

Table 1. Satellite navigation and course- and speed-change data used to generate the Leg 125 trackline plots shown in Figures 1, 3, 4, 7, 10, 18, 19, 22, 25, and 28.

Date (1989)	Julian day	Time (UTC)	Latitude (N)		Longitude (E)		Distance (nmi)	Actual speed (kt)	Course (degrees)	Comment ^a	
			(deg)	(min)	(deg)	(min)					
Feb.	20	51	0230	13	27.10	144	37.02	0.0	9.8	12	GPS
	20	51	0330	13	36.70	144	39.05	9.8	11.0	17	GPS
	20	51	0400	13	41.97	144	40.67	15.3	10.9	13	GPS
	20	51	0430	13	47.28	144	41.96	20.8	11.0	13	GPS
	20	51	0500	13	52.63	144	43.26	26.3	11.0	12	GPS
	20	51	0512	13	54.80	144	43.70	28.5	11.0	12	c/cs
	20	51	0538	13	59.40	144	44.80	33.2	11.0	12	c/cs
	20	51	0558	14	3.00	144	45.60	36.9	10.9	12	c/cs
	20	51	0600	14	3.40	144	45.66	37.3	10.8	13	GPS
	20	51	0613	14	5.70	144	46.20	39.6	11.0	13	c/cs
	20	51	0617	14	6.40	144	46.40	40.3	10.9	13	c/cs
	20	51	0630	14	8.70	144	46.90	42.7	10.5	14	GPS
	20	51	0639	14	10.23	144	47.30	44.3	10.9	15	SF
	20	51	0644	14	11.10	144	47.50	45.2	10.9	15	c/cs
	20	51	0657	14	13.40	144	48.20	47.6	10.7	16	c/cs
	20	51	0700	14	13.90	144	48.34	48.1	10.8	14	GPS
	20	51	0710	14	15.60	144	48.80	49.9	10.8	15	c/cs
	20	51	0730	14	19.12	144	49.74	53.5	10.9	15	GPS
	20	51	0736	14	20.20	144	50.00	54.6	10.9	15	c/cs
	20	51	0749	14	22.40	144	50.70	56.9	10.7	15	c/cs
	20	51	0759	14	24.20	144	51.10	58.7	11.1	15	c/cs
	20	51	0800	14	24.35	144	51.20	58.9	11.0	16	GPS
	20	51	0808	14	25.80	144	51.60	60.4	10.7	15	c/cs
	20	51	0819	14	27.60	144	52.10	62.3	10.7	18	c/cs
	20	51	0830	14	29.51	144	52.75	64.3	10.9	18	GPS
	20	51	0849	14	32.80	144	53.90	67.7	11.0	18	c/cs
	20	51	0858	14	34.40	144	54.40	69.4	10.9	17	c/cs
	20	51	0911	14	36.60	144	55.10	71.7	10.9	18	c/cs
	20	51	0917	14	37.70	144	55.50	72.8	11.0	19	c/cs
	20	51	0947	14	42.80	144	57.40	78.3	11.0	20	c/cs
	20	51	0950	14	43.33	144	57.57	78.9	10.9	24	SF
	20	51	1009	14	46.50	144	59.00	82.3	10.1	24	c/cs
	20	51	1011	14	46.80	144	59.10	82.7	10.8	23	c/cs
	20	51	1041	14	51.80	145	1.30	88.1	10.8	24	c/cs
	20	51	1105	14	55.80	145	3.10	92.4	10.9	24	c/cs
	20	51	1112	14	56.90	145	3.60	93.7	10.9	23	c/cs
	20	51	1113	14	57.10	145	3.70	93.9	10.6	18	SF
	20	51	1142	15	1.90	145	5.40	99.0	10.6	20	c/cs
	20	51	1210	15	6.60	145	7.10	103.9	10.6	20	c/cs
	20	51	1219	15	8.11	145	7.65	105.5	10.3	21	SF
	20	51	1230	15	9.90	145	8.30	107.4	10.4	20	c/cs
	20	51	1243	15	12.00	145	9.10	109.6	10.1	19	c/cs
	20	51	1245	15	12.30	145	9.20	110.0	10.3	19	c/cs
	20	51	1301	15	14.92	145	10.16	112.7	10.6	22	SF
	20	51	1311	15	16.60	145	10.90	114.5	10.8	22	c/cs
	20	51	1323	15	18.60	145	11.70	116.7	10.6	22	c/cs
	20	51	1353	15	23.40	145	13.80	122.0	10.6	22	c/cs
	20	51	1407	15	25.74	145	14.78	124.4	10.7	17	SF
	20	51	1409	15	26.10	145	14.90	124.8	10.6	16	c/cs
	20	51	1425	15	28.80	145	15.70	127.6	10.5	17	c/cs
	20	51	1431	15	29.80	145	16.00	128.7	10.4	17	c/cs
	20	51	1443	15	31.80	145	16.70	130.7	10.6	17	c/cs
	20	51	1449	15	32.80	145	17.00	131.8	10.7	17	c/cs
	20	51	1459	15	34.50	145	17.60	133.6	10.5	17	c/cs
	20	51	1503	15	35.15	145	17.77	134.3	10.5	19	SF
	20	51	1510	15	36.30	145	18.20	135.5	10.5	18	c/cs
	20	51	1604	15	45.32	145	21.15	145.0	10.8	20	SF
	20	51	1629	15	49.50	145	22.80	149.5	10.9	21	c/cs
	20	51	1644	15	52.10	145	23.80	152.2	10.9	21	c/cs
	20	51	1650	15	53.10	145	24.20	153.3	11.0	21	c/cs
	20	51	1718	15	57.90	145	26.10	158.4	11.0	21	c/cs
	20	51	1721	15	58.40	145	26.40	158.9	11.0	20	c/cs
	20	51	1732	16	0.30	145	27.10	161.0	10.9	20	c/cs
	20	51	1744	16	2.30	145	27.90	163.1	10.8	21	c/cs
	20	51	1750	16	3.33	145	28.28	164.2	10.7	19	SF
	20	51	1750	16	3.30	145	28.30	164.2	10.9	19	c/cs
	20	51	1807	16	6.20	145	29.30	167.3	10.8	19	c/cs
	20	51	1818	16	8.11	145	30.02	169.3	11.1	17	SF
	20	51	1822	16	8.80	145	30.20	170.0	11.0	17	c/cs
	20	51	1828	16	9.90	145	30.60	171.1	11.1	17	c/cs
	20	51	1841	16	12.20	145	31.30	173.6	11.3	17	c/cs
	20	51	1858	16	15.25	145	32.25	176.7	11.0	20	SF
	20	51	1907	16	16.80	145	32.80	178.4	11.1	20	c/cs
	20	51	1911	16	17.50	145	33.10	179.1	10.9	20	c/cs
	20	51	1915	16	18.20	145	33.40	179.9	11.0	20	c/cs

Table 1 (continued).

Date (1989)	Julian day	Time (UTC)	Latitude (N)		Longitude (E)		Distance (nmi)	Actual speed (kt)	Course (degrees)	Comment ^h
			(deg)	(min)	(deg)	(min)				
Feb.	20	51	16	19.90	145	34.00	181.7	10.9	20	c/cs
	20	51	16	22.62	145	35.09	184.6	11.2	19	SF
	20	51	16	24.60	145	35.80	186.7	11.3	19	c/cs
	20	51	16	25.10	145	36.00	187.2	11.1	19	c/cs
	20	51	16	29.20	145	37.40	191.5	11.0	19	c/cs
	20	51	16	32.50	145	38.50	195.0	10.9	19	c/cs
	20	51	16	33.85	145	39.03	196.5	11.3	20	SF
	20	51	16	36.00	145	39.90	198.7	11.4	20	c/cs
	20	51	16	41.10	145	41.90	204.2	11.4	20	c/cs
	20	51	16	41.66	145	42.06	204.8	10.9	19	SF
	20	51	16	45.80	145	43.50	209.1	11.3	19	c/cs
	20	51	16	46.50	145	43.80	209.9	10.0	18	c/cs
	20	51	16	46.80	145	43.90	210.2	11.3	19	c/cs
	20	51	16	47.40	145	44.10	210.8	11.0	19	c/cs
	20	51	16	50.00	145	45.00	213.5	11.2	18	c/cs
	20	51	16	50.70	145	45.23	214.3	11.1	19	c/cs
	20	51	16	54.30	145	46.50	218.2	11.0	19	c/cs
	20	51	16	56.08	145	47.16	220.0	10.9	21	SF
	20	51	16	56.90	145	47.50	220.9	11.1	21	c/cs
	20	51	17	0.60	145	49.00	224.8	10.9	21	c/cs
	20	51	17	2.59	145	49.78	227.0	10.8	19	GPS
	20	51	17	3.60	145	50.10	228.1	10.9	19	c/cs
	21	52	17	7.71	145	51.64	232.4	11.1	20	GPS
	21	52	17	7.70	145	51.60	232.4	11.1	20	c/cs
	21	52	17	8.70	145	52.00	233.5	11.1	19	c/cs
	21	52	17	10.67	145	52.75	235.6	10.5	19	SF
	21	52	17	12.82	145	53.51	237.8	11.5	19	GPS
	21	52	17	13.40	145	53.70	238.4	11.4	20	c/cs
	21	52	17	13.72	145	53.84	238.8	10.7	19	SF
	21	52	17	16.10	145	54.70	241.3	10.6	19	c/cs
	21	52	17	17.91	145	55.39	243.2	10.8	20	GPS
	21	52	17	19.30	145	55.90	244.7	10.8	17	c/cs
	21	52	17	22.20	145	56.80	247.7	10.7	16	c/cs
	21	52	17	23.04	145	57.11	248.6	10.5	17	GPS
	21	52	17	24.40	145	57.50	250.0	10.0	18	c/cs
	21	52	17	26.00	145	58.10	251.7	10.5	17	c/cs
	21	52	17	27.50	145	58.50	253.2	10.3	17	c/cs
	21	52	17	27.97	145	58.68	253.8	10.8	20	GPS
	21	52	17	28.10	145	58.70	253.9	10.3	0	c/cs
	21	52	17	28.83	145	58.75	254.6	9.3	359	SF
	21	52	17	29.00	145	58.70	254.8	9.8	358	c/cs
	21	52	17	29.50	145	58.70	255.3	9.8	358	c/cs
	21	52	17	31.60	145	58.70	257.4	10.5	357	c/cs
	21	52	17	31.90	145	58.60	257.7	9.9	358	c/cs
	21	52	17	32.94	145	58.61	258.7	10.0	358	GPS
	21	52	17	32.90	145	58.60	258.7	10.2	358	c/cs
	21	52	17	33.80	145	58.60	259.6	9.6	357	c/cs
	21	52	17	35.10	145	58.50	260.9	9.9	357	c/cs
	21	52	17	36.50	145	58.40	262.3	9.5	358	c/cs
	21	52	17	37.50	145	58.40	263.3	9.4	358	c/cs
	21	52	17	37.80	145	58.35	263.6	9.6	2	GPS
	21	52	17	38.00	145	58.40	263.8	9.6	354	c/cs
	21	52	17	38.90	145	58.20	264.7	9.6	355	c/cs
	21	52	17	40.40	145	58.10	266.2	9.6	355	c/cs
	21	52	17	42.10	145	57.90	267.9	9.6	355	c/cs
	21	52	17	42.59	145	57.90	268.4	10.1	349	GPS
	21	52	17	43.40	145	57.70	269.3	10.1	349	c/cs
	21	52	17	44.10	145	57.60	269.9	10.1	349	c/cs
	21	52	17	45.60	145	57.30	271.5	11.1	348	c/cs
	21	52	17	47.73	145	56.80	273.7	10.6	352	GPS
	21	52	17	48.10	145	56.70	274.0	9.7	353	c/cs
	21	52	17	49.40	145	56.60	275.3	10.6	353	c/cs
	21	52	17	50.90	145	56.40	276.9	9.7	354	c/cs
	21	52	17	51.80	145	56.30	277.7	10.4	353	c/cs
	21	52	17	52.78	145	56.13	278.8	10.1	354	GPS
	21	52	17	53.10	145	56.10	279.1	9.8	354	c/cs
	21	52	17	56.00	145	55.80	282.0	9.7	353	c/cs
	21	52	17	57.65	145	55.54	283.7	9.9	348	GPS
	21	52	17	58.00	145	55.50	284.0	9.9	350	c/cs
	21	52	18	0.30	145	55.00	286.3	10.2	349	c/cs
	21	52	18	2.58	145	54.54	288.7	10.0	349	GPS
	21	52	18	2.60	145	54.50	288.7	9.7	350	c/cs
	21	52	18	3.90	145	54.30	290.0	9.8	350	c/cs
	21	52	18	7.40	145	53.62	293.6	10.5	348	GPS
	21	52	18	7.60	145	53.60	293.8	8.8	9	c/cs

Table 1 (continued).

Date (1989)	Julian day	Time (UTC)	Latitude (N)		Longitude (E)		Distance (nmi)	Actual speed (kt)	Course (degrees)	Comment [#]	
			(deg)	(min)	(deg)	(min)					
Feb.	21	52	0603	18	7.90	145	53.60	294.0	8.8	33	c/cs
	21	52	0616	18	9.50	145	54.70	296.0	8.4	33	c/cs
	21	52	0627	18	10.80	145	55.60	297.5	8.6	33	c/cs
	21	52	0630	18	11.13	145	55.84	297.9	8.4	31	GPS
	21	52	0641	18	12.40	145	56.70	299.5	8.3	31	c/cs
	21	52	0653	18	13.90	145	57.60	301.1	8.6	32	c/cs
	21	52	0657	18	14.40	145	57.90	301.7	8.4	32	c/cs
	21	52	0700	18	14.72	145	58.13	302.1	8.2	32	GPS
	21	52	0701	18	14.80	145	58.20	302.3	8.5	30	c/cs
	21	52	0713	18	16.30	145	59.10	304.0	8.4	30	c/cs
	21	52	0728	18	18.10	146	0.20	306.1	8.6	31	c/cs
	21	52	0730	18	18.35	146	0.38	306.3	8.8	29	GPS
	21	52	0733	18	18.70	146	0.60	306.8	8.6	29	c/cs
	21	52	0748	18	20.60	146	1.70	308.9	8.4	28	c/cs
	21	52	0759	18	22.00	146	2.50	310.5	8.1	28	c/cs
	21	52	0800	18	22.11	146	2.53	310.6	8.5	27	GPS
	21	52	0806	18	22.90	146	2.90	311.5	8.8	27	c/cs
	21	52	0812	18	23.70	146	3.30	312.4	7.8	25	c/cs
	21	52	0814	18	23.90	146	3.50	312.6	8.3	26	c/cs
	21	52	0817	18	24.30	146	3.70	313.0	8.1	27	c/cs
	21	52	0822	18	24.90	146	4.00	313.7	8.4	26	c/cs
	21	52	0830	18	25.87	146	4.51	314.8	9.2	26	GPS
	21	52	0830	18	25.90	146	4.50	314.8	9.3	27	c/cs
	21	52	0838	18	27.00	146	5.10	316.1	9.3	27	c/cs
	21	52	0839	18	27.12	146	5.17	316.2	8.5	28	SF
	21	52	0855	18	29.10	146	6.30	318.5	8.4	28	c/cs
	21	52	0900	18	29.74	146	6.61	319.2	8.5	28	GPS
	21	52	0906	18	30.50	146	7.00	320.0	8.1	31	c/cs
	21	52	0914	18	31.40	146	7.60	321.1	8.4	31	c/cs
	21	52	0929	18	33.21	146	8.77	323.2	8.3	34	SF
	21	52	0930	18	33.30	146	8.90	323.3	8.1	33	c/cs
	21	52	0940	18	34.50	146	9.60	324.7	7.5	34	c/cs
	21	52	0948	18	35.30	146	10.20	325.7	8.3	33	c/cs
	21	52	0958	18	36.40	146	11.00	327.1	7.9	34	c/cs
	21	52	1005	18	37.20	146	11.60	328.0	8.0	37	c/cs
	21	52	1017	18	38.50	146	12.60	329.6	8.0	37	c/cs
	21	52	1024	18	39.20	146	13.20	330.5	8.4	37	c/cs
	21	52	1046	18	41.70	146	15.10	333.6	8.4	37	c/cs
	21	52	1051	18	42.28	146	15.57	334.3	8.3	35	SF
	21	52	1057	18	43.00	146	16.10	335.2	0.9	255	c/cs
	21	52	1058	18	43.00	146	16.10	335.2	7.4	37	c/cs
	21	52	1100	18	43.20	146	16.20	335.4	8.1	35	c/cs
	21	52	1120	18	45.40	146	17.90	338.1	8.3	35	c/cs
	21	52	1124	18	45.80	146	18.20	338.7	8.0	35	c/cs
	21	52	1135	18	47.00	146	19.10	340.2	8.0	36	c/cs
	21	52	1140	18	47.60	146	19.50	340.8	7.4	37	c/cs
	21	52	1142	18	47.80	146	19.70	341.1	8.2	35	c/cs
	21	52	1151	18	48.76	146	20.42	342.3	8.2	37	SF
	21	52	1155	18	49.20	146	20.80	342.8	8.0	39	c/cs
	21	52	1212	18	51.00	146	22.30	345.1	8.5	37	c/cs
	21	52	1229	18	52.90	146	23.80	347.5	8.3	37	c/cs
	21	52	1239	18	53.98	146	24.70	348.9	8.1	36	SF
	21	52	1249	18	55.10	146	25.50	350.3	7.6	38	c/cs
	21	52	1252	18	55.40	146	25.80	350.6	7.5	35	c/cs
	21	52	1303	18	56.50	146	26.60	352.0	8.1	36	c/cs
	21	52	1308	18	57.00	146	27.00	352.7	8.1	37	c/cs
	21	52	1321	18	58.50	146	28.20	354.5	8.5	37	c/cs
	21	52	1326	18	59.00	146	28.60	355.2	8.3	37	c/cs
	21	52	1337	19	0.20	146	29.60	356.7	8.5	36	c/cs
	21	52	1339	19	0.47	146	29.76	357.0	8.9	39	SF
	21	52	1342	19	0.80	146	30.10	357.4	8.6	39	c/cs
	21	52	1349	19	1.60	146	30.70	358.4	9.2	39	c/cs
	21	52	1355	19	2.32	146	31.32	359.3	9.5	34	SF
	21	52	1358	19	2.70	146	31.60	359.8	8.7	33	c/cs
	21	52	1404	19	3.40	146	32.10	360.7	8.5	37	c/cs
	21	52	1416	19	4.80	146	33.20	362.4	8.4	39	c/cs
	21	52	1423	19	5.60	146	33.80	363.4	8.1	39	c/cs
	21	52	1430	19	6.30	146	34.50	364.3	8.4	39	c/cs
	21	52	1440	19	7.40	146	35.40	365.7	8.2	39	c/cs
	21	52	1448	19	8.30	146	36.10	366.8	7.3	38	c/cs
	21	52	1457	19	9.10	146	36.80	367.9	7.6	38	c/cs
	21	52	1518	19	11.22	146	38.57	370.6	6.7	51	SF
	21	52	1518	19	11.20	146	38.60	370.6	6.2	41	c/cs
	21	52	1519	19	11.30	146	38.60	370.7	5.9	38	c/cs
	21	52	1520	19	11.40	146	38.70	370.8	4.0	347	c/cs

Table 1 (continued).

Date (1989)	Julian day	Time (UTC)	Latitude (N)		Longitude (E)		Distance (nmi)	Actual speed (kt)	Course (degrees)	Comment ^a
			(deg)	(min)	(deg)	(min)				
Feb.	21	52	19	13.30	146	38.20	372.8	6.8	352	c/cs
	21	52	19	14.40	146	38.10	373.9	6.9	352	c/cs
	21	52	19	14.76	146	38.02	374.2	6.8	0	SF
	21	52	19	17.80	146	38.00	377.3	6.8	16	c/cs
	21	52	19	21.10	146	39.10	380.7	6.7	14	c/cs
	21	52	19	21.62	146	39.21	381.2	6.5	357	SF
	21	52	19	27.60	146	38.90	387.2	3.6	353	c/cs
	21	52	19	28.85	146	38.75	388.5	4.8	4	SF
	21	52	19	29.50	146	38.80	389.1	4.7	7	c/cs
	21	52	19	30.40	146	38.90	390.1	5.4	2	c/cs
	21	52	19	31.70	146	39.00	391.3	5.0	2	c/cs
	21	52	19	32.02	146	38.98	391.7	4.7	360	SF
	21	52	19	33.00	146	39.00	392.7	5.1	1	c/cs
	21	52	19	34.30	146	39.00	394.0	4.6	5	c/cs
	21	52	19	34.47	146	39.01	394.1	5.7	5	GPS
	21	52	19	34.60	146	39.00	394.2	4.8	21	c/cs
	21	52	19	34.70	146	39.10	394.4	5.5	346	c/cs
	21	52	19	34.80	146	39.10	394.5	8.0	320	c/cs
	21	52	19	34.90	146	39.00	394.6	9.1	300	c/cs
	21	52	19	35.00	146	38.80	394.8	9.0	274	c/cs
	21	52	19	35.00	146	38.70	394.9	9.3	256	c/cs
	21	52	19	34.80	146	38.00	395.5	7.2	158	c/cs
	21	52	19	34.30	146	38.30	396.1	6.7	156	c/cs
	21	52	19	33.40	146	38.70	397.1	7.0	163	c/cs
	21	52	19	33.30	146	38.70	397.2	6.2	150	c/cs
	21	52	19	32.70	146	39.10	397.9	7.0	162	c/cs
	21	52	19	31.95	146	39.32	398.7	5.9	160	SF
	21	52	19	31.70	146	39.40	399.0	6.4	165	c/cs
	21	52	19	29.93	146	39.93	400.8	3.3	157	778
	21	52	19	29.90	146	39.90	400.8	3.1	155	c/cs
	21	52	19	29.30	146	40.20	401.5	2.3	335	c/cs
	21	52	19	29.93	146	39.93	402.1	2.0	155	778
	21	52	19	29.90	146	39.90	402.1	0.0	90	c/cs
	24	55	19	29.93	146	39.93	402.1	0.4	64	778
	24	55	19	30.74	146	41.72	404.0	0.0	90	779A
	24	55	19	30.74	146	41.72	404.0	0.0	90	779A
	27	58	19	30.74	146	41.72	404.0	0.0	90	779B
March	03	62	19	30.74	146	41.72	404.0	0.0	180	779B
	03	62	19	30.72	146	41.72	404.0	0.7	338	779B
	03	62	19	31.20	146	41.50	404.5	5.9	12	c/cs
	03	62	19	34.10	146	42.20	407.5	7.3	249	c/cs
	03	62	19	32.90	146	38.90	410.8	0.6	311	c/cs
	03	62	19	32.90	146	38.90	410.8	5.6	235	c/cs
	03	62	19	32.78	146	38.65	411.1	5.7	234	SF
	03	62	19	31.70	146	37.00	413.0	5.5	237	c/cs
	03	62	19	31.40	146	36.50	413.5	5.3	234	c/cs
	03	62	19	31.10	146	36.20	414.0	5.4	238	c/cs
	03	62	19	31.05	146	36.07	414.1	5.6	235	SF
	03	62	19	30.60	146	35.30	414.9	5.5	232	c/cs
	03	62	19	30.20	146	34.90	415.5	6.0	240	c/cs
	03	62	19	29.90	146	34.20	416.2	5.9	242	c/cs
	03	62	19	29.70	146	33.80	416.7	6.1	246	c/cs
	03	62	19	29.20	146	32.70	417.8	5.9	243	c/cs
	03	62	19	28.20	146	30.60	420.0	5.6	197	c/cs
	03	62	19	28.10	146	30.60	420.0	5.7	159	c/cs
	03	62	19	28.00	146	30.60	420.1	3.9	120	c/cs
	03	62	19	28.00	146	30.80	420.3	3.3	63	c/cs
	03	62	19	28.00	146	30.90	420.4	4.6	52	c/cs
	03	62	19	28.46	146	31.50	421.1	3.9	47	SF
	03	62	19	28.50	146	31.60	421.2	3.9	47	c/cs
	03	62	19	28.90	146	32.00	421.7	3.5	47	c/cs
	03	62	19	29.00	146	32.10	422.0	4.3	49	c/cs
	03	62	19	29.30	146	32.50	422.4	4.9	60	c/cs
	03	62	19	29.80	146	33.40	423.4	4.9	62	c/cs
	03	62	19	30.40	146	34.50	424.6	4.7	61	c/cs
	03	62	19	30.60	146	35.00	425.1	4.9	62	c/cs
	03	62	19	31.18	146	36.11	426.3	5.6	63	GPS
	03	62	19	31.35	146	36.46	426.7	5.3	61	GPS
	03	62	19	31.30	146	36.50	426.7	4.6	62	c/cs
	03	62	19	31.53	146	36.82	427.0	4.4	66	GPS
	03	62	19	31.60	146	37.00	427.2	4.6	75	c/cs
	03	62	19	31.65	146	37.20	427.4	5.2	75	GPS
	03	62	19	31.70	146	37.60	427.8	5.0	74	c/cs
	03	62	19	31.76	146	37.64	427.8	4.9	76	GPS
	03	62	19	31.86	146	38.06	428.3	4.0	74	GPS

Table 1 (continued).

Date (1989)	Julian day	Time (UTC)	Latitude (N)		Longitude (E)		Distance (nmi)	Actual speed (kt)	Course (degrees)	Comment ^a
			(deg)	(min)	(deg)	(min)				
March 03	62	2227	19	31.90	146	38.30	428.5	4.2	61	c/cs
03	62	2230	19	32.02	146	38.46	428.7	4.3	56	GPS
03	62	2233	19	32.10	146	38.70	428.9	4.1	54	c/cs
03	62	2234	19	32.18	146	38.71	429.0	3.8	53	GPS
03	62	2239	19	32.37	146	38.98	429.3	4.1	53	GPS
03	62	2242	19	32.50	146	39.20	429.5	3.5	58	c/cs
03	62	2244	19	32.60	146	39.30	429.6	4.2	59	c/cs
03	62	2245	19	32.59	146	39.32	429.7	5.3	67	780A
03	62	2245	19	32.60	146	39.30	429.7	0.0	236	c/cs
04	63	0845	19	32.54	146	39.24	429.8	0.0	56	780A
04	63	1830	19	32.59	146	39.32	429.8	0.0	90	780A
05	64	0530	19	32.59	146	39.32	429.8	0.0	90	780B
05	64	1900	19	32.59	146	39.32	429.8	0.0	90	780B
05	64	1901	19	32.59	146	39.32	429.8	0.0	90	780C
08	67	1830	19	32.59	146	39.32	429.8	0.0	90	780C
09	68	0100	19	32.59	146	39.32	429.8	0.0	90	780D
10	69	1345	19	32.59	146	39.32	429.8	0.9	218	780D
10	69	1415	19	32.20	146	39.00	430.3	6.3	306	c/cs
10	69	1436	19	33.50	146	37.10	432.5	6.3	306	c/cs
10	69	1447	19	34.20	146	36.10	433.6	6.2	306	c/cs
10	69	1501	19	35.00	146	34.90	435.1	6.0	305	c/cs
10	69	1507	19	35.40	146	34.40	435.7	6.2	306	c/cs
10	69	1519	19	36.10	146	33.30	436.9	4.5	333	c/cs
10	69	1521	19	36.20	146	33.20	437.1	4.1	16	c/cs
10	69	1523	19	36.40	146	33.30	437.2	4.4	49	c/cs
10	69	1527	19	36.60	146	33.50	437.5	4.9	53	c/cs
10	69	1551	19	37.70	146	35.20	439.5	4.8	53	c/cs
10	69	1605	19	38.40	146	36.20	440.6	5.1	53	c/cs
10	69	1621	19	39.20	146	37.30	442.0	4.8	55	c/cs
10	69	1627	19	39.50	146	37.70	442.5	5.0	47	c/cs
10	69	1630	19	39.70	146	37.90	442.7	4.6	360	c/cs
10	69	1632	19	39.80	146	37.90	442.9	5.8	329	c/cs
10	69	1638	19	40.30	146	37.60	443.4	6.7	315	c/cs
10	69	1645	19	40.90	146	37.00	444.2	7.0	290	c/cs
10	69	1647	19	41.00	146	36.80	444.5	7.3	259	c/cs
10	69	1648	19	40.90	146	36.70	444.6	7.1	231	c/cs
10	69	1652	19	40.60	146	36.30	445.1	7.2	229	c/cs
10	69	1702	19	39.90	146	35.30	446.3	6.9	231	c/cs
10	69	1712	19	39.10	146	34.40	447.4	6.8	235	c/cs
10	69	1717	19	38.80	146	33.86	448.0	7.1	234	SF
10	69	1730	19	37.88	146	32.54	449.5	1.4	247	781
10	69	1731	19	37.90	146	32.50	449.5	1.4	235	c/cs
10	69	1738	19	37.80	146	32.40	449.7	1.6	223	c/cs
10	69	1805	19	37.30	146	31.90	450.4	3.9	327	c/cs
10	69	1810	19	37.50	146	31.70	450.7	2.8	284	c/cs
10	69	1811	19	37.50	146	31.60	450.8	2.2	200	c/cs
10	69	1812	19	37.50	146	31.60	450.8	3.2	151	c/cs
10	69	1814	19	37.40	146	31.70	450.9	8.9	73	c/cs
10	69	1816	19	37.50	146	32.00	451.2	10.0	54	c/cs
10	69	1820	19	37.88	146	32.54	451.9	5.4	53	781
10	69	1820	19	37.90	146	32.50	451.9	0.0	90	c/cs
13	72	0900	19	37.88	146	32.54	451.9	1.3	35	781
13	72	0940	19	38.60	146	33.10	452.8	5.0	171	c/cs
13	72	0957	19	37.20	146	33.30	454.2	6.6	333	c/cs
13	72	1000	19	37.51	146	33.15	454.5	5.3	337	GDRT
13	72	1007	19	38.10	146	32.90	455.1	4.0	311	c/cs
13	72	1009	19	38.20	146	32.80	455.3	3.9	273	c/cs
13	72	1014	19	38.20	146	32.40	455.6	4.2	263	c/cs
13	72	1029	19	38.10	146	31.30	456.7	4.2	266	c/cs
13	72	1044	19	38.00	146	30.20	457.7	4.3	266	c/cs
13	72	1055	19	37.90	146	29.40	458.5	4.4	289	c/cs
13	72	1100	19	38.05	146	29.03	458.9	5.5	282	GDRT
13	72	1101	19	38.10	146	28.90	458.9	5.4	342	c/cs
13	72	1111	19	38.90	146	28.60	459.8	7.7	339	c/cs
13	72	1115	19	39.40	146	28.50	460.3	9.5	338	c/cs
13	72	1130	19	41.60	146	27.50	462.7	10.2	338	c/cs
13	72	1140	19	43.20	146	26.80	464.4	10.5	338	c/cs
13	72	1200	19	46.40	146	25.39	467.9	11.2	329	GDRT
13	72	1200	19	46.40	146	25.40	467.9	11.2	330	c/cs
13	72	1211	19	48.20	146	24.30	470.0	10.7	331	c/cs
13	72	1214	19	48.70	146	24.00	470.5	11.2	330	c/cs
13	72	1244	19	53.50	146	21.10	476.1	11.5	330	c/cs
13	72	1314	19	58.50	146	18.00	481.9	11.8	331	c/cs
13	72	1316	19	58.80	146	17.80	482.3	11.5	331	c/cs
13	72	1340	20	2.80	146	15.40	486.8	11.5	331	c/cs

Table 1 (continued).

Date (1989)	Julian day	Time (UTC)	Latitude (N)		Longitude (E)		Distance (nmi)	Actual speed (kt)	Course (degrees)	Comment ^a
			(deg)	(min)	(deg)	(min)				
March 13	72	1343	20	3.32	146	15.08	487.4	11.8	329	SF
13	72	1349	20	4.30	146	14.40	488.6	11.4	329	c/cs
13	72	1407	20	7.30	146	12.60	492.0	11.5	329	c/cs
13	72	1411	20	7.90	146	12.10	492.8	11.9	327	c/cs
13	72	1422	20	9.80	146	10.90	495.0	11.9	327	c/cs
13	72	1434	20	11.80	146	9.50	497.4	11.9	327	c/cs
13	72	1445	20	13.59	146	8.24	499.5	11.2	331	SF
13	72	1455	20	15.20	146	7.30	501.4	11.2	332	c/cs
13	72	1508	20	17.40	146	6.10	503.8	11.3	333	c/cs
13	72	1525	20	20.20	146	4.50	507.0	11.1	332	c/cs
13	72	1537	20	22.20	146	3.40	509.2	11.4	332	c/cs
13	72	1540	20	22.66	146	3.10	509.8	11.7	334	SF
13	72	1542	20	23.00	146	2.90	510.2	11.4	334	c/cs
13	72	1556	20	25.40	146	1.70	512.9	11.6	335	c/cs
13	72	1603	20	26.60	146	1.10	514.2	11.6	335	c/cs
13	72	1610	20	27.90	146	0.50	515.6	11.7	335	c/cs
13	72	1617	20	29.10	145	59.90	516.9	11.5	335	c/cs
13	72	1631	20	31.56	145	58.70	519.6	12.1	338	SF
13	72	1631	20	31.60	145	58.70	519.6	12.2	338	c/cs
13	72	1659	20	36.80	145	56.40	525.3	12.3	339	c/cs
13	72	1728	20	42.36	145	54.06	531.3	12.3	335	SF
13	72	1729	20	42.50	145	54.00	531.5	12.2	336	c/cs
13	72	1744	20	45.30	145	52.60	534.5	12.4	336	c/cs
13	72	1757	20	47.80	145	51.50	537.2	12.4	337	c/cs
13	72	1817	20	51.60	145	49.80	541.3	12.2	338	c/cs
13	72	1833	20	54.60	145	48.50	544.6	12.4	338	c/cs
13	72	1852	20	58.27	145	46.89	548.5	11.1	338	SF
13	72	1903	21	0.10	145	46.10	550.6	11.1	338	c/cs
13	72	1905	21	0.49	145	45.91	550.9	11.8	337	SF
13	72	1933	21	5.60	145	43.60	556.4	11.9	336	c/cs
13	72	1950	21	8.70	145	42.10	559.8	12.0	335	c/cs
13	72	1955	21	9.60	145	41.70	560.8	11.9	335	c/cs
13	72	2021	21	14.20	145	39.40	566.0	11.9	335	c/cs
13	72	2038	21	17.30	145	37.90	569.3	12.0	335	c/cs
13	72	2040	21	17.66	145	37.67	569.7	12.0	338	SF
13	72	2048	21	19.10	145	37.00	571.3	10.9	338	c/cs
13	72	2050	21	19.50	145	36.90	571.7	12.0	338	c/cs
13	72	2056	21	20.60	145	36.40	572.9	11.1	338	c/cs
13	72	2059	21	21.10	145	36.20	573.4	12.0	338	c/cs
13	72	2105	21	22.20	145	35.70	574.6	11.8	338	c/cs
13	72	2113	21	23.70	145	35.10	576.2	11.8	338	c/cs
13	72	2137	21	28.10	145	33.20	581.0	11.9	338	c/cs
13	72	2156	21	31.60	145	31.70	584.7	11.8	337	c/cs
13	72	2200	21	32.28	145	31.34	585.5	12.1	338	GPS
13	72	2206	21	33.40	145	30.85	586.7	11.8	341	GPS
13	72	2207	21	33.60	145	30.80	586.9	11.8	341	c/cs
13	72	2211	21	34.33	145	30.50	587.7	11.9	338	GPS
13	72	2216	21	35.25	145	30.10	588.7	11.9	338	GPS
13	72	2218	21	35.60	145	29.90	589.1	11.9	338	c/cs
13	72	2221	21	36.17	145	29.70	589.7	12.1	337	GPS
13	72	2226	21	37.10	145	29.28	590.7	11.1	336	GPS
13	72	2229	21	37.60	145	29.00	591.2	11.2	336	c/cs
13	72	2230	21	37.78	145	28.96	591.4	12.6	335	GPS
13	72	2236	21	38.92	145	28.39	592.7	12.1	336	GPS
13	72	2241	21	39.84	145	27.95	593.7	12.2	336	GPS
13	72	2246	21	40.77	145	27.50	594.7	12.4	336	GPS
13	72	2248	21	41.10	145	27.30	595.1	12.3	336	c/cs
13	72	2251	21	41.71	145	27.05	595.7	12.0	337	GPS
13	72	2300	21	43.37	145	26.30	597.5	12.8	337	GPS
13	72	2306	21	44.55	145	25.77	598.8	12.4	337	GPS
13	72	2307	21	44.70	145	25.70	599.0	12.3	337	c/cs
13	72	2311	21	45.50	145	25.34	599.9	12.4	337	GPS
13	72	2316	21	46.45	145	24.91	600.9	12.3	337	GPS
13	72	2321	21	47.39	145	24.47	601.9	12.3	337	GPS
13	72	2326	21	48.33	145	24.04	602.9	11.3	337	GPS
13	72	2326	21	48.30	145	24.00	602.9	11.4	337	c/cs
13	72	2330	21	49.03	145	23.72	603.7	12.9	337	GPS
13	72	2336	21	50.22	145	23.18	605.0	11.8	338	GPS
13	72	2347	21	52.22	145	22.31	607.1	12.1	339	GPS
13	72	2352	21	53.20	145	21.90	608.1	12.0	339	c/cs
14	73	0000	21	54.65	145	21.31	609.7	11.8	339	GPS
14	73	0000	21	54.70	145	21.30	609.7	11.8	339	c/cs
14	73	0006	21	55.80	145	20.90	610.9	12.1	339	c/cs
14	73	0009	21	56.30	145	20.60	611.5	11.9	339	c/cs
14	73	0030	22	0.21	145	19.02	615.7	12.0	340	GPS

Table 1 (continued).

Date (1989)	Julian day	Time (UTC)	Latitude (N)		Longitude (E)		Distance (nmi)	Actual speed (kt)	Course (degrees)	Comment ^u
			(deg)	(min)	(deg)	(min)				
March 14	73	1525	24	36.20	143	53.80	790.8	11.9	336	c/cs
14	73	1543	24	39.40	143	52.20	794.4	11.8	335	c/cs
14	73	1546	24	39.95	143	51.89	795.0	11.4	331	SF
14	73	1607	24	43.40	143	49.70	799.0	11.4	330	c/cs
14	73	1632	24	47.50	143	47.10	803.7	11.4	330	c/cs
14	73	1641	24	49.00	143	46.17	805.4	11.3	328	SF
14	73	1702	24	52.40	143	43.80	809.4	11.3	329	c/cs
14	73	1704	24	52.68	143	43.63	809.8	11.6	330	SF
14	73	1714	24	54.40	143	42.60	811.7	11.6	329	c/cs
14	73	1741	24	58.80	143	39.60	816.9	11.6	329	c/cs
14	73	1800	25	1.98	143	37.57	820.6	11.4	330	GPS
14	73	1811	25	3.80	143	36.40	822.7	11.4	330	c/cs
14	73	1825	25	6.10	143	34.90	825.3	11.5	330	c/cs
14	73	1828	25	6.60	143	34.62	825.9	12.0	331	SF
14	73	1847	25	9.90	143	32.60	829.7	11.9	331	c/cs
14	73	1858	25	11.80	143	31.40	831.9	11.8	331	c/cs
14	73	1920	25	15.60	143	29.00	836.2	11.8	332	c/cs
14	73	1931	25	17.50	143	27.90	838.4	11.9	331	c/cs
14	73	1942	25	19.40	143	26.70	840.6	11.8	331	c/cs
14	73	2000	25	22.47	143	24.76	844.1	11.3	330	GPS
14	73	2012	25	24.40	143	23.50	846.4	11.4	330	c/cs
14	73	2024	25	26.40	143	22.20	848.7	11.3	330	c/cs
14	73	2030	25	27.39	143	21.62	849.8	11.4	332	GPS
14	73	2053	25	31.20	143	19.30	854.1	11.1	332	c/cs
14	73	2100	25	32.36	143	18.64	855.4	11.4	329	GPS
14	73	2118	25	35.30	143	16.70	858.8	11.2	329	c/cs
14	73	2130	25	37.19	143	15.39	861.1	11.2	329	GPS
14	73	2148	25	40.10	143	13.50	864.4	11.1	330	c/cs
14	73	2200	25	41.98	143	12.26	866.6	10.9	329	GPS
14	73	2210	25	43.50	143	11.20	868.5	10.6	329	c/cs
14	73	2225	25	45.80	143	9.70	871.1	10.3	329	c/cs
14	73	2230	25	46.56	143	9.24	872.0	10.4	330	GPS
14	73	2240	25	48.10	143	8.30	873.7	10.3	331	c/cs
14	73	2253	25	50.00	143	7.10	875.9	10.6	331	c/cs
14	73	2300	25	51.09	143	6.39	877.2	10.5	330	GPS
14	73	2308	25	52.30	143	5.60	878.6	10.7	329	c/cs
14	73	2330	25	55.68	143	3.35	882.5	10.8	328	GPS
14	73	2333	25	56.10	143	3.00	883.1	11.0	329	c/cs
15	74	0000	26	0.40	143	0.24	888.0	11.2	330	GPS
15	74	0000	26	0.40	143	0.20	888.0	11.2	330	c/cs
15	74	0003	26	0.90	142	59.90	888.6	11.2	330	c/cs
15	74	0030	26	5.27	142	57.17	893.6	11.4	330	GPS
15	74	0030	26	5.30	142	57.20	893.6	11.2	330	c/cs
15	74	0038	26	6.60	142	56.30	895.1	11.3	330	c/cs
15	74	0052	26	8.80	142	54.90	897.7	11.1	330	c/cs
15	74	0100	26	10.12	142	54.05	899.2	11.0	329	GPS
15	74	0112	26	12.00	142	52.80	901.4	10.8	328	c/cs
15	74	0130	26	14.73	142	50.83	904.6	10.4	328	GPS
15	74	0140	26	16.20	142	49.80	906.4	10.5	328	c/cs
15	74	0200	26	19.17	142	47.72	909.9	9.9	329	GPS
15	74	0200	26	19.20	142	47.70	909.9	9.8	330	c/cs
15	74	0212	26	20.90	142	46.60	911.8	9.8	330	c/cs
15	74	0223	26	22.40	142	45.60	913.6	9.8	330	c/cs
15	74	0230	26	23.40	142	44.99	914.8	11.5	326	GPS
15	74	0240	26	25.00	142	43.80	916.7	11.4	326	c/cs
15	74	0245	26	25.80	142	43.20	917.6	10.8	326	c/cs
15	74	0247	26	26.10	142	43.00	918.0	11.6	326	c/cs
15	74	0258	26	27.80	142	41.70	920.1	11.8	327	c/cs
15	74	0300	26	28.17	142	41.41	920.5	11.4	328	GPS
15	74	0303	26	28.70	142	41.10	921.1	10.1	327	c/cs
15	74	0305	26	28.90	142	40.90	921.4	11.0	328	c/cs
15	74	0322	26	31.60	142	39.00	924.5	11.1	328	c/cs
15	74	0330	26	32.80	142	38.13	926.0	11.0	328	GPS
15	74	0350	26	35.90	142	36.00	929.7	10.8	328	c/cs
15	74	0400	26	37.42	142	34.90	931.5	10.6	329	GPS
15	74	0410	26	38.90	142	33.90	933.2	10.5	332	c/cs
15	74	0416	26	39.90	142	33.30	934.3	10.8	332	c/cs
15	74	0430	26	42.08	142	31.98	936.8	10.9	331	GPS
15	74	0431	26	42.20	142	31.90	937.0	11.0	331	c/cs
15	74	0445	26	44.50	142	30.50	939.5	10.6	331	c/cs
15	74	0500	26	46.82	142	29.09	942.2	10.9	332	GPS
15	74	0504	26	47.50	142	28.70	942.9	11.0	332	c/cs
15	74	0519	26	49.90	142	27.20	945.7	11.2	333	c/cs
15	74	0530	26	51.70	142	26.18	947.7	11.4	333	GPS
15	74	0531	26	51.90	142	26.10	947.9	11.3	334	c/cs

Table 1 (continued).

Date (1989)	Julian day	Time (UTC)	Latitude (N)		Longitude (E)		Distance (nmi)	Actual speed (kt)	Course (degrees)	Comment ^a
			(deg)	(min)	(deg)	(min)				
March 15	74	0540	26	53.40	142	25.30	949.6	11.5	334	c/cs
15	74	0551	26	55.30	142	24.20	951.7	11.4	334	c/cs
15	74	0603	26	57.70	142	22.90	954.4	11.5	334	c/cs
15	74	0622	27	0.62	142	21.34	957.6	10.3	336	GPS
15	74	0630	27	1.88	142	20.72	959.0	11.7	336	GPS
15	74	0635	27	2.80	142	20.30	960.0	11.7	337	c/cs
15	74	0639	27	3.50	142	19.90	960.8	11.6	336	c/cs
15	74	0700	27	7.21	142	18.08	964.8	11.2	337	GPS
15	74	0702	27	7.60	142	17.90	965.2	11.1	351	c/cs
15	74	0704	27	7.90	142	17.90	965.6	11.5	358	c/cs
15	74	0721	27	11.20	142	17.70	968.8	11.8	359	c/cs
15	74	0729	27	12.80	142	17.70	970.4	12.0	358	c/cs
15	74	0730	27	12.96	142	17.69	970.6	11.3	6	GPS
15	74	0736	27	14.10	142	17.80	971.7	11.0	6	c/cs
15	74	0754	27	17.40	142	18.20	975.1	10.9	6	c/cs
15	74	0802	27	18.80	142	18.40	976.5	10.8	6	c/cs
15	74	0808	27	19.90	142	18.50	977.6	11.0	6	c/cs
15	74	0821	27	22.26	142	18.81	980.0	10.8	2	SF
15	74	0828	27	23.50	142	18.80	981.2	10.8	2	c/cs
15	74	0852	27	27.80	142	19.00	985.6	10.9	2	c/cs
15	74	0906	27	30.40	142	19.10	988.1	10.0	348	c/cs
15	74	0907	27	30.60	142	19.00	988.3	10.5	350	c/cs
15	74	0943	27	36.78	142	17.77	994.6	10.0	347	SF
15	74	1002	27	39.90	142	17.00	997.8	10.0	346	c/cs
15	74	1028	27	44.10	142	15.80	1002.1	9.9	346	c/cs
15	74	1047	27	47.10	142	14.90	1005.2	9.9	346	c/cs
15	74	1050	27	47.58	142	14.80	1005.7	10.3	346	SF
15	74	1058	27	48.90	142	14.40	1007.1	10.1	346	c/cs
15	74	1151	27	57.60	142	12.10	1016.0	9.9	348	c/cs
15	74	1214	28	1.30	142	11.10	1019.8	9.8	348	c/cs
15	74	1228	28	3.50	142	10.60	1022.1	9.6	348	c/cs
15	74	1238	28	5.09	142	10.20	1023.7	8.2	344	SF
15	74	1238	28	5.10	142	10.20	1023.7	8.3	343	c/cs
15	74	1259	28	7.90	142	9.20	1026.6	8.3	341	c/cs
15	74	1316	28	10.10	142	8.40	1028.9	8.2	341	c/cs
15	74	1329	28	11.80	142	7.70	1030.7	8.5	342	c/cs
15	74	1355	28	15.30	142	6.40	1034.4	8.4	341	c/cs
15	74	1400	28	15.96	142	6.14	1035.1	10.1	344	DR
15	74	1412	28	17.90	142	5.50	1037.2	10.0	344	c/cs
15	74	1430	28	20.80	142	4.60	1040.2	9.9	344	DR
15	74	1435	28	21.60	142	4.30	1041.0	9.8	345	c/cs
15	74	1448	28	23.60	142	3.70	1043.1	10.2	346	c/cs
15	74	1457	28	25.10	142	3.30	1044.6	10.1	346	c/cs
15	74	1500	28	25.62	142	3.19	1045.1	11.6	352	DR
15	74	1506	28	26.80	142	3.00	1046.3	11.3	352	c/cs
15	74	1519	28	29.20	142	2.60	1048.8	11.4	351	c/cs
15	74	1538	28	32.80	142	1.90	1052.4	11.5	351	c/cs
15	74	1556	28	36.10	142	1.30	1055.8	11.2	351	c/cs
15	74	1614	28	39.50	142	0.70	1059.2	11.4	351	c/cs
15	74	1617	28	40.00	142	0.60	1059.7	11.3	351	c/cs
15	74	1647	28	45.60	141	59.60	1065.4	11.0	351	c/cs
15	74	1656	28	47.20	141	59.30	1067.0	11.3	351	c/cs
15	74	1700	28	47.98	141	59.12	1067.8	10.2	343	GPS
15	74	1709	28	49.40	141	58.60	1069.3	10.3	342	c/cs
15	74	1720	28	51.20	141	58.00	1071.2	9.8	342	c/cs
15	74	1722	28	51.60	141	57.80	1071.5	9.8	343	c/cs
15	74	1730	28	52.81	141	57.40	1072.8	10.0	343	GPS
15	74	1752	28	56.30	141	56.20	1076.5	10.2	343	c/cs
15	74	1800	28	57.64	141	55.76	1077.9	10.2	343	GPS
15	74	1826	29	1.87	141	54.27	1082.3	9.9	341	SF
15	74	1840	29	4.10	141	53.40	1084.6	9.9	341	c/cs
15	74	1851	29	5.80	141	52.70	1086.4	8.4	341	c/cs
15	74	1853	29	6.00	141	52.60	1086.7	10.1	341	c/cs
15	74	1859	29	7.00	141	52.27	1087.7	9.8	345	GPS
15	74	1905	29	8.00	141	52.00	1088.7	9.6	345	c/cs
15	74	1907	29	8.26	141	51.89	1089.0	9.6	347	GPS
15	74	1914	29	9.40	141	51.60	1090.2	9.9	347	c/cs
15	74	1921	29	10.50	141	51.30	1091.3	9.8	346	c/cs
15	74	1930	29	11.91	141	50.88	1092.8	10.3	345	GPS
15	74	1930	29	11.90	141	50.90	1092.8	4.4	349	c/cs
15	74	1931	29	12.00	141	50.90	1092.9	10.5	346	c/cs
15	74	1956	29	16.20	141	49.70	1097.3	10.4	346	c/cs
15	74	2000	29	16.92	141	49.48	1097.9	10.1	345	GPS
15	74	2008	29	18.20	141	49.10	1099.3	10.1	340	c/cs
15	74	2024	29	20.70	141	48.00	1102.0	10.6	339	c/cs

Table 1 (continued).

Date (1989)	Julian day	Time (UTC)	Latitude (N)		Longitude (E)		Distance (nmi)	Actual speed (kt)	Course (degrees)	Comment ^a
			(deg)	(min)	(deg)	(min)				
March 15	74	2030	29	21.73	141	47.57	1103.0	11.0	347	GPS
15	74	2049	29	25.10	141	46.70	1106.5	10.8	347	c/cs
15	74	2100	29	27.07	141	46.15	1108.5	10.6	338	GPS
15	74	2108	29	28.40	141	45.50	1109.9	10.6	339	c/cs
15	74	2130	29	32.00	141	43.89	1113.8	10.4	339	GPS
15	74	2138	29	33.30	141	43.30	1115.2	10.3	338	c/cs
15	74	2156	29	36.20	141	42.00	1118.3	10.3	339	c/cs
15	74	2200	29	36.80	141	41.72	1119.0	10.4	340	GPS
15	74	2212	29	38.70	141	40.90	1121.1	10.6	340	c/cs
15	74	2230	29	41.74	141	39.62	1124.3	10.9	344	GPS
15	74	2239	29	43.30	141	39.10	1125.9	10.5	344	c/cs
15	74	2255	29	46.00	141	38.20	1128.7	10.8	343	c/cs
15	74	2300	29	46.85	141	37.88	1129.6	10.9	339	GPS
15	74	2305	29	47.70	141	37.50	1130.5	10.8	337	c/cs
15	74	2318	29	49.90	141	36.50	1132.8	10.7	338	c/cs
15	74	2330	29	51.85	141	35.57	1135.0	10.6	335	GPS
15	74	2331	29	52.00	141	35.50	1135.1	11.0	335	c/cs
15	74	2349	29	55.00	141	33.90	1138.4	10.7	334	c/cs
15	74	2356	29	56.10	141	33.30	1139.7	10.9	335	c/cs
16	75	0000	29	56.80	141	32.90	1140.4	10.9	335	c/cs
16	75	0022	30	0.40	141	31.00	1144.4	11.1	335	c/cs
16	75	0023	30	0.60	141	30.90	1144.6	11.0	334	c/cs
16	75	0030	30	1.73	141	30.22	1145.9	11.7	335	GPS
16	75	0042	30	3.90	141	29.10	1148.2	11.2	336	c/cs
16	75	0043	30	4.03	141	28.99	1148.4	10.3	334	SF
16	75	0047	30	4.60	141	28.60	1149.1	10.1	335	c/cs
16	75	0100	30	6.62	141	27.56	1151.3	10.1	337	GPS
16	75	0109	30	8.00	141	26.90	1152.8	10.2	339	c/cs
16	75	0116	30	9.10	141	26.40	1154.0	10.4	339	c/cs
16	75	0126	30	10.70	141	25.60	1155.7	9.5	340	c/cs
16	75	0134	30	11.90	141	25.10	1157.0	10.3	340	c/cs
16	75	0141	30	13.10	141	24.60	1158.2	10.6	340	c/cs
16	75	0159	30	16.00	141	23.40	1161.4	10.4	340	c/cs
16	75	0200	30	16.20	141	23.30	1161.6	9.9	342	GPS
16	75	0217	30	18.90	141	22.30	1164.3	9.8	341	c/cs
16	75	0229	30	20.70	141	21.50	1166.3	9.5	342	c/cs
16	75	0239	30	22.20	141	20.90	1167.9	9.6	342	c/cs
16	75	0259	30	25.30	141	19.80	1171.1	9.3	341	c/cs
16	75	0300	30	25.40	141	19.70	1171.3	8.8	345	GPS
16	75	0306	30	26.30	141	19.40	1172.1	8.5	346	c/cs
16	75	0319	30	28.00	141	18.90	1174.0	8.3	346	c/cs
16	75	0400	30	33.50	141	17.30	1179.6	8.3	344	GPS
16	75	0415	30	35.50	141	16.60	1181.7	8.3	334	c/cs
16	75	0417	30	35.70	141	16.50	1182.0	8.2	334	c/cs
16	75	0423	30	36.50	141	16.10	1182.8	7.9	334	c/cs
16	75	0430	30	37.30	141	15.60	1183.7	7.8	336	GPS
16	75	0432	30	37.50	141	15.50	1184.0	7.8	350	c/cs
16	75	0437	30	38.20	141	15.30	1184.6	8.2	356	c/cs
16	75	0452	30	40.20	141	15.20	1186.7	8.2	356	c/cs
16	75	0500	30	41.30	141	15.10	1187.7	8.0	356	GPS
16	75	0502	30	41.60	141	15.10	1188.0	7.8	356	c/cs
16	75	0513	30	43.00	141	15.00	1189.4	8.0	356	c/cs
16	75	0517	30	43.50	141	14.90	1190.0	7.7	356	c/cs
16	75	0529	30	45.10	141	14.80	1191.5	7.9	356	c/cs
16	75	0530	30	45.20	141	14.80	1191.7	8.1	356	GPS
16	75	0539	30	46.40	141	14.70	1192.9	8.2	356	c/cs
16	75	0540	30	46.50	141	14.70	1193.0	5.1	2	c/cs
16	75	0541	30	46.60	141	14.70	1193.1	8.2	356	c/cs
16	75	0552	30	48.10	141	14.60	1194.6	6.4	358	c/cs
16	75	0554	30	48.30	141	14.60	1194.8	8.6	356	c/cs
16	75	0600	30	49.20	141	14.50	1195.7	9.2	358	GPS
16	75	0601	30	49.40	141	14.50	1195.8	5.8	5	c/cs
16	75	0602	30	49.50	141	14.50	1195.9	8.1	353	c/cs
16	75	0607	30	50.10	141	14.40	1196.6	8.9	352	c/cs
16	75	0611	30	50.70	141	14.30	1197.2	9.0	351	c/cs
16	75	0615	30	51.30	141	14.20	1197.8	9.0	346	GPS
16	75	0619	30	51.90	141	14.00	1198.4	8.3	341	c/cs
16	75	0630	30	53.30	141	13.50	1199.9	7.9	342	c/cs
16	75	0632	30	53.60	141	13.40	1200.2	7.8	14	c/cs
16	75	0633	30	53.70	141	13.40	1200.3	7.9	58	c/cs
16	75	0640	30	54.20	141	14.30	1201.2	8.1	105	c/cs
16	75	0657	30	53.60	141	16.90	1203.5	7.9	82	c/cs
16	75	0727	30	54.10	141	21.40	1207.4	9.6	84	c/cs
16	75	0728	30	54.20	141	21.60	1207.6	7.7	77	c/cs
16	75	0735	30	54.40	141	22.60	1208.5	6.5	175	c/cs

Table 1 (continued).

Date (1989)	Julian day	Time (UTC)	Latitude (N)		Longitude (E)		Distance (nmi)	Actual speed (kt)	Course (degrees)	Comment ^a
			(deg)	(min)	(deg)	(min)				
March 16	75	0742	30	53.60	141	22.70	1209.3	7.6	165	SF
16	75	0742	30	53.60	141	22.70	1209.3	4.0	266	c/cs
16	75	0759	30	53.50	141	21.40	1210.4	4.1	266	c/cs
16	75	0840	30	53.30	141	18.10	1213.2	6.6	163	c/cs
16	75	0846	30	52.70	141	18.30	1213.9	4.7	155	c/cs
16	75	0900	30	51.66	141	18.85	1215.0	5.2	189	782
16	75	0900	30	51.70	141	18.80	1215.0	3.5	112	c/cs
16	75	1000	30	50.40	141	22.60	1218.5	4.7	265	c/cs
16	75	1007	30	50.30	141	21.90	1219.0	3.9	300	c/cs
16	75	1028	30	51.00	141	20.60	1220.4	3.8	303	c/cs
16	75	1100	30	52.10	141	18.60	1222.4	5.5	82	c/cs
16	75	1130	30	52.50	141	21.80	1225.1	5.7	142	c/cs
16	75	1150	30	51.00	141	23.10	1227.0	5.8	286	c/cs
16	75	1158	30	51.20	141	22.30	1227.8	4.5	282	c/cs
16	75	1203	30	51.30	141	21.80	1228.2	2.6	265	c/cs
16	75	1207	30	51.20	141	21.60	1228.3	3.7	277	c/cs
16	75	1211	30	51.30	141	21.30	1228.6	3.3	275	c/cs
16	75	1221	30	51.30	141	20.70	1229.1	3.9	279	c/cs
16	75	1225	30	51.40	141	20.40	1229.4	4.3	286	c/cs
16	75	1228	30	51.40	141	20.20	1229.6	3.3	289	c/cs
16	75	1233	30	51.50	141	19.90	1229.9	2.8	294	c/cs
16	75	1247	30	51.80	141	19.10	1230.5	1.3	246	c/cs
16	75	1300	30	51.66	141	18.85	1230.8	0.7	330	782A
16	75	1300	30	51.70	141	18.80	1230.8	0.0	90	c/cs
20	79	2230	30	51.66	141	18.85	1230.8	0.0	90	782A
21	80	0700	30	51.66	141	18.85	1230.8	0.0	90	782B
23	82	1345	30	51.66	141	18.85	1230.8	1.3	155	782B
23	82	1352	30	51.50	141	18.90	1231.0	1.1	148	c/cs
23	82	1353	30	51.50	141	18.90	1231.0	7.9	91	c/cs
23	82	1401	30	51.50	141	20.20	1232.0	8.7	90	c/cs
23	82	1425	30	51.50	141	24.23	1235.5	9.5	94	SF
23	82	1431	30	51.40	141	25.30	1236.5	9.5	95	c/cs
23	82	1440	30	51.30	141	27.00	1237.9	9.5	94	c/cs
23	82	1457	30	51.10	141	30.10	1240.6	7.5	97	c/cs
23	82	1501	30	51.00	141	30.70	1241.1	6.4	101	c/cs
23	82	1506	30	50.90	141	31.30	1241.6	6.5	99	c/cs
23	82	1515	30	50.80	141	32.40	1242.6	6.9	88	c/cs
23	82	1524	30	50.81	141	33.62	1243.6	7.4	87	SF
23	82	1525	30	50.80	141	33.80	1243.8	6.0	83	c/cs
23	82	1530	30	50.90	141	34.30	1244.3	3.8	97	c/cs
23	82	1535	30	50.80	141	34.70	1244.6	5.2	86	c/cs
23	82	1540	30	50.90	141	35.20	1245.0	5.8	75	c/cs
23	82	1555	30	51.30	141	36.80	1246.5	7.5	69	c/cs
23	82	1605	30	51.71	141	38.20	1247.7	6.2	62	GPS
23	82	1608	30	51.90	141	38.50	1248.0	5.2	64	c/cs
23	82	1610	30	51.93	141	38.70	1248.2	6.1	60	GPS
23	82	1610	30	51.90	141	38.70	1248.2	5.7	61	c/cs
23	82	1615	30	52.16	141	39.18	1248.7	5.4	62	GPS
23	82	1620	30	52.37	141	39.64	1249.1	5.3	61	GPS
23	82	1625	30	52.58	141	40.09	1249.6	5.1	60	GPS
23	82	1630	30	52.79	141	40.52	1250.0	6.6	59	GPS
23	82	1635	30	53.07	141	41.07	1250.5	6.2	58	GPS
23	82	1640	30	53.34	141	41.58	1251.0	6.3	59	GPS
23	82	1645	30	53.61	141	42.10	1251.6	6.4	60	GPS
23	82	1650	30	53.88	141	42.64	1252.1	6.1	60	GPS
23	82	1700	30	54.39	141	43.67	1253.1	6.4	52	GPS
23	82	1700	30	54.40	141	43.70	1253.1	7.0	69	c/cs
23	82	1705	30	54.60	141	44.30	1253.7	6.8	82	GPS
23	82	1710	30	54.68	141	44.95	1254.3	6.8	82	GPS
23	82	1715	30	54.76	141	45.60	1254.8	7.1	78	GPS
23	82	1715	30	54.80	141	45.60	1254.8	6.8	85	c/cs
23	82	1720	30	54.81	141	46.26	1255.4	6.5	90	GPS
23	82	1724	30	54.80	141	46.80	1255.8	6.4	86	c/cs
23	82	1725	30	54.82	141	46.89	1255.9	5.6	89	GPS
23	82	1730	30	54.83	141	47.43	1256.4	7.0	86	GPS
23	82	1735	30	54.87	141	48.11	1257.0	7.0	85	GPS
23	82	1735	30	54.90	141	48.10	1257.0	6.5	85	c/cs
23	82	1740	30	54.92	141	48.74	1257.5	6.3	86	GPS
23	82	1742	30	54.90	141	49.00	1257.7	6.6	86	c/cs
23	82	1745	30	54.96	141	49.37	1258.1	6.2	82	GPS
23	82	1754	30	55.10	141	50.40	1259.0	6.3	82	c/cs
23	82	1806	30	55.30	141	51.90	1260.3	6.3	81	c/cs
23	82	1815	30	55.43	141	52.98	1261.2	5.8	78	GPS
23	82	1820	30	55.53	141	53.53	1261.7	5.6	72	GPS
23	82	1826	30	55.70	141	54.20	1262.2	4.8	37	c/cs

Table 1 (continued).

Date (1989)	Julian day	Time (UTC)	Latitude (N)		Longitude (E)		Distance (nmi)	Actual speed (kt)	Course (degrees)	Comment ^a
			(deg)	(min)	(deg)	(min)				
March 23	82	1829	30	55.90	141	54.30	1262.5	5.0	65	c/cs
23	82	1830	30	55.93	141	54.41	1262.6	5.3	73	GPS
23	82	1830	30	55.90	141	54.40	1262.6	6.2	108	c/cs
23	82	1832	30	55.90	141	54.60	1262.8	7.2	144	c/cs
23	82	1834	30	55.70	141	54.80	1263.0	7.3	186	c/cs
23	82	1835	30	55.55	141	54.79	1263.1	6.5	191	GPS
23	82	1835	30	55.50	141	54.80	1263.1	6.8	228	c/cs
23	82	1836	30	55.50	141	54.70	1263.3	7.6	253	c/cs
23	82	1840	30	55.33	141	54.13	1263.8	8.3	245	GPS
23	82	1842	30	55.20	141	53.80	1264.0	7.6	257	c/cs
23	82	1850	30	54.99	141	52.68	1265.1	6.9	263	GPS
23	82	1852	30	55.00	141	52.40	1265.3	6.1	267	c/cs
23	82	1855	30	54.95	141	52.06	1265.6	5.1	268	GPS
23	82	1900	30	54.90	141	51.57	1266.0	7.4	263	GPS
23	82	1900	30	54.90	141	51.60	1266.0	7.1	264	c/cs
23	82	1905	30	54.84	141	50.88	1266.6	6.0	263	GPS
23	82	1907	30	54.80	141	50.60	1266.8	6.2	265	c/cs
23	82	1910	30	54.79	141	50.29	1267.1	5.7	268	GPS
23	82	1915	30	54.77	141	49.74	1267.6	5.9	266	GPS
23	82	1916	30	54.80	141	49.60	1267.7	5.7	269	c/cs
23	82	1920	30	54.76	141	49.18	1268.1	5.9	268	GPS
23	82	1920	30	54.80	141	49.20	1268.1	4.4	274	c/cs
23	82	1921	30	54.80	141	49.10	1268.1	5.3	306	c/cs
23	82	1922	30	54.80	141	49.00	1268.2	5.5	337	c/cs
23	82	1929	30	55.40	141	48.70	1268.9	6.1	337	c/cs
23	82	1930	30	55.50	141	48.67	1269.0	7.2	334	GPS
23	82	1935	30	56.04	141	48.36	1269.6	6.2	333	GPS
23	82	1938	30	56.30	141	48.20	1269.9	5.1	334	c/cs
23	82	1940	30	56.50	141	48.10	1270.1	6.0	337	c/cs
23	82	1945	30	56.93	141	47.88	1270.6	5.1	332	GPS
23	82	1951	30	57.38	141	47.60	1271.1	6.1	333	GPS
23	82	1959	30	58.10	141	47.20	1271.9	6.1	334	c/cs
23	82	2000	30	58.20	141	47.12	1272.0	6.7	333	GPS
23	82	2001	30	58.30	141	47.06	1272.1	5.8	331	GPS
23	82	2006	30	58.7?	141	46.79	1272.6	5.8	330	GPS
23	82	2009	30	59.0?	141	46.60	1272.9	5.7	338	c/cs
23	82	2011	30	59.15	141	46.54	1273.1	6.5	333	GPS
23	82	2012	30	59.20	141	46.50	1273.2	7.0	291	c/cs
23	82	2014	30	59.30	141	46.20	1273.4	4.5	296	c/cs
23	82	2015	30	59.40	141	46.20	1273.5	5.0	335	c/cs
23	82	2016	30	59.44	141	46.11	1273.6	1.8	353	GPS
23	82	2016	30	59.40	141	46.10	1273.6	2.9	74	c/cs
23	82	2017	30	59.50	141	46.20	1273.6	4.8	104	c/cs
23	82	2018	30	59.40	141	46.30	1273.7	5.8	127	c/cs
23	82	2019	30	59.40	141	46.30	1273.8	8.8	141	c/cs
23	82	2021	30	59.40	141	46.60	1274.1	10.1	155	c/cs
23	82	2024	30	59.70	141	46.80	1274.6	9.2	154	c/cs
23	82	2030	30	57.87	141	47.28	1275.5	5.9	144	783
23	82	2030	30	57.90	141	47.30	1275.5	0.0	235	c/cs
24	83	0500	30	57.84	141	47.23	1275.5	0.0	55	783A
26	85	0215	30	57.87	141	47.28	1275.6	0.4	47	783
26	85	0230	30	57.90	141	47.40	1275.7	2.7	287	c/cs
26	85	0240	30	58.10	141	46.90	1276.1	2.5	205	c/cs
26	85	0250	30	57.70	141	46.70	1276.6	2.5	204	c/cs
26	85	0300	30	57.30	141	46.50	1277.0	0.7	184	c/cs
26	85	0330	30	57.00	141	46.40	1277.3	0.7	157	c/cs
26	85	0352	30	56.74	141	46.55	1277.6	1.0	180	GPS
26	85	0357	30	56.66	141	46.55	1277.6	0.8	180	GPS
26	85	0400	30	56.62	141	46.55	1277.7	0.4	162	GPS
26	85	0400	30	56.60	141	46.50	1277.7	0.7	162	c/cs
26	85	0407	30	56.54	141	46.58	1277.8	0.8	173	GPS
26	85	0412	30	56.47	141	46.59	1277.8	0.6	161	GPS
26	85	0417	30	56.42	141	46.61	1277.9	3.2	173	GPS
26	85	0430	30	55.74	141	46.71	1278.6	1.4	191	GPS
26	85	0430	30	55.70	141	46.70	1278.6	1.0	210	c/cs
26	85	0432	30	55.71	141	46.69	1278.6	1.4	217	GPS
26	85	0437	30	55.62	141	46.61	1278.7	1.1	213	GPS
26	85	0442	30	55.54	141	46.55	1278.8	1.0	234	GPS
26	85	0447	30	55.49	141	46.47	1278.9	0.9	263	GPS
26	85	0452	30	55.48	141	46.38	1279.0	0.8	262	GPS
26	85	0457	30	55.47	141	46.30	1279.1	0.6	249	GPS
26	85	0500	30	55.46	141	46.27	1279.1	1.0	194	GPS
26	85	0500	30	55.50	141	46.30	1279.1	1.1	242	c/cs
26	85	0507	30	55.40	141	46.14	1279.2	1.1	213	GPS
26	85	0512	30	55.32	141	46.08	1279.3	1.2	206	GPS

Table 1 (continued).

Date (1989)	Julian day	Time ⁽¹⁾ (UTC)	Latitude (N)		Longitude (E)		Distance (nmi)	Actual speed (kt)	Course (degrees)	Comment ^a
			(deg)	(min)	(deg)	(min)				
March 26	85	0517	30	55.23	141	46.03	1279.4	1.0	212	GPS
26	85	0522	30	55.16	141	45.98	1279.5	0.9	256	GPS
26	85	0530	30	55.13	141	45.84	1279.6	1.32	44	GPS
26	85	0530	30	55.10	141	45.80	1279.6	1.3	254	c/cs
26	85	0538	30	55.08	141	45.64	1279.8	1.1	245	GPS
26	85	0543	30	55.04	141	45.54	1279.9	1.2	247	GPS
26	85	0548	30	55.00	141	45.43	1280.0	1.1	251	GPS
26	85	0553	30	54.97	141	45.33	1280.1	1.2	252	GPS
26	85	0558	30	54.94	141	45.22	1280.2	1.1	254	GPS
26	85	0600	30	54.93	141	45.18	1280.2	0.9	260	GPS
26	85	0600	30	54.90	141	45.20	1280.2	1.2	252	c/cs
26	85	0608	30	54.88	141	45.00	1280.4	1.3	249	GPS
26	85	0613	30	54.84	141	44.88	1280.5	1.2	252	GPS
26	85	0618	30	54.81	141	44.77	1280.6	1.4	244	GPS
26	85	0623	30	54.76	141	44.65	1280.7	2.4	229	GPS
26	85	0634	30	54.47	141	44.26	1281.1	0.9	259	784
26	85	0700	30	54.40	141	43.80	1281.5	0.0	259	c/cs
26	85	0717	30	54.40	141	43.80	1281.6	0.4	79	c/cs
26	85	0830	30	54.47	141	44.26	1282.0	0.0	90	784
31	90	0100	30	54.47	141	44.26	1282.0	2.4	312	784
31	90	0112	30	54.80	141	43.90	1282.5	5.4	23	c/cs
31	90	0113	30	54.90	141	43.90	1282.5	3.8	339	c/cs
31	90	0115	30	55.00	141	43.80	1282.7	5.2	318	c/cs
31	90	0116	30	55.05	141	43.77	1282.8	4.1	305	GPS
31	90	0116	30	55.00	141	43.80	1282.8	6.6	273	c/cs
31	90	0118	30	55.10	141	43.50	1283.0	9.2	264	c/cs
31	90	0121	30	55.01	141	42.98	1283.4	9.3	262	GPS
31	90	0121	30	55.00	141	43.00	1283.4	11.4	263	c/cs
31	90	0126	30	54.89	141	41.88	1284.4	11.1	261	GPS
31	90	0130	30	54.77	141	41.03	1285.1	10.8	257	GPS
31	90	0134	30	54.60	141	40.20	1285.9	11.1	259	c/cs
31	90	0136	30	54.54	141	39.79	1286.2	12.6	266	GPS
31	90	0158	30	54.20	141	34.40	1290.8	12.6	265	c/cs
31	90	0219	30	53.80	141	29.30	1295.3	12.7	264	c/cs
31	90	0231	30	53.55	141	26.35	1297.8	11.5	260	SF
31	90	0247	30	53.00	141	22.80	1300.9	11.7	260	c/cs
31	90	0305	30	52.40	141	18.80	1304.4	11.6	260	c/cs
31	90	0332	30	51.50	141	12.90	1309.6	9.5	258	c/cs
31	90	0334	30	51.50	141	12.50	1309.9	6.9	258	c/cs
31	90	0341	30	51.30	141	11.60	1310.7	6.5	259	c/cs
31	90	0356	30	51.00	141	9.70	1312.3	6.9	260	c/cs
31	90	0412	30	50.68	141	7.61	1314.1	6.6	263	SF
31	90	0418	30	50.60	141	6.80	1314.8	6.7	266	c/cs
31	90	0431	30	50.51	141	5.17	1316.2	6.22	66	GPS
31	90	0436	30	50.47	141	4.57	1316.8	6.3	268	GPS
31	90	0441	30	50.45	141	3.96	1317.3	6.1	267	GPS
31	90	0445	30	50.40	141	3.50	1317.7	6.0	271	c/cs
31	90	0446	30	50.43	141	3.37	1317.8	6.3	270	GPS
31	90	0451	30	50.43	141	2.76	1318.3	6.1	275	GPS
31	90	0453	30	50.40	141	2.50	1318.5	6.3	279	c/cs
31	90	0456	30	50.50	141	2.16	1318.8	6.0	277	GPS
31	90	0500	30	50.55	141	1.70	1319.2	6.1	277	GPS
31	90	0506	30	50.62	141	0.99	1319.8	6.0	277	GPS
31	90	0511	30	50.68	141	0.41	1320.3	6.0	276	GPS
31	90	0516	30	50.73	140	59.83	1320.8	6.0	276	GPS
31	90	0521	30	50.78	140	59.25	1321.3	5.9	277	GPS
31	90	0523	30	50.80	140	59.00	1321.5	5.9	276	c/cs
31	90	0530	30	50.87	140	58.23	1322.2	5.9	275	GPS
31	90	0532	30	50.90	140	58.00	1322.4	5.9	262	c/cs
31	90	0536	30	50.83	140	57.55	1322.8	5.8	259	GPS
31	90	0540	30	50.80	140	57.10	1323.2	5.8	256	c/cs
31	90	0541	30	50.73	140	57.00	1323.3	5.9	258	GPS
31	90	0546	30	50.63	140	56.44	1323.8	5.9	258	GPS
31	90	0601	30	50.30	140	54.80	1325.3	5.9	260	c/cs
31	90	0617	30	50.07	140	52.97	1326.8	5.7	262	GPS
31	90	0619	30	50.00	140	52.70	1327.0	5.7	246	c/cs
31	90	0620	30	50.00	140	52.70	1327.1	4.4	204	c/cs
31	90	0622	30	49.87	140	52.58	1327.3	5.0	183	GPS
31	90	0622	30	49.90	140	52.60	1327.3	5.1	144	c/cs
31	90	0624	30	49.70	140	52.70	1327.4	6.0	118	c/cs
31	90	0626	30	49.60	140	52.90	1327.6	7.3	99	c/cs
31	90	0627	30	49.62	140	53.04	1327.7	5.8	92	GPS
31	90	0630	30	49.61	140	53.38	1328.0	6.6	85	GPS
31	90	0638	30	49.70	140	54.40	1328.9	6.4	84	c/cs
31	90	0645	30	49.77	140	55.27	1329.7	5.8	90	785

Table 1 (continued).

Date (1989)	Julian day	Time (UTC)	Latitude (N)		Longitude (E)		Distance (nmi)	Actual speed (kt)	Course (degrees)	Comment ^a
			(deg)	(min)	(deg)	(min)				
March	31	90	30	49.80	140	55.30	1329.7	0.0	90	c/cs
	31	90	30	49.77	140	55.27	1329.7	0.0	90	785
April	01	91	30	49.77	140	55.27	1329.7	1.5	24	785
	01	91	30	50.10	140	55.40	1330.0	8.4	7	c/cs
	01	91	30	50.80	140	55.50	1330.7	9.2	9	c/cs
	01	91	30	51.10	140	55.60	1331.0	10.2	9	c/cs
	01	91	30	53.30	140	56.00	1333.2	10.6	9	c/cs
	01	91	30	53.60	140	56.00	1333.6	3.5	13	c/cs
	01	91	30	53.70	140	56.10	1333.7	10.4	8	c/cs
	01	91	30	55.20	140	56.30	1335.2	10.6	8	c/cs
	01	91	30	57.00	140	56.60	1337.0	10.5	7	c/cs
	01	91	30	57.50	140	56.70	1337.5	10.5	6	GDRT
	01	91	30	58.50	140	56.80	1338.6	10.8	5	c/cs
	01	91	31	1.60	140	57.20	1341.6	10.7	3	c/cs
	01	91	31	5.30	140	57.40	1345.4	1.9	15	c/cs
	01	91	31	5.30	140	57.40	1345.4	10.7	3	c/cs
	01	91	31	8.01	140	57.51	1348.0	10.7	4	GDRT
	01	91	31	10.30	140	57.70	1350.4	10.8	6	c/cs
	01	91	31	15.70	140	58.30	1355.8	11.0	7	c/cs
	01	91	31	19.30	140	58.90	1359.4	10.9	6	c/cs
	01	91	31	23.50	140	59.40	1363.6	11.1	6	c/cs
	01	91	31	24.23	140	59.47	1364.4	11.4	0	GDRT
	01	91	31	29.00	140	59.50	1369.1	11.1	0	c/cs
	01	91	31	29.70	140	59.50	1369.9	11.4	0	c/cs
	01	91	31	33.60	140	59.50	1373.7	11.4	0	c/cs
	01	91	31	37.00	140	59.50	1377.1	11.3	2	c/cs
	01	91	31	42.60	140	59.70	1382.7	11.3	3	c/cs
	01	91	31	45.60	140	59.90	1385.8	11.3	3	c/cs
	01	91	31	46.96	140	59.99	1387.1	10.1	5	GDRT
	01	91	31	49.50	141	0.20	1389.6	7.7	2	c/cs
	01	91	31	49.70	141	0.20	1389.9	9.5	2	c/cs
	01	91	31	49.90	141	0.30	1390.0	6.2	4	c/cs
	01	91	31	50.90	141	0.30	1391.1	5.9	2	c/cs
	01	91	31	51.40	141	0.40	1391.6	6.0	4	c/cs
	01	91	31	52.10	141	0.40	1392.2	5.9	19	c/cs
	01	91	31	52.40	141	0.50	1392.5	5.3	54	c/cs
	01	91	31	52.50	141	0.70	1392.7	4.8	99	c/cs
	01	91	31	52.40	141	1.10	1393.0	4.4	90	c/cs
	01	91	31	52.40	141	1.30	1393.2	4.9	124	c/cs
	01	91	31	52.30	141	1.40	1393.3	4.7	90	c/cs
	01	91	31	52.30	141	1.60	1393.5	5.2	79	c/cs
	01	91	31	52.40	141	2.00	1393.9	5.5	80	c/cs
	01	91	31	52.42	141	2.10	1393.9	5.6	93	GPS
	01	91	31	52.40	141	2.80	1394.5	5.6	92	c/cs
	01	91	31	52.30	141	4.70	1396.2	5.6	89	c/cs
	01	91	31	52.40	141	6.50	1397.7	5.7	86	c/cs
	01	91	31	52.50	141	8.60	1399.5	5.5	88	c/cs
	01	91	31	52.50	141	8.70	1399.6	5.0	87	GPS
	01	91	31	52.50	141	9.30	1400.1	5.1	89	c/cs
	01	91	31	52.60	141	10.50	1401.1	5.2	93	c/cs
	01	91	31	52.50	141	11.70	1402.1	6.2	89	GPS
	01	91	31	52.50	141	13.90	1404.0	6.0	92	c/cs
	01	91	31	52.50	141	15.30	1405.2	4.6	89	GPS
	01	91	31	52.50	141	15.80	1405.5	4.7	91	c/cs
	01	91	31	52.50	141	17.50	1407.0	4.7	90	c/cs
	01	91	31	52.50	141	17.90	1407.3	4.7	115	c/cs
	01	91	31	52.40	141	18.00	1407.4	5.0	145	c/cs
	01	91	31	52.30	141	18.10	1407.6	4.5	110	c/cs
	01	91	31	52.30	141	18.20	1407.7	4.3	67	c/cs
	01	91	31	52.30	141	18.20	1407.7	4.0	5	c/cs
	01	91	31	52.40	141	18.20	1407.9	4.3	309	c/cs
	01	91	31	52.50	141	18.10	1408.0	5.0	267	c/cs
	01	91	31	52.50	141	17.80	1408.3	5.8	265	c/cs
	01	91	31	52.50	141	17.30	1408.8	6.2	271	c/cs
	01	91	31	52.50	141	15.40	1410.3	6.4	266	c/cs
	01	91	31	52.50	141	14.50	1411.1	6.1	272	c/cs
	01	91	31	52.48	141	13.58	1411.9	5.3	270	786A
	01	91	31	52.50	141	13.60	1411.9	0.0	90	c/cs
02	92	1715	31	52.48	141	13.58	1411.9	0.0	164	786A
04	94	0300	31	52.45	141	13.59	1411.9	0.0	90	786A
04	94	0845	31	52.45	141	13.59	1411.9	0.0	90	786B
16	106	1130	31	52.45	141	13.59	1411.9	1.7	189	786B
16	106	1226	31	50.90	141	13.30	1413.5	5.0	193	c/cs
16	106	1229	31	50.70	141	13.20	1413.7	4.3	225	c/cs
16	106	1230	31	50.61	141	13.16	1413.8	3.1	254	GDRT

Table 1 (continued).

Date (1989)	Julian day	Time (UTC)	Latitude (N)		Longitude (E)		Distance (nmi)	Actual speed (kt)	Course (degrees)	Comment ^a	
			(deg)	(min)	(deg)	(min)					
April	16	106	1232	31	50.60	141	13.00	1413.9	3.7	308	c/cs
	16	106	1235	31	50.70	141	12.90	1414.1	4.3	351	c/cs
	16	106	1238	31	50.90	141	12.80	1414.3	5.1	351	c/cs
	16	106	1256	31	52.40	141	12.60	1415.8	5.3	354	c/cs
	16	106	1312	31	53.80	141	12.40	1417.2	5.1	356	c/cs
	16	106	1322	31	54.70	141	12.30	1418.1	4.7	356	c/cs
	16	106	1350	31	56.90	141	12.10	1420.3	4.3	317	c/cs
	16	106	1352	31	57.00	141	12.00	1420.5	3.5	276	c/cs
	16	106	1413	31	57.10	141	10.60	1421.7	3.5	269	c/cs
	16	106	1429	31	57.10	141	9.50	1422.6	4.0	268	c/cs
	16	106	1441	31	57.10	141	8.50	1423.4	3.8	258	c/cs
	16	106	1443	31	57.10	141	8.40	1423.6	3.2	206	c/cs
	16	106	1445	31	57.00	141	8.30	1423.7	4.0	174	c/cs
	16	106	1448	31	56.80	141	8.40	1423.9	4.1	140	c/cs
	16	106	1459	31	56.20	141	8.90	1424.6	3.7	130	c/cs
	16	106	1500	31	56.15	141	8.98	1424.7	5.3	129	GDRT
	16	106	1513	31	55.40	141	10.00	1425.8	5.5	121	c/cs
	16	106	1529	31	54.70	141	11.50	1427.3	5.3	117	c/cs
	16	106	1543	31	54.10	141	12.80	1428.5	5.3	133	c/cs
	16	106	1613	31	52.30	141	15.10	1431.2	5.4	134	c/cs
	16	106	1630	31	51.30	141	16.40	1432.7	4.4	137	c/cs
	16	106	1700	31	49.67	141	18.15	1434.9	4.4	137	GDRT

^a GPS = Global Positioning System fix; SF = satellite navigation fix; c/cs = course/speed change; GDRT = dead reckoning position based in GPS fixes. Numbers (and letter) indicate site (hole) position.