19/20	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
	h m	° ′			°	m	°	°	°
154268 2002 RM_{129}									
12 23	14 37.09	−10 26.2	0.966	0.832	65.8	19.8	51 W	31*	33*
1 2	15 19.38	−10 50.1	1.044	0.871	61.0	19.9	51 W	30*	34*
1 12	15 58.11	−11 3.7	1.114	0.924	56.8	20.0	52 W	30*	36*
1 22	16 33.46	−11 4.6	1.175	0.987	53.3	20.2	54 W	30*	38*
2 1	17 5.56	−10 52.0	1.225	1.056	50.5	20.3	56 W	30*	42*
2 11	17 34.58	−10 26.4	1.261	1.128	48.4	20.5	59 W	31*	46*
2 21	18 0.66	− 9 49.2	1.284	1.201	46.7	20.6	62 W	31*	50*
3 2	18 23.87	− 9 2.3	1.293	1.275	45.4	20.7	66 W	32*	54*
3 12	18 44.27	− 8 8.2	1.289	1.346	44.2	20.8	71 W	33*	59*
3 22	19 1.85	− 7 9.3	1.273	1.416	43.1	20.8	76 W	34*	63*
4 1	19 16.47	− 6 8.4	1.245	1.484	41.8	20.9	82 W	35*	67*
4 11	19 27.97	− 5 8.5	1.208	1.549	40.3	20.9	88 W	37*	69*
4 21	19 36.08	− 4 13.1	1.163	1.611	38.4	20.8	96 W	39*	68
5 1	19 40.39	− 3 26.3	1.113	1.670	35.9	20.7	104 W	40*	67
5 11	19 40.51	− 2 53.2	1.063	1.725	32.7	20.6	113 W	42*	67
5 21	19 36.07	− 2 39.3	1.015	1.778	28.6	20.4	123 W	42	67
5 26	19 32.07	− 2 41.4	0.993	1.803	26.3	20.4	128 W	42	67
5 31	19 26.91	− 2 50.5	0.975	1.828	23.7	20.3	134 W	42	67
6 5	19 20.66	− 3 7.1	0.960	1.851	21.0	20.2	139 W	42	67
6 10	19 13.44	− 3 31.4	0.949	1.874	18.1	20.1	145 W	41	68
6 20	18 56.78	− 4 42.5	0.944	1.918	12.4	19.9	156 W	40	69
6 30	18 38.84	− 6 19.3	0.963	1.958	8.7	19.9	163 W	39	70
7 10	18 21.89	− 8 12.1	1.007	1.995	9.8	20.1	161 E	37	72
7 15	18 14.40	− 9 11.1	1.040	2.013	11.7	20.2	156 E	36	73
7 20	18 7.79	−10 10.2	1.078	2.029	13.8	20.4	151 E	35	74
7 25	18 2.20	−11 8.5	1.121	2.045	16.0	20.6	146 E	34	75
7 30	17 57.68	−12 5.1	1.170	2.061	18.1	20.7	141 E	33	76
8 4	17 54.26	−12 59.7	1.224	2.075	19.9	20.9	136 E	32	77
8 9	17 51.90	−13 51.7	1.281	2.089	21.6	21.1	131 E	31	78
8 14	17 50.58	−14 41.1	1.342	2.102	23.0	21.2	126 E	30	79
8 19	17 50.23	−15 27.7	1.406	2.114	24.2	21.4	121 E	30	79
102935 1999 XK_{43}									
12 23	14 37.24	−14 15.8	2.846	2.325	18.7	20.4	49 W	27*	34*
1 2	14 55.12	−15 44.2	2.708	2.287	20.6	20.3	55 W	27*	41*
1 12	15 13.19	−17 7.4	2.565	2.249	22.4	20.2	60 W	27*	48*
1 22	15 31.40	−18 24.7	2.417	2.210	24.0	20.1	66 W	26*	55*
2 1	15 49.65	−19 35.9	2.266	2.171	25.5	19.9	72 W	25*	62*
2 11	16 7.84	−20 40.6	2.114	2.131	26.9	19.8	78 W	24*	69*
2 21	16 25.87	−21 39.0	1.962	2.092	28.0	19.6	83 W	23*	75*
3 2	16 43.54	−22 31.3	1.811	2.052	28.9	19.4	89 W	22	82*
3 12	17 0.67	−23 18.1	1.662	2.013	29.5	19.2	95 W	22	87*
3 22	17 17.03	−24 0.6	1.518	1.973	29.7	19.0	101 W	21	88
4 1	17 32.31	−24 40.1	1.380	1.934	29.5	18.7	108 W	20	89
4 11	17 46.17	−25 18.5	1.248	1.896	28.8	18.4	114 W	20	89
4 21	17 58.19	−25 58.1	1.125	1.859	27.5	18.1	121 W	19	90
5 1	18 7.85	−26 41.3	1.012	1.822	25.5	17.8	129 W	18	89
5 11	18 14.65	−27 30.3	0.910	1.787	22.6	17.4	137 W	17	88
5 21	18 18.03	−28 26.2	0.821	1.753	18.9	17.1	146 W	17	88
5 31	18 17.61	−29 28.0	0.748	1.722	14.3	16.7	155 W	16	87
6 5	18 15.99	−30 0.0	0.717	1.706	11.8	16.5	160 W	15	86
6 10	18 13.51	−30 31.6	0.691	1.692	9.1	16.3	165 W	14	85
6 15	18 10.29	−31 2.0	0.670	1.678	6.7	16.1	169 W	14	85
6 20	18 6.49	−31 30.1	0.652	1.664	5.2	15.9	172 W	13	84
6 25	18 2.37	−31 54.7	0.640	1.652	5.5	15.9	171 E	13	84
6 30	17 58.21	−32 15.3	0.632	1.640	7.7	15.9	168 E	13	84
7 5	17 54.33	−32 31.3	0.629	1.628	10.5	16.0	163 E	12	83
7 10	17 51.00	−32 42.5	0.629	1.618	13.5	16.1	158 E	12	83
7 15	17 48.46	−32 49.1	0.634	1.608	16.5	16.2	153 E	12	83
7 20	17 46.93	−32 51.5	0.642	1.599	19.4	16.3	148 E	12	83
7 25	17 46.57	−32 50.0	0.654	1.591	22.1	16.5	144 E	12	83
7 30	17 47.50	−32 45.3	0.669	1.584	24.6	16.6	139 E	12	83
8 9	17 53.23	−32 28.0	0.707	1.573	29.0	16.8	131 E	13	84
8 19	18 3.85	−32 1.2	0.754	1.565	32.3	17.0	124 E	13	84
8 29	18 18.81	−31 24.9	0.809	1.562	34.9	17.2	118 E	14	85
9 3	18 27.65	−31 2.9	0.839	1.561	35.8	17.4	115 E	14	85
9 8	18 37.25	−30 37.9	0.871	1.562	36.6	17.5	112 E	14	85
9 13	18 47.51	−30 9.7	0.904	1.564	37.3	17.6	110 E	15	86
9 18	18 58.33	−29 38.2	0.939	1.566	37.8	17.7	107 E	15	86
9 23	19 9.62	−29 3.1	0.975	1.570	38.1	17.8	105 E	16	87
9 28	19 21.31	−28 24.4	1.013	1.575	38.4	17.9	103 E	17	88
10 3	19 33.28	−27 42.1	1.053	1.581	38.5	17.9	101 E	17	88
10 8	19 45.47	−26 56.0	1.094	1.587	38.5	18.0	99 E	18	89
10 13	19 57.81	−26 6.4	1.137	1.595	38.4	18.1	96 E	19	90
10 18	20 10.25	−25 13.1	1.181	1.603	38.3	18.2	94 E	20	88*
10 23	20 22.75	−24 16.5	1.226	1.612	38.1	18.3	92 E	21	86*
10 28	20 35.25	−23 16.6	1.273	1.622	37.8	18.4	91 E	22	83*
11 2	20 47.72	−22 13.8	1.322	1.633	37.4	18.5	89 E	23	80*

19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
	h m	° ′			°	m	°	°	°
102935 1999 XK_{43} *(continuation)*									
11 7	21 0.11	−21 8.2	1.372	1.645	37.0	18.6	87 E	24	78*
11 12	21 12.42	−20 0.1	1.423	1.657	36.5	18.6	85 E	25	75*
11 17	21 24.63	−18 49.7	1.475	1.670	36.0	18.7	83 E	26	72*
11 22	21 36.73	−17 37.2	1.529	1.684	35.4	18.8	81 E	27	69*
11 27	21 48.70	−16 23.1	1.584	1.698	34.8	18.9	79 E	29	66*
12 7	22 12.23	−13 50.6	1.698	1.728	33.4	19.0	75 E	31	59*
12 17	22 35.21	−11 14.2	1.815	1.761	31.9	19.2	71 E	34*	53*
12 27	22 57.69	− 8 35.7	1.935	1.795	30.3	19.3	67 E	36*	47*
1 6	23 19.68	− 5 56.9	2.057	1.830	28.6	19.4	63 E	38*	42*
1 16	23 41.26	− 3 19.2	2.180	1.867	26.7	19.6	59 E	39*	36*
416224 2002 XM_{90}									
12 23	14 37.53	+ 2 36.1	1.305	1.115	47.1	20.6	56 W	43*	27*
12 28	14 56.04	+ 1 9.5	1.309	1.118	47.0	20.6	56 W	42*	28*
1 2	15 14.11	− 0 14.3	1.313	1.124	46.8	20.6	56 W	41*	30*
1 7	15 31.72	− 1 34.9	1.318	1.131	46.6	20.6	57 W	40*	32*
1 12	15 48.87	− 2 51.8	1.323	1.141	46.3	20.7	57 W	39*	34*
1 17	16 5.58	− 4 4.8	1.328	1.152	46.0	20.7	57 W	38*	36*
1 22	16 21.83	− 5 13.7	1.333	1.165	45.8	20.7	58 W	37*	38*
1 27	16 37.63	− 6 18.4	1.336	1.180	45.5	20.7	59 W	36*	41*
2 1	16 52.97	− 7 18.8	1.338	1.197	45.3	20.8	60 W	35*	43*
2 6	17 7.85	− 8 15.2	1.339	1.215	45.1	20.8	61 W	34*	45*
2 11	17 22.28	− 9 7.7	1.338	1.234	44.9	20.8	62 W	33*	48*
2 16	17 36.26	− 9 56.6	1.336	1.255	44.7	20.8	63 W	32*	50*
2 21	17 49.77	−10 42.2	1.332	1.277	44.5	20.9	65 W	31*	53*
2 26	18 2.82	−11 24.9	1.326	1.299	44.3	20.9	66 W	30*	55*
3 2	18 15.37	−12 5.0	1.318	1.323	44.1	20.9	68 W	30*	58*
3 7	18 27.44	−12 43.1	1.307	1.347	43.9	20.9	70 W	29*	60*
3 12	18 39.01	−13 19.6	1.295	1.371	43.6	20.9	72 W	28*	63*
3 17	18 50.06	−13 55.2	1.281	1.396	43.4	20.9	74 W	28*	65*
3 22	19 0.58	−14 30.3	1.265	1.422	43.0	20.9	77 W	27*	68*
3 27	19 10.54	−15 5.7	1.247	1.448	42.7	20.9	79 W	26*	71*
4 1	19 19.91	−15 41.9	1.227	1.473	42.2	20.9	82 W	26*	73*
4 6	19 28.66	−16 19.7	1.206	1.500	41.7	20.9	85 W	25*	76*
4 11	19 36.77	−16 59.8	1.183	1.526	41.0	20.9	88 W	25*	79*
4 16	19 44.19	−17 42.8	1.159	1.552	40.3	20.9	91 W	24*	81*
4 21	19 50.87	−18 29.6	1.134	1.578	39.4	20.8	95 W	24*	82
4 26	19 56.76	−19 20.9	1.109	1.604	38.3	20.8	99 W	23*	83
5 1	20 1.79	−20 17.5	1.083	1.630	37.1	20.7	102 W	23*	84
5 6	20 5.89	−21 19.9	1.057	1.656	35.7	20.7	107 W	22*	85
5 11	20 9.00	−22 28.7	1.032	1.682	34.1	20.6	111 W	22*	86
5 16	20 11.04	−23 44.4	1.007	1.707	32.3	20.5	116 W	21*	88
5 21	20 11.91	−25 6.9	0.984	1.732	30.3	20.5	120 W	20*	89
5 26	20 11.52	−26 36.2	0.964	1.757	28.0	20.4	125 W	18*	89
5 31	20 9.81	−28 11.5	0.946	1.782	25.5	20.3	131 W	17	88
6 5	20 6.74	−29 51.5	0.931	1.806	22.9	20.2	136 W	15	86
6 10	20 2.29	−31 34.3	0.921	1.830	20.1	20.1	142 W	13	84
6 15	19 56.49	−33 17.7	0.915	1.853	17.2	20.1	147 W	12	83
6 20	19 49.44	−34 58.7	0.915	1.877	14.4	20.0	153 W	10	81
6 25	19 41.31	−36 34.4	0.920	1.899	11.9	19.9	157 W	8	79
6 30	19 32.37	−38 1.7	0.932	1.922	9.9	19.9	161 W	7	78
7 5	19 22.98	−39 18.4	0.950	1.944	9.0	19.9	163 W	6	77
7 10	19 13.48	−40 23.0	0.974	1.965	9.3	20.0	162 E	5	76
7 15	19 4.26	−41 14.8	1.004	1.986	10.6	20.2	159 E	4	75
7 20	18 55.67	−41 54.1	1.040	2.007	12.3	20.3	155 E	3	74
7 25	18 48.00	−42 21.7	1.081	2.028	14.3	20.5	150 E	3	74
7 30	18 41.49	−42 39.0	1.128	2.047	16.3	20.7	146 E	2	73
8 4	18 36.24	−42 47.9	1.179	2.067	18.1	20.9	141 E	2	73
8 9	18 32.32	−42 49.9	1.235	2.086	19.8	21.0	136 E	2	73
8 14	18 29.70	−42 46.3	1.294	2.104	21.2	21.2	131 E	2	73
8 19	18 28.35	−42 38.5	1.356	2.122	22.5	21.4	127 E	2	73
164273 2004 XO_{16}									
12 23	14 37.62	−36 0.4	3.409	2.811	14.5	20.8	46 W	6*	40*
1 2	14 53.03	−37 43.0	3.332	2.829	15.8	20.8	52 W	6*	46*
1 12	15 7.86	−39 22.9	3.244	2.846	17.0	20.8	58 W	5*	52*
1 22	15 21.95	−41 0.3	3.147	2.863	18.1	20.8	64 W	4*	58*
2 1	15 35.02	−42 35.5	3.042	2.878	18.9	20.8	71 W	2*	63*
2 11	15 46.78	−44 8.7	2.931	2.892	19.5	20.7	78 W	1	67*
2 21	15 56.89	−45 40.2	2.817	2.906	19.8	20.7	85 W	—	69*
3 2	16 4.93	−47 9.7	2.700	2.919	19.8	20.6	93 W	—	69
3 12	16 10.42	−48 36.6	2.585	2.930	19.5	20.5	100 W	—	67
3 17	16 12.06	−49 18.6	2.528	2.936	19.2	20.4	104 W	—	67
3 22	16 12.88	−49 59.3	2.473	2.941	18.8	20.4	108 W	—	66
3 27	16 12.81	−50 38.1	2.420	2.946	18.3	20.3	112 W	—	65
4 1	16 11.80	−51 14.6	2.369	2.951	17.7	20.2	116 W	—	65
4 6	16 9.83	−51 48.0	2.321	2.955	17.0	20.2	120 W	—	64
4 11	16 6.89	−52 17.8	2.277	2.960	16.2	20.1	124 W	—	64
4 16	16 2.97	−52 42.9	2.235	2.964	15.4	20.1	128 W	—	63
4 21	15 58.13	−53 2.5	2.198	2.967	14.6	20.0	132 W	—	63
4 26	15 52.44	−53 15.7	2.166	2.971	13.7	19.9	136 W	—	63

164273 2004 XO_{16} *(continuation)*

19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
	h m	° ′			°	m	°	°	°
5 1	15 46.04	−53 21.7	2.138	2.974	12.8	19.9	139 W	—	63
5 6	15 39.11	−53 19.8	2.116	2.977	12.0	19.8	142 W	—	63
5 11	15 31.84	−53 9.6	2.100	2.980	11.3	19.8	145 W	—	63
5 16	15 24.45	−52 51.0	2.089	2.983	10.9	19.8	146 E	—	63
5 21	15 17.16	−52 24.2	2.084	2.985	10.6	19.7	147 E	—	64
5 26	15 10.21	−51 49.7	2.086	2.987	10.6	19.7	147 E	—	64
5 31	15 3.78	−51 8.5	2.094	2.989	10.9	19.8	146 E	—	65
6 5	14 58.04	−50 21.6	2.108	2.991	11.4	19.8	144 E	—	66
6 10	14 53.08	−49 30.3	2.128	2.992	12.1	19.8	142 E	—	66
6 15	14 48.98	−48 35.9	2.153	2.993	12.9	19.9	139 E	—	67
6 20	14 45.78	−47 39.7	2.184	2.994	13.8	20.0	135 E	—	68
6 25	14 43.49	−46 42.9	2.220	2.995	14.6	20.0	132 E	—	69
6 30	14 42.09	−45 46.6	2.260	2.996	15.5	20.1	128 E	—	70
7 5	14 41.54	−44 51.6	2.305	2.996	16.3	20.2	124 E	—	71
7 10	14 41.80	−43 58.7	2.354	2.996	17.1	20.2	120 E	—	72
7 15	14 42.81	−43 8.4	2.406	2.996	17.7	20.3	116 E	1*	73
7 20	14 44.52	−42 21.0	2.460	2.995	18.3	20.4	112 E	1*	74
7 25	14 46.89	−41 36.9	2.518	2.994	18.8	20.4	108 E	1*	74
7 30	14 49.87	−40 56.1	2.577	2.993	19.2	20.5	104 E	1*	75
8 4	14 53.40	−40 18.8	2.638	2.992	19.5	20.6	100 E	1*	76
8 9	14 57.43	−39 44.7	2.700	2.991	19.7	20.6	97 E	1*	76*
8 14	15 1.92	−39 13.9	2.763	2.989	19.8	20.7	93 E	1*	75*
8 19	15 6.85	−38 46.1	2.827	2.987	19.8	20.7	89 E	1*	74*
8 24	15 12.18	−38 21.1	2.890	2.985	19.7	20.8	85 E	1*	72*
8 29	15 17.87	−37 58.8	2.954	2.983	19.6	20.8	82 E	1*	69*
9 3	15 23.90	−37 38.9	3.017	2.980	19.4	20.8	78 E	1*	66*
9 8	15 30.23	−37 21.0	3.079	2.977	19.1	20.9	75 E	1*	64*
9 13	15 36.86	−37 5.1	3.140	2.974	18.7	20.9	71 E	1*	61*
9 18	15 43.75	−36 50.8	3.199	2.971	18.3	20.9	68 E	—	58*
9 23	15 50.89	−36 38.0	3.258	2.967	17.8	21.0	64 E	—	55*
9 28	15 58.26	−36 26.3	3.314	2.963	17.2	21.0	61 E	—	52*
10 3	16 5.84	−36 15.5	3.368	2.959	16.6	21.0	58 E	—	49*
10 8	16 13.62	−36 5.4	3.420	2.955	16.0	21.0	55 E	—	47*
10 13	16 21.58	−35 55.8	3.470	2.950	15.3	21.0	51 E	—	44*
10 18	16 29.70	−35 46.5	3.517	2.945	14.6	21.0	48 E	—	41*
10 23	16 37.99	−35 37.3	3.561	2.940	13.8	21.0	45 E	—	38*
10 28	16 46.41	−35 27.9	3.602	2.935	13.0	21.0	42 E	—	35*
11 2	16 54.95	−35 18.3	3.640	2.930	12.2	21.0	39 E	—	32*
11 7	17 3.61	−35 8.3	3.675	2.924	11.3	21.0	35 E	—	29*
11 12	17 12.37	−34 57.6	3.706	2.918	10.5	20.9	32 E	—	26*
11 17	17 21.21	−34 46.3	3.734	2.912	9.6	20.9	29 E	—	23*
11 22	17 30.14	−34 34.1	3.758	2.905	8.7	20.9	26 E	—	20*
11 27	17 39.12	−34 20.9	3.778	2.899	7.7	20.8	23 E	—	17*
12 2	17 48.15	−34 6.7	3.795	2.892	6.8	20.8	20 E	—	14*
12 7	17 57.21	−33 51.3	3.808	2.885	6.0	20.8	18 E	—	11*
12 12	18 6.30	−33 34.6	3.816	2.877	5.1	20.7	15 E	—	9*
12 17	18 15.40	−33 16.7	3.821	2.870	4.3	20.7	13 E	—	6*
12 22	18 24.50	−32 57.4	3.822	2.862	3.7	20.6	11 E	—	3*
12 27	18 33.58	−32 36.7	3.819	2.854	3.3	20.6	10 E	—	1*
1 1	18 42.63	−32 14.5	3.812	2.845	3.2	20.6	9 W	—	—
1 6	18 51.65	−31 50.9	3.800	2.837	3.4	20.6	10 W	—	2*
1 11	19 0.62	−31 25.8	3.785	2.828	4.0	20.6	12 W	—	4*
1 16	19 9.53	−30 59.2	3.765	2.819	4.7	20.6	14 W	—	7*

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12 23	14 39.00	+56 34.1	1.164	1.534	39.9	17.7	91 W	71*	—
12 28	14 44.23	+57 11.2	1.176	1.569	38.8	17.8	93 W	73*	—
1 2	14 47.97	+57 58.0	1.186	1.604	37.7	17.8	95 W	74*	—
1 7	14 50.08	+58 53.9	1.195	1.639	36.5	17.8	97 W	75*	—
1 12	14 50.39	+59 58.0	1.203	1.673	35.4	17.9	99 W	75*	—
1 17	14 48.64	+61 9.1	1.211	1.708	34.3	17.9	102 W	74*	—
1 22	14 44.51	+62 25.7	1.218	1.742	33.2	17.9	104 W	73	—
1 24	14 42.10	+62 57.3	1.221	1.756	32.8	17.9	105 W	72	—
1 26	14 39.21	+63 29.2	1.225	1.769	32.3	17.9	106 W	72	—
1 28	14 35.83	+64 1.2	1.228	1.783	31.9	18.0	107 W	71	—
1 30	14 31.91	+64 33.0	1.232	1.797	31.5	18.0	108 W	70	—
2 1	14 27.44	+65 4.4	1.236	1.810	31.1	18.0	109 W	70	—
2 3	14 22.38	+65 35.0	1.240	1.823	30.6	18.0	109 W	69	—
2 5	14 16.73	+66 4.6	1.245	1.837	30.2	18.0	110 W	69	—
2 7	14 10.46	+66 32.9	1.250	1.850	29.8	18.0	111 W	68	—
2 9	14 3.57	+66 59.4	1.255	1.863	29.4	18.0	112 W	68	—
2 11	13 56.06	+67 23.9	1.261	1.876	29.0	18.0	113 W	68	—
2 13	13 47.93	+67 46.0	1.267	1.890	28.7	18.1	113 W	67	—
2 15	13 39.22	+68 5.3	1.273	1.903	28.3	18.1	114 W	67	—
2 17	13 29.97	+68 21.4	1.281	1.916	28.0	18.1	115 W	67	—
2 19	13 20.22	+68 34.0	1.288	1.929	27.6	18.1	115 W	66	—
2 21	13 10.07	+68 42.8	1.296	1.941	27.3	18.1	116 W	66	—
2 23	12 59.60	+68 47.5	1.305	1.954	27.0	18.1	116 W	66	—
2 25	12 48.91	+68 47.9	1.315	1.967	26.8	18.2	116 W	66	—
2 27	12 38.13	+68 43.9	1.325	1.980	26.5	18.2	117 W	66	—
2 29	12 27.36	+68 35.3	1.336	1.992	26.3	18.2	117 W	66	—

89830 2002 *CE* *(continuation)*

19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
	h m	° ′			°	m	°	°	°
3 2	12 16.74	+68 22.3	1.347	2.005	26.1	18.2	117 W	67	—
3 4	12 6.36	+68 4.8	1.359	2.017	25.9	18.3	117 W	67	—
3 6	11 56.32	+67 43.0	1.372	2.030	25.7	18.3	117 W	67	—
3 8	11 46.71	+67 17.2	1.386	2.042	25.6	18.3	117 W	68	—
3 10	11 37.58	+66 47.7	1.400	2.054	25.4	18.4	117 W	68	—
3 12	11 28.99	+66 14.6	1.415	2.066	25.3	18.4	117 E	69	—
3 14	11 20.95	+65 38.3	1.431	2.079	25.3	18.4	117 E	69	—
3 16	11 13.50	+64 59.1	1.447	2.091	25.2	18.5	117 E	70	—
3 18	11 6.62	+64 17.3	1.465	2.103	25.1	18.5	116 E	71	—
3 20	11 0.31	+63 33.3	1.483	2.115	25.1	18.5	116 E	71	—
3 22	10 54.56	+62 47.3	1.501	2.126	25.1	18.6	115 E	72	1
3 24	10 49.36	+61 59.5	1.521	2.138	25.1	18.6	115 E	73	2
3 26	10 44.66	+61 10.4	1.541	2.150	25.1	18.7	114 E	74	3
3 28	10 40.46	+60 20.1	1.562	2.161	25.1	18.7	113 E	75	4
3 30	10 36.71	+59 28.8	1.584	2.173	25.1	18.7	113 E	76	5
4 1	10 33.39	+58 36.7	1.606	2.184	25.1	18.8	112 E	76	5
4 3	10 30.47	+57 44.1	1.629	2.196	25.2	18.8	111 E	77	6
4 5	10 27.93	+56 51.2	1.653	2.207	25.2	18.9	110 E	78	7
4 7	10 25.73	+55 58.0	1.677	2.219	25.2	18.9	109 E	79	8
4 9	10 23.84	+55 4.7	1.702	2.230	25.2	19.0	108 E	80	9
4 11	10 22.26	+54 11.4	1.727	2.241	25.3	19.0	107 E	81	10
4 16	10 19.43	+51 58.9	1.793	2.268	25.3	19.1	105 E	83	12
4 21	10 18.00	+49 48.3	1.863	2.295	25.3	19.2	102 E	85	14
4 26	10 17.74	+47 40.4	1.935	2.322	25.3	19.3	99 E	87	16
5 1	10 18.43	+45 35.9	2.010	2.348	25.2	19.4	96 E	89	18
5 6	10 19.91	+43 35.0	2.087	2.374	25.1	19.5	94 E	86*	20
5 11	10 22.04	+41 38.0	2.166	2.399	24.9	19.6	91 E	81*	22
5 16	10 24.70	+39 44.8	2.247	2.423	24.6	19.7	88 E	76*	24
5 21	10 27.82	+37 55.3	2.328	2.448	24.3	19.8	84 E	72*	26
5 26	10 31.33	+36 9.4	2.410	2.472	23.9	19.9	81 E	67*	28
5 31	10 35.15	+34 27.0	2.493	2.495	23.5	20.0	78 E	62*	30
6 10	10 43.58	+31 12.0	2.659	2.540	22.4	20.1	72 E	54*	33*
6 20	10 52.79	+28 8.6	2.822	2.584	21.1	20.2	66 E	46*	35*
6 30	11 2.58	+25 15.5	2.981	2.626	19.6	20.4	60 E	39*	36*
7 10	11 12.80	+22 31.3	3.134	2.666	18.0	20.4	54 E	33*	35*
7 20	11 23.32	+19 54.9	3.278	2.704	16.2	20.5	48 E	27*	33*
7 30	11 34.07	+17 25.4	3.411	2.740	14.3	20.6	42 E	23*	29*
8 9	11 44.99	+15 1.9	3.533	2.775	12.3	20.6	36 E	18*	25*
8 19	11 56.01	+12 43.9	3.641	2.808	10.3	20.6	30 E	15*	20*
8 29	12 7.12	+10 30.8	3.734	2.840	8.3	20.6	24 E	11*	15*
9 8	12 18.25	+ 8 22.4	3.811	2.869	6.2	20.6	18 E	8*	9*
9 18	12 29.39	+ 6 18.4	3.870	2.897	4.3	20.5	12 E	5*	3*
9 28	12 40.48	+ 4 18.5	3.911	2.924	2.9	20.5	8 E	2*	—
10 8	12 51.50	+ 2 22.6	3.934	2.949	2.8	20.5	8 W	—	—
10 18	13 2.39	+ 0 30.7	3.937	2.972	4.2	20.6	12 W	6*	—
10 28	13 13.10	− 1 17.2	3.920	2.993	6.0	20.7	18 W	12*	1*
11 7	13 23.56	− 3 1.2	3.883	3.013	7.9	20.8	25 W	18*	7*
11 17	13 33.71	− 4 41.3	3.828	3.032	9.9	20.9	32 W	23*	13*
11 27	13 43.42	− 6 17.4	3.753	3.048	11.7	20.9	39 W	28*	20*
12 7	13 52.60	− 7 49.7	3.662	3.064	13.4	20.9	46 W	31*	27*
12 17	14 1.10	− 9 18.2	3.553	3.077	15.0	20.9	54 W	33*	35*
12 27	14 8.74	−10 42.8	3.431	3.089	16.3	20.9	62 W	33*	44*
1 6	14 15.33	−12 3.8	3.296	3.100	17.3	20.9	70 W	33*	53*
1 16	14 20.62	−13 21.2	3.152	3.109	18.1	20.8	78 W	32	63*

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12 23	14 39.02	−33 34.1	3.590	2.982	13.6	20.1	45 W	9*	39*
1 2	14 52.66	−35 12.6	3.505	2.999	14.9	20.1	52 W	8*	46*
1 12	15 5.68	−36 49.3	3.408	3.014	16.2	20.1	59 W	8*	53*
1 22	15 17.87	−38 24.7	3.302	3.028	17.2	20.1	65 W	6*	59*
2 1	15 28.99	−39 58.9	3.187	3.041	18.0	20.1	73 W	5	65*
2 11	15 38.75	−41 31.9	3.067	3.053	18.6	20.0	80 W	3	70*
2 21	15 46.82	−43 4.0	2.943	3.064	18.8	19.9	87 W	2	72*
2 26	15 50.09	−43 49.5	2.881	3.069	18.8	19.9	91 W	1	72*
3 2	15 52.78	−44 34.6	2.819	3.073	18.7	19.8	95 W	—	71
3 7	15 54.85	−45 19.1	2.757	3.078	18.5	19.8	99 W	—	71
3 12	15 56.23	−46 2.7	2.697	3.082	18.3	19.7	103 W	—	70
3 17	15 56.88	−46 45.3	2.638	3.086	17.9	19.7	107 W	—	69
3 22	15 56.73	−47 26.4	2.581	3.090	17.4	19.6	112 W	—	69
3 27	15 55.73	−48 5.5	2.526	3.094	16.9	19.6	116 W	—	68
4 1	15 53.87	−48 42.0	2.474	3.097	16.2	19.5	120 W	—	67
4 11	15 47.48	−49 44.6	2.380	3.103	14.7	19.4	128 W	—	66
4 21	15 37.72	−50 28.1	2.304	3.107	13.0	19.2	136 W	—	66
5 1	15 25.22	−50 46.2	2.248	3.111	11.3	19.1	143 W	—	65
5 6	15 18.32	−50 44.2	2.229	3.113	10.6	19.1	145 W	—	65
5 11	15 11.23	−50 34.6	2.216	3.114	10.1	19.0	147 E	—	65
5 16	15 4.13	−50 17.4	2.209	3.115	9.8	19.0	148 E	—	66
5 21	14 57.24	−49 53.0	2.208	3.115	9.8	19.0	148 E	—	66
5 26	14 50.74	−49 22.0	2.214	3.116	10.1	19.0	147 E	—	67

159493 2000 *UA* (*continuation*)

19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
	h m	° ′			°	m	°	°	°
5 31	14 44.80	−48 45.4	2.226	3.116	10.6	19.1	146 E	—	67
6 5	14 39.53	−48 4.3	2.244	3.116	11.2	19.1	143 E	—	68
6 10	14 35.02	−47 19.8	2.267	3.116	12.0	19.2	140 E	—	69
6 15	14 31.33	−46 33.2	2.297	3.115	12.9	19.2	137 E	—	69
6 20	14 28.48	−45 45.5	2.331	3.114	13.8	19.3	133 E	—	70
6 25	14 26.47	−44 57.7	2.370	3.113	14.7	19.4	129 E	—	71
6 30	14 25.30	−44 10.8	2.414	3.112	15.5	19.4	125 E	—	72
7 5	14 24.93	−43 25.6	2.461	3.110	16.3	19.5	121 E	1*	73
7 10	14 25.31	−42 42.5	2.511	3.108	16.9	19.6	117 E	1*	73
7 15	14 26.40	−42 2.1	2.565	3.106	17.5	19.6	113 E	1*	74
7 20	14 28.15	−41 24.5	2.621	3.104	18.0	19.7	109 E	1*	75
7 30	14 33.48	−40 18.7	2.738	3.098	18.8	19.8	101 E	—	76
8 9	14 40.94	−39 25.6	2.860	3.091	19.1	19.9	93 E	—	75*
8 19	14 50.22	−38 44.3	2.984	3.084	19.1	20.0	86 E	—	71*
8 29	15 1.07	−38 13.6	3.107	3.075	18.8	20.1	79 E	—	66*
9 8	15 13.29	−37 51.8	3.226	3.065	18.2	20.1	72 E	—	60*
9 18	15 26.68	−37 37.2	3.340	3.055	17.3	20.2	65 E	—	55*
9 28	15 41.12	−37 27.8	3.446	3.043	16.3	20.2	58 E	—	49*
10 8	15 56.47	−37 22.0	3.543	3.030	15.0	20.2	52 E	—	43*
10 18	16 12.62	−37 18.1	3.629	3.016	13.6	20.2	46 E	—	37*
10 28	16 29.48	−37 14.6	3.702	3.001	12.1	20.2	39 E	—	32*
11 7	16 46.92	−37 10.0	3.763	2.985	10.5	20.1	33 E	—	26*
11 17	17 4.87	−37 3.2	3.810	2.968	8.9	20.1	28 E	—	20*
11 27	17 23.21	−36 53.2	3.841	2.950	7.2	20.0	22 E	—	15*
12 7	17 41.85	−36 38.9	3.857	2.931	5.7	19.9	17 E	—	10*
12 17	18 0.68	−36 19.7	3.858	2.911	4.6	19.9	14 E	—	5*
12 27	18 19.60	−35 55.2	3.842	2.890	4.3	19.8	13 W	—	1*
1 6	18 38.49	−35 24.9	3.811	2.868	4.9	19.8	14 W	—	6*
1 16	18 57.27	−34 48.7	3.763	2.845	6.2	19.8	18 W	—	11*

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19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
12 23	14 39.43	+35 25.6	0.320	0.958	85.1	20.3	76 W	70*	7*
12 28	14 31.69	+37 6.0	0.311	0.987	80.3	20.1	82 W	76*	11*
1 2	14 22.96	+38 51.4	0.300	1.015	75.5	20.0	87 W	81*	13*
1 7	14 12.40	+40 46.4	0.288	1.040	70.6	19.8	93 W	86*	16*
1 12	13 58.94	+42 53.6	0.274	1.065	65.6	19.5	100 W	88	17*
1 14	13 52.44	+43 48.1	0.269	1.074	63.4	19.5	102 W	89	17*
1 16	13 45.13	+44 44.3	0.263	1.083	61.3	19.4	105 W	90	17*
1 18	13 36.91	+45 42.0	0.258	1.091	59.0	19.3	108 W	89	17*
1 20	13 27.62	+46 40.6	0.253	1.100	56.7	19.2	111 W	88	17*
1 22	13 17.14	+47 39.0	0.248	1.108	54.3	19.1	114 W	87	16*
1 24	13 5.34	+48 36.0	0.243	1.116	51.8	19.0	117 W	86	15
1 26	12 52.10	+49 30.1	0.238	1.123	49.3	18.9	120 W	86	15
1 28	12 37.35	+50 19.1	0.234	1.130	46.7	18.8	123 W	85	14
1 30	12 21.08	+51 0.8	0.231	1.137	44.1	18.7	127 W	84	13
2 1	12 3.37	+51 32.7	0.228	1.144	41.5	18.6	130 W	83	12
2 3	11 44.39	+51 52.2	0.225	1.150	39.0	18.5	133 W	83	12
2 5	11 24.47	+51 57.1	0.224	1.156	36.6	18.5	136 W	83	12
2 7	11 4.00	+51 45.7	0.223	1.162	34.4	18.4	138 W	83	12
2 9	10 43.46	+51 17.1	0.223	1.168	32.4	18.4	141 W	84	13
2 11	10 23.35	+50 31.5	0.224	1.173	30.8	18.3	143 W	84	13
2 12	10 13.59	+50 2.6	0.225	1.175	30.1	18.3	143 W	85	14
2 13	10 4.09	+49 29.9	0.227	1.178	29.6	18.3	144 W	86	15
2 14	9 54.90	+48 53.7	0.228	1.180	29.1	18.3	144 W	86	15
2 15	9 46.05	+48 14.3	0.230	1.182	28.8	18.3	145 E	87	16
2 16	9 37.56	+47 31.9	0.231	1.185	28.6	18.3	145 E	87	16
2 17	9 29.45	+46 47.0	0.234	1.187	28.5	18.4	145 E	88	17
2 18	9 21.75	+45 59.9	0.236	1.189	28.5	18.4	145 E	89	18
2 19	9 14.44	+45 10.9	0.238	1.191	28.7	18.4	145 E	90	19
2 20	9 7.54	+44 20.4	0.241	1.193	28.9	18.5	144 E	89	20
2 21	9 1.05	+43 28.7	0.244	1.195	29.3	18.5	144 E	88	21
2 23	8 49.23	+41 42.8	0.251	1.198	30.2	18.6	143 E	87	22
2 25	8 38.90	+39 55.6	0.259	1.201	31.3	18.7	141 E	85	24
2 27	8 29.96	+38 8.9	0.267	1.204	32.7	18.8	139 E	83	26
2 29	8 22.26	+36 24.1	0.276	1.207	34.1	18.9	137 E	81	28
3 2	8 15.69	+34 42.1	0.286	1.209	35.6	19.0	135 E	80	29
3 4	8 10.11	+33 3.8	0.296	1.211	37.1	19.2	133 E	78	31
3 6	8 5.43	+31 29.6	0.306	1.213	38.5	19.3	130 E	76	33
3 8	8 1.53	+29 59.6	0.318	1.215	40.0	19.4	128 E	75	34
3 10	7 58.33	+28 34.1	0.329	1.216	41.4	19.5	126 E	74	35
3 12	7 55.74	+27 12.9	0.341	1.217	42.7	19.6	124 E	72	37
3 17	7 51.50	+24 8.0	0.372	1.218	45.8	19.9	119 E	69	40
3 22	7 49.85	+21 26.1	0.404	1.217	48.5	20.2	114 E	66	43
3 27	7 50.18	+19 3.6	0.436	1.215	50.8	20.4	109 E	64	45
4 1	7 52.05	+16 56.8	0.468	1.210	52.8	20.6	105 E	62	47
4 6	7 55.10	+15 2.6	0.500	1.204	54.6	20.8	101 E	60*	49
4 11	7 59.08	+13 18.2	0.531	1.196	56.1	21.0	98 E	58*	51
4 16	8 3.79	+11 41.6	0.561	1.187	57.5	21.1	94 E	55*	52
4 21	8 9.11	+10 10.9	0.589	1.175	58.8	21.2	91 E	52*	54

162080 1998 DG_{16} (*continuation*)

19/20	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
	h m	° ′			°	m	°	°	°
4 26	8 14.94	+ 8 44.7	0.616	1.162	60.0	21.3	88 E	49*	55*
5 1	8 21.17	+ 7 21.7	0.640	1.147	61.1	21.4	85 E	45*	57*
5 6	8 27.72	+ 6 1.0	0.661	1.130	62.2	21.5	82 E	42*	58*

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19/20	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
12 23	14 40.07	−15 43.4	2.867	2.328	18.3	20.9	48 W	26*	34*
1 2	14 56.38	−17 48.2	2.729	2.292	20.3	20.8	54 W	25*	41*
1 12	15 12.83	−19 53.0	2.584	2.255	22.1	20.7	60 W	24*	49*
1 22	15 29.41	−21 58.6	2.433	2.218	23.9	20.6	66 W	23*	57*
2 1	15 46.05	−24 5.9	2.278	2.180	25.4	20.4	72 W	21*	64*
2 11	16 2.68	−26 16.2	2.122	2.141	26.8	20.3	78 W	19*	71*
2 21	16 19.22	−28 31.4	1.965	2.101	27.9	20.1	84 W	16	78*
3 2	16 35.57	−30 53.8	1.810	2.061	28.7	19.9	90 W	14	83*
3 12	16 51.57	−33 26.2	1.659	2.020	29.3	19.7	96 W	12	83
3 22	17 7.07	−36 12.0	1.513	1.979	29.5	19.5	102 W	9	80
4 1	17 21.78	−39 14.9	1.376	1.938	29.3	19.2	108 W	6	77
4 11	17 35.39	−42 38.5	1.248	1.898	28.7	18.9	115 W	2	73
4 16	17 41.64	−44 29.0	1.189	1.877	28.3	18.8	118 W	1	72
4 21	17 47.41	−46 25.7	1.133	1.857	27.8	18.7	120 W	—	70
4 26	17 52.61	−48 28.4	1.080	1.836	27.3	18.5	123 W	—	68
5 1	17 57.11	−50 36.9	1.031	1.816	26.7	18.4	126 W	—	65
5 6	18 0.79	−52 50.7	0.986	1.796	26.1	18.2	128 W	—	63
5 11	18 3.48	−55 8.6	0.945	1.777	25.6	18.1	131 W	—	61
5 16	18 4.97	−57 29.4	0.908	1.757	25.1	18.0	132 W	—	59
5 21	18 5.00	−59 50.9	0.876	1.738	24.9	17.9	134 W	—	56
5 26	18 3.29	−62 10.6	0.848	1.719	24.8	17.8	135 W	—	54
5 31	17 59.57	−64 25.5	0.824	1.700	24.9	17.7	135 W	—	52
6 5	17 53.60	−66 32.2	0.804	1.681	25.3	17.6	135 W	—	49
6 10	17 45.19	−68 27.3	0.787	1.664	25.9	17.6	134 W	—	48
6 15	17 34.34	−70 7.3	0.775	1.646	26.7	17.5	133 W	—	46
6 20	17 21.40	−71 29.2	0.765	1.629	27.8	17.5	132 E	—	45
6 22	17 15.80	−71 56.4	0.762	1.622	28.2	17.5	131 E	—	44
6 24	17 10.07	−72 20.3	0.760	1.616	28.7	17.5	130 E	—	44
6 26	17 4.28	−72 40.8	0.758	1.609	29.1	17.5	130 E	—	43
6 28	16 58.52	−72 58.1	0.756	1.603	29.6	17.5	129 E	—	43
6 30	16 52.89	−73 12.1	0.755	1.597	30.1	17.5	128 E	—	43
7 2	16 47.47	−73 23.0	0.754	1.590	30.6	17.5	127 E	—	43
7 4	16 42.35	−73 30.9	0.754	1.584	31.1	17.5	126 E	—	42
7 6	16 37.61	−73 36.0	0.753	1.578	31.6	17.5	126 E	—	42
7 8	16 33.32	−73 38.5	0.753	1.572	32.1	17.5	125 E	—	42
7 10	16 29.54	−73 38.4	0.753	1.567	32.6	17.5	124 E	—	42
7 12	16 26.32	−73 36.0	0.754	1.561	33.1	17.5	123 E	—	42
7 14	16 23.70	−73 31.4	0.755	1.555	33.6	17.6	122 E	—	42
7 16	16 21.72	−73 24.9	0.756	1.550	34.1	17.6	121 E	—	43
7 18	16 20.39	−73 16.6	0.757	1.545	34.5	17.6	120 E	—	43
7 20	16 19.71	−73 6.6	0.758	1.540	35.0	17.6	120 E	—	43
7 25	16 20.90	−72 35.3	0.762	1.527	36.1	17.6	118 E	—	43
7 30	16 25.98	−71 56.0	0.767	1.516	37.1	17.6	116 E	—	44
8 4	16 34.51	−71 9.4	0.772	1.505	38.0	17.7	114 E	—	45
8 9	16 45.98	−70 15.4	0.779	1.495	38.8	17.7	112 E	—	46
8 11	16 51.27	−69 51.6	0.781	1.492	39.1	17.7	112 E	—	46
8 13	16 56.91	−69 26.5	0.784	1.488	39.4	17.7	111 E	—	47
8 15	17 2.86	−68 59.9	0.787	1.485	39.7	17.7	111 E	—	47
8 17	17 9.10	−68 32.0	0.790	1.482	39.9	17.7	110 E	—	47
8 19	17 15.59	−68 2.5	0.793	1.479	40.2	17.7	109 E	—	48
8 21	17 22.29	−67 31.5	0.797	1.476	40.4	17.7	109 E	—	48
8 23	17 29.18	−66 58.8	0.800	1.474	40.6	17.8	108 E	—	49
8 25	17 36.23	−66 24.6	0.804	1.471	40.8	17.8	108 E	—	50
8 27	17 43.39	−65 48.7	0.807	1.469	41.0	17.8	107 E	—	50
8 29	17 50.65	−65 11.1	0.811	1.467	41.2	17.8	107 E	—	51
8 31	17 57.97	−64 31.8	0.815	1.465	41.4	17.8	106 E	—	51
9 2	18 5.32	−63 50.7	0.819	1.463	41.5	17.8	106 E	—	52
9 4	18 12.70	−63 7.9	0.824	1.462	41.7	17.8	105 E	—	53
9 6	18 20.06	−62 23.3	0.828	1.461	41.8	17.8	105 E	—	54
9 8	18 27.41	−61 36.9	0.833	1.459	41.9	17.9	105 E	—	54
9 13	18 45.57	−59 33.4	0.846	1.457	42.2	17.9	103 E	—	56
9 18	19 3.32	−57 19.6	0.861	1.456	42.4	17.9	102 E	—	59
9 23	19 20.53	−54 56.4	0.877	1.456	42.5	18.0	101 E	—	61
9 28	19 37.12	−52 24.9	0.896	1.458	42.6	18.0	100 E	—	64
10 3	19 53.05	−49 46.4	0.917	1.460	42.6	18.1	99 E	—	66
10 8	20 8.32	−47 2.3	0.940	1.464	42.5	18.1	98 E	—	69
10 13	20 22.95	−44 14.1	0.966	1.469	42.4	18.2	97 E	1	72
10 18	20 37.01	−41 23.0	0.994	1.474	42.3	18.3	96 E	4	75
10 23	20 50.53	−38 30.6	1.025	1.481	42.0	18.3	94 E	6	77
10 28	21 3.56	−35 38.2	1.059	1.489	41.8	18.4	93 E	9	80*
11 2	21 16.15	−32 46.7	1.096	1.498	41.5	18.5	92 E	12	83*
11 7	21 28.33	−29 57.1	1.135	1.508	41.1	18.6	90 E	15	84*
11 12	21 40.16	−27 10.2	1.177	1.519	40.6	18.7	89 E	18	82*
11 17	21 51.70	−24 26.5	1.222	1.531	40.2	18.7	87 E	21	80*

155958 2001 QL_{106} *(continuation)*

19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
	h m	° ′			°	m	°	°	°
11 22	22 2.97	−21 46.5	1.269	1.543	39.6	18.8	85 E	23	76*
11 27	22 14.01	−19 10.6	1.318	1.557	39.0	18.9	84 E	26	72*
12 7	22 35.50	−14 11.5	1.422	1.586	37.7	19.1	80 E	31	65*
12 17	22 56.40	− 9 29.8	1.533	1.617	36.3	19.3	77 E	36	57*
12 27	23 16.92	− 5 4.9	1.651	1.651	34.7	19.4	73 E	40*	49*
1 6	23 37.16	− 0 56.1	1.772	1.687	32.9	19.6	69 E	44*	43*
1 16	23 57.28	+ 2 57.6	1.895	1.724	31.1	19.7	65 E	46*	36*

138877 2000 XG_{47}

19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
12 23	14 40.25	+ 8 25.8	1.060	1.005	56.8	18.8	59 W	48*	23*
12 28	14 59.44	+ 5 23.8	1.070	0.994	56.8	18.8	58 W	46*	25*
1 2	15 18.01	+ 2 23.7	1.082	0.986	56.5	18.8	57 W	43*	28*
1 7	15 36.07	− 0 33.1	1.095	0.983	56.2	18.8	56 W	40*	30*
1 12	15 53.70	− 3 25.4	1.109	0.983	55.7	18.8	56 W	38*	33*
1 17	16 10.99	− 6 12.2	1.124	0.988	55.1	18.8	55 W	35*	36*
1 22	16 27.99	− 8 52.5	1.138	0.997	54.4	18.9	55 W	33*	39*
2 1	17 1.31	−13 51.5	1.166	1.026	52.9	18.9	56 W	28*	44*
2 11	17 33.85	−18 19.4	1.191	1.068	51.4	19.0	58 W	23*	49*
2 21	18 5.64	−22 16.2	1.212	1.121	50.0	19.1	60 W	19*	53*
3 2	18 36.48	−25 44.1	1.226	1.182	48.6	19.2	63 W	15*	57*
3 12	19 6.11	−28 47.6	1.234	1.250	47.2	19.3	67 W	11*	61*
3 22	19 34.24	−31 32.7	1.237	1.321	45.7	19.4	72 W	8*	64*
4 1	20 0.50	−34 6.2	1.233	1.395	44.2	19.5	77 W	6*	68*
4 11	20 24.57	−36 35.1	1.224	1.470	42.5	19.5	82 W	3*	71*
4 21	20 46.08	−39 6.2	1.211	1.546	40.5	19.6	88 W	1*	73*
4 26	20 55.73	−40 24.6	1.203	1.583	39.4	19.6	91 W	—	73*
5 1	21 4.56	−41 45.8	1.196	1.621	38.3	19.6	94 W	—	73*
5 6	21 12.49	−43 10.2	1.188	1.659	37.1	19.6	98 W	—	73*
5 11	21 19.46	−44 38.2	1.180	1.696	35.7	19.6	101 W	—	71
5 16	21 25.37	−46 9.9	1.173	1.733	34.4	19.6	105 W	—	70
5 21	21 30.09	−47 45.3	1.167	1.769	32.9	19.6	108 W	—	68
5 26	21 33.48	−49 23.9	1.162	1.806	31.3	19.5	112 W	—	67
5 31	21 35.42	−51 4.9	1.159	1.842	29.7	19.5	116 W	—	65
6 5	21 35.75	−52 47.1	1.159	1.877	28.1	19.5	119 W	—	63
6 10	21 34.34	−54 28.9	1.161	1.912	26.5	19.5	123 W	—	62
6 15	21 31.01	−56 8.4	1.166	1.947	24.9	19.5	126 W	—	60
6 20	21 25.65	−57 43.1	1.175	1.981	23.4	19.5	129 W	—	58
6 25	21 18.22	−59 10.2	1.188	2.015	22.0	19.6	132 W	—	57
6 30	21 8.79	−60 26.9	1.204	2.049	20.8	19.6	134 W	—	56
7 5	20 57.60	−61 30.5	1.226	2.082	19.8	19.6	136 W	—	54
7 10	20 45.02	−62 19.0	1.252	2.114	19.1	19.7	137 W	—	54
7 12	20 39.71	−62 33.8	1.263	2.127	18.8	19.7	138 W	—	53
7 14	20 34.30	−62 46.0	1.276	2.140	18.7	19.7	138 W	—	53
7 16	20 28.84	−62 55.3	1.289	2.152	18.5	19.8	138 W	—	53
7 18	20 23.37	−63 2.0	1.303	2.165	18.4	19.8	138 W	—	53
7 20	20 17.93	−63 5.9	1.318	2.178	18.4	19.8	137 W	—	53
7 22	20 12.56	−63 7.2	1.333	2.190	18.4	19.9	137 W	—	53
7 24	20 7.31	−63 6.0	1.350	2.202	18.4	19.9	137 E	—	53
7 26	20 2.22	−63 2.2	1.367	2.215	18.5	20.0	136 E	—	53
7 28	19 57.31	−62 56.2	1.384	2.227	18.6	20.0	136 E	—	53
7 30	19 52.63	−62 47.9	1.403	2.239	18.7	20.0	135 E	—	53
8 4	19 42.00	−62 18.7	1.452	2.269	19.1	20.2	133 E	—	54
8 9	19 33.11	−61 39.2	1.506	2.299	19.5	20.3	131 E	—	54
8 14	19 26.05	−60 51.6	1.563	2.328	20.1	20.4	128 E	—	55
8 19	19 20.80	−59 58.2	1.625	2.357	20.6	20.5	125 E	—	56
8 24	19 17.27	−59 0.7	1.689	2.385	21.1	20.7	122 E	—	57
8 29	19 15.31	−58 0.7	1.757	2.413	21.5	20.8	119 E	—	58
9 3	19 14.75	−56 59.3	1.828	2.440	21.9	20.9	116 E	—	59
9 8	19 15.41	−55 57.5	1.902	2.467	22.2	21.0	112 E	—	60
9 13	19 17.14	−54 55.7	1.977	2.493	22.4	21.1	109 E	—	61
9 18	19 19.79	−53 54.4	2.055	2.519	22.6	21.3	106 E	—	62
9 23	19 23.25	−52 53.9	2.135	2.544	22.7	21.4	102 E	—	63
9 28	19 27.40	−51 54.3	2.215	2.569	22.7	21.5	99 E	—	64

154555 2003 *HA*

19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
12 23	14 40.63	+13 21.3	1.936	1.703	30.5	20.6	62 W	52*	20*
1 2	15 1.09	+11 56.5	1.807	1.658	32.6	20.5	65 W	53*	26*
1 12	15 21.94	+10 36.5	1.672	1.608	34.8	20.3	69 W	54*	32*
1 22	15 43.43	+ 9 19.7	1.531	1.552	37.2	20.1	73 W	53*	37*
2 1	16 5.88	+ 8 3.8	1.385	1.490	39.9	19.9	76 W	52*	43*
2 6	16 17.61	+ 7 24.9	1.311	1.456	41.3	19.7	77 W	52*	45*
2 11	16 29.82	+ 6 44.5	1.236	1.421	42.9	19.6	79 W	51*	48*
2 16	16 42.63	+ 6 1.7	1.161	1.384	44.6	19.4	80 W	50*	50*
2 21	16 56.20	+ 5 15.4	1.086	1.346	46.5	19.3	81 W	50*	52*
2 26	17 10.74	+ 4 24.1	1.011	1.306	48.6	19.1	81 W	49*	54*
3 2	17 26.54	+ 3 26.2	0.936	1.264	50.9	19.0	82 W	48*	55*
3 7	17 43.98	+ 2 19.2	0.863	1.221	53.6	18.8	82 W	46*	57*
3 12	18 3.59	+ 1 0.4	0.792	1.175	56.7	18.6	81 W	44*	58*

154555 2003 *HA* *(continuation)*

19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
	h m	° ′			°	m	°	°	°
3 17	18 26.05	− 0 33.2	0.724	1.128	60.4	18.4	80 W	42*	60*
3 22	18 52.22	− 2 24.6	0.660	1.079	64.8	18.3	78 W	39*	61*
3 27	19 23.13	− 4 35.9	0.604	1.029	69.9	18.1	75 W	35*	61*
4 1	19 59.83	− 7 5.5	0.557	0.976	75.9	18.0	71 W	30*	60*
4 3	20 16.30	− 8 8.7	0.541	0.955	78.5	18.0	69 W	28*	60*
4 5	20 33.81	− 9 12.4	0.529	0.933	81.3	18.0	67 W	25*	59*
4 7	20 52.32	−10 15.2	0.519	0.912	84.0	18.0	65 W	23*	57*
4 9	21 11.73	−11 15.4	0.511	0.890	86.8	18.0	62 W	20*	55*
4 11	21 31.90	−12 11.1	0.507	0.868	89.6	18.1	60 W	17*	53*
4 13	21 52.64	−13 0.6	0.507	0.845	92.3	18.1	57 W	14*	51*
4 15	22 13.70	−13 42.0	0.510	0.823	94.7	18.2	55 W	11*	49*
4 17	22 34.80	−14 14.0	0.517	0.800	97.0	18.3	52 W	8*	46*
4 19	22 55.68	−14 35.7	0.527	0.778	98.9	18.3	50 W	5*	44*
4 21	23 16.08	−14 46.6	0.541	0.755	100.4	18.4	48 W	2*	41*
4 23	23 35.79	−14 46.7	0.558	0.733	101.5	18.5	46 W	—	39*
4 25	23 54.63	−14 36.6	0.578	0.711	102.1	18.5	44 W	—	36*
4 27	0 12.51	−14 16.9	0.602	0.689	102.3	18.5	42 W	—	34*
4 29	0 29.37	−13 48.2	0.629	0.667	102.0	18.5	40 W	—	32*
5 1	0 45.20	−13 11.6	0.658	0.646	101.2	18.5	39 W	—	30*
5 3	1 0.03	−12 27.6	0.690	0.625	100.0	18.5	38 W	—	29*
5 5	1 13.92	−11 37.0	0.724	0.605	98.3	18.5	36 W	—	27*
5 7	1 26.94	−10 40.3	0.760	0.587	96.2	18.4	35 W	—	26*
5 9	1 39.17	− 9 37.8	0.798	0.569	93.6	18.3	34 W	—	25*
5 11	1 50.71	− 8 30.1	0.838	0.553	90.7	18.2	33 W	—	24*
5 16	2 17.06	− 5 19.6	0.943	0.520	81.9	18.0	31 W	—	21*
5 21	2 40.83	− 1 43.8	1.053	0.501	71.5	17.8	28 W	—	20*
5 26	3 3.00	+ 2 9.4	1.161	0.498	60.5	17.7	25 W	—	18*
5 31	3 24.20	+ 6 9.2	1.264	0.513	50.0	17.6	23 W	—	16*
6 5	3 44.81	+10 4.8	1.360	0.542	40.9	17.6	20 W	—	14*
6 10	4 5.02	+13 47.8	1.446	0.583	33.8	17.7	19 W	—	13*
6 15	4 24.95	+17 13.2	1.523	0.631	28.7	17.9	17 W	—	11*
6 20	4 44.65	+20 18.7	1.593	0.684	25.1	18.0	17 W	2*	10*
6 25	5 4.15	+23 3.9	1.656	0.739	22.9	18.2	16 W	4*	9*
6 30	5 23.49	+25 29.7	1.712	0.795	21.7	18.4	17 W	6*	7*
7 5	5 42.67	+27 37.1	1.764	0.852	21.1	18.6	18 W	8*	6*
7 10	6 1.68	+29 27.4	1.811	0.907	20.9	18.8	19 W	10*	5*
7 15	6 20.53	+31 2.1	1.854	0.961	20.9	19.0	20 W	12*	4*
7 20	6 39.18	+32 22.4	1.893	1.014	21.2	19.2	21 W	14*	4*
7 25	6 57.61	+33 29.7	1.928	1.065	21.5	19.3	23 W	16*	3*
7 30	7 15.79	+34 25.1	1.960	1.114	21.9	19.5	24 W	18*	2*
8 4	7 33.69	+35 9.7	1.988	1.162	22.3	19.6	26 W	20*	2*
8 9	7 51.30	+35 44.7	2.013	1.208	22.8	19.7	27 W	21*	1*
8 14	8 8.57	+36 11.0	2.035	1.252	23.2	19.8	29 W	23*	1*
8 19	8 25.51	+36 29.7	2.054	1.294	23.7	19.9	31 W	25*	—
8 24	8 42.09	+36 41.6	2.069	1.335	24.1	20.0	33 W	26*	—
8 29	8 58.29	+36 47.6	2.082	1.373	24.6	20.1	34 W	28*	—
9 8	9 29.55	+36 45.0	2.097	1.446	25.5	20.3	38 W	31*	—
9 18	9 59.32	+36 27.8	2.101	1.512	26.4	20.4	42 W	35*	—
9 28	10 27.64	+36 1.5	2.094	1.572	27.3	20.5	46 W	39*	—
10 8	10 54.57	+35 30.7	2.075	1.627	28.1	20.6	50 W	43*	—
10 18	11 20.24	+34 59.7	2.046	1.675	28.9	20.6	54 W	47*	1*
10 28	11 44.71	+34 32.6	2.007	1.717	29.7	20.7	59 W	51*	2*
11 7	12 8.07	+34 13.1	1.959	1.755	30.3	20.7	63 W	56*	4*
11 17	12 30.36	+34 4.9	1.902	1.787	30.9	20.7	68 W	62*	6*
11 27	12 51.57	+34 11.6	1.837	1.813	31.4	20.7	73 W	67*	8*
12 7	13 11.69	+34 36.6	1.767	1.835	31.7	20.6	78 W	72*	11*
12 17	13 30.60	+35 23.4	1.691	1.852	31.8	20.5	83 W	77*	14*
12 27	13 48.11	+36 35.7	1.612	1.863	31.8	20.4	88 W	81*	17*
1 6	14 3.93	+38 16.1	1.532	1.870	31.7	20.3	93 W	83	19*
1 16	14 17.63	+40 27.6	1.451	1.872	31.3	20.2	99 W	85	20*

481817 2008 UL_{90}

19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
12 23	14 40.67	+11 59.9	0.511	0.859	88.0	19.9	61 W	51*	21*
12 28	15 13.49	+10 41.7	0.524	0.832	90.0	20.0	58 W	49*	20*
1 2	15 45.50	+ 9 0.3	0.543	0.803	91.8	20.1	55 W	46*	19*
1 7	16 16.37	+ 6 58.4	0.569	0.770	93.3	20.1	51 W	43*	18*
1 12	16 45.99	+ 4 39.6	0.601	0.735	94.2	20.2	48 W	39*	18*
1 17	17 14.49	+ 2 7.5	0.640	0.697	94.6	20.2	45 W	36*	18*
1 22	17 42.14	− 0 34.1	0.686	0.657	94.2	20.2	42 W	32*	18*
1 27	18 9.39	− 3 21.5	0.738	0.615	92.9	20.2	39 W	28*	19*
2 1	18 36.76	− 6 10.6	0.798	0.573	90.3	20.1	36 W	24*	19*
2 6	19 4.90	− 8 56.0	0.865	0.532	86.3	19.9	33 W	20*	20*
2 11	19 34.43	−11 30.1	0.939	0.493	80.5	19.7	30 W	16*	19*
2 16	20 5.91	−13 43.0	1.019	0.462	72.9	19.5	27 W	11*	18*
2 21	20 39.54	−15 22.6	1.103	0.440	63.5	19.3	23 W	6*	17*
2 26	21 14.93	−16 16.8	1.186	0.431	53.1	19.1	20 W	2*	14*
3 2	21 51.07	−16 18.5	1.266	0.437	42.9	19.0	17 W	—	11*
3 4	22 5.44	−16 4.5	1.296	0.444	39.0	19.0	16 W	—	10*
3 6	22 19.63	−15 42.5	1.325	0.452	35.5	18.9	15 W	—	9*

481817 2008 UL_{90} *(continuation)*

2020	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
	h m	° ′			°	m	°	°	°
3 8	22 33.58	−15 13.3	1.353	0.463	32.2	18.9	14 W	—	8*
3 10	22 47.24	−14 37.5	1.380	0.475	29.3	19.0	14 W	—	6*
3 12	23 0.56	−13 55.9	1.405	0.488	26.7	19.0	13 W	—	5*
3 14	23 13.51	−13 9.2	1.430	0.502	24.4	19.0	12 W	—	4*
3 16	23 26.08	−12 18.3	1.454	0.518	22.4	19.1	11 W	—	3*
3 18	23 38.26	−11 23.8	1.476	0.533	20.7	19.1	11 W	—	1*
3 20	23 50.06	−10 26.4	1.498	0.550	19.2	19.2	10 W	—	—
3 22	0 1.49	− 9 26.7	1.520	0.567	18.0	19.2	10 W	—	—
3 27	0 28.51	− 6 50.8	1.570	0.609	15.7	19.4	9 E	—	—
4 1	0 53.56	− 4 10.3	1.617	0.651	14.1	19.5	9 E	—	—
4 6	1 16.94	− 1 29.8	1.662	0.691	13.0	19.7	9 E	—	1*
4 11	1 38.93	+ 1 7.7	1.704	0.729	12.1	19.8	9 E	—	2*
4 16	1 59.80	+ 3 40.3	1.743	0.765	11.2	19.9	9 E	—	2*
4 21	2 19.79	+ 6 6.7	1.779	0.798	10.4	20.0	8 E	—	2*
5 1	2 57.83	+10 38.6	1.844	0.855	8.7	20.2	7 E	—	1*
5 11	3 34.26	+14 40.4	1.897	0.899	6.9	20.3	6 E	—	—
5 21	4 10.02	+18 11.8	1.936	0.932	5.1	20.3	5 E	—	—
5 31	4 45.84	+21 12.2	1.962	0.951	3.4	20.3	3 E	—	—
6 10	5 22.27	+23 41.0	1.973	0.959	2.3	20.2	2 E	—	—
6 20	5 59.79	+25 36.4	1.969	0.954	2.6	20.2	2 E	—	—
6 30	6 38.79	+26 55.1	1.950	0.937	4.1	20.3	4 E	—	—
7 5	6 58.93	+27 19.3	1.934	0.924	5.0	20.3	5 E	—	—
7 10	7 19.54	+27 32.4	1.916	0.908	6.0	20.3	5 E	—	—
7 15	7 40.64	+27 33.6	1.893	0.889	6.9	20.2	6 E	—	—
7 20	8 2.25	+27 21.6	1.868	0.867	7.9	20.2	7 E	—	—
7 25	8 24.37	+26 55.4	1.838	0.841	9.0	20.2	7 E	1*	—
7 30	8 46.99	+26 13.5	1.806	0.813	10.0	20.1	8 E	1*	—
8 4	9 10.11	+25 14.4	1.770	0.781	11.1	20.0	9 E	2*	—
8 9	9 33.72	+23 56.3	1.731	0.747	12.4	19.9	9 E	3*	—
8 14	9 57.78	+22 17.3	1.689	0.710	13.7	19.8	10 E	4*	—
8 19	10 22.29	+20 15.1	1.643	0.671	15.4	19.7	10 E	4*	—
8 24	10 47.20	+17 47.5	1.593	0.629	17.5	19.5	11 E	5*	—
8 29	11 12.45	+14 51.9	1.540	0.587	20.3	19.4	12 E	5*	1*
9 3	11 37.96	+11 26.1	1.481	0.545	24.1	19.3	13 E	5*	3*
9 8	12 3.63	+ 7 28.0	1.417	0.506	29.4	19.2	14 E	5*	6*
9 13	12 29.22	+ 2 57.0	1.346	0.471	36.4	19.1	16 E	5*	9*
9 18	12 54.42	− 2 5.2	1.267	0.446	45.4	19.1	18 E	4*	12*
9 23	13 18.75	− 7 32.9	1.180	0.432	55.9	19.2	21 E	2*	15*
9 28	13 41.79	−13 16.7	1.089	0.434	67.0	19.3	23 E	—	17*
9 30	13 50.57	−15 36.2	1.051	0.438	71.4	19.4	25 E	—	18*
10 2	13 59.12	−17 55.6	1.014	0.445	75.6	19.5	26 E	—	19*
10 4	14 7.43	−20 14.5	0.977	0.454	79.6	19.6	27 E	—	20*
10 6	14 15.54	−22 32.2	0.941	0.465	83.3	19.7	28 E	—	21*
10 8	14 23.49	−24 48.4	0.906	0.477	86.7	19.8	28 E	—	21*
10 10	14 31.31	−27 2.6	0.871	0.490	89.8	19.9	29 E	—	22*
10 12	14 39.07	−29 14.6	0.838	0.505	92.7	20.0	30 E	—	22*
10 14	14 46.83	−31 24.2	0.806	0.520	95.2	20.1	31 E	—	23*
10 16	14 54.65	−33 31.3	0.774	0.536	97.4	20.2	32 E	—	23*
10 18	15 2.60	−35 35.6	0.745	0.553	99.3	20.3	33 E	—	23*
10 20	15 10.76	−37 37.2	0.716	0.569	101.0	20.3	34 E	—	24*
10 22	15 19.23	−39 35.7	0.688	0.586	102.4	20.4	35 E	—	24*
10 24	15 28.08	−41 31.1	0.662	0.603	103.6	20.4	36 E	—	25*
10 26	15 37.43	−43 23.1	0.636	0.620	104.6	20.4	37 E	—	25*
10 28	15 47.38	−45 11.5	0.612	0.637	105.4	20.5	38 E	—	26*
10 30	15 58.05	−46 55.7	0.589	0.654	106.0	20.5	39 E	—	26*
11 1	16 9.58	−48 35.4	0.566	0.670	106.5	20.5	40 E	—	27*
11 3	16 22.09	−50 9.8	0.545	0.686	106.8	20.4	41 E	—	28*
11 5	16 35.72	−51 38.2	0.525	0.702	107.0	20.4	43 E	—	28*
11 7	16 50.62	−52 59.3	0.505	0.717	107.1	20.4	44 E	—	29*
11 9	17 6.88	−54 12.0	0.487	0.732	107.0	20.4	45 E	—	31*
11 11	17 24.60	−55 14.6	0.469	0.746	106.8	20.3	46 E	—	32*
11 13	17 43.80	−56 5.3	0.453	0.761	106.6	20.3	47 E	—	33*
11 15	18 4.42	−56 42.2	0.437	0.774	106.2	20.2	49 E	—	35*
11 17	18 26.32	−57 3.1	0.422	0.787	105.7	20.1	50 E	—	36*
11 18	18 37.66	−57 7.0	0.415	0.794	105.4	20.1	51 E	—	37*
11 19	18 49.21	−57 6.1	0.408	0.800	105.1	20.1	51 E	—	38*
11 20	19 0.91	−57 0.3	0.401	0.806	104.8	20.0	52 E	—	39*
11 21	19 12.71	−56 49.4	0.395	0.812	104.4	20.0	53 E	—	40*
11 22	19 24.56	−56 33.2	0.389	0.818	104.1	19.9	53 E	—	41*
11 23	19 36.39	−56 11.7	0.383	0.824	103.7	19.9	54 E	—	42*
11 24	19 48.14	−55 44.7	0.377	0.830	103.3	19.9	55 E	—	43*
11 25	19 59.76	−55 12.3	0.372	0.835	102.8	19.8	56 E	—	44*
11 26	20 11.20	−54 34.5	0.367	0.841	102.4	19.8	56 E	—	45*
11 27	20 22.39	−53 51.4	0.362	0.846	101.9	19.8	57 E	—	46*
11 28	20 33.31	−53 3.0	0.357	0.851	101.4	19.7	58 E	—	48*
11 29	20 43.92	−52 9.6	0.353	0.857	100.9	19.7	59 E	—	49*
11 30	20 54.19	−51 11.3	0.349	0.862	100.4	19.6	59 E	—	50*
12 1	21 4.10	−50 8.4	0.346	0.866	99.8	19.6	60 E	—	51*
12 2	21 13.64	−49 1.0	0.342	0.871	99.3	19.6	61 E	—	52*

481817 2008 UL_{90} *(continuation)*

19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
	h m	° ′			°	m	°	°	°
12 3	21 22.80	−47 49.5	0.339	0.876	98.7	19.5	61 E	—	53*
12 4	21 31.57	−46 34.2	0.336	0.880	98.1	19.5	62 E	—	55*
12 5	21 39.96	−45 15.3	0.334	0.885	97.5	19.5	63 E	—	56*
12 6	21 47.98	−43 53.2	0.332	0.889	96.9	19.4	64 E	1*	57*
12 7	21 55.63	−42 28.1	0.330	0.893	96.3	19.4	64 E	3*	58*
12 9	22 9.89	−39 30.6	0.327	0.901	95.1	19.3	66 E	5	59*
12 11	22 22.83	−36 25.4	0.325	0.908	93.8	19.3	67 E	9	61*
12 13	22 34.60	−33 15.0	0.325	0.915	92.6	19.3	68 E	12	62*
12 15	22 45.30	−30 1.7	0.326	0.921	91.3	19.2	69 E	15	63*
12 17	22 55.06	−26 47.8	0.328	0.927	90.1	19.2	70 E	18	63*
12 19	23 3.98	−23 35.2	0.331	0.932	89.0	19.2	71 E	21	62*
12 21	23 12.16	−20 25.5	0.335	0.937	87.9	19.2	72 E	25	61*
12 23	23 19.69	−17 20.1	0.340	0.942	86.9	19.2	73 E	28	60*
12 25	23 26.64	−14 20.0	0.345	0.946	85.9	19.2	74 E	31	58*
12 27	23 33.08	−11 26.0	0.352	0.949	85.1	19.2	74 E	34	56*
1 1	23 47.31	− 4 40.5	0.371	0.955	83.2	19.3	75 E	40	51*
1 6	23 59.44	+ 1 21.2	0.393	0.959	81.9	19.3	75 E	46*	46*
1 11	0 9.99	+ 6 41.3	0.416	0.959	81.0	19.4	74 E	51*	40*
1 16	0 19.31	+11 24.1	0.440	0.956	80.4	19.5	73 E	55*	35*

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19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
12 23	14 41.25	−13 16.7	1.389	1.043	45.0	18.1	49 W	28*	33*
12 28	15 7.36	−15 16.1	1.357	0.995	46.3	18.0	47 W	26*	33*
1 2	15 35.03	−17 8.0	1.334	0.948	47.4	17.9	45 W	23*	33*
1 7	16 4.13	−18 48.5	1.320	0.903	48.2	17.8	43 W	21*	32*
1 12	16 34.49	−20 13.6	1.315	0.862	48.4	17.7	41 W	19*	31*
1 17	17 5.81	−21 19.6	1.319	0.825	48.1	17.6	39 W	16*	30*
1 22	17 37.72	−22 3.9	1.332	0.794	47.2	17.5	36 W	14*	28*
1 27	18 9.78	−22 24.7	1.354	0.769	45.7	17.4	34 W	12*	26*
2 1	18 41.56	−22 21.8	1.383	0.752	43.5	17.4	32 W	10*	25*
2 6	19 12.65	−21 56.1	1.418	0.742	40.9	17.3	30 W	8*	23*
2 11	19 42.71	−21 9.9	1.459	0.742	38.0	17.3	28 W	7*	21*
2 16	20 11.46	−20 6.0	1.504	0.751	35.0	17.3	26 W	5*	20*
2 21	20 38.75	−18 47.8	1.551	0.768	32.1	17.3	24 W	4*	18*
2 26	21 4.46	−17 18.8	1.601	0.792	29.3	17.4	23 W	3*	17*
3 2	21 28.59	−15 42.1	1.652	0.823	27.0	17.5	22 W	2*	16*
3 7	21 51.18	−14 0.8	1.703	0.860	24.9	17.6	21 W	1*	15*
3 12	22 12.31	−12 17.3	1.755	0.901	23.3	17.7	21 W	1*	15*
3 17	22 32.09	−10 33.3	1.806	0.945	22.0	17.8	21 W	1*	15*
3 22	22 50.64	− 8 50.5	1.856	0.992	21.1	18.0	21 W	—	15*
3 27	23 8.07	− 7 9.8	1.905	1.040	20.4	18.1	21 W	—	15*
4 1	23 24.48	− 5 32.1	1.952	1.090	19.9	18.2	22 W	—	16*
4 11	23 54.64	− 2 27.4	2.041	1.192	19.6	18.5	24 W	1*	18*
4 21	0 21.83	+ 0 21.3	2.121	1.295	19.9	18.8	26 W	2*	20*
5 1	0 46.55	+ 2 53.6	2.189	1.396	20.5	19.0	29 W	3*	23*
5 11	1 9.19	+ 5 9.6	2.244	1.497	21.3	19.3	33 W	5*	26*
5 21	1 30.03	+ 7 10.3	2.287	1.594	22.3	19.5	37 W	8*	30*
5 31	1 49.23	+ 8 56.2	2.314	1.689	23.3	19.7	41 W	11*	34*
6 10	2 6.89	+10 28.3	2.327	1.782	24.3	19.8	46 W	15*	38*
6 20	2 23.05	+11 47.3	2.326	1.871	25.2	20.0	52 W	20*	41*
6 30	2 37.69	+12 53.9	2.310	1.958	25.9	20.1	57 W	26*	44*
7 10	2 50.71	+13 48.6	2.280	2.042	26.5	20.1	64 W	32*	46*
7 20	3 2.01	+14 32.2	2.238	2.123	26.8	20.2	70 W	39*	48*
7 30	3 11.36	+15 4.7	2.185	2.201	26.8	20.2	77 W	46*	48*
8 9	3 18.55	+15 26.5	2.123	2.276	26.3	20.2	85 W	53*	49
8 19	3 23.30	+15 37.6	2.056	2.349	25.5	20.2	94 W	58*	48
8 29	3 25.30	+15 37.8	1.985	2.420	24.0	20.1	103 W	61*	48
9 8	3 24.31	+15 26.9	1.917	2.488	21.9	20.1	113 W	60	49
9 18	3 20.13	+15 4.5	1.856	2.553	19.1	20.0	124 W	60	49
9 28	3 12.79	+14 30.6	1.808	2.616	15.7	19.8	135 W	60	49
10 8	3 2.66	+13 46.1	1.779	2.677	11.5	19.7	148 W	59	50
10 18	2 50.45	+12 53.4	1.776	2.736	7.0	19.6	160 W	58	51
10 23	2 43.90	+12 25.2	1.786	2.764	4.7	19.5	167 W	57	52
10 28	2 37.27	+11 56.6	1.803	2.792	2.4	19.4	173 W	57	52
11 2	2 30.71	+11 28.5	1.828	2.819	1.2	19.3	177 W	56	53
11 7	2 24.38	+11 1.5	1.862	2.846	2.8	19.5	172 E	56	53
11 12	2 18.39	+10 36.2	1.903	2.873	4.9	19.7	166 E	56	53
11 17	2 12.88	+10 13.4	1.952	2.898	6.9	19.9	159 E	55	54
11 27	2 3.62	+ 9 36.8	2.071	2.949	10.5	20.2	147 E	55	54
12 7	1 57.00	+ 9 14.0	2.215	2.997	13.4	20.5	135 E	54	55
12 17	1 53.09	+ 9 5.5	2.379	3.043	15.5	20.7	124 E	54	55
12 27	1 51.76	+ 9 10.4	2.557	3.088	16.9	21.0	114 E	54	55
1 6	1 52.72	+ 9 27.0	2.744	3.130	17.8	21.2	104 E	54	54*
1 16	1 55.69	+ 9 53.5	2.936	3.171	18.0	21.4	95 E	55	50*

242450 2004 QY_2

19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
12 23	14 41.35	−43 52.5	2.052	1.536	27.3	18.4	46 W	—	39*
12 28	14 56.27	−45 19.5	2.036	1.549	27.8	18.4	47 W	—	41*
1 2	15 11.53	−46 41.6	2.019	1.560	28.4	18.4	49 W	—	42*
1 7	15 27.11	−47 58.7	1.999	1.570	28.9	18.5	51 W	—	43*

242450 2004 QY_2 *(continuation)*

2020	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
	h m	° ′			°	m	°	°	°
1 12	15 43.04	−49 10.5	1.977	1.579	29.5	18.5	52 W	—	44*
1 17	15 59.30	−50 17.0	1.952	1.586	30.1	18.5	54 W	—	45*
1 22	16 15.88	−51 18.0	1.925	1.592	30.7	18.5	56 W	—	46*
1 27	16 32.76	−52 13.5	1.896	1.596	31.3	18.4	57 W	—	47*
2 1	16 49.89	−53 3.4	1.865	1.599	31.9	18.4	59 W	—	47*
2 6	17 7.26	−53 47.5	1.831	1.601	32.5	18.4	61 W	—	48*
2 11	17 24.80	−54 25.9	1.795	1.601	33.2	18.4	63 W	—	48*
2 16	17 42.49	−54 58.5	1.757	1.600	33.8	18.4	64 W	—	49*
2 21	18 0.26	−55 25.5	1.717	1.598	34.5	18.3	66 W	—	49*
2 26	18 18.05	−55 46.9	1.675	1.594	35.1	18.3	68 W	—	50*
3 2	18 35.78	−56 2.9	1.631	1.589	35.8	18.2	70 W	—	50*
3 7	18 53.41	−56 13.6	1.585	1.582	36.5	18.2	72 W	—	51*
3 12	19 10.89	−56 19.1	1.538	1.574	37.2	18.1	73 W	—	51*
3 17	19 28.17	−56 19.8	1.488	1.565	37.9	18.1	75 W	—	52*
3 22	19 45.19	−56 15.8	1.437	1.554	38.7	18.0	77 W	—	52*
3 27	20 1.92	−56 7.6	1.384	1.542	39.4	17.9	79 W	—	53*
4 1	20 18.31	−55 55.2	1.329	1.528	40.2	17.8	81 W	—	54*
4 6	20 34.35	−55 38.8	1.273	1.513	41.0	17.7	82 W	—	54*
4 11	20 50.04	−55 18.5	1.216	1.496	41.8	17.6	84 W	—	55*
4 16	21 5.38	−54 54.6	1.157	1.478	42.6	17.5	86 W	—	56*
4 21	21 20.38	−54 27.0	1.097	1.459	43.5	17.4	88 W	—	57*
4 26	21 35.03	−53 55.7	1.036	1.438	44.4	17.3	90 W	—	58*
5 1	21 49.38	−53 20.3	0.973	1.416	45.4	17.1	91 W	—	59*
5 6	22 3.46	−52 40.4	0.910	1.392	46.4	17.0	93 W	—	61*
5 11	22 17.35	−51 55.1	0.846	1.366	47.5	16.8	94 W	—	62*
5 16	22 31.14	−51 3.4	0.781	1.339	48.7	16.6	96 W	—	63*
5 21	22 44.93	−50 3.5	0.715	1.311	50.0	16.4	97 W	—	65*
5 26	22 58.87	−48 52.6	0.649	1.281	51.5	16.2	98 W	—	66*
5 31	23 13.16	−47 26.6	0.582	1.249	53.2	16.0	99 W	—	68*
6 2	23 19.05	−46 46.5	0.556	1.236	54.0	15.9	100 W	—	69*
6 4	23 25.07	−46 2.4	0.529	1.223	54.8	15.8	100 W	—	70*
6 6	23 31.26	−45 13.6	0.502	1.209	55.7	15.6	100 W	—	70*
6 8	23 37.66	−44 19.1	0.476	1.195	56.7	15.5	100 W	—	71*
6 10	23 44.30	−43 18.0	0.449	1.181	57.8	15.4	100 W	—	73*
6 12	23 51.23	−42 8.9	0.423	1.167	58.9	15.3	100 W	—	74*
6 14	23 58.51	−40 50.2	0.397	1.152	60.3	15.2	100 W	—	75*
6 16	0 6.21	−39 19.8	0.371	1.137	61.8	15.0	100 W	—	77*
6 18	0 14.42	−37 34.8	0.345	1.122	63.4	14.9	99 W	—	78*
6 20	0 23.21	−35 31.9	0.320	1.107	65.4	14.8	98 W	—	80*
6 22	0 32.72	−33 6.7	0.295	1.091	67.6	14.6	97 W	2*	83*
6 24	0 43.08	−30 13.2	0.271	1.076	70.2	14.5	95 W	5*	85*
6 26	0 54.45	−26 44.4	0.248	1.060	73.3	14.4	93 W	7*	87*
6 28	1 7.04	−22 31.5	0.227	1.043	77.0	14.3	90 W	11*	84*
6 30	1 21.05	−17 24.5	0.207	1.027	81.3	14.2	87 W	14*	80*
7 1	1 28.67	−14 27.8	0.198	1.019	83.8	14.2	85 W	16*	77*
7 2	1 36.75	−11 14.3	0.190	1.010	86.5	14.2	83 W	19*	73*
7 3	1 45.30	− 7 43.5	0.183	1.002	89.4	14.2	80 W	21*	70*
7 4	1 54.38	− 3 55.7	0.177	0.994	92.5	14.2	78 W	23*	66*
7 5	2 4.00	+ 0 7.9	0.171	0.985	95.8	14.3	75 W	26*	61*
7 6	2 14.20	+ 4 25.3	0.167	0.977	99.1	14.4	71 W	28*	57*
7 7	2 25.00	+ 8 53.0	0.165	0.968	102.6	14.5	68 W	31*	52*
7 8	2 36.41	+13 26.6	0.163	0.959	106.0	14.6	65 W	33*	47*
7 9	2 48.43	+18 0.8	0.163	0.951	109.4	14.8	62 W	35*	42*
7 10	3 1.05	+22 29.9	0.165	0.942	112.6	15.0	59 W	36*	37*
7 11	3 14.25	+26 48.5	0.168	0.933	115.5	15.2	56 W	38*	32*
7 12	3 27.99	+30 52.1	0.172	0.924	118.0	15.4	53 W	38*	28*
7 13	3 42.19	+34 37.1	0.177	0.916	120.2	15.6	51 W	39*	23*
7 14	3 56.78	+38 1.2	0.184	0.907	122.1	15.8	49 W	39*	19*
7 15	4 11.66	+41 3.3	0.192	0.898	123.6	16.0	47 W	39*	16*
7 16	4 26.71	+43 43.4	0.200	0.889	124.7	16.2	46 W	39*	12*
7 17	4 41.80	+46 2.2	0.210	0.880	125.5	16.3	45 W	38*	9*
7 18	4 56.80	+48 1.0	0.220	0.871	126.0	16.5	44 W	38*	7*
7 19	5 11.59	+49 41.3	0.231	0.862	126.4	16.6	43 W	37*	4*
7 20	5 26.06	+51 5.0	0.242	0.853	126.5	16.7	42 W	36*	2*
7 21	5 40.10	+52 13.9	0.254	0.844	126.4	16.7	42 W	36*	—
7 22	5 53.62	+53 9.6	0.267	0.835	126.2	16.8	42 W	35*	—
7 23	6 6.57	+53 53.8	0.280	0.826	125.9	16.8	41 W	35*	—
7 24	6 18.89	+54 28.1	0.293	0.817	125.5	16.9	41 W	34*	—
7 25	6 30.56	+54 53.7	0.306	0.808	125.0	16.9	41 W	33*	—
7 26	6 41.58	+55 11.9	0.320	0.800	124.4	16.9	40 W	33*	—
7 27	6 51.95	+55 23.5	0.334	0.791	123.8	17.0	40 W	32*	—
7 28	7 1.67	+55 29.6	0.349	0.782	123.2	17.0	40 W	32*	—
7 29	7 10.78	+55 30.9	0.363	0.773	122.4	17.0	40 W	31*	—
7 30	7 19.30	+55 28.0	0.378	0.764	121.7	17.0	40 W	31*	—
7 31	7 27.27	+55 21.4	0.393	0.755	120.9	17.0	40 W	31*	—
8 1	7 34.72	+55 11.6	0.409	0.747	120.1	17.0	40 W	30*	—
8 2	7 41.68	+54 59.0	0.424	0.738	119.2	17.0	39 W	30*	—
8 3	7 48.19	+54 43.8	0.440	0.729	118.3	16.9	39 W	30*	—
8 4	7 54.29	+54 26.5	0.455	0.721	117.4	16.9	39 W	29*	—
8 5	8 0.00	+54 7.0	0.471	0.713	116.4	16.9	39 W	29*	—
8 6	8 5.35	+53 45.8	0.487	0.704	115.5	16.9	39 W	29*	—

242450 2004 QY_2 *(continuation)*

19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
	h m	° ′			°	m	°	°	°
8 7	8 10.39	+53 22.8	0.504	0.696	114.5	16.9	39 W	29*	—
8 8	8 15.13	+52 58.2	0.520	0.688	113.4	16.8	39 W	28*	—
8 9	8 19.60	+52 32.2	0.536	0.680	112.4	16.8	38 W	28*	—
8 11	8 27.83	+51 35.9	0.570	0.665	110.1	16.8	38 W	28*	—
8 13	8 35.25	+50 34.6	0.603	0.650	107.8	16.7	38 W	28*	—
8 15	8 42.00	+49 28.5	0.638	0.636	105.3	16.6	37 W	27*	—
8 17	8 48.22	+48 17.9	0.672	0.623	102.8	16.6	37 W	27*	—
8 19	8 54.02	+47 3.0	0.707	0.611	100.1	16.5	36 W	27*	—
8 21	8 59.48	+45 43.9	0.742	0.601	97.3	16.4	36 W	27*	—
8 23	9 4.68	+44 20.9	0.776	0.591	94.4	16.4	36 W	27*	—
8 25	9 9.69	+42 54.0	0.811	0.583	91.4	16.3	35 W	27*	—
8 27	9 14.56	+41 23.6	0.846	0.577	88.4	16.3	35 W	27*	—
8 29	9 19.34	+39 49.9	0.881	0.572	85.3	16.2	34 W	27*	—
9 3	9 31.09	+35 43.1	0.965	0.567	77.5	16.1	33 W	26*	—
9 8	9 42.82	+31 23.0	1.046	0.573	70.1	16.0	32 W	26*	—
9 13	9 54.64	+26 55.9	1.121	0.589	63.4	16.1	32 W	26*	3*
9 18	10 6.54	+22 27.5	1.190	0.615	57.6	16.1	31 W	25*	5*
9 23	10 18.46	+18 2.2	1.251	0.647	52.9	16.2	31 W	25*	8*
9 28	10 30.34	+13 43.2	1.306	0.685	49.1	16.3	31 W	24*	11*
10 3	10 42.13	+ 9 32.2	1.356	0.726	46.1	16.4	32 W	24*	13*
10 8	10 53.83	+ 5 30.0	1.399	0.769	43.9	16.5	32 W	23*	16*
10 18	11 16.92	− 2 7.6	1.471	0.858	40.9	16.8	34 W	22*	21*
10 28	11 39.68	− 9 11.3	1.527	0.947	39.2	17.1	37 W	21*	26*
11 7	12 2.27	−15 44.4	1.570	1.032	38.2	17.3	40 W	19*	30*
11 17	12 24.90	−21 50.8	1.601	1.111	37.6	17.5	43 W	17*	35*
11 27	12 47.72	−27 33.1	1.621	1.185	37.2	17.6	47 W	14*	39*
12 7	13 10.94	−32 53.5	1.632	1.253	37.1	17.8	50 W	10*	44*
12 17	13 34.74	−37 54.0	1.633	1.314	37.1	17.9	54 W	6*	48*
12 27	13 59.26	−42 35.6	1.625	1.369	37.1	17.9	57 W	2*	51*
1 6	14 24.70	−46 59.2	1.609	1.418	37.2	18.0	61 W	—	53*
1 16	14 51.21	−51 5.8	1.584	1.461	37.4	18.0	64 W	—	54*

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12 23	14 42.34	+14 50.3	0.343	0.877	97.7	19.5	62 W	54*	19*
12 25	14 50.55	+12 11.1	0.349	0.868	98.8	19.6	61 W	51*	21*
12 27	14 58.57	+ 9 33.8	0.356	0.858	99.9	19.6	59 W	49*	22*
12 29	15 6.44	+ 6 59.0	0.363	0.849	100.7	19.7	58 W	47*	24*
12 31	15 14.20	+ 4 27.4	0.371	0.840	101.5	19.8	57 W	45*	26*
1 2	15 21.87	+ 1 59.4	0.380	0.831	102.0	19.8	56 W	42*	27*
1 7	15 40.87	− 3 52.0	0.406	0.811	102.7	19.9	54 W	37*	31*
1 12	15 59.95	− 9 12.7	0.436	0.793	102.3	20.0	52 W	32*	34*
1 17	16 19.44	−13 59.4	0.471	0.779	101.0	20.1	51 W	27*	37*
1 22	16 39.55	−18 10.6	0.509	0.767	98.9	20.1	50 W	23*	40*
1 27	17 0.39	−21 45.6	0.550	0.759	96.2	20.2	50 W	19*	41*
2 1	17 21.97	−24 45.1	0.594	0.755	93.0	20.2	50 W	16*	43*
2 6	17 44.22	−27 10.0	0.639	0.755	89.6	20.2	50 W	13*	44*
2 11	18 6.97	−29 2.0	0.685	0.759	86.0	20.2	50 W	10*	44*
2 16	18 30.01	−30 23.2	0.731	0.767	82.4	20.2	50 W	8*	44*
2 21	18 53.06	−31 16.0	0.777	0.779	78.9	20.3	51 W	7*	44*
2 26	19 15.85	−31 43.3	0.821	0.793	75.6	20.3	51 W	5*	45*
3 2	19 38.13	−31 47.9	0.863	0.811	72.5	20.4	51 W	4*	45*
3 7	19 59.71	−31 33.0	0.903	0.831	69.7	20.4	52 W	3*	45*
3 12	20 20.47	−31 1.6	0.940	0.854	67.1	20.5	52 W	2*	45*
3 17	20 40.33	−30 16.4	0.974	0.877	64.8	20.6	53 W	2*	46*
3 22	20 59.24	−29 19.9	1.005	0.902	62.7	20.6	54 W	2*	46*
3 27	21 17.20	−28 14.5	1.033	0.928	60.9	20.7	54 W	2*	47*
4 1	21 34.22	−27 2.0	1.057	0.955	59.3	20.7	55 W	2*	48*
4 6	21 50.36	−25 44.1	1.078	0.982	57.9	20.8	56 W	2*	49*
4 11	22 5.67	−24 22.1	1.095	1.008	56.7	20.9	57 W	2*	50*
4 16	22 20.21	−22 57.1	1.109	1.035	55.7	20.9	58 W	3*	51*
4 21	22 34.04	−21 30.1	1.119	1.062	54.8	21.0	60 W	4*	53*
4 26	22 47.20	−20 1.8	1.126	1.087	54.0	21.0	61 W	4*	54*
5 1	22 59.74	−18 32.9	1.129	1.113	53.4	21.1	62 W	5*	56*
5 6	23 11.70	−17 3.7	1.130	1.138	52.8	21.1	64 W	7*	58*
5 11	23 23.15	−15 34.7	1.127	1.162	52.3	21.1	66 W	8*	60*
5 16	23 34.11	−14 6.2	1.121	1.185	51.9	21.1	67 W	9*	61*
5 21	23 44.60	−12 38.3	1.112	1.207	51.6	21.1	69 W	11*	63*
5 26	23 54.65	−11 11.3	1.100	1.228	51.2	21.1	71 W	13*	64*
5 31	0 4.26	− 9 45.3	1.086	1.249	50.9	21.1	73 W	15*	66*
6 5	0 13.46	− 8 20.4	1.068	1.268	50.6	21.1	75 W	17*	67*
6 10	0 22.25	− 6 56.6	1.048	1.287	50.3	21.1	77 W	20*	67*
6 15	0 30.64	− 5 33.8	1.026	1.304	50.0	21.1	79 W	22*	68*
6 20	0 38.59	− 4 12.1	1.002	1.320	49.6	21.1	82 W	25*	67*
6 25	0 46.11	− 2 51.5	0.975	1.336	49.2	21.0	84 W	28*	67*
6 30	0 53.15	− 1 32.0	0.947	1.350	48.8	21.0	87 W	31*	66
7 5	0 59.70	− 0 13.3	0.917	1.363	48.2	20.9	90 W	35*	64
7 10	1 5.72	+ 1 4.6	0.885	1.375	47.6	20.8	92 W	38*	63
7 15	1 11.14	+ 2 22.0	0.852	1.386	46.9	20.7	95 W	41*	62
7 20	1 15.89	+ 3 38.8	0.818	1.396	46.0	20.6	99 W	44*	60

303262 2004 RJ_{84} *(continuation)*

19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
	h m	° ′			°	m	°	°	°
7 25	1 19.88	+ 4 55.3	0.783	1.405	45.0	20.5	102 W	47*	59
7 30	1 23.01	+ 6 11.6	0.747	1.412	43.8	20.4	106 W	50*	58
8 9	1 26.18	+ 8 44.7	0.675	1.424	40.8	20.1	113 W	54	55
8 19	1 24.12	+11 18.4	0.605	1.431	36.6	19.8	123 W	56	53
8 29	1 15.17	+13 50.1	0.541	1.434	31.0	19.4	133 W	59	50
9 3	1 7.62	+15 3.0	0.512	1.434	27.6	19.2	139 W	60	49
9 8	0 57.84	+16 11.4	0.487	1.433	23.9	18.9	145 W	61	48
9 13	0 45.79	+17 12.7	0.465	1.431	20.0	18.7	151 W	62	47
9 18	0 31.66	+18 3.3	0.448	1.427	16.2	18.5	157 W	63	46
9 23	0 15.88	+18 40.3	0.435	1.422	13.3	18.3	161 W	64	45
9 28	23 59.15	+19 1.4	0.429	1.417	12.4	18.3	162 E	64	45
10 3	23 42.30	+19 6.2	0.427	1.410	14.1	18.3	160 E	64	45
10 8	23 26.19	+18 56.0	0.432	1.402	17.7	18.4	155 E	64	45
10 13	23 11.56	+18 33.9	0.440	1.393	22.0	18.6	149 E	64	45
10 18	22 58.96	+18 3.9	0.454	1.382	26.3	18.8	142 E	63	46
10 23	22 48.70	+17 30.7	0.470	1.371	30.5	19.0	136 E	63	46
10 28	22 40.84	+16 57.9	0.490	1.359	34.3	19.1	130 E	62	47
11 2	22 35.29	+16 28.3	0.511	1.345	37.8	19.3	124 E	61	48
11 7	22 31.85	+16 3.7	0.533	1.330	40.9	19.5	119 E	61	48
11 12	22 30.34	+15 45.0	0.556	1.315	43.6	19.6	114 E	61	48
11 17	22 30.54	+15 32.9	0.579	1.298	46.1	19.7	109 E	61	48*
11 22	22 32.27	+15 27.7	0.601	1.280	48.2	19.8	105 E	60	48*
11 27	22 35.32	+15 29.4	0.622	1.262	50.2	19.9	101 E	60	47*
12 7	22 44.77	+15 51.8	0.660	1.221	53.6	20.1	94 E	61	43*
12 17	22 57.95	+16 36.8	0.690	1.177	56.7	20.2	87 E	62	38*
12 27	23 14.21	+17 41.0	0.709	1.129	59.6	20.3	82 E	63*	33*
1 6	23 33.09	+18 59.5	0.717	1.078	62.7	20.3	77 E	63*	29*
1 16	23 54.37	+20 26.4	0.711	1.026	66.1	20.2	72 E	62*	25*

12198 1980 PJ_1

19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
12 23	14 43.68	−19 31.0	3.191	2.608	15.8	20.1	46 W	22*	35*
1 2	14 58.46	−20 39.3	3.094	2.618	17.4	20.1	53 W	22*	42*
1 12	15 12.63	−21 41.2	2.987	2.627	18.8	20.0	59 W	22*	50*
1 22	15 26.02	−22 36.8	2.870	2.635	20.0	20.0	66 W	22*	57*
2 1	15 38.41	−23 25.8	2.746	2.641	21.0	19.9	74 W	22*	66*
2 11	15 49.57	−24 8.4	2.616	2.647	21.6	19.9	81 W	21	74*
2 21	15 59.23	−24 44.8	2.481	2.652	21.9	19.8	89 W	20	82*
3 2	16 7.06	−25 14.9	2.346	2.655	21.7	19.6	97 W	20	89
3 12	16 12.72	−25 38.7	2.212	2.658	21.1	19.5	106 W	19	90
3 22	16 15.87	−25 55.9	2.083	2.660	19.9	19.3	115 W	19	90
4 1	16 16.17	−26 5.6	1.963	2.661	18.0	19.1	125 W	19	90
4 11	16 13.43	−26 6.5	1.856	2.660	15.5	18.9	135 W	19	90
4 21	16 7.64	−25 57.1	1.766	2.659	12.2	18.7	146 W	19	90
5 1	15 59.13	−25 35.5	1.698	2.657	8.4	18.5	157 W	19	90
5 6	15 54.07	−25 19.9	1.673	2.655	6.3	18.3	163 W	20	89
5 11	15 48.65	−25 1.3	1.655	2.653	4.2	18.2	169 W	20	89
5 16	15 42.99	−24 39.9	1.644	2.651	2.3	18.1	174 W	20	89
5 21	15 37.26	−24 16.0	1.639	2.649	2.0	18.0	175 E	21	88
5 26	15 31.63	−23 50.3	1.642	2.646	3.7	18.1	170 E	21	88
5 31	15 26.25	−23 23.5	1.652	2.644	5.8	18.3	165 E	22	87
6 5	15 21.26	−22 56.4	1.668	2.640	7.9	18.4	159 E	22	87
6 10	15 16.77	−22 29.6	1.691	2.637	10.0	18.5	153 E	23	86
6 15	15 12.88	−22 4.0	1.720	2.634	12.0	18.6	147 E	23	86
6 20	15 9.65	−21 40.1	1.754	2.630	13.8	18.7	142 E	23	86
6 30	15 5.35	−20 59.6	1.837	2.621	16.9	18.9	131 E	24	85
7 10	15 3.97	−20 30.7	1.935	2.612	19.4	19.1	121 E	24*	85
7 20	15 5.39	−20 14.1	2.043	2.602	21.2	19.3	112 E	23*	84
7 30	15 9.40	−20 9.3	2.159	2.590	22.4	19.4	103 E	22*	84
8 9	15 15.70	−20 14.7	2.278	2.578	23.1	19.5	95 E	21*	84
8 19	15 24.02	−20 28.3	2.398	2.565	23.2	19.6	88 E	19*	81*
8 29	15 34.14	−20 48.2	2.517	2.551	23.0	19.7	80 E	18*	74*
9 8	15 45.84	−21 12.2	2.631	2.535	22.4	19.8	73 E	17*	67*
9 18	15 58.93	−21 38.5	2.740	2.519	21.5	19.8	67 E	16*	61*
9 28	16 13.29	−22 5.0	2.841	2.502	20.4	19.9	60 E	15*	54*
10 8	16 28.75	−22 30.1	2.934	2.484	19.0	19.9	54 E	14*	48*
10 18	16 45.22	−22 52.2	3.018	2.466	17.5	19.9	48 E	13*	42*
10 28	17 2.59	−23 9.8	3.091	2.446	15.8	19.9	42 E	12*	36*
11 7	17 20.74	−23 21.4	3.153	2.425	14.0	19.8	36 E	11*	29*
11 17	17 39.59	−23 25.9	3.203	2.404	12.1	19.8	31 E	9*	23*
11 27	17 59.03	−23 22.2	3.240	2.382	10.0	19.7	25 E	8*	17*
12 7	18 18.95	−23 9.4	3.266	2.358	7.9	19.6	19 E	6*	11*
12 17	18 39.28	−22 46.8	3.278	2.335	5.8	19.5	14 E	3*	6*
12 27	18 59.89	−22 13.9	3.278	2.310	3.6	19.3	8 E	—	1*
1 6	19 20.70	−21 30.3	3.266	2.285	1.4	19.2	3 E	—	—
1 16	19 41.64	−20 35.9	3.242	2.259	1.0	19.1	2 W	—	—

165117 2000 JB_{61}

19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
	h m	° ′			°	m	°	°	°
12 23	14 43.71	−18 40.6	2.506	1.961	21.3	21.2	46 W	23*	34*
1 2	15 7.13	−20 8.9	2.393	1.929	23.3	21.1	51 W	22*	40*
1 12	15 31.18	−21 26.2	2.278	1.898	25.2	21.0	55 W	22*	45*
1 22	15 55.83	−22 30.5	2.161	1.867	27.0	20.9	60 W	21*	51*
2 1	16 21.00	−23 20.1	2.043	1.837	28.8	20.8	64 W	21*	56*
2 11	16 46.55	−23 53.3	1.926	1.808	30.4	20.7	68 W	20*	61*
2 21	17 12.33	−24 8.6	1.810	1.781	32.0	20.6	72 W	20*	66*
3 2	17 38.12	−24 5.0	1.695	1.754	33.3	20.5	77 W	20*	70*
3 12	18 3.68	−23 41.9	1.584	1.730	34.5	20.3	81 W	20*	74*
3 22	18 28.76	−22 59.1	1.477	1.707	35.6	20.2	85 W	21*	79*
4 1	18 53.05	−21 57.2	1.373	1.686	36.3	20.0	89 W	21*	82*
4 11	19 16.25	−20 37.3	1.274	1.668	36.9	19.8	93 W	23*	84*
4 21	19 38.08	−19 1.2	1.179	1.652	37.1	19.6	98 W	24*	83
5 1	19 58.16	−17 11.4	1.090	1.638	36.9	19.5	103 W	26*	81
5 11	20 16.18	−15 11.0	1.007	1.628	36.3	19.3	108 W	28*	79
5 21	20 31.75	−13 4.0	0.930	1.620	35.1	19.0	113 W	31*	77
5 31	20 44.43	−10 54.9	0.860	1.616	33.3	18.8	119 W	34*	75
6 10	20 53.83	− 8 49.4	0.797	1.614	30.8	18.6	125 W	36*	73
6 15	20 57.17	− 7 49.9	0.769	1.614	29.3	18.4	129 W	37	72
6 20	20 59.54	− 6 53.8	0.743	1.616	27.5	18.3	133 W	38	71
6 25	21 0.91	− 6 2.1	0.720	1.618	25.5	18.2	137 W	39	70
6 30	21 1.30	− 5 15.7	0.700	1.620	23.4	18.1	141 W	40	69
7 5	21 0.73	− 4 35.5	0.682	1.624	21.0	18.0	145 W	40	69
7 10	20 59.26	− 4 2.4	0.668	1.628	18.5	17.8	149 W	41	68
7 20	20 54.05	− 3 19.8	0.651	1.638	13.5	17.6	158 W	42	67
7 30	20 46.95	− 3 10.6	0.651	1.652	9.5	17.5	164 W	42	67
8 9	20 39.78	− 3 31.2	0.668	1.668	9.2	17.5	165 E	41	68
8 14	20 36.70	− 3 50.2	0.683	1.677	10.7	17.7	162 E	41	68
8 19	20 34.20	− 4 13.4	0.703	1.686	12.7	17.8	159 E	41	68
8 24	20 32.46	− 4 39.4	0.727	1.696	14.9	18.0	154 E	40	69
8 29	20 31.56	− 5 6.6	0.755	1.707	17.1	18.2	150 E	40	69
9 3	20 31.56	− 5 33.8	0.787	1.718	19.2	18.3	146 E	39	70
9 8	20 32.45	− 6 0.0	0.823	1.730	21.2	18.5	142 E	39	70
9 13	20 34.23	− 6 24.4	0.862	1.742	23.0	18.7	137 E	39	70
9 18	20 36.87	− 6 46.3	0.904	1.754	24.6	18.8	133 E	38	71
9 28	20 44.53	− 7 20.1	0.998	1.781	27.2	19.2	126 E	38	71
10 8	20 54.89	− 7 38.8	1.102	1.808	29.0	19.5	119 E	37	72
10 18	21 7.42	− 7 41.5	1.216	1.837	30.2	19.8	112 E	37	72
10 28	21 21.66	− 7 28.2	1.337	1.867	30.8	20.0	106 E	38	71
11 7	21 37.18	− 6 59.7	1.464	1.898	31.0	20.2	99 E	38	71*
11 17	21 53.63	− 6 17.3	1.597	1.929	30.8	20.5	94 E	39	68*
11 27	22 10.76	− 5 22.2	1.733	1.961	30.2	20.7	88 E	40	63*
12 7	22 28.35	− 4 16.2	1.872	1.994	29.3	20.8	82 E	41	57*
12 17	22 46.24	− 3 0.8	2.013	2.026	28.2	21.0	77 E	42	51*
12 27	23 4.35	− 1 37.5	2.153	2.059	26.9	21.1	71 E	43*	45*
1 6	23 22.56	− 0 8.1	2.293	2.092	25.4	21.3	66 E	44*	39*
1 16	23 40.84	+ 1 25.9	2.430	2.124	23.8	21.4	60 E	43*	34*

11885 Summanus

19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
12 23	14 44.36	+20 10.0	0.486	0.895	85.4	19.7	65 W	58*	16*
12 28	14 52.01	+15 37.8	0.504	0.895	84.4	19.7	65 W	56*	21*
1 2	14 59.62	+11 15.1	0.522	0.900	82.9	19.8	65 W	53*	27*
1 7	15 7.28	+ 7 1.7	0.540	0.909	81.1	19.8	66 W	50*	32*
1 12	15 15.02	+ 2 57.4	0.556	0.922	79.2	19.8	67 W	47*	38*
1 22	15 30.70	− 4 43.9	0.584	0.960	74.8	19.9	70 W	40*	49*
2 1	15 46.15	−11 50.0	0.606	1.009	70.2	19.9	74 W	33*	59*
2 11	16 0.64	−18 25.3	0.621	1.067	65.5	19.9	80 W	27*	70*
2 16	16 7.27	−21 33.2	0.626	1.099	63.1	19.9	83 W	23	74*
2 21	16 13.28	−24 35.6	0.629	1.131	60.6	19.9	86 W	20	79*
2 26	16 18.51	−27 33.2	0.631	1.165	58.2	19.9	89 W	17	83*
3 2	16 22.78	−30 26.6	0.632	1.200	55.6	19.9	93 W	15	85*
3 7	16 25.90	−33 16.1	0.633	1.235	53.0	19.9	96 W	12	83
3 12	16 27.66	−36 1.9	0.632	1.270	50.3	19.9	100 W	9	80
3 17	16 27.82	−38 43.7	0.632	1.306	47.5	19.9	105 W	6	77
3 22	16 26.10	−41 20.4	0.631	1.341	44.7	19.9	109 W	4	75
3 27	16 22.22	−43 50.2	0.632	1.377	41.7	19.8	113 W	1	72
4 1	16 15.96	−46 10.6	0.634	1.412	38.7	19.8	118 W	—	70
4 6	16 7.17	−48 18.1	0.638	1.447	35.7	19.8	122 W	—	68
4 11	15 55.86	−50 9.0	0.644	1.482	32.7	19.8	127 W	—	66
4 16	15 42.21	−51 39.2	0.653	1.516	29.8	19.8	131 W	—	64
4 21	15 26.70	−52 44.8	0.666	1.550	27.2	19.8	135 W	—	63
4 23	15 20.14	−53 3.7	0.672	1.564	26.2	19.8	137 W	—	63
4 25	15 13.46	−53 18.1	0.679	1.577	25.3	19.8	138 W	—	63
4 27	15 6.73	−53 28.2	0.686	1.590	24.4	19.8	139 W	—	63
4 29	15 0.01	−53 33.9	0.694	1.604	23.6	19.8	140 W	—	62
5 1	14 53.37	−53 35.4	0.703	1.617	22.9	19.9	141 W	—	62
5 3	14 46.86	−53 33.0	0.712	1.630	22.3	19.9	142 W	—	62

11885 Summanus *(continuation)*

19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
	h m	° ′			°	m	°	°	°
5 5	14 40.54	−53 26.7	0.722	1.643	21.8	19.9	143 E	—	63
5 7	14 34.46	−53 17.0	0.733	1.656	21.4	20.0	143 E	—	63
5 9	14 28.66	−53 4.0	0.745	1.669	21.0	20.0	144 E	—	63
5 11	14 23.17	−52 48.1	0.757	1.681	20.8	20.0	144 E	—	63
5 16	14 10.95	−51 57.6	0.791	1.713	20.6	20.2	144 E	—	64
5 21	14 1.07	−50 55.8	0.829	1.743	20.8	20.3	142 E	—	65
5 26	13 53.54	−49 47.6	0.871	1.774	21.3	20.5	140 E	—	66
5 31	13 48.24	−48 37.0	0.918	1.803	22.1	20.7	138 E	—	67
6 5	13 44.95	−47 27.0	0.968	1.832	23.0	20.8	135 E	—	69
6 10	13 43.43	−46 19.9	1.021	1.861	23.9	21.0	132 E	—	70
6 15	13 43.43	−45 17.0	1.078	1.889	24.8	21.2	129 E	—	71
6 20	13 44.75	−44 19.2	1.138	1.916	25.6	21.4	125 E	—	72

136839 1997 WT_{22}

19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
12 23	14 45.11	− 9 44.4	1.411	1.066	44.1	21.3	49 W	31*	31*
1 2	15 20.84	−12 35.1	1.426	1.092	43.5	21.3	50 W	29*	34*
1 12	15 55.60	−15 0.3	1.439	1.124	43.0	21.4	51 W	27*	38*
1 22	16 29.31	−16 59.3	1.447	1.161	42.6	21.5	53 W	25*	42*
2 1	17 1.83	−18 32.6	1.450	1.201	42.3	21.6	55 W	23*	46*

31895 2000 FX_{44}

19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
12 23	14 46.04	−13 30.5	2.997	2.441	17.3	20.4	47 W	27*	32*
1 2	15 2.55	−14 47.7	2.866	2.412	19.1	20.4	53 W	28*	39*
1 12	15 19.00	−15 59.0	2.728	2.383	20.8	20.3	59 W	28*	46*
1 22	15 35.28	−17 4.3	2.583	2.352	22.4	20.2	66 W	27*	54*
2 1	15 51.28	−18 3.2	2.433	2.321	23.8	20.1	72 W	27*	61*
2 11	16 6.82	−18 55.8	2.279	2.289	24.9	19.9	78 W	26*	68*
2 21	16 21.74	−19 42.5	2.124	2.257	25.9	19.8	85 W	25	76*
3 2	16 35.80	−20 23.7	1.968	2.223	26.5	19.6	91 W	25	82*
3 12	16 48.71	−21 0.2	1.815	2.190	26.7	19.4	98 W	24	85
3 22	17 0.18	−21 33.3	1.664	2.155	26.5	19.2	105 W	23	86
4 1	17 9.77	−22 4.4	1.519	2.121	25.7	18.9	113 W	23	86
4 11	17 17.05	−22 35.0	1.382	2.085	24.3	18.6	121 W	22	87
4 21	17 21.52	−23 7.0	1.255	2.050	22.1	18.3	130 W	22	87
5 1	17 22.62	−23 41.5	1.140	2.014	19.0	18.0	139 W	21	88
5 11	17 19.99	−24 18.8	1.041	1.979	15.0	17.6	150 W	21	88
5 21	17 13.49	−24 57.8	0.959	1.943	10.0	17.2	161 W	20	89
5 26	17 8.90	−25 17.1	0.926	1.926	7.2	17.0	166 W	20	89
5 31	17 3.58	−25 35.6	0.899	1.908	4.3	16.8	172 W	19	90
6 5	16 57.71	−25 52.9	0.877	1.890	1.9	16.5	176 W	19	90
6 10	16 51.52	−26 8.6	0.860	1.873	3.2	16.6	174 E	19	90
6 15	16 45.26	−26 22.5	0.849	1.856	6.3	16.7	168 E	19	90
6 20	16 39.20	−26 34.5	0.844	1.839	9.5	16.8	163 E	18	89
6 25	16 33.61	−26 45.0	0.844	1.822	12.8	16.9	157 E	18	89
6 30	16 28.76	−26 54.2	0.848	1.805	15.9	17.0	151 E	18	89
7 5	16 24.84	−27 2.8	0.857	1.789	18.9	17.1	145 E	18	89
7 10	16 21.97	−27 11.2	0.869	1.773	21.6	17.2	140 E	18	89
7 20	16 19.80	−27 29.3	0.904	1.741	26.5	17.4	130 E	18	89
7 30	16 22.58	−27 50.9	0.949	1.712	30.5	17.6	121 E	17*	88
8 9	16 30.14	−28 16.2	1.000	1.684	33.5	17.7	113 E	16*	88
8 19	16 42.03	−28 43.3	1.055	1.658	35.8	17.9	107 E	16*	87
8 29	16 57.84	−29 9.1	1.114	1.634	37.4	18.0	100 E	15*	87
9 8	17 17.02	−29 29.5	1.173	1.612	38.5	18.1	95 E	15*	86*
9 18	17 39.09	−29 40.4	1.234	1.594	39.1	18.2	90 E	15*	83*
9 28	18 3.59	−29 37.8	1.296	1.578	39.3	18.3	86 E	15*	79*
10 8	18 30.00	−29 17.9	1.358	1.566	39.2	18.4	82 E	15*	76*
10 13	18 43.77	−29 0.7	1.389	1.561	39.0	18.4	80 E	16*	74*
10 18	18 57.84	−28 38.2	1.421	1.557	38.8	18.5	78 E	16*	72*
10 23	19 12.14	−28 10.3	1.453	1.554	38.5	18.5	76 E	17*	70*
10 28	19 26.62	−27 36.8	1.486	1.551	38.1	18.5	75 E	17*	68*
11 2	19 41.21	−26 57.8	1.519	1.550	37.7	18.6	73 E	18*	66*
11 7	19 55.86	−26 13.3	1.552	1.549	37.3	18.6	71 E	19*	64*
11 12	20 10.54	−25 23.4	1.586	1.550	36.8	18.6	70 E	19*	62*
11 17	20 25.19	−24 28.2	1.621	1.551	36.2	18.7	68 E	20*	60*
11 22	20 39.79	−23 27.9	1.656	1.553	35.7	18.7	66 E	21*	58*
11 27	20 54.29	−22 23.0	1.692	1.556	35.1	18.7	65 E	22*	56*
12 2	21 8.66	−21 13.7	1.729	1.560	34.4	18.8	63 E	23*	53*
12 7	21 22.90	−20 0.3	1.766	1.565	33.7	18.8	62 E	25*	51*
12 12	21 36.97	−18 43.3	1.804	1.571	33.0	18.8	60 E	26*	48*
12 17	21 50.89	−17 23.0	1.842	1.577	32.3	18.9	59 E	27*	46*
12 22	22 4.63	−15 59.8	1.882	1.585	31.5	18.9	57 E	28*	43*
12 27	22 18.19	−14 34.3	1.922	1.593	30.7	18.9	56 E	29*	41*
1 1	22 31.58	−13 6.7	1.962	1.601	29.9	19.0	54 E	30*	39*
1 6	22 44.78	−11 37.5	2.003	1.611	29.1	19.0	53 E	30*	37*
1 11	22 57.83	−10 7.1	2.045	1.621	28.2	19.1	51 E	31*	34*
1 16	23 10.72	− 8 35.9	2.088	1.632	27.3	19.1	50 E	31*	32*

176616 2002 GS_{65}

19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
	h m	° ′			°	m	°	°	°
12 23	14 46.24	−14 22.0	3.135	2.568	16.3	21.1	47 W	26*	32*
1 2	15 1.84	−15 39.1	3.001	2.539	18.1	21.0	53 W	27*	40*
1 12	15 17.32	−16 51.1	2.859	2.508	19.8	21.0	60 W	27*	47*
1 22	15 32.56	−17 57.8	2.710	2.477	21.3	20.9	66 W	27*	55*
2 1	15 47.41	−18 59.1	2.555	2.445	22.6	20.8	72 W	26*	62*
2 11	16 1.71	−19 55.2	2.397	2.413	23.7	20.6	79 W	25*	70*
2 21	16 15.26	−20 46.5	2.236	2.380	24.5	20.5	86 W	24	77*
3 2	16 27.80	−21 33.6	2.076	2.346	25.0	20.3	93 W	23	84*
3 12	16 39.03	−22 17.2	1.918	2.312	25.0	20.1	100 W	23	86
3 22	16 48.62	−22 58.6	1.763	2.277	24.6	19.9	108 W	22	87
4 1	16 56.11	−23 38.8	1.615	2.242	23.6	19.6	116 W	21	88
4 11	17 1.07	−24 19.1	1.476	2.206	21.9	19.3	125 W	21	88
4 21	17 3.00	−25 0.3	1.348	2.170	19.5	19.0	134 W	20	89
5 1	17 1.44	−25 42.3	1.236	2.134	16.2	18.7	144 W	19	90
5 11	16 56.20	−26 23.7	1.140	2.098	12.0	18.3	155 W	19	90
5 21	16 47.47	−27 1.6	1.066	2.061	7.0	17.9	166 W	18	89
5 26	16 42.01	−27 17.9	1.037	2.043	4.6	17.7	171 W	18	89
5 31	16 36.06	−27 32.0	1.014	2.025	2.8	17.6	174 W	17	88
6 5	16 29.83	−27 43.6	0.997	2.007	3.7	17.6	173 E	17	88
6 10	16 23.55	−27 52.5	0.986	1.989	6.2	17.6	168 E	17	88
6 15	16 17.48	−27 58.8	0.980	1.972	9.1	17.7	162 E	17	88
6 20	16 11.84	−28 3.0	0.980	1.954	12.0	17.8	156 E	17	88
6 25	16 6.88	−28 5.6	0.985	1.937	14.9	17.9	151 E	17	88
6 30	16 2.78	−28 7.3	0.995	1.919	17.6	18.0	145 E	17	88
7 5	15 59.68	−28 8.8	1.009	1.902	20.2	18.1	140 E	17	88
7 10	15 57.65	−28 10.6	1.026	1.885	22.6	18.2	135 E	17	88
7 20	15 57.01	−28 17.4	1.070	1.852	26.7	18.4	125 E	17*	88
7 30	16 0.93	−28 30.0	1.123	1.820	29.9	18.5	117 E	16*	87
8 9	16 9.15	−28 48.5	1.182	1.789	32.4	18.7	109 E	15*	87
8 19	16 21.25	−29 11.0	1.244	1.760	34.2	18.8	102 E	15*	87
8 29	16 36.84	−29 34.4	1.308	1.733	35.4	18.9	96 E	14*	86*
9 8	16 55.50	−29 55.2	1.372	1.708	36.1	19.0	90 E	13*	83*
9 18	17 16.81	−30 9.2	1.437	1.686	36.5	19.1	85 E	13*	78*
9 28	17 40.43	−30 12.7	1.501	1.665	36.4	19.2	81 E	13*	74*
10 8	18 5.92	−30 2.1	1.565	1.648	36.1	19.2	76 E	14*	70*
10 18	18 32.90	−29 34.3	1.628	1.634	35.6	19.3	73 E	14*	67*
10 28	19 0.95	−28 47.0	1.692	1.622	34.8	19.3	69 E	15*	63*
11 2	19 15.24	−28 15.7	1.724	1.618	34.4	19.4	67 E	16*	61*
11 7	19 29.64	−27 39.1	1.756	1.615	33.9	19.4	65 E	17*	59*
11 12	19 44.11	−26 57.2	1.788	1.612	33.3	19.4	64 E	17*	57*
11 17	19 58.61	−26 10.1	1.821	1.610	32.8	19.4	62 E	18*	54*
11 22	20 13.10	−25 17.9	1.854	1.609	32.2	19.4	60 E	19*	52*
11 27	20 27.54	−24 20.8	1.887	1.609	31.5	19.5	59 E	20*	50*
12 2	20 41.89	−23 19.1	1.920	1.610	30.9	19.5	57 E	21*	48*
12 7	20 56.14	−22 12.9	1.954	1.612	30.2	19.5	55 E	21*	45*
12 12	21 10.26	−21 2.6	1.988	1.614	29.5	19.5	54 E	22*	43*
12 17	21 24.24	−19 48.5	2.023	1.617	28.7	19.5	52 E	23*	41*
12 22	21 38.07	−18 30.9	2.058	1.622	27.9	19.6	51 E	24*	38*
12 27	21 51.73	−17 10.3	2.093	1.627	27.1	19.6	49 E	25*	36*
1 1	22 5.22	−15 47.0	2.129	1.633	26.3	19.6	47 E	25*	34*
1 6	22 18.54	−14 21.5	2.165	1.639	25.5	19.6	46 E	26*	32*
1 11	22 31.70	−12 54.0	2.202	1.647	24.6	19.6	44 E	26*	30*
1 16	22 44.69	−11 24.9	2.239	1.655	23.7	19.7	43 E	26*	28*

73681 1989 TL_{18}

19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
12 23	14 46.40	−17 26.2	3.123	2.542	16.2	21.4	46 W	23*	33*
1 2	15 2.16	−18 58.9	2.991	2.513	18.0	21.3	52 W	24*	41*
1 12	15 17.85	−20 28.2	2.851	2.483	19.7	21.2	59 W	23*	48*
1 22	15 33.37	−21 54.3	2.704	2.453	21.3	21.1	65 W	23*	56*
2 1	15 48.60	−23 17.2	2.551	2.422	22.7	21.0	71 W	22*	63*
2 11	16 3.37	−24 37.4	2.395	2.390	23.8	20.9	78 W	20*	71*
2 21	16 17.50	−25 55.8	2.237	2.358	24.7	20.8	85 W	19	78*
3 2	16 30.73	−27 13.3	2.078	2.324	25.2	20.6	91 W	18	85*
3 12	16 42.78	−28 31.3	1.922	2.291	25.4	20.4	99 W	16	87
3 22	16 53.28	−29 51.1	1.769	2.257	25.1	20.2	106 W	15	86
4 1	17 1.77	−31 14.4	1.623	2.222	24.3	19.9	114 W	14	85
4 11	17 7.76	−32 42.4	1.486	2.187	22.9	19.6	122 W	12	83
4 16	17 9.63	−33 28.4	1.421	2.170	21.9	19.5	126 W	12	83
4 21	17 10.65	−34 15.5	1.359	2.152	20.8	19.4	130 W	11	82
4 26	17 10.74	−35 3.6	1.301	2.134	19.5	19.2	135 W	10	81
5 1	17 9.83	−35 52.2	1.247	2.117	18.0	19.0	139 W	9	80
5 6	17 7.88	−36 40.6	1.197	2.099	16.4	18.9	144 W	8	79
5 11	17 4.88	−37 28.1	1.152	2.081	14.7	18.7	148 W	8	79
5 16	17 0.82	−38 13.6	1.112	2.064	12.9	18.6	153 W	7	78
5 21	16 55.75	−38 55.8	1.077	2.046	11.3	18.4	157 W	6	77
5 26	16 49.79	−39 33.3	1.047	2.028	9.9	18.3	160 W	5	76
5 31	16 43.14	−40 4.9	1.023	2.011	9.1	18.2	162 W	5	76
6 5	16 36.03	−40 29.6	1.004	1.993	9.2	18.1	162 E	5	76
6 10	16 28.76	−40 46.9	0.991	1.976	10.2	18.1	160 E	4	75

73681 1989 TL_{18} *(continuation)*

19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
	h m	° ′			°	m	°	°	°
6 15	16 21.61	−40 56.4	0.984	1.958	11.8	18.1	157 E	4	75
6 20	16 14.91	−40 58.6	0.982	1.941	13.9	18.2	153 E	4	75
6 25	16 8.95	−40 54.1	0.984	1.924	16.2	18.3	148 E	4	75
6 30	16 3.99	−40 44.3	0.991	1.907	18.5	18.3	144 E	4	75
7 5	16 0.18	−40 30.4	1.002	1.891	20.7	18.4	139 E	4	75
7 10	15 57.64	−40 13.9	1.017	1.874	22.8	18.5	134 E	5	76
7 15	15 56.42	−39 55.8	1.035	1.858	24.8	18.6	130 E	5	76
7 20	15 56.54	−39 37.2	1.056	1.842	26.7	18.6	126 E	5*	76
7 25	15 58.00	−39 18.8	1.078	1.827	28.3	18.7	121 E	6*	77
7 30	16 0.74	−39 1.3	1.103	1.811	29.8	18.8	117 E	6*	77
8 4	16 4.71	−38 44.9	1.129	1.796	31.1	18.9	114 E	6*	77
8 9	16 9.81	−38 29.6	1.157	1.782	32.3	18.9	110 E	6*	78
8 14	16 15.99	−38 15.2	1.185	1.768	33.3	19.0	107 E	6*	78
8 19	16 23.18	−38 1.5	1.214	1.754	34.1	19.1	104 E	6*	78
8 24	16 31.31	−37 48.3	1.244	1.740	34.8	19.1	101 E	6*	78
8 29	16 40.30	−37 35.0	1.274	1.728	35.4	19.2	98 E	6*	78
9 3	16 50.09	−37 21.2	1.305	1.715	35.9	19.2	95 E	6*	78*
9 8	17 0.59	−37 6.4	1.335	1.704	36.2	19.3	92 E	7*	78*
9 13	17 11.76	−36 49.9	1.366	1.693	36.5	19.3	90 E	7*	77*
9 18	17 23.53	−36 31.3	1.397	1.682	36.6	19.3	87 E	7*	76*
9 23	17 35.84	−36 10.2	1.428	1.672	36.7	19.4	85 E	8*	75*
9 28	17 48.63	−35 46.0	1.459	1.663	36.7	19.4	83 E	8*	74*
10 3	18 1.81	−35 18.4	1.491	1.654	36.6	19.4	81 E	9*	72*
10 8	18 15.34	−34 46.8	1.522	1.647	36.5	19.5	79 E	9*	71*
10 13	18 29.15	−34 11.1	1.554	1.640	36.3	19.5	77 E	10*	70*
10 18	18 43.18	−33 31.0	1.585	1.633	36.0	19.5	75 E	11*	68*
10 23	18 57.39	−32 46.2	1.617	1.628	35.7	19.6	73 E	12*	67*
10 28	19 11.71	−31 56.8	1.649	1.623	35.3	19.6	71 E	13*	65*
11 2	19 26.08	−31 2.5	1.682	1.619	34.9	19.6	69 E	13*	63*
11 7	19 40.47	−30 3.5	1.714	1.616	34.5	19.6	67 E	14*	61*
11 12	19 54.82	−28 59.8	1.748	1.614	34.0	19.7	66 E	16*	59*
11 17	20 9.12	−27 51.6	1.781	1.612	33.4	19.7	64 E	17*	57*
11 22	20 23.32	−26 39.1	1.815	1.612	32.8	19.7	62 E	18*	55*
11 27	20 37.40	−25 22.4	1.849	1.612	32.2	19.7	61 E	19*	52*
12 2	20 51.34	−24 2.0	1.884	1.613	31.5	19.8	59 E	20*	50*
12 7	21 5.11	−22 38.0	1.920	1.615	30.9	19.8	57 E	21*	48*
12 12	21 18.72	−21 10.8	1.955	1.618	30.1	19.8	56 E	23*	45*
12 17	21 32.16	−19 40.7	1.992	1.621	29.4	19.8	54 E	24*	42*
12 22	21 45.43	−18 8.1	2.028	1.626	28.6	19.9	52 E	25*	40*
12 27	21 58.52	−16 33.4	2.065	1.631	27.8	19.9	51 E	26*	37*
1 1	22 11.43	−14 56.9	2.103	1.637	27.0	19.9	49 E	26*	35*
1 6	22 24.17	−13 19.0	2.141	1.644	26.1	19.9	47 E	27*	33*
1 11	22 36.75	−11 39.9	2.179	1.651	25.3	19.9	46 E	27*	30*
1 16	22 49.19	−10 0.0	2.218	1.660	24.4	20.0	44 E	28*	28*

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12 23	14 47.58	−41 42.6	2.259	1.699	23.8	19.5	44 W	—	38*
12 28	15 3.47	−43 41.1	2.246	1.712	24.3	19.6	46 W	—	39*
1 2	15 19.94	−45 33.4	2.235	1.726	24.7	19.6	47 W	—	40*
1 7	15 37.00	−47 18.8	2.224	1.741	25.1	19.6	49 W	—	41*
1 12	15 54.63	−48 56.8	2.213	1.757	25.5	19.6	50 W	—	42*
1 17	16 12.81	−50 27.0	2.203	1.773	25.9	19.6	52 W	—	43*
1 22	16 31.48	−51 48.8	2.194	1.790	26.2	19.7	53 W	—	43*
1 27	16 50.57	−53 2.1	2.184	1.807	26.5	19.7	55 W	—	44*
2 1	17 9.96	−54 6.7	2.175	1.826	26.7	19.7	56 W	—	44*
2 6	17 29.54	−55 2.5	2.166	1.844	27.0	19.7	58 W	—	44*
2 11	17 49.18	−55 49.8	2.156	1.863	27.2	19.7	60 W	—	45*
2 16	18 8.75	−56 28.8	2.146	1.883	27.4	19.8	61 W	—	45*
2 21	18 28.09	−57 0.2	2.135	1.903	27.6	19.8	63 W	—	45*
2 26	18 47.06	−57 24.7	2.124	1.923	27.8	19.8	65 W	—	45*
3 2	19 5.51	−57 42.9	2.111	1.943	27.9	19.8	67 W	—	46*
3 7	19 23.33	−57 55.7	2.098	1.964	28.0	19.8	68 W	—	46*
3 12	19 40.43	−58 4.0	2.084	1.985	28.1	19.8	70 W	—	47*
3 17	19 56.72	−58 8.9	2.069	2.007	28.2	19.8	72 W	—	48*
3 22	20 12.16	−58 11.3	2.053	2.028	28.3	19.8	75 W	—	48*
3 27	20 26.67	−58 12.0	2.036	2.050	28.3	19.9	77 W	—	49*
4 1	20 40.21	−58 12.1	2.017	2.072	28.2	19.9	79 W	—	50*
4 11	21 4.33	−58 13.4	1.977	2.117	28.1	19.9	84 W	—	52*
4 21	21 24.35	−58 21.1	1.933	2.161	27.7	19.8	89 W	—	54*
5 1	21 40.01	−58 39.7	1.885	2.206	27.1	19.8	94 W	—	55*
5 6	21 46.09	−58 54.0	1.861	2.229	26.7	19.8	97 W	—	56*
5 11	21 50.94	−59 12.0	1.837	2.252	26.2	19.8	100 W	—	56*
5 16	21 54.48	−59 33.5	1.813	2.274	25.6	19.7	104 W	—	56*
5 21	21 56.61	−59 58.6	1.790	2.297	25.0	19.7	107 W	—	56
5 26	21 57.21	−60 26.7	1.767	2.319	24.2	19.7	110 W	—	56
5 31	21 56.18	−60 57.0	1.746	2.342	23.4	19.7	113 W	—	55
6 5	21 53.42	−61 28.6	1.727	2.364	22.5	19.6	117 W	—	55
6 10	21 48.82	−62 0.2	1.710	2.386	21.6	19.6	120 W	—	54
6 15	21 42.32	−62 30.0	1.696	2.409	20.6	19.6	123 W	—	54
6 20	21 33.90	−62 56.1	1.685	2.431	19.6	19.5	127 W	—	53
6 25	21 23.63	−63 16.2	1.677	2.453	18.6	19.5	130 W	—	53
6 30	21 11.75	−63 27.9	1.674	2.475	17.7	19.5	132 W	—	53

334384 2002 BL_{26} *(continuation)*

19/20	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
	h m	° ′			°	m	°	°	°
7 2	21 6.62	−63 29.7	1.675	2.484	17.4	19.5	133 W	—	53
7 4	21 1.31	−63 29.7	1.675	2.493	17.0	19.5	134 W	—	53
7 6	20 55.86	−63 27.9	1.677	2.501	16.7	19.5	135 W	—	53
7 8	20 50.29	−63 24.0	1.679	2.510	16.4	19.5	136 W	—	53
7 10	20 44.65	−63 18.1	1.683	2.519	16.2	19.5	136 W	—	53
7 12	20 38.97	−63 10.1	1.687	2.527	15.9	19.5	137 W	—	53
7 14	20 33.28	−63 0.0	1.692	2.536	15.7	19.5	137 W	—	53
7 16	20 27.62	−62 47.7	1.698	2.545	15.5	19.5	138 W	—	53
7 18	20 22.04	−62 33.2	1.705	2.553	15.4	19.5	138 W	—	53
7 20	20 16.55	−62 16.6	1.713	2.562	15.3	19.6	138 W	—	54
7 22	20 11.20	−61 58.0	1.721	2.570	15.2	19.6	138 W	—	54
7 24	20 6.01	−61 37.4	1.731	2.579	15.2	19.6	138 E	—	54
7 26	20 1.01	−61 14.9	1.742	2.587	15.2	19.6	138 E	—	55
7 28	19 56.22	−60 50.6	1.753	2.596	15.3	19.6	138 E	—	55
7 30	19 51.66	−60 24.7	1.766	2.604	15.3	19.7	137 E	—	56
8 4	19 41.33	−59 13.5	1.801	2.625	15.6	19.7	136 E	—	57
8 9	19 32.62	−57 54.8	1.842	2.646	16.1	19.8	134 E	—	58
8 14	19 25.54	−56 30.8	1.889	2.667	16.6	19.9	131 E	—	59
8 19	19 20.03	−55 3.2	1.941	2.688	17.2	20.0	128 E	—	61
8 24	19 16.00	−53 33.9	1.998	2.708	17.8	20.1	125 E	—	62
8 29	19 13.32	−52 4.2	2.060	2.728	18.4	20.2	122 E	—	64
9 3	19 11.83	−50 35.3	2.126	2.748	18.9	20.3	118 E	—	65
9 8	19 11.40	−49 7.9	2.196	2.768	19.4	20.4	114 E	—	67
9 13	19 11.90	−47 42.6	2.270	2.788	19.7	20.5	111 E	—	68
9 18	19 13.22	−46 19.8	2.347	2.808	20.0	20.6	107 E	—	70
9 23	19 15.27	−44 59.7	2.426	2.827	20.2	20.7	103 E	—	71
9 28	19 17.94	−43 42.4	2.507	2.846	20.3	20.8	99 E	1	72
10 3	19 21.15	−42 27.8	2.591	2.865	20.3	20.9	95 E	3	74
10 8	19 24.82	−41 15.9	2.675	2.884	20.3	20.9	92 E	4	75*
10 13	19 28.91	−40 6.5	2.761	2.902	20.1	21.0	88 E	5	75*
10 18	19 33.36	−38 59.4	2.847	2.921	19.8	21.1	84 E	6	74*
10 23	19 38.12	−37 54.5	2.933	2.939	19.5	21.2	81 E	7*	72*
10 28	19 43.14	−36 51.5	3.019	2.957	19.1	21.2	77 E	8*	70*
11 2	19 48.40	−35 50.4	3.105	2.975	18.6	21.3	73 E	9*	67*
11 7	19 53.85	−34 50.8	3.189	2.992	18.1	21.3	70 E	10*	64*
11 12	19 59.46	−33 52.6	3.273	3.009	17.5	21.4	66 E	11*	60*
11 17	20 5.23	−32 55.6	3.355	3.027	16.8	21.4	62 E	12*	56*
11 22	20 11.11	−31 59.6	3.435	3.043	16.1	21.5	59 E	12*	53*

219523 2001 QS_{84}

12 23	14 47.77	−19 9.3	2.998	2.410	16.9	20.1	45 W	22*	34*
1 2	15 1.75	−21 16.6	2.934	2.452	18.4	20.1	52 W	22*	41*
1 12	15 14.91	−23 19.7	2.860	2.493	19.7	20.2	59 W	21*	49*
1 22	15 27.07	−25 19.4	2.777	2.533	20.7	20.2	66 W	19*	58*
2 1	15 37.98	−27 16.8	2.686	2.574	21.5	20.1	73 W	18*	66*
2 11	15 47.37	−29 12.9	2.589	2.613	21.9	20.1	80 W	16	74*
2 21	15 54.92	−31 8.4	2.489	2.653	21.9	20.1	88 W	14	82*
3 2	16 0.23	−33 3.9	2.388	2.691	21.5	20.0	97 W	12	83
3 12	16 2.88	−34 59.1	2.290	2.729	20.5	19.9	106 W	10	81
3 22	16 2.47	−36 52.7	2.199	2.766	19.1	19.8	115 W	8	79
4 1	15 58.61	−38 41.4	2.119	2.803	17.2	19.7	124 W	6	77
4 11	15 51.18	−40 20.2	2.055	2.839	14.9	19.6	133 W	5	76
4 16	15 46.17	−41 3.9	2.031	2.857	13.6	19.5	138 W	4	75
4 21	15 40.38	−41 42.7	2.012	2.874	12.3	19.4	142 W	3	74
4 26	15 33.90	−42 15.6	1.998	2.891	11.1	19.4	147 W	3	74
5 1	15 26.90	−42 41.9	1.991	2.908	9.9	19.4	150 W	2	73
5 6	15 19.55	−43 1.4	1.991	2.925	9.0	19.3	153 W	2	73
5 11	15 12.03	−43 13.7	1.997	2.942	8.5	19.3	155 E	2	73
5 16	15 4.55	−43 19.0	2.011	2.959	8.3	19.3	155 E	2	73
5 21	14 57.30	−43 17.6	2.031	2.975	8.5	19.4	154 E	2	73
5 26	14 50.47	−43 10.3	2.058	2.991	9.1	19.5	152 E	2	73
5 31	14 44.21	−42 58.0	2.091	3.007	9.9	19.5	149 E	2	73
6 5	14 38.64	−42 41.8	2.130	3.023	10.9	19.6	146 E	2	73
6 10	14 33.84	−42 22.8	2.176	3.038	11.9	19.7	142 E	3	74
6 15	14 29.86	−42 1.9	2.226	3.054	13.0	19.8	138 E	3	74
6 20	14 26.71	−41 40.2	2.282	3.069	13.9	19.9	133 E	3	74
6 25	14 24.41	−41 18.6	2.342	3.084	14.8	20.0	129 E	4*	75
6 30	14 22.93	−40 57.7	2.405	3.099	15.7	20.1	125 E	4*	75
7 10	14 22.28	−40 20.4	2.543	3.127	17.0	20.3	116 E	3*	76
7 20	14 24.43	−39 51.2	2.690	3.155	17.8	20.5	108 E	2*	76
7 30	14 29.01	−39 31.5	2.845	3.183	18.3	20.6	100 E	1*	76
8 9	14 35.68	−39 21.3	3.002	3.209	18.4	20.8	92 E	—	75*
8 19	14 44.14	−39 19.9	3.160	3.235	18.2	20.9	85 E	—	70*
8 29	14 54.14	−39 26.4	3.316	3.259	17.6	21.0	78 E	—	64*
9 8	15 5.47	−39 39.4	3.467	3.283	16.9	21.1	71 E	—	58*
9 18	15 17.95	−39 57.6	3.612	3.306	15.9	21.2	64 E	—	53*
9 28	15 31.46	−40 19.8	3.749	3.328	14.8	21.2	58 E	—	47*
10 8	15 45.85	−40 44.6	3.876	3.350	13.5	21.2	52 E	—	41*
10 18	16 1.02	−41 10.9	3.992	3.370	12.2	21.3	46 E	—	36*
10 28	16 16.89	−41 37.7	4.095	3.390	10.8	21.3	40 E	—	30*

219523 2001 *QS*$_{84}$ *(continuation)*

19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
	h m	° ′			°	m	°	°	°
11 7	16 33.33	−42 4.1	4.184	3.409	9.4	21.3	34 E	—	25*
11 17	16 50.27	−42 29.4	4.257	3.427	8.0	21.3	29 E	—	19*
11 27	17 7.60	−42 52.9	4.316	3.444	6.9	21.3	25 E	—	14*
12 7	17 25.22	−43 14.2	4.357	3.460	6.0	21.3	22 E	—	10*
12 17	17 43.03	−43 33.2	4.382	3.475	5.6	21.3	20 E	—	5*
12 27	18 0.91	−43 49.7	4.390	3.490	5.8	21.3	21 W	—	8*
1 6	18 18.74	−44 3.8	4.381	3.504	6.5	21.3	24 W	—	13*
1 16	18 36.43	−44 16.1	4.355	3.517	7.5	21.4	28 W	—	18*

152964 2000 *GP*$_{82}$

19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
12 23	14 48.58	− 6 23.0	1.619	1.233	37.4	20.7	50 W	34*	29*
1 2	15 15.69	− 7 31.3	1.623	1.295	37.3	20.8	53 W	34*	33*
1 12	15 41.13	− 8 22.2	1.617	1.355	37.3	20.9	57 W	34*	38*
1 22	16 4.91	− 8 56.3	1.600	1.412	37.5	21.0	61 W	34*	44*
2 1	16 26.95	− 9 14.2	1.572	1.468	37.6	21.0	65 W	34*	50*
2 11	16 47.13	− 9 17.0	1.534	1.520	37.7	21.1	70 W	35*	55*
2 21	17 5.33	− 9 6.1	1.485	1.570	37.6	21.1	76 W	35*	61*
3 2	17 21.31	− 8 42.8	1.428	1.617	37.3	21.0	82 W	36*	66*
3 12	17 34.79	− 8 9.1	1.364	1.661	36.7	21.0	88 W	37*	70*
3 22	17 45.47	− 7 27.2	1.293	1.701	35.7	20.9	95 W	37*	71*
4 1	17 52.87	− 6 39.4	1.220	1.739	34.1	20.7	103 W	38*	71
4 11	17 56.51	− 5 49.1	1.146	1.773	31.8	20.6	111 W	39	70
4 21	17 55.86	− 5 0.3	1.075	1.805	28.7	20.4	120 W	40	69
4 26	17 53.77	− 4 38.0	1.042	1.819	26.9	20.3	125 W	40	69
5 1	17 50.45	− 4 18.1	1.011	1.833	24.7	20.2	130 W	41	68
5 6	17 45.91	− 4 1.6	0.983	1.845	22.4	20.1	136 W	41	68
5 11	17 40.18	− 3 49.1	0.960	1.858	19.9	20.0	141 W	41	68
5 16	17 33.33	− 3 41.5	0.940	1.869	17.3	19.8	147 W	41	68
5 21	17 25.50	− 3 39.6	0.925	1.879	14.7	19.7	152 W	41	68
5 31	17 7.78	− 3 54.9	0.913	1.898	10.5	19.6	160 W	41	68
6 10	16 49.20	− 4 36.9	0.926	1.914	10.1	19.6	161 E	40	69
6 20	16 32.09	− 5 42.4	0.963	1.926	13.7	19.8	153 E	39	70
6 25	16 24.71	− 6 22.2	0.991	1.931	16.0	20.0	148 E	39	70
6 30	16 18.34	− 7 5.6	1.024	1.936	18.4	20.1	143 E	38	71
7 5	16 13.08	− 7 51.8	1.061	1.939	20.6	20.3	138 E	37	72
7 10	16 8.94	− 8 40.0	1.103	1.942	22.6	20.4	133 E	36	73
7 20	16 4.05	−10 19.8	1.196	1.945	26.0	20.7	123 E	35*	74
7 30	16 3.39	−12 1.4	1.298	1.945	28.5	21.0	114 E	33*	76
8 9	16 6.46	−13 42.0	1.407	1.942	30.2	21.2	106 E	30*	78
8 19	16 12.73	−15 19.6	1.519	1.936	31.2	21.4	98 E	28*	79

5604 1992 *FE*

19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
12 23	14 48.63	−19 16.8	1.716	1.237	34.3	20.3	45 W	22*	34*
1 2	15 16.36	−21 28.0	1.680	1.264	35.6	20.3	48 W	21*	38*
1 12	15 44.50	−23 22.4	1.633	1.285	37.0	20.3	52 W	19*	43*
1 22	16 13.23	−24 59.6	1.576	1.299	38.5	20.3	55 W	18*	47*
2 1	16 42.69	−26 18.3	1.509	1.305	40.2	20.3	59 W	17*	52*
2 6	16 57.74	−26 50.3	1.473	1.306	41.0	20.2	60 W	16*	54*
2 11	17 13.04	−27 17.2	1.435	1.304	41.9	20.2	62 W	16*	56*
2 16	17 28.61	−27 38.7	1.395	1.301	42.8	20.2	64 W	15*	57*
2 21	17 44.48	−27 54.5	1.354	1.297	43.7	20.1	65 W	15*	59*
2 26	18 0.67	−28 4.2	1.311	1.290	44.7	20.1	67 W	14*	60*
3 2	18 17.20	−28 7.4	1.268	1.282	45.7	20.0	68 W	14*	62*
3 7	18 34.11	−28 3.6	1.224	1.272	46.8	19.9	69 W	14*	63*
3 12	18 51.45	−27 52.3	1.180	1.260	47.9	19.9	70 W	13*	64*
3 17	19 9.26	−27 32.7	1.135	1.247	49.1	19.8	71 W	13*	65*
3 22	19 27.58	−27 4.0	1.090	1.231	50.4	19.7	72 W	13*	66*
3 27	19 46.45	−26 25.3	1.046	1.214	51.8	19.6	73 W	13*	67*
4 1	20 5.92	−25 35.4	1.002	1.195	53.2	19.5	73 W	13*	67*
4 6	20 26.06	−24 33.1	0.960	1.174	54.8	19.5	74 W	13*	67*
4 11	20 46.92	−23 16.9	0.919	1.151	56.6	19.4	73 W	13*	67*
4 16	21 8.56	−21 45.4	0.881	1.127	58.5	19.3	73 W	13*	67*
4 21	21 31.03	−19 57.0	0.844	1.101	60.5	19.2	72 W	13*	66*
4 26	21 54.35	−17 50.3	0.811	1.073	62.8	19.1	71 W	14*	65*
5 1	22 18.55	−15 24.4	0.782	1.043	65.2	19.1	70 W	14*	64*
5 11	23 9.58	− 9 34.3	0.739	0.978	70.5	19.0	66 W	15*	59*
5 21	0 3.92	− 2 37.7	0.721	0.906	76.0	18.9	60 W	16*	53*
5 31	1 0.92	+ 4 50.4	0.734	0.830	80.6	18.9	54 W	17*	46*
6 5	1 30.20	+ 8 30.6	0.754	0.791	82.1	18.9	51 W	17*	42*
6 10	1 59.92	+11 59.4	0.782	0.751	82.9	18.9	47 W	17*	38*
6 15	2 30.04	+15 11.3	0.820	0.712	82.8	18.9	44 W	18*	34*
6 20	3 0.55	+18 1.9	0.866	0.674	81.6	18.9	41 W	18*	30*
6 25	3 31.49	+20 27.8	0.920	0.639	79.2	18.8	38 W	18*	27*
6 30	4 2.86	+22 26.8	0.981	0.607	75.5	18.7	35 W	17*	24*
7 5	4 34.68	+23 57.1	1.049	0.581	70.6	18.6	33 W	17*	21*
7 10	5 6.85	+24 57.6	1.120	0.563	64.7	18.5	30 W	16*	18*
7 15	5 39.15	+25 27.7	1.194	0.553	58.0	18.4	27 W	15*	15*

5604 1992 *FE* *(continuation)*

19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
	h m	° ′			°	m	°	°	°
7 20	6 11.22	+25 27.9	1.269	0.553	51.0	18.3	25 W	14*	13*
7 25	6 42.62	+25 0.1	1.341	0.562	44.1	18.3	23 W	13*	10*
7 30	7 12.93	+24 7.4	1.410	0.581	37.7	18.3	20 W	11*	9*
8 4	7 41.83	+22 53.9	1.475	0.606	32.1	18.3	19 W	10*	7*
8 9	8 9.13	+21 24.1	1.537	0.638	27.4	18.4	17 W	9*	5*
8 14	8 34.79	+19 42.1	1.594	0.673	23.5	18.5	15 W	8*	4*
8 19	8 58.85	+17 51.5	1.647	0.711	20.4	18.6	14 W	7*	4*
8 24	9 21.41	+15 55.4	1.697	0.750	18.0	18.7	13 W	6*	3*
8 29	9 42.62	+13 56.1	1.744	0.789	16.2	18.8	13 W	5*	2*
9 3	10 2.63	+11 55.3	1.787	0.829	14.8	18.9	12 W	5*	2*
9 8	10 21.58	+ 9 54.4	1.828	0.868	13.9	19.0	12 W	5*	2*
9 13	10 39.62	+ 7 54.2	1.866	0.905	13.3	19.1	12 W	5*	2*
9 18	10 56.87	+ 5 55.6	1.900	0.942	12.9	19.2	12 W	5*	2*
9 28	11 29.44	+ 2 4.7	1.961	1.010	12.8	19.4	13 W	6*	3*
10 8	12 0.05	− 1 35.7	2.011	1.072	13.3	19.6	14 W	7*	4*
10 18	12 29.31	− 5 4.6	2.049	1.126	14.2	19.8	16 W	8*	6*
10 28	12 57.71	− 8 21.2	2.074	1.173	15.5	20.0	18 W	10*	8*
11 7	13 25.63	−11 25.1	2.087	1.213	16.9	20.1	21 W	11*	10*
11 17	13 53.42	−14 15.7	2.088	1.246	18.5	20.2	24 W	13*	13*
11 27	14 21.35	−16 52.5	2.077	1.272	20.2	20.3	26 W	14*	16*
12 7	14 49.68	−19 14.6	2.054	1.290	22.0	20.4	29 W	14*	19*
12 17	15 18.64	−21 20.9	2.019	1.301	24.0	20.4	32 W	15*	22*
12 27	15 48.42	−23 9.8	1.974	1.306	26.0	20.4	36 W	15*	26*
1 6	16 19.22	−24 39.6	1.919	1.303	28.0	20.4	38 W	14*	30*
1 16	16 51.21	−25 48.0	1.856	1.293	30.2	20.4	41 W	13*	34*

3352 McAuliffe

19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
12 23	14 48.77	−12 29.3	1.920	1.443	30.0	19.3	47 W	28*	31*
1 2	15 14.94	−14 10.8	1.905	1.491	30.7	19.4	51 W	28*	36*
1 12	15 39.94	−15 34.4	1.883	1.540	31.4	19.5	55 W	27*	41*
1 22	16 3.68	−16 40.8	1.853	1.589	32.1	19.5	59 W	27*	47*
2 1	16 25.97	−17 31.0	1.815	1.639	32.6	19.5	64 W	26*	53*
2 11	16 46.62	−18 6.7	1.770	1.689	33.0	19.6	69 W	26*	59*
2 21	17 5.43	−18 29.6	1.717	1.738	33.2	19.6	75 W	26*	66*
3 2	17 22.14	−18 42.0	1.657	1.787	33.2	19.5	81 W	26*	72*
3 12	17 36.45	−18 46.2	1.592	1.835	32.7	19.5	87 W	26*	78*
3 22	17 48.07	−18 44.7	1.522	1.881	31.9	19.4	94 W	26*	83*
4 1	17 56.59	−18 39.9	1.450	1.927	30.4	19.3	102 W	26*	83
4 11	18 1.63	−18 34.3	1.379	1.972	28.4	19.2	111 W	26	83
4 21	18 2.82	−18 30.1	1.311	2.015	25.5	19.1	120 W	26	83
5 1	17 59.84	−18 28.7	1.252	2.056	21.8	18.9	131 W	27	82
5 11	17 52.74	−18 30.7	1.207	2.096	17.3	18.7	142 W	26	83
5 21	17 41.95	−18 35.6	1.179	2.135	12.0	18.5	154 W	26	83
5 26	17 35.47	−18 38.8	1.173	2.154	9.2	18.4	160 W	26	83
5 31	17 28.52	−18 42.3	1.174	2.172	6.3	18.3	166 W	26	83
6 5	17 21.32	−18 46.1	1.180	2.190	3.5	18.2	172 W	26	83
6 10	17 14.08	−18 50.0	1.194	2.208	1.9	18.1	176 W	26	83
6 15	17 7.04	−18 54.1	1.214	2.225	3.5	18.3	172 E	26	83
6 20	17 0.38	−18 58.6	1.241	2.242	6.1	18.5	167 E	26	83
6 25	16 54.30	−19 3.5	1.274	2.258	8.6	18.7	161 E	26	83
6 30	16 48.94	−19 9.2	1.313	2.274	11.0	18.9	155 E	26	83
7 10	16 40.72	−19 23.2	1.408	2.305	15.3	19.2	143 E	26	83
7 20	16 36.03	−19 41.5	1.521	2.334	18.6	19.5	133 E	25	84
7 30	16 34.82	−20 4.1	1.649	2.361	21.1	19.8	123 E	25*	84
8 9	16 36.77	−20 30.4	1.788	2.387	22.8	20.0	114 E	24*	85
8 19	16 41.47	−20 59.1	1.934	2.411	23.9	20.3	106 E	23*	85
8 29	16 48.56	−21 28.9	2.085	2.433	24.3	20.5	98 E	22*	85
9 8	16 57.64	−21 58.3	2.237	2.454	24.2	20.6	90 E	21*	83*
9 18	17 8.41	−22 26.0	2.388	2.473	23.8	20.8	83 E	20*	76*
9 28	17 20.62	−22 50.8	2.537	2.490	23.0	20.9	76 E	20*	70*
10 8	17 34.03	−23 11.5	2.681	2.506	21.9	21.0	69 E	19*	63*
10 18	17 48.44	−23 27.1	2.819	2.520	20.5	21.1	63 E	18*	56*
10 28	18 3.70	−23 36.9	2.949	2.532	19.0	21.1	56 E	17*	49*
11 7	18 19.63	−23 40.1	3.069	2.543	17.3	21.2	50 E	16*	42*
11 17	18 36.12	−23 36.3	3.178	2.552	15.5	21.2	43 E	15*	36*
11 27	18 53.03	−23 25.2	3.275	2.560	13.5	21.2	37 E	14*	29*
12 7	19 10.25	−23 6.4	3.359	2.566	11.4	21.2	31 E	12*	22*
12 17	19 27.68	−22 40.1	3.428	2.570	9.3	21.1	25 E	10*	16*
12 27	19 45.21	−22 6.3	3.483	2.572	7.1	21.1	19 E	7*	10*
1 6	20 2.77	−21 25.3	3.523	2.573	4.9	21.0	13 E	3*	5*
1 16	20 20.29	−20 37.3	3.547	2.573	2.6	20.9	7 E	—	—

16868 1998 *AK*$_{8}$

19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
12 23	14 48.81	+18 52.8	1.697	1.534	35.0	20.1	63 W	56*	15*
1 2	15 21.95	+19 57.1	1.667	1.551	35.4	20.1	66 W	58*	17*
1 12	15 54.17	+21 7.6	1.645	1.569	35.5	20.1	68 W	60*	19*
1 22	16 25.04	+22 23.8	1.629	1.589	35.6	20.1	70 W	62*	21*
2 1	16 54.14	+23 45.5	1.619	1.610	35.5	20.1	72 W	63*	23*
2 11	17 21.15	+25 12.2	1.611	1.632	35.4	20.2	73 W	64*	25*
2 21	17 45.82	+26 43.4	1.603	1.654	35.3	20.2	75 W	65*	27*

16868 1998 AK_8 *(continuation)*

19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
	h m	° ′			°	m	°	°	°
3 2	18 7.92	+28 18.7	1.593	1.677	35.2	20.2	77 W	67*	29*
3 12	18 27.28	+29 57.0	1.580	1.701	35.0	20.2	79 W	68*	30*
3 17	18 35.89	+30 47.0	1.571	1.712	34.9	20.2	80 W	69*	30*
3 22	18 43.74	+31 37.4	1.560	1.724	34.9	20.2	82 W	70*	30*
3 27	18 50.81	+32 28.0	1.549	1.736	34.8	20.2	83 W	71*	30*
4 1	18 57.06	+33 18.3	1.535	1.748	34.7	20.2	84 W	73*	30*
4 6	19 2.45	+34 8.1	1.520	1.760	34.6	20.2	86 W	74*	30*
4 11	19 6.97	+34 57.0	1.503	1.772	34.4	20.2	88 W	75*	29
4 16	19 10.55	+35 44.5	1.484	1.783	34.2	20.1	89 W	77*	28
4 21	19 13.15	+36 30.0	1.464	1.795	34.0	20.1	91 W	78*	28
4 26	19 14.72	+37 12.8	1.443	1.807	33.8	20.1	93 W	80*	27
5 1	19 15.19	+37 51.9	1.420	1.818	33.5	20.1	96 W	82*	26
5 6	19 14.55	+38 26.2	1.396	1.830	33.1	20.0	98 W	83*	26
5 11	19 12.74	+38 54.6	1.372	1.841	32.7	20.0	100 W	84	25
5 16	19 9.76	+39 15.5	1.347	1.852	32.2	19.9	103 W	84	25
5 21	19 5.58	+39 27.5	1.322	1.864	31.6	19.9	105 W	84	25
5 26	19 0.25	+39 28.4	1.298	1.874	31.0	19.9	108 W	84	25
5 31	18 53.86	+39 16.4	1.274	1.885	30.3	19.8	110 W	84	25
6 5	18 46.53	+38 49.6	1.252	1.896	29.5	19.8	113 W	84	25
6 10	18 38.45	+38 6.3	1.232	1.906	28.7	19.7	116 W	83	26
6 15	18 29.83	+37 5.1	1.215	1.917	27.8	19.7	118 W	82	27
6 20	18 20.93	+35 44.9	1.201	1.927	27.0	19.6	121 W	81	28
6 25	18 12.03	+34 5.4	1.190	1.937	26.3	19.6	123 E	79	30
6 30	18 3.42	+32 7.2	1.185	1.946	25.6	19.6	124 E	77	32
7 5	17 55.33	+29 51.7	1.184	1.956	25.1	19.6	125 E	75	34
7 10	17 47.98	+27 21.2	1.188	1.965	24.8	19.6	126 E	72	37
7 15	17 41.50	+24 38.5	1.199	1.974	24.7	19.6	126 E	70	39
7 20	17 36.00	+21 46.6	1.215	1.983	24.8	19.7	125 E	67	42
7 25	17 31.55	+18 49.1	1.238	1.992	25.0	19.7	124 E	64	45
7 30	17 28.17	+15 49.2	1.266	2.000	25.5	19.8	122 E	61	48
8 4	17 25.83	+12 50.0	1.301	2.008	26.0	19.9	120 E	58	51
8 9	17 24.50	+ 9 54.0	1.340	2.016	26.6	20.0	117 E	55	54
8 14	17 24.12	+ 7 3.1	1.385	2.024	27.2	20.1	114 E	52	57
8 19	17 24.63	+ 4 18.9	1.435	2.031	27.7	20.2	111 E	49	60
8 24	17 25.99	+ 1 42.5	1.489	2.038	28.2	20.3	108 E	47*	62
8 29	17 28.13	− 0 45.6	1.546	2.045	28.6	20.4	104 E	44*	65
9 8	17 34.48	− 5 15.5	1.669	2.058	29.0	20.6	97 E	39*	69
9 18	17 43.27	− 9 11.2	1.801	2.070	29.0	20.7	90 E	35*	72*
9 28	17 54.15	−12 34.6	1.938	2.081	28.6	20.9	84 E	31*	71*
10 8	18 6.77	−15 28.7	2.077	2.090	27.7	21.0	77 E	28*	67*
10 18	18 20.91	−17 56.5	2.213	2.099	26.5	21.1	70 E	25*	62*
10 28	18 36.34	−20 0.9	2.346	2.106	25.1	21.2	64 E	23*	56*
11 7	18 52.88	−21 44.0	2.472	2.112	23.3	21.3	58 E	21*	49*
11 17	19 10.37	−23 8.2	2.589	2.117	21.4	21.3	51 E	18*	43*
11 27	19 28.68	−24 15.0	2.696	2.121	19.3	21.4	45 E	16*	37*
12 7	19 47.67	−25 6.2	2.791	2.124	17.1	21.4	39 E	14*	31*
12 17	20 7.24	−25 43.1	2.873	2.125	14.9	21.4	34 E	12*	26*
12 27	20 27.29	−26 7.1	2.941	2.125	12.6	21.3	28 E	9*	21*
1 6	20 47.74	−26 19.5	2.994	2.124	10.4	21.3	23 E	5*	16*
1 16	21 8.52	−26 21.4	3.032	2.122	8.5	21.2	19 E	1*	12*

450160 2000 RM_{12}

12 23	14 48.96	+ 2 8.0	1.132	0.962	55.3	18.9	54 W	41*	24*
1 2	14 51.33	− 5 18.5	1.118	1.047	53.9	19.0	59 W	38*	37*
1 12	14 52.95	−12 56.2	1.092	1.139	52.3	19.1	66 W	32*	51*
1 22	14 52.63	−20 49.4	1.060	1.236	50.0	19.1	74 W	24	64*
1 27	14 51.24	−24 52.5	1.043	1.285	48.7	19.2	79 W	20	71*
2 1	14 48.69	−28 59.2	1.028	1.334	47.1	19.2	83 W	16	77*
2 6	14 44.67	−33 8.6	1.014	1.384	45.4	19.2	88 W	12	80*
2 11	14 38.82	−37 18.4	1.003	1.433	43.5	19.2	92 W	8	79*
2 16	14 30.70	−41 25.4	0.995	1.482	41.4	19.2	97 W	4	75
2 21	14 19.80	−45 24.8	0.992	1.531	39.3	19.2	101 W	—	71
2 26	14 5.58	−49 10.5	0.994	1.580	37.1	19.2	106 W	—	67
3 2	13 47.60	−52 34.9	1.001	1.628	35.0	19.2	110 W	—	63
3 7	13 25.68	−55 29.8	1.015	1.675	33.0	19.2	113 W	—	61
3 12	13 0.12	−57 47.5	1.035	1.722	31.2	19.3	116 W	—	58
3 14	12 49.08	−58 30.9	1.045	1.741	30.5	19.3	117 W	—	57
3 16	12 37.72	−59 7.1	1.055	1.759	29.9	19.3	118 W	—	57
3 18	12 26.13	−59 36.1	1.067	1.778	29.3	19.4	119 W	—	56
3 20	12 14.46	−59 57.9	1.080	1.796	28.8	19.4	120 W	—	56
3 22	12 2.82	−60 12.7	1.094	1.815	28.3	19.4	120 E	—	56
3 24	11 51.37	−60 20.7	1.109	1.833	27.8	19.5	121 E	—	56
3 26	11 40.21	−60 22.3	1.125	1.851	27.4	19.5	121 E	—	56
3 28	11 29.45	−60 18.0	1.141	1.869	27.1	19.6	122 E	—	56
3 30	11 19.19	−60 8.3	1.159	1.887	26.7	19.6	122 E	—	56
4 1	11 9.50	−59 53.8	1.178	1.905	26.5	19.7	122 E	—	56
4 3	11 0.42	−59 35.1	1.197	1.923	26.2	19.7	122 E	—	56
4 5	10 51.99	−59 12.9	1.217	1.940	26.0	19.8	122 E	—	57
4 7	10 44.21	−58 47.6	1.238	1.958	25.8	19.8	122 E	—	57

450160 2000 RM_{12} *(continuation)*

4 9	10 37.09	−58 19.8	1.260	1.975	25.7	19.9	121 E	—	58
4 11	10 30.61	−57 50.1	1.283	1.993	25.6	19.9	121 E	—	58
4 13	10 24.75	−57 18.8	1.306	2.010	25.5	20.0	120 E	—	59
4 15	10 19.48	−56 46.4	1.330	2.027	25.4	20.0	120 E	—	59
4 17	10 14.78	−56 13.2	1.354	2.044	25.3	20.1	119 E	—	60
4 19	10 10.62	−55 39.6	1.380	2.061	25.3	20.1	119 E	—	60
4 21	10 6.95	−55 5.8	1.405	2.078	25.2	20.2	118 E	—	61
4 23	10 3.75	−54 32.0	1.432	2.095	25.2	20.2	117 E	—	61
4 25	10 0.99	−53 58.6	1.458	2.111	25.2	20.3	117 E	—	62
4 27	9 58.64	−53 25.6	1.486	2.128	25.2	20.4	116 E	—	63
4 29	9 56.65	−52 53.2	1.513	2.144	25.2	20.4	115 E	—	63
5 1	9 55.02	−52 21.6	1.542	2.161	25.2	20.5	114 E	—	64
5 6	9 52.28	−51 6.3	1.614	2.201	25.1	20.6	112 E	—	65
5 11	9 51.18	−49 57.3	1.688	2.241	25.1	20.7	110 E	—	66
5 16	9 51.44	−48 55.1	1.764	2.281	25.0	20.9	107 E	—	67
5 21	9 52.82	−47 59.9	1.841	2.319	24.9	21.0	105 E	—	68
5 26	9 55.14	−47 11.7	1.920	2.358	24.8	21.1	103 E	—	69*
5 31	9 58.26	−46 30.5	1.999	2.395	24.6	21.2	100 E	—	69*
6 5	10 2.03	−45 56.0	2.079	2.432	24.4	21.4	98 E	—	69*
6 10	10 6.36	−45 28.0	2.159	2.469	24.2	21.5	95 E	—	68*

37367 2001 VC

12 23	14 49.43	− 3 26.3	3.366	2.846	15.5	21.1	51 W	36*	27*
1 2	15 1.63	− 4 24.4	3.238	2.832	17.0	21.0	57 W	38*	35*
1 12	15 13.25	− 5 15.3	3.100	2.816	18.3	21.0	64 W	39*	43*
1 22	15 24.13	− 5 59.0	2.953	2.798	19.5	20.9	71 W	39*	51*
2 1	15 34.04	− 6 35.6	2.799	2.780	20.3	20.8	79 W	38*	59*
2 11	15 42.76	− 7 5.4	2.640	2.761	20.9	20.6	86 W	38	66*
2 21	15 50.01	− 7 28.7	2.479	2.740	21.1	20.5	94 W	38	71*
3 2	15 55.48	− 7 46.2	2.319	2.718	20.8	20.3	103 W	37	72
3 12	15 58.81	− 7 59.0	2.163	2.695	20.0	20.1	112 W	37	72
3 22	15 59.64	− 8 8.2	2.015	2.671	18.6	19.9	121 W	37	72
4 1	15 57.63	− 8 15.6	1.878	2.646	16.5	19.7	131 W	37	72
4 11	15 52.55	− 8 23.0	1.757	2.620	13.6	19.4	142 W	37	72
4 21	15 44.41	− 8 32.7	1.656	2.593	10.1	19.1	153 W	36	73
5 1	15 33.52	− 8 46.9	1.580	2.564	6.2	18.8	164 W	36	73
5 11	15 20.72	− 9 7.9	1.532	2.534	3.6	18.6	171 W	36	73
5 21	15 7.15	− 9 37.4	1.513	2.504	6.0	18.7	165 E	35	74
5 31	14 54.19	−10 16.4	1.522	2.472	10.4	18.8	154 E	35	74
6 10	14 43.09	−11 5.6	1.556	2.439	14.8	19.0	142 E	34	75
6 20	14 34.70	−12 4.5	1.611	2.406	18.5	19.2	131 E	33	76
6 30	14 29.49	−13 12.8	1.683	2.371	21.6	19.4	121 E	31*	77
7 10	14 27.55	−14 29.5	1.765	2.335	23.9	19.5	111 E	28*	78
7 20	14 28.73	−15 53.5	1.854	2.299	25.6	19.6	102 E	25*	80
7 30	14 32.82	−17 23.6	1.945	2.262	26.6	19.7	94 E	22*	81
8 9	14 39.54	−18 58.7	2.036	2.223	27.1	19.8	87 E	18*	80*
8 19	14 48.66	−20 37.5	2.124	2.184	27.1	19.8	80 E	16*	74*
8 29	15 0.00	−22 18.8	2.207	2.145	26.8	19.9	73 E	13*	67*
9 8	15 13.40	−24 1.0	2.283	2.105	26.1	19.9	67 E	11*	61*
9 18	15 28.77	−25 42.8	2.351	2.064	25.2	19.9	61 E	9*	55*
9 28	15 46.06	−27 22.4	2.411	2.023	24.1	19.9	56 E	7*	49*
10 8	16 5.22	−28 58.0	2.461	1.982	22.9	19.8	50 E	5*	44*
10 18	16 26.27	−30 27.3	2.502	1.940	21.5	19.8	46 E	4*	39*
10 28	16 49.19	−31 48.1	2.534	1.899	20.1	19.7	41 E	3*	35*
11 7	17 13.95	−32 57.7	2.556	1.857	18.6	19.6	37 E	2*	31*
11 17	17 40.51	−33 53.0	2.569	1.817	17.1	19.5	33 E	1*	27*
11 27	18 8.78	−34 31.2	2.574	1.776	15.6	19.5	29 E	—	23*
12 7	18 38.58	−34 49.0	2.572	1.737	14.2	19.4	26 E	—	20*
12 17	19 9.68	−34 43.6	2.564	1.699	12.9	19.3	23 E	—	17*
12 27	19 41.78	−34 12.7	2.550	1.663	11.8	19.2	20 E	—	14*
1 6	20 14.50	−33 14.4	2.533	1.628	10.9	19.1	18 E	—	12*
1 16	20 47.50	−31 47.9	2.513	1.595	10.2	19.0	17 E	—	10*

21104 Sveshnikov

12 23	14 49.70	−34 35.3	3.678	3.036	12.8	19.8	43 W	7*	37*
1 2	15 4.28	−36 3.2	3.580	3.034	14.3	19.8	49 W	7*	43*
1 12	15 18.43	−37 29.4	3.470	3.031	15.6	19.8	56 W	7*	50*
1 22	15 32.01	−38 54.0	3.351	3.027	16.8	19.7	63 W	6*	56*
2 1	15 44.78	−40 17.2	3.223	3.022	17.8	19.7	70 W	5*	62*
2 11	15 56.49	−41 39.3	3.088	3.017	18.6	19.6	77 W	3	68*
2 21	16 6.84	−43 0.5	2.950	3.010	19.1	19.5	84 W	2	71*
2 26	16 11.40	−43 40.8	2.879	3.006	19.2	19.5	88 W	1	72*
3 2	16 15.47	−44 21.0	2.809	3.002	19.3	19.4	91 W	1	72*
3 7	16 19.01	−45 0.8	2.739	2.998	19.2	19.3	95 W	—	71
3 12	16 21.96	−45 40.3	2.669	2.994	19.1	19.3	99 W	—	70
3 17	16 24.26	−46 19.3	2.601	2.989	18.9	19.2	103 W	—	70
3 22	16 25.85	−46 57.7	2.533	2.984	18.6	19.1	107 W	—	69
3 27	16 26.67	−47 35.0	2.468	2.979	18.2	19.1	111 W	—	68
4 1	16 26.66	−48 11.0	2.404	2.974	17.7	19.0	115 W	—	68
4 6	16 25.78	−48 45.0	2.344	2.968	17.1	18.9	120 W	—	67
4 11	16 23.99	−49 16.5	2.286	2.962	16.3	18.8	124 W	—	67

21104 Sveshnikov *(continuation)*

19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
	h m	° ′			°	m	°	°	°
4 16	16 21.28	−49 44.9	2.232	2.956	15.5	18.7	128 W	—	66
4 21	16 17.62	−50 9.3	2.182	2.950	14.7	18.7	132 W	—	66
4 26	16 13.07	−50 28.7	2.136	2.943	13.8	18.6	136 W	—	66
5 1	16 7.69	−50 42.3	2.095	2.936	12.8	18.5	140 W	—	65
5 6	16 1.60	−50 49.2	2.060	2.929	12.0	18.4	143 W	—	65
5 11	15 54.95	−50 48.9	2.030	2.922	11.2	18.4	146 W	—	65
5 16	15 47.92	−50 40.7	2.006	2.915	10.5	18.3	148 W	—	65
5 21	15 40.71	−50 24.4	1.988	2.907	10.1	18.3	150 E	—	66
5 26	15 33.55	−50 0.1	1.976	2.899	10.0	18.2	150 E	—	66
5 31	15 26.67	−49 28.3	1.971	2.891	10.2	18.2	150 E	—	67
6 5	15 20.26	−48 49.8	1.972	2.882	10.8	18.3	148 E	—	67
6 10	15 14.48	−48 5.7	1.978	2.874	11.5	18.3	146 E	—	68
6 15	15 9.45	−47 17.1	1.991	2.865	12.5	18.3	143 E	—	69
6 20	15 5.26	−46 25.3	2.010	2.856	13.5	18.4	139 E	—	70
6 25	15 1.98	−45 31.6	2.033	2.846	14.6	18.4	135 E	—	70
6 30	14 59.61	−44 37.2	2.062	2.837	15.6	18.5	131 E	—	71
7 5	14 58.16	−43 43.3	2.095	2.827	16.7	18.6	127 E	1*	72
7 10	14 57.59	−42 50.6	2.132	2.817	17.6	18.6	123 E	2*	73
7 15	14 57.86	−41 59.9	2.172	2.807	18.5	18.7	119 E	2*	74
7 20	14 58.94	−41 11.7	2.216	2.796	19.3	18.7	115 E	2*	75
7 25	15 0.77	−40 26.4	2.262	2.786	20.0	18.8	111 E	3*	76
7 30	15 3.31	−39 44.3	2.310	2.775	20.5	18.9	107 E	3*	76
8 9	15 10.28	−38 29.8	2.410	2.752	21.4	19.0	99 E	3*	77*
8 19	15 19.50	−37 27.8	2.515	2.729	21.8	19.0	91 E	3*	76*
8 29	15 30.66	−36 37.1	2.620	2.705	21.8	19.1	84 E	3*	72*
9 8	15 43.47	−35 55.7	2.723	2.679	21.5	19.2	77 E	3*	67*
9 18	15 57.72	−35 21.3	2.822	2.653	20.9	19.2	70 E	3*	61*
9 28	16 13.24	−34 51.8	2.916	2.627	20.0	19.2	63 E	3*	55*
10 8	16 29.86	−34 24.9	3.003	2.599	18.8	19.2	57 E	3*	50*
10 18	16 47.43	−33 58.4	3.080	2.571	17.5	19.2	51 E	3*	44*
10 28	17 5.84	−33 30.5	3.148	2.542	16.0	19.2	45 E	3*	39*
11 7	17 24.94	−32 59.1	3.206	2.512	14.3	19.1	39 E	3*	33*
11 17	17 44.63	−32 22.8	3.251	2.481	12.5	19.1	33 E	2*	27*
11 27	18 4.79	−31 40.1	3.285	2.450	10.6	19.0	27 E	2*	21*
12 7	18 25.29	−30 49.8	3.306	2.418	8.7	18.9	22 E	—	16*
12 17	18 46.03	−29 50.9	3.315	2.386	6.6	18.8	16 E	—	10*
12 27	19 6.90	−28 42.6	3.310	2.353	4.6	18.7	11 E	—	5*
1 6	19 27.81	−27 24.4	3.293	2.320	2.8	18.5	7 E	—	—
1 16	19 48.67	−25 55.7	3.264	2.286	2.1	18.4	5 W	—	—

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12 23	14 50.15	−26 14.0	1.945	1.405	28.8	21.4	43 W	15*	35*
1 2	15 20.15	−25 45.3	1.921	1.439	29.9	21.5	47 W	16*	38*
1 12	15 48.67	−24 49.3	1.888	1.476	31.0	21.6	51 W	18*	42*
1 22	16 15.55	−23 27.0	1.848	1.516	32.1	21.6	55 W	19*	47*
2 1	16 40.59	−21 39.1	1.801	1.557	33.1	21.6	60 W	22*	51*

85275 1994 *LY*

12 23	14 50.65	− 3 2.0	2.816	2.319	19.1	21.1	51 W	37*	27*
1 2	15 8.04	− 3 34.9	2.674	2.280	21.0	21.1	56 W	38*	33*
1 12	15 25.53	− 3 56.6	2.526	2.238	22.8	20.9	62 W	39*	40*
1 22	15 43.05	− 4 5.9	2.373	2.195	24.5	20.8	68 W	40*	46*
2 1	16 0.51	− 4 1.5	2.217	2.150	26.0	20.7	73 W	41*	52*
2 11	16 17.82	− 3 42.0	2.058	2.103	27.4	20.5	79 W	41*	57*
2 21	16 34.88	− 3 6.5	1.900	2.054	28.6	20.3	84 W	42*	62*
3 2	16 51.54	− 2 13.5	1.743	2.003	29.7	20.1	90 W	43*	64*
3 12	17 7.65	− 1 2.3	1.589	1.950	30.5	19.9	95 W	44	65*
3 22	17 23.06	+ 0 27.9	1.439	1.896	31.1	19.6	101 W	45	64
4 1	17 37.52	+ 2 17.8	1.295	1.840	31.5	19.3	106 W	47	62
4 11	17 50.82	+ 4 26.9	1.158	1.783	31.7	19.0	111 W	49	60
4 21	18 2.70	+ 6 54.6	1.030	1.724	31.7	18.7	116 W	52	57
5 1	18 12.82	+ 9 38.8	0.910	1.664	31.5	18.3	120 W	55	54
5 6	18 17.11	+11 5.7	0.853	1.633	31.4	18.2	122 W	56	53
5 11	18 20.84	+12 35.1	0.799	1.603	31.3	18.0	124 W	58	51
5 16	18 23.96	+14 6.2	0.747	1.572	31.3	17.8	126 W	59	50
5 21	18 26.40	+15 37.6	0.697	1.541	31.2	17.6	128 W	61	48
5 26	18 28.11	+17 8.1	0.650	1.511	31.3	17.4	129 W	62	47
5 31	18 29.06	+18 35.9	0.605	1.480	31.4	17.2	130 W	64	45
6 5	18 29.25	+19 59.0	0.562	1.449	31.7	17.0	131 W	65	44
6 10	18 28.63	+21 15.4	0.521	1.419	32.1	16.8	132 W	66	43
6 15	18 27.20	+22 22.6	0.483	1.388	32.6	16.6	133 W	67	42
6 20	18 24.97	+23 17.4	0.445	1.358	33.3	16.4	133 W	68	41
6 25	18 22.00	+23 56.2	0.410	1.329	34.2	16.2	133 W	69	40
6 30	18 18.41	+24 15.2	0.376	1.300	35.3	16.0	132 E	69	40
7 5	18 14.33	+24 10.0	0.344	1.272	36.5	15.8	132 E	69	40
7 10	18 9.92	+23 35.8	0.312	1.245	37.8	15.6	131 E	69	40
7 15	18 5.36	+22 25.8	0.282	1.219	39.3	15.3	131 E	67	42
7 20	18 0.89	+20 31.4	0.253	1.194	40.8	15.1	130 E	66	43
7 22	17 59.19	+19 30.8	0.242	1.184	41.4	15.0	130 E	65	44
7 24	17 57.57	+18 20.4	0.230	1.175	42.1	14.9	129 E	63	46

85275 1994 *LY* *(continuation)*

2020	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
	h m	° ′			°	m	°	°	°
7 26	17 56.06	+16 59.3	0.220	1.166	42.7	14.8	129 E	62	47
7 28	17 54.67	+15 26.3	0.209	1.157	43.3	14.7	129 E	60	49
7 30	17 53.43	+13 40.1	0.198	1.149	43.9	14.6	128 E	59	50
8 1	17 52.35	+11 39.2	0.188	1.141	44.5	14.5	128 E	57	52
8 3	17 51.46	+ 9 22.0	0.178	1.133	45.2	14.4	128 E	54	55
8 5	17 50.77	+ 6 46.4	0.169	1.125	45.8	14.2	127 E	52	57
8 7	17 50.31	+ 3 50.5	0.160	1.118	46.4	14.1	127 E	49	60
8 9	17 50.12	+ 0 32.1	0.151	1.111	47.1	14.0	127 E	46	63
8 11	17 50.23	− 3 10.9	0.144	1.104	47.9	13.9	126 E	42	67
8 13	17 50.69	− 7 20.2	0.136	1.098	48.7	13.8	125 E	38	71
8 15	17 51.55	−11 56.7	0.130	1.092	49.7	13.7	125 E	33	76
8 17	17 52.90	−17 0.4	0.125	1.087	50.8	13.6	124 E	28	81
8 19	17 54.82	−22 29.3	0.120	1.082	52.0	13.6	123 E	23	86
8 21	17 57.45	−28 19.3	0.117	1.077	53.5	13.6	121 E	17	88
8 23	18 0.95	−34 24.2	0.115	1.073	55.1	13.6	120 E	11	82
8 25	18 5.53	−40 35.8	0.115	1.069	56.8	13.6	118 E	4	75
8 27	18 11.50	−46 44.9	0.115	1.066	58.7	13.7	116 E	—	69
8 29	18 19.30	−52 42.4	0.117	1.063	60.4	13.7	114 E	—	63
8 30	18 24.06	−55 34.3	0.119	1.061	61.3	13.8	113 E	—	60
8 31	18 29.53	−58 20.3	0.121	1.060	62.1	13.8	112 E	—	58
9 1	18 35.84	−60 59.8	0.123	1.059	62.9	13.9	111 E	—	55
9 2	18 43.15	−63 32.0	0.125	1.058	63.7	14.0	110 E	—	52
9 3	18 51.64	−65 56.4	0.128	1.057	64.4	14.0	109 E	—	50
9 4	19 1.57	−68 12.5	0.131	1.057	65.0	14.1	108 E	—	48
9 5	19 13.22	−70 19.6	0.134	1.056	65.6	14.2	107 E	—	46
9 6	19 26.96	−72 17.2	0.137	1.056	66.1	14.2	107 E	—	44
9 7	19 43.19	−74 4.6	0.140	1.055	66.6	14.3	106 E	—	42
9 8	20 2.38	−75 41.0	0.144	1.055	67.0	14.4	105 E	—	40
9 9	20 24.99	−77 5.5	0.147	1.055	67.3	14.4	105 E	—	39
9 10	20 51.32	−78 16.8	0.151	1.055	67.6	14.5	104 E	—	38
9 11	21 21.42	−79 13.7	0.155	1.055	67.8	14.6	104 E	—	37
9 12	21 54.75	−79 55.3	0.159	1.055	68.0	14.6	104 E	—	36
9 13	22 30.17	−80 20.9	0.163	1.056	68.1	14.7	103 E	—	36
9 14	23 5.96	−80 30.9	0.168	1.056	68.2	14.7	103 E	—	35
9 15	23 40.34	−80 26.7	0.172	1.057	68.3	14.8	103 W	—	36
9 16	0 11.86	−80 10.5	0.176	1.057	68.3	14.9	102 W	—	36
9 17	0 39.75	−79 44.9	0.181	1.058	68.2	14.9	102 W	—	36
9 18	1 3.84	−79 12.1	0.185	1.059	68.1	15.0	102 W	—	37
9 19	1 24.34	−78 34.3	0.190	1.060	68.0	15.0	102 W	—	37
9 20	1 41.68	−77 53.1	0.194	1.061	67.9	15.1	102 W	—	38
9 21	1 56.32	−77 9.9	0.199	1.063	67.7	15.1	102 W	—	39
9 22	2 8.70	−76 25.3	0.204	1.064	67.5	15.2	102 W	—	40
9 23	2 19.20	−75 40.2	0.208	1.065	67.3	15.2	102 W	—	40
9 24	2 28.16	−74 55.0	0.213	1.067	67.0	15.2	102 W	—	41
9 25	2 35.82	−74 10.0	0.218	1.069	66.7	15.3	102 W	—	42
9 26	2 42.41	−73 25.4	0.222	1.071	66.4	15.3	102 W	—	43
9 27	2 48.10	−72 41.4	0.227	1.072	66.1	15.4	102 W	—	43
9 28	2 53.02	−71 58.1	0.232	1.075	65.8	15.4	102 W	—	44
9 29	2 57.30	−71 15.4	0.237	1.077	65.4	15.4	102 W	—	45
9 30	3 1.03	−70 33.5	0.241	1.079	65.1	15.5	102 W	—	45
10 1	3 4.28	−69 52.4	0.246	1.081	64.7	15.5	102 W	—	46
10 2	3 7.11	−69 12.0	0.251	1.084	64.3	15.5	103 W	—	47
10 3	3 9.59	−68 32.3	0.255	1.086	63.9	15.6	103 W	—	47
10 4	3 11.75	−67 53.3	0.260	1.089	63.5	15.6	103 W	—	48
10 5	3 13.63	−67 15.0	0.265	1.092	63.0	15.6	103 W	—	49
10 6	3 15.26	−66 37.2	0.269	1.095	62.6	15.7	104 W	—	49
10 7	3 16.67	−66 0.1	0.274	1.098	62.2	15.7	104 W	—	50
10 8	3 17.89	−65 23.4	0.279	1.101	61.7	15.7	104 W	—	51
10 10	3 19.81	−64 11.5	0.288	1.107	60.8	15.8	105 W	—	52
10 12	3 21.15	−63 1.2	0.297	1.114	59.8	15.8	105 W	—	53
10 14	3 22.02	−61 52.1	0.306	1.121	58.8	15.9	106 W	—	54
10 16	3 22.50	−60 43.8	0.315	1.128	57.9	15.9	107 W	—	55
10 18	3 22.67	−59 36.1	0.324	1.136	56.8	16.0	107 W	—	56
10 20	3 22.58	−58 28.7	0.334	1.144	55.8	16.0	108 W	—	58
10 22	3 22.29	−57 21.3	0.343	1.152	54.8	16.1	109 W	—	59
10 24	3 21.84	−56 13.7	0.352	1.161	53.8	16.1	110 W	—	60
10 26	3 21.26	−55 5.9	0.361	1.170	52.8	16.2	110 W	—	61
10 28	3 20.59	−53 57.6	0.370	1.179	51.7	16.2	111 W	—	62
11 2	3 18.64	−51 4.2	0.393	1.203	49.2	16.3	113 W	—	65
11 7	3 16.56	−48 6.2	0.417	1.229	46.8	16.4	115 W	—	68
11 12	3 14.59	−45 2.7	0.442	1.255	44.5	16.5	117 W	—	71
11 17	3 12.95	−41 53.9	0.468	1.283	42.4	16.6	119 E	3	74
11 22	3 11.80	−38 40.7	0.496	1.311	40.5	16.8	121 E	6	77
11 27	3 11.26	−35 24.9	0.526	1.340	38.8	16.9	122 E	10	81
12 2	3 11.36	−32 8.4	0.559	1.370	37.4	17.0	122 E	13	84
12 7	3 12.12	−28 53.0	0.594	1.400	36.2	17.2	123 E	16	87
12 12	3 13.54	−25 40.6	0.633	1.430	35.4	17.3	123 E	19	90
12 17	3 15.61	−22 32.6	0.675	1.461	34.7	17.5	122 E	22	87
12 22	3 18.33	−19 30.5	0.719	1.491	34.2	17.7	121 E	25	84
12 27	3 21.66	−16 35.5	0.768	1.522	33.9	17.8	120 E	28	81

85275 1994 *LY* *(continuation)*

19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	–26°
	h m	° ′			°	m	°	°	°
1 1	3 25.54	−13 48.5	0.819	1.553	33.7	18.0	119 E	31	78
1 6	3 29.95	−11 9.9	0.874	1.584	33.6	18.2	117 E	34	75
1 11	3 34.84	− 8 39.9	0.932	1.614	33.5	18.4	115 E	36	73

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19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	–26°
12 23	14 50.73	−22 0.9	3.458	2.835	14.0	20.5	44 W	19*	34*
1 2	15 5.12	−23 12.5	3.331	2.812	15.7	20.5	51 W	20*	41*
1 12	15 19.22	−24 20.2	3.193	2.789	17.3	20.4	57 W	20*	49*
1 22	15 32.91	−25 24.0	3.046	2.764	18.7	20.4	64 W	19*	56*
2 1	15 46.01	−26 23.6	2.891	2.739	19.9	20.3	71 W	19*	64*
2 11	15 58.30	−27 19.3	2.731	2.712	20.9	20.2	78 W	18	72*
2 21	16 9.57	−28 11.3	2.568	2.685	21.6	20.0	86 W	17	80*
3 2	16 19.49	−28 59.8	2.403	2.656	21.9	19.9	94 W	16	86*
3 12	16 27.73	−29 45.1	2.240	2.627	21.8	19.7	102 W	15	86
3 22	16 33.93	−30 27.3	2.081	2.596	21.1	19.5	110 W	15	86
4 1	16 37.63	−31 6.1	1.929	2.565	20.0	19.3	119 W	14	85
4 11	16 38.42	−31 40.3	1.788	2.533	18.1	19.0	128 W	13	84
4 21	16 35.95	−32 8.0	1.660	2.500	15.6	18.7	138 W	13	84
5 1	16 30.05	−32 25.6	1.550	2.466	12.4	18.4	148 W	13	84
5 6	16 25.87	−32 29.3	1.503	2.448	10.6	18.3	154 W	13	84
5 11	16 20.97	−32 29.0	1.462	2.431	8.7	18.1	159 W	13	84
5 16	16 15.45	−32 24.1	1.426	2.413	6.8	18.0	163 W	13	84
5 21	16 9.44	−32 14.3	1.397	2.395	5.3	17.8	167 W	13	84
5 26	16 3.14	−31 59.5	1.375	2.377	4.7	17.8	169 E	13	84
5 31	15 56.76	−31 39.9	1.359	2.359	5.4	17.7	167 E	13	84
6 5	15 50.50	−31 16.0	1.349	2.340	7.0	17.8	164 E	14	85
6 10	15 44.57	−30 48.6	1.346	2.322	9.1	17.9	159 E	14	85
6 15	15 39.13	−30 18.6	1.349	2.303	11.4	17.9	153 E	15	86
6 20	15 34.36	−29 46.9	1.358	2.284	13.6	18.0	148 E	15	86
6 25	15 30.37	−29 14.8	1.371	2.265	15.8	18.1	143 E	16	87
6 30	15 27.27	−28 43.2	1.390	2.246	17.9	18.2	137 E	16	87
7 5	15 25.10	−28 13.2	1.412	2.227	19.8	18.3	132 E	17	88
7 10	15 23.87	−27 45.2	1.438	2.207	21.5	18.3	127 E	17*	88
7 20	15 24.24	−26 57.7	1.499	2.168	24.5	18.5	118 E	17*	89
7 30	15 28.24	−26 22.8	1.568	2.128	26.8	18.6	109 E	17*	90
8 9	15 35.52	−26 0.4	1.641	2.088	28.4	18.7	101 E	16*	90
8 19	15 45.75	−25 48.5	1.716	2.048	29.5	18.8	94 E	16*	88*
8 29	15 58.64	−25 44.8	1.790	2.009	30.1	18.9	87 E	15*	81*
9 8	16 13.89	−25 46.0	1.862	1.969	30.3	18.9	81 E	15*	75*
9 18	16 31.25	−25 49.0	1.930	1.929	30.2	18.9	75 E	15*	69*
9 28	16 50.54	−25 50.4	1.994	1.890	29.7	19.0	69 E	15*	63*
10 8	17 11.55	−25 47.1	2.053	1.852	29.1	19.0	64 E	15*	58*
10 18	17 34.09	−25 36.0	2.106	1.814	28.2	18.9	59 E	15*	53*
10 28	17 58.00	−25 14.4	2.154	1.778	27.2	18.9	55 E	15*	48*
11 7	18 23.05	−24 39.6	2.197	1.743	26.0	18.9	51 E	16*	43*
11 17	18 49.06	−23 49.5	2.235	1.710	24.8	18.8	46 E	16*	39*
11 27	19 15.82	−22 42.6	2.268	1.679	23.4	18.8	43 E	17*	34*
12 7	19 43.10	−21 17.7	2.297	1.650	22.0	18.7	39 E	17*	29*
12 17	20 10.74	−19 34.5	2.323	1.624	20.5	18.7	35 E	17*	24*
12 27	20 38.56	−17 33.1	2.347	1.601	19.0	18.6	32 E	17*	20*
1 6	21 6.42	−15 14.6	2.368	1.581	17.5	18.6	29 E	17*	16*
1 16	21 34.22	−12 40.5	2.388	1.564	16.0	18.5	26 E	16*	12*

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19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	–26°
12 23	14 51.52	− 5 5.4	2.890	2.372	18.4	20.3	49 W	35*	27*
1 2	15 1.81	− 5 40.4	2.864	2.467	19.5	20.4	57 W	37*	35*
1 12	15 10.58	− 6 3.9	2.822	2.559	20.3	20.5	65 W	38*	44*
1 22	15 17.66	− 6 16.0	2.766	2.647	20.8	20.5	73 W	39*	52*
2 1	15 22.83	− 6 17.0	2.699	2.733	20.9	20.6	82 W	39	61*
2 11	15 25.86	− 6 7.1	2.625	2.816	20.5	20.6	91 W	39	67*
2 21	15 26.54	− 5 46.9	2.547	2.896	19.6	20.5	101 W	39	70*
3 2	15 24.65	− 5 16.9	2.473	2.974	18.1	20.5	111 W	40	69
3 12	15 20.12	− 4 38.5	2.406	3.049	16.1	20.4	122 W	40	69
3 22	15 13.00	− 3 53.7	2.355	3.122	13.5	20.3	133 W	41	68
4 1	15 3.55	− 3 5.5	2.324	3.192	10.4	20.2	145 W	42	67
4 11	14 52.35	− 2 17.7	2.320	3.260	7.2	20.1	156 W	43	66
4 21	14 40.17	− 1 34.5	2.346	3.327	4.5	20.1	165 W	43	66
5 1	14 27.90	− 0 59.8	2.405	3.391	4.2	20.1	166 E	44	65
5 11	14 16.45	− 0 36.5	2.496	3.453	6.3	20.4	158 E	44	65
5 21	14 6.49	− 0 26.0	2.617	3.513	8.9	20.6	148 E	45	64
5 31	13 58.47	− 0 28.4	2.764	3.571	11.2	20.9	137 E	45	64
6 10	13 52.58	− 0 42.6	2.932	3.628	13.0	21.1	126 E	44	65
6 20	13 48.81	− 1 6.9	3.117	3.683	14.3	21.3	116 E	43*	65
6 30	13 47.04	− 1 39.8	3.312	3.736	15.1	21.5	107 E	41*	66

181958 1999 UL_7

19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	–26°
12 23	14 52.20	−33 25.2	3.803	3.151	12.2	21.2	43 W	8*	36*
1 2	15 5.58	−34 52.0	3.716	3.163	13.6	21.2	49 W	8*	43*
1 12	15 18.38	−36 17.3	3.617	3.174	14.9	21.2	56 W	8*	50*
1 22	15 30.42	−37 41.1	3.507	3.184	16.0	21.2	63 W	7*	57*

181958 1999 UL_7 *(continuation)*

19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	–26°
	h m	° ′			°	m	°	°	°
2 1	15 41.47	−39 3.9	3.388	3.193	16.9	21.2	70 W	6*	64*
2 11	15 51.27	−40 25.8	3.262	3.202	17.5	21.1	78 W	5	69*
2 21	15 59.53	−41 46.9	3.132	3.209	17.9	21.0	85 W	3	73*
3 2	16 5.88	−43 7.0	3.001	3.215	17.9	21.0	93 W	2	73
3 12	16 9.94	−44 25.5	2.870	3.221	17.6	20.9	102 W	1	72
3 22	16 11.34	−45 40.9	2.745	3.225	16.9	20.7	110 W	—	70
4 1	16 9.68	−46 50.5	2.629	3.228	15.8	20.6	119 W	—	69
4 11	16 4.78	−47 50.3	2.525	3.231	14.3	20.5	127 W	—	68
4 16	16 1.10	−48 15.0	2.479	3.232	13.5	20.4	131 W	—	68
4 21	15 56.65	−48 35.2	2.438	3.232	12.6	20.3	136 W	—	67
4 26	15 51.49	−48 50.2	2.401	3.233	11.7	20.3	139 W	—	67
5 1	15 45.72	−48 59.3	2.371	3.233	10.8	20.2	143 W	—	67
5 6	15 39.48	−49 2.1	2.346	3.233	10.0	20.1	146 W	—	67
5 11	15 32.93	−48 58.2	2.327	3.232	9.4	20.1	149 W	—	67
5 16	15 26.23	−48 47.5	2.314	3.232	8.9	20.1	150 E	—	67
5 21	15 19.55	−48 30.0	2.308	3.231	8.8	20.1	151 E	—	67
5 26	15 13.09	−48 6.2	2.309	3.230	8.9	20.1	151 E	—	68
5 31	15 7.00	−47 36.7	2.316	3.228	9.3	20.1	149 E	—	68
6 5	15 1.43	−47 2.4	2.329	3.227	9.9	20.1	147 E	—	69
6 10	14 56.49	−46 24.3	2.349	3.225	10.7	20.2	144 E	—	70
6 15	14 52.25	−45 43.3	2.374	3.223	11.6	20.2	140 E	—	70
6 20	14 48.77	−45 0.6	2.405	3.220	12.5	20.3	137 E	—	71
6 25	14 46.07	−44 17.2	2.441	3.218	13.4	20.4	133 E	1	72
6 30	14 44.17	−43 33.9	2.482	3.215	14.3	20.4	129 E	1*	72
7 5	14 43.04	−42 51.5	2.527	3.212	15.1	20.5	124 E	2*	73
7 10	14 42.67	−42 10.7	2.575	3.209	15.9	20.6	120 E	2*	74
7 15	14 43.00	−41 31.9	2.627	3.205	16.6	20.6	116 E	2*	74
7 20	14 44.02	−40 55.6	2.682	3.201	17.1	20.7	112 E	2*	75
7 25	14 45.68	−40 21.9	2.739	3.197	17.6	20.7	108 E	2*	76
7 30	14 47.95	−39 51.1	2.797	3.193	18.0	20.8	104 E	2*	76
8 4	14 50.77	−39 23.2	2.858	3.189	18.3	20.8	100 E	2*	77
8 9	14 54.10	−38 58.1	2.919	3.184	18.5	20.9	96 E	1*	76*
8 14	14 57.92	−38 35.8	2.980	3.179	18.6	20.9	92 E	1*	75*
8 19	15 2.18	−38 16.2	3.043	3.174	18.6	21.0	88 E	1*	73*
8 24	15 6.87	−37 59.2	3.104	3.168	18.5	21.0	84 E	1*	71*
8 29	15 11.94	−37 44.6	3.166	3.163	18.4	21.0	81 E	—	68*
9 3	15 17.38	−37 32.1	3.226	3.157	18.1	21.1	77 E	—	65*
9 8	15 23.15	−37 21.5	3.286	3.150	17.9	21.1	73 E	—	62*
9 13	15 29.24	−37 12.8	3.344	3.144	17.5	21.1	70 E	—	59*
9 18	15 35.62	−37 5.5	3.401	3.137	17.1	21.1	66 E	—	56*
9 23	15 42.29	−36 59.6	3.455	3.130	16.6	21.2	63 E	—	53*
9 28	15 49.21	−36 54.9	3.508	3.123	16.1	21.2	60 E	—	50*
10 3	15 56.37	−36 51.0	3.558	3.116	15.5	21.2	56 E	—	48*
10 8	16 3.76	−36 47.9	3.606	3.108	14.9	21.2	53 E	—	45*
10 13	16 11.37	−36 45.2	3.651	3.100	14.2	21.2	50 E	—	42*
10 18	16 19.17	−36 42.9	3.693	3.092	13.5	21.2	46 E	—	39*
10 23	16 27.17	−36 40.8	3.732	3.084	12.8	21.2	43 E	—	36*
10 28	16 35.33	−36 38.6	3.768	3.075	12.0	21.1	40 E	—	33*
11 2	16 43.65	−36 36.2	3.800	3.066	11.2	21.1	37 E	—	30*
11 7	16 52.12	−36 33.4	3.829	3.057	10.4	21.1	34 E	—	27*
11 12	17 0.72	−36 30.1	3.854	3.048	9.6	21.1	31 E	—	24*
11 17	17 9.44	−36 26.3	3.876	3.038	8.8	21.1	28 E	—	21*
11 22	17 18.28	−36 21.6	3.894	3.029	8.0	21.0	25 E	—	18*
11 27	17 27.21	−36 16.1	3.908	3.019	7.1	21.0	22 E	—	15*
12 2	17 36.21	−36 9.6	3.918	3.008	6.3	20.9	20 E	—	13*
12 7	17 45.29	−36 2.0	3.924	2.998	5.6	20.9	17 E	—	10*
12 12	17 54.43	−35 53.3	3.926	2.987	4.9	20.9	15 E	—	7*
12 17	18 3.61	−35 43.3	3.924	2.976	4.4	20.8	13 E	—	5*
12 22	18 12.82	−35 32.1	3.918	2.965	4.1	20.8	12 E	—	2*
12 27	18 22.04	−35 19.6	3.908	2.953	4.0	20.8	12 W	—	1*
1 1	18 31.27	−35 5.6	3.894	2.941	4.1	20.8	12 W	—	3*
1 6	18 40.49	−34 50.3	3.876	2.929	4.5	20.8	14 W	—	5*
1 11	18 49.69	−34 33.6	3.854	2.917	5.1	20.8	15 W	—	8*
1 16	18 58.85	−34 15.5	3.827	2.905	5.9	20.8	18 W	—	10*

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19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	–26°
12 23	14 52.21	− 9 57.0	1.592	1.174	38.0	21.1	47 W	30*	29*
1 2	15 16.32	−12 27.0	1.598	1.242	37.9	21.2	51 W	29*	35*
1 12	15 39.23	−14 41.0	1.589	1.305	38.2	21.3	55 W	28*	41*
1 22	16 1.00	−16 40.9	1.565	1.364	38.5	21.4	60 W	27*	48*
2 1	16 21.59	−18 28.7	1.527	1.419	38.9	21.4	65 W	26*	55*
2 11	16 40.89	−20 6.9	1.476	1.468	39.2	21.4	70 W	24*	61*
2 21	16 58.75	−21 38.2	1.413	1.513	39.3	21.4	76 W	23*	68*
3 2	17 14.90	−23 5.9	1.341	1.552	39.2	21.4	82 W	22*	75*
3 12	17 29.01	−24 33.6	1.262	1.587	38.7	21.3	89 W	20*	82*
3 22	17 40.62	−26 5.8	1.176	1.618	37.8	21.1	96 W	19*	90*
4 1	17 49.06	−27 46.9	1.088	1.644	36.2	20.9	104 W	17	88
4 11	17 53.46	−29 41.7	0.999	1.665	33.8	20.7	113 W	15	86
4 21	17 52.69	−31 53.3	0.915	1.682	30.4	20.4	122 W	13	84

19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
		317643 2003 FH_1				*(continuation)*			
	h m	° ′			°	m	°	°	°
4 26	17 49.91	−33 5.5	0.875	1.688	28.2	20.3	127 W	12	83
5 1	17 45.29	−34 20.9	0.838	1.694	25.8	20.1	133 W	11	82
5 6	17 38.68	−35 38.2	0.805	1.698	23.2	20.0	139 W	9	80
5 11	17 29.96	−36 55.1	0.776	1.701	20.3	19.8	144 W	8	79
5 16	17 19.11	−38 8.5	0.751	1.703	17.3	19.6	150 W	7	78
5 21	17 6.25	−39 14.6	0.732	1.704	14.5	19.5	155 W	6	77
5 26	16 51.68	−40 9.4	0.719	1.704	12.2	19.4	159 W	5	76
5 31	16 35.97	−40 49.4	0.712	1.703	11.1	19.3	161 W	4	75
6 5	16 19.82	−41 12.8	0.711	1.701	11.7	19.3	160 E	4	75
6 10	16 3.98	−41 19.3	0.717	1.697	13.7	19.4	157 E	4	75
6 15	15 49.15	−41 10.4	0.728	1.693	16.5	19.5	152 E	4	75
6 20	15 35.92	−40 49.2	0.745	1.687	19.6	19.7	146 E	4	75
6 25	15 24.66	−40 19.4	0.767	1.680	22.7	19.8	140 E	5	76
6 30	15 15.57	−39 45.1	0.793	1.672	25.6	20.0	135 E	5	76
7 5	15 8.64	−39 9.3	0.822	1.663	28.3	20.1	129 E	6*	77
7 10	15 3.77	−38 34.7	0.853	1.653	30.7	20.3	124 E	6*	77
7 15	15 0.81	−38 2.9	0.887	1.641	32.8	20.4	119 E	6*	78
7 20	14 59.59	−37 35.0	0.922	1.629	34.7	20.5	114 E	6*	78
7 25	14 59.96	−37 11.6	0.957	1.615	36.3	20.6	110 E	6*	79
7 30	15 1.74	−36 53.0	0.993	1.600	37.6	20.7	106 E	5*	79
8 4	15 4.78	−36 38.9	1.028	1.584	38.8	20.8	102 E	5*	79
8 9	15 8.96	−36 29.2	1.063	1.567	39.8	20.9	98 E	5*	79*
8 14	15 14.16	−36 23.2	1.097	1.549	40.7	21.0	94 E	4*	79*
8 19	15 20.31	−36 20.5	1.129	1.529	41.4	21.0	91 E	4*	77*
8 24	15 27.35	−36 20.6	1.160	1.508	42.0	21.1	88 E	4*	75*
8 29	15 35.21	−36 23.1	1.189	1.487	42.6	21.1	85 E	4*	73*
9 3	15 43.82	−36 27.1	1.216	1.463	43.0	21.1	82 E	3*	71*
9 8	15 53.17	−36 32.1	1.240	1.439	43.4	21.1	79 E	3*	68*
9 13	16 3.21	−36 37.5	1.262	1.414	43.7	21.1	76 E	3*	66*
9 18	16 13.93	−36 42.6	1.281	1.387	44.0	21.1	74 E	3*	64*
9 23	16 25.31	−36 46.9	1.297	1.359	44.3	21.1	71 E	3*	62*
9 28	16 37.34	−36 49.6	1.310	1.330	44.6	21.1	69 E	3*	60*
10 3	16 49.98	−36 50.0	1.320	1.300	44.9	21.1	66 E	3*	58*
10 8	17 3.23	−36 47.4	1.327	1.268	45.2	21.1	64 E	4*	56*
10 13	17 17.07	−36 40.9	1.330	1.236	45.6	21.0	62 E	4*	55*
10 18	17 31.50	−36 29.9	1.329	1.202	46.0	21.0	60 E	4*	53*
10 23	17 46.48	−36 13.3	1.325	1.167	46.5	20.9	58 E	5*	52*
10 28	18 1.98	−35 50.4	1.317	1.131	47.1	20.8	57 E	5*	50*
11 2	18 17.97	−35 20.1	1.305	1.095	47.9	20.8	55 E	6*	49*
11 7	18 34.41	−34 41.4	1.289	1.057	48.7	20.7	53 E	7*	47*
11 12	18 51.25	−33 53.2	1.269	1.019	49.8	20.6	52 E	8*	46*
11 17	19 8.44	−32 54.5	1.245	0.981	51.1	20.5	51 E	9*	44*
11 22	19 25.92	−31 44.1	1.217	0.942	52.6	20.4	49 E	10*	43*
11 27	19 43.59	−30 20.8	1.184	0.904	54.4	20.3	48 E	12*	42*
12 2	20 1.36	−28 43.5	1.147	0.866	56.6	20.2	47 E	13*	40*
12 7	20 19.13	−26 50.9	1.107	0.829	59.2	20.1	46 E	15*	38*
12 12	20 36.80	−24 41.9	1.061	0.793	62.2	20.0	45 E	17*	37*
12 17	20 54.22	−22 15.5	1.012	0.760	65.7	20.0	45 E	19*	35*
12 22	21 11.23	−19 30.7	0.959	0.731	69.7	19.9	44 E	21*	33*
12 27	21 27.66	−16 27.1	0.903	0.705	74.2	19.8	44 E	23*	30*
1 1	21 43.30	−13 4.2	0.845	0.685	79.2	19.8	43 E	26*	28*
1 6	21 57.97	− 9 22.1	0.784	0.671	84.6	19.8	43 E	28*	25*
1 11	22 11.50	− 5 21.1	0.723	0.664	90.2	19.8	42 E	30*	22*
1 16	22 23.75	− 1 1.6	0.662	0.665	95.7	19.8	42 E	33*	18*
		288807 2004 RW_{164}							
12 23	14 53.00	−10 32.4	1.317	0.965	48.1	20.8	47 W	29*	29*
12 28	15 14.43	− 9 22.9	1.325	0.981	47.6	20.9	47 W	31*	29*
1 2	15 35.43	− 8 9.6	1.335	0.999	47.2	20.9	48 W	32*	29*
1 7	15 55.96	− 6 53.2	1.345	1.019	46.7	21.0	49 W	33*	29*
1 12	16 15.94	− 5 34.2	1.357	1.041	46.1	21.0	50 W	34*	29*
1 17	16 35.34	− 4 13.3	1.370	1.064	45.6	21.1	51 W	35*	30*
1 22	16 54.13	− 2 51.0	1.383	1.089	45.0	21.1	51 W	36*	30*
1 27	17 12.26	− 1 27.7	1.397	1.115	44.4	21.2	52 W	37*	31*
2 1	17 29.71	− 0 3.7	1.412	1.142	43.8	21.2	53 W	38*	31*
2 6	17 46.48	+ 1 20.5	1.426	1.169	43.2	21.3	54 W	39*	32*
2 11	18 2.56	+ 2 44.7	1.441	1.197	42.7	21.3	55 W	40*	33*
2 16	18 17.97	+ 4 8.7	1.454	1.226	42.2	21.4	56 W	41*	34*
2 21	18 32.69	+ 5 32.3	1.468	1.254	41.7	21.5	58 W	42*	35*
		152754 1999 GS_6							
12 23	14 53.16	−17 24.5	1.146	0.821	57.2	20.9	45 W	23*	32*
1 2	15 23.68	−19 43.9	1.226	0.911	52.3	21.2	47 W	22*	36*
1 12	15 52.77	−21 34.6	1.283	1.001	49.1	21.4	50 W	21*	41*
1 22	16 20.23	−22 59.9	1.319	1.088	47.1	21.6	54 W	20*	45*
2 1	16 45.90	−24 3.0	1.336	1.170	45.7	21.7	58 W	19*	51*
		16529 Dangoldin							
12 23	14 53.64	−10 53.4	3.166	2.590	16.0	19.0	47 W	29*	29*
1 2	15 8.30	−11 2.8	3.087	2.620	17.5	19.1	53 W	31*	36*
1 12	15 22.10	−11 0.8	2.997	2.649	18.8	19.1	60 W	33*	44*
1 22	15 34.88	−10 46.8	2.897	2.677	19.8	19.0	67 W	34*	51*

19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
		16529 Dangoldin				*(continuation)*			
	h m	° ′			°	m	°	°	°
2 1	15 46.44	−10 20.1	2.790	2.704	20.6	19.0	75 W	35*	59*
2 11	15 56.55	− 9 40.3	2.678	2.730	21.0	19.0	83 W	35	65*
2 21	16 5.01	− 8 47.1	2.562	2.756	21.0	18.9	91 W	36	70*
3 2	16 11.53	− 7 40.5	2.447	2.780	20.6	18.8	99 W	37	72*
3 12	16 15.88	− 6 20.9	2.336	2.803	19.7	18.7	108 W	39	70
3 22	16 17.85	− 4 49.4	2.232	2.826	18.3	18.5	117 W	40	69
4 1	16 17.25	− 3 8.2	2.139	2.848	16.4	18.4	126 W	42	67
4 11	16 14.09	− 1 21.0	2.063	2.868	14.1	18.3	136 W	44	65
4 16	16 11.59	− 0 26.7	2.033	2.878	12.8	18.2	140 W	45	64
4 21	16 8.52	+ 0 27.1	2.008	2.888	11.6	18.1	145 W	45	64
4 26	16 4.95	+ 1 19.5	1.989	2.897	10.3	18.1	149 W	46	63
5 1	16 0.95	+ 2 9.7	1.976	2.907	9.3	18.0	152 W	47	62
5 6	15 56.63	+ 2 56.6	1.970	2.916	8.4	18.0	155 W	48	61
5 11	15 52.07	+ 3 39.6	1.971	2.924	8.0	18.0	156 W	49	60
5 21	15 42.71	+ 4 51.1	1.993	2.941	8.4	18.0	155 E	50	59
5 31	15 33.76	+ 5 39.8	2.042	2.957	10.2	18.2	149 E	51	58
6 10	15 26.02	+ 6 4.7	2.115	2.972	12.5	18.3	141 E	51	58
6 20	15 20.05	+ 6 7.1	2.209	2.986	14.7	18.5	132 E	51	58
6 30	15 16.17	+ 5 49.9	2.320	2.999	16.5	18.7	123 E	51	58
7 10	15 14.50	+ 5 16.9	2.443	3.011	17.9	18.9	115 E	50*	59
7 20	15 14.97	+ 4 31.8	2.576	3.022	18.8	19.0	106 E	48*	59
7 30	15 17.45	+ 3 38.1	2.715	3.032	19.4	19.2	98 E	45*	60
8 9	15 21.76	+ 2 38.8	2.856	3.040	19.5	19.3	91 E	42*	61
8 19	15 27.68	+ 1 36.2	2.996	3.048	19.3	19.4	83 E	40*	62*
8 29	15 35.05	+ 0 32.5	3.134	3.055	18.7	19.5	76 E	37*	59*
9 8	15 43.68	− 0 30.7	3.267	3.062	17.9	19.5	69 E	35*	55*
9 18	15 53.41	− 1 31.9	3.393	3.067	16.9	19.6	63 E	33*	50*
9 28	16 4.12	− 2 30.0	3.510	3.071	15.8	19.6	56 E	31*	44*
10 8	16 15.68	− 3 23.7	3.618	3.074	14.4	19.6	50 E	29*	38*
10 18	16 27.97	− 4 12.4	3.713	3.076	13.0	19.7	44 E	27*	31*
10 28	16 40.91	− 4 55.0	3.797	3.077	11.5	19.6	38 E	24*	24*
11 7	16 54.37	− 5 30.8	3.866	3.077	10.0	19.6	33 E	22*	17*
11 17	17 8.29	− 5 59.3	3.922	3.076	8.5	19.6	27 E	19*	10*
11 27	17 22.57	− 6 19.9	3.962	3.074	7.1	19.6	23 E	16*	2*
12 7	17 37.10	− 6 32.0	3.986	3.071	6.0	19.5	19 E	13*	—
12 17	17 51.81	− 6 35.5	3.995	3.068	5.4	19.5	17 E	8*	—
12 27	18 6.60	− 6 29.9	3.988	3.063	5.5	19.5	17 W	9*	—
1 6	18 21.38	− 6 15.4	3.964	3.057	6.2	19.5	20 W	14*	—
1 16	18 36.05	− 5 51.7	3.926	3.050	7.4	19.5	24 W	17*	3*
		1917 Cuyo							
12 23	14 54.24	− 8 15.8	3.772	3.191	13.1	20.1	47 W	31*	28*
1 2	15 5.53	− 8 24.2	3.641	3.179	14.7	20.0	55 W	34*	36*
1 12	15 16.21	− 8 23.1	3.498	3.166	16.0	20.0	62 W	35*	44*
1 22	15 26.14	− 8 11.4	3.345	3.151	17.1	19.9	70 W	37*	52*
2 1	15 35.11	− 7 48.4	3.185	3.135	17.9	19.8	78 W	37*	59*
2 11	15 42.90	− 7 13.0	3.019	3.117	18.4	19.7	86 W	38	66*
2 21	15 49.28	− 6 24.5	2.853	3.097	18.5	19.6	95 W	39	70*
3 2	15 53.97	− 5 22.3	2.688	3.077	18.2	19.4	104 W	40	69
3 12	15 56.71	− 4 6.1	2.529	3.054	17.5	19.3	113 W	41	68
3 22	15 57.25	− 2 36.6	2.381	3.030	16.2	19.1	122 W	42	67
4 1	15 55.36	− 0 55.2	2.247	3.005	14.4	18.9	132 W	44	65
4 11	15 50.98	+ 0 54.9	2.132	2.978	12.2	18.6	141 W	46	63
4 16	15 47.89	+ 1 51.7	2.083	2.964	11.1	18.5	145 W	47	62
4 21	15 44.22	+ 2 48.7	2.040	2.950	10.0	18.4	149 W	48	61
4 26	15 40.04	+ 3 44.8	2.004	2.935	9.1	18.4	153 W	49	60
5 1	15 35.43	+ 4 39.2	1.975	2.920	8.4	18.3	155 W	50	59
5 6	15 30.47	+ 5 30.7	1.953	2.904	8.1	18.2	156 W	51	58
5 11	15 25.28	+ 6 18.4	1.938	2.888	8.3	18.2	156 W	51	58
5 16	15 19.96	+ 7 1.5	1.930	2.872	9.0	18.2	154 E	52	57
5 21	15 14.64	+ 7 39.1	1.929	2.855	10.0	18.3	151 E	53	56
5 31	15 4.49	+ 8 35.9	1.946	2.820	12.6	18.3	143 E	54	55
6 10	14 55.71	+ 9 6.5	1.986	2.784	15.4	18.5	133 E	54	55
6 20	14 48.94	+ 9 12.0	2.045	2.746	17.9	18.6	124 E	54	55
6 30	14 44.58	+ 8 55.0	2.117	2.706	19.9	18.7	115 E	54*	55
7 10	14 42.76	+ 8 19.4	2.198	2.665	21.5	18.8	106 E	52*	56
7 20	14 43.42	+ 7 29.3	2.283	2.622	22.6	18.9	98 E	48*	57
7 30	14 46.45	+ 6 28.0	2.369	2.578	23.2	18.9	90 E	45*	58
8 9	14 51.65	+ 5 18.9	2.452	2.531	23.4	19.0	83 E	41*	58*
8 19	14 58.82	+ 4 4.4	2.531	2.483	23.3	19.0	76 E	38*	57*
8 29	15 7.81	+ 2 46.6	2.602	2.434	22.8	19.0	69 E	36*	54*
9 8	15 18.46	+ 1 27.4	2.665	2.382	22.1	19.0	63 E	33*	49*
9 18	15 30.65	+ 0 8.3	2.718	2.329	21.2	18.9	57 E	31*	44*
9 28	15 44.31	− 1 9.1	2.760	2.274	20.2	18.9	51 E	29*	39*
10 8	15 59.35	− 2 23.5	2.790	2.218	19.0	18.8	46 E	27*	34*
10 18	16 15.73	− 3 33.6	2.808	2.159	17.7	18.7	41 E	25*	28*
10 28	16 33.43	− 4 37.9	2.815	2.100	16.3	18.6	36 E	24*	22*
11 7	16 52.42	− 5 35.1	2.809	2.038	14.9	18.5	32 E	22*	16*
11 17	17 12.71	− 6 23.8	2.793	1.975	13.6	18.4	28 E	20*	11*

1917 Cuyo *(continuation)*

19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
	h m	° ′			°	m	°	°	°
11 27	17 34.28	− 7 2.6	2.765	1.911	12.3	18.3	24 E	18*	5*
12 7	17 57.14	− 7 30.1	2.729	1.845	11.1	18.1	21 E	15*	—
12 17	18 21.30	− 7 44.9	2.683	1.778	10.2	17.9	19 E	12*	—
12 27	18 46.75	− 7 45.9	2.630	1.710	9.4	17.8	17 E	9*	—
1 6	19 13.50	− 7 31.9	2.571	1.642	9.0	17.6	15 E	6*	—
1 16	19 41.57	− 7 2.3	2.509	1.573	8.8	17.5	14 W	6*	—

369264 2009 *MS*

19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
12 23	14 54.86	−50 55.2	1.565	1.118	38.7	19.1	45 W	—	37*
12 28	15 15.84	−51 18.1	1.607	1.158	37.4	19.2	46 W	—	37*
1 2	15 35.61	−51 28.4	1.644	1.198	36.4	19.3	46 W	—	37*
1 7	15 54.12	−51 28.5	1.676	1.240	35.6	19.3	47 W	—	38*
1 12	16 11.35	−51 20.4	1.703	1.282	35.0	19.4	48 W	—	39*
1 17	16 27.34	−51 5.7	1.725	1.324	34.6	19.5	50 W	—	40*
1 22	16 42.11	−50 46.0	1.741	1.366	34.3	19.6	51 W	—	42*
1 27	16 55.69	−50 22.3	1.752	1.408	34.2	19.7	53 W	—	44*
2 1	17 8.11	−49 55.6	1.758	1.450	34.1	19.7	56 W	—	46*
2 11	17 29.62	−48 55.7	1.754	1.533	34.1	19.9	61 W	—	50*
2 21	17 46.85	−47 50.7	1.731	1.614	34.2	20.0	66 W	—	55*
3 2	17 59.82	−46 43.0	1.691	1.694	34.0	20.0	73 W	—	60*
3 12	18 8.41	−45 33.5	1.636	1.772	33.6	20.0	81 W	—	66*
3 17	18 10.99	−44 57.9	1.603	1.810	33.2	20.0	85 W	—	68*
3 22	18 12.36	−44 21.4	1.569	1.848	32.6	20.0	89 W	—	71*
3 27	18 12.46	−43 43.7	1.533	1.884	31.9	20.0	94 W	1*	72*
4 1	18 11.23	−43 4.0	1.496	1.921	30.9	19.9	99 W	2*	73
4 6	18 8.63	−42 21.6	1.458	1.957	29.8	19.9	104 W	3*	74
4 11	18 4.63	−41 35.5	1.421	1.992	28.3	19.8	109 W	3	74
4 16	17 59.22	−40 44.8	1.386	2.026	26.7	19.7	115 W	4	75
4 21	17 52.40	−39 48.0	1.352	2.060	24.7	19.7	121 W	5	76
4 26	17 44.24	−38 43.9	1.323	2.094	22.4	19.6	127 W	6	77
5 1	17 34.89	−37 31.3	1.298	2.126	19.9	19.5	134 W	7	78
5 6	17 24.56	−36 9.4	1.278	2.158	17.1	19.4	141 W	9	80
5 11	17 13.51	−34 38.0	1.266	2.190	14.0	19.3	148 W	10	81
5 16	17 2.04	−32 57.6	1.261	2.221	10.9	19.2	156 W	12	83
5 21	16 50.50	−31 9.6	1.264	2.251	7.6	19.1	163 W	14	85
5 26	16 39.21	−29 16.1	1.277	2.281	4.5	19.0	170 W	16	87
5 31	16 28.48	−27 19.9	1.299	2.310	2.4	19.0	175 E	18	89
6 5	16 18.57	−25 24.0	1.330	2.339	3.6	19.1	172 E	20	89
6 10	16 9.64	−23 31.2	1.371	2.367	6.2	19.3	165 E	21	88
6 15	16 1.78	−21 44.0	1.420	2.395	8.9	19.6	159 E	23	86
6 20	15 55.06	−20 4.2	1.477	2.422	11.4	19.8	152 E	25	84
6 25	15 49.46	−18 32.9	1.541	2.448	13.6	20.0	146 E	26	83
6 30	15 44.97	−17 10.8	1.612	2.474	15.5	20.2	139 E	28	81
7 10	15 39.01	−14 54.1	1.768	2.524	18.5	20.5	128 E	30	79
7 20	15 36.60	−13 11.0	1.941	2.572	20.5	20.8	117 E	31*	77
7 30	15 37.14	−11 56.3	2.124	2.618	21.7	21.1	108 E	32*	76
8 9	15 40.09	−11 4.0	2.313	2.661	22.1	21.3	99 E	31*	75

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19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
12 23	14 55.03	−13 30.4	2.859	2.278	17.9	20.7	45 W	26*	30*
1 2	15 14.33	−14 22.5	2.731	2.242	19.9	20.6	51 W	27*	36*
1 12	15 33.85	−15 4.6	2.596	2.206	21.7	20.5	56 W	28*	43*
1 22	15 53.54	−15 35.6	2.456	2.170	23.5	20.4	62 W	28*	49*
2 1	16 13.28	−15 54.4	2.314	2.133	25.2	20.3	67 W	28*	55*
2 11	16 32.97	−15 59.8	2.169	2.096	26.7	20.2	73 W	29*	62*
2 21	16 52.47	−15 50.9	2.024	2.059	28.0	20.0	78 W	29*	67*
3 2	17 11.62	−15 27.0	1.880	2.022	29.1	19.9	83 W	29*	72*
3 12	17 30.22	−14 47.5	1.738	1.985	30.0	19.7	89 W	30*	76*
3 22	17 48.08	−13 52.1	1.600	1.949	30.6	19.5	94 W	31*	78*
4 1	18 4.92	−12 41.0	1.466	1.913	30.9	19.3	100 W	32*	77
4 11	18 20.48	−11 14.6	1.339	1.878	30.9	19.0	106 W	34*	75
4 21	18 34.47	− 9 34.2	1.219	1.844	30.4	18.8	112 W	35*	74
5 1	18 46.48	− 7 41.7	1.107	1.811	29.5	18.5	118 W	37	72
5 11	18 56.18	− 5 40.6	1.005	1.779	28.1	18.2	124 W	39	70
5 16	19 0.04	− 4 38.2	0.957	1.764	27.1	18.1	127 W	40	69
5 21	19 3.17	− 3 35.7	0.913	1.749	26.1	17.9	131 W	41	68
5 26	19 5.53	− 2 33.9	0.871	1.735	24.9	17.7	134 W	42	67
5 31	19 7.09	− 1 34.1	0.833	1.721	23.6	17.6	137 W	43	66
6 5	19 7.84	− 0 37.5	0.798	1.708	22.2	17.4	141 W	44	65
6 10	19 7.81	+ 0 14.6	0.766	1.695	20.7	17.3	144 W	45	64
6 15	19 6.99	+ 1 0.6	0.738	1.683	19.3	17.1	147 W	46	63
6 20	19 5.45	+ 1 38.9	0.713	1.671	17.9	17.0	150 W	47	62
6 25	19 3.29	+ 2 8.0	0.693	1.660	16.7	16.9	152 W	47	62
6 30	19 0.67	+ 2 26.6	0.676	1.650	15.8	16.8	154 W	47	62
7 5	18 57.76	+ 2 33.8	0.663	1.640	15.4	16.7	155 W	48	61
7 10	18 54.74	+ 2 29.0	0.654	1.632	15.5	16.7	155 E	47	62
7 20	18 49.23	+ 1 43.4	0.647	1.616	17.2	16.7	152 E	47	62
7 30	18 45.83	+ 0 15.0	0.656	1.604	20.3	16.8	147 E	45	64
8 9	18 45.82	− 1 44.1	0.678	1.596	23.9	17.0	140 E	43	66

74564 1999 NY_1 *(continuation)*

19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
	h m	° ′			°	m	°	°	°
8 14	18 47.29	− 2 50.6	0.694	1.593	25.7	17.1	137 E	42	67
8 19	18 49.81	− 3 59.3	0.713	1.591	27.4	17.2	134 E	41	68
8 24	18 53.38	− 5 8.6	0.735	1.590	28.9	17.3	130 E	40	69
8 29	18 57.98	− 6 16.9	0.759	1.590	30.4	17.4	127 E	39	70
9 3	19 3.54	− 7 22.7	0.786	1.590	31.6	17.5	124 E	38	71
9 8	19 10.01	− 8 25.0	0.816	1.592	32.8	17.6	121 E	37	72
9 13	19 17.30	− 9 23.0	0.847	1.594	33.7	17.8	118 E	36	73
9 18	19 25.36	−10 15.9	0.881	1.598	34.6	17.9	116 E	35	74
9 28	19 43.49	−11 43.9	0.955	1.607	35.8	18.1	110 E	33	76
10 8	20 3.72	−12 46.1	1.037	1.620	36.5	18.3	105 E	32	77
10 18	20 25.49	−13 21.9	1.127	1.636	36.8	18.5	101 E	32	77
10 28	20 48.29	−13 31.4	1.223	1.655	36.7	18.7	96 E	31	77*
11 7	21 11.66	−13 16.5	1.325	1.676	36.2	18.9	92 E	32	74*
11 12	21 23.45	−13 0.6	1.379	1.688	35.9	19.0	89 E	32	72*
11 17	21 35.27	−12 39.5	1.433	1.701	35.5	19.1	87 E	32	70*
11 22	21 47.08	−12 13.6	1.489	1.714	35.0	19.2	85 E	33	68*
11 27	21 58.87	−11 43.1	1.546	1.727	34.5	19.3	83 E	33	65*
12 7	22 22.26	−10 30.5	1.663	1.756	33.4	19.4	78 E	34	60*
12 17	22 45.34	− 9 4.6	1.784	1.786	32.0	19.6	74 E	36	54*
12 27	23 8.06	− 7 28.2	1.907	1.818	30.5	19.7	70 E	37*	49*
1 6	23 30.39	− 5 44.3	2.031	1.852	28.9	19.8	65 E	39*	44*
1 16	23 52.36	− 3 55.1	2.156	1.886	27.1	20.0	61 E	39*	39*

163250 2002 GH_1

19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
12 23	14 55.36	− 6 50.5	1.745	1.307	33.9	18.7	48 W	33*	27*
1 2	15 28.93	− 5 32.7	1.732	1.345	34.4	18.8	51 W	35*	29*
1 12	16 0.99	− 3 54.7	1.723	1.391	34.8	18.8	54 W	37*	32*
1 22	16 31.25	− 1 58.4	1.717	1.443	34.9	18.9	57 W	39*	35*
2 1	16 59.45	+ 0 13.9	1.713	1.499	34.9	19.0	61 W	41*	38*
2 11	17 25.38	+ 2 39.8	1.710	1.558	34.7	19.1	64 W	44*	41*
2 21	17 48.89	+ 5 16.4	1.707	1.620	34.4	19.1	68 W	46*	43*
3 2	18 9.84	+ 8 1.5	1.703	1.685	34.0	19.2	72 W	49*	45*
3 12	18 28.12	+10 52.2	1.698	1.751	33.4	19.3	76 W	52*	47*
3 22	18 43.61	+13 45.9	1.690	1.817	32.8	19.3	81 W	55*	47*
4 1	18 56.16	+16 39.9	1.680	1.884	31.9	19.4	85 W	58*	47*
4 11	19 5.60	+19 30.7	1.669	1.951	30.9	19.4	90 W	62*	44
4 16	19 9.10	+20 53.7	1.663	1.985	30.3	19.4	93 W	64*	43
4 21	19 11.77	+22 14.5	1.657	2.018	29.7	19.4	95 W	66*	42
4 26	19 13.56	+23 32.2	1.651	2.052	29.0	19.4	98 W	68*	40
5 1	19 14.47	+24 46.1	1.646	2.085	28.3	19.4	101 W	69*	39
5 6	19 14.50	+25 55.4	1.641	2.118	27.6	19.4	104 W	71*	38
5 11	19 13.65	+26 59.1	1.637	2.151	26.8	19.4	106 W	72	37
5 16	19 11.92	+27 56.6	1.634	2.184	26.0	19.4	109 W	73	36
5 21	19 9.35	+28 46.6	1.633	2.216	25.1	19.4	112 W	74	35
5 26	19 5.99	+29 28.2	1.633	2.249	24.2	19.5	114 W	74	35
5 31	19 1.91	+30 0.3	1.636	2.281	23.4	19.5	117 W	75	34
6 5	18 57.22	+30 22.2	1.641	2.313	22.5	19.5	119 W	75	34
6 10	18 52.04	+30 33.3	1.649	2.344	21.7	19.5	121 W	76	33
6 15	18 46.50	+30 33.1	1.660	2.376	20.9	19.5	123 W	76	33
6 20	18 40.75	+30 21.4	1.674	2.407	20.2	19.5	125 W	75	34
6 25	18 34.95	+29 58.1	1.693	2.438	19.6	19.6	126 W	75	34
6 30	18 29.28	+29 23.8	1.715	2.468	19.1	19.6	127 E	74	35
7 5	18 23.86	+28 39.2	1.741	2.499	18.7	19.7	128 E	74	35
7 10	18 18.84	+27 45.3	1.772	2.529	18.5	19.7	128 E	73	36
7 15	18 14.30	+26 43.3	1.807	2.558	18.3	19.8	128 E	72	37
7 20	18 10.33	+25 34.2	1.847	2.588	18.3	19.8	127 E	71	38
7 25	18 6.99	+24 19.6	1.891	2.617	18.4	19.9	126 E	69	40
7 30	18 4.33	+23 0.7	1.940	2.646	18.5	20.0	124 E	68	41
8 4	18 2.34	+21 38.9	1.993	2.675	18.7	20.1	122 E	67	42
8 9	18 1.02	+20 15.5	2.049	2.703	19.0	20.2	120 E	65	44
8 14	18 0.37	+18 51.4	2.110	2.731	19.2	20.3	118 E	64	45
8 19	18 0.35	+17 27.5	2.175	2.759	19.4	20.4	115 E	62	47
8 24	18 0.94	+16 4.8	2.242	2.786	19.6	20.5	112 E	61	48
8 29	18 2.10	+14 43.8	2.313	2.813	19.8	20.6	109 E	60	49
9 3	18 3.81	+13 25.2	2.387	2.840	19.9	20.7	106 E	58	51
9 8	18 6.00	+12 9.4	2.464	2.866	20.0	20.7	103 E	57	52
9 13	18 8.66	+10 56.7	2.542	2.893	20.0	20.8	100 E	56*	53
9 18	18 11.75	+ 9 47.3	2.623	2.918	20.0	20.9	97 E	55*	54
9 23	18 15.23	+ 8 41.5	2.705	2.944	19.9	21.0	94 E	53*	55*
9 28	18 19.07	+ 7 39.5	2.788	2.969	19.7	21.1	90 E	52*	56*
10 3	18 23.23	+ 6 41.2	2.872	2.994	19.5	21.2	87 E	51*	55*
10 8	18 27.69	+ 5 46.8	2.957	3.019	19.2	21.2	84 E	50*	54*
10 13	18 32.43	+ 4 56.1	3.043	3.043	18.9	21.3	81 E	49*	53*
10 18	18 37.40	+ 4 9.3	3.128	3.068	18.5	21.4	77 E	48*	51*
10 23	18 42.60	+ 3 26.2	3.213	3.091	18.0	21.4	74 E	47*	49*
10 28	18 48.00	+ 2 46.9	3.297	3.115	17.5	21.5	71 E	46*	46*

20691 1999 VY_{72}

19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
	h m	° ′			°	m	°	°	°
12 23	14 55.94	+ 3 0.8	3.516	3.020	15.0	19.4	53 W	42*	22*
1 2	15 8.48	+ 2 39.3	3.393	3.008	16.3	19.3	59 W	44*	30*
1 12	15 20.43	+ 2 28.6	3.261	2.994	17.4	19.3	66 W	46*	37*
1 22	15 31.64	+ 2 29.1	3.122	2.979	18.4	19.2	73 W	47*	44*
2 1	15 41.91	+ 2 41.4	2.978	2.964	19.1	19.1	80 W	48*	51*
2 11	15 51.03	+ 3 5.6	2.830	2.947	19.5	19.0	87 W	48	56*
2 21	15 58.75	+ 3 41.5	2.682	2.930	19.7	18.9	94 W	49	59*
3 2	16 4.80	+ 4 28.8	2.535	2.911	19.4	18.7	102 W	49	60
3 12	16 8.91	+ 5 26.0	2.394	2.892	18.8	18.6	110 W	50	59
3 22	16 10.78	+ 6 31.3	2.260	2.872	17.8	18.4	118 W	52	57
4 1	16 10.18	+ 7 41.4	2.139	2.851	16.3	18.2	127 W	53	56
4 11	16 6.98	+ 8 51.6	2.032	2.829	14.6	18.0	135 W	54	55
4 16	16 4.40	+ 9 24.9	1.986	2.817	13.7	17.9	138 W	54	55
4 21	16 1.20	+ 9 55.9	1.945	2.806	12.7	17.8	142 W	55	54
4 26	15 57.43	+10 23.7	1.909	2.794	11.9	17.8	145 W	55	54
5 1	15 53.15	+10 47.3	1.879	2.782	11.2	17.7	147 W	56	53
5 6	15 48.45	+11 5.8	1.855	2.769	10.8	17.6	149 W	56	53
5 11	15 43.43	+11 18.5	1.837	2.757	10.6	17.6	150 W	56	53
5 21	15 32.91	+11 24.4	1.819	2.731	11.3	17.6	148 E	56	53
5 31	15 22.61	+11 1.9	1.826	2.705	13.1	17.6	143 E	56	53
6 10	15 13.51	+10 11.6	1.855	2.677	15.4	17.7	136 E	55	54
6 20	15 6.34	+ 8 57.1	1.904	2.649	17.7	17.8	128 E	54	55
6 30	15 1.59	+ 7 22.9	1.969	2.620	19.8	18.0	119 E	52	57
7 10	14 59.46	+ 5 34.3	2.045	2.590	21.5	18.1	111 E	50*	58
7 20	14 59.90	+ 3 36.0	2.130	2.560	22.8	18.2	103 E	46*	60
7 30	15 2.81	+ 1 31.7	2.221	2.528	23.6	18.3	95 E	42*	62
8 9	15 7.99	− 0 35.5	2.313	2.496	24.0	18.3	88 E	38*	65*
8 19	15 15.23	− 2 43.3	2.405	2.463	24.0	18.4	81 E	34*	65*
8 29	15 24.34	− 4 50.2	2.495	2.430	23.6	18.4	75 E	31*	62*
9 8	15 35.16	− 6 54.5	2.581	2.396	23.0	18.4	68 E	28*	58*
9 18	15 47.55	− 8 55.1	2.661	2.361	22.1	18.5	62 E	26*	53*
9 28	16 1.40	−10 50.9	2.733	2.326	20.9	18.4	56 E	23*	48*
10 8	16 16.60	−12 40.9	2.798	2.291	19.6	18.4	50 E	21*	42*
10 18	16 33.10	−14 24.0	2.854	2.255	18.0	18.4	45 E	19*	36*
10 28	16 50.81	−15 59.4	2.901	2.218	16.4	18.3	39 E	17*	31*
11 7	17 9.69	−17 25.9	2.937	2.182	14.6	18.3	34 E	14*	25*
11 17	17 29.68	−18 42.5	2.964	2.145	12.6	18.2	28 E	12*	19*
11 27	17 50.71	−19 48.3	2.980	2.109	10.6	18.1	23 E	10*	14*
12 7	18 12.72	−20 42.4	2.986	2.072	8.5	17.9	18 E	7*	9*
12 17	18 35.65	−21 23.9	2.982	2.036	6.3	17.8	13 E	4*	5*
12 27	18 59.40	−21 52.2	2.968	2.000	4.1	17.6	8 E	1*	—
1 6	19 23.90	−22 6.6	2.944	1.964	1.9	17.4	4 E	—	—
1 16	19 49.06	−22 6.8	2.913	1.930	0.6	17.3	1 W	—	—

138868 2000 XR_{15}

19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
12 23	14 56.14	−23 38.3	2.212	1.629	24.1	21.1	43 W	17*	33*
1 2	15 23.74	−25 59.1	2.134	1.615	26.0	21.1	46 W	16*	38*
1 12	15 52.46	−28 5.7	2.055	1.600	27.8	21.0	49 W	14*	42*
1 22	16 22.32	−29 55.4	1.973	1.586	29.6	21.0	53 W	13*	46*
2 1	16 53.24	−31 25.4	1.891	1.571	31.4	20.9	56 W	11*	50*
2 11	17 25.06	−32 33.3	1.808	1.557	33.0	20.8	59 W	10*	53*
2 21	17 57.58	−33 16.9	1.726	1.543	34.6	20.8	62 W	9*	56*
3 2	18 30.46	−33 34.7	1.644	1.529	36.2	20.7	66 W	8*	59*
3 12	19 3.37	−33 25.9	1.563	1.515	37.6	20.6	69 W	7*	61*
3 22	19 35.93	−32 50.7	1.483	1.502	39.0	20.5	72 W	7*	64*
3 27	19 51.96	−32 23.4	1.443	1.496	39.6	20.4	73 W	7*	65*
4 1	20 7.76	−31 50.0	1.404	1.490	40.3	20.4	74 W	7*	67*
4 6	20 23.30	−31 10.6	1.365	1.484	40.9	20.3	76 W	7*	68*
4 11	20 38.55	−30 25.5	1.327	1.478	41.4	20.3	77 W	7*	70*
4 21	21 8.07	−28 39.5	1.252	1.468	42.5	20.2	80 W	8*	73*
5 1	21 36.08	−26 34.8	1.178	1.458	43.3	20.0	83 W	9*	77*
5 11	22 2.47	−24 13.9	1.105	1.450	44.0	19.9	86 W	11*	80*
5 21	22 27.14	−21 39.6	1.035	1.443	44.6	19.8	90 W	14*	83*
5 31	22 49.95	−18 54.5	0.965	1.437	44.8	19.6	93 W	17*	83*
6 10	23 10.78	−16 0.7	0.898	1.433	44.7	19.5	97 W	21*	80
6 20	23 29.46	−12 59.9	0.832	1.430	44.3	19.3	101 W	26*	77
6 30	23 45.67	− 9 53.8	0.768	1.428	43.3	19.1	105 W	31*	74
7 10	23 59.05	− 6 43.3	0.707	1.429	41.7	18.9	111 W	37*	71
7 20	0 9.06	− 3 29.4	0.649	1.430	39.4	18.6	117 W	41*	67
7 30	0 14.96	− 0 13.7	0.595	1.434	36.1	18.3	124 W	45	64
8 9	0 16.01	+ 3 1.5	0.549	1.438	31.8	18.0	132 W	48	61
8 14	0 14.49	+ 4 37.3	0.528	1.441	29.1	17.9	136 W	50	59
8 19	0 11.52	+ 6 10.3	0.510	1.444	26.2	17.7	141 W	51	58
8 24	0 7.10	+ 7 39.2	0.496	1.448	23.1	17.6	146 W	53	56
8 29	0 1.34	+ 9 2.4	0.484	1.452	19.8	17.4	151 W	54	55
9 3	23 54.42	+10 18.2	0.476	1.456	16.5	17.3	156 W	55	54
9 8	23 46.61	+11 24.7	0.472	1.461	13.5	17.2	160 W	56	53
9 13	23 38.25	+12 20.5	0.472	1.465	11.2	17.1	163 W	57	52
9 18	23 29.76	+13 4.7	0.477	1.470	10.4	17.1	165 E	58	51

138868 2000 XR_{15} *(continuation)*

19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
	h m	° ′			°	m	°	°	°
9 23	23 21.60	+13 37.6	0.486	1.476	11.2	17.2	163 E	59	50
9 28	23 14.20	+14 0.2	0.499	1.481	13.3	17.3	160 E	59	50
10 3	23 7.86	+14 14.1	0.517	1.487	16.0	17.5	156 E	59	50
10 8	23 2.82	+14 21.4	0.538	1.493	18.8	17.7	151 E	59	50
10 13	22 59.18	+14 23.9	0.562	1.499	21.6	17.9	146 E	59	50
10 18	22 57.02	+14 23.6	0.590	1.505	24.1	18.1	142 E	59	50
10 23	22 56.31	+14 22.5	0.621	1.512	26.4	18.3	137 E	59	50
10 28	22 56.99	+14 22.0	0.654	1.519	28.5	18.4	133 E	59	50
11 2	22 58.94	+14 23.2	0.690	1.525	30.3	18.6	129 E	59	50
11 7	23 2.05	+14 26.7	0.728	1.532	31.8	18.8	125 E	59	50
11 12	23 6.19	+14 33.0	0.768	1.539	33.1	19.0	122 E	60	49
11 17	23 11.28	+14 42.4	0.809	1.546	34.3	19.1	118 E	60	49
11 27	23 23.89	+15 11.6	0.896	1.561	35.9	19.4	112 E	60	49*
12 7	23 39.11	+15 54.0	0.988	1.575	37.0	19.7	106 E	61	47*
12 17	23 56.40	+16 48.2	1.083	1.590	37.5	19.9	100 E	62	45*
12 27	0 15.37	+17 52.4	1.181	1.604	37.6	20.1	95 E	63	41*
1 6	0 35.68	+19 4.1	1.282	1.618	37.4	20.3	90 E	64	38*
1 16	0 57.12	+20 20.9	1.383	1.632	36.9	20.5	85 E	65*	34*

88264 2001 KN_{20}

19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
12 23	14 56.41	− 6 57.3	2.458	1.935	22.0	21.4	48 W	32*	27*
1 2	15 19.40	− 8 24.2	2.321	1.877	24.3	21.3	52 W	33*	33*
1 12	15 43.45	− 9 43.9	2.182	1.819	26.5	21.2	56 W	33*	38*
1 22	16 8.71	−10 55.4	2.044	1.760	28.8	21.0	59 W	32*	44*
2 1	16 35.27	−11 57.2	1.907	1.700	31.0	20.9	63 W	31*	49*
2 11	17 3.26	−12 47.8	1.775	1.641	33.3	20.7	66 W	30*	54*
2 21	17 32.83	−13 25.9	1.647	1.582	35.6	20.5	69 W	30*	58*
3 2	18 4.08	−13 49.8	1.527	1.524	37.9	20.4	71 W	29*	61*
3 12	18 37.13	−13 58.3	1.414	1.467	40.3	20.2	73 W	28*	63*
3 22	19 12.07	−13 49.8	1.312	1.413	42.7	20.0	74 W	27*	65*
4 1	19 48.86	−13 23.1	1.221	1.362	45.1	19.8	75 W	26*	66*
4 11	20 27.40	−12 37.9	1.142	1.315	47.5	19.7	75 W	25*	67*
4 21	21 7.44	−11 34.3	1.077	1.273	49.8	19.5	75 W	23*	67*
5 1	21 48.53	−10 14.2	1.025	1.237	51.9	19.4	75 W	22*	67*
5 11	22 30.06	− 8 41.0	0.987	1.209	53.6	19.3	75 W	21*	66*
5 21	23 11.37	− 6 59.3	0.961	1.189	54.9	19.3	74 W	21*	65*
5 31	23 51.69	− 5 15.4	0.947	1.178	55.7	19.3	74 W	20*	64*
6 10	0 30.39	− 3 35.1	0.941	1.177	56.0	19.3	74 W	21*	64*
6 20	1 6.99	− 2 3.7	0.942	1.185	55.7	19.3	74 W	23*	63*
6 30	1 41.06	− 0 45.6	0.945	1.203	54.9	19.3	76 W	25*	62*
7 10	2 12.36	+ 0 16.5	0.950	1.229	53.8	19.3	77 W	28*	62*
7 20	2 40.72	+ 1 1.0	0.953	1.263	52.3	19.3	80 W	32*	62*
7 30	3 5.93	+ 1 27.2	0.953	1.303	50.6	19.3	83 W	36*	62*
8 9	3 27.83	+ 1 35.5	0.949	1.349	48.6	19.4	87 W	40*	62*
8 19	3 46.18	+ 1 26.8	0.939	1.399	46.3	19.4	92 W	43*	63
8 29	4 0.65	+ 1 2.7	0.925	1.453	43.6	19.3	97 W	45*	63
9 8	4 10.90	+ 0 25.6	0.907	1.509	40.4	19.3	104 W	45*	64
9 18	4 16.49	− 0 21.1	0.888	1.566	36.6	19.2	112 W	45	64
9 23	4 17.41	− 0 46.5	0.879	1.596	34.5	19.2	116 W	44	65
9 28	4 17.04	− 1 12.3	0.870	1.625	32.2	19.1	120 W	44	65
10 3	4 15.38	− 1 37.5	0.863	1.655	29.7	19.1	125 W	43	66
10 8	4 12.46	− 2 1.1	0.858	1.684	27.0	19.0	130 W	43	66
10 13	4 8.31	− 2 21.9	0.855	1.714	24.2	19.0	135 W	43	66
10 18	4 3.06	− 2 38.9	0.856	1.744	21.4	18.9	140 W	42	67
10 23	3 56.85	− 2 50.7	0.861	1.774	18.5	18.9	146 W	42	67
10 28	3 49.93	− 2 56.3	0.871	1.803	15.8	18.8	150 W	42	67
11 7	3 34.96	− 2 46.3	0.906	1.862	11.6	18.8	158 W	42	67
11 17	3 20.27	− 2 7.3	0.965	1.920	10.7	19.0	159 E	43	66
11 27	3 7.82	− 1 2.2	1.047	1.977	13.1	19.3	153 E	44	65
12 2	3 2.83	− 0 21.9	1.097	2.006	14.8	19.5	149 E	45	64
12 7	2 58.77	+ 0 22.2	1.152	2.034	16.5	19.7	144 E	45	64
12 12	2 55.66	+ 1 9.4	1.212	2.061	18.1	19.9	139 E	46	63
12 17	2 53.50	+ 1 58.9	1.277	2.089	19.6	20.1	135 E	47	62
12 22	2 52.26	+ 2 50.0	1.346	2.116	20.9	20.3	130 E	48	61
12 27	2 51.90	+ 3 42.1	1.418	2.143	22.0	20.5	125 E	49	60
1 1	2 52.36	+ 4 34.8	1.494	2.169	22.9	20.6	121 E	50	59
1 6	2 53.56	+ 5 27.6	1.572	2.195	23.6	20.8	117 E	50	59
1 11	2 55.44	+ 6 20.2	1.653	2.221	24.2	21.0	112 E	51	58
1 16	2 57.96	+ 7 12.4	1.736	2.246	24.6	21.1	108 E	52	57*

247743 2003 MX_{7}

19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
12 23	14 56.58	−38 49.9	3.165	2.523	15.2	21.4	42 W	3*	36*
1 2	15 17.29	−40 41.1	3.057	2.494	16.8	21.3	47 W	2*	41*
1 12	15 38.59	−42 28.1	2.942	2.464	18.4	21.2	52 W	1*	46*
1 22	16 0.47	−44 10.4	2.821	2.434	19.9	21.2	57 W	—	50*
2 1	16 22.81	−45 47.3	2.694	2.402	21.3	21.1	62 W	—	54*
2 11	16 45.51	−47 18.1	2.563	2.370	22.6	21.0	68 W	—	57*
2 21	17 8.41	−48 42.9	2.429	2.338	23.8	20.9	73 W	—	60*
3 2	17 31.27	−50 1.7	2.293	2.305	24.9	20.8	78 W	—	61*

247743 2003 MX_7 *(continuation)*

19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
	h m	° ′			°	m	°	°	°
3 12	17 53.81	−51 14.8	2.157	2.271	25.8	20.6	84 W	—	62*
3 22	18 15.70	−52 23.2	2.020	2.236	26.5	20.5	89 W	—	63*
3 27	18 26.25	−52 55.9	1.953	2.219	26.7	20.4	92 W	—	63*
4 1	18 36.46	−53 27.9	1.885	2.202	26.9	20.3	94 W	—	62*
4 6	18 46.26	−53 59.3	1.819	2.184	27.0	20.2	97 W	—	62*
4 11	18 55.59	−54 30.3	1.753	2.167	27.1	20.1	100 W	—	61
4 16	19 4.35	−55 1.1	1.689	2.149	27.1	20.0	103 W	—	61
4 21	19 12.44	−55 31.9	1.625	2.131	27.0	19.9	106 W	—	60
4 26	19 19.76	−56 2.8	1.562	2.114	26.8	19.8	109 W	—	60
5 1	19 26.18	−56 33.8	1.502	2.096	26.5	19.7	112 W	—	59
5 6	19 31.58	−57 4.7	1.442	2.078	26.1	19.6	115 W	—	59
5 11	19 35.83	−57 35.6	1.385	2.060	25.7	19.5	118 W	—	58
5 16	19 38.76	−58 6.0	1.329	2.043	25.1	19.3	121 W	—	58
5 21	19 40.20	−58 35.4	1.276	2.025	24.5	19.2	124 W	—	57
5 26	19 39.98	−59 2.6	1.225	2.007	23.7	19.1	127 W	—	57
5 31	19 37.97	−59 26.4	1.178	1.990	22.9	18.9	130 W	—	57
6 5	19 34.08	−59 45.0	1.133	1.972	22.0	18.8	133 W	—	56
6 10	19 28.27	−59 56.2	1.091	1.955	21.1	18.7	136 W	—	56
6 15	19 20.62	−59 57.7	1.053	1.937	20.2	18.6	139 W	—	56
6 20	19 11.31	−59 46.5	1.019	1.920	19.3	18.4	141 W	—	56
6 22	19 7.21	−59 37.9	1.007	1.913	19.0	18.4	142 W	—	56
6 24	19 2.94	−59 26.6	0.995	1.907	18.8	18.4	143 W	—	57
6 26	18 58.53	−59 12.6	0.984	1.900	18.6	18.3	144 W	—	57
6 28	18 54.03	−58 55.8	0.973	1.893	18.4	18.3	144 W	—	57
6 30	18 49.48	−58 36.0	0.964	1.886	18.2	18.2	144 W	—	57
7 2	18 44.91	−58 13.1	0.955	1.880	18.2	18.2	145 W	—	58
7 4	18 40.36	−57 47.3	0.947	1.873	18.1	18.2	145 E	—	58
7 6	18 35.88	−57 18.5	0.940	1.866	18.2	18.2	145 E	—	59
7 8	18 31.50	−56 46.6	0.933	1.860	18.3	18.1	145 E	—	59
7 10	18 27.26	−56 11.8	0.928	1.853	18.4	18.1	145 E	—	60
7 12	18 23.18	−55 34.2	0.923	1.847	18.7	18.1	144 E	—	60
7 14	18 19.30	−54 53.9	0.919	1.840	19.0	18.1	144 E	—	61
7 16	18 15.63	−54 10.9	0.915	1.834	19.3	18.1	143 E	—	62
7 18	18 12.21	−53 25.5	0.913	1.828	19.7	18.1	143 E	—	63
7 20	18 9.05	−52 38.0	0.911	1.821	20.2	18.1	142 E	—	63
7 25	18 2.36	−50 30.6	0.911	1.806	21.6	18.1	139 E	—	65
7 30	17 57.46	−48 14.0	0.915	1.791	23.2	18.2	136 E	—	68
8 4	17 54.34	−45 51.8	0.924	1.776	24.8	18.2	133 E	—	70
8 9	17 52.88	−43 27.0	0.937	1.761	26.6	18.3	129 E	2	73
8 14	17 52.94	−41 2.2	0.955	1.747	28.3	18.4	125 E	4	75
8 19	17 54.39	−38 39.5	0.976	1.734	29.9	18.4	121 E	6	77
8 24	17 57.08	−36 20.5	1.001	1.721	31.4	18.5	118 E	9	80
8 29	18 0.87	−34 6.3	1.028	1.708	32.7	18.6	114 E	11	82
9 3	18 5.60	−31 57.4	1.058	1.696	33.9	18.7	110 E	13	84
9 8	18 11.16	−29 54.0	1.090	1.685	34.9	18.8	107 E	15	86
9 13	18 17.44	−27 56.0	1.124	1.674	35.8	18.8	103 E	17	88
9 18	18 24.35	−26 3.1	1.160	1.664	36.5	18.9	100 E	19	90
9 28	18 39.82	−22 31.0	1.235	1.646	37.4	19.0	94 E	22*	86*
10 8	18 56.99	−19 13.7	1.313	1.630	37.8	19.2	89 E	26*	79*
10 18	19 15.52	−16 7.0	1.393	1.618	37.7	19.3	83 E	29*	72*
10 28	19 35.12	−13 7.2	1.473	1.608	37.3	19.4	79 E	32*	66*
11 7	19 55.57	−10 10.9	1.553	1.602	36.6	19.5	74 E	35*	59*
11 17	20 16.73	− 7 15.7	1.632	1.600	35.6	19.5	70 E	37*	52*
11 27	20 38.50	− 4 19.7	1.710	1.601	34.5	19.6	67 E	40*	45*
12 7	21 0.76	− 1 22.0	1.787	1.605	33.2	19.7	63 E	42*	38*
12 17	21 23.50	+ 1 38.1	1.862	1.613	31.9	19.7	60 E	44*	31*
12 27	21 46.69	+ 4 40.6	1.937	1.624	30.5	19.8	57 E	45*	25*
1 6	22 10.29	+ 7 44.8	2.010	1.638	29.0	19.9	54 E	45*	20*
1 16	22 34.34	+10 49.6	2.083	1.655	27.6	19.9	51 E	44*	15*

18726 1998 KC_2

19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
12 23	14 56.64	−20 48.9	2.402	1.811	21.7	19.3	43 W	19*	32*
1 2	15 20.60	−21 18.6	2.357	1.842	23.2	19.4	48 W	20*	37*
1 12	15 43.70	−21 31.0	2.304	1.874	24.6	19.4	52 W	21*	43*
1 22	16 5.75	−21 25.9	2.245	1.907	25.8	19.4	58 W	22*	48*
2 1	16 26.53	−21 3.6	2.178	1.942	26.9	19.4	63 W	23*	54*
2 11	16 45.82	−20 24.4	2.106	1.977	27.7	19.4	69 W	24*	60*
2 21	17 3.40	−19 29.0	2.029	2.012	28.3	19.4	75 W	25*	66*
3 2	17 18.98	−18 17.9	1.947	2.049	28.6	19.4	81 W	26*	72*
3 12	17 32.32	−16 52.1	1.863	2.085	28.4	19.3	88 W	28*	78*
3 22	17 43.15	−15 12.7	1.778	2.122	27.9	19.2	96 W	30*	79*
4 1	17 51.16	−13 20.9	1.695	2.158	26.8	19.1	103 W	32*	77
4 11	17 56.09	−11 18.8	1.616	2.195	25.1	19.0	112 W	34	75
4 21	17 57.72	− 9 9.0	1.546	2.231	22.8	18.9	121 W	36	73
5 1	17 55.96	− 6 55.5	1.486	2.267	20.0	18.7	130 W	38	71
5 6	17 53.83	− 5 49.2	1.463	2.285	18.4	18.7	134 W	39	70
5 11	17 50.94	− 4 44.2	1.443	2.303	16.7	18.6	139 W	40	69
5 16	17 47.33	− 3 41.5	1.429	2.321	15.0	18.5	144 W	41	68

18726 1998 KC_2 *(continuation)*

19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
	h m	° ′			°	m	°	°	°
5 21	17 43.11	− 2 42.1	1.420	2.339	13.4	18.5	148 W	42	67
5 26	17 38.38	− 1 47.0	1.416	2.356	11.9	18.4	151 W	43	66
5 31	17 33.29	− 0 57.3	1.419	2.374	10.7	18.4	154 W	44	65
6 5	17 27.99	− 0 13.6	1.428	2.391	9.9	18.4	156 W	45	64
6 10	17 22.62	+ 0 23.3	1.443	2.408	9.7	18.4	156 W	45	64
6 20	17 12.32	+ 1 15.8	1.491	2.442	10.8	18.6	153 E	46	63
6 30	17 3.46	+ 1 39.7	1.564	2.475	13.1	18.8	146 E	47	62
7 10	16 56.84	+ 1 38.0	1.657	2.508	15.7	19.1	138 E	47	62
7 15	16 54.49	+ 1 29.1	1.710	2.524	16.9	19.2	134 E	46	63
7 20	16 52.82	+ 1 15.8	1.768	2.540	17.9	19.3	130 E	46	63
7 25	16 51.82	+ 0 58.7	1.829	2.555	18.9	19.4	125 E	46	63
7 30	16 51.50	+ 0 38.4	1.893	2.571	19.7	19.5	121 E	46	63
8 9	16 52.75	− 0 8.8	2.029	2.601	21.0	19.7	113 E	45*	64
8 19	16 56.34	− 1 1.6	2.173	2.631	21.8	19.9	105 E	44*	65
8 29	17 2.00	− 1 56.4	2.322	2.659	22.1	20.1	98 E	42*	66
9 8	17 9.46	− 2 50.4	2.474	2.687	22.0	20.3	91 E	41*	67*
9 18	17 18.46	− 3 41.5	2.627	2.714	21.6	20.4	84 E	39*	65*
9 28	17 28.78	− 4 28.1	2.778	2.741	20.9	20.5	77 E	38*	61*
10 8	17 40.20	− 5 8.7	2.926	2.766	20.0	20.6	71 E	36*	56*
10 18	17 52.56	− 5 42.3	3.068	2.791	18.8	20.7	65 E	35*	50*
10 28	18 5.70	− 6 8.2	3.204	2.814	17.5	20.8	58 E	34*	43*
11 7	18 19.46	− 6 25.8	3.332	2.837	16.1	20.8	52 E	32*	36*
11 17	18 33.72	− 6 34.7	3.450	2.859	14.5	20.9	46 E	30*	29*
11 27	18 48.36	− 6 34.5	3.558	2.880	12.9	20.9	41 E	28*	22*
12 7	19 3.26	− 6 25.3	3.653	2.900	11.2	20.9	35 E	26*	14*
12 17	19 18.33	− 6 7.0	3.735	2.919	9.5	20.9	29 E	22*	7*
12 27	19 33.46	− 5 39.8	3.804	2.937	8.0	20.9	24 E	18*	1*
1 6	19 48.56	− 5 4.0	3.858	2.954	6.6	20.9	20 E	14*	—
1 16	20 3.56	− 4 19.9	3.897	2.970	5.5	20.9	17 E	8*	—

389694 2011 QD_{48}

19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
12 23	14 57.03	−19 55.3	1.635	1.136	36.2	20.9	43 W	20*	32*
1 2	15 24.07	−23 39.6	1.664	1.214	35.8	21.1	46 W	18*	37*
1 12	15 50.26	−26 57.3	1.680	1.292	35.7	21.2	50 W	16*	42*
1 22	16 15.57	−29 52.2	1.685	1.368	35.7	21.4	54 W	13*	48*
2 1	16 39.85	−32 27.8	1.677	1.441	35.8	21.5	59 W	11*	53*

137170 1999 HF_1

19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
12 23	14 57.51	−11 43.8	1.184	0.857	54.8	16.6	45 W	28*	29*
12 28	15 13.22	−11 2.1	1.204	0.897	53.4	16.7	47 W	29*	30*
1 2	15 28.73	−10 20.5	1.219	0.935	52.3	16.8	49 W	30*	31*
1 7	15 44.03	− 9 37.9	1.228	0.971	51.5	16.9	51 W	31*	33*
1 12	15 59.12	− 8 53.6	1.234	1.003	50.9	16.9	52 W	32*	35*
1 22	16 28.68	− 7 17.7	1.234	1.061	50.1	17.0	56 W	34*	38*
2 1	16 57.48	− 5 28.9	1.220	1.108	49.8	17.1	59 W	36*	41*
2 11	17 25.59	− 3 25.1	1.195	1.145	49.8	17.1	62 W	38*	44*
2 21	17 53.18	− 1 4.8	1.161	1.172	50.1	17.1	66 W	40*	47*
3 2	18 20.40	+ 1 32.8	1.119	1.190	50.7	17.1	68 W	42*	48*
3 12	18 47.48	+ 4 27.7	1.071	1.197	51.6	17.0	71 W	44*	49*
3 22	19 14.79	+ 7 39.6	1.018	1.196	52.8	17.0	73 W	46*	49*
4 1	19 42.76	+11 7.7	0.962	1.185	54.3	16.9	74 W	48*	48*
4 11	20 12.10	+14 50.0	0.904	1.164	56.3	16.8	75 W	50*	46*
4 16	20 27.60	+16 45.7	0.874	1.150	57.5	16.7	75 W	51*	45*
4 21	20 43.85	+18 43.9	0.845	1.133	58.9	16.6	75 W	52*	44*
4 26	21 1.05	+20 43.8	0.815	1.114	60.6	16.6	75 W	53*	42*
5 1	21 19.44	+22 44.1	0.786	1.092	62.4	16.5	74 W	53*	40*
5 6	21 39.32	+24 43.5	0.758	1.068	64.5	16.4	73 W	53*	38*
5 11	22 1.04	+26 39.8	0.730	1.042	66.8	16.4	71 W	53*	36*
5 16	22 24.98	+28 30.3	0.705	1.012	69.5	16.3	70 W	52*	35*
5 21	22 51.51	+30 10.8	0.681	0.981	72.5	16.3	68 W	51*	33*
5 26	23 20.97	+31 35.7	0.661	0.946	75.9	16.2	65 W	49*	31*
5 31	23 53.57	+32 37.9	0.644	0.909	79.5	16.2	62 W	47*	29*
6 5	0 29.27	+33 9.5	0.633	0.869	83.4	16.2	58 W	44*	28*
6 10	1 7.62	+33 2.9	0.629	0.827	87.3	16.3	54 W	40*	27*
6 12	1 23.51	+32 48.3	0.630	0.809	88.9	16.3	53 W	38*	26*
6 14	1 39.62	+32 26.7	0.632	0.791	90.4	16.3	51 W	37*	26*
6 16	1 55.87	+31 58.1	0.635	0.773	91.8	16.3	49 W	35*	26*
6 18	2 12.17	+31 22.6	0.640	0.754	93.2	16.3	48 W	33*	25*
6 20	2 28.45	+30 40.7	0.647	0.735	94.4	16.4	46 W	31*	25*
6 22	2 44.64	+29 52.8	0.656	0.716	95.5	16.4	45 W	29*	25*
6 24	3 0.66	+28 59.6	0.667	0.697	96.4	16.4	43 W	28*	24*
6 26	3 16.48	+28 2.0	0.680	0.677	97.0	16.4	41 W	26*	24*
6 28	3 32.04	+27 0.8	0.695	0.657	97.4	16.4	40 W	24*	24*
6 30	3 47.33	+25 57.1	0.713	0.637	97.6	16.4	38 W	22*	24*
7 2	4 2.33	+24 51.7	0.732	0.618	97.4	16.4	37 W	21*	23*
7 4	4 17.05	+23 45.6	0.754	0.598	96.9	16.3	36 W	19*	23*
7 6	4 31.50	+22 39.9	0.778	0.578	95.9	16.3	34 W	17*	23*
7 8	4 45.70	+21 35.3	0.805	0.559	94.7	16.2	33 W	16*	22*

137170 1999 HF_1 *(continuation)*

19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
	h m	° ′			°	m	°	°	°
7 10	4 59.67	+20 32.5	0.833	0.541	92.9	16.2	32 W	14*	22*
7 12	5 13.47	+19 32.4	0.864	0.523	90.8	16.1	31 W	13*	21*
7 14	5 27.12	+18 35.3	0.897	0.507	88.2	16.0	30 W	12*	21*
7 16	5 40.66	+17 41.9	0.932	0.491	85.2	15.9	29 W	10*	20*
7 18	5 54.12	+16 52.3	0.969	0.477	81.7	15.8	28 W	9*	20*
7 20	6 7.55	+16 6.8	1.007	0.465	77.8	15.7	27 W	8*	19*
7 25	6 41.04	+14 31.4	1.106	0.445	66.6	15.4	24 W	6*	17*
7 30	7 14.41	+13 19.8	1.207	0.441	54.3	15.2	21 W	3*	14*
8 4	7 47.29	+12 25.9	1.304	0.454	42.2	15.1	18 W	2*	11*
8 9	8 19.11	+11 42.5	1.392	0.482	31.6	15.1	14 W	—	8*
8 14	8 49.43	+11 3.0	1.472	0.521	23.0	15.1	12 W	—	5*
8 19	9 18.02	+10 23.6	1.543	0.566	16.4	15.2	9 W	—	3*
8 24	9 44.87	+ 9 42.2	1.607	0.615	11.3	15.3	7 W	—	1*
8 29	10 10.07	+ 8 58.1	1.664	0.664	7.7	15.4	5 W	—	—
9 8	10 56.15	+ 7 22.2	1.765	0.761	4.1	15.6	3 W	—	—
9 18	11 37.57	+ 5 38.8	1.850	0.850	4.7	16.0	4 W	—	—
9 28	12 15.48	+ 3 51.9	1.920	0.929	6.4	16.3	6 W	—	—
10 8	12 50.79	+ 2 5.0	1.978	0.998	8.0	16.6	8 W	—	—
10 18	13 24.25	+ 0 20.6	2.023	1.057	9.5	16.9	10 W	2*	—
10 28	13 56.42	− 1 18.9	2.055	1.105	11.0	17.1	12 W	5*	—
11 7	14 27.76	− 2 51.6	2.075	1.142	12.5	17.2	14 W	7*	—
11 17	14 58.65	− 4 16.1	2.084	1.170	13.9	17.3	17 W	10*	—
11 27	15 29.39	− 5 30.6	2.080	1.189	15.4	17.4	19 W	12*	—
12 7	16 0.27	− 6 34.1	2.066	1.197	17.0	17.5	21 W	15*	—
12 17	16 31.53	− 7 25.2	2.042	1.196	18.5	17.5	23 W	17*	1*
12 27	17 3.38	− 8 2.9	2.008	1.186	20.2	17.5	25 W	18*	4*
1 6	17 36.07	− 8 26.2	1.965	1.166	21.8	17.5	26 W	19*	7*
1 16	18 9.87	− 8 34.4	1.916	1.136	23.5	17.4	27 W	19*	10*

6050 Miwablock

19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
12 23	14 58.01	−12 18.1	3.649	3.035	13.3	20.9	45 W	27*	29*
1 2	15 10.27	−13 6.3	3.518	3.016	14.9	20.9	52 W	29*	37*
1 12	15 22.06	−13 48.3	3.376	2.996	16.4	20.8	59 W	30*	45*
1 22	15 33.23	−14 24.2	3.223	2.974	17.7	20.7	67 W	30*	53*
2 1	15 43.60	−14 53.5	3.061	2.951	18.7	20.6	74 W	30*	62*
2 11	15 52.94	−15 16.2	2.894	2.927	19.5	20.5	82 W	30	70*
2 21	16 1.02	−15 32.2	2.724	2.901	19.9	20.4	90 W	29	77*
3 2	16 7.54	−15 41.8	2.553	2.874	19.9	20.2	99 W	29	80
3 12	16 12.20	−15 44.9	2.384	2.845	19.5	20.0	108 W	29	80
3 22	16 14.67	−15 41.7	2.222	2.816	18.4	19.8	117 W	29	80
4 1	16 14.61	−15 32.6	2.069	2.784	16.7	19.6	127 W	29	80
4 11	16 11.78	−15 17.8	1.931	2.752	14.3	19.3	137 W	30	79
4 21	16 6.07	−14 57.9	1.812	2.718	11.2	19.1	148 W	30	79
5 1	15 57.64	−14 33.7	1.715	2.682	7.5	18.8	160 W	30	79
5 11	15 47.01	−14 7.0	1.644	2.646	3.5	18.4	171 W	31	78
5 21	15 35.09	−13 40.3	1.601	2.608	3.0	18.3	172 E	31	78
5 26	15 29.01	−13 28.1	1.590	2.588	5.0	18.4	167 E	32	77
5 31	15 23.05	−13 17.2	1.587	2.568	7.2	18.5	161 E	32	77
6 5	15 17.39	−13 8.2	1.590	2.548	9.5	18.6	155 E	32	77
6 10	15 12.14	−13 1.4	1.599	2.527	11.7	18.6	150 E	32	77
6 20	15 3.35	−12 56.0	1.634	2.485	15.9	18.8	138 E	32	77
6 30	14 57.34	−13 2.9	1.688	2.441	19.4	19.0	127 E	32*	77
7 10	14 54.41	−13 22.8	1.755	2.396	22.2	19.1	117 E	31*	77
7 20	14 54.56	−13 54.9	1.831	2.350	24.3	19.2	108 E	29*	78
7 30	14 57.67	−14 38.0	1.911	2.303	25.8	19.3	99 E	26*	79
8 9	15 3.50	−15 30.2	1.991	2.254	26.7	19.4	91 E	24*	79*
8 19	15 11.82	−16 29.6	2.069	2.204	27.2	19.4	84 E	22*	76*
8 29	15 22.45	−17 34.2	2.143	2.153	27.2	19.4	77 E	20*	70*
9 8	15 35.20	−18 41.9	2.210	2.100	26.9	19.4	70 E	18*	64*
9 18	15 49.94	−19 50.6	2.270	2.047	26.3	19.4	64 E	16*	58*
9 28	16 6.59	−20 58.4	2.321	1.993	25.4	19.4	59 E	15*	53*
10 8	16 25.08	−22 2.9	2.363	1.938	24.4	19.3	53 E	14*	47*
10 18	16 45.35	−23 1.7	2.395	1.882	23.2	19.3	48 E	13*	42*
10 28	17 7.38	−23 52.5	2.418	1.826	21.9	19.2	43 E	12*	37*
11 7	17 31.11	−24 32.6	2.431	1.770	20.5	19.1	39 E	11*	32*
11 17	17 56.50	−24 59.2	2.435	1.713	19.0	19.0	34 E	10*	27*
11 27	18 23.46	−25 9.5	2.431	1.658	17.6	18.8	30 E	9*	23*
12 7	18 51.86	−25 0.8	2.419	1.603	16.1	18.7	27 E	8*	19*
12 17	19 21.58	−24 30.3	2.402	1.549	14.6	18.6	23 E	8*	15*
12 27	19 52.41	−23 36.0	2.379	1.497	13.2	18.4	20 E	7*	12*
1 6	20 24.15	−22 16.1	2.353	1.448	11.9	18.3	18 E	6*	10*
1 16	20 56.59	−20 29.7	2.326	1.402	10.7	18.1	15 E	4*	7*

4055 Magellan

19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
12 23	14 58.48	− 5 21.0	2.414	1.898	22.6	19.1	48 W	34*	26*
1 2	15 22.02	− 5 43.5	2.291	1.858	24.7	19.0	52 W	35*	31*
1 12	15 46.27	− 5 50.9	2.166	1.817	26.8	18.9	56 W	36*	36*
1 22	16 11.27	− 5 41.3	2.041	1.775	28.8	18.8	60 W	37*	41*
2 1	16 36.98	− 5 12.7	1.918	1.732	30.8	18.6	64 W	38*	45*

4055 Magellan *(continuation)*

19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
	h m	° ′			°	m	°	°	°
2 11	17 3.39	− 4 23.7	1.797	1.689	32.7	18.5	68 W	39*	49*
2 21	17 30.46	− 3 13.1	1.681	1.645	34.6	18.3	71 W	40*	52*
3 2	17 58.14	− 1 40.5	1.571	1.601	36.4	18.2	73 W	41*	55*
3 12	18 26.37	+ 0 13.4	1.468	1.557	38.2	18.0	76 W	42*	56*
3 22	18 55.14	+ 2 26.9	1.373	1.514	40.0	17.9	78 W	43*	56*
4 1	19 24.40	+ 4 56.9	1.285	1.471	41.8	17.7	79 W	45*	56*
4 6	19 39.21	+ 6 16.6	1.244	1.451	42.7	17.6	80 W	46*	55*
4 11	19 54.15	+ 7 38.7	1.206	1.430	43.7	17.6	80 W	46*	55*
4 16	20 9.24	+ 9 2.3	1.169	1.411	44.6	17.5	81 W	47*	54*
4 21	20 24.46	+10 26.7	1.134	1.392	45.5	17.4	81 W	48*	53*
4 26	20 39.82	+11 51.1	1.100	1.373	46.4	17.4	81 W	48*	52*
5 1	20 55.34	+13 14.3	1.069	1.355	47.3	17.3	81 W	49*	50*
5 6	21 11.03	+14 35.5	1.038	1.338	48.2	17.2	82 W	50*	49*
5 11	21 26.91	+15 53.7	1.010	1.322	49.1	17.2	82 W	50*	48*
5 16	21 42.99	+17 8.0	0.982	1.307	50.0	17.1	82 W	51*	47*
5 21	21 59.27	+18 17.5	0.955	1.293	50.8	17.0	82 W	51*	46
5 26	22 15.75	+19 21.1	0.930	1.280	51.6	17.0	82 W	52*	45
5 31	22 32.44	+20 17.7	0.905	1.269	52.4	16.9	83 W	53*	44
6 5	22 49.34	+21 6.4	0.881	1.258	53.1	16.9	83 W	53*	43
6 10	23 6.44	+21 46.3	0.858	1.249	53.8	16.8	83 W	54*	42
6 15	23 23.74	+22 16.5	0.835	1.242	54.4	16.8	84 W	54*	42
6 20	23 41.17	+22 36.1	0.813	1.235	54.9	16.7	84 W	55*	41
6 25	23 58.71	+22 44.1	0.792	1.231	55.3	16.7	85 W	56*	41
6 30	0 16.30	+22 39.6	0.771	1.228	55.6	16.6	86 W	56*	41
7 5	0 33.87	+22 21.8	0.750	1.226	55.8	16.5	87 W	57*	42
7 10	0 51.36	+21 50.1	0.731	1.227	55.9	16.5	88 W	57*	42
7 15	1 8.66	+21 3.9	0.712	1.228	55.8	16.4	89 W	58*	43
7 20	1 25.68	+20 2.6	0.693	1.232	55.6	16.4	90 W	58*	44
7 25	1 42.28	+18 45.9	0.675	1.237	55.2	16.3	92 W	58*	45
7 30	1 58.37	+17 13.5	0.659	1.243	54.6	16.3	93 W	58*	47
8 4	2 13.84	+15 25.7	0.643	1.251	53.8	16.2	95 W	57*	49
8 9	2 28.58	+13 22.8	0.629	1.261	52.9	16.1	97 W	56*	51
8 19	2 55.39	+ 8 34.4	0.605	1.283	50.5	16.0	102 W	53*	55
8 29	3 17.92	+ 2 56.7	0.587	1.311	47.3	15.9	107 W	48*	61
9 8	3 35.46	− 3 15.2	0.577	1.342	43.7	15.8	113 W	42	67
9 13	3 42.15	− 6 27.9	0.575	1.360	41.8	15.8	116 W	39	70
9 18	3 47.35	− 9 41.2	0.576	1.378	39.8	15.8	119 W	35	74
9 23	3 51.00	−12 51.6	0.579	1.396	37.8	15.8	121 W	32	77
9 28	3 53.11	−15 55.4	0.585	1.416	35.9	15.8	124 W	29	80
10 3	3 53.68	−18 49.2	0.594	1.435	34.1	15.8	126 W	26	83
10 8	3 52.76	−21 29.6	0.606	1.456	32.5	15.8	129 W	24	85
10 13	3 50.43	−23 53.5	0.620	1.476	31.0	15.8	130 W	21	88
10 18	3 46.83	−25 58.0	0.637	1.497	29.8	15.9	132 W	19	90
10 23	3 42.20	−27 40.8	0.658	1.519	28.9	16.0	133 W	17	88
10 28	3 36.80	−29 0.6	0.681	1.540	28.2	16.1	133 W	16	87
11 2	3 30.95	−29 57.0	0.707	1.562	27.7	16.2	133 W	15	86
11 7	3 24.93	−30 30.5	0.736	1.584	27.5	16.3	132 W	14	85
11 12	3 19.05	−30 42.0	0.768	1.606	27.5	16.4	132 W	14	85
11 17	3 13.56	−30 33.1	0.803	1.628	27.6	16.5	130 E	14	85
11 22	3 8.71	−30 5.9	0.841	1.650	27.8	16.6	129 E	15	86
11 27	3 4.66	−29 22.9	0.881	1.672	28.1	16.8	127 E	16	87
12 2	3 1.49	−28 26.6	0.924	1.694	28.5	16.9	125 E	17	88
12 7	2 59.25	−27 19.4	0.969	1.716	28.9	17.1	123 E	18	89
12 12	2 57.93	−26 3.4	1.017	1.737	29.2	17.2	120 E	19	90
12 17	2 57.54	−24 40.5	1.067	1.759	29.6	17.4	118 E	20	89
12 22	2 58.04	−23 12.5	1.119	1.780	29.9	17.5	116 E	22	87
12 27	2 59.36	−21 41.0	1.173	1.801	30.2	17.6	113 E	23	86
1 1	3 1.45	−20 7.3	1.229	1.822	30.4	17.8	110 E	25	84
1 6	3 4.23	−18 32.5	1.287	1.843	30.5	17.9	108 E	26	83
1 11	3 7.65	−16 57.3	1.347	1.863	30.6	18.0	105 E	28	81
1 16	3 11.65	−15 22.6	1.408	1.883	30.7	18.1	102 E	30	79

74839 1999 TZ_{34}

19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
12 23	14 58.99	−20 58.1	3.027	2.393	16.1	20.6	42 W	19*	32*
1 2	15 16.95	−22 42.2	2.902	2.362	18.0	20.5	48 W	19*	38*
1 12	15 35.19	−24 22.7	2.771	2.329	19.9	20.4	54 W	19*	45*
1 22	15 53.65	−25 59.8	2.633	2.296	21.7	20.4	60 W	18*	52*
2 1	16 12.27	−27 33.2	2.491	2.263	23.3	20.3	65 W	17*	59*
2 11	16 30.94	−29 3.4	2.345	2.230	24.7	20.1	71 W	16*	65*
2 21	16 49.59	−30 30.8	2.197	2.196	26.0	20.0	77 W	14*	71*
3 2	17 8.04	−31 56.3	2.049	2.162	27.1	19.8	83 W	13*	76*
3 12	17 26.13	−33 20.9	1.903	2.128	27.8	19.7	89 W	12*	80*
3 22	17 43.67	−34 46.3	1.759	2.094	28.3	19.5	95 W	10*	81*
4 1	18 0.35	−36 14.1	1.620	2.060	28.4	19.3	101 W	9*	80
4 11	18 15.86	−37 46.5	1.486	2.027	28.1	19.0	107 W	7*	78
4 16	18 23.06	−38 35.2	1.422	2.010	27.8	18.9	111 W	6*	77
4 21	18 29.79	−39 25.7	1.360	1.994	27.4	18.8	114 W	6	77
4 26	18 35.98	−40 18.5	1.301	1.977	26.9	18.7	117 W	5	76
5 1	18 41.56	−41 13.5	1.244	1.961	26.2	18.5	121 W	4	75

74839 1999 TZ_{34} *(continuation)*

19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
	h m	° ′			°	m	°	°	°
5 6	18 46.45	−42 10.8	1.189	1.945	25.4	18.4	124 W	3	74
5 11	18 50.57	−43 10.4	1.138	1.929	24.5	18.2	128 W	2	73
5 16	18 53.80	−44 12.0	1.089	1.913	23.4	18.1	131 W	1	72
5 21	18 56.04	−45 15.1	1.044	1.898	22.3	18.0	135 W	—	71
5 26	18 57.18	−46 18.9	1.003	1.883	21.1	17.8	138 W	—	70
5 31	18 57.15	−47 22.3	0.965	1.868	19.8	17.7	141 W	—	69
6 5	18 55.91	−48 23.8	0.931	1.853	18.6	17.5	144 W	—	68
6 10	18 53.43	−49 21.8	0.902	1.839	17.4	17.4	147 W	—	67
6 15	18 49.73	−50 14.4	0.876	1.825	16.5	17.3	149 W	—	66
6 20	18 44.94	−50 59.3	0.855	1.811	15.9	17.2	151 W	—	65
6 25	18 39.26	−51 34.5	0.839	1.798	15.7	17.1	151 W	—	64
6 30	18 33.02	−51 58.3	0.826	1.786	15.9	17.1	151 E	—	64
7 5	18 26.59	−52 9.6	0.818	1.773	16.6	17.1	150 E	—	64
7 10	18 20.37	−52 8.0	0.814	1.762	17.7	17.1	148 E	—	64
7 15	18 14.75	−51 53.7	0.815	1.750	19.1	17.1	146 E	—	64
7 20	18 10.09	−51 27.5	0.819	1.740	20.7	17.2	143 E	—	65
7 25	18 6.67	−50 50.8	0.826	1.729	22.4	17.3	140 E	—	65
7 30	18 4.68	−50 5.3	0.837	1.720	24.1	17.3	136 E	—	66
8 4	18 4.20	−49 12.6	0.851	1.711	25.8	17.4	133 E	—	67
8 9	18 5.22	−48 14.3	0.868	1.702	27.4	17.5	129 E	—	68
8 14	18 7.69	−47 11.7	0.887	1.695	28.9	17.6	126 E	—	69
8 19	18 11.51	−46 5.7	0.909	1.688	30.3	17.6	123 E	—	70
8 24	18 16.59	−44 57.2	0.933	1.681	31.5	17.7	120 E	—	71
8 29	18 22.80	−43 46.7	0.959	1.676	32.6	17.8	117 E	1	72
9 3	18 30.00	−42 34.7	0.987	1.671	33.6	17.9	114 E	2	73
9 8	18 38.05	−41 21.3	1.017	1.667	34.4	18.0	111 E	4	75
9 13	18 46.82	−40 6.5	1.048	1.663	35.1	18.1	108 E	5	76
9 18	18 56.23	−38 50.3	1.081	1.660	35.7	18.1	105 E	6	77
9 23	19 6.17	−37 32.8	1.115	1.659	36.1	18.2	103 E	7	78
9 28	19 16.54	−36 13.9	1.151	1.657	36.5	18.3	100 E	9	80
10 3	19 27.25	−34 53.6	1.188	1.657	36.7	18.4	98 E	10	81
10 8	19 38.23	−33 31.8	1.227	1.657	36.9	18.4	96 E	11	82
10 13	19 49.41	−32 8.5	1.266	1.659	36.9	18.5	93 E	13	84*
10 18	20 0.74	−30 43.7	1.307	1.661	36.9	18.6	91 E	14	84*
10 23	20 12.19	−29 17.4	1.350	1.663	36.7	18.6	89 E	16	83*
10 28	20 23.70	−27 49.7	1.393	1.667	36.5	18.7	87 E	17	81*
11 2	20 35.23	−26 20.7	1.437	1.671	36.3	18.8	85 E	19	78*
11 7	20 46.76	−24 50.4	1.483	1.676	35.9	18.8	83 E	20	76*
11 12	20 58.27	−23 19.1	1.530	1.682	35.5	18.9	81 E	22	73*
11 17	21 9.74	−21 46.7	1.577	1.688	35.0	19.0	79 E	23	70*
11 27	21 32.53	−18 39.5	1.675	1.703	34.0	19.1	75 E	26	63*
12 7	21 55.02	−15 29.9	1.776	1.720	32.7	19.2	71 E	30*	56*
12 17	22 17.21	−12 19.3	1.880	1.740	31.2	19.3	67 E	33*	50*
12 27	22 39.10	− 9 8.6	1.986	1.762	29.7	19.4	62 E	35*	43*
1 6	23 0.71	− 5 59.2	2.092	1.786	28.0	19.5	58 E	37*	38*
1 16	23 22.09	− 2 52.0	2.199	1.812	26.2	19.6	54 E	37*	32*

143649 2003 QQ_{47}

12 23	14 59.41	−33 0.5	1.616	1.088	36.5	20.1	41 W	8*	35*
12 28	15 13.83	−36 47.1	1.596	1.103	37.4	20.1	43 W	5*	37*
1 2	15 29.84	−40 32.2	1.577	1.118	38.2	20.2	45 W	1*	39*
1 7	15 47.79	−44 13.5	1.560	1.133	38.9	20.2	46 W	—	40*
1 12	16 8.13	−47 48.2	1.545	1.147	39.5	20.2	48 W	—	40*
1 17	16 31.34	−51 12.5	1.532	1.160	39.9	20.2	49 W	—	40*
1 22	16 57.95	−54 21.5	1.522	1.174	40.3	20.2	50 W	—	39*
1 24	17 9.66	−55 31.6	1.519	1.179	40.4	20.3	51 W	—	38*
1 26	17 22.01	−56 37.9	1.517	1.184	40.4	20.3	51 W	—	38*
1 28	17 35.02	−57 40.0	1.515	1.189	40.5	20.3	52 W	—	37*
1 30	17 48.68	−58 37.4	1.513	1.193	40.6	20.3	52 W	—	37*
2 1	18 3.00	−59 29.7	1.512	1.198	40.6	20.3	52 W	—	36*
2 3	18 17.93	−60 16.5	1.512	1.203	40.6	20.3	53 W	—	35*
2 5	18 33.44	−60 57.3	1.512	1.207	40.6	20.3	53 W	—	34*
2 7	18 49.46	−61 31.9	1.513	1.212	40.6	20.3	53 W	—	33*
2 9	19 5.89	−61 59.9	1.514	1.216	40.5	20.3	53 W	—	32*
2 11	19 22.64	−62 21.0	1.516	1.220	40.5	20.3	53 W	—	32*
2 13	19 39.58	−62 35.3	1.518	1.224	40.4	20.3	54 W	—	31*
2 15	19 56.59	−62 42.6	1.521	1.228	40.4	20.3	54 W	—	30*
2 17	20 13.51	−62 43.1	1.524	1.232	40.3	20.4	54 W	—	29*
2 19	20 30.23	−62 37.0	1.527	1.236	40.2	20.4	54 W	—	28*
2 21	20 46.62	−62 24.5	1.531	1.239	40.1	20.4	54 W	—	27*
2 23	21 2.57	−62 6.0	1.535	1.243	40.0	20.4	54 W	—	26*
2 25	21 18.01	−61 42.0	1.540	1.246	39.9	20.4	54 W	—	26*
2 27	21 32.85	−61 12.9	1.545	1.249	39.8	20.4	54 W	—	25*
2 29	21 47.07	−60 39.2	1.550	1.252	39.6	20.4	54 W	—	24*
3 2	22 0.64	−60 1.3	1.555	1.255	39.5	20.4	54 W	—	24*
3 7	22 31.65	−58 11.9	1.569	1.262	39.2	20.4	53 W	—	22*
3 12	22 58.74	−56 6.5	1.584	1.268	38.8	20.5	53 W	—	21*
3 17	23 22.34	−53 50.8	1.600	1.274	38.4	20.5	53 W	—	20*
3 22	23 42.98	−51 29.1	1.615	1.278	38.1	20.5	52 W	—	20*
3 27	0 1.15	−49 4.7	1.629	1.282	37.8	20.5	52 W	—	20*

143649 2003 QQ_{47} *(continuation)*

2020	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
	h m	° ′			°	m	°	°	°
4 1	0 17.29	−46 39.7	1.642	1.285	37.5	20.5	51 W	—	20*
4 6	0 31.74	−44 15.5	1.652	1.287	37.2	20.5	51 W	—	20*
4 11	0 44.81	−41 53.0	1.661	1.288	37.1	20.6	51 W	—	21*
4 16	0 56.75	−39 32.8	1.667	1.288	37.0	20.6	51 W	—	22*
4 21	1 7.74	−37 15.1	1.670	1.288	36.9	20.6	50 W	—	24*
4 26	1 17.94	−35 0.1	1.670	1.287	37.0	20.6	50 W	—	25*
5 1	1 27.48	−32 47.4	1.666	1.284	37.2	20.6	50 W	—	27*
5 6	1 36.45	−30 36.9	1.658	1.282	37.5	20.5	51 W	—	30*
5 11	1 44.94	−28 28.1	1.646	1.278	37.8	20.5	51 W	—	32*
5 16	1 53.05	−26 20.4	1.630	1.273	38.3	20.5	51 W	—	34*
5 21	2 0.81	−24 13.4	1.609	1.268	39.0	20.5	52 W	—	37*
5 26	2 8.30	−22 6.4	1.584	1.262	39.7	20.5	53 W	—	40*
5 31	2 15.55	−19 58.6	1.555	1.255	40.6	20.4	54 W	—	42*
6 5	2 22.61	−17 49.1	1.522	1.247	41.5	20.4	55 W	—	45*
6 10	2 29.53	−15 37.0	1.484	1.238	42.6	20.4	56 W	—	47*
6 15	2 36.37	−13 21.0	1.442	1.229	43.8	20.3	57 W	—	50*
6 20	2 43.17	−10 59.9	1.396	1.219	45.1	20.3	58 W	—	52*
6 25	2 49.97	− 8 32.3	1.347	1.208	46.5	20.2	60 W	4*	54*
6 30	2 56.84	− 5 56.1	1.294	1.197	48.0	20.2	61 W	9*	55*
7 5	3 3.85	− 3 9.4	1.238	1.185	49.5	20.1	62 W	14*	55*
7 10	3 11.10	− 0 9.6	1.180	1.172	51.2	20.0	64 W	19*	55*
7 15	3 18.71	+ 3 6.3	1.121	1.159	52.9	19.9	65 W	24*	54*
7 20	3 26.80	+ 6 41.7	1.060	1.146	54.7	19.8	67 W	29*	53*
7 25	3 35.59	+10 40.4	0.999	1.131	56.5	19.7	68 W	35*	50*
7 30	3 45.35	+15 6.7	0.939	1.117	58.4	19.6	70 W	41*	47*
8 4	3 56.46	+20 4.8	0.882	1.102	60.3	19.5	71 W	47*	42*
8 9	4 9.51	+25 38.3	0.829	1.086	62.2	19.4	71 W	53*	37*
8 14	4 25.35	+31 48.0	0.782	1.071	64.1	19.3	72 W	59*	31*
8 19	4 45.30	+38 30.4	0.743	1.055	65.9	19.2	72 W	63*	24*
8 21	4 54.86	+41 18.1	0.730	1.049	66.5	19.2	72 W	64*	21*
8 23	5 5.58	+44 7.9	0.720	1.043	67.2	19.1	72 W	65*	18*
8 25	5 17.66	+46 58.3	0.710	1.036	67.8	19.1	72 W	66*	15*
8 27	5 31.36	+49 47.1	0.703	1.030	68.3	19.1	71 W	65*	12*
8 29	5 46.96	+52 31.9	0.698	1.024	68.8	19.1	71 W	65*	9*
8 30	5 55.57	+53 51.9	0.697	1.021	69.1	19.1	71 W	64*	8*
8 31	6 4.77	+55 9.7	0.696	1.018	69.3	19.1	71 W	63*	6*
9 1	6 14.61	+56 25.0	0.695	1.015	69.5	19.1	70 W	62*	5*
9 2	6 25.10	+57 37.2	0.695	1.011	69.7	19.1	70 W	62*	3*
9 3	6 36.30	+58 45.9	0.695	1.008	69.9	19.1	70 W	61*	2*
9 4	6 48.21	+59 50.6	0.696	1.005	70.0	19.1	70 W	60*	—
9 5	7 0.84	+60 50.8	0.698	1.002	70.2	19.1	69 W	59*	—
9 6	7 14.19	+61 46.0	0.700	0.999	70.3	19.1	69 W	57*	—
9 7	7 28.24	+62 35.6	0.702	0.996	70.4	19.1	69 W	56*	—
9 8	7 42.93	+63 19.4	0.705	0.993	70.4	19.1	68 W	55*	—
9 9	7 58.19	+63 56.9	0.709	0.990	70.5	19.1	68 W	54*	—
9 10	8 13.92	+64 27.7	0.713	0.987	70.5	19.1	68 W	53*	—
9 11	8 30.00	+64 51.7	0.718	0.984	70.6	19.1	67 W	52*	—
9 12	8 46.28	+65 8.8	0.723	0.981	70.6	19.1	67 W	50*	—
9 13	9 2.63	+65 19.0	0.728	0.978	70.5	19.1	66 W	49*	—
9 14	9 18.87	+65 22.4	0.734	0.975	70.5	19.1	66 W	48*	—
9 15	9 34.85	+65 19.2	0.740	0.973	70.4	19.2	66 W	47*	—
9 16	9 50.45	+65 9.8	0.747	0.970	70.3	19.2	65 W	46*	—
9 17	10 5.54	+64 54.7	0.754	0.967	70.2	19.2	65 W	45*	—
9 18	10 20.03	+64 34.3	0.761	0.964	70.1	19.2	64 W	44*	—
9 19	10 33.85	+64 9.0	0.769	0.961	70.0	19.2	64 W	43*	—
9 20	10 46.97	+63 39.6	0.777	0.959	69.8	19.2	64 W	42*	—
9 21	10 59.35	+63 6.4	0.785	0.956	69.6	19.2	63 W	41*	—
9 22	11 11.00	+62 30.0	0.794	0.953	69.4	19.2	63 W	40*	—
9 23	11 21.93	+61 50.8	0.803	0.951	69.2	19.2	62 W	39*	—
9 24	11 32.16	+61 9.3	0.812	0.948	69.0	19.3	62 W	38*	—
9 25	11 41.73	+60 25.8	0.821	0.945	68.8	19.3	61 W	37*	—
9 26	11 50.67	+59 40.7	0.831	0.943	68.5	19.3	61 W	37*	—
9 27	11 59.01	+58 54.4	0.841	0.940	68.2	19.3	61 W	36*	—
9 28	12 6.81	+58 7.0	0.850	0.938	68.0	19.3	60 W	35*	—
9 29	12 14.09	+57 18.9	0.860	0.935	67.7	19.3	60 W	35*	—
9 30	12 20.90	+56 30.2	0.871	0.933	67.4	19.3	59 W	34*	—
10 1	12 27.28	+55 41.0	0.881	0.931	67.0	19.3	59 W	33*	—
10 2	12 33.25	+54 51.7	0.891	0.928	66.7	19.3	58 E	33*	—
10 3	12 38.84	+54 2.2	0.902	0.926	66.4	19.3	58 E	33*	—
10 4	12 44.10	+53 12.7	0.912	0.924	66.0	19.4	58 E	33*	—
10 5	12 49.04	+52 23.2	0.923	0.922	65.7	19.4	57 E	33*	—
10 6	12 53.69	+51 33.9	0.933	0.920	65.3	19.4	57 E	33*	—
10 7	12 58.08	+50 44.8	0.944	0.917	64.9	19.4	56 E	33*	—
10 8	13 2.22	+49 56.0	0.955	0.915	64.5	19.4	56 E	32*	—
10 10	13 9.84	+48 19.2	0.976	0.912	63.8	19.4	55 E	32*	—
10 12	13 16.69	+46 43.9	0.997	0.908	63.0	19.4	54 E	31*	—
10 14	13 22.88	+45 10.0	1.018	0.904	62.2	19.4	53 E	31*	—
10 16	13 28.50	+43 37.8	1.039	0.901	61.4	19.4	53 E	30*	—
10 18	13 33.64	+42 7.1	1.059	0.898	60.5	19.5	52 E	29*	—
10 20	13 38.36	+40 37.9	1.079	0.895	59.7	19.5	51 W	29*	—

143649 2003 QQ_{47} *(continuation)*

19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
	h m	° ′			°	m	°	°	°
10 22	13 42.71	+39 10.1	1.098	0.893	58.9	19.5	50 W	29*	—
10 24	13 46.75	+37 43.7	1.116	0.891	58.1	19.5	49 W	29*	—
10 26	13 50.51	+36 18.5	1.134	0.889	57.3	19.5	49 W	29*	—
10 28	13 54.03	+34 54.4	1.151	0.887	56.6	19.5	48 W	29*	—
11 2	14 1.98	+31 28.4	1.191	0.884	54.7	19.5	47 W	30*	—
11 7	14 9.00	+28 6.8	1.225	0.882	53.1	19.5	45 W	32*	—
11 12	14 15.39	+24 48.1	1.253	0.883	51.7	19.5	44 W	33*	—
11 17	14 21.34	+21 30.7	1.275	0.885	50.6	19.5	44 W	35*	—
11 22	14 27.02	+18 13.2	1.290	0.889	49.9	19.6	43 W	36*	—
11 27	14 32.55	+14 54.2	1.298	0.895	49.4	19.6	43 W	37*	—
12 2	14 38.05	+11 32.4	1.300	0.902	49.2	19.6	44 W	38*	4*
12 7	14 43.62	+ 8 6.7	1.296	0.910	49.3	19.6	44 W	38*	9*
12 12	14 49.33	+ 4 35.7	1.287	0.920	49.7	19.6	45 W	38*	13*
12 17	14 55.27	+ 0 58.5	1.272	0.932	50.2	19.6	47 W	37*	19*
12 22	15 1.51	− 2 46.4	1.252	0.944	50.9	19.6	48 W	36*	24*
12 27	15 8.12	− 6 39.9	1.229	0.957	51.7	19.7	50 W	34*	29*
1 1	15 15.21	−10 43.4	1.203	0.971	52.5	19.7	52 W	31*	34*
1 6	15 22.88	−14 57.8	1.175	0.985	53.3	19.7	53 W	28*	40*
1 11	15 31.27	−19 23.9	1.145	1.000	54.0	19.7	55 W	24*	44*
1 16	15 40.55	−24 2.2	1.116	1.016	54.7	19.7	57 W	20*	49*

267337 2001 VK_5

19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
12 23	15 0.43	− 6 51.6	1.829	1.358	31.8	21.2	47 W	32*	26*
1 2	15 31.99	− 9 57.6	1.707	1.283	34.9	21.0	48 W	30*	31*
1 12	16 7.27	−13 8.0	1.591	1.203	38.1	20.8	49 W	28*	34*
1 22	16 47.39	−16 17.8	1.484	1.118	41.5	20.6	49 W	24*	37*
2 1	17 33.53	−19 16.0	1.391	1.030	45.0	20.4	48 W	20*	39*
2 6	17 59.20	−20 34.9	1.352	0.985	46.7	20.3	47 W	18*	39*
2 11	18 26.71	−21 42.4	1.320	0.939	48.3	20.2	45 W	15*	38*
2 16	18 56.05	−22 34.4	1.294	0.893	49.7	20.1	44 W	13*	37*
2 21	19 27.06	−23 6.1	1.276	0.848	50.7	20.0	42 W	10*	35*
2 26	19 59.46	−23 13.2	1.267	0.804	51.4	19.8	39 W	8*	33*
3 2	20 32.84	−22 51.7	1.266	0.761	51.5	19.7	37 W	5*	31*
3 7	21 6.68	−21 59.1	1.276	0.722	50.8	19.6	34 W	2*	28*
3 12	21 40.42	−20 34.5	1.294	0.687	49.3	19.5	32 W	—	25*
3 17	22 13.56	−18 39.0	1.322	0.657	46.8	19.4	29 W	—	22*
3 22	22 45.68	−16 15.6	1.357	0.635	43.4	19.3	26 W	—	19*
3 27	23 16.49	−13 28.8	1.398	0.621	39.3	19.2	23 W	—	16*
4 1	23 45.80	−10 24.5	1.444	0.617	34.5	19.1	20 W	—	13*
4 6	0 13.59	− 7 8.8	1.493	0.622	29.6	19.0	18 W	—	10*
4 11	0 39.89	− 3 48.2	1.544	0.638	24.8	19.0	15 W	—	8*
4 16	1 4.81	− 0 28.3	1.596	0.661	20.4	19.0	13 W	—	6*
4 21	1 28.49	+ 2 46.4	1.649	0.692	16.5	19.1	11 W	—	4*
4 26	1 51.07	+ 5 52.4	1.701	0.728	13.3	19.1	10 W	—	3*
5 1	2 12.70	+ 8 47.4	1.752	0.768	10.6	19.2	8 W	—	1*
5 6	2 33.51	+11 30.1	1.803	0.811	8.5	19.3	7 W	—	—
5 11	2 53.63	+13 59.9	1.853	0.855	7.0	19.4	6 W	—	—
5 21	3 32.13	+18 20.4	1.950	0.946	5.3	19.7	5 W	—	—
5 31	4 8.74	+21 51.2	2.042	1.037	5.3	20.0	5 W	—	—
6 10	4 43.79	+24 36.9	2.126	1.125	6.3	20.3	7 W	—	—
6 20	5 17.46	+26 42.8	2.202	1.209	7.6	20.6	9 W	2*	—
6 30	5 49.83	+28 13.9	2.268	1.289	9.2	20.8	12 W	4*	1*
7 10	6 20.91	+29 15.3	2.324	1.364	10.8	21.1	15 W	7*	2*
7 20	6 50.76	+29 51.4	2.367	1.434	12.5	21.3	18 W	11*	3*
7 30	7 19.35	+30 6.2	2.399	1.498	14.2	21.5	21 W	15*	4*

36183 1999 TX_{16}

19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
12 23	15 1.55	+ 3 59.8	2.518	2.062	22.1	20.8	52 W	42*	21*
1 2	15 17.11	+ 2 29.3	2.418	2.056	23.7	20.8	57 W	43*	28*
1 12	15 32.06	+ 1 6.6	2.307	2.047	25.2	20.7	62 W	44*	35*
1 22	15 46.32	− 0 8.9	2.186	2.037	26.7	20.6	68 W	44*	43*
2 1	15 59.70	− 1 18.2	2.057	2.024	27.9	20.5	74 W	43*	50*
2 11	16 12.00	− 2 22.7	1.920	2.009	29.0	20.4	81 W	43*	57*
2 21	16 22.96	− 3 24.6	1.777	1.991	29.7	20.2	87 W	42	63*
3 2	16 32.22	− 4 26.4	1.631	1.972	30.1	20.0	94 W	41	68*
3 12	16 39.32	− 5 32.2	1.483	1.949	29.9	19.8	102 W	39	70
3 17	16 41.89	− 6 8.2	1.409	1.938	29.6	19.7	106 W	39	70
3 22	16 43.67	− 6 47.1	1.336	1.925	29.0	19.5	110 W	38	71
3 27	16 44.56	− 7 29.9	1.263	1.912	28.2	19.4	115 W	37	72
4 1	16 44.43	− 8 17.6	1.193	1.899	27.2	19.2	120 W	37	72
4 6	16 43.16	− 9 11.5	1.125	1.884	25.9	19.0	125 W	36	73
4 11	16 40.60	−10 12.5	1.059	1.870	24.2	18.8	130 W	35	74
4 16	16 36.57	−11 21.9	0.997	1.854	22.1	18.6	136 W	34	75
4 21	16 30.91	−12 40.5	0.939	1.839	19.6	18.4	142 W	32	77
4 26	16 23.46	−14 9.2	0.886	1.822	16.7	18.1	149 W	31	78
5 1	16 14.10	−15 48.0	0.839	1.805	13.2	17.9	156 W	29	80
5 6	16 2.81	−17 36.0	0.798	1.788	9.4	17.6	163 W	27	82
5 11	15 49.63	−19 31.3	0.765	1.770	5.1	17.3	171 W	25	84
5 16	15 34.77	−21 30.6	0.741	1.752	1.5	17.0	177 W	23	86

36183 1999 TX_{16} *(continuation)*

19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
	h m	° ′			°	m	°	°	°
5 21	15 18.62	−23 29.9	0.725	1.733	4.9	17.1	172 E	21	88
5 26	15 1.71	−25 24.8	0.718	1.713	9.8	17.3	163 E	20	89
5 31	14 44.72	−27 11.8	0.719	1.693	14.6	17.4	155 E	18	89
6 5	14 28.32	−28 48.8	0.728	1.673	19.3	17.6	147 E	16	87
6 10	14 13.07	−30 15.2	0.744	1.652	23.6	17.8	139 E	15	86
6 15	13 59.40	−31 31.8	0.765	1.630	27.5	17.9	132 E	13	84
6 20	13 47.59	−32 40.4	0.790	1.609	31.0	18.1	125 E	12*	83
6 25	13 37.76	−33 43.4	0.819	1.586	34.0	18.2	119 E	10*	82
6 30	13 29.90	−34 42.9	0.850	1.564	36.6	18.3	113 E	8*	81
7 5	13 23.91	−35 40.8	0.883	1.541	38.8	18.4	108 E	5*	80
7 10	13 19.65	−36 38.7	0.915	1.518	40.7	18.5	103 E	3*	79
7 15	13 16.99	−37 37.6	0.947	1.494	42.2	18.6	99 E	—	78*
7 20	13 15.81	−38 38.3	0.979	1.470	43.5	18.7	95 E	—	76*
7 25	13 15.97	−39 41.7	1.008	1.446	44.6	18.7	91 E	—	73*
7 30	13 17.38	−40 48.1	1.036	1.422	45.5	18.8	88 E	—	69*
8 4	13 19.94	−41 57.8	1.061	1.398	46.3	18.8	85 E	—	66*
8 9	13 23.58	−43 10.9	1.084	1.373	46.9	18.8	82 E	—	62*
8 19	13 34.08	−45 47.2	1.120	1.325	48.0	18.9	77 E	—	56*
8 29	13 48.97	−48 37.1	1.142	1.277	49.0	18.9	73 E	—	50*
9 8	14 8.79	−51 38.4	1.149	1.231	49.9	18.8	69 E	—	46*
9 13	14 20.90	−53 12.2	1.147	1.208	50.5	18.8	68 E	—	44*
9 18	14 34.78	−54 47.0	1.142	1.187	51.1	18.8	67 E	—	42*
9 23	14 50.73	−56 21.6	1.132	1.166	51.8	18.7	66 E	—	41*
9 28	15 9.07	−57 54.2	1.119	1.146	52.5	18.7	65 E	—	40*
9 30	15 17.17	−58 30.2	1.113	1.139	52.8	18.7	65 E	—	40*
10 2	15 25.74	−59 5.2	1.106	1.131	53.1	18.6	65 E	—	40*
10 4	15 34.82	−59 39.0	1.099	1.124	53.5	18.6	65 E	—	40*
10 6	15 44.44	−60 11.5	1.091	1.117	53.8	18.6	64 E	—	40*
10 8	15 54.61	−60 42.3	1.083	1.110	54.2	18.6	64 E	—	40*
10 13	16 22.65	−61 49.4	1.061	1.094	55.1	18.5	64 E	—	40*
10 18	16 54.53	−62 37.8	1.036	1.080	56.1	18.5	64 E	—	41*
10 23	17 30.04	−63 0.1	1.009	1.068	57.2	18.4	64 E	—	42*
10 28	18 8.36	−62 48.4	0.981	1.057	58.2	18.4	65 E	—	43*
10 30	18 24.18	−62 32.6	0.969	1.053	58.6	18.4	65 E	—	44*
11 1	18 40.11	−62 9.7	0.958	1.050	59.0	18.3	65 E	—	45*
11 3	18 56.04	−61 39.5	0.946	1.047	59.4	18.3	65 E	—	46*
11 5	19 11.84	−61 1.7	0.935	1.044	59.8	18.3	66 E	—	47*
11 7	19 27.43	−60 16.2	0.924	1.042	60.2	18.3	66 E	—	48*
11 9	19 42.68	−59 22.9	0.913	1.040	60.5	18.3	66 E	—	49*
11 11	19 57.53	−58 21.7	0.902	1.039	60.9	18.2	66 E	—	50*
11 13	20 11.90	−57 12.8	0.891	1.037	61.2	18.2	67 E	—	52*
11 15	20 25.74	−55 56.3	0.881	1.036	61.5	18.2	67 E	—	53*
11 17	20 39.03	−54 32.4	0.872	1.036	61.7	18.2	67 E	—	54*
11 22	21 9.70	−50 32.2	0.850	1.036	62.2	18.1	68 E	—	58*
11 27	21 36.82	−45 53.0	0.832	1.039	62.5	18.1	69 E	—	61*
12 2	22 0.73	−40 41.3	0.820	1.044	62.5	18.1	70 E	4	63*
12 7	22 21.88	−35 5.0	0.814	1.051	62.3	18.1	71 E	10	65*
12 9	22 29.69	−32 45.5	0.813	1.054	62.1	18.1	71 E	12	65*
12 11	22 37.16	−30 24.0	0.814	1.058	61.9	18.1	71 E	15	65*
12 13	22 44.33	−28 1.0	0.815	1.062	61.6	18.1	72 E	17	64*
12 15	22 51.22	−25 37.3	0.818	1.066	61.3	18.1	72 E	19	64*
12 17	22 57.86	−23 13.1	0.822	1.071	61.0	18.1	72 E	22	63*
12 22	23 13.50	−17 14.8	0.837	1.084	60.0	18.1	73 E	28	59*
12 27	23 28.02	−11 25.0	0.858	1.099	58.8	18.2	73 E	34	55*
1 1	23 41.68	− 5 49.3	0.886	1.115	57.5	18.2	73 E	39*	51*
1 6	23 54.71	− 0 31.5	0.919	1.132	56.1	18.3	73 E	44*	46*
1 11	0 7.30	+ 4 26.3	0.957	1.151	54.7	18.4	73 E	49*	41*
1 16	0 19.62	+ 9 3.5	0.999	1.171	53.2	18.5	72 E	53*	37*

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19/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	−26°
12 23	15 1.70	+10 21.0	1.990	1.648	29.5	20.2	56 W	47*	18*
1 2	15 16.56	+12 13.6	1.992	1.766	29.6	20.3	62 W	52*	23*
1 12	15 29.50	+14 25.9	1.982	1.876	29.4	20.4	69 W	57*	28*
1 22	15 40.36	+16 59.6	1.962	1.979	28.9	20.5	76 W	61*	33*
2 1	15 48.87	+19 55.6	1.936	2.077	28.1	20.6	84 W	65*	36*
2 11	15 54.68	+23 12.7	1.909	2.168	27.1	20.6	91 W	68	37*
2 21	15 57.37	+26 47.9	1.884	2.255	25.7	20.6	99 W	72	37*
3 2	15 56.43	+30 35.0	1.866	2.337	24.1	20.6	106 W	76	33
3 12	15 51.42	+34 23.8	1.860	2.414	22.4	20.6	112 W	79	30
3 22	15 42.02	+38 1.2	1.869	2.487	20.9	20.7	117 W	83	26
4 1	15 28.29	+41 11.3	1.898	2.556	19.7	20.7	121 W	86	23
4 11	15 10.94	+43 39.0	1.946	2.621	18.9	20.8	122 W	89	20
4 21	14 51.40	+45 13.7	2.016	2.682	18.6	20.9	122 W	90	19
5 1	14 31.59	+45 51.9	2.105	2.740	18.7	21.1	119 E	89	18
5 11	14 13.46	+45 37.9	2.212	2.794	19.1	21.2	115 E	89	18
5 21	13 58.36	+44 41.2	2.333	2.845	19.5	21.4	110 E	90	19