25.20	1516.3	4.4	86	c/cs
16	106	0312	50	56.40	−26	23.90	1517.1	4.2	89	c/cs
16	106	0329	50	56.40	−26	22.00	1518.3	4.0	93	c/cs
16	106	0339	50	56.40	−26	20.90	1519.0	4.4	88	c/cs
16	106	0345	50	56.43	−26	20.20	1519.4	5.2	81	SN
16	106	0405	50	56.20	−26	17.50	1521.2	5.1	83	c/cs
16	106	0420	50	56.01	−26	15.46	1522.5	6.6	84	SN
16	106	0422	50	56.00	−26	15.10	1522.7	6.6	82	c/cs
16	106	0433	50	55.80	−26	13.20	1523.9	8.3	88	c/cs
16	106	0436	50	55.80	−26	12.60	1524.3	10.7	90	c/cs
16	106	0439	50	55.80	−26	11.70	1524.8	12.7	91	c/cs
16	106	0444	50	55.80	−26	10.00	1525.9	13.1	87	c/cs
16	106	0445	50	55.80	−26	9.70	1526.1	13.6	89	c/cs
16	106	0520	50	55.70	−25	57.10	1534.0	9.8	87	c/cs
16	106	0540	50	55.50	−25	51.90	1537.3	6.7	85	c/cs
16	106	0600	50	55.30	−25	48.40	1539.6	13.3	89	c/cs
16	106	0625	50	55.18	−25	39.61	1545.1	12.2	90	SN
16	106	0635	50	55.20	−25	36.40	1547.1	12.3	90	c/cs
16	106	0644	50	55.20	−25	33.50	1549.0	12.2	91	c/cs
16	106	0705	50	55.30	−25	26.70	1553.2	12.1	94	c/cs
16	106	0721	50	55.60	−25	21.60	1556.5	11.7	04	c/cs
16	106	0726	50	55.60	−25	20.10	1557.4	12.2	94	c/cs
16	106	0753	50	56.00	−25	11.40	1562.9	12.0	95	c/cs
16	106	0800	50	56.16	−25	9.13	1564.3	13.0	98	GPS
16	106	0801	50	56.20	−25	8.80	1564.5	13.2	97	c/cs
16	106	0824	50	56.80	−25	0.80	1569.6	13.3	95	c/cs
16	106	0839	50	57.10	−24	55.60	1572.9	13.2	94	c/cs
16	106	0857	50	57.40	−24	49.30	1576.9	13.0	94	c/cs
16	106	0905	50	57.50	−24	46.50	1578.6	13.3	93	c/cs
16	106	0922	50	57.70	−24	40.60	1582.4	12.9	93	c/cs
16	106	0930	50	57.78	−24	37.85	1584.1	13.7	93	GPS
16	106	0930	50	57.80	−24	37.80	1584.1	14.3	93	c/cs
16	106	0934	50	57.80	−24	36.30	1585.1	14.0	94	c/cs

Table 1 (continued).

Date (1986)	Julian day	Time (UTC)	Latitude(s) (deg)	(min)	Longitude(s) (deg)	(min)	Distance (nmi)	Actual speed (kt)	Actual course (deg)	Comments[a]
April										
16	106	0935	50	57.85	−24	35.97	1585.3	13.0	94	GPS
16	106	0948	50	58.00	−24	31.50	1588.1	13.0	94	c/cs
16	106	1000	50	58.20	−24	27.39	1590.7	12.5	92	DR
16	106	1000	50	58.20	−24	27.40	1590.7	12.4	92	c/cs
16	106	1007	50	58.20	−24	25.10	1592.2	12.6	93	c/cs
16	106	1011	50	58.30	−24	23.80	1593.0	12.5	92	c/cs
16	106	1031	50	58.40	−24	17.10	1597.2	12.6	92	c/cs
16	106	1035	50	58.44	−24	15.79	1598.0	13.6	91	SN
16	106	1046	50	58.50	−24	11.80	1600.5	13.9	91	c/cs
16	106	1054	50	58.50	−24	8.90	1602.4	13.9	89	c/cs
16	106	1059	50	58.50	−24	7.00	1603.5	13.5	92	c/cs
16	106	1106	50	58.50	−24	4.50	1605.1	13.7	92	c/cs
16	106	1130	50	58.72	−23	55.83	1610.6	13.4	91	GPS
16	106	1142	50	58.80	−23	51.60	1613.3	13.6	91	c/cs
16	106	1200	50	58.85	−23	45.10	1617.4	13.6	90	GPS
16	106	1209	50	58.80	−23	41.90	1619.4	13.4	89	c/cs
16	106	1225	50	58.80	−23	36.20	1623.0	13.5	90	c/cs
16	106	1240	50	58.80	−23	30.80	1626.4	13.3	89	c/cs
16	106	1300	50	58.73	−23	23.75	1630.8	13.2	88	GPS
16	106	1311	50	58.70	−23	19.90	1633.2	13.5	89	c/cs
16	106	1323	50	58.70	−23	15.60	1635.9	13.0	88	c/cs
16	106	1330	50	58.55	−23	13.21	1637.4	11.6	89	GPS
16	106	1331	50	58.50	−23	12.90	1637.6	12.3	90	c/cs
16	106	1336	50	58.50	−23	11.30	1638.7	11.8	91	c/cs
16	106	1345	50	58.56	−23	8.47	1640.4	12.5	89	SN
16	106	1346	50	58.60	−23	8.10	1640.6	12.6	89	c/cs
16	106	1404	50	58.50	−23	2.10	1644.4	12.8	89	c/cs
16	106	1429	50	58.50	−22	53.70	1649.7	12.8	89	c/cs
16	106	1505	50	58.38	−22	41.47	1657.4	12.9	99	SN
16	106	1508	50	58.50	−22	40.50	1658.1	12.9	99	c/cs
16	106	1525	50	59.10	−22	34.70	1661.7	12.7	100	c/cs
16	106	1530	50	59.28	−22	33.09	1662.8	12.0	95	GPS
16	106	1543	50	59.50	−22	29.00	1665.4	12.2	95	c/cs
16	106	1555	50	59.70	−22	25.10	1667.8	12.3	95	c/cs
16	106	1600	50	59.82	−22	23.51	1668.8	12.2	95	GPS
16	106	1616	51	0.10	−22	18.40	1672.1	12.0	93	c/cs
16	106	1639	51	0.40	−22	11.00	1676.7	12.2	93	c/cs
16	106	1700	51	0.62	−22	4.28	1681.0	12.1	94	GPS
16	106	1704	51	0.70	−22	3.00	1681.8	12.0	94	c/cs
16	106	1717	51	0.80	−21	58.90	1684.4	12.1	94	c/cs
16	106	1730	51	0.99	−21	54.71	1687.0	12.1	93	GPS
16	106	1735	51	1.00	−21	53.10	1688.0	12.4	92	c/cs
16	106	1740	51	1.10	−21	51.50	1689.0	12.1	93	c/cs
16	106	1755	51	1.20	−21	46.60	1692.1	12.0	93	c/cs
16	106	1758	51	1.30	−21	45.70	1692.7	12.1	93	c/cs
16	106	1800	51	1.30	−21	45.05	1693.1	12.1	93	GPS
16	106	1823	51	1.60	−21	37.70	1697.7	11.9	93	c/cs
16	106	1830	51	1.64	−21	35.49	1699.1	14.3	85	GPS
16	106	1830	51	1.60	−21	35.50	1699.1	14.3	86	c/cs
16	106	1835	51	1.60	−21	33.60	1700.3	14.3	85	c/cs
16	106	1840	51	1.50	−21	31.70	1701.5	14.6	85	c/cs
16	106	1909	51	0.90	−21	20.60	1708.5	14.3	85	c/cs
16	106	1916	51	0.70	−21	17.90	1710.2	14.5	85	c/cs
16	106	1936	51	0.30	−21	10.30	1715.0	14.5	85	c/cs
16	106	2002	50	59.80	−21	0.30	1721.3	14.5	85	c/cs
16	106	2032	50	59.20	−20	48.90	1728.5	14.4	85	c/cs
16	106	2035	50	59.10	−20	47.71	1729.3	14.2	90	SN
16	106	2043	50	59.10	−20	44.70	1731.2	14.3	90	c/cs
16	106	2103	50	59.10	−20	37.20	1735.9	14.1	90	c/cs
16	106	2120	50	59.00	−20	30.80	1739.9	14.4	90	c/cs
16	106	2126	50	59.00	−20	28.50	1741.4	14.0	90	c/cs
16	106	2135	50	59.02	−20	25.17	1743.5	12.4	90	SN
16	106	2300	50	59.00	−19	57.40	1761.0	12.4	86	c/cs
16	106	2334	50	58.59	−19	46.22	1768.0	13.8	86	SN
17	107	0200	50	56.53	−18	53.05	1801.5	14.0	91	SN
17	107	0320	50	56.70	−18	23.48	1820.2	13.0	91	SN
17	107	0345	50	56.82	−18	14.91	1825.6	12.8	87	SN
17	107	0400	50	56.60	−18	9.80	1828.8	13.3	82	c/cs
17	107	0525	50	54.20	−17	40.20	1847.6	13.4	81	c/cs
17	107	0535	50	53.80	−17	36.72	1849.9	13.2	83	SN
17	107	0600	50	53.20	−17	28.10	1855.3	13.1	86	c/cs
17	107	0645	50	52.50	−17	12.58	1865.1	13.0	83	SN
17	107	0800	50	50.48	−16	46.94	1881.5	14.4	84	GPS
17	107	0800	50	50.50	−16	46.90	1881.5	14.4	87	c/cs
17	107	0825	50	50.15	−16	37.44	1887.5	12.9	86	GPS
17	107	0830	50	50.10	−16	35.70	1888.5	12.8	90	c/cs

Table 1 (continued).

Date (1986)	Julian day	Time (UTC)	Latitude(s) (deg)	(min)	Longitude(s) (deg)	(min)	Distance (nmi)	Actual speed (kt)	Actual course (deg)	Comments[a]
April										
17	107	0900	50	50.00	−16	25.60	1894.9	12.7	89	c/cs
17	107	0930	50	49.90	−16	15.50	1901.3	12.6	89	c/cs
17	107	1000	50	49.77	−16	5.52	1907.6	13.1	87	GPS
17	107	1030	50	49.44	−15	55.17	1914.2	13.2	87	GPS
17	107	1100	50	49.07	−15	44.72	1920.8	13.1	87	SN
17	107	1130	50	48.69	−15	34.38	1927.3	13.6	87	SN
17	107	1200	50	48.35	−15	23.64	1934.1	13.7	87	GPS
17	107	1230	50	48.00	−15	12.85	1941.0	13.9	87	GPS
17	107	1300	50	47.67	−15	1.84	1947.9	13.6	89	GPS
17	107	1300	50	47.70	−15	1.80	1947.9	13.8	82	c/cs
17	107	1400	50	45.86	−14	40.16	1961.7	14.0	82	GPS
17	107	1430	50	44.90	−14	29.20	1968.7	14.3	80	c/cs
17	107	1500	50	43.68	−14	18.10	1975.9	14.1	81	GPS
17	107	1530	50	42.63	−14	7.09	1982.9	14.4	81	GPS
17	107	1600	50	41.54	−13	55.86	1990.1	13.6	81	GPS
17	107	1600	50	41.50	−13	55.90	1990.1	13.6	83	c/cs
17	107	1630	50	40.73	−13	45.18	1996.9	13.5	81	GPS
17	107	1700	50	39.69	−13	34.68	2003.7	12.4	82	GPS
17	107	1730	50	38.85	−13	25.00	2009.9	13.7	78	GPS
17	107	1800	50	37.46	−13	14.45	2016.7	14.4	80	GPS
17	107	1910	50	34.53	−12	48.34	2033.5	11.6	82	SN
17	107	1930	50	33.99	−12	42.32	2037.4	13.2	82	GPS
17	107	2000	50	33.11	−12	32.01	2044.0	11.8	82	GPS
17	107	2020	50	32.56	−12	25.88	2047.9	13.1	81	SN
17	107	2110	50	30.88	−12	8.87	2058.9	13.8	79	SN
17	107	2115	50	30.70	−12	7.10	2060.0	13.8	81	c/cs
17	107	2130	50	3015	−12	1.73	2063.5	12.9	81	GPS
17	107	2138	50	29.90	−11	59.10	2065.2	12.7	81	c/cs
17	107	2151	50	29.50	−11	54.80	2068.0	13.0	81	c/cs
17	107	2200	50	29.17	−11	51.73	2069.9	11.1	91	GPS
17	107	2204	50	29.20	−11	50.60	2070.7	10.9	91	c/cs
17	107	2205	50	29.19	−11	50.28	2070.8	10.7	75	SN
17	107	2237	50	27.70	−11	41.60	20.76	10.8	75	c/cs
17	107	2300	50	26.60	−11	35.30	2080.7	10.6	75	c/cs
17	107	2307	50	26.30	−11	33.40	2081.9	10.8	75	c/cs
17	107	2330	50	25.20	−11	27.20	2086.1	10.7	75	c/cs
17	107	2348	50	24.40	−11	22.30	2089.3	10.8	75	c/cs
18	108	0001	50	23.80	−11	18.70	2091.6	10.8	75	c/cs
18	108	0011	50	23.30	−11	16.00	2093.4	10.8	75	c/cs
18	108	0028	50	22.60	−11	11.40	2096.5	8.8	74	c/cs
18	108	0029	50	22.50	−11	11.10	2096.6	10.7	75	c/cs
18	108	0051	50	21.50	−11	5.20	2100.6	10.8	75	c/cs
18	108	0112	50	20.50	−10	59.40	2104.4	10.9	75	c/cs
18	108	0127	50	19.80	−10	55.30	2107.1	10.9	74	c/cs
18	108	0215	50	17.40	−10	42.20	2115.8	11.0	74	c/cs
18	108	0225	50	16.90	−10	39.40	2117.7	10.9	74	c/cs
18	108	0246	50	15.90	−10	33.70	2121.5	10.9	74	c/cs
18	108	0306	50	14.90	−10	28.20	2125.1	10.9	74	c/cs
18	108	0319	50	14.20	−10	24.60	2127.5	11.0	67	c/cs
18	108	0330	50	13.44	−10	21.76	2129.5	12.2	78	DR
18	108	0338	50	13.10	−10	19.30	2131.1	12.4	78	c/cs
18	108	0409	50	11.80	−10	9.50	2137.5	12.4	78	c/cs
18	108	0430	50	10.88	−10	2.88	2141.8	12.5	78	DR
18	108	0432	50	10.80	−10	2.20	2142.3	12.4	78	c/cs
18	108	0450	50	10.00	−9	56.60	2146.0	12.6	77	c/cs
18	108	0500	50	9.55	−9	53.37	2148.1	12.4	78	DR
18	108	0536	50	8.00	−9	42.00	2155.5	12.1	79	c/cs
18	108	0553	50	7.30	−9	36.80	2158.9	12.3	79	c/cs
18	108	0558	50	7.10	−9	35.20	2160.0	12.2	79	c/cs
18	108	0600	50	7.00	−9	34.59	2160.4	12.5	78	DR
18	108	0630	50	5.75	−9	25.08	2166.6	12.2	78	DR
18	108	0647	50	5.10	−9	19.80	2170.1	12.2	78	c/cs
18	108	0700	50	4.52	−9	15.76	2172.7	12.3	78	DR
18	108	0710	50	4.10	−9	12.60	2174.8	12.2	77	c/cs
18	108	0730	50	3.18	−9	6.46	2178.8	12.2	77	DR
18	108	0752	50	2.20	−8	59.60	2183.3	12.2	77	c/cs
18	108	0800	50	1.85	−8	57.17	2184.9	15.3	80	DR
18	108	0806	50	1.60	−8	54.80	216.5	13.4	79	c/cs
18	108	0808	50	1.50	−8	54.10	2186.9	15.1	80	c/cs
18	108	0813	50	1.30	−8	52.20	2188.2	15.4	79	c/cs
18	108	0818	50	1.00	−8	50.30	2189.5	15.4	81	c/cs
18	108	0846	49	59.80	−8	39.30	2196.6	15.4	81	c/cs
18	108	0912	49	58.70	−8	29.00	2203.3	15.7	81	c/cs
18	108	0921	49	58.40	−8	25.40	2205.6	15.6	81	c/cs
18	108	0931	49	58.00	−8	21.40	2208.2	15.5	83	c/cs
18	108	1007	49	56.80	−8	7.00	2217.6	15.5	81	c/cs

Table 1 (continued).

Date (1986)	Julian day	Time (UTC)	Latitude(s) (deg)	(min)	Longitude(s) (deg)	(min)	Distance (nmi)	Actual speed (kt)	Actual course (deg)	Comments[a]
April										
18	108	1018	49	56.30	−8	2.70	2220.4	15.5	82	c/cs
18	108	1038	49	55.60	−7	54.80	2225.6	15.5	82	c/cs
18	108	1128	49	53.90	−7	34.90	2238.5	15.5	82	c/cs
18	108	1139	49	53.50	−7	30.50	2241.3	15.3	82	c/cs
18	108	1151	49	53.00	−7	25.80	2244.4	15.3	82	c/cs
18	108	1206	49	52.50	−7	19.90	2248.2	15.4	81	c/cs
18	108	1226	49	51.70	−7	12.00	2253.4	15.4	81	c/cs
18	108	1245	49	50.90	−7	4.60	2258.2	15.2	81	c/cs
18	108	1303	49	50.20	−6	57.60	2262.8	15.4	81	c/cs
18	108	1323	49	49.40	−6	49.80	2267.9	15.6	81	c/cs
18	108	1330	49	49.00	−6	47.00	2269.7	15.3	81	c/cs
18	108	1340	49	48.60	−6	43.10	2272.3	15.3	81	c/cs
18	108	1401	49	47.80	−6	35.00	2277.6	15.4	80	c/cs
18	108	1406	49	47.50	−6	33.00	2278.9	15.3	81	c/cs
18	108	1431	49	46.50	−6	23.30	2285.3	15.2	80	c/cs
18	108	1452	49	45.50	−6	15.20	2290.6	15.2	80	c/cs
18	108	1506	49	44.90	−6	9.80	2294.1	15.2	80	c/cs
18	108	1515	49	44.50	−6	6.30	2296.4	13.4	81	c/cs
18	108	1517	49	44.40	−6	5.60	2296.9	15.1	80	c/cs
18	108	1545	49	43.20	−5	54.90	2303.9	15.1	79	c/cs
18	108	1600	49	42.40	−5	49.20	2307.7	15.0	79	c/cs
18	108	1608	49	42.10	−5	46.10	2309.7	14.9	79	c/cs
18	108	1630	49	41.02	−5	37.83	2315.1	14.3	79	GPS
18	108	1640	49	40.60	−5	34.20	2317.5	14.2	79	c/cs
18	108	1719	49	38.90	−5	20.20	2326.8	14.1	79	c/cs
18	108	1737	49	38.10	−5	13.80	2331.0	13.9	79	c/cs
18	108	1747	49	37.70	−5	10.30	2333.3	14.0	79	c/cs
18	108	1810	49	36.70	−5	2.10	2338.7	14.1	79	c/cs
18	108	1815	49	36.47	−5	0.33	2339.8	12.5	82	SN
18	108	1832	49	36.00	−4	54.90	2343.4	12.3	82	c/cs
18	108	1850	49	35.44	−4	49.29	2347.1	13.4	80	SN
18	108	1915	49	34.40	−4	40.80	2352.7	13.4	79	c/cs
18	108	1933	49	33.60	−4	34.70	2356.7	13.3	80	c/cs
18	108	1955	49	32.76	−4	27.33	2361.6	10.9	82	SN
18	108	2000	49	32.63	−4	25.94	2362.5	11.8	81	GPS
18	108	2001	49	32.60	−4	25.60	2362.7	11.6	80	c/cs
18	108	2014	49	32.10	−4	21.80	2365.2	11.6	80	c/cs
18	108	2021	49	31.90	−4	19.80	2366.5	11.8	79	c/cs
18	108	2030	49	31.57	−4	17.08	2368.3	11.0	77	GPS
18	108	2035	49	31.36	−4	15.71	2369.2	12.1	83	SN
18	108	2036	49	31.30	−4	15.40	2369.4	11.8	83	c/cs
18	108	2059	49	30.80	−4	8.50	2373.9	11.7	83	c/cs
18	108	2115	49	30.41	−4	3.72	2377.1	12.6	80	SN
18	108	2123	49	30.10	−4	1.20	2378.8	12.5	80	c/cs
18	108	2152	49	29.10	−3	52.00	2384.8	12.2	80	c/cs
18	108	2210	49	28.50	−3	46.40	2388.5	12.0	80	c/cs
18	108	2228	49	27.80	−3	41.00	2392.1	11.9	79	c/cs
18	108	2244	49	27.20	−3	36.20	2395.2	11.7	79	c/cs
18	108	2255	49	26.79	−3	32.95	2397.4	9.2	82	SN
18	108	2301	49	26.70	−3	31.50	2398.3	9.5	82	c/cs
18	108	2317	49	26.30	−3	27.70	2400.8	9.2	82	c/cs
18	108	2332	49	26.00	−3	24.20	2403.1	9.0	81	c/cs
18	108	2335	49	25.90	−3	23.53	2403.6	12.7	78	SN
18	108	2352	49	25.20	−3	18.10	2407.2	12.1	76	c/cs
19	109	0000	49	24.80	−3	15.70	2408.8	12.1	76	c/cs
19	109	0005	49	24.50	−3	14.20	2409.8	12.1	76	c/cs
19	109	0023	49	23.70	−3	8.80	2413.4	12.3	77	c/cs
19	109	0030	49	23.30	−3	6.60	2414.9	12.0	71	c/cs
19	109	0038	49	22.80	−3	4.30	2416.5	11.9	73	c/cs
19	109	0045	49	22.42	−3	2.27	2417.9	11.1	74	SN
19	109	0048	49	22.30	−3	1.50	2418.4	10.7	73	c/cs
19	109	0053	49	22.00	−3	0.10	2419.3	11.3	73	c/cs
19	109	0110	49	21.10	−2	55.50	2422.5	10.6	74	c/cs
19	109	0116	49	20.80	−2	53.90	2423.6	11.0	74	c/cs
19	109	0119	49	20.60	−2	53.10	2424.1	10.2	72	c/cs
19	109	0121	49	20.50	−2	52.60	2424.4	7.8	64	c/cs
19	109	0123	49	20.40	−2	52.20	2424.7	5.3	62	c/cs
19	109	0124	49	20.40	−2	52.10	2424.8	10.0	42	c/cs
19	109	0126	49	20.10	−2	51.80	2425.1	5.8	53	c/cs
19	109	0131	49	19.80	−2	51.20	2425.6	5.0	59	c/cs
19	109	0134	49	19.70	−2	50.80	2425.9	5.9	52	c/cs
19	109	0139	49	19.40	−2	50.30	2426.4	5.5	57	c/cs
19	109	0143	49	19.20	−2	49.80	2426.7	6.9	48	c/cs
19	109	0154	49	18.30	−2	48.30	2428.0	5.3	57	c/cs
19	109	0201	49	18.00	−2	47.50	2428.6	5.5	57	c/cs
19	109	0109	49	17.60	−2	46.60	2429.3	5.1	59	c/cs

Table 1 (continued).

Date (1986)	Julian day	Time (UTC)	Latitude(s) (deg)	(min)	Longitude(s) (deg)	(min)	Distance (nmi)	Actual speed (kt)	Actual course (deg)	Comments[a]
April										
19	109	0212	49	17.50	−2	46.30	2429.6	5.9	53	c/cs
19	109	0229	49	16.50	−2	44.20	2431.3	5.9	54	c/cs
19	109	0235	49	16.11	−2	43.46	2431.9	6.1	55	SN
19	109	0242	49	15.70	−2	42.60	2432.6	5.6	58	c/cs
19	109	0427	49	15.50	−2	42.00	2433.0	6.2	54	c/cs
19	109	0258	49	14.80	−2	40.60	2434.2	5.4	56	c/cs
19	109	0303	49	14.50	−2	40.00	2434.6	4.9	57	c/cs
19	109	0308	49	14.30	−2	39.40	2435.0	5.8	50	c/cs
19	109	0322	49	13.50	−2	37.90	2436.4	5.5	50	c/cs
19	109	0328	49	13.10	−2	37.20	2436.9	5.8	47	c/cs
19	109	0332	49	12.85	−2	36.79	2437.3	7.6	36	SN
19	109	0333	49	12.70	−2	36.70	2437.4	7.1	38	c/cs
19	109	0341	49	12.00	−2	35.80	2438.4	7.4	37	c/cs
19	109	0350	49	11.10	−2	34.80	2439.5	5.9	36	c/cs
19	109	0356	49	10.60	−2	34.20	2440.1	5.0	39	c/cs
19	109	0404	49	10.10	−2	33.60	2440.8	5.5	30	c/cs
19	109	0409	49	9.70	−2	33.20	2441.2	4.5	38	c/cs
19	109	0421	49	9.00	−2	32.40	2442.1	4.7	34	c/cs
19	109	0423	49	8.88	−2	32.23	2442.3	2.8	58	SN
19	109	0424	49	8.90	−2	32.20	2442.3	2.5	64	c/cs
19	109	0428	49	8.80	−2	31.90	2442.5	2.8	50	c/cs
19	109	0437	49	8.50	−2	31.50	2442.9	2.5	55	c/cs
19	109	0442	49	8.40	−2	31.20	2443.1	2.5	74	c/cs
19	109	0447	49	8.30	−2	30.90	2443.3	2.4	57	c/cs
19	109	0452	49	8.20	−2	30.60	2443.5	2.1	77	c/cs
19	109	0454	49	8.20	−2	30.50	2443.6	2.2	56	c/cs
19	109	0501	49	8.10	−2	30.20	2443.9	2.1	60	c/cs
19	109	0505	49	8.00	−2	30.00	2444.0	2.6	33	c/cs
19	109	0507	49	7.90	−2	30.00	2444.1	2.0	87	c/cs
19	109	0512	49	7.90	−2	29.70	2444.2	2.1	62	c/cs
19	109	0519	49	7.81	−2	29.37	2444.5	3.1	38	SN
19	109	0524	49	7.60	−2	29.10	2444.8	2.8	48	c/cs
19	109	0530	49	7.40	−2	28.80	2445.0	3.2	34	c/cs
19	109	0540	49	7.00	−2	28.30	2445.6	2.6	52	c/cs
19	109	0548	49	6.76	−2	27.94	2445.9	1.8	29	SN
19	109	0548	49	6.80	−2	27.90	2445.9	2.2	357	c/cs
19	109	0550	49	6.70	−2	27.90	2446.0	1.6	11	c/cs
19	109	0557	49	6.50	−2	27.90	2446.2	2.3	355	c/cs
19	109	0603	49	6.30	−2	27.90	2446.4	1.4	24	c/cs
19	109	0608	49	6.20	−2	27.80	2446.5	2.9	341	c/cs
19	109	0610	49	6.10	−2	27.90	2446.6	1.1	55	c/cs
19	109	0615	49	6.00	−2	27.80	2446.7	1.3	355	c/cs
19	109	0621	49	5.90	−2	27.80	2446.8	1.7	339	c/cs
19	109	0636	49	5.50	−2	28.00	2447.2	1.6	320	c/cs
19	109	0640	49	5.40	−2	28.10	2447.4	2.5	8	c/cs
19	109	0641	49	5.40	−2	28.10	2447.4	5.5	34	c/cs
19	109	0643	49	5.20	−2	28.00	2447.6	7.5	36	c/cs
19	109	0644	49	5.10	−2	27.90	2447.7	10.2	53	c/cs
19	109	0646	49	4.90	−2	27.40	2448.0	11.4	66	c/cs
19	109	0649	49	4.70	−2	26.60	2448.6	12.2	88	c/cs
19	109	0659	49	4.60	−2	23.50	2450.7	12.3	92	c/cs
19	109	0701	49	4.60	−2	22.90	2451.1	12.3	82	c/cs
19	109	0704	49	4.50	−2	22.00	2451.7	10.6	86	c/cs
19	109	0708	49	4.50	−2	20.90	2452.4	11.0	91	SN
19	109	0709	49	4.50	−2	20.60	2452.6	11.2	91	c/cs
19	109	0713	49	4.50	−2	19.50	2453.3	11.6	83	c/cs
19	109	0714	49	4.50	−2	19.20	2453.5	10.7	75	c/cs
19	109	0717	49	4.40	−2	18.40	2454.0	10.3	78	c/cs
19	109	0722	49	4.20	−2	17.10	2454.9	9.8	79	c/cs
19	109	0727	49	2.00	−2	15.90	2455.7	10.7	75	c/cs
19	109	0732	49	3.80	−2	14.60	2456.6	10.3	83	c/cs
19	109	0737	49	3.70	−2	13.30	2457.5	11.4	90	c/cs
19	109	0742	49	3.70	−2	11.80	2458.4	12.0	91	c/cs
19	109	0747	49	3.70	−2	10.30	2459.4	11.3	91	c/cs
19	109	0752	49	3.70	−2	8.90	2460.4	11.2	102	c/cs
19	109	0754	49	3.82	−2	8.30	2460.7	11.2	97	SN
19	109	0755	49	3.80	−2	8.00	2460.9	12.3	95	c/cs
19	109	0800	49	3.90	−2	6.50	2462.0	11.9	101	c/cs
19	109	0804	49	4.10	−2	5.30	2462.7	11.8	93	c/cs
19	109	0807	49	4.10	−2	4.40	2463.3	11.8	99	c/cs
19	109	0820	49	4.50	−2	0.50	2465.9	11.0	100	c/cs
19	109	0825	49	4.70	−1	59.20	2466.8	11.7	99	c/cs
19	109	0828	49	4.80	−1	58.30	2467.4	11.1	101	c/cs
19	109	0845	49	5.30	−1	53.60	2470.5	12.5	99	c/cs
19	109	0847	49	5.40	−1	52.90	2470.9	11.3	102	c/cs
19	109	0850	49	5.50	−1	52.10	2471.5	11.9	99	c/cs

Table 1 (continued).

Date (1986)	Julian day	Time (UTC)	Latitude(s) (deg)	(min)	Longitude(s) (deg)	(min)	Distance (nmi)	Actual speed (kt)	Actual course (deg)	Comments[a]
19	109	0853	49	5.60	−1	51.20	2472.1	11.5	103	c/cs
19	109	0900	49	5.90	−1	49.20	2473.4	11.7	102	c/cs
19	109	0906	49	6.20	−1	47.40	2474.6	11.1	108	c/cs
19	109	0913	49	6.60	−1	45.60	2475.9	10.7	111	c/cs
19	109	0916	49	6.80	−1	44.80	2476.4	11.1	110	c/cs
19	109	0920	49	7.00	−1	43.70	2477.2	11.6	108	c/cs
19	109	0923	49	7.20	−1	42.90	2477.8	11.6	111	SN
19	109	0929	49	7.60	−1	41.20	2478.9	10.9	110	c/cs
19	109	0936	49	8.10	−1	39.40	2480.2	11.9	110	c/cs
19	109	0943	49	8.50	−1	37.40	2481.6	11.7	115	c/cs
19	109	0951	49	9.20	−1	35.30	2483.1	11.0	116	c/cs
19	109	0958	49	9.70	−1	33.50	2484.4	11.5	114	c/cs
19	109	1000	49	9.90	−1	32.97	2484.8	11.0	112	GPS
19	109	1007	49	10.40	−1	31.10	2486.1	10.9	114	c/cs
19	109	1011	49	10.70	−1	30.10	2486.8	11.1	114	c/cs
19	109	1017	49	11.10	−1	28.60	2487.9	10.6	113	c/cs
19	109	1022	49	11.50	−1	27.30	2488.8	11.3	115	c/cs
19	109	1026	49	11.80	−1	26.30	2489.6	11.7	105	c/cs
19	109	1029	49	11.90	−1	25.40	2490.1	11.4	96	c/cs
19	109	1035	49	12.10	−1	23.70	2491.3	9.6	100	c/cs
19	109	1037	49	12.10	−1	23.20	2491.6	10.6	93	c/cs
19	109	1040	49	12.10	−1	22.40	2492.1	9.2	94	c/cs
19	109	1042	49	12.20	−1	21.90	2492.4	11.8	94	c/cs
19	109	1050	49	12.30	−1	19.50	2494.0	11.0	95	c/cs
19	109	1057	49	12.40	−1	17.60	2495.3	4.4	89	c/cs
19	109	1059	49	12.40	−1	17.30	2495.4	10.8	95	c/cs
19	109	1110	49	12.60	−1	14.30	2497.4	1018	98	c/cs
19	109	1115	49	12.70	−1	12.90	2498.3	11.7	93	c/cs
19	109	1123	49	12.80	−1	10.60	2499.9	10.9	96	c/cs
19	109	1137	49	13.00	−1	6.70	2502.4	10.7	96	c/cs
19	109	1140	49	13.10	−1	5.90	2503.0	10.4	96	c/cs
19	109	1151	49	13.30	−1	3.00	2504.9	9.4	96	c/cs
19	109	1153	49	13.30	−1	2.50	2505.2	10.9	96	c/cs
19	109	1201	49	13.50	−1	0.30	2506.6	10.7	95	c/cs
19	109	1206	49	13.50	0	58.90	2507.5	11.0	98	c/cs
19	109	1213	49	13.70	0	57.00	2508.8	3.7	88	c/cs
19	109	1214	49	13.70	0	56.90	2508.9	10.6	98	c/cs
19	109	1219	49	13.80	0	55.50	2509.8	11.2	96	c/cs
19	109	1226	49	14.00	0	53.50	2511.1	10.4	98	c/cs
19	109	1233	49	14.10	0	51.70	2512.3	11.0	98	c/cs
19	109	1238	49	14.20	0	50.30	2513.2	10.5	97	c/cs
19	109	1241	49	14.30	0	49.50	2513.7	11.2	98	c/cs
19	109	1247	49	14.50	0	47.80	2514.9	9.9	100	c/cs
19	109	1249	49	14.50	0	47.30	2515.2	11.2	99	c/cs
19	109	1254	49	14.70	0	45.90	2516.1	10.4	97	c/cs
19	109	1302	49	14.80	0	43.80	2517.5	10.6	98	c/cs
19	109	1307	49	15.00	0	42.40	2518.4	9.7	95	c/cs
19	109	1309	49	15.00	0	41.90	2518.7	10.9	98	c/cs
19	109	1317	49	15.20	0	39.70	2520.2	10.9	98	c/cs
19	109	1327	49	15.40	0	37.00	2522.0	10.5	98	c/cs
19	109	1334	49	15.60	0	35.10	2523.2	10.6	97	c/cs
19	109	1347	49	15.90	0	31.60	2525.5	10.5	99	c/cs
19	109	1357	49	16.10	0	29.00	2527.3	10.4	97	c/cs
19	109	1412	49	16.40	0	25.00	2529.9	10.6	98	c/cs
19	109	1425	49	16.70	0	21.50	2532.2	10.3	96	c/cs
19	109	1435	49	16.90	0	18.90	2533.9	10.8	98	c/cs
19	109	1443	49	17.10	0	16.70	2535.3	10.2	97	c/cs
19	109	1450	49	17.30	0	14.90	2536.5	10.6	99	c/cs
19	109	1456	49	17.40	0	13.30	2537.6	10.8	97	c/cs
19	109	1459	49	17.50	0	12.40	2538.1	10.3	100	c/cs
19	109	1504	49	17.70	0	11.10	2539.0	10.7	100	c/cs
19	109	1513	49	17.90	0	−8.70	2540.6	10.5	98	c/cs
19	109	1519	49	18.10	0	−7.10	2541.6	10.8	99	c/cs
19	109	1524	49	18.20	0	−5.80	2542.5	11.0	94	c/cs
19	109	1526	49	18.30	0	−5.20	2542.9	10.4	97	c/cs
19	109	1533	49	18.42	0	−3.36	2544.1	9.6	99	SN
19	109	1534	49	18.40	0	−3.10	2544.3	10.0	99	c/cs
19	109	1539	49	18.60	0	−1.90	2545.1	10.2	96	c/cs
19	109	1547	49	18.70	0	0.20	2546.5	9.0	92	c/cs
19	109	1552	49	18.80	0	1.40	2547.2	9.5	94	c/cs
19	109	1601	49	18.90	0	3.60	2548.7	10.0	96	c/cs
19	109	1607	49	19.00	0	5.10	2549.7	9.5	96	c/cs
19	109	1615	49	19.10	0	7.00	2550.9	9.4	94	c/cs
19	109	1622	49	19.20	0	8.70	2552.0	10.5	98	c/cs
19	109	1625	49	19.30	0	9.50	2552.5	9.4	95	c/cs
19	109	1627	49	19.30	0	10.00	2552.9	10.5	96	c/cs

Table 1 (continued).

Date (1986)	Julian day	Time (UTC)	Latitude(s) (deg)	(min)	Longitude(s) (deg)	(min)	Distance (nmi)	Actual speed (kt)	Actual course (deg)	Comments[a]
19	109	1632	49	19.40	0	11.30	2553.7	9.5	96	c/cs
19	109	1638	49	19.50	0	12.74	2554.7	9.8	96	SN
19	109	1638	49	19.50	0	12.70	2554.7	9.3	98	c/cs
19	109	1640	49	19.50	0	13.20	2555.0	10.4	93	c/cs
19	109	1645	49	19.60	0	14.50	2555.9	10.0	96	c/cs
19	109	1650	49	19.70	0	15.80	2556.7	9.9	92	c/cs
19	109	1653	49	19.70	0	16.57	2557.2	9.7	94	SN
19	109	1655	49	19.70	0	17.10	2557.5	9.5	91	c/cs
19	109	1702	49	19.70	0	18.80	2558.6	9.3	90	c/cs
19	109	1720	49	19.70	0	23.00	2561.4	9.1	92	c/cs
19	109	1726	49	19.70	0	24.40	2562.3	10.6	90	c/cs
19	109	1728	49	19.70	0	25.00	2562.7	9.5	91	c/cs
19	109	1741	49	19.80	0	28.10	2564.7	9.4	89	c/cs
19	109	1749	49	19.70	0	30.00	2566.0	8.9	67	c/cs
19	109	1809	49	18.60	0	34.30	2569.0	9.2	69	c/cs
19	109	1817	49	18.20	0	36.00	2570.2	10.4	70	c/cs
19	109	1822	49	17.80	0	37.30	2571.0	7.0	68	c/cs
19	109	1824	49	17.80	0	37.60	2571.3	10.4	68	c/cs
19	109	1826	49	17.63	0	38.08	2571.6	10.8	66	SN
19	109	1842	49	16.50	0	42.10	2574.5	11.5	67	c/cs
19	109	1847	49	16.10	0	43.50	2575.5	11.5	65	c/cs
19	109	1850	49	15.80	0	44.30	2576.0	10.8	65	c/cs
19	109	1857	49	15.30	0	46.00	2577.3	4.0	64	c/cs
19	109	1859	49	15.20	0	46.20	2577.4	11.0	66	c/cs
19	109	1906	49	14.72	0	48.00	2578.7	10.3	68	SN
19	109	1909	49	14.50	0	48.70	2579.2	10.6	66	c/cs
19	109	1933	49	12.80	0	54.70	2583.5	10.1	67	c/cs
19	109	1942	49	12.20	0	56.80	2585.0	10.4	66	c/cs
19	109	1950	49	11.70	0	58.70	2586.4	10.5	64	c/cs
19	109	1955	49	11.30	0	59.90	2587.2	10.3	65	c/cs
19	109	2011	49	10.12	1	3.72	2590.0	10.3	65	SN
19	109	2015	49	9.80	1	4.70	2590.7	10.5	66	c/cs
19	109	2026	49	9.06	1	7.37	2592.6	11.1	64	SN
19	109	2028	49	8.90	1	7.90	2593.0	3.5	67	c/cs
19	109	2029	49	8.90	1	8.00	2593.0	11.0	65	c/cs
19	109	2039	49	8.10	1	10.50	2594.9	11.4	63	c/cs
19	109	2054	49	6.81	1	14.37	2597.7	11.7	65	SN
19	109	2054	49	6.80	1	14.40	2597.7	11.5	65	c/cs
19	109	2102	49	6.20	1	16.50	2599.2	11.3	64	c/cs
19	109	2109	49	5.60	1	18.30	2600.5	11.2	64	c/cs
19	109	2124	49	4.30	1	22.10	2603.4	11.1	63	c/cs
19	109	2134	49	3.50	1	24.60	2605.2	11.4	63	c/cs
19	109	2145	49	2.50	1	27.50	2607.3	11.5	64	c/cs
19	109	2155	49	1.70	1	30.10	2609.2	11.1	63	c/cs
19	109	2207	49	0.70	1	33.10	2611.4	11.6	63	c/cs
19	109	2218	48	59.70	1	35.90	2613.5	11.6	63	c/cs
19	109	2220	48	59.51	1	36.47	2613.9	12.1	62	SN
19	109	2223	48	59.20	1	37.30	2614.5	11.9	62	c/cs
19	109	2232	48	58.39	1	39.69	2616.3	11.5	63	SN
19	109	2235	48	58.10	1	40.50	2916.9	11.5	65	c/cs
19	109	2245	48	57.30	1	43.10	2618.8	11.4	63	c/cs
19	109	2258	48	56.20	1	46.40	2621.3	11.7	63	c/cs
19	109	2311	48	55.00	1	49.90	2623.8	12.2	63	c/cs
19	109	2314	48	54.70	1	50.70	2624.4	11.3	64	c/cs
19	109	2321	48	54.20	1	52.50	2625.7	11.5	63	c/cs
19	109	2326	48	53.70	1	53.80	2626.7	11.4	63	c/cs
19	109	2334	48	53.00	1	55.80	2628.2	11.2	62	c/cs
19	109	2343	48	52.30	1	58.10	2629.9	11.8	63	c/cs
19	109	2349	48	51.70	1	59.70	2631.0	11.6	63	c/cs
20	110	0000	48	50.70	2	2.60	2633.2	11.6	63	c/cs
20	110	0002	48	50.60	2	3.10	2633.6	11.3	62	c/cs
20	110	0011	48	49.77	2	5.36	2635.3	11.1	59	SN
20	110	0011	48	49.80	2	5.40	2635.3	11.4	59	c/cs
20	110	0025	48	48.40	2	8.80	2637.9	11.5	60	c/cs
20	110	0034	48	47.50	2	11.10	2639.6	11.3	60	c/cs
20	110	0039	48	47.10	2	12.30	2640.6	11.5	59	c/cs
20	110	0058	48	45.20	2	17.10	2644.2	11.3	59	c/cs
20	110	0105	48	44.50	2	18.80	2645.6	11.6	60	c/cs
20	110	0118	48	43.20	2	22.10	2648.1	11.5	59	c/cs
20	110	0133	48	41.80	2	25.80	2650.9	11.3	59	c/cs
20	110	0138	48	41.30	2	27.00	2651.9	11.3	60	c/cs
20	110	0146	48	40.50	2	29.00	2653.4	11.4	60	c/cs
20	110	0150	48	40.10	2	30.00	2654.1	11.3	60	c/cs
20	110	0158	48	39.38	2	31.97	2655.6	7.7	60	SN
20	110	0159	48	39.30	2	32.10	2655.8	7.5	60	c/cs
20	110	0209	48	38.70	2	33.80	2657.0	7.4	60	c/cs

Table 1 (continued).

Date (1986)	Julian day	Time (UTC)	Latitude(s) (deg)	(min)	Longitude(s) (deg)	(min)	Distance (nmi)	Actual speed (kt)	Actual course (deg)	Comments[a]
20	110	0218	48	38.10	2	35.20	2658.1	7.8	60	c/cs
20	110	0234	48	37.10	2	38.00	2660.2	7.9	60	c/cs
20	110	0256	48	35.70	2	41.80	2663.1	7.7	58	c/cs
20	110	0302	48	35.30	2	42.70	2663.9	8.0	59	c/cs
20	110	0312	48	34.60	2	44.40	2665.2	7.6	59	c/cs
20	110	0317	48	34.30	2	45.30	2665.8	8.0	60	c/cs
20	110	0332	48	33.30	2	47.90	2667.8	7.9	62	c/cs
20	110	0337	48	33.00	2	48.80	2668.5	8.5	61	c/cs
20	110	0343	48	32.50	2	49.90	2669.3	8.6	60	c/cs
20	110	0353	48	31.80	2	51.80	2670.8	8.3	63	c/cs
20	110	0403	48	31.20	2	53.60	2672.1	8.7	60	c/cs
20	110	0416	48	30.30	2	56.10	2674.0	8.6	64	c/cs
20	110	0426	48	29.60	2	58.00	2675.4	8.5	64	c/cs
20	110	0430	48	29.39	2	58.78	2676.0	10.8	64	GPS
20	110	0443	48	28.40	3	2.00	2678.4	11.2	63	c/cs
20	110	0456	48	27.30	3	5.20	2680.8	11.1	64	c/cs
20	110	0500	48	26.97	3	6.23	2681.5	11.3	64	GPS
20	110	0517	48	25.60	3	10.60	2684.7	11.3	65	c/cs
20	110	0530	48	24.51	3	13.90	2687.2	11.4	65	GPS
20	110	0532	48	24.30	3	14.40	2687.5	11.7	63	c/cs
20	110	0539	48	23.70	3	16.30	2688.9	11.3	68	c/cs
20	110	0555	48	22.60	3	20.50	2691.9	10.5	68	c/cs
20	110	0557	48	22.50	3	20.90	2692.3	11.8	68	c/cs
20	110	0600	48	22.25	3	21.76	2692.9	11.7	68	GPS
20	110	0612	48	21.40	3	25.00	2695.2	11.0	67	c/cs
20	110	0617	48	21.00	3	26.30	2696.1	11.7	70	c/cs
20	110	0619	48	20.90	3	26.80	2696.5	5.5	68	c/cs
20	110	0620	48	20.80	3	27.00	2696.6	11.7	67	c/cs
20	110	0625	48	20.40	3	28.30	2697.6	11.9	67	c/cs
20	110	0630	48	20.04	3	29.69	2698.6	11.8	67	GPS
20	110	0635	48	19.70	3	31.00	2699.6	11.3	68	c/cs
20	110	0640	48	19.30	3	32.40	2700.5	11.4	67	c/cs
20	110	0700	48	17.84	3	37.65	2704.3	11.4	68	GPS
20	110	0708	48	17.30	3	39.80	2705.8	11.6	69	c/cs
20	110	0716	48	16.70	3	41.90	2707.4	11.5	69	c/cs
20	110	0728	48	15.90	3	45.10	2709.7	11.1	69	c/cs
20	110	0730	48	15.72	3	45.67	2710.1	11.3	69	GPS
20	110	0741	48	15.00	3	48.60	2712.1	11.8	69	c/cs
20	110	0749	48	14.40	3	50.80	2713.7	11.4	69	c/cs
20	110	0756	48	13.90	3	52.60	2715.0	11.7	69	c/cs
20	110	0800	48	13.63	3	53.70	2715.8	15.3	60	GPS
20	110	0804	48	13.10	3	55.00	2716.8	15.5	61	c/cs
20	110	0809	48	12.50	3	56.70	2718.1	15.1	60	c/cs
20	110	0819	48	11.20	3	60.00	2720.6	15.2	59	c/cs
20	110	0827	48	10.20	4	2.60	2722.6	15.3	60	c/cs
20	110	0845	48	7.90	4	8.60	2727.2	15.2	61	c/cs
20	110	0849	48	7.50	4	9.90	2728.2	15.6	60	c/cs
20	110	0855	48	6.70	4	11.90	2729.8	15.4	60	c/cs
20	110	0908	48	5.00	4	16.20	2733.1	15.6	60	c/cs
20	110	0915	48	4.10	4	18.60	2734.9	15.4	60	c/cs
20	110	0933	48	1.80	4	24.60	2739.6	15.5	60	c/cs
20	110	0938	48	1.10	4	26.30	2740.9	15.0	61	c/cs
20	110	0948	47	59.90	4	29.50	2743.4	14.9	60	c/cs
20	110	1001	47	58.30	4	33.70	2746.6	15.4	60	c/cs
20	110	1013	47	56.70	4	37.70	2749.7	15.1	59	c/cs
20	110	1031	47	54.50	4	43.50	2754.2	15.3	60	c/cs
20	110	1044	47	52.70	4	47.80	2757.5	14.8	61	c/cs
20	110	1051	47	51.90	4	50.00	2759.3	15.3	60	c/cs
20	110	1104	47	50.20	4	54.30	2762.6	15.3	60	c/cs
20	110	1130	47	46.90	5	2.80	2769.2	15.0	59	c/cs
20	110	1147	47	44.70	5	8.30	2773.5	15.2	60	c/cs
20	110	1200	47	43.05	5	12.60	2776.8	12.3	67	GPS
20	110	1200	47	43.00	5	12.60	2776.8	12.3	65	c/cs
20	110	1215	47	41.80	5	16.70	2779.9	12.1	65	c/cs
20	110	1230	47	40.47	5	20.79	2782.9	12.1	65	GPS
20	110	1235	47	40.00	5	22.10	2783.9	12.3	65	c/cs
20	110	1251	47	38.70	5	26.60	2787.2	12.1	65	c/cs
20	110	1256	47	38.20	5	27.90	2788.2	12.0	65	c/cs
20	110	1300	47	37.91	5	29.02	2789.0	12.8	63	GPS
20	110	1309	47	37.00	5	31.60	2790.9	12.7	63	c/cs
20	110	1310	47	36.95	5	31.84	2791.2	11.2	65	SN
20	110	1319	47	36.20	5	34.10	2792.8	11.5	65	c/cs
20	110	1321	47	36.10	5	34.60	2793.2	10.8	46	c/cs
20	110	1323	47	35.80	5	35.00	2793.6	11.1	64	c/cs
20	110	1330	47	35.27	5	36.73	2794.9	12.0	64	GPS
20	110	1334	47	34.90	5	37.80	2795.7	12.6	63	c/cs
20	110	1339	47	34.40	5	39.20	2796.7	12.4	65	c/cs

Table 1 (continued).

Date (1986)	Julian day	Time (UTC)	Latitude(s) (deg)	(min)	Longitude(s) (deg)	(min)	Distance (nmi)	Actual speed (kt)	Actual course (deg)	Comments[a]
20	110	1354	47	33.10	5	43.40	2799.8	12.3	63	c/cs
20	110	1357	47	32.80	5	44.20	2800.4	1.6	64	c/cs
20	110	1359	47	32.80	5	44.20	2800.5	12.2	66	c/cs
20	110	1400	47	32.74	5	44.52	2800.7	11.6	65	GPS
20	110	1405	47	32.30	5	45.80	2801.7	12.2	65	c/cs
20	110	1410	47	31.90	5	47.20	2802.7	11.7	64	c/cs
20	110	1414	47	31.60	5	48.20	2803.5	6.9	65	c/cs
20	110	1415	47	31.50	5	48.40	2803.6	12.0	66	c/cs
20	110	1424	47	30.80	5	50.80	2805.4	12.2	65	c/cs
20	110	1430	47	30.29	5	52.48	2806.6	11.9	66	GPS
20	110	1432	47	30.10	5	53.00	2807.0	11.6	64	c/cs
20	110	1455	47	28.20	5	58.90	2811.5	11.5	66	c/cs
20	110	1500	47	27.80	6	0.23	2812.4	11.6	67	GPS
20	110	1505	47	27.40	6	1.60	2813.4	11.7	66	c/cs
20	110	1513	47	26.80	6	3.70	2814.9	11.6	66	c/cs
20	110	1521	47	26.20	6	5.80	2816.5	11.4	65	c/cs
20	110	1528	47	25.60	6	7.50	2817.8	10.5	67	c/cs
20	110	1530	47	25.47	6	8.02	2818.2	10.7	68	GPS
20	110	1531	47	25.40	6	8.30	2818.4	12.0	67	c/cs
20	110	1538	47	24.80	6	10.20	2819.8	11.7	69	c/cs
20	110	1549	47	24.10	6	13.10	2821.9	12.2	69	c/cs
20	110	1553	47	23.80	6	14.20	2822.7	5.9	72	c/cs
20	110	1554	47	23.70	6	14.40	2822.8	11.6	67	c/cs
20	110	1600	47	23.28	6	15.95	2824.0	11.2	65	GPS
20	110	1606	47	22.80	6	17.40	2825.1	10.0	66	c/cs
20	110	1608	47	22.70	6	17.90	2825.4	11.2	66	c/cs
20	110	1621	47	21.70	6	21.20	2827.9	11.0	69	c/cs
20	110	1630	47	21.07	6	23.45	2829.5	10.9	70	GPS
20	110	1631	47	21.00	6	23.70	2829.7	11.2	70	c/cs
20	110	1641	47	20.40	6	26.30	2831.6	10.4	71	c/cs
20	110	1644	47	20.20	6	27.00	2832.1	11.0	70	c/cs
20	110	1655	47	19.50	6	29.80	2834.1	11.3	72	c/cs
20	110	1700	47	19.20	6	31.15	2835.1	12.1	74	GPS
20	110	1705	47	18.90	6	32.60	2836.1	11.7	72	c/cs
20	110	1715	47	18.30	6	35.30	2838.0	11.8	74	c/cs
20	110	1730	47	17.54	6	39.49	2840.9	11.2	73	GPS
20	110	1730	47	17.50	6	39.50	2840.9	11.3	72	c/cs
20	110	1745	47	16.70	6	43.40	2843.8	10.6	71	c/cs
20	110	1752	47	16.30	6	45.20	2845.0	11.2	72	c/cs
20	110	1805	47	15.53	6	48.55	2847.4	12.0	73	SN
20	110	1808	47	15.40	6	49.40	2848.0	11.9	71	c/cs
20	110	1811	47	15.20	6	50.20	2848.6	12.1	73	c/cs
20	110	1826	47	14.30	6	54.50	2851.6	12.0	73	c/cs
20	110	1843	47	13.30	6	59.30	2855.0	12.0	73	c/cs
20	110	1854	47	12.60	7	2.40	2857.2	11.9	70	c/cs
20	110	1909	47	11.60	7	6.50	2860.2	11.6	71	c/cs
20	110	1919	47	11.00	7	9.20	2862.1	11.7	69	c/cs
20	110	1925	47	10.58	7	10.77	2863.3	10.0	70	SN
20	110	1934	47	10.10	7	12.80	2864.8	9.8	72	c/cs
20	110	1940	47	9.80	7	14.20	2865.8	9.8	67	c/cs
20	110	1954	47	8.90	7	17.30	2868.1	9.4	66	c/cs
20	110	2000	47	8.48	7	18.59	2869.0	10.5	69	GPS
20	110	2000	47	8.50	7	18.60	2869.0	11.0	68	c/cs
20	110	2005	47	8.14	7	19.84	2869.9	10.4	68	SN
20	110	2008	47	7.90	7	20.60	2870.5	9.9	62	c/cs
20	110	2028	47	6.40	7	24.80	2873.8	9.6	62	c/cs
20	110	2030	47	6.27	7	25.26	2874.1	8.6	64	GPS
20	110	2035	47	6.00	7	26.20	2874.8	8.8	65	c/cs
20	110	2046	47	5.30	7	28.40	2876.4	8.6	66	c/cs
20	110	2147	47	1.80	7	40.10	2885.1	5.9	111	c/cs
20	110	2210	47	2.55	7	43.19	2887.4	6.6	107	SN
20	110	2214	47	2.70	7	43.80	2887.8	5.1	110	c/cs
20	110	2222	47	2.90	7	44.70	2888.5	5.7	109	c/cs
20	110	2234	47	3.30	7	46.30	2889.7	5.1	106	c/cs
20	110	2248	47	3.60	7	48.00	2890.9	5.1	107	c/cs
20	110	2256	47	3.80	7	49.00	2891.5	5.3	107	c/cs
20	110	2303	47	4.00	7	49.80	2892.2	4.9	108	c/cs
20	110	2316	47	4.30	7	51.30	2893.2	5.1	108	c/cs
20	110	2330	47	4.70	7	53.00	2894.4	5.3	106	c/cs
20	110	2335	47	4.81	7	53.61	2894.9	5.5	99	SN
20	110	2336	47	4.80	7	53.70	2894.9	5.0	100	c/cs
20	110	2343	47	4.90	7	54.60	2895.5	5.2	99	c/cs
20	110	2348	47	5.00	7	55.20	2896.0	5.4	101	c/cs
21	111	0000	47	5.20	7	56.80	2897.0	5.4	101	c/cs
21	111	0003	47	5.20	7	57.10	2897.3	5.3	100	c/cs
21	111	0005	47	5.27	7	57.40	2897.5	5.1	101	SN

Table 1 (continued).

Date (1986)	Julian day	Time (UTC)	Latitude(s) (deg)	(min)	Longitude(s) (deg)	(min)	Distance (nmi)	Actual speed (kt)	Actual course (deg)	Comments[a]
April										
21	111	0024	47	5.60	7	59.70	2899.1	2.4	74	c/cs
21	111	0027	47	5.60	7	59.90	2899.2	2.2	20	c/cs
21	111	0031	47	5.40	7	60.00	2899.4	2.5	6	c/cs
21	111	0038	47	5.10	8	0.00	2899.6	3.8	5	c/cs
21	111	0048	47	4.50	8	0.10	2900.3	3.9	4	c/cs
21	111	0053	47	4.20	8	0.10	2900.6	3.4	5	c/cs
21	111	0058	47	3.90	8	0.20	2900.9	3.4	293	c/cs
21	111	0100	47	3.80	8	0.00	2901.0	4.2	277	c/cs
21	111	0107	47	3.80	7	59.30	2901.5	4.6	275	c/cs
21	111	0112	47	3.80	7	58.70	2901.9	3.7	271	c/cs
21	111	0123	47	3.70	7	57.80	2902.5	4.3	276	c/cs
21	111	0144	47	3.60	7	55.60	2904.0	2.9	266	c/cs
21	111	0153	47	3.60	7	54.90	2904.5	2.9	283	c/cs
21	111	0157	47	3.60	7	54.70	2904.7	2.4	306	c/cs
21	111	0208	47	3.30	7	54.10	2905.1	2.7	309	c/cs
21	111	0217	47	3.04	7	53.68	2905.5	4.0	319	703
21	111	0217	47	3.00	7	53.70	2905.5	0.0	90	c/cs
25	115	0320	47	3.04	7	53.68	2905.5	0.4	89	703
25	115	0752	47	3.00	7	56.20	2907.2	4.9	145	c/cs
25	115	0754	47	3.10	7	56.30	2907.4	6.0	122	c/cs
25	115	0755	47	3.20	7	56.40	2907.5	7.2	97	c/cs
25	115	0756	47	3.20	7	56.60	2907.6	6.8	61	c/cs
25	115	0757	47	3.20	7	56.70	2907.7	5.2	17	c/cs
25	115	0758	47	3.10	7	56.80	2907.8	2.7	326	c/cs
25	115	0800	47	3.00	7	56.70	2907.9	2.4	276	c/cs
25	115	0806	47	3.00	7	56.40	2908.1	3.7	271	c/cs
25	115	0812	47	3.00	7	55.80	2908.5	4.5	271	c/cs
25	115	0820	47	2.96	7	54.94	2909.1	6.5	277	SN
25	115	0820	47	3.00	7	54.90	2909.1	6.3	277	c/cs
25	115	0825	47	2.90	7	54.20	2909.6	6.8	278	c/cs
25	115	0826	47	2.90	7	54.00	2909.7	6.4	278	c/cs
25	115	0900	47	2.40	7	48.70	2913.3	9.7	301	c/cs
25	115	0915	47	1.11	7	45.68	2915.8	8.8	300	GPS
25	115	0930	47	0.00	7	42.90	2918.0	9.1	300	GPS
25	115	1000	46	57.71	7	37.10	2922.6	9.2	300	GPS
25	115	1015	46	56.55	7	34.20	2924.8	10.0	302	GPS
25	115	1020	46	56.10	7	33.20	2925.7	6.0	304	c/cs
25	115	1030	46	55.55	7	31.95	2926.7	4.1	308	GPS
25	115	1038	46	55.20	7	31.30	2927.2	4.1	303	c/cs
25	115	1053	46	54.70	7	30.10	2928.3	4.4	302	c/cs
25	115	1100	46	54.39	7	29.42	2928.8	1.8	294	GPS
25	115	1103	46	54.40	7	29.30	2928.9	1.6	296	c/cs
25	115	1116	46	54.20	7	28.80	2929.2	1.8	294	c/cs
25	115	1141	46	53.90	7	27.80	2930.0	1.8	294	c/cs
25	115	1155	46	53.70	7	27.30	2930.4	2.0	299	c/cs
25	115	1206	46	53.50	7	26.80	2930.8	1.9	306	c/cs
25	115	1247	46	52.77	7	25.24	2932.1	4.4	306	704
25	115	1247	46	52.80	7	25.20	2932.1	0.0	90	c/cs
May										
2	122	0000	46	52.80	7	25.20	2932.1	0.0	90	c/cs
2	122	1200	46	52.80	7	25.20	2932.1	0.0	90	c/cs
3	123	1036	46	52.77	7	25.24	2932.1	0.2	180	704
3	123	1036	46	52.80	7	25.20	2932.1	0.4	297	c/cs
3	123	1125	46	52.63	7	24.84	2932.4	2.0	295	GPS
3	123	1125	46	52.60	7	24.80	2932.4	3.8	302	c/cs
3	123	1156	46	51.60	7	22.40	2934.4	7.2	298	c/cs
3	123	1200	46	51.36	7	21.75	2934.8	5.6	305	GPS
3	123	1203	46	51.20	7	21.40	2935.1	4.9	333	c/cs
3	123	1206	46	51.00	7	21.20	2935.4	3.9	287	c/cs
3	123	1207	46	51.00	7	21.20	2935.4	4.2	235	c/cs
3	123	1208	46	51.00	7	21.10	2935.5	4.5	175	c/cs
3	123	1209	46	51.10	7	21.10	2935.6	5.4	120	c/cs
3	123	1211	46	51.20	7	21.30	2935.8	6.2	116	c/cs
3	123	1218	46	51.50	7	22.30	2936.5	5.6	120	c/cs
3	123	1226	46	51.90	7	23.20	2937.2	5.3	123	c/cs
3	123	1239	46	52.50	7	24.60	2938.4	5.4	123	c/cs
3	123	1243	46	52.70	7	25.10	2938.7	5.4	119	c/cs
3	123	1245	46	52.76	7	25.30	2938.9	5.7	118	SN
3	123	1251	46	53.00	7	26.00	2939.5	5.8	121	c/cs
3	123	1300	46	53.47	7	27.13	2940.4	5.8	122	GPS
3	123	1306	46	53.80	7	27.80	2940.9	5.6	121	c/cs
3	123	1315	46	54.22	7	28.90	2941.8	5.5	120	GPS
3	123	1330	46	54.91	7	30.63	2943.1	5.6	121	GPS
3	123	1336	46	55.20	7	31.30	2943.7	5.5	120	c/cs
3	123	1345	46	55.61	7	32.38	2944.5	5.6	122	GPS
3	123	1400	46	56.36	7	34.13	2945.9	5.7	123	GPS

Table 1 (continued).

Date (1986)	Julian day	Time (UTC)	Latitude(s) (deg)	(min)	Longitude(s) (deg)	(min)	Distance (nmi)	Actual speed (kt)	Actual course (deg)	Comments[a]
May										
3	123	1401	46	56.40	7	34.20	2946.0	5.8	123	c/cs
3	123	1415	46	57.14	7	35.91	2947.4	6.0	122	GPS
3	123	1416	46	57.20	7	36.00	2947.5	5.8	122	c/cs
3	123	1424	46	57.60	7	37.00	2948.3	6.0	123	c/cs
3	123	1430	46	57.93	7	37.73	2948.9	5.2	121	GPS
3	123	1454	46	59.00	7	40.30	2950.9	5.1	121	c/cs
3	123	1515	46	59.90	7	42.57	2952.7	6.2	125	GPS
3	123	1517	47	0.00	7	42.80	2952.9	6.1	123	c/cs
3	123	1530	47	0.74	7	44.46	2954.2	5.9	123	GPS
3	123	1536	47	1.10	7	45.20	2954.8	5.7	99	c/cs
3	123	1545	47	1.20	7	46.43	2955.7	5.1	98	GPS
3	123	1548	47	1.20	7	46.80	2955.9	5.3	100	c/cs
3	123	1600	47	1.42	7	48.33	2957.0	5.1	99	GPS
3	123	1615	47	1.62	7	50.19	2958.3	6.4	98	GPS
3	123	1618	47	1.70	7	50.70	2958.6	6.5	94	c/cs
3	123	1626	47	1.70	7	51.90	2959.5	6.3	97	c/cs
3	123	1630	47	1.77	7	52.54	2959.9	6.8	95	GPS
3	123	1631	47	1.80	7	52.70	2960.0	6.0	135	c/cs
3	123	1637	47	2.20	7	53.30	2960.6	5.3	149	c/cs
3	123	1642	47	2.60	7	53.70	2961.0	4.2	163	c/cs
3	123	1645	47	2.78	7	53.75	2961.3	4.3	184	GPS
3	123	1648	47	3.00	7	53.70	2961.5	3.9	196	c/cs
3	123	1651	47	3.20	7	53.60	2961.7	4.6	153	c/cs
3	123	1654	47	3.40	7	53.80	2961.9	5.3	145	c/cs
3	123	1700	47	3.82	7	54.24	2962.4	5.0	147	GPS
3	123	1715	47	4.87	7	55.23	2963.7	6.2	138	GPS
3	123	1715	47	4.90	7	55.20	2963.7	6.3	138	c/cs
3	123	1730	47	6.04	7	56.77	2965.2	5.7	144	GPS
3	123	1736	47	6.50	7	57.30	2965.8	5.6	144	c/cs
3	123	1745	47	7.18	7	57.99	2966.7	5.8	145	GPS
3	123	1758	47	8.20	7	59.10	2967.9	4.5	93	c/cs
3	123	1800	47	8.22	7	59.28	2968.1	4.9	83	GPS
3	123	1800	47	8.20	7	59.30	2968.1	4.9	66	c/cs
3	123	1802	47	8.20	7	59.50	2968.2	5.1	66	c/cs
3	123	1814	47	7.70	8	0.90	2969.3	9.3	70	c/cs
3	123	1817	47	7.60	8	1.50	2969.7	10.8	67	c/cs
3	123	1820	47	7.40	8	2.30	2970.3	12.1	69	c/cs
3	123	1830	47	6.65	8	5.02	2972.3	11.6	66	GPS
3	123	1830	47	6.60	8	5.00	2972.3	12.5	64	c/cs
3	123	1842	47	5.60	8	8.30	2974.8	12.7	63	c/cs
3	123	1853	47	4.50	8	11.40	2977.1	12.7	62	c/cs
3	123	1900	47	3.83	8	13.32	2978.6	12.9	63	GPS
3	123	1911	47	2.80	8	16.40	2981.0	12.8	64	c/cs
3	123	1921	47	1.80	8	19.20	2983.1	12.8	65	c/cs
3	123	1930	47	1.05	8	21.80	2985.0	12.9	65	GPS
3	123	1941	47	0.10	8	25.00	2987.4	13.0	64	c/cs
3	123	1959	46	58.40	8	30.10	2991.3	12.7	65	c/cs
3	123	2000	46	58.30	8	30.39	2991.5	13.5	65	GPS
3	123	2007	46	57.60	8	32.50	2993.0	13.6	65	c/cs
3	123	2020	46	56.38	8	36.38	2996.0	12.5	64	SN
3	123	2030	46	55.46	8	39.11	2998.1	12.6	65	GPS
3	123	2034	46	55.10	8	40.20	2998.9	12.9	65	c/cs
3	123	2045	46	54.10	8	43.40	3001.3	12.7	65	c/cs
3	123	2057	46	53.00	8	46.70	3003.8	12.7	66	c/cs
3	123	2100	46	52.75	8	47.58	3004.5	13.3	66	GPS
3	123	2113	46	51.60	8	51.50	3007.4	13.5	66	c/cs
3	123	2125	46	50.50	8	55.10	3010.1	13.1	66	c/cs
3	123	2130	46	50.07	8	56.53	3011.1	13.7	66	GPS
3	123	2138	46	49.30	8	59.00	3013.0	13.9	63	c/cs
3	123	2140	46	49.12	8	59.57	3013.4	13.3	64	SN
3	123	2153	46	47.90	9	3.40	3016.3	13.5	64	c/cs
3	123	2158	46	47.40	9	4.80	3017.4	11.2	63	c/cs
3	123	2200	46	47.21	9	5.34	3017.8	11.3	63	GPS
3	123	2200	46	47.20	9	5.30	3017.8	13.5	64	c/cs
3	123	2216	46	45.60	9	10.10	3021.4	13.5	64	c/cs
3	123	2223	46	45.00	9	12.10	3023.0	13.4	62	c/cs
3	123	2228	46	44.40	9	13.60	3024.1	13.3	63	c/cs
3	123	2230	46	44.25	9	14.14	3024.5	13.8	65	GPS
3	123	2236	46	43.70	9	16.00	3025.9	14.2	63	c/cs
3	123	2246	46	42.60	9	19.00	3028.3	14.0	63	c/cs
3	123	2305	46	40.54	9	24.78	3032.7	13.0	59	SN
3	123	2309	46	40.10	9	25.90	3033.6	12.9	62	c/cs
3	123	2316	46	39.40	9	27.80	3035.1	13.0	62	c/cs
3	123	2330	46	37.97	9	31.73	3038.1	13.6	64	GPS
3	123	2330	46	38.00	9	31.70	3038.1	13.7	64	c/cs
3	123	2344	46	36.60	9	35.90	3041.3	13.7	64	c/cs

Table 1 (continued).

Date (1986)	Julian day	Time (UTC)	Latitude(s) (deg)	(min)	Longitude(s) (deg)	(min)	Distance (nmi)	Actual speed (kt)	Actual course (deg)	Comments[a]
May										
4	124	0000	46	34.95	9	40.67	3045.0	13.9	63	GPS
4	124	0000	46	35.00	9	40.70	3045.0	13.9	63	c/cs
4	124	0008	46	34.10	9	43.10	3046.8	13.8	61	c/cs
4	124	0025	46	32.21	9	48.02	3050.7	12.4	61	SN
4	124	0025	46	32.20	9	48.00	3050.7	12.2	62	c/cs
4	124	0035	46	31.30	9	50.60	3052.8	12.6	62	c/cs
4	124	0046	46	30.20	9	53.60	3055.1	12.4	62	c/cs
4	124	0055	46	29.31	9	56.00	3056.9	14.4	63	SN
4	124	0056	46	29.20	9	56.30	3057.2	14.1	62	c/cs
4	124	0108	46	27.90	9	59.90	3060.0	14.6	62	c/cs
4	124	0126	46	25.90	10	5.60	3064.4	14.5	62	c/cs
4	124	0137	46	24.60	10	9.00	3067.1	14.6	62	c/cs
4	124	0144	46	23.80	10	11.20	3068.8	14.5	64	c/cs
4	124	0157	46	22.50	10	15.30	3071.9	14.7	65	c/cs
4	124	0210	46	21.10	10	19.50	3075.1	14.5	64	c/cs
4	124	0227	46	19.30	10	24.80	3079.2	14.7	64	c/cs
4	124	0235	46	18.50	10	27.40	3081.2	14.4	65	c/cs
4	124	0240	46	18.00	10	29.00	3082.4	14.7	64	c/cs
4	124	0250	46	16.90	10	32.20	3084.8	14.4	64	c/cs
4	124	0300	46	15.80	10	35.30	3087.2	14.6	65	c/cs
4	124	0310	46	14.81	10	38.47	3089.6	13.6	63	SN
4	124	0313	46	14.50	10	39.30	3090.3	13.5	62	c/cs
4	124	0338	46	11.90	10	46.50	3095.9	13.4	62	c/cs
4	124	0348	46	10.80	10	49.40	3098.2	13.8	62	c/cs
4	124	0354	46	10.20	10	51.10	3099.5	13.3	62	c/cs
4	124	0359	46	9.70	10	52.50	3100.7	13.6	62	c/cs
4	124	0410	46	8.49	10	55.69	3103.1	12.9	65	SN
4	124	0416	46	8.00	10	57.40	3104.4	12.8	65	c/cs
4	124	0422	46	7.40	10	59.10	3105.7	11.9	67	c/cs
4	124	0424	46	7.30	10	59.60	3106.1	13.0	65	c/cs
4	124	0430	46	6.73	11	1.30	3107.4	12.3	55	DR
4	124	0439	46	5.70	11	3.50	3109.3	11.8	56	c/cs
4	124	0451	46	4.40	11	6.30	3111.6	11.9	56	c/cs
4	124	0505	46	2.81	11	9.62	3114.4	14.5	63	SN
4	124	0509	46	2.40	11	10.90	3115.4	14.6	62	c/cs
4	124	0514	46	1.80	11	12.40	3116.6	14.5	63	c/cs
4	124	0527	46	0.40	11	16.40	3119.7	14.7	63	c/cs
4	124	0537	45	59.20	11	19.60	3122.2	14.4	64	c/cs
4	124	0545	45	58.40	11	22.10	3124.1	14.6	63	c/cs
4	124	0558	45	56.90	11	26.10	3127.3	14.6	64	c/cs
4	124	0600	45	56.71	11	26.74	3127.8	14.7	63	GPS
4	124	0611	45	55.50	11	30.20	3130.5	14.7	62	c/cs
4	124	0626	45	53.70	11	34.90	3134.1	14.7	63	c/cs
4	124	0638	45	52.40	11	38.60	3137.1	14.6	63	c/cs
4	124	0656	45	50.40	11	44.20	3141.5	14.7	63	c/cs
4	124	0716	45	48.20	11	50.50	3146.4	14.7	64	c/cs
4	124	0724	45	47.30	11	53.00	3148.3	14.6	65	c/cs
4	124	0730	45	46.68	11	54.90	3149.8	14.1	64	DR
4	124	0731	45	46.60	11	55.20	3150.0	12.2	64	c/cs
4	124	0732	45	46.50	11	55.50	3150.2	14.2	64	c/cs
4	124	0740	45	45.70	11	57.90	3152.1	14.1	63	c/cs
4	124	0745	45	45.10	11	59.40	3153.3	14.1	64	c/cs
4	124	0800	45	43.59	12	3.95	3156.8	14.1	63	DR
4	124	0805	45	43.10	12	5.40	3158.0	13.9	64	c/cs
4	124	0812	45	42.40	12	7.50	3159.6	13.5	65	c/cs
4	124	0823	45	41.30	12	10.70	3162.1	14.3	64	c/cs
4	124	0830	45	40.57	12	12.90	3163.8	14.1	65	DR
4	124	0830	45	40.60	12	12.90	3163.8	14.1	65	c/cs
4	124	0835	45	40.10	12	14.40	3164.9	14.0	65	c/cs
4	124	0848	45	38.80	12	18.30	3168.0	13.6	65	c/cs
4	124	0856	45	38.00	12	20.70	3169.8	13.5	66	c/cs
4	124	0900	45	37.64	12	21.88	3170.7	13.6	67	GPS
4	124	0905	45	37.20	12	23.40	3171.8	11.9	63	c/cs
4	124	0908	45	36.90	12	24.10	3172.4	11.2	63	c/cs
4	124	0911	45	36.70	12	24.80	3173.0	11.8	68	c/cs
4	124	0913	45	36.50	12	25.40	3173.4	13.6	68	c/cs
4	124	0921	45	35.80	12	27.80	3175.2	14.0	64	c/cs
4	124	0930	45	34.93	12	30.47	3177.3	14.0	64	GPS
4	124	0936	45	34.30	12	32.30	3178.7	14.3	64	c/cs
4	124	0939	45	34.00	12	33.20	3179.4	13.9	65	c/cs
4	124	0951	45	32.80	12	36.80	3182.2	13.6	65	c/cs
4	124	1000	45	31.98	12	39.43	3184.2	13.4	65	GPS
4	124	1007	45	31.30	12	41.50	3185.8	14.2	64	c/cs
4	124	1012	45	30.80	12	43.00	3187.0	13.7	64	c/cs
4	124	1022	45	29.80	12	45.90	3189.2	13.8	65	c/cs
4	124	1030	45	29.05	12	48.30	3191.1	14.0	65	GPS

Table 1 (continued).

Date (1986)	Julian day	Time (UTC)	Latitude(s) (deg)	(min)	Longitude(s) (deg)	(min)	Distance (nmi)	Actual speed (kt)	Actual course (deg)	Comments[a]
May										
4	124	1040	45	28.10	12	51.30	3193.4	13.0	64	c/cs
4	124	1043	45	27.80	12	52.10	3194.1	14.0	65	c/cs
4	124	1055	45	26.60	12	55.80	3196.9	13.5	64	c/cs
4	124	1058	45	26.30	12	56.60	3197.5	14.0	64	c/cs
4	124	1100	45	26.08	12	57.22	3198.0	13.7	64	GPS
4	124	1118	45	24.30	13	2.50	3202.1	13.6	64	c/cs
4	124	1122	45	23.90	13	3.70	3203.0	10.6	63	c/cs
4	124	1123	45	23.80	13	3.90	3203.2	13.6	65	c/cs
4	124	1130	45	23.17	13	5.94	3204.8	14.1	65	GPS
4	124	1139	45	22.30	13	8.70	3206.9	14.1	66	c/cs
4	124	1145	45	21.71	13	10.50	3208.3	12.1	66	SN
4	124	1150	45	21.30	13	11.80	3209.3	11.0	65	c/cs
4	124	1153	45	21.10	13	12.50	3209.9	12.0	65	c/cs
4	124	1210	45	19.65	13	16.92	3213.3	13.7	66	SN
4	124	1216	45	19.10	13	18.70	3214.6	14.1	66	c/cs
4	124	1227	45	18.00	13	22.10	3217.2	13.1	66	c/cs
4	124	1230	45	17.80	13	22.90	3217.9	14.0	67	c/cs
4	124	1239	45	16.90	13	25.60	3220.0	13.7	67	c/cs
4	124	1257	45	15.30	13	31.00	3224.1	13.8	66	c/cs
4	124	1300	45	15.02	13	31.92	3224.8	13.3	67	GPS
4	124	1312	45	14.00	13	35.40	3227.5	13.3	68	c/cs
4	124	1323	45	13.10	13	38.60	3229.9	13.2	69	c/cs
4	124	1330	45	12.50	13	40.63	3231.4	13.8	69	GPS
4	124	1330	45	12.50	13	40.60	3231.4	2.5	55	c/cs
4	124	1332	45	12.50	13	40.70	3231.5	14.2	68	c/cs
4	124	1338	45	11.90	13	42.60	3232.9	14.1	67	c/cs
4	124	1400	45	9.93	13	49.34	3238.1	13.5	67	GPS
4	124	1401	45	9.80	13	49.60	3238.3	13.2	68	c/cs
4	124	1408	45	9.30	13	51.70	3239.8	13.6	69	c/cs
4	124	1419	45	8.40	13	54.90	3242.3	13.6	69	c/cs
4	124	1431	45	7.40	13	58.50	3245.0	13.6	69	c/cs
4	124	1439	45	6.70	14	0.90	3246.9	4.2	60	c/cs
4	124	1441	45	6.60	14	1.10	3247.0	13.8	66	c/cs
4	124	1444	45	6.40	14	2.00	3247.7	13.3	65	c/cs
4	124	1451	45	5.70	14	4.00	3249.2	13.5	65	c/cs
4	124	1459	45	4.90	14	6.30	3251.0	13.7	65	c/cs
4	124	1500	45	4.83	14	6.56	3251.3	13.4	64	GPS
4	124	1509	45	4.00	14	9.10	3253.3	13.3	63	c/cs
4	124	1530	45	1.82	14	14.97	3257.9	13.0	63	DR
4	124	1532	45	1.60	14	15.50	3258.4	12.8	64	c/cs
4	124	1557	44	59.30	14	22.30	3263.7	12.9	66	c/cs
4	124	1600	44	59.03	14	23.14	3264.3	13.3	63	GPS
4	124	1608	44	58.20	14	25.40	3266.1	13.5	60	c/cs
4	124	1613	44	57.70	14	26.70	3267.2	13.2	62	c/cs
4	124	1625	44	56.40	14	30.10	3269.9	13.5	61	c/cs
4	124	1630	44	55.90	14	31.45	3271.0	13.5	63	GPS
4	124	1635	44	55.40	14	32.90	3272.1	10.7	60	c/cs
4	124	1636	44	55.30	14	33.10	3272.3	13.3	62	c/cs
4	124	1656	44	53.20	14	38.60	3276.7	13.3	62	c/cs
4	124	1700	44	52.79	14	39.68	3277.6	12.7	64	GPS
4	124	1703	44	52.50	14	40.50	3278.2	12.8	64	c/cs
4	124	1705	44	52.32	14	41.02	3278.7	12.9	66	SN
4	124	1716	44	51.40	14	44.10	3281.0	12.7	66	c/cs
4	124	1721	44	50.90	14	45.40	3282.1	13.1	68	c/cs
4	124	1730	44	50.20	14	48.00	3284.1	13.8	61	GPS
4	124	1732	44	50.00	14	48.60	3284.5	13.5	60	c/cs
4	124	1736	44	49.50	14	49.70	3285.4	13.5	61	c/cs
4	124	1744	44	48.70	14	51.90	3287.2	13.5	59	c/cs
4	124	1749	44	48.10	14	53.30	3288.3	13.5	61	c/cs
4	124	1800	44	46.88	14	56.29	3290.8	13.0	64	GPS
4	124	1802	44	46.70	14	56.80	3291.2	13.2	64	c/cs
4	124	1819	44	45.10	15	1.60	3295.0	13.1	64	c/cs
4	124	1825	44	44.50	15	3.30	3296.3	13.1	66	c/cs
4	124	1830	44	44.07	15	4.66	3297.4	13.1	67	GPS
4	124	1848	44	42.50	15	9.70	3301.3	12.9	66	c/cs
4	124	1900	44	41.47	15	13.07	3303.9	12.9	67	GPS
4	124	1905	44	41.05	15	14.46	3305.0	13.1	68	SN
4	124	1908	44	40.80	15	15.30	3305.6	13.0	69	c/cs
4	124	1914	44	40.30	15	17.00	3306.9	13.4	68	c/cs
4	124	1930	44	38.97	15	21.68	3310.5	13.3	68	GPS
4	124	2000	44	36.51	15	30.36	3317.2	12.9	69	GPS
4	124	2025	44	34.59	15	37.44	3322.6	12.5	71	SN
4	124	2030	44	34.25	15	38.82	3323.6	13.6	68	GPS
4	124	2050	44	32.55	15	44.70	3328.1	11.4	68	SN
4	124	2059	44	31.90	15	46.90	3329.8	11.3	68	c/cs
4	124	2100	44	31.84	15	47.18	3330.0	13.3	68	GPS

Table 1 (continued).

Date (1986)	Julian day	Time (UTC)	Latitude(s) (deg)	(min)	Longitude(s) (deg)	(min)	Distance (nmi)	Actual speed (kt)	Actual course (deg)	Comments[a]
May										
4	124	2107	44	31.30	15	49.20	3331.6	13.2	67	c/cs
4	124	2117	44	30.40	15	52.00	3333.8	13.1	68	c/cs
4	124	2130	44	29.38	15	55.75	3336.6	14.1	69	GPS
4	124	2132	44	29.20	15	56.40	3337.1	14.2	68	c/cs
4	124	2150	44	27.60	16	1.90	3341.3	14.1	68	c/cs
4	124	2210	44	25.82	16	7.98	3346.0	12.6	69	SN
4	124	2212	44	25.70	16	8.50	3346.5	12.7	69	c/cs
4	124	2220	44	25.10	16	10.70	3348.2	12.7	79	c/cs
4	124	2231	44	24.20	16	13.80	3350.5	12.5	70	c/cs
4	124	2240	44	23.60	16	16.20	3352.4	12.6	70	c/cs
4	124	2319	44	20.80	16	27.10	3360.6	12.7	70	c/cs
4	124	2326	44	20.30	16	29.00	3362.1	12.5	70	c/cs
4	124	2330	44	19.99	16	30.09	3362.9	13.7	69	GPS
4	124	2336	44	19.50	16	31.90	3364.3	13.8	69	c/cs
4	124	2357	44	17.80	16	38.20	3369.1	13.9	69	c/cs
5	125	0002	44	17.40	16	39.70	3370.2	13.7	69	c/cs
5	125	0010	44	16.80	16	42.10	3372.1	13.9	69	c/cs
5	125	0015	44	16.35	16	43.60	3373.2	13.7	70	SN
5	125	0025	44	15.60	16	46.60	3375.5	13.4	70	c/cs
5	125	0032	44	15.10	16	48.70	3377.1	13.9	70	c/cs
5	125	0038	44	14.60	16	50.50	3378.5	13.5	69	c/cs
5	125	0048	44	13.80	16	53.40	3380.7	13.8	69	c/cs
5	125	0106	44	12.30	16	58.90	3384.9	13.4	70	c/cs
5	125	0113	44	11.80	17	0.90	3386.4	13.8	70	c/cs
5	125	0125	44	10.90	17	4.50	3389.2	13.3	71	c/cs
5	125	0130	44	10.50	17	6.00	3390.3	13.8	70	c/cs
5	125	0139	44	9.80	17	8.70	3392.4	13.6	71	c/cs
5	125	0146	44	9.30	17	10.80	3394.0	13.9	70	c/cs
5	125	0204	44	7.90	17	16.30	3398.2	13.2	70	c/cs
5	125	0211	44	7.40	17	18.30	3399.7	13.7	70	c/cs
5	125	0227	44	6.10	17	23.10	3403.4	13.9	69	c/cs
5	125	0234	44	5.60	17	25.30	3405.0	13.7	71	c/cs
5	125	0239	44	5.20	17	26.80	3406.1	13.8	68	c/cs
5	125	0245	44	4.67	17	28.54	3407.5	14.2	67	SN
5	125	0300	44	3.30	17	33.10	3411.1	14.1	67	c/cs
5	125	0310	44	2.40	17	36.10	3413.4	14.1	65	c/cs
5	125	0315	44	1.86	17	37.58	3414.6	13.0	62	SN
5	125	0325	44	0.90	17	40.30	3416.8	12.9	62	c/cs
5	125	0333	44	0.10	17	42.40	3418.5	13.2	62	c/cs
5	125	0343	43	59.00	17	45.10	3420.7	13.0	64	c/cs
5	125	0358	43	57.60	17	49.20	3423.9	13.1	64	c/cs
5	125	0410	43	56.50	17	52.40	3426.6	13.0	64	c/cs
5	125	0423	43	55.30	17	56.00	3429.4	13.0	63	c/cs
5	125	0441	43	53.50	18	0.80	3433.3	12.9	63	c/cs
5	125	0504	43	51.30	18	6.90	3438.2	12.9	63	c/cs
5	125	0505	43	51.22	18	7.21	3438.4	13.7	63	DR
5	125	0517	43	50.00	18	10.60	3441.2	13.8	64	c/cs
5	125	0529	43	48.70	18	14.00	3443.9	13.8	64	c/cs
5	125	0542	43	47.40	18	17.70	3446.9	14.1	64	c/cs
5	125	0545	43	47.10	18	18.60	3447.6	13.4	63	c/cs
5	125	0552	43	46.40	18	20.50	3449.2	13.8	64	c/cs
5	125	0608	43	44.70	18	25.10	3452.9	13.0	64	c/cs
5	125	0610	43	44.60	18	25.60	3453.3	13.9	64	c/cs
5	125	0615	43	44.00	18	27.00	3454.4	13.6	63	c/cs
5	125	0628	43	42.70	18	30.70	3457.4	13.9	64	c/cs
5	125	0637	43	41.70	18	33.30	3459.5	13.7	64	c/cs
5	125	0700	43	39.41	18	39.78	3464.8	14.0	62	GPS
5	125	0701	43	39.30	18	40.10	3465.0	14.0	63	c/cs
5	125	0714	43	37.90	18	43.80	3468.0	13.2	63	c/cs
5	125	0721	43	37.20	18	45.70	3469.6	13.8	63	c/cs
5	125	0729	43	36.40	18	48.00	3471.4	13.1	65	c/cs
5	125	0731	43	36.20	18	48.50	3471.8	14.2	64	c/cs
5	125	0736	43	35.70	18	50.00	3473.0	13.8	66	c/cs
5	125	0752	43	34.20	18	54.60	3476.7	14.1	66	c/cs
5	125	0759	43	33.50	18	56.70	3478.4	13.8	66	c/cs
5	125	0800	43	33.39	18	57.00	3478.6	12.9	72	GPS
5	125	0814	43	32.40	19	0.90	3481.6	12.7	72	c/cs
5	125	0835	43	31.10	19	6.80	3486.0	13.1	72	c/cs
5	125	0840	43	30.70	19	8.20	3487.1	13.3	72	c/cs
5	125	0855	43	29.68	19	12.52	3490.5	14.4	68	SN
5	125	0855	43	29.70	19	12.50	3490.5	14.3	68	c/cs
5	125	0923	43	27.20	19	21.10	3497.1	14.1	68	c/cs
5	125	0930	43	26.61	19	23.19	3498.8	13.3	69	GPS
5	125	0940	43	25.80	19	26.00	3501.0	13.5	68	c/cs
5	125	0953	43	24.70	19	29.80	3503.9	13.7	69	c/cs
5	125	0956	43	24.50	19	30.60	3504.6	13.0	68	c/cs

Table 1 (continued).

Date (1986)	Julian day	Time (UTC)	Latitude(s) (deg)	(min)	Longitude(s) (deg)	(min)	Distance (nmi)	Actual speed (kt)	Actual course (deg)	Comments[a]
May										
5	125	1000	43	24.15	19	31.74	3505.5	13.3	68	GPS
5	125	1001	43	24.10	19	32.00	3505.7	13.9	68	c/cs
5	125	1029	43	21.60	19	40.30	3512.2	14.0	67	c/cs
5	125	1047	43	20.00	19	45.60	3516.4	12.0	68	c/cs
5	125	1049	43	19.90	19	46.10	3516.8	13.7	67	c/cs
5	125	1100	43	18.87	19	49.31	3519.3	14.0	67	GPS
5	125	1107	43	18.20	19	51.40	3520.9	13.8	68	c/cs
5	125	1119	43	17.20	19	54.90	3523.7	13.9	67	c/cs
5	125	1130	43	16.23	19	58.14	3526.2	14.0	67	GPS
5	125	1134	43	15.90	19	59.30	3527.2	13.9	67	c/cs
5	125	1147	43	14.70	20	3.10	3530.2	14.0	69	c/cs
5	125	1148	43	14.60	20	3.40	3530.4	10.3	68	c/cs
5	125	1150	43	14.50	20	3.90	3530.8	14.1	68	c/cs
5	125	1200	43	13.60	20	6.86	3533.1	14.0	68	GPS
5	125	1208	43	12.90	20	9.20	3535.0	14.1	68	c/cs
5	125	1221	43	11.80	20	13.10	3538.0	14.0	67	c/cs
5	125	1230	43	10.97	20	15.78	3540.1	14.1	66	GPS
5	125	1235	43	10.50	20	17.30	3541.3	14.1	66	c/cs
5	125	1300	43	8.16	20	24.63	3547.2	14.0	67	GPS
5	125	1303	43	7.90	20	25.50	3547.9	14.1	68	c/cs
5	125	1314	43	6.90	20	28.80	3550.4	14.0	66	c/cs
5	125	1322	43	6.20	20	31.10	3552.3	14.1	66	c/cs
5	125	1330	43	5.43	20	33.50	3554.2	14.1	67	GPS
5	125	1334	43	5.10	20	34.70	3555.1	13.9	68	c/cs
5	125	1342	43	4.40	20	37.00	3557.0	13.9	69	c/cs
5	125	1354	43	3.40	20	40.60	3559.8	13.8	68	c/cs
5	125	1400	43	2.89	20	42.36	3561.1	13.1	66	GPS
5	125	1405	43	2.40	20	43.70	3562.2	13.0	65	c/cs
5	125	1417	43	1.30	20	46.90	3564.8	13.3	66	c/cs
5	125	1430	43	0.14	20	50.52	3567.7	13.4	69	GPS
5	125	1432	42	60.00	20	51.10	3568.2	13.2	69	c/cs
5	125	1443	42	59.10	20	54.20	3570.6	13.5	71	c/cs
5	125	1456	42	58.10	20	58.00	3573.5	13.5	70	c/cs
5	125	1500	42	57.84	20	59.11	3574.4	14.1	69	GPS
5	125	1511	42	56.90	21	2.40	3577.0	14.0	69	c/cs
5	125	1518	42	56.30	21	4.50	3578.6	14.0	71	c/cs
5	125	1529	42	55.50	21	7.80	3581.2	14.1	70	c/cs
5	125	1533	42	55.20	21	9.00	3582.1	13.9	69	c/cs
5	125	1555	42	53.39	21	15.56	3587.2	11.6	69	SN
5	125	1556	42	53.30	21	15.80	3587.4	11.2	69	c/cs
5	125	1609	42	52.50	21	18.90	3589.9	11.6	71	c/cs
5	125	1615	42	52.08	21	20.41	3591.0	12.1	71	SN
5	125	1630	42	51.09	21	24.32	3594.1	13.0	72	GPS
5	125	1632	42	51.00	21	24.90	3594.5	12.9	71	c/cs
5	125	1645	42	50.00	21	28.50	3597.3	13.1	71	c/cs
5	125	1654	42	49.40	21	31.00	3599.3	12.9	71	c/cs
5	125	1700	42	48.99	21	32.68	3600.5	12.7	71	GPS
5	125	1710	42	48.30	21	35.40	3602.7	12.8	71	c/cs
5	125	1730	42	46.94	21	40.93	3606.9	12.7	71	GPS
5	125	1732	42	46.80	21	41.50	3607.4	12.7	71	c/cs
5	125	1741	42	46.20	21	43.90	3609.3	12.3	70	c/cs
5	125	1750	42	45.50	21	46.30	3611.1	12.5	70	c/cs
5	125	1758	42	45.00	21	48.40	3612.8	12.6	71	c/cs
5	125	1811	42	44.10	21	51.90	3615.5	12.6	71	c/cs
5	125	1815	42	43.79	21	53.00	3616.3	12.6	70	SN
5	125	1819	42	43.50	21	54.10	3617.2	12.2	69	c/cs
5	125	1830	42	42.72	21	56.94	3619.4	12.2	67	GPS
5	125	1834	42	42.40	21	58.00	3620.2	12.6	67	c/cs
5	125	1847	42	41.40	22	1.40	3623.0	12.8	67	c/cs
5	125	1851	42	41.00	22	2.50	3623.8	12.3	67	c/cs
5	125	1900	42	40.31	22	4.76	3625.7	12.3	67	GPS
5	125	1909	42	39.60	22	7.10	3627.5	12.6	68	c/cs
5	125	1927	42	38.20	22	11.80	3631.3	12.4	68	c/cs
5	125	1930	42	37.93	22	12.61	3631.9	12.6	69	GPS
5	125	1937	42	37.40	22	14.50	3633.4	12.9	68	c/cs
5	125	1947	42	36.60	22	17.20	3635.5	12.6	68	c/cs
5	125	1955	42	36.00	22	19.30	3637.2	13.1	68	c/cs
5	125	2000	42	35.54	22	20.65	3638.3	13.3	68	GPS
5	125	2003	42	35.30	22	21.50	3639.0	13.0	68	c/cs
5	125	2010	42	34.70	22	23.40	3640.5	13.2	69	c/cs
5	125	2050	42	31.60	22	34.50	3649.2	13.1	68	c/cs
5	125	2104	42	30.40	22	38.40	3652.3	13.0	69	c/cs
5	125	2124	42	28.90	22	43.90	3656.6	12.9	69	c/cs
5	125	2129	42	28.50	22	45.20	3657.7	13.2	68	c/cs
5	125	2144	42	27.30	22	49.40	3661.0	12.7	68	c/cs
5	125	2149	42	26.90	22	50.70	3662.1	13.3	69	c/cs

Table 1 (continued).

Date (1986)	Julian day	Time (UTC)	Latitude(s) (deg)	(min)	Longitude(s) (deg)	(min)	Distance (nmi)	Actual speed (kt)	Actual course (deg)	Comments[a]
May										
5	125	2157	42	26.20	22	52.90	3663.8	13.0	69	c/cs
5	125	2204	42	25.70	22	54.80	3665.3	13.3	69	c/cs
5	125	2217	42	24.70	22	58.50	3668.2	13.3	68	c/cs
5	125	2230	42	23.60	23	2.10	3671.1	13.2	69	c/cs
5	125	2300	42	21.25	23	10.42	3677.7	13.2	70	GPS
5	125	2300	42	21.30	23	10.40	3677.7	13.2	69	c/cs
5	125	2313	42	20.20	23	14.00	3680.5	13.3	70	c/cs
5	125	2328	42	19.10	23	18.30	3683.9	13.7	70	c/cs
5	125	2330	42	18.93	23	18.84	3684.3	13.3	70	GPS
5	125	2331	42	18.90	23	19.10	3684.5	13.0	70	c/cs
5	125	2349	42	17.50	23	24.10	3688.4	13.1	69	c/cs
6	126	0000	42	16.67	23	27.09	3690.8	13.7	69	DR
6	126	0000	42	16.70	23	27.10	3690.8	13.7	69	c/cs
6	126	0009	42	15.90	23	29.70	3692.9	13.7	70	c/cs
6	126	0031	42	14.20	23	36.00	3697.9	13.6	69	c/cs
6	126	0044	42	13.10	23	39.70	3700.9	13.3	69	c/cs
6	126	0057	42	12.10	23	43.40	3703.7	13.6	70	c/cs
6	126	0109	42	11.10	23	46.80	3706.5	13.3	70	c/cs
6	126	0122	42	10.10	23	50.50	3709.3	13.4	69	c/cs
6	126	0130	42	9.40	23	52.70	3711.1	13.4	69	c/cs
6	126	0145	42	8.20	23	56.90	3714.5	13.6	71	c/cs
6	126	0152	42	7.70	23	58.90	3716.1	13.4	70	c/cs
6	126	0210	42	6.30	24	4.00	3720.1	13.5	69	c/cs
6	126	0223	42	5.20	24	7.70	3723.0	13.7	70	c/cs
6	126	0225	42	5.07	24	8.27	3723.5	13.6	69	SN
6	126	0246	42	3.40	24	14.30	3728.2	13.6	68	c/cs
6	126	0256	42	2.50	24	17.10	3730.5	12.8	69	c/cs
6	126	0259	42	2.30	24	17.90	3731.2	13.6	68	c/cs
6	126	0312	42	1.20	24	21.60	3734.1	13.4	69	c/cs
6	126	0329	41	59.80	24	26.40	3737.9	13.8	69	c/cs
6	126	0340	41	58.90	24	29.50	3740.4	14.2	67	c/cs
6	126	0347	41	58.30	24	31.60	3742.1	13.8	69	c/cs
6	126	0407	41	56.60	24	37.40	3746.7	13.7	69	c/cs
6	126	0410	41	56.37	24	38.21	3747.4	12.1	72	SN
6	126	0413	41	56.20	24	39.00	3748.0	12.3	73	c/cs
6	126	0422	41	55.60	24	41.40	3749.8	12.4	72	c/cs
6	126	0425	41	55.40	24	41.20	3750.4	12.5	69	c/cs
6	126	0430	41	55.07	24	43.45	3751.5	13.0	70	DR
6	126	0438	41	54.50	24	45.60	3753.2	12.8	72	c/cs
6	126	0446	41	53.90	24	47.80	3754.9	12.6	75	c/cs
6	126	0453	41	53.50	24	49.70	3756.4	12.5	73	c/cs
6	126	0500	41	53.11	24	51.58	3757.8	13.6	68	DR
6	126	0500	41	53.10	24	51.60	3757.8	13.7	68	c/cs
6	126	0514	41	51.90	24	55.50	3761.0	13.3	68	c/cs
6	126	0524	41	51.10	24	58.30	3763.2	13.9	67	c/cs
6	126	0526	41	50.90	24	58.90	3763.7	14.0	57	c/cs
6	126	0531	41	50.30	25	0.20	3764.9	13.6	56	c/cs
6	126	0536	41	49.60	25	1.40	3766.0	13.9	57	c/cs
6	126	0544	41	48.60	25	3.50	3767.9	13.5	59	c/cs
6	126	0549	41	48.00	25	4.80	3769.0	13.9	59	c/cs
6	126	0557	41	47.10	25	6.90	3770.8	13.9	59	c/cs
6	126	0609	41	45.60	25	10.10	3773.6	13.6	59	c/cs
6	126	0629	41	43.30	25	15.30	3778.1	13.7	59	c/cs
6	126	0647	41	41.10	25	20.00	3782.3	13.7	59	c/cs
6	126	0653	41	40.40	25	21.60	3783.6	13.6	60	c/cs
6	126	0700	41	39.61	25	23.41	3785.2	13.2	58	GPS
6	126	0707	41	38.80	25	25.10	3786.8	12.9	59	c/cs
6	126	0717	41	37.70	25	27.60	3788.9	13.6	57	c/cs
6	126	0722	41	37.10	25	28.90	3790.0	13.1	59	c/cs
6	126	0730	41	36.16	25	30.90	3791.8	13.2	57	GPS
6	126	0733	41	35.80	25	31.60	3792.5	13.1	59	c/cs
6	126	0746	41	34.30	25	34.90	3795.3	13.4	60	c/cs
6	126	0800	41	32.76	25	38.50	3798.4	13.1	60	GPS
6	126	0801	41	32.70	25	38.80	3798.6	13.2	59	c/cs
6	126	0806	41	32.10	25	40.00	3799.7	13.2	60	c/cs
6	126	0818	41	30.80	25	43.10	3802.4	13.1	63	c/cs
6	126	0823	41	30.30	25	44.40	3803.5	12.9	62	c/cs
6	126	0830	41	29.55	25	46.13	3805.0	12.9	61	GPS
6	126	0832	41	29.30	25	46.60	3805.4	13.0	59	c/cs
6	126	0844	41	28.00	25	49.60	3808.0	13.3	60	c/cs
6	126	0852	41	27.10	25	51.70	3809.8	12.8	58	c/cs
6	126	0857	41	26.60	25	52.90	3810.9	13.4	60	c/cs
6	126	0901	41	26.10	25	53.90	3811.7	13.1	61	c/cs
6	126	0910	41	25.20	25	56.20	3813.7	12.8	61	c/cs
6	126	0920	41	24.20	25	58.70	3815.8	13.3	60	c/cs
6	126	0932	41	22.80	26	1.80	3818.5	13.4	61	c/cs

Table 1 (continued).

Date (1986)	Julian day	Time (UTC)	Latitude(s) (deg)	(min)	Longitude(s) (deg)	(min)	Distance (nmi)	Actual speed (kt)	Actual course (deg)	Comments[a]
May										
6	126	0940	41	22.00	26	3.90	3820.3	13.6	61	c/cs
6	126	0943	41	21.70	26	4.70	3821.0	13.2	58	c/cs
6	126	0948	41	21.10	26	5.90	3822.1	12.7	62	c/cs
6	126	0955	41	20.40	26	7.70	3823.5	13.3	60	c/cs
6	126	1000	41	19.84	26	8.95	3824.7	13.5	62	GPS
6	126	1002	41	19.60	26	9.50	3825.1	12.9	66	c/cs
6	126	1008	41	19.10	26	11.00	3826.4	13.4	63	c/cs
6	126	1015	41	18.40	26	12.90	3828.0	12.8	64	c/cs
6	126	1021	41	17.80	26	14.40	3829.2	13.0	62	c/cs
6	126	1028	41	17.10	26	16.20	3830.7	13.3	62	c/cs
6	126	1030	41	16.90	26	16.72	3831.2	13.1	64	GPS
6	126	1038	41	16.10	26	18.80	3832.9	13.7	62	c/cs
6	126	1041	41	15.80	26	19.60	3833.6	12.7	63	c/cs
6	126	1049	41	15.00	26	21.60	3835.3	13.1	62	c/cs
6	126	1100	41	13.90	26	24.42	3837.7	13.0	63	GPS
6	126	1104	41	13.50	26	25.40	3838.6	13.4	63	c/cs
6	126	1111	41	12.80	26	27.30	3840.1	13.1	65	c/cs
6	126	1117	41	12.20	26	28.90	3841.5	13.0	62	c/cs
6	126	1130	41	10.92	26	32.20	3844.3	13.0	63	GPS
6	126	1134	41	10.50	26	33.20	3845.1	13.1	62	c/cs
6	126	1139	41	10.00	26	34.50	3846.2	13.2	64	c/cs
6	126	1149	41	9.10	26	37.10	3848.4	13.3	63	c/cs
6	126	1157	41	8.30	26	39.20	3850.2	13.2	62	c/cs
6	126	1200	41	7.95	26	40.01	3850.9	13.1	63	GPS
6	126	1207	41	7.30	26	41.80	3852.4	12.7	63	c/cs
6	126	1215	41	6.50	26	43.80	3854.1	13.1	64	c/cs
6	126	1220	41	6.00	26	45.10	3855.2	12.6	62	c/cs
6	126	1225	41	5.50	26	46.30	3856.2	13.2	64	c/cs
6	126	1230	41	5.02	26	47.64	3857.3	13.0	63	GPS
6	126	1235	41	4.50	26	48.90	3858.4	12.7	61	c/cs
6	126	1248	41	3.20	26	52.10	3861.2	12.7	62	c/cs
6	126	1258	41	2.20	26	54.60	3863.3	12.7	60	c/cs
6	126	1300	41	1.97	26	55.05	3863.7	12.6	59	GPS
6	126	1311	41	0.80	26	57.70	3866.0	12.3	60	c/cs
6	126	1316	41	0.30	26	58.80	3867.0	12.9	57	c/cs
6	126	1320	40	59.80	26	59.80	3867.9	12.4	59	c/cs
6	126	1330	40	58.71	27	2.13	3869.9	12.3	59	GPS
6	126	1333	40	58.40	27	2.80	3870.6	12.7	59	c/cs
6	126	1339	40	57.70	27	4.30	3871.8	12.5	57	c/cs
6	126	1349	40	56.60	27	6.60	3873.9	12.0	61	c/cs
6	126	1351	40	56.40	27	7.00	3874.3	12.8	58	c/cs
6	126	1400	40	55.38	27	9.20	3876.2	12.6	59	GPS
6	126	1401	40	55.30	27	9.40	3876.4	12.4	61	c/cs
6	126	1416	40	53.80	27	13.00	3879.6	12.5	60	c/cs
6	126	1427	40	52.70	27	15.70	3881.8	12.5	58	c/cs
6	126	1430	40	52.33	27	16.38	3882.5	12.7	61	GPS
6	126	1445	40	50.80	27	20.00	3885.6	13.0	60	c/cs
6	126	1454	40	49.80	27	22.30	3887.6	12.7	61	c/cs
6	126	1505	40	48.70	27	25.00	3889.9	12.5	60	c/cs
6	126	1508	40	48.40	27	25.70	3890.5	12.4	60	c/cs
6	126	1510	40	48.17	27	26.15	3890.9	11.3	58	SN
6	126	1518	40	47.40	27	27.80	3892.5	11.4	60	c/cs
6	126	1523	40	46.90	27	28.90	3893.4	12.3	59	c/cs
6	126	1525	40	46.70	27	29.40	3893.8	11.5	59	c/cs
6	126	1530	40	46.19	27	30.46	3894.8	12.0	62	GPS
6	126	1530	40	46.20	27	30.50	3894.8	12.6	59	c/cs
6	126	1533	40	45.90	27	31.20	3895.4	11.8	59	c/cs
6	126	1538	40	45.40	27	32.30	3896.4	12.0	60	c/cs
6	126	1548	40	44.30	27	34.60	3898.4	12.2	62	c/cs
6	126	1553	40	43.90	27	35.70	3899.4	12.0	60	c/cs
6	126	1600	40	43.16	27	37.32	3900.8	11.1	60	GPS
6	126	1606	40	42.60	27	38.60	3901.9	11.0	58	c/cs
6	126	1611	40	42.10	27	39.60	3902.8	11.6	63	c/cs
6	126	1616	40	41.70	27	40.70	3903.8	10.8	61	c/cs
6	126	1621	40	41.20	27	41.80	3904.7	11.0	61	c/cs
6	126	1630	40	40.44	27	43.69	3906.3	11.0	60	GPS
6	126	1631	40	40.30	27	43.90	3906.5	11.0	59	c/cs
6	126	1639	40	39.60	27	45.50	3908.0	11.1	57	c/cs
6	126	1647	40	38.80	27	47.20	3909.5	11.3	60	c/cs
6	126	1654	40	38.10	27	48.70	3910.8	10.7	55	c/cs
6	126	1657	40	37.80	27	49.30	3911.3	11.0	59	c/cs
6	126	1702	40	37.30	27	50.30	3912.2	11.2	53	c/cs
6	126	1704	40	37.10	27	50.70	3912.6	10.7	60	c/cs
6	126	1707	40	36.80	27	51.30	3913.1	11.0	54	c/cs
6	126	1712	40	36.30	27	52.30	3914.0	11.4	56	c/cs
6	126	1716	40	35.90	27	53.10	3914.8	11.8	54	c/cs

Table 1 (continued).

Date (1986)	Julian day	Time (UTC)	Latitude(s) (deg)	(min)	Longitude(s) (deg)	(min)	Distance (nmi)	Actual speed (kt)	Actual course (deg)	Comments[a]
May										
6	126	1717	40	35.80	27	53.30	3915.0	10.6	59	c/cs
6	126	1720	40	35.49	27	53.91	3915.5	9.6	56	GPS
6	126	1730	40	34.59	27	55.66	3917.1	10.5	54	GPS
6	126	1800	40	31.48	28	1.24	3922.4	10.3	53	GPS
6	126	1830	40	28.37	28	6.66	3927.6	12.9	53	GPS
6	126	1830	40	28.40	28	6.70	3927.6	13.0	51	c/cs
6	126	1840	40	27.00	28	8.86	3929.7	10.7	53	SN
6	126	1910	40	23.76	28	14.45	3935.1	11.2	55	SN
6	126	1930	40	21.60	28	18.50	3938.8	11.3	60	c/cs
6	126	1935	40	21.15	28	19.55	3939.8	10.3	59	SN
6	126	2000	40	18.94	28	24.39	3944.1	12.4	55	GPS
6	126	2000	40	18.90	28	24.40	3944.1	12.0	59	c/cs
6	126	2030	40	15.88	28	31.18	3950.1	12.7	59	GPS
6	126	2115	40	11.04	28	41.87	3959.6	10.1	61	SN
6	126	2130	40	9.82	28	44.78	3962.1	11.7	59	GPS
6	126	2300	40	0.80	29	4.50	3979.7	12.0	59	c/cs
6	126	2305	40	0.30	29	5.60	3980.7	12.3	62	SN
6	126	2330	39	57.92	29	11.55	3985.8	13.0	64	GPS
7	127	0100	39	49.40	29	34.40	4005.3	13.3	68	c/cs
7	127	0140	39	45.98	29	45.11	4014.2	13.9	64	SN
7	127	0200	39	43.90	29	50.50	4018.8	13.6	61	c/cs
7	127	0305	39	36.82	30	7.31	4033.6	14.9	55	SN
7	127	0430	39	24.60	30	29.70	4054.7	15.1	48	c/cs
7	127	0500	39	19.50	30	36.90	4062.3	15.4	53	c/cs
7	127	0530	39	14.90	30	44.90	4070.0	15.5	49	c/cs
7	127	0700	38	59.70	31	7.70	4093.3	14.9	55	c/cs
7	127	0705	38	58.99	31	9.05	4094.6	13.3	60	SN
7	127	0730	38	56.20	31	15.20	4100.1	13.8	62	c/cs
7	127	0800	38	53.05	31	23.09	4107.0	12.6	64	GPS
7	127	0830	38	50.32	31	30.35	4113.3	12.5	61	GPS
7	127	0900	38	47.30	31	37.37	4119.6	12.2	56	GPS
7	127	1000	38	40.44	31	50.31	4131.8	11.5	58	GPS
7	127	1200	38	28.27	32	15.20	4154.7	11.7	61	GPS
7	127	1210	38	27.32	32	17.38	4156.7	11.6	59	SN
7	127	1230	38	25.31	32	21.60	4160.5	11.4	58	GPS
7	127	1300	38	22.31	32	27.82	4166.3	11.4	60	GPS
7	127	1400	38	16.63	32	40.48	4177.7	11.2	59	GPS
7	127	1440	38	12.81	32	48.66	4185.2	11.5	61	SN
7	127	1515	38	9.51	32	56.11	4191.9	12.4	63	SN
7	127	1530	38	8.11	32	59.64	4195.0	11.1	63	GPS
7	127	1550	38	6.45	33	3.84	4198.7	11.6	64	SN
7	127	1600	38	5.60	33	6.04	4200.6	10.8	67	GPS
7	127	1625	38	3.85	33	11.31	4205.1	10.9	71	SN
7	127	1700	38	1.80	33	18.90	4211.5	9.9	58	c/cs
7	127	1735	37	58.73	33	25.09	4217.2	10.5	57	SN
7	127	1800	37	56.37	33	29.76	4221.6	10.1	58	GPS
7	127	1800	37	56.40	33	29.80	4221.6	10.7	53	c/cs
7	127	1830	37	53.20	33	35.20	4226.9	10.3	51	c/cs
7	127	1900	37	49.96	33	40.30	4232.1	10.3	47	GPS
7	127	1900	37	50.00	33	40.30	4232.1	10.0	48	c/cs
7	127	1915	37	48.29	33	42.67	4234.6	11.3	48	SN
7	127	1930	37	46.41	33	45.35	4237.4	11.5	50	GPS
7	127	1930	37	46.40	33	45.30	4237.4	10.8	48	c/cs
7	127	2000	37	42.80	33	50.39	4242.8	10.5	45	GPS
7	127	2000	37	42.80	33	50.40	4242.8	11.7	47	c/cs
7	127	2040	37	37.44	33	57.54	4250.6	11.4	51	SN
7	127	2100	37	35.00	34	1.30	4254.4	10.8	54	c/cs
7	127	2130	37	31.85	34	6.79	4259.8	12.0	50	GPS
7	127	2200	37	28.02	34	12.60	4265.8	11.3	49	DR
7	127	2225	37	24.94	34	17.07	4270.5	10.7	57	SN
7	127	2300	37	21.57	34	23.67	4276.8	11.4	52	GPS
7	127	2300	37	21.60	34	23.70	4276.8	12.1	55	c/cs
7	127	2330	37	18.15	34	29.91	4282.8	12.0	55	DR
7	127	2330	37	18.20	34	29.90	4282.8	12.3	56	c/cs
8	128	0000	37	14.75	34	36.33	4288.9	12.3	56	DR
8	128	0030	37	11.34	34	42.72	4295.0	13.8	55	DR
8	128	0130	37	3.50	34	56.90	4308.8	14.5	57	c/cs
8	128	0135	37	2.89	34	58.20	4310.0	13.1	57	SN
8	128	0200	36	59.90	35	3.90	4315.5	12.4	60	c/cs
8	128	0236	36	56.13	35	11.93	4322.9	12.9	56	SN
8	128	0325	36	50.24	35	22.91	4333.5	13.5	56	SN
8	128	0630	36	26.80	36	5.80	4375.1	13.1	54	c/cs
8	128	0700	36	22.90	36	12.40	4381.7	13.8	51	c/cs
8	128	0800	36	14.21	36	25.64	4385.5	12.8	52	GPS
8	128	0830	36	10.18	36	32.02	4402.0	13.0	53	GPS
8	128	0900	36	6.28	36	38.48	4408.5	14.0	51	GPS

Table 1 (continued).

Date (1986)	Julian day	Time (UTC)	Latitude(s) (deg)	(min)	Longitude(s) (deg)	(min)	Distance (nmi)	Actual speed (kt)	Actual course (deg)	Comments[a]
May										
8	128	0900	36	6.30	36	38.50	4408.5	13.1	53	c/cs
8	128	0930	36	2.39	36	44.98	4415.0	12.4	55	GPS
8	128	0930	36	2.40	36	45.00	4415.0	13.2	54	c/cs
8	128	1000	35	58.55	36	51.58	4421.6	13.5	52	DR
8	128	1000	35	58.60	36	51.60	4421.6	13.1	55	c/cs
8	128	1030	35	54.77	36	58.21	4428.2	13.1	56	DR
8	128	1100	35	51.12	37	4.90	4434.7	13.9	57	GPS
8	128	1100	35	51.10	37	4.90	4434.7	13.6	56	c/cs
8	128	1135	35	46.65	37	12.94	4442.6	11.5	53	SN
8	128	1200	35	43.75	37	17.63	4447.4	12.6	55	GPS
8	128	1230	35	40.14	37	24.00	4453.7	12.8	54	GPS
8	128	1300	35	36.41	37	30.40	4460.1	12.4	51	GPS
8	128	1330	35	32.52	37	36.33	4466.3	12.2	49	GPS
8	128	1330	35	32.50	37	36.30	4466.3	12.6	53	c/cs
8	128	1350	35	29.98	37	40.42	4470.5	12.6	55	SN
8	128	1400	35	28.78	37	42.54	4472.6	13.5	59	GPS
8	128	1400	35	28.80	37	42.50	4472.6	13.3	55	c/cs
8	128	1430	35	25.00	37	49.30	4479.3	12.9	53	c/cs
8	128	1440	35	23.71	37	51.38	4481.4	12.6	55	SN
8	128	1500	35	21.28	37	55.58	4485.6	13.8	57	GPS
8	128	1530	35	17.51	38	2.64	4492.5	13.4	52	GPS
8	128	1530	35	17.50	38	2.60	4492.5	14.2	55	c/cs
8	128	1625	35	10.14	38	15.74	4505.5	12.8	54	SN
8	128	1700	35	5.79	38	23.12	4512.9	13.4	60	GPS
8	128	1700	35	5.80	38	23.10	4512.9	13.4	54	c/cs
8	128	1730	35	1.89	38	29.74	4519.6	13.4	53	GPS
8	128	1800	34	57.87	38	36.27	4526.3	13.4	51	GPS
8	128	1830	34	53.66	38	42.63	4533.0	13.4	51	GPS
8	128	1850	34	50.85	38	46.86	4537.5	13.1	52	SN
8	128	1923	34	46.40	38	53.80	4544.7	12.8	51	c/cs
8	128	1930	34	45.48	38	55.20	4546.2	13.5	53	GPS
8	128	1938	34	44.40	38	57.00	4548.0	13.8	53	c/cs
8	128	1954	34	42.20	39	0.60	4551.6	13.0	53	c/cs
8	128	1956	34	42.00	39	1.00	4552.1	14.0	54	c/cs
8	128	2005	34	40.74	39	3.05	4554.2	12.3	49	SN
8	128	2009	34	40.20	39	3.80	4555.0	12.4	50	c/cs
8	128	2027	34	37.80	39	7.20	4558.7	12.4	50	c/cs
8	128	2030	34	37.39	39	7.82	4559.3	13.5	52	GPS
8	128	2036	34	36.60	39	9.10	4560.7	13.4	53	c/cs
8	128	2050	34	34.70	39	12.10	4563.8	13.5	52	c/cs
8	128	2059	34	33.40	39	14.10	4565.8	13.6	53	c/cs
8	128	2100	34	33.26	39	14.28	4566.1	13.4	52	GPS
8	128	2115	34	31.20	39	17.50	4569.4	13.3	49	c/cs
8	128	2118	34	30.80	39	18.10	4570.1	13.4	53	c/cs
8	128	2130	34	29.20	39	20.70	4572.8	13.2	53	c/cs
8	128	2138	34	28.10	39	22.40	4574.5	12.7	52	c/cs
8	128	2142	34	27.60	39	23.20	4575.4	13.4	53	c/cs
8	128	2155	34	25.90	39	26.00	4578.3	13.6	52	c/cs
8	128	2200	34	25.16	39	27.11	4579.4	13.7	53	GPS
8	128	2201	34	25.00	39	27.30	4579.6	13.4	54	c/cs
8	128	2213	34	23.40	39	29.90	4582.3	13.7	54	c/cs
8	128	2224	34	21.90	39	32.40	4584.8	13.5	53	c/cs
8	128	2230	34	21.13	39	33.69	4586.1	13.3	53	GPS
8	128	2231	34	21.00	39	33.90	4586.4	13.2	54	c/cs
8	128	2234	34	20.60	39	34.50	4587.0	3.7	44	c/cs
8	128	2236	34	20.50	39	34.70	4587.2	13.5	54	c/cs
8	128	2256	34	17.80	39	39.00	4591.6	13.4	54	c/cs
8	128	2300	34	17.32	39	39.89	4592.5	13.0	53	GPS
8	128	2307	34	16.40	39	41.30	4594.0	13.0	53	c/cs
8	128	2319	34	14.80	39	43.90	4596.6	12.8	53	c/cs
8	128	2329	34	13.50	39	45.90	4598.8	13.3	53	c/cs
8	128	2335	34	12.70	39	47.20	4600.1	13.1	53	c/cs
8	128	2340	34	12.09	39	48.25	4601.2	14.2	55	SN
8	128	2345	34	11.40	39	49.40	4602.4	14.2	54	c/cs
8	128	2354	34	10.10	39	51.50	4604.5	13.8	56	c/cs
9	129	0000	34	9.40	39	52.90	4605.9	13.8	56	c/cs
9	129	0008	34	8.30	39	54.70	4607.7	13.8	56	c/cs
9	129	0015	34	7.40	39	56.30	4609.4	14.1	56	c/cs
9	129	0020	34	6.80	39	57.50	4610.5	13.4	55	c/cs
9	129	0025	34	6.10	39	58.60	4611.7	13.9	56	c/cs
9	129	0030	34	5.50	39	59.80	4612.8	13.1	54	c/cs
9	129	0037	34	4.60	40	1.30	4614.3	13.7	55	c/cs
9	129	0046	34	3.40	40	3.30	4616.4	14.0	55	c/cs
9	129	0050	34	2.90	40	4.30	4617.3	13.9	52	c/cs
9	129	0058	34	1.70	40	6.00	4619.2	14.0	50	c/cs
9	129	0106	34	0.50	40	7.70	4621.1	13.8	52	c/cs

Table 1 (continued).

Date (1986)	Julian day	Time (UTC)	Latitude(s) (deg)	(min)	Longitude(s) (deg)	(min)	Distance (nmi)	Actual speed (kt)	Actual course (deg)	Comments[a]
May										
9	129	0110	33	59.97	40	8.61	4622.0	12.8	50	SN
9	129	0119	33	58.70	40	10.40	4623.9	13.2	50	c/cs
9	129	0129	33	57.30	40	12.40	4626.1	12.8	49	c/cs
9	129	0144	33	55.20	40	15.30	4629.3	13.0	49	c/cs
9	129	0151	33	54.30	40	16.70	4630.8	13.0	50	c/cs
9	129	0157	33	53.40	40	17.90	4632.1	12.5	49	c/cs
9	129	0202	33	52.70	40	18.90	4633.1	13.0	50	c/cs
9	129	0211	33	51.50	40	20.70	4635.1	13.0	49	c/cs
9	129	0225	33	49.52	40	23.44	4638.1	11.7	47	SN
9	129	0230	33	48.90	40	24.30	4639.1	11.6	47	c/cs
9	129	0245	33	46.90	40	26.90	4642.0	11.6	46	c/cs
9	129	0250	33	46.20	40	27.70	4643.0	10.8	48	c/cs
9	129	0253	33	45.90	40	28.20	4643.5	11.7	47	c/cs
9	129	0258	33	45.20	40	29.00	4644.5	11.5	48	c/cs
9	129	0301	33	44.81	40	29.56	4645.1	12.7	50	SN
9	129	0328	33	41.10	40	34.80	4650.8	12.9	49	c/cs
9	129	0333	33	40.43	40	35.81	4651.9	13.9	50	SN
9	129	0346	33	38.50	40	38.60	4654.9	13.6	49	c/cs
9	129	0356	33	37.00	40	40.60	4657.1	14.2	50	c/cs
9	129	0359	33	36.50	40	41.30	4657.8	13.7	49	c/cs
9	129	0432	33	31.60	40	48.20	4665.4	13.4	50	c/cs
9	129	0437	33	30.90	40	49.20	4666.5	13.9	51	c/cs
9	129	0442	33	30.20	40	50.30	4667.7	13.7	50	c/cs
9	129	0451	33	28.90	40	52.20	4669.7	13.5	50	c/cs
9	129	0501	33	27.40	40	54.30	4672.0	13.6	50	c/cs
9	129	0514	33	25.60	40	57.00	4674.9	13.7	50	c/cs
9	129	0525	33	24.00	40	59.30	4677.4	13.6	50	c/cs
9	129	0543	33	21.30	41	3.10	4681.5	13.8	50	c/cs
9	129	0558	33	19.10	41	6.30	4685.0	13.4	50	c/cs
9	129	0611	33	17.30	41	8.90	4687.9	13.7	50	c/cs
9	129	0615	33	16.70	41	9.79	4688.8	13.5	52	SN
9	129	0621	33	15.90	41	11.10	4690.2	13.3	52	c/cs
9	129	0638	33	13.60	41	14.60	4693.9	13.5	52	c/cs
9	129	0653	33	11.50	41	17.80	4697.3	13.4	52	c/cs
9	129	0659	33	10.70	41	19.10	4698.7	10.7	50	c/cs
9	129	0700	33	10.59	41	19.27	4698.8	10.9	50	GPS
9	129	0701	33	10.50	41	19.40	4699.0	13.6	53	c/cs
9	129	0711	33	9.10	41	21.60	4701.3	13.5	53	c/cs
9	129	0716	33	8.40	41	22.60	4702.4	13.5	55	c/cs
9	129	0724	33	7.40	41	24.40	4704.2	13.6	55	c/cs
9	129	0730	33	6.62	41	25.74	4705.5	12.9	53	GPS
9	129	0737	33	5.70	41	27.20	4707.1	13.1	52	c/cs
9	129	0744	33	4.80	41	28.60	4708.6	12.9	52	c/cs
9	129	0757	33	3.00	41	31.20	4711.4	13.2	53	c/cs
9	129	0800	33	2.62	41	31.86	4712.1	13.3	51	GPS
9	129	0807	33	1.70	41	33.30	4713.6	12.8	50	c/cs
9	129	0812	33	1.00	41	34.30	4714.7	13.0	50	c/cs
9	129	0827	32	58.90	41	37.30	4717.9	13.1	51	c/cs
9	129	0830	32	58.50	41	37.87	4718.6	13.0	51	GPS
9	129	0843	32	56.70	41	40.50	4721.4	12.9	51	c/cs
9	129	0853	32	55.40	41	42.50	4723.5	12.4	50	c/cs
9	129	0858	32	54.70	41	43.40	4724.6	12.9	51	c/cs
9	129	0900	32	54.46	41	43.83	4725.0	12.2	54	GPS
9	129	0915	32	52.66	41	46.77	4728.0	13.9	57	SN
9	129	0916	32	52.50	41	47.00	4728.3	14.0	57	c/cs
9	129	0930	32	50.73	41	50.26	4731.6	13.1	55	GPS
9	129	0931	32	50.60	41	50.50	4731.8	12.9	55	c/cs
9	129	0939	32	49.60	41	52.20	4733.5	13.1	56	c/cs
9	129	0956	32	47.50	41	55.80	4737.2	13.0	56	c/cs
9	129	1000	32	47.03	41	56.66	4738.1	12.8	56	GPS
9	129	1014	32	45.30	41	59.60	4741.1	12.3	56	c/cs
9	129	1017	32	45.00	42	0.20	4741.7	13.0	55	c/cs
9	129	1030	32	43.38	42	2.93	4744.5	13.2	55	GPS
9	129	1031	32	43.30	42	3.10	4744.7	12.9	57	c/cs
9	129	1035	32	42.80	42	4.00	4745.6	12.9	56	c/cs
9	129	1044	32	41.70	42	5.90	4747.5	10.5	52	c/cs
9	129	1045	32	41.60	42	6.10	4747.7	12.7	55	c/cs
9	129	1054	32	40.50	42	7.90	4749.6	13.1	56	c/cs
9	129	1100	32	39.74	42	9.19	4750.9	12.7	56	GPS
9	129	1105	32	39.10	42	10.20	4752.0	12.6	56	c/cs
9	129	1118	32	37.60	42	12.90	4754.7	12.8	56	c/cs
9	129	1123	32	37.00	42	14.00	4755.8	12.6	55	c/cs
9	129	1130	32	36.17	42	15.39	4757.2	13.2	55	GPS
9	129	1138	32	35.20	42	17.10	4759.0	13.3	55	c/cs
9	129	1145	32	34.30	42	18.60	4760.5	13.4	54	c/cs
9	129	1153	32	33.20	42	20.30	4762.3	13.0	54	c/cs

Table 1 (continued).

Date (1986)	Julian day	Time (UTC)	Latitude(s) (deg)	(min)	Longitude(s) (deg)	(min)	Distance (nmi)	Actual speed (kt)	Actual course (deg)	Comments[a]
May										
9	129	1200	32	32.34	42	21.79	4763.8	13.1	54	GPS
9	129	1200	32	32.30	42	21.80	4763.8	13.5	53	c/cs
9	129	1214	32	30.50	42	24.80	4767.0	13.2	53	c/cs
9	129	1229	32	28.50	42	27.90	4770.3	13.4	52	c/cs
9	129	1230	32	28.36	42	28.13	4770.5	13.4	49	GPS
9	129	1244	32	26.30	42	30.90	4773.6	13.0	50	c/cs
9	129	1300	32	24.07	42	34.08	4777.1	13.3	49	GPS
9	129	1309	32	22.80	42	35.90	4779.1	13.3	49	c/cs
9	129	1320	32	21.20	42	38.10	4781.5	13.5	49	c/cs
9	129	1330	32	19.71	42	40.08	4783.8	13.6	51	GPS
9	129	1330	32	19.70	42	40.10	4783.8	13.6	51	c/cs
9	129	1345	32	17.60	42	43.20	4787.2	14.1	50	c/cs
9	129	1349	32	17.00	42	44.10	4788.1	13.7	51	c/cs
9	129	1400	32	15.41	42	46.39	4790.6	13.8	52	GPS
9	129	1403	32	15.00	42	47.00	4791.3	13.3	50	c/cs
9	129	1408	32	14.30	42	48.00	4792.4	13.8	51	c/cs
9	129	1413	32	13.50	42	49.10	4793.6	13.5	50	c/cs
9	129	1423	32	12.10	42	51.10	4795.8	13.9	51	c/cs
9	129	1430	32	11.07	42	52.60	4797.5	13.9	50	GPS
9	129	1433	32	10.60	42	53.20	4798.2	11.6	50	c/cs
9	129	1435	32	10.40	42	53.60	4798.5	13.7	50	c/cs
9	129	1455	32	7.40	42	57.70	4803.1	13.8	50	c/cs
9	129	1500	32	6.70	42	58.74	4804.3	13.2	48	GPS
9	129	1506	32	5.80	42	59.90	4805.6	13.0	48	c/cs
9	129	1518	32	4.10	43	2.20	4808.2	12.9	49	c/cs
9	129	1520	32	3.79	43	2.54	4808.6	13.6	50	SN
9	129	1526	32	2.90	43	3.80	4810.0	13.9	48	c/cs
9	129	1534	32	1.70	43	5.40	4811.8	13.5	49	c/cs
9	129	1549	31	59.50	43	8.40	4815.2	13.4	51	c/cs
9	129	1552	31	59.10	43	9.00	4815.9	13.8	49	c/cs
9	129	1600	31	57.86	43	10.69	4817.7	13.7	50	GPS
9	129	1602	31	57.60	43	11.10	4818.2	13.2	49	c/cs
9	129	1609	31	56.60	43	12.50	4819.7	13.3	49	c/cs
9	129	1620	31	55.00	43	14.70	4822.1	13.5	51	c/cs
9	129	1630	31	53.58	43	16.72	4824.4	13.4	51	GPS
9	129	1643	31	51.80	43	19.40	4827.3	13.4	51	c/cs
9	129	1645	31	51.49	43	19.79	4827.7	13.1	51	SN
9	129	1658	31	49.70	43	22.40	4830.6	12.8	51	c/cs
9	129	1700	31	49.44	43	22.79	4831.0	13.1	51	GPS
9	129	1705	31	48.70	43	23.80	4832.1	13.4	52	c/cs
9	129	1711	31	47.90	43	25.00	4833.4	12.9	49	c/cs
9	129	1713	31	47.60	43	25.40	4833.8	6.4	46	c/cs
9	129	1715	31	47.50	43	25.60	4834.1	13.4	51	c/cs
9	129	1730	31	45.36	43	28.63	4837.4	12.7	50	GPS
9	129	1748	31	42.90	43	32.10	4841.2	12.8	50	c/cs
9	129	1754	31	42.10	43	33.20	4842.5	12.5	50	c/cs
9	129	1758	31	41.50	43	34.00	4843.3	12.8	50	c/cs
9	129	1800	31	41.26	43	34.35	4843.8	13.6	50	GPS
9	129	1814	31	39.20	43	37.20	4837.0	13.8	50	c/cs
9	129	1825	31	37.58	43	39.48	4849.5	13.0	50	SN
9	129	1826	31	37.40	43	39.70	4849.7	12.5	51	c/cs
9	129	1831	31	36.80	43	40.60	4850.7	12.6	50	c/cs
9	129	1842	31	35.30	43	42.70	4853.1	12.8	50	c/cs
9	129	1900	31	32.84	43	46.17	4856.9	13.0	50	GPS
9	129	1902	31	32.60	43	46.60	4857.3	12.7	50	c/cs
9	129	1910	31	31.50	43	48.10	4859.0	13.0	51	c/cs
9	129	1914	31	30.90	43	48.90	4859.9	9.9	50	c/cs
9	129	1915	31	30.80	43	49.00	4860.1	12.8	50	c/cs
9	129	1925	31	29.50	43	51.00	4862.2	13.1	50	c/cs
9	129	1930	31	28.80	43	51.90	4863.3	12.7	50	c/cs
9	129	1938	31	27.70	43	53.50	4865.0	13.0	50	c/cs
9	129	1945	31	26.70	43	54.80	4866.5	13.2	51	c/cs
9	129	1950	31	26.00	43	55.80	4867.6	12.5	50	c/cs
9	129	1956	31	25.20	43	57.00	4868.8	13.1	50	c/cs
9	129	2000	31	24.67	43	57.75	4869.7	12.6	50	GPS
9	129	2015	31	22.65	44	0.59	4872.9	13.6	50	SN
9	129	2021	31	21.80	44	1.80	4874.2	13.4	50	c/cs
9	129	2030	31	20.47	44	3.60	4876.2	12.6	50	GPS
9	129	2038	31	19.40	44	5.10	4877.9	12.6	50	c/cs
9	129	2054	31	17.20	44	8.10	4881.3	12.7	50	c/cs
9	129	2100	31	16.40	44	9.23	4882.5	13.3	52	GPS
9	129	2101	31	16.30	44	9.40	4882.8	13.2	52	c/cs
9	129	2119	31	13.80	44	13.10	4886.7	12.9	52	c/cs
9	129	2129	31	12.50	44	15.00	4888.9	13.0	53	c/cs
9	129	2135	31	11.70	44	16.30	4890.2	10.3	51	c/cs
9	129	2137	31	11.50	44	16.60	4890.5	13.1	52	c/cs

Table 1 (continued).

Date (1986)	Julian day	Time (UTC)	Latitude(s) (deg)	(min)	Longitude(s) (deg)	(min)	Distance (nmi)	Actual speed (kt)	Actual course (deg)	Comments[a]
May										
9	129	2200	31	8.40	44	21.20	4895.5	13.3	52	GPS
9	129	2212	31	6.80	44	23.60	4898.2	13.2	52	c/cs
9	129	2223	31	5.30	44	25.90	4900.6	13.2	52	c/cs
9	129	2230	31	4.33	44	27.30	4902.3	13.2	54	GPS
9	129	2238	31	3.30	44	29.00	4903.9	13.2	54	c/cs
9	129	2255	31	1.10	44	32.50	4907.7	12.6	54	c/cs
9	129	2300	31	0.45	44	33.47	4908.7	9.5	54	GPS
9	129	2300	31	0.40	44	33.50	4908.7	10.1	54	c/cs
9	129	2305	30	59.96	44	34.27	4909.6	13.0	53	SN
9	129	2316	30	58.50	44	36.50	4911.9	13.2	53	c/cs
9	129	2331	30	56.50	44	39.50	4915.2	12.9	53	c/cs
9	129	2341	30	55.20	44	41.50	4917.4	13.4	53	c/cs
9	129	2351	30	53.80	44	43.60	4919.6	13.3	53	c/cs
9	129	2357	30	53.00	44	44.80	4921.0	13.0	53	c/cs
10	130	0000	30	52.60	44	45.40	4921.6	13.0	53	c/cs
10	130	0006	30	51.80	44	46.60	4922.9	13.2	53	c/cs
10	130	0014	30	50.80	44	48.30	4924.7	12.4	53	c/cs
10	130	0017	30	50.40	44	48.80	4925.3	13.4	53	c/cs
10	130	0022	30	49.70	44	49.90	4926.4	13.1	53	c/cs
10	130	0030	30	48.70	44	51.50	4928.1	13.2	53	c/cs
10	130	0050	30	46.01	44	55.54	4932.5	13.8	52	SN
10	130	0053	30	45.60	44	56.20	4933.2	14.0	52	c/cs
10	130	0108	30	43.40	44	59.40	4936.7	14.1	52	c/cs
10	130	0118	30	42.00	45	1.50	4939.1	13.4	50	c/cs
10	130	0126	30	40.80	45	3.10	4940.9	13.9	49	c/cs
10	130	0140	30	38.70	45	5.90	4944.1	13.9	48	c/cs
10	130	0150	30	37.10	45	8.00	4946.4	14.0	48	c/cs
10	130	0158	30	35.90	45	9.60	4948.3	14.0	48	c/cs
10	130	0206	30	34.70	45	11.20	4950.2	14.0	48	c/cs
10	130	0215	30	33.40	45	12.80	4952.0	13.3	49	c/cs
10	130	0219	30	32.70	45	13.80	4953.1	13.6	48	c/cs
10	130	0228	30	31.30	45	15.50	4955.2	13.9	48	c/cs
10	130	0235	30	30.25	45	16.95	4956.8	14.0	56	SN
10	130	0252	30	28.00	45	20.80	4960.8	14.1	57	c/cs
10	130	0302	30	26.75	45	23.06	4963.1	13.2	41	SN
10	130	0304	30	26.40	45	23.40	4963.5	13.2	40	c/cs
10	130	0325	30	22.90	45	26.90	4968.2	13.2	41	c/cs
10	130	0332	30	21.80	45	28.00	4969.7	13.1	40	c/cs
10	130	0405	30	16.30	45	33.50	4976.9	12.7	41	c/cs
10	130	0413	30	15.00	45	34.70	4978.6	13.2	40	c/cs
10	130	0435	30	11.20	45	38.30	4983.4	12.9	40	c/cs
10	130	0446	30	9.40	45	40.10	4985.8	13.4	41	c/cs
10	130	0453	30	8.30	45	41.30	4987.4	13.1	39	c/cs
10	130	0501	30	6.90	45	42.60	4989.1	13.0	39	c/cs
10	130	0511	30	5.20	45	44.10	4991.3	13.3	40	c/cs
10	130	0527	30	2.50	45	46.80	4994.9	13.0	39	c/cs
10	130	0554	29	58.00	45	51.10	5000.7	13.3	40	c/cs
10	130	0604	29	56.30	45	52.70	5002.9	13.1	40	c/cs
10	130	0612	29	54.90	45	54.00	5004.7	13.3	40	c/cs
10	130	0620	29	53.60	45	55.30	5006.5	13.1	39	c/cs
10	130	0625	29	52.71	45	56.12	5007.6	12.5	43	SN
10	130	0630	29	51.90	45	56.90	5008.6	12.9	43	c/cs
10	130	0637	29	50.80	45	58.10	5010.1	12.5	44	c/cs
10	130	0650	29	48.90	46	0.30	5012.8	12.7	43	c/cs
10	130	0713	29	45.30	46	4.10	5017.7	12.5	44	c/cs
10	130	0721	29	44.10	46	5.40	5019.4	12.7	44	c/cs
10	130	0741	29	41.00	46	8.80	5023.6	12.5	44	c/cs
10	130	0753	29	39.20	46	10.80	5026.1	12.4	44	c/cs
10	130	0800	29	38.21	46	11.94	5027.5	12.4	44	GPS
10	130	0804	29	37.60	46	12.60	5028.4	12.3	44	c/cs
10	130	0819	29	35.40	46	15.00	5031.4	12.3	44	c/cs
10	130	0830	29	33.76	46	16.82	5033.7	12.5	44	GPS
10	130	0842	29	32.00	46	18.80	5036.2	12.5	43	c/cs
10	130	0855	29	30.00	46	20.90	5038.9	12.7	43	c/cs
10	130	0900	29	29.19	46	21.76	5040.0	12.6	43	GPS
10	130	0907	29	28.10	46	22.90	5041.4	12.9	44	c/cs
10	130	0910	29	27.70	46	23.40	5042.1	12.3	43	c/cs
10	130	0918	29	26.50	46	24.70	5043.7	12.4	46	c/cs
10	130	0930	29	24.74	46	26.77	5046.2	12.1	47	GPS
10	130	0946	29	22.50	46	29.50	5049.4	12.2	47	c/cs
10	130	1000	29	20.59	46	31.86	5052.3	12.4	45	GPS
10	130	1003	29	20.20	46	32.40	5052.9	12.3	45	c/cs
10	130	1029	29	16.40	46	36.70	5058.2	12.4	45	c/cs
10	130	1030	29	16.27	46	36.87	5058.4	12.3	46	GPS
10	130	1038	29	15.10	46	38.20	5060.0	12.3	46	c/cs
10	130	1057	29	12.40	46	41.40	5063.9	11.9	47	c/cs

Table 1 (continued).

Date (1986)	Julian day	Time (UTC)	Latitude(s) (deg)	(min)	Longitude(s) (deg)	(min)	Distance (nmi)	Actual speed (kt)	Actual course (deg)	Comments[a]
May										
10	130	1100	29	12.03	46	41.92	5064.5	11.7	47	GPS
10	130	1104	29	11.50	46	42.60	5065.3	12.3	46	c/cs
10	130	1116	29	9.80	46	44.60	5067.8	12.0	47	c/cs
10	130	1127	29	8.30	46	46.40	5070.0	11.6	46	c/cs
10	130	1130	29	7.89	46	46.92	5070.5	11.6	45	GPS
10	130	1132	29	7.60	46	47.20	5070.9	11.9	46	c/cs
10	130	1147	29	5.50	46	49.70	5073.9	12.1	46	c/cs
10	130	1200	29	3.72	46	51.82	5076.5	12.1	48	GPS
10	130	1203	29	3.30	46	52.30	5077.1	11.9	50	c/cs
10	130	1217	29	1.50	46	54.80	5079.9	11.9	50	c/cs
10	130	1230	28	59.88	46	57.06	5082.5	11.9	49	GPS
10	130	1230	28	59.90	46	57.10	5082.5	11.9	48	c/cs
10	130	1243	28	58.20	46	59.30	5085.1	11.7	46	c/cs
10	130	1248	28	57.50	47	0.10	5086.1	12.1	45	c/cs
10	130	1253	28	56.80	47	0.90	5087.1	11.9	47	c/cs
10	130	1314	28	53.90	47	4.30	5091.2	12.0	48	c/cs
10	130	1323	28	52.70	47	5.90	5093.0	12.0	48	c/cs
10	130	1346	28	49.60	47	9.70	5097.6	11.7	46	c/cs
10	130	1400	28	47.73	47	11.99	5100.3	11.8	50	GPS
10	130	1404	28	47.20	47	12.70	5101.1	12.1	50	c/cs
10	130	1412	28	46.20	47	14.10	5102.7	11.8	50	c/cs
10	130	1430	28	43.90	47	17.19	5106.3	11.8	50	GPS
10	130	1434	28	43.40	47	17.90	5107.1	11.9	50	c/cs
10	130	1450	28	41.30	47	20.60	5110.3	11.7	50	c/cs
10	130	1500	28	40.07	47	22.32	5112.2	11.5	48	GPS
10	130	1500	28	40.10	47	22.30	5112.2	11.8	49	c/cs
10	130	1513	28	38.40	47	24.50	5114.8	11.5	48	c/cs
10	130	1526	28	36.70	47	26.60	5117.3	11.6	47	c/cs
10	130	1530	28	36.18	47	27.27	5118.0	11.6	47	GPS
10	130	1533	28	35.80	47	27.80	5118.6	11.4	48	c/cs
10	130	1556	28	32.90	47	31.50	5123.0	11.7	48	c/cs
10	130	1600	28	32.36	47	32.15	5123.8	11.5	49	GPS
10	130	1604	28	31.90	47	32.80	5124.5	11.2	50	c/cs
10	130	1616	28	30.40	47	34.80	5126.8	11.3	50	c/cs
10	130	1629	28	28.80	47	36.90	5129.2	11.1	50	c/cs
10	130	1630	28	28.71	47	37.05	5129.4	11.3	50	GPS
10	130	1647	28	26.70	47	39.80	5132.6	11.5	50	c/cs
10	130	1700	28	25.07	47	42.04	5135.1	11.5	51	GPS
10	130	1712	28	23.60	47	44.10	5137.4	11.3	53	c/cs
10	130	1730	28	21.55	47	47.12	5140.8	11.3	51	GPS
10	130	1730	28	21.60	47	47.10	5140.8	11.7	51	c/cs
10	130	1735	28	20.90	47	48.00	5141.8	11.5	48	c/cs
10	130	1742	28	20.00	47	49.10	5143.1	11.6	48	c/cs
10	130	1800	28	17.74	47	52.07	5146.6	11.8	45	GPS
10	130	1801	28	17.60	47	52.20	5146.8	11.4	43	c/cs
10	130	1806	28	16.90	47	53.00	5147.7	12.1	43	c/cs
10	130	1821	28	14.70	47	55.30	5150.8	11.3	42	c/cs
10	130	1825	28	14.20	47	55.90	5151.5	12.1	42	c/cs
10	130	1836	28	12.50	47	57.60	5153.7	11.5	44	c/cs
10	130	1841	28	11.80	47	58.30	5154.7	11.9	43	c/cs
10	130	1851	28	10.40	47	59.90	5156.7	12.1	44	c/cs
10	130	1856	28	9.70	48	0.70	5157.7	12.4	43	c/cs
10	130	1859	28	9.20	48	1.20	5158.3	11.7	43	c/cs
10	130	1900	28	9.07	48	1.32	5158.5	10.7	50	GPS
10	130	1907	28	8.30	48	2.40	5159.7	11.1	51	c/cs
10	130	1914	28	7.40	48	3.50	5161.0	10.7	50	c/cs
10	130	1924	28	6.30	48	5.10	5162.8	11.0	51	c/cs
10	130	1930	28	5.61	48	6.06	5163.9	12.1	48	GPS
10	130	1939	28	4.40	48	7.60	5165.7	11.3	48	c/cs
10	130	1945	28	3.60	48	8.50	5166.9	12.1	49	c/cs
10	130	1950	28	2.97	48	9.41	5167.9	11.7	51	SN
10	130	1950	28	3.00	48	9.40	5167.9	11.5	50	c/cs
10	130	2000	28	1.73	48	11.06	5169.8	11.2	46	GPS
10	130	2002	28	1.50	48	11.40	5170.2	11.4	47	c/cs
10	130	2013	28	0.10	48	13.10	5172.3	11.2	46	c/cs
10	130	2025	27	58.50	48	14.90	5174.5	11.4	47	c/cs
10	130	2030	27	57.87	48	15.74	5175.5	11.8	50	GPS
10	130	2037	27	57.00	48	16.90	5176.8	11.2	49	c/cs
10	130	2045	27	56.00	48	18.20	5178.3	11.5	49	c/cs
10	130	2051	27	55.30	48	19.20	5179.5	12.1	50	c/cs
10	130	2056	27	54.60	48	20.10	5180.5	11.6	49	c/cs
10	130	2100	27	54.10	48	20.72	5181.3	11.5	49	GPS
10	130	2113	27	52.50	48	22.80	5183.7	11.5	49	c/cs
10	130	2126	27	50.80	48	25.00	5186.2	10.6	50	c/cs
10	130	2129	27	50.50	48	25.40	5186.8	11.3	49	c/cs
10	130	2130	27	50.36	48	25.60	5187.0	11.3	49	GPS

Table 1 (continued).

Date (1986)	Julian day	Time (UTC)	Latitude(s) (deg)	(min)	Longitude(s) (deg)	(min)	Distance (nmi)	Actual speed (kt)	Actual course (deg)	Comments[a]
May										
10	130	2138	27	49.40	48	26.90	5188.5	11.3	50	c/cs
10	130	2152	27	47.70	48	29.20	5191.1	11.4	49	c/cs
10	130	2200	27	46.68	48	30.47	5192.6	11.2	49	GPS
10	130	2207	27	45.80	48	31.60	5193.9	11.0	48	c/cs
10	130	2214	27	45.00	48	32.70	5195.2	11.4	49	c/cs
10	130	2227	27	43.30	48	34.80	5197.7	11.3	48	c/cs
10	130	2230	27	42.97	48	35.24	5198.2	11.5	48	GPS
10	130	2240	27	41.70	48	36.90	5200.2	11.6	48	c/cs
10	130	2252	27	40.20	48	38.80	5202.5	11.2	49	c/cs
10	130	2300	27	39.17	48	40.07	5204.0	11.1	48	GPS
10	130	2305	27	38.50	48	40.80	5204.9	11.5	46	c/cs
10	130	2320	27	36.60	48	43.20	5207.8	11.6	46	c/cs
10	130	2348	27	32.80	48	47.60	5213.2	11.4	46	c/cs
11	131	0000	27	31.20	48	49.40	5215.4	11.4	46	c/cs
11	131	0014	27	29.40	48	51.60	5218.1	11.5	46	c/cs
11	131	0025	27	27.90	48	53.28	5220.2	11.4	46	SN
11	131	0028	27	27.50	48	53.70	5220.8	11.3	45	c/cs
11	131	0042	27	25.70	48	55.90	5223.4	11.3	45	c/cs
11	131	0101	27	23.10	48	58.70	5227.0	11.4	45	c/cs
11	131	0109	27	22.10	48	59.90	5228.5	11.3	45	c/cs
11	131	0114	27	21.40	49	0.70	5229.5	11.2	45	c/cs
11	131	0132	27	19.10	49	3.40	5232.8	11.3	45	c/cs
11	131	0205	27	14.70	49	8.30	5239.0	11.0	45	c/cs
11	131	0212	27	13.80	49	9.30	5240.3	11.2	45	c/cs
11	131	0215	27	13.40	49	9.80	5240.9	11.4	45	SN
11	131	0223	27	12.30	49	11.00	5242.4	11.3	45	c/cs
11	131	0235	27	10.70	49	12.80	5244.6	11.3	47	c/cs
11	131	0304	27	7.00	49	17.30	5250.1	11.0	47	c/cs
11	131	0327	27	4.10	49	20.70	5254.3	11.2	47	c/cs
11	131	0337	27	2.82	49	22.23	5256.2	11.8	47	SN
11	131	0339	27	2.60	49	22.60	5256.6	11.4	47	c/cs
11	131	0355	27	0.50	49	25.00	5259.6	11.6	47	c/cs
11	131	0420	26	57.10	49	29.00	5264.4	11.3	47	c/cs
11	131	0425	26	56.50	49	29.80	5265.4	11.4	47	c/cs
11	131	0438	26	54.80	49	31.80	5267.8	11.8	47	c/cs
11	131	0443	26	54.10	49	32.60	5268.8	11.3	47	c/cs
11	131	0452	26	53.00	49	33.90	5270.5	11.8	47	c/cs
11	131	0500	26	51.90	49	35.20	5272.1	11.3	47	c/cs
11	131	0526	26	48.50	49	39.20	5277.0	11.2	47	c/cs
11	131	0536	26	47.20	49	40.70	5278.9	11.3	47	c/cs
11	131	0551	26	45.30	49	43.00	5281.7	11.2	47	c/cs
11	131	0611	26	42.70	49	46.10	5285.4	11.2	47	c/cs
11	131	0621	26	41.40	49	47.60	5287.3	11.0	46	c/cs
11	131	0629	26	40.40	49	48.80	5288.8	11.2	47	c/cs
11	131	0640	26	39.00	49	50.50	5290.8	11.1	47	c/cs
11	131	0654	26	37.20	49	52.60	5293.4	11.3	47	c/cs
11	131	0705	26	35.80	49	54.30	5295.5	11.4	47	c/cs
11	131	0710	26	35.20	49	55.00	5296.4	11.1	47	c/cs
11	131	0723	26	33.50	49	57.00	5298.9	11.3	47	c/cs
11	131	0728	26	32.80	49	57.80	5299.8	10.9	46	c/cs
11	131	0730	26	32.59	49	58.05	5300.2	10.8	47	DR
11	131	0735	26	32.00	49	58.80	5301.1	11.1	47	c/cs
11	131	0743	26	31.00	49	60.00	5302.5	11.2	48	c/cs
11	131	0746	26	30.60	50	0.50	5303.1	10.5	48	c/cs
11	131	0750	26	30.10	50	1.00	5303.8	10.9	47	c/cs
11	131	0800	26	28.88	50	2.53	5305.6	10.9	48	DR
11	131	0803	26	28.50	50	3.00	5306.2	11.3	47	c/cs
11	131	0806	26	28.10	50	3.40	5306.7	11.0	48	c/cs
11	131	0819	26	26.50	50	5.40	5309.1	11.0	48	c/cs
11	131	0830	26	25.17	50	7.09	5311.1	11.0	50	DR
11	131	0833	26	24.80	50	7.60	5311.7	11.2	50	c/cs
11	131	0849	26	22.90	50	10.10	5314.7	11.2	50	c/cs
11	131	0900	26	21.60	50	11.90	5316.7	12.1	50	DR
11	131	0904	26	21.10	50	12.60	5317.5	11.8	50	c/cs
11	131	0911	26	20.20	50	13.80	5318.9	12.0	49	c/cs
11	131	0919	26	19.10	50	15.10	5320.5	12.0	49	c/cs
11	131	0937	26	16.80	50	18.10	5324.1	11.9	49	c/cs
11	131	0945	26	15.70	50	19.50	5325.7	12.2	49	c/cs
11	131	0950	26	15.05	50	20.31	5326.7	10.9	48	SN
11	131	1010	26	12.60	50	23.30	5330.4	10.5	49	c/cs
11	131	1020	26	11.50	50	24.80	5332.1	10.6	48	c/cs
11	131	1028	26	10.50	50	26.00	5333.5	11.0	48	c/cs
11	131	1048	26	8.10	50	29.00	5337.2	11.3	48	c/cs
11	131	1053	26	7.40	50	29.80	5338.2	11.0	48	c/cs
11	131	1058	26	6.80	50	30.60	5339.1	10.8	48	c/cs
11	131	1100	26	6.57	50	30.85	5339.4	11.0	47	GPS

Table 1 (continued).

Date (1986)	Julian day	Time (UTC)	Latitude(s) (deg)	(min)	Longitude(s) (deg)	(min)	Distance (nmi)	Actual speed (kt)	Actual course (deg)	Comments[a]
May										
11	131	1111	26	5.20	50	32.50	5341.5	11.2	46	c/cs
11	131	1123	26	3.60	50	34.30	5343.7	10.8	46	c/cs
11	131	1130	26	2.74	50	35.30	5345.0	10.7	46	GPS
11	131	1141	26	1.40	50	36.90	5346.9	10.8	46	c/cs
11	131	1147	26	0.60	50	37.70	5348.0	10.6	46	c/cs
11	131	1157	25	59.40	50	39.10	5349.8	10.8	45	c/cs
11	131	1200	25	58.99	50	39.54	5350.3	10.6	47	GPS
11	131	1215	25	57.20	50	41.70	5353.0	10.8	47	c/cs
11	131	1224	25	56.10	50	43.00	5354.6	10.6	46	c/cs
11	131	1230	25	55.35	50	43.86	5355.6	10.2	41	GPS
11	131	1239	25	54.20	50	45.00	5357.2	9.9	41	c/cs
11	131	1253	25	52.50	50	46.70	5359.5	10.1	41	c/cs
11	131	1300	25	51.58	50	47.55	5360.7	10.5	45	GPS
11	131	1308	25	50.60	50	48.70	5362.1	10.9	45	c/cs
11	131	1323	25	48.60	50	50.80	5364.8	11.1	45	c/cs
11	131	1330	25	47.73	50	51.81	5366.1	10.9	43	GPS
11	131	1333	25	47.30	50	52.20	5366.6	10.7	43	c/cs
11	131	1338	25	46.70	50	52.90	5367.5	10.7	44	c/cs
11	131	1353	25	44.80	50	55.00	5370.2	10.6	43	c/cs
11	131	1400	25	43.85	50	55.89	5371.4	10.7	44	GPS
11	131	1401	25	43.70	50	56.00	5371.6	10.8	45	c/cs
11	131	1421	25	41.20	50	58.80	5375.2	10.3	44	c/cs
11	131	1430	25	40.05	51	0.03	5376.8	10.4	47	GPS
11	131	1431	25	39.90	51	0.20	5376.9	10.7	48	c/cs
11	131	1444	25	38.40	51	2.10	5379.2	10.8	48	c/cs
11	131	1454	25	37.20	51	3.60	5381.0	10.4	47	c/cs
11	131	1500	25	36.48	51	4.41	5382.1	10.7	48	GPS
11	131	1504	25	36.00	51	5.00	5382.8	10.6	49	c/cs
11	131	1512	25	35.10	51	6.20	5384.2	11.0	48	c/cs
11	131	1520	25	34.10	51	7.40	5385.7	10.2	49	c/cs
11	131	1525	25	33.50	51	8.10	5386.5	10.8	49	c/cs
11	131	1530	25	32.95	51	8.86	5387.4	10.7	49	GPS
11	131	1533	25	32.60	51	9.30	5388.0	10.6	49	c/cs
11	131	1540	25	31.80	51	10.30	5389.2	9.8	48	c/cs
11	131	1547	25	31.00	51	11.30	5390.3	9.7	49	c/cs
11	131	1553	25	30.40	51	12.10	5391.3	9.3	49	c/cs
11	131	1558	25	29.90	51	12.70	5392.1	10.7	48	c/cs
11	131	1600	25	29.62	51	13.01	5392.4	11.7	47	GPS
11	131	1605	25	29.00	51	13.80	5393.4	11.5	48	c/cs
11	131	1618	25	27.30	51	15.90	5395.9	11.3	48	c/cs
11	131	1623	25	26.70	51	16.60	5396.9	11.8	48	c/cs
11	131	1644	25	23.90	51	20.00	5401.0	12.3	46	c/cs
11	131	1646	25	23.60	51	20.30	5401.4	11.1	48	c/cs
11	131	1650	25	23.12	51	20.95	5402.1	9.6	46	SN
11	131	1654	25	22.70	51	21.50	5402.8	10.5	47	c/cs
11	131	1659	25	22.10	51	22.20	5403.6	9.9	45	c/cs
11	131	1707	25	21.20	51	23.20	5405.0	11.0	47	c/cs
11	131	1721	25	19.40	51	25.30	5407.5	10.3	46	c/cs
11	131	1730	25	18.32	51	26.51	5409.1	9.5	48	GPS
11	131	1737	25	17.60	51	27.40	5410.2	9.6	46	c/cs
11	131	1740	25	17.24	51	27.80	5410.7	11.5	52	SN
11	131	1745	25	16.60	51	28.60	5411.6	11.2	53	c/cs
11	131	1752	25	15.90	51	29.80	5412.9	11.6	53	c/cs
11	131	1800	25	14.93	51	31.15	5414.5	11.8	43	GPS
11	131	1800	25	14.90	51	31.10	5414.5	11.9	42	c/cs
11	131	1813	25	13.00	51	33.10	5417.0	11.3	42	c/cs
11	131	1825	25	11.30	51	34.70	5419.3	10.6	43	c/cs
11	131	1833	25	10.30	51	35.80	5420.7	12.0	41	c/cs
11	131	1838	25	9.60	51	36.50	5421.7	11.2	42	c/cs
11	131	1848	25	8.20	51	37.90	5423.6	11.6	43	c/cs
11	131	1900	25	6.48	51	39.64	5425.9	11.4	44	GPS
11	131	1901	25	6.30	51	39.80	5426.1	12.0	44	c/cs
11	131	1913	25	4.60	51	41.60	5428.5	11.4	44	c/cs
11	131	1921	25	3.50	51	42.80	5430.0	10.9	45	c/cs
11	131	1930	25	2.37	51	44.07	5431.6	10.6	42	GPS
11	131	1933	25	2.00	51	44.50	5432.2	10.6	41	c/cs
11	131	1943	25	0.70	51	45.80	5433.9	10.9	42	c/cs
11	131	1956	24	58.90	51	47.50	5436.3	10.8	42	c/cs
11	131	2005	24	57.72	51	48.72	5437.9	11.7	42	SN
11	131	2012	24	56.70	51	49.70	5439.3	12.1	43	c/cs
11	131	2017	24	56.00	51	50.50	5440.3	11.4	42	c/cs
11	131	2027	24	54.60	51	51.90	5442.2	11.5	42	c/cs
11	131	2040	24	52.70	51	53.70	5444.7	11.1	43	c/cs
11	131	2044	24	52.20	51	54.30	5445.4	12.0	43	c/cs
11	131	2052	24	51.00	51	55.50	5447.0	12.5	43	c/cs
11	131	2055	24	50.50	51	55.90	5447.6	12.1	43	c/cs

Table 1 (continued).

Date (1986)	Julian day	Time (UTC)	Latitude(s) (deg)	(min)	Longitude(s) (deg)	(min)	Distance (nmi)	Actual speed (kt)	Actual course (deg)	Comments[a]
May										
11	131	2102	24	49.50	51	57.00	5449.0	12.6	43	c/cs
11	131	2115	24	47.50	51	59.00	5451.8	12.7	44	c/cs
11	131	2125	24	46.00	52	0.70	5453.9	12.1	44	c/cs
11	131	2130	24	45.22	52	1.42	5454.9	12.0	42	GPS
11	131	2135	24	44.50	52	2.20	5455.9	12.5	42	c/cs
11	131	2151	24	42.00	52	4.60	5459.2	12.4	42	c/cs
11	131	2200	24	40.63	52	5.97	5461.1	11.0	50	GPS
11	131	2204	24	40.20	52	6.60	5461.8	11.5	50	c/cs
11	131	2209	24	39.50	52	7.40	5462.8	10.8	54	c/cs
11	131	2216	24	38.80	52	8.50	5464.0	11.3	55	c/cs
11	131	2226	24	37.70	52	10.20	5465.9	10.7	54	c/cs
11	131	2229	24	37.40	52	10.70	5466.5	11.1	55	c/cs
11	131	2230	24	37.31	52	10.86	5466.6	12.7	45	GPS
11	131	2234	24	36.70	52	11.50	5467.5	12.3	46	c/cs
11	131	2242	24	35.60	52	12.80	5469.1	13.0	46	c/cs
11	131	2247	24	34.80	52	13.70	5470.2	12.2	47	c/cs
11	131	2259	24	33.20	52	15.60	5472.6	12.2	47	c/cs
11	131	2312	24	31.40	52	17.80	5475.3	11.4	48	c/cs
11	131	2320	24	30.30	52	19.00	5476.8	11.8	48	c/cs
11	131	2337	24	28.10	52	21.70	5480.2	12.4	49	c/cs
11	131	2353	24	25.90	52	24.50	5483.5	12.1	48	c/cs
11	131	2357	24	25.40	52	25.10	5484.3	12.2	49	c/cs
12	132	0000	24	25.00	52	25.60	5484.9	12.2	49	c/cs
12	132	0005	24	24.29	52	26.46	5485.9	12.4	48	SN
12	132	0010	24	23.60	52	27.30	5486.9	12.1	48	c/cs
12	132	0021	24	22.10	52	29.10	5489.2	12.3	48	c/cs
12	132	0028	24	21.10	52	30.30	5490.6	11.7	47	c/cs
12	132	0036	24	20.10	52	31.50	5492.1	11.9	46	c/cs
12	132	0048	24	18.40	52	33.40	5494.5	12.0	46	c/cs
12	132	0058	24	17.00	52	35.00	5496.5	11.7	45	c/cs
12	132	0105	24	16.08	52	36.03	5497.9	10.6	43	SN
12	132	0108	24	15.70	52	36.40	5498.4	10.6	44	c/cs
12	132	0116	24	14.70	52	37.50	5499.8	10.6	44	c/cs
12	132	0124	24	13.60	52	38.60	5501.2	10.2	44	c/cs
12	132	0127	24	13.30	52	39.00	5501.7	11.0	44	c/cs
12	132	0139	24	11.70	52	40.60	5503.9	10.8	44	c/cs
12	132	0147	24	10.70	52	41.70	5505.4	11.0	45	c/cs
12	132	0155	24	9.60	52	42.90	5506.9	11.6	46	c/cs
12	132	0207	24	8.00	52	44.70	5509.2	11.4	46	c/cs
12	132	0212	24	7.40	52	45.40	5510.1	11.0	46	c/cs
12	132	0217	24	6.70	52	46.20	5511.0	11.1	46	c/cs
12	132	0245	24	3.10	52	50.20	5516.2	11.5	47	c/cs
12	132	0255	24	1.80	52	51.80	5518.1	10.9	47	c/cs
12	132	0303	24	0.80	52	52.90	5519.6	11.0	46	c/cs
12	132	0313	23	59.60	52	54.40	5521.4	11.3	46	c/cs
12	132	0325	23	58.00	52	56.20	5523.7	11.1	46	c/cs
12	132	0349	23	54.90	52	59.70	5528.1	11.2	46	c/cs
12	132	0401	23	53.40	53	1.40	5530.3	10.9	46	c/cs
12	132	0415	23	51.61	53	3.45	5532.9	11.0	56	SN
12	132	0416	23	51.50	53	3.60	5533.1	11.4	56	c/cs
12	132	0421	23	51.00	53	4.50	5534.0	11.4	56	c/cs
12	132	0432	23	49.80	53	6.40	5536.1	11.4	56	c/cs
12	132	0500	23	46.80	53	11.20	5541.4	10.5	55	c/cs
12	132	0507	23	46.10	53	12.30	5542.7	10.8	56	c/cs
12	132	0510	23	45.80	53	12.80	5543.2	11.0	56	c/cs
12	132	0518	23	45.00	53	14.10	5544.7	10.8	56	c/cs
12	132	0535	23	43.30	53	16.90	5547.8	11.2	56	c/cs
12	132	0543	23	42.40	53	18.20	5549.2	10.4	56	c/cs
12	132	0546	23	42.10	53	18.70	5549.8	10.8	56	c/cs
12	132	0608	23	39.90	53	22.30	5553.7	11.0	56	c/cs
12	132	0616	23	39.10	53	23.60	5555.2	10.6	56	c/cs
12	132	0619	23	38.80	53	24.10	5555.7	11.1	56	c/cs
12	132	0623	23	38.40	53	24.80	5556.5	10.6	56	c/cs
12	132	0654	23	35.40	53	29.80	5562.0	10.8	56	c/cs
12	132	0707	23	34.10	53	31.90	5564.3	11.0	56	c/cs
12	132	0712	23	33.60	53	32.70	5565.2	11.6	56	c/cs
12	132	0722	23	32.50	53	34.50	5567.1	11.1	57	c/cs
12	132	0729	23	31.80	53	35.60	5568.4	10.5	56	c/cs
12	132	0732	23	31.50	53	36.10	5569.0	11.1	53	c/cs
12	132	0735	23	31.14	53	36.60	5569.5	12.2	54	SN
12	132	0740	23	30.50	53	37.50	5570.5	12.6	54	c/cs
12	132	0745	23	29.90	53	38.40	5571.6	12.5	52	c/cs
12	132	0754	23	28.80	53	40.00	5573.5	11.9	52	c/cs
12	132	0758	23	28.30	53	40.70	5574.2	5.1	51	c/cs
12	132	0800	23	28.17	53	40.86	5574.4	3.2	43	GPS
12	132	0800	23	28.20	53	40.90	5574.4	10.6	51	c/cs

Table 1 (continued).

Date (1986)	Julian day	Time (UTC)	Latitude(s) (deg)	(min)	Longitude(s) (deg)	(min)	Distance (nmi)	Actual speed (kt)	Actual course (deg)	Comments[a]
May										
12	132	0813	23	26.70	53	42.80	5576.7	10.9	50	c/cs
12	132	0822	23	25.70	53	44.20	5578.3	10.3	50	c/cs
12	132	0830	23	24.77	53	45.30	5579.7	10.3	49	GPS
12	132	0830	23	24.80	53	45.30	5579.7	10.5	49	c/cs
12	132	0841	23	23.50	53	46.90	5581.6	10.3	48	c/cs
12	132	0856	23	21.80	53	49.00	5584.2	11.1	48	c/cs
12	132	0900	23	21.30	53	49.58	5585.0	11.1	48	DR

[a] SN = satellite navigation; c/cs = change of course; GPS = global positioning system; DR = dead reckoning; 698, etc. = hole number.

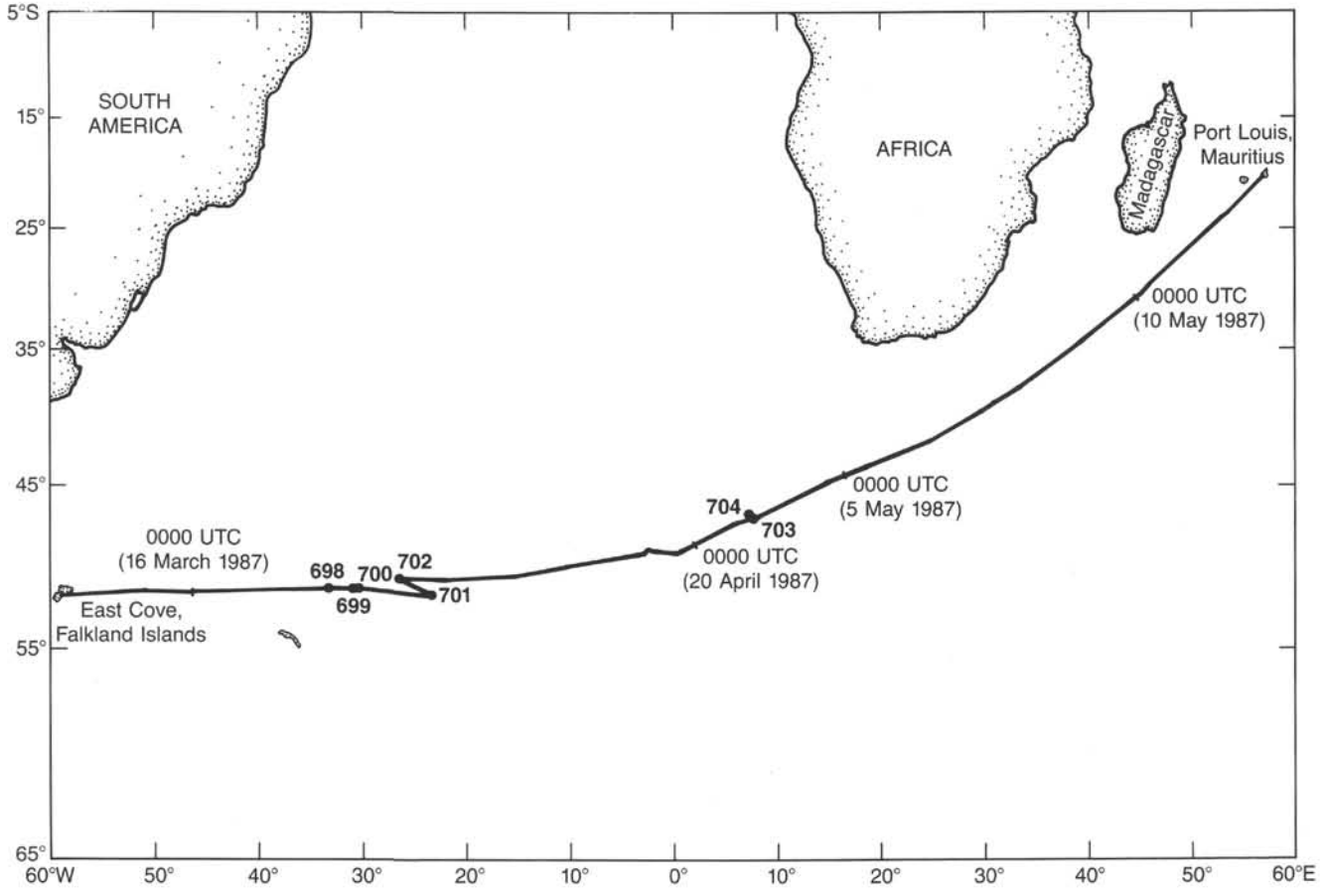

Figure 1. Plot of ODP Leg 114 ship track. Enlarged plots for groups of sites are shown in Figures 2–6.

Eleven seismic lines were collected during the cruise, as follows:

1. Seismic line 1 was collected during the approach to Site 698, the first site occupied during Leg 114. A plot of the digitally processed record is shown in Figure 9 (from Julian Day 76/1436 UTC to Julian Day 76/1522 UTC). (All times are UTC, Universal Time Coordinated, formerly GMT, Greenwich Mean Time.) Navigation for the approach to Site 698 is shown in Figure 2.

2. Seismic line 2A was collected during the transit from Sites 698 to 699. A plot of the digitally processed record is shown in Figure 10 (from Julian Day 79/0131 UTC to Julian Day 79/0426 UTC). Navigation is shown in Figure 2.

3. Seismic line 2B was collected during the approach to Site 699. A plot of the digitally processed record is shown in Figure 11 (from Julian Day 79/1239 UTC to Julian Day 79/1304 UTC). Navigation during the approach to Site 699 is shown in Figure 3.

4. Seismic line 3 was collected during the transit from Sites 699 to 700. A plot of the digitally processed record is shown in Figure 12 (from Julian Day 85/2253 UTC to Julian Day 86/0130 UTC). Navigation is shown in Figure 3.

5. Seismic line 4 was collected on approach to Site 701. Because of difficulties with the Masscomp computer only analog

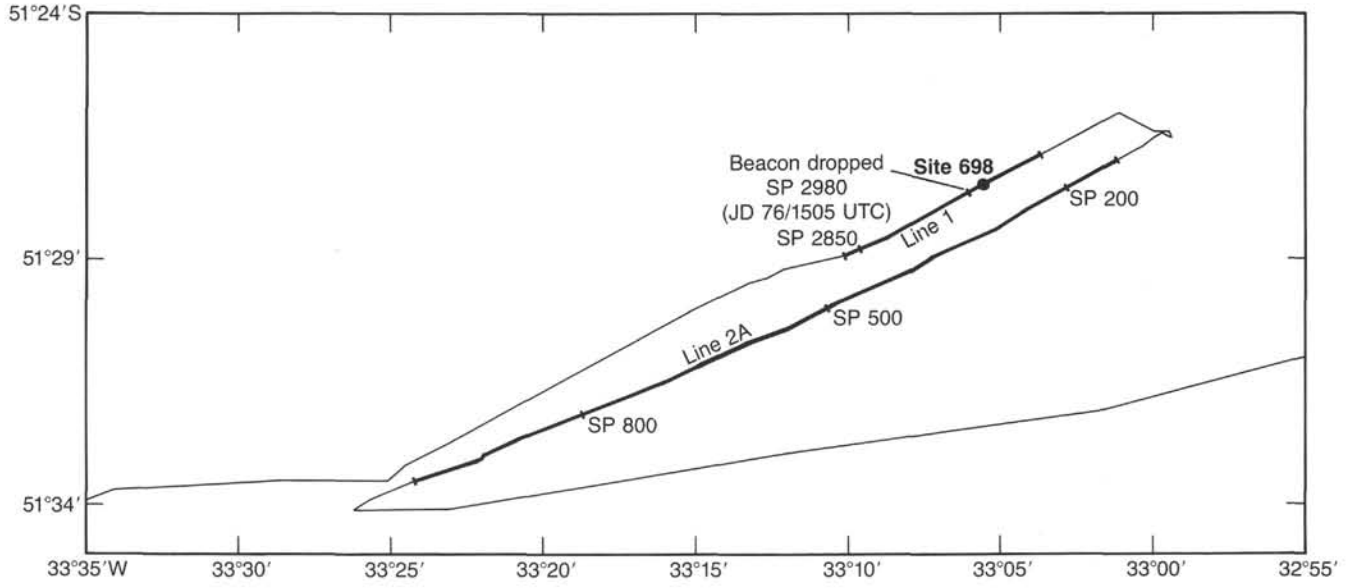

Figure 2. Plot of *JOIDES Resolution* track near Site 698. Location of seismic lines 1 and 2A are shown by heavy lines with shot points annotated. Processed seismic sections are presented in Figures 9 and 10.

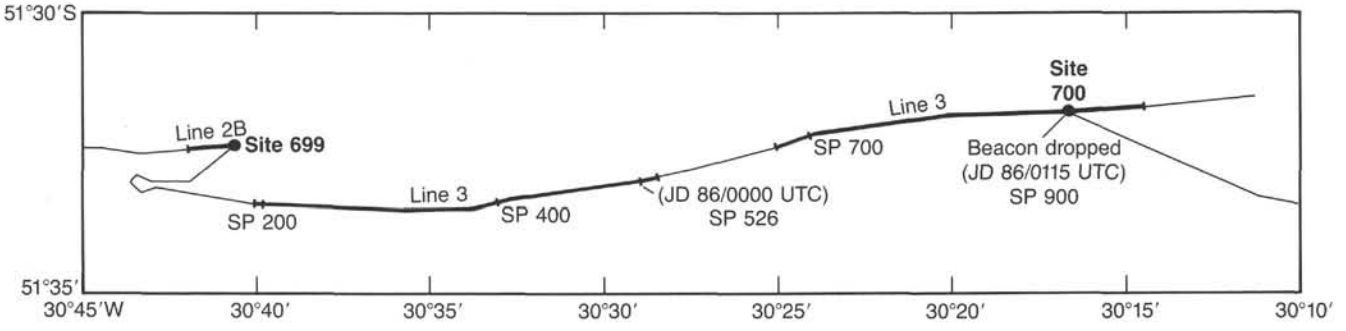

Figure 3. Plot of *JOIDES Resolution* track near Sites 699 and 700 with location of seismic lines 2B and 3 (heavy lines) and shot points annotated. Processed seismic sections are presented in Figures 11 and 12.

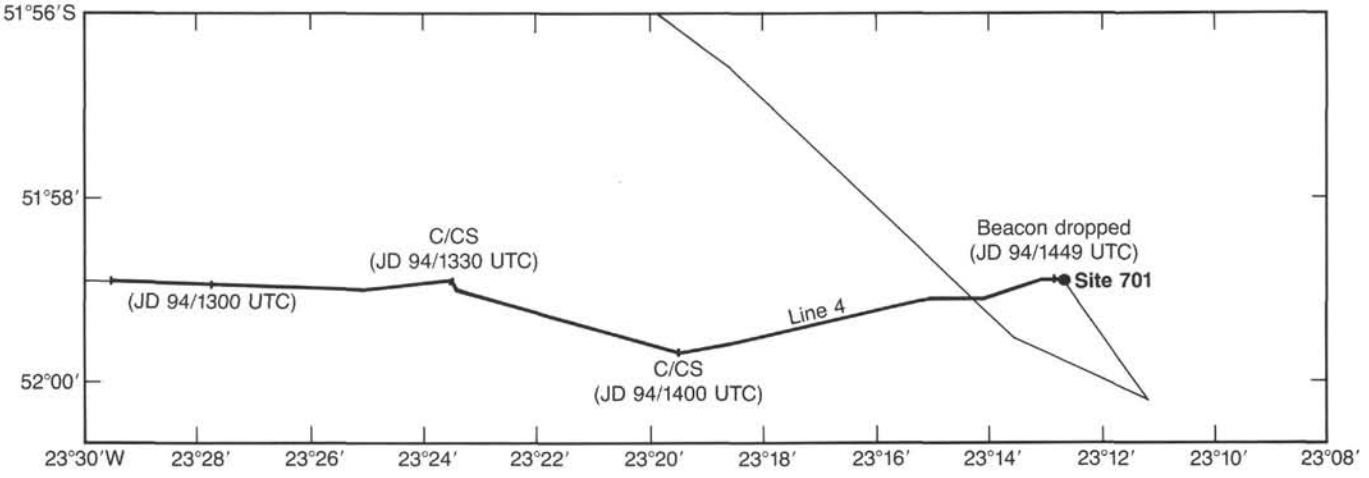

Figure 4. Plot of *JOIDES Resolution* track near Site 701 with location of seismic line 4 (heavy line) and shot points annotated. Analog seismic section is presented in Figure 13.

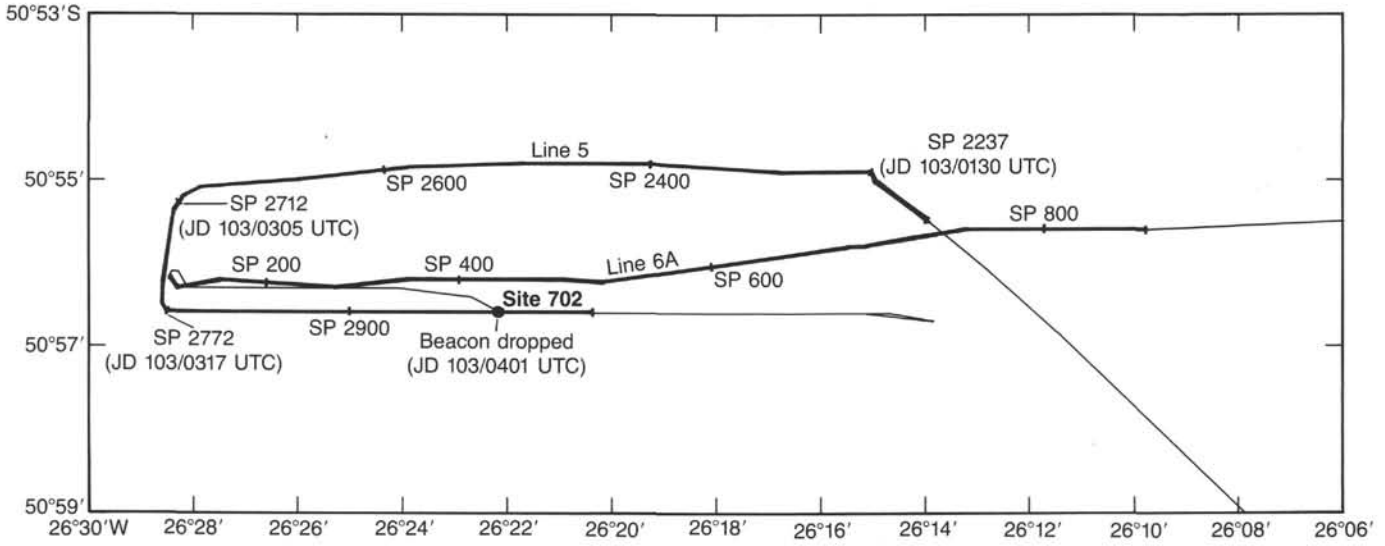

Figure 5. Plot of *JOIDES Resolution* track in the vicinity of Site 702 with location of seismic lines 5 and 6A (heavy lines) and shot points annotated. Processed seismic sections are presented in Figures 14 and 15.

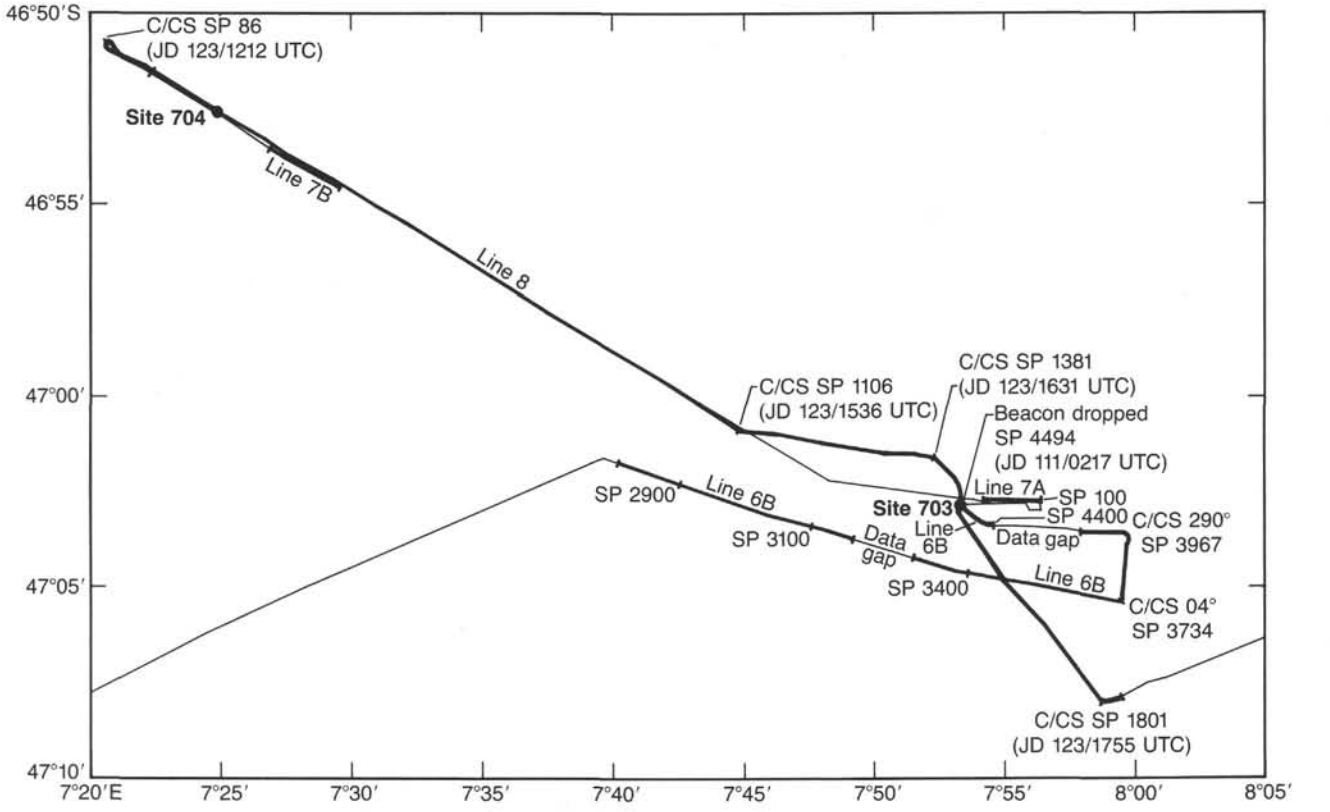

Figure 6. Plot of *JOIDES Resolution* track in the vicinity of Sites 703 and 704 with location of seismic lines 6B, 7A, 7B, and 8 (heavy lines) and shot points annotated. Processed seismic sections are presented in Figures 16, 17, 18, and 19.

records are available. The EDO-1 analog plot is shown in Figure 13 (from Julian Day 94/1250 UTC to Julian Day 94/1500 UTC). Navigation on approach to Site 701 is shown in Figure 4; course changes are indicated on the EDO-1 record.

6. Seismic line 5 was collected during the approach to Site 702. A plot of the digitally processed record is shown in Figure 14 (from Julian Day 103/0123 UTC to Julian Day 103/0412 UTC). Navigation on approach to Site 702 is shown in Figure 5; course changes are indicated on the seismic plot.

7. Seismic line 6A was collected during the transit from Sites 702 to 703. A plot of the digitally processed record is shown in Figure 15 (from Julian Day 106/0233 UTC to Julian Day 106/0445 UTC). Navigation is shown in Figure 5; course changes are indicated on the seismic plot.

Magnetic anomaly field strength (nT)
1000
0
-1000
Depth (m)
0
2000
4000
6000
8000
Nautical miles
0
500
1000
1500
2000
2500
3000
0000/87MAR15
1200/87MAR15
16
20
0000/87MAR16
04
08
1200/87MAR16
16
20
0000/87MAR17
1200/87MAR17
Site 698
04
08
1200/87MAR20
0000/87MAR27
1200/87MAR27
Site 699
Site 700
20
0000/87APR04
04
08
1200/87APR04
Site 701
1200/87APR12
16
20
0000/87APR13
04
Line 1
Line 2A
Line 2B
Line 3
Line 4
Line 5
0000/87APR14
Site 702
04
08
1200/87APR16
16
20
0000/87APR17
04
08
1200/87APR17
16
20
0000/87APR18
04
08
1200/87APR18
16
20
0000/87APR19
04
08
1200/87APR19
16
20
0000/87APR20
04
08
1200/87APR20
16
20
0000/87APR21
Site 703
1200/87APR25
Site 704
16
20
Line 5
Line 6A
Line 6B
Line 7A
Line 7B
Line 8

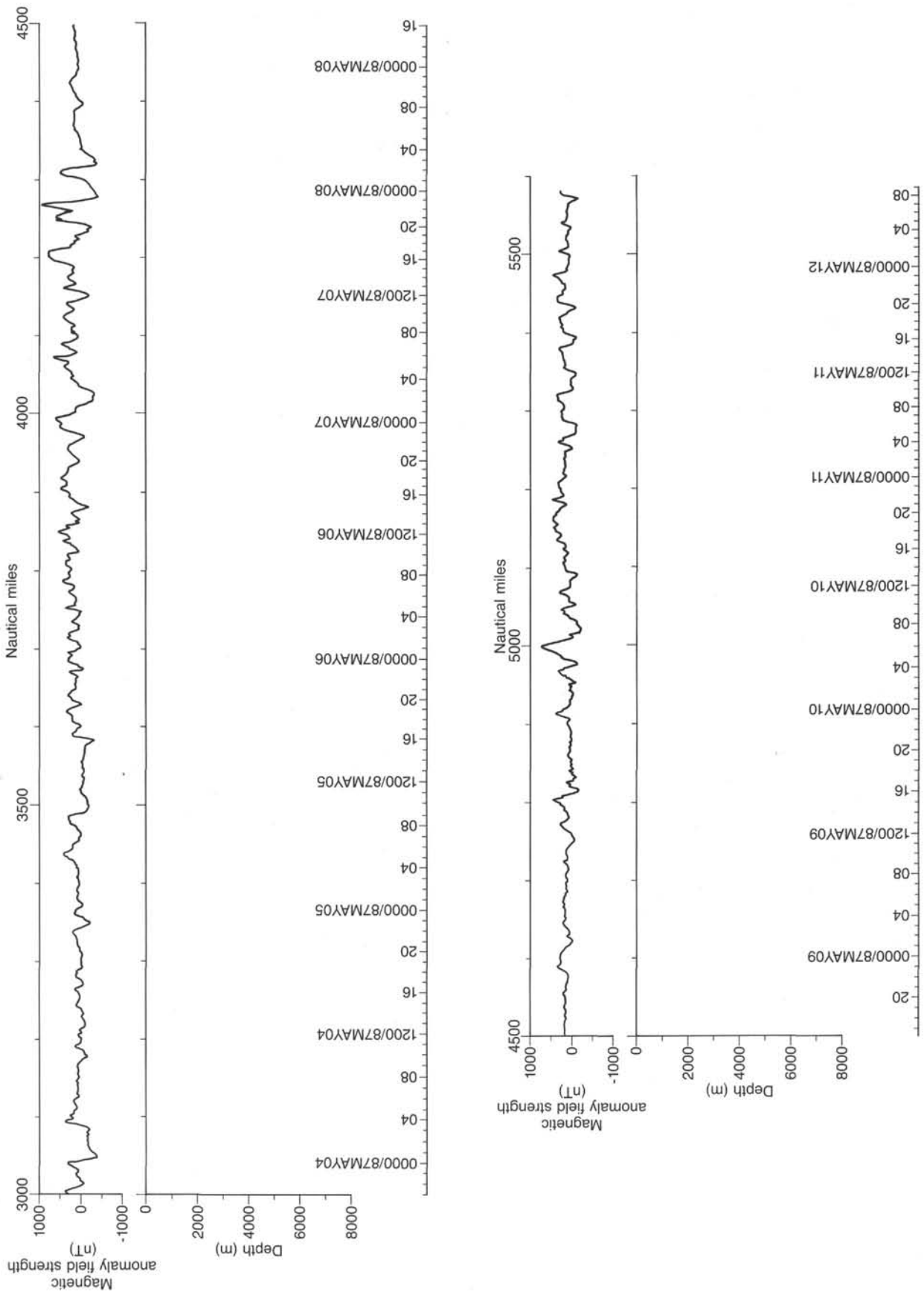

Figure 7. Total field magnetic anomaly and bathymetric data obtained while underway during Leg 114. Intervals with single-channel seismic-reflection coverage are indicated by solid bars.

Table 2. Seismic data real-time recording parameters.

	Line 1	Line 2A	Line 2B	Line 3	Line 4	Line 5	Line 6A	Line 6B	Line 7A	Line 7B	Line 8
Start at	51°29'S 33°10'W	51°27'S 33°01'W	51°32'S 30°42'W	51°33'S 30°40'W	51°59'S 23°29'W	50°55'S 26°14'W	50°56'S 26°28'W	47°02'S 07°40'E	47°03'S 07°57'E	46°55'S 07°29'E	46°52'S 07°22'E
End at	Site 698	51°34'S 33°24'W	Site 699	Site 700	Site 701	55°57'S 26°20'W	50°56'S 26°11'W	Site 703	47°03'S 07°54'E	Site 704	47°08'S 07°59'E
Source:	Two 80-in.^{3} water guns	Two 80-in.^{3} water guns	Two 80-in.^{3} water guns	Two 80-in.^{3} water guns	80-in.^{3} water gun starboard	80-in.^{3} water gun starboard	80-in.^{3} water gun starboard	80-in.^{3} water gun starboard	80-in.^{3} water gun port	80-in.^{3} water gun port	80-in.^{3} water gun starboard
Streamer	Port	Port	Port	Port	Port	Port	Port	Port	Port	Port	Port
EDO 1											
High cut (Hz)	160	160	160	160	160	160	160	160	160	160	160
Low cut (Hz)	80	80	80	80	80	80	80	80	80	80	80
EDO 2											
High cut (Hz)	160	160	160	160	160	160	160	160	160	160	160
Low cut (Hz)	80	80	80	80	80	80	80	80	80	80	80

Table 3. Seismic data reprocessing parameters.

	Line 1	Line 2A	Line 2B	Line 3	Line 4	Line 5	Line 6A	Line 6B	Line 7A	Line 7B	Line 8
Trace mix	3	3	3	3	—	3	3	3	3	3	3
Weight	1:2:1	1:2:1	1:2:1	1:2:1	—	1:2:1	1:2:1	1:2:1	1:2:1	1:2:1	1:2:1
Band-pass filter											
High cut (Hz)	150	80	150	150	—	150	150	150	150	150	150
Slope (db/oct)	36	36	36	36	—	36	36	36	36	36	36
Low cut (Hz)	60	20	60	60	—	60	60	60	60	60	60
Slope (db/oct)	24	24	24	24	—	24	24	24	24	24	24
Deconvolution											
Prediction distance (ms)	20	20	20	20	—	20	20	20	20	20	20
Filter length (ms)	200	200	200	200	—	200	200	200	200	200	200
AGC window (ms)	500	400	1000	1000	—	1000	500	1000	1000	1000	500

8. Seismic line 6B was collected during the approach to Site 703. A plot of the digitally processed record is shown in Figure 16 (from Julian Day 110/2147 UTC to Julian Day 111/0159 UTC). Navigation on approach to Site 703 is shown in Figure 6; course changes are indicated on the seismic plot.

9. Seismic line 7A was collected during the transit from Sites 703 to 704. A plot of the digitally processed record is shown in Figure 17 (from Julian Day 115/0800 UTC to Julian Day 115/0825 UTC). Navigation is shown in Figure 6.

10. Seismic line 7B was collected on approach to Site 704. A plot of the digitally processed record is shown in Figure 18 (from Julian Day 115/1058 UTC to Julian Day 115/1206 UTC). Navigation during the approach to Site 704 is shown in Figure 6.

11. Seismic line 8 was collected after the occupation of Site 704. A plot of the digitally processed record is shown in Figure 19 (from Julian Day 123/1156 UTC to Julian Day 123/1800 UTC). Navigation is shown in Figure 6; course changes are indicated on the seismic plot.

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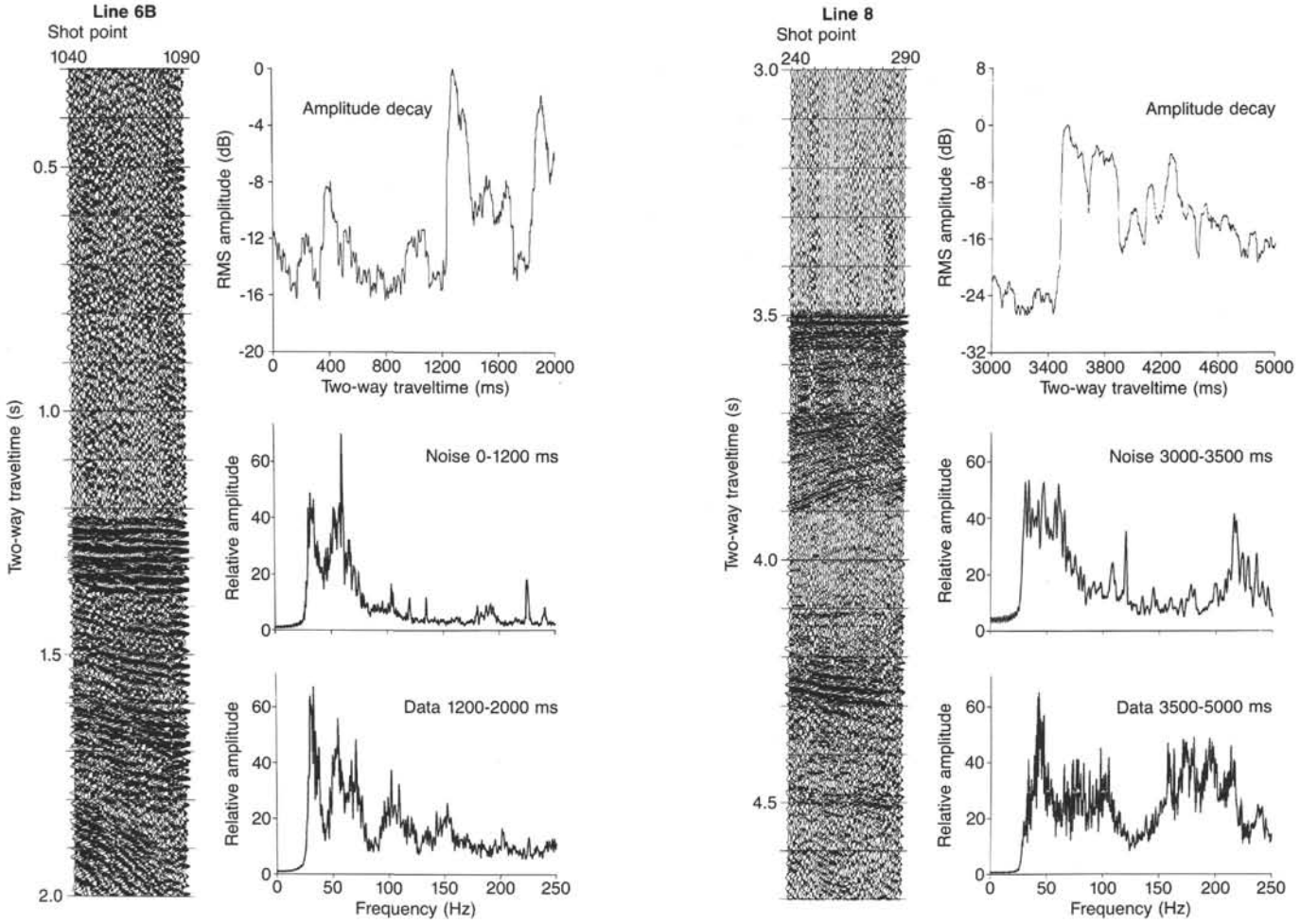

Figure 8. Panels of raw single-channel seismic data (band-passed at 30–250 Hz) acquired during varying sea states (left: full storm, right: sea state 2–3): amplitude decay curves with the corresponding average spectral content (5 shots) of ambient noise preceding the seafloor reflection, and the signal following the seafloor reflection.

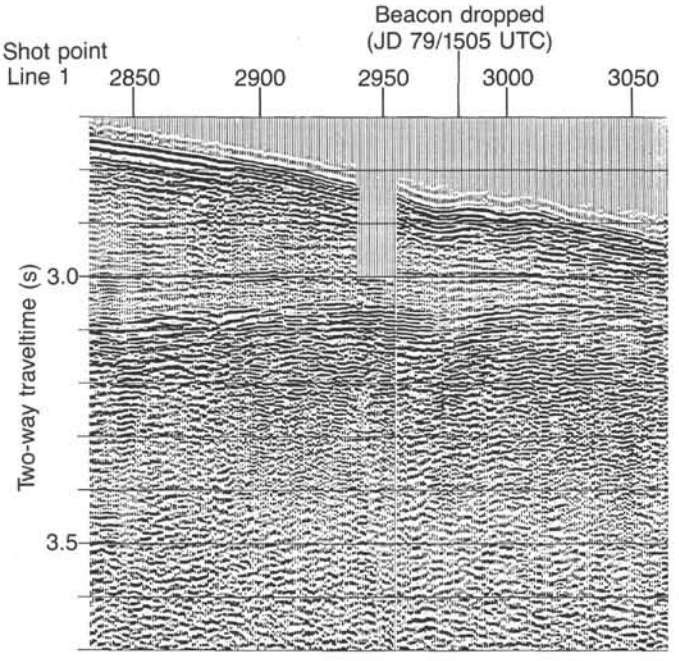

Figure 9. Processed single-channel seismic section, line 1, band-pass filtered 60–150 Hz. Trackline navigation is shown in Figure 2.

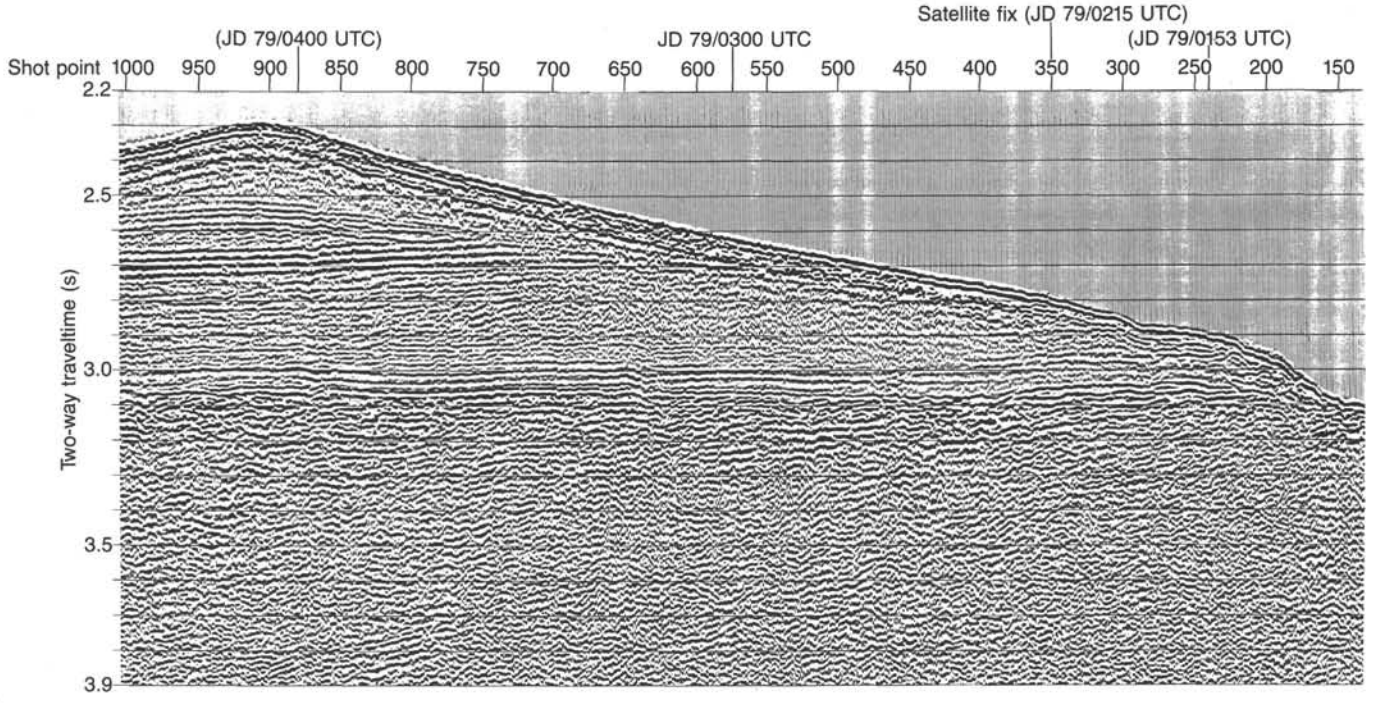

Figure 10. Processed single-channel seismic section, line 2A, band-pass filtered 60–150 Hz. Trackline navigation is shown in Figure 2.

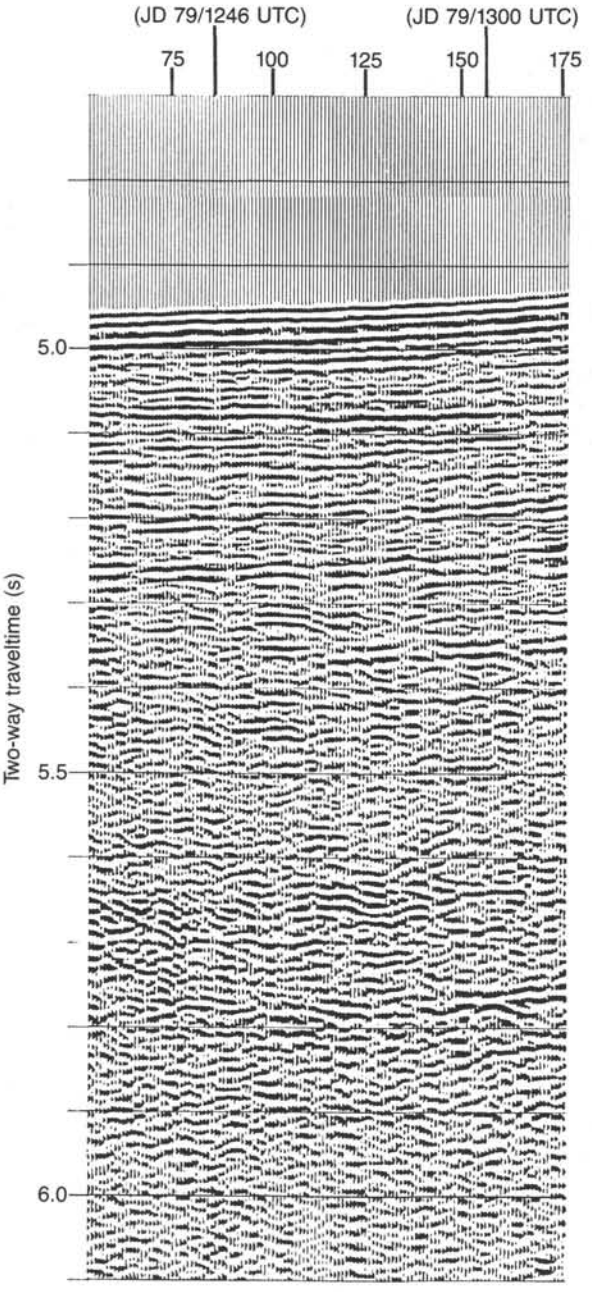

Figure 11. Processed single-channel seismic section, line 2B, band-pass filtered 60–150 Hz. Trackline navigation is shown in Figure 3.

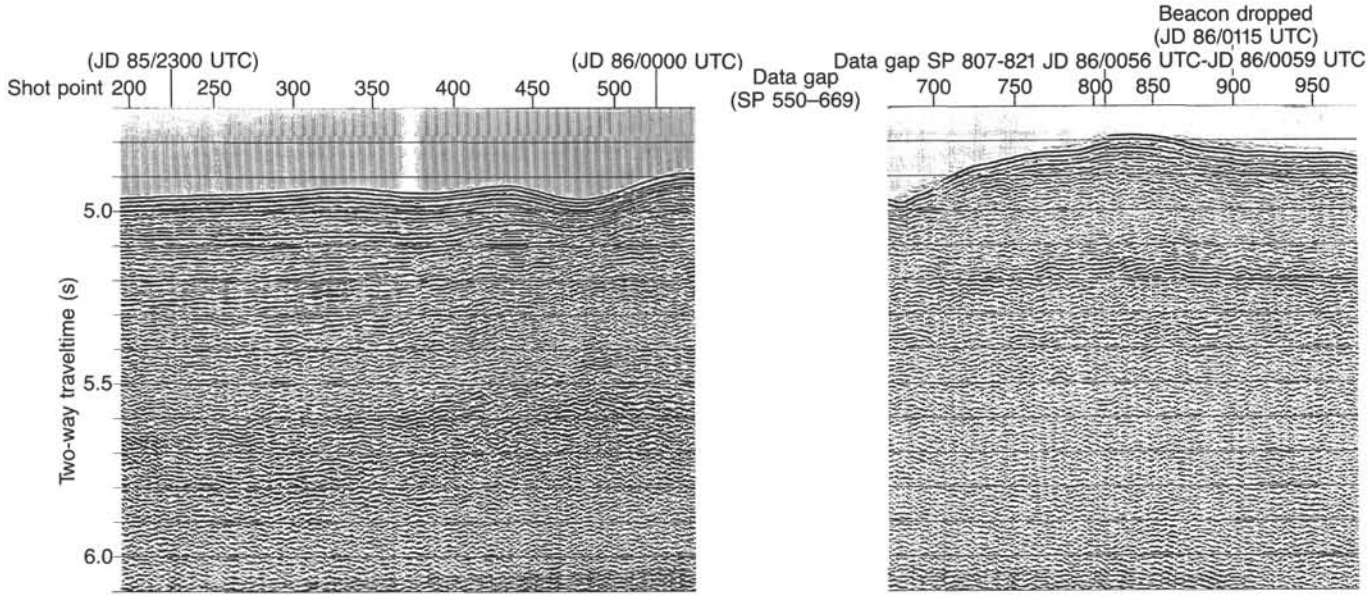

Figure 12. Processed single-channel seismic section, line 3, band-pass filtered 60–80 Hz. Trackline navigation is shown in Figure 3.

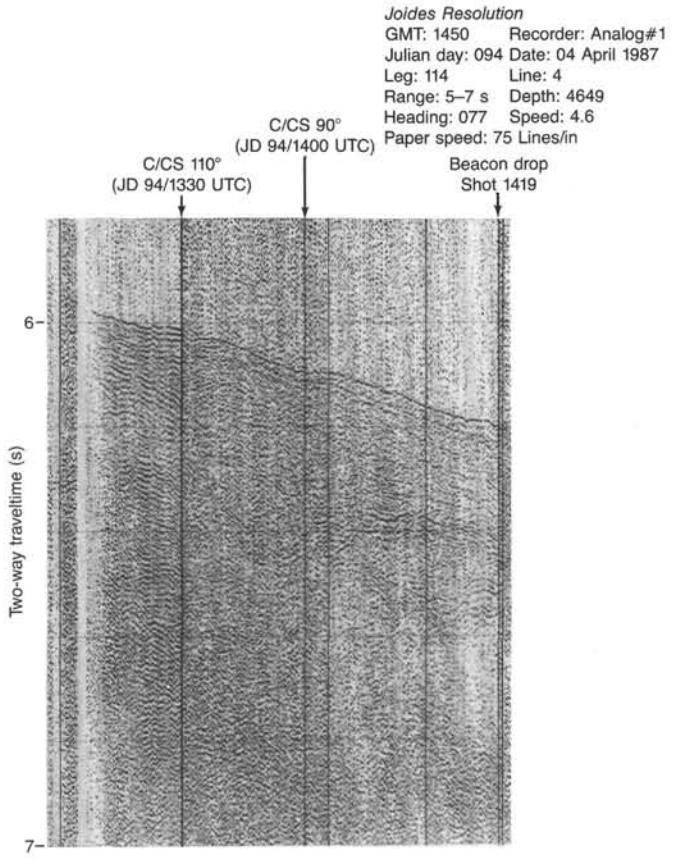

Figure 13. Analog single-channel seismic section, line 4. Trackline navigation is shown in Figure 4.

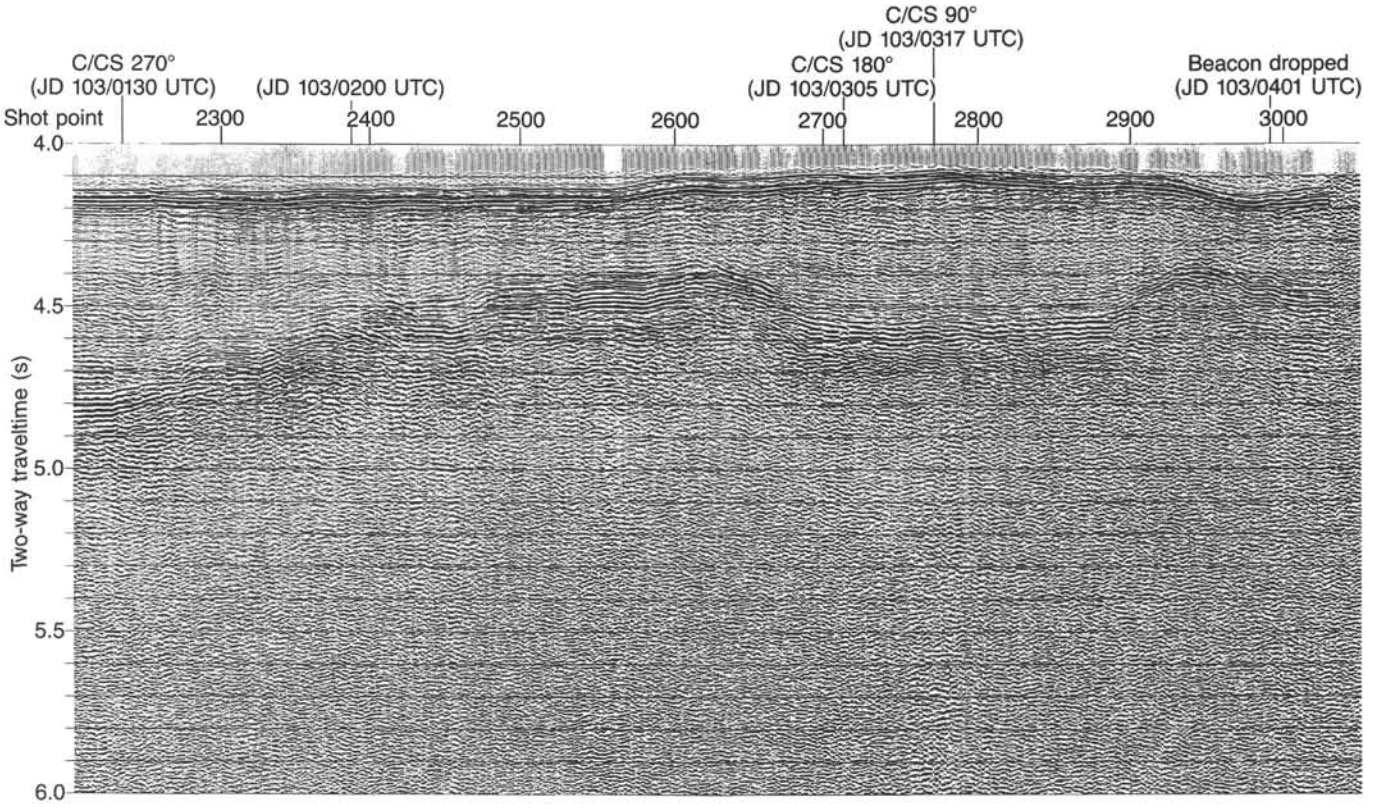

Figure 14. Processed single-channel seismic section, line 5, band-pass filtered 60–150 Hz. Trackline navigation is shown in Figure 5.

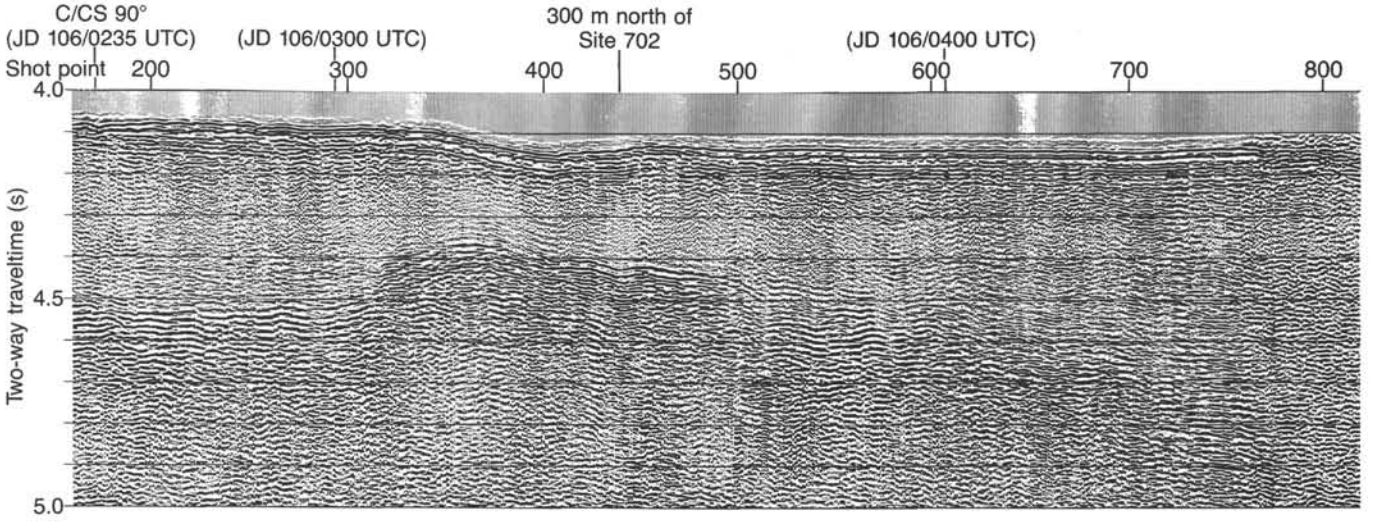

Figure 15. Processed single-channel seismic section, line 6A, band-pass filtered 60–150 Hz. Trackline navigation is shown in Figure 5.

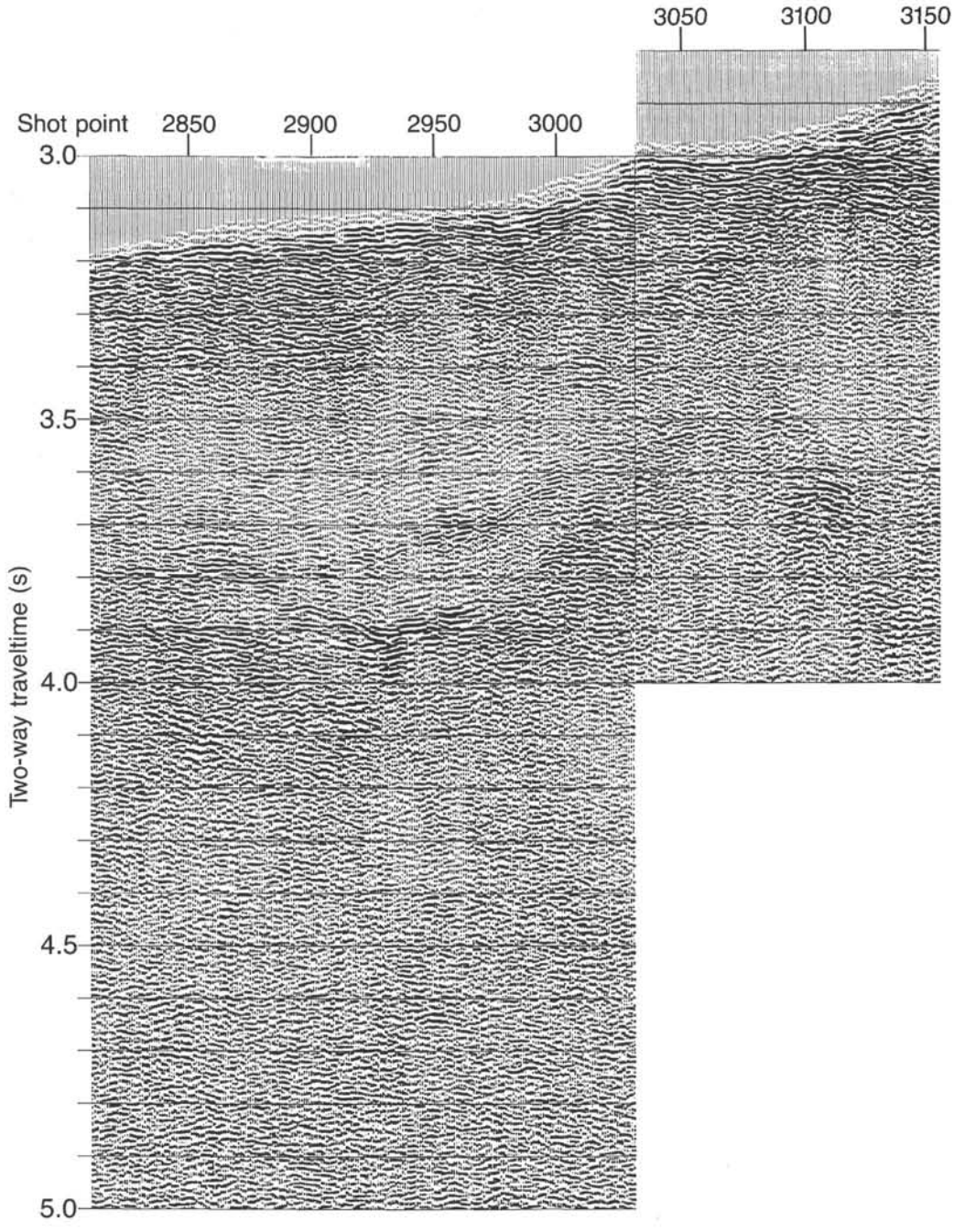

Figure 16. Processed single-channel seismic sections, line 6B, band-pass filtered 60-150 Hz. Trackline navigation is shown in Figure 6.

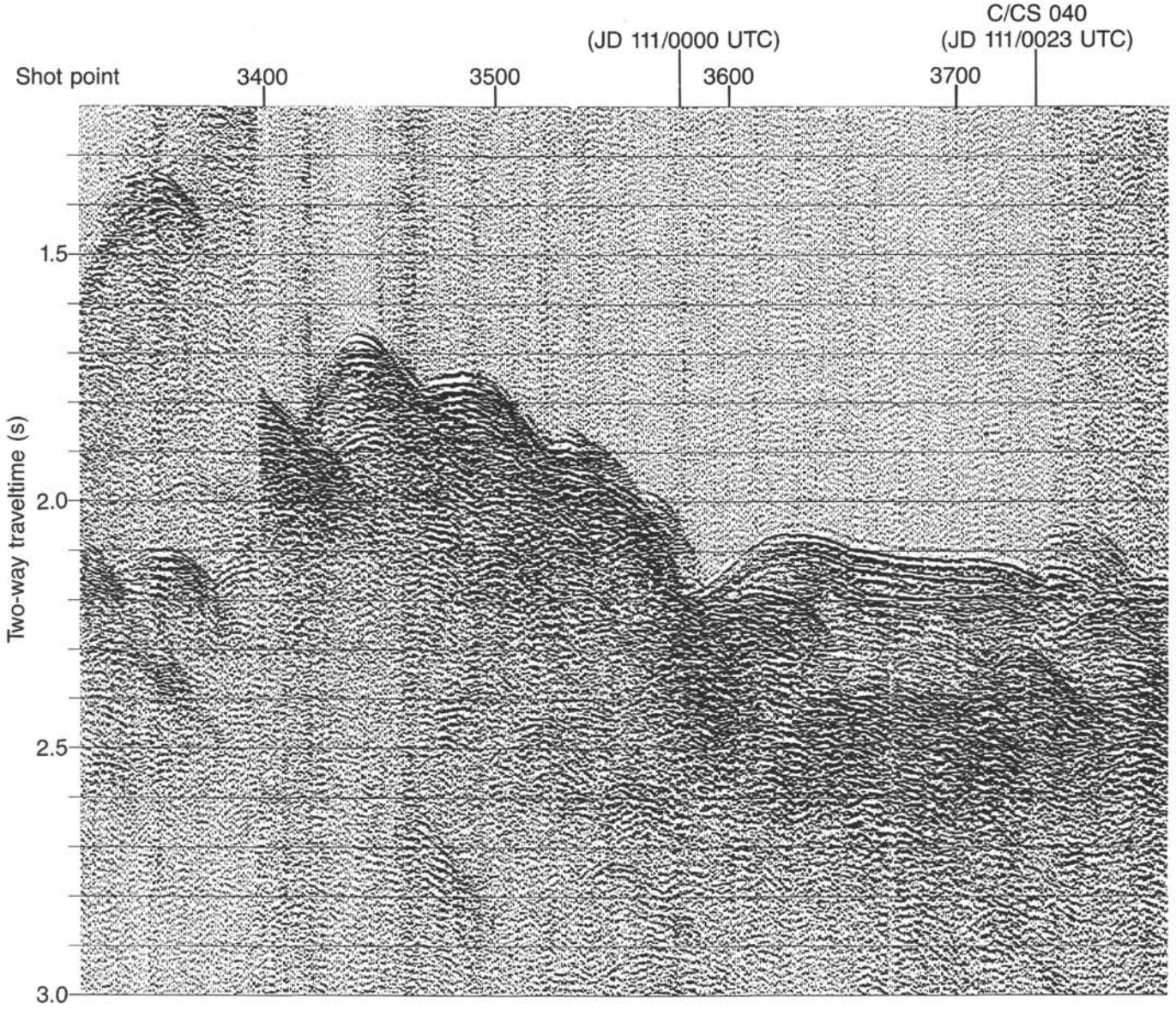

Figure 16 (continued).

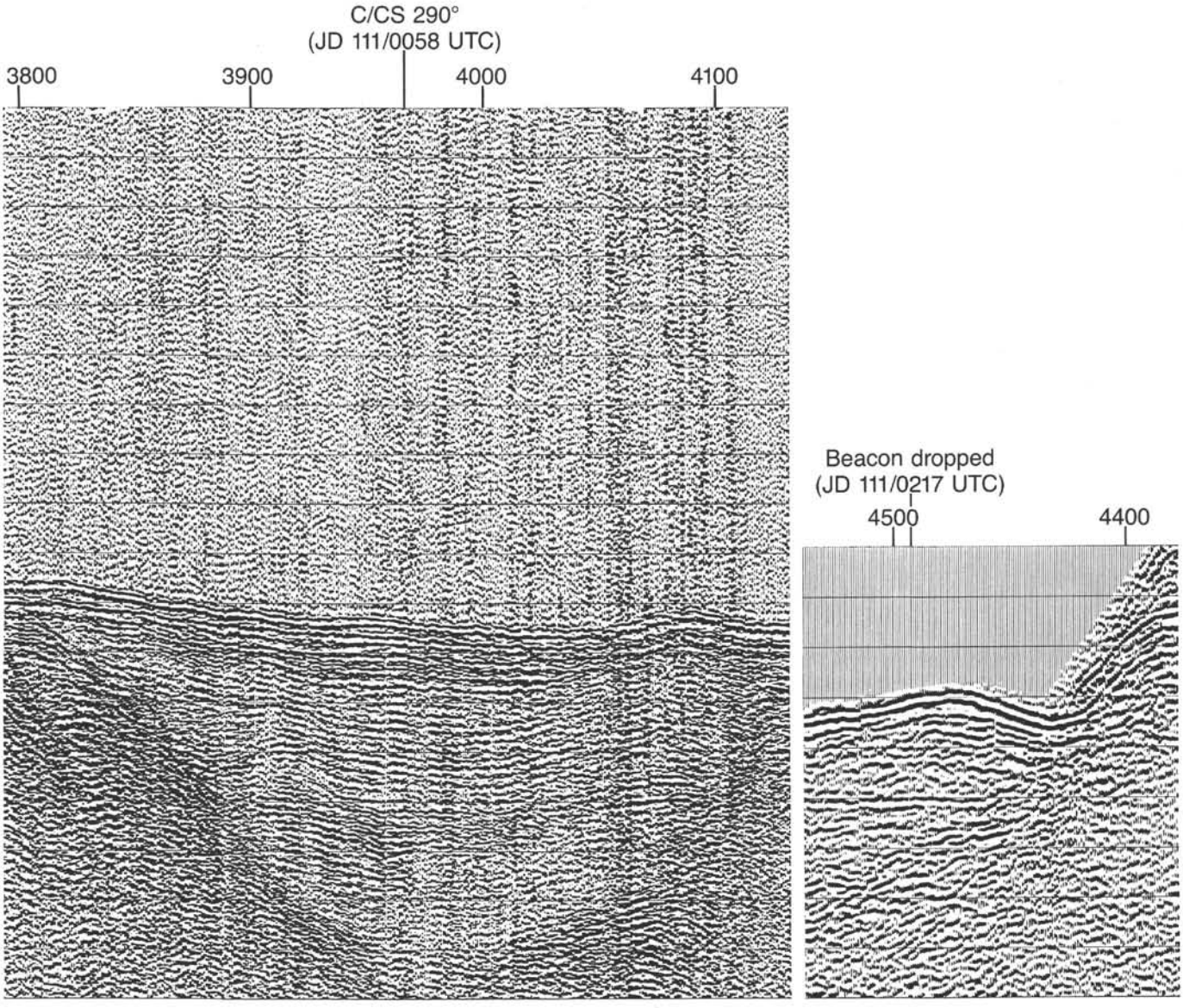

Figure 16 (continued).

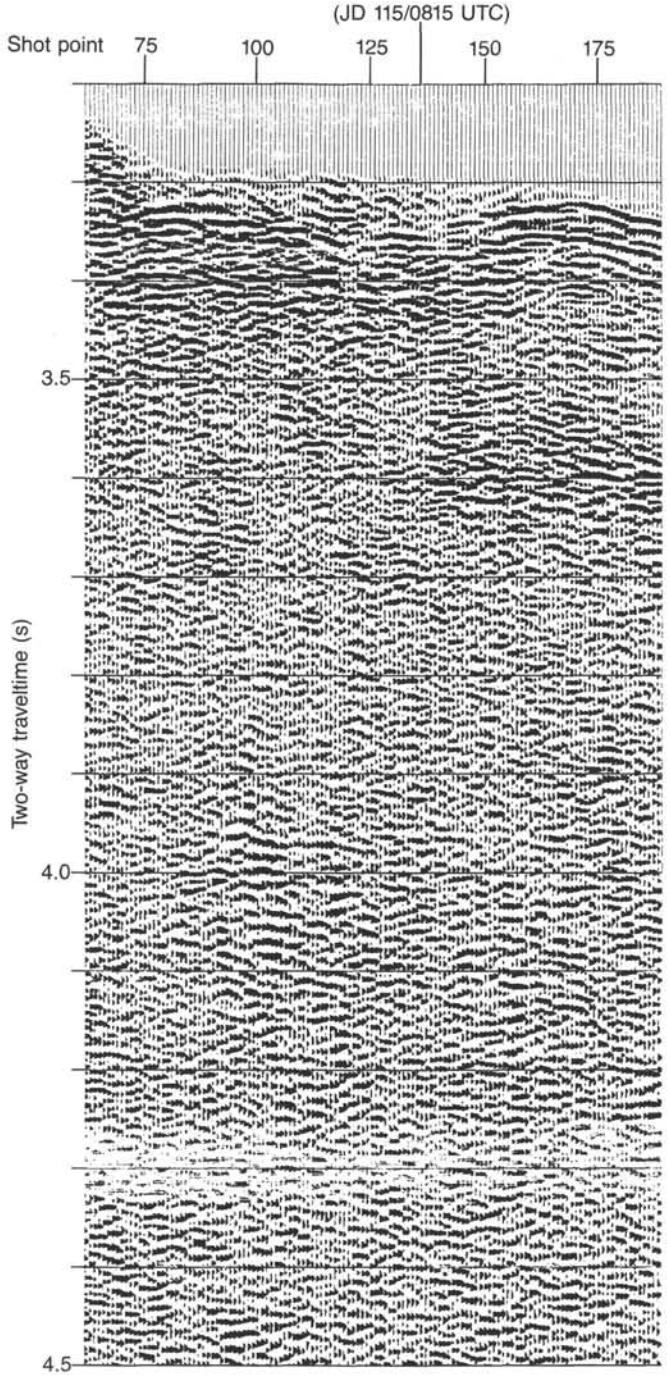

Figure 17. Processed single-channel seismic section, line 7A, band-pass filtered 60–150 Hz. Trackline navigation is shown in Figure 6.

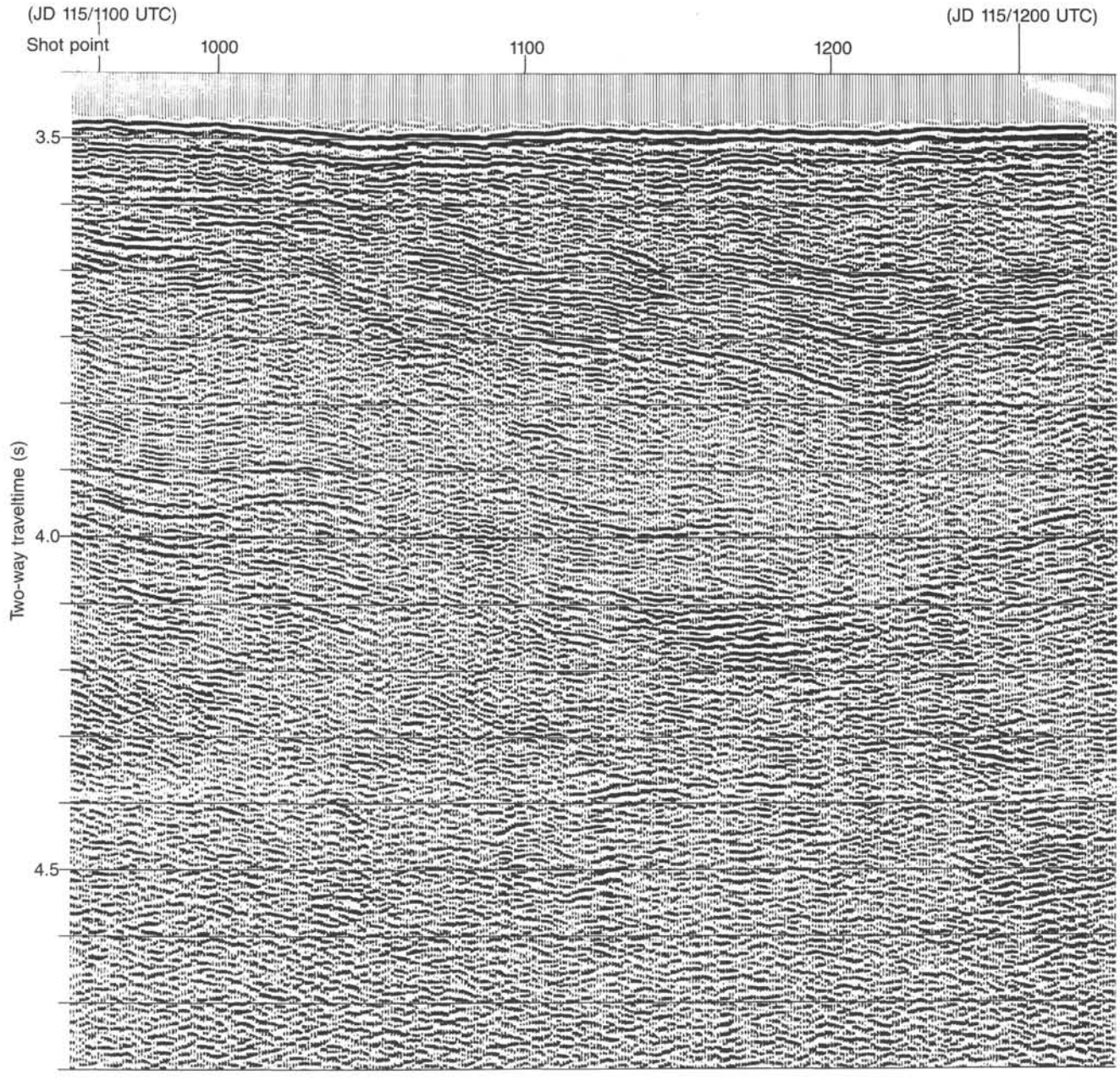

Figure 18. Processed single-channel seismic section, line 7B, band-pass filtered 60–150 Hz. Trackline navigation is shown in Figure 6.

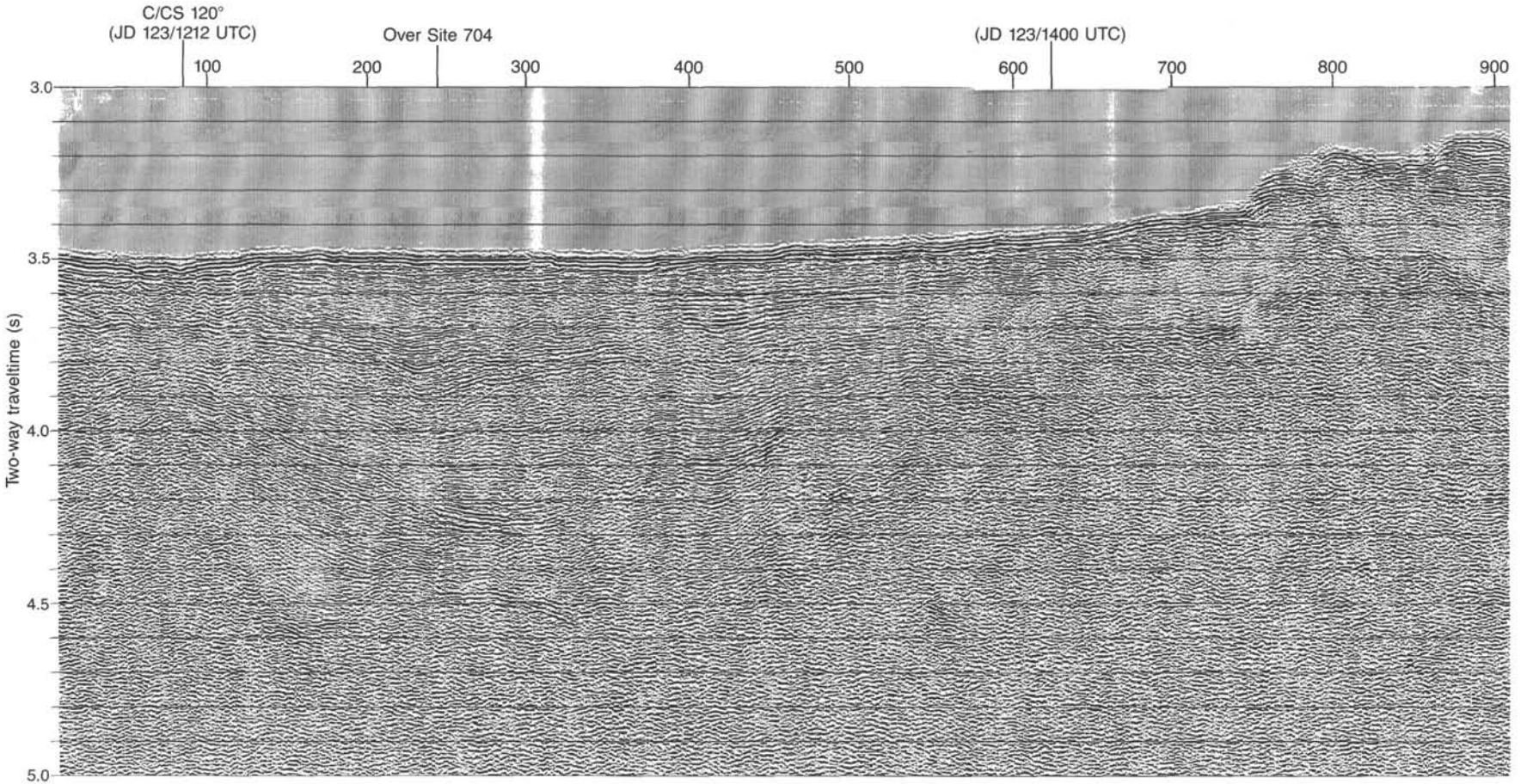

Figure 19. Processed single-channel seismic section, line 8, band-pass filtered 60–150 Hz. Trackline navigation is shown in Figure 6.

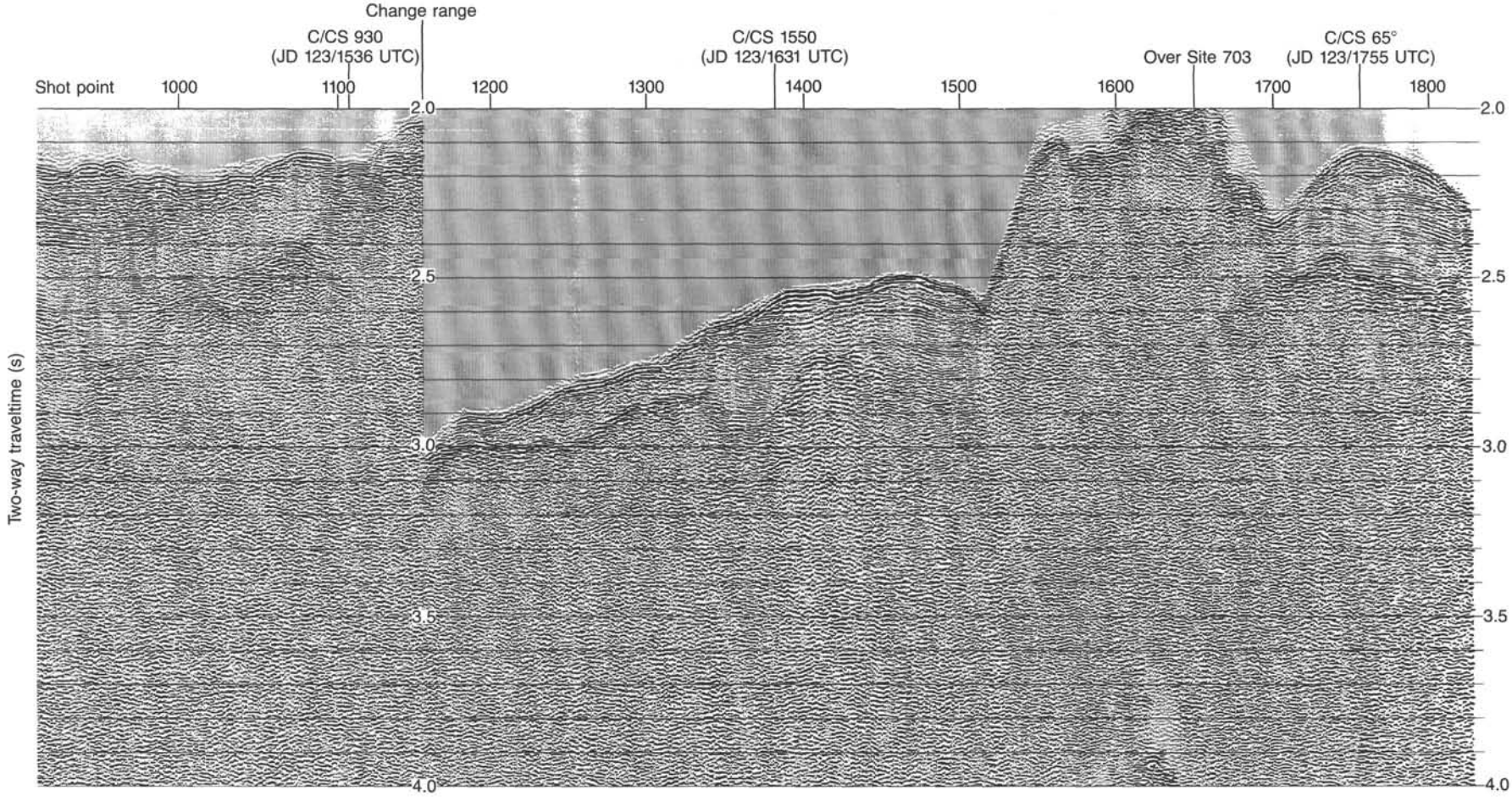

Figure 19 (continued).