

Globular Clusters Photographed with the 16-inch reflector
at the Burton Tower, 60 St. George St.
University of Toronto (1968-1977)

NGC 5053 2	NGC 6402 ... 17
NGC 5272 3	NGC 6626 ... 18
NGC 5904 4	NGC 6656 ... 19
NGC 6093 7	NGC 6712 ... 20
NGC 6121 9	NGC 6779 ... 21
NGC 6171 ... 10	NGC 6838 ... 22
NGC 6205 ... 11	NGC 6981 ... 24
NGC 6218 ... 13	NGC 7078 ... 25
NGC 6229 ... 14	NGC 7089 ... 27
NGC 6254 ... 15	NGC 7099 ... 29
NGC 6273 ... 16	

For each observation, the following information is listed:
plate number, date, Eastern Standard Time (EST) of the
beginning and end of the exposure, and Julian date at the
time of mid-exposure. Note: EST + 5 hours = GMT.

13^h 14^m.4 +17° 54'

	1969				244+	
234	May 20-21	23 39	00 09		362.704	
238	" 24	21 34	22 14		66.621	
241	" 25-6	23 50	00 30		67.715	
243	June 8	23 03	23 43		81.683	
248	" 9	22 06	22 46		82.643	
269	July 5	21 55	22 15		408.629	
270	" 5	22 17	22 37		.644	
272	" 5-6	23 59	00 21		.715	
274	" 6	1 57	2 17		.796	
275	" 7	22 31	22 44		410.651	
	1970					
377	Mar. 9	1 35	2 05		654.784	
380	" 9	3 44	4 14		.874	
460	May 6	21 31	22 01		713.615	
462	" 6-7	23 54	00 24		.715	
464	" 7	1 17	1 47		.772	
	1971					
827	May 4	0 19	0 44		075.722	
838	" 5	21 23	21 53		77.617	
840	" 5	22 50	-23 20		.670	
858	" 18	22 50	23 10		90.667	
863	" 22	00 17	00 47		93.731	
869	" 22	23 21	-23 51		94.692	
879	" 28	21 45	-22 15		100.625	
891	" 29	21 58	-22 28		101.594	
893	" 29	23 03	23 33		.679	
902	" 30	22 20	23 37		02.682	
907	June 14	21 40	22 10		117.622	
914	" 15	21 34	22 04		118.617	
931	" 17	21 54	22 24		120.631	
949	" 21	21 22	21 52		24.609	
960	" 22	21 24	21 54		25.610	
971	" 26	21 26	21 56		29.612	
988	" 29	21 31	22 01		32.615	

13^h 40.4^m +28° 35'

1968				244+		
17	June	17	21 36	21 46	0025.612	
23	"	19	22 22	22 32	27.644	
29	July	1	21 58	22 08	39.627	
35	"	9	21 55	22 05	47.625	
45	"	10	21 30	21 40	48.608	
1971						
833	May	5	1 02	1 12	1076.751	

15^h 16.5^m +02° 14'

1968				244+							
18	June	17	21 56	22 05	0025.625	668	Aug.	8	21 40	22 00	40807.618
36	July	9	22 15	22 25	47.639	682	"	21	21 10	21 20	20.594
46	"	10	21 49	21 59	48.621	694	"	23	21 02	21 12	22.588
61	"	20	22 17	22 27	58.640	706	"	25	20 35	20 45	24.569
107	"	29	21 57	22 07	67.627		1971				
144	Aug.	26	21 24	21 36	95.604	828	May	4	1 07	1 22	1075.755
172	Sept.	12	20 58	21 10	112.586	839	"	5	22 04	22 24	77.635
1969						841	"	6	00 13	00 33	.728
198	Feb.	21	02 56	03 16	273.840	859	"	18	23 23	23 38	90.688
199	"	21	04 16	04 36	.893	861	"	19	00 13	00 28	.722
200	"	21	04 44	05 04	.913	870	"	22	23 56	00 11	94.710
201	"	21	05 06	05 26	.928	880	"	28	22 20	22 35	1100.644
202	"	22	02 45	03 25	74.837	892	"	29	22 37	22 57	01.658
203	"	22	03 28	04 08	.861	894	"	29	23 38	23 53	.698
204	Mar.	23	01 37	02 07	303.787	901	"	30	21 58	22 13	02.624
205	"	23	02 17	02 42	.813	903	"	30	23 49	00 04	.706
206	"	23	03 43	04 13	.874	908	June	14	22 15	22 30	17.640
207	Apr.	12	00 07	00 33	23.722	915	"	15	22 10	22 25	18.637
208	"	12	00 35	01 00	.741	916	"	15	22 31	22 46	.651
211	"	12	02 28	02 58	.882	932	"	17	22 30	22 45	20.651
212	"	12	23 27	23 57	24.696	941	"	18	21 42	21 57	41121.617
213	"	13	00 03	00 33	.721	943	"	18	22 20	22 35	.644
216	"	13	02 08	02 38	.808	950	"	21	21 56	22 09	24.626
218	"	13	03 15	03 40	.853	961	"	22	21 56	22 11	25.627
219	"	14	00 14	00 50	25.730	972	"	26	22 01	22 16	29.631
222	"	14	02 11	02 45	.811	982	"	28	23 17	23 32	31.683
224	"	14	03 18	03 45	.855	989	"	29	22 10	22 25	32.637
225	"	20	23 38	00 10	32.701	998	July	2	22 09	22 24	35.636
227	"	21	01 21	01 55	.776	1004	"	14	21 35	21 50	47.613
229	"	21	02 46	02 52	332.826	1015	"	15	22 41	22 56	48.658
230	May	16	22 19	22 49	58.649	1017	"	17	21 11	21 26	50.596
254	June	16	21 30	21 45	59.609	1030	"	19	22 03	22 18	52.632
1970						1042	"	25	21 45	22 00	58.619
379	Mar.	9	3 01	3 23	654.842	1044	"	27	21 41	21 55	60.617
461	May	6	22 14	22 31	713.641	1054	"	29	21 44	21 59	41162.619
486	"	29	22 43	23 00	736.619	1070	Aug.	12	20 58	21 13	76.584
487	"	30	23 45	00 05	.705	1073	"	15	30 51	21 06	79.582
488	"	30	00 10	01 00	.733	1083	"	16	21 05	21 20	80.592
489	"	30	22 11	22 31	37.599	1084	"	16	21 23	21 40	.606
496	June	6	21 20	21 40	44.604	1098	"	18	20 58	21 13	82.587
500	"	6	23 35	23 55	.690	1109	"	20	20 57	21 12	84.586
508	"	7	21 55	22 10	45.626	1111	"	21	20 38	20 53	85.573
510	"	8	21 56	22 17	46.631	1130	"	25	20 30	20 45	89.567
518	"	9	21 35	21 45	47.611	1133	"	29	20 11	20 26	93.554
532	"	25	22 02	22 22	63.633	1142	"	31	20 09	20 25	95.553
549	"	30	23 12	23 32	68.682		1972				
590	July	26	21 46	21 56	94.619	1502	May	18	00 38	00 48	41455.738
597	Aug.	2	21 55	22 15	801.628	1509	"	18	23 29	23 39	56.690
603	"	3	22 15	22 35	02.642	1518	"	19	23 35	23 45	57.694
617	"	4	22 10	22 23	03.635	1524	"	20	23 42	23 52	41458.699
637	"	6	21 45	22 05	05.621	1530	"	22	00 32	00 42	59.734
652	"	7	21 55	22 15	06.630	1536	"	22	23 53	00 03	60.707
						1558	June	2	22 31	22 41	71.650
						1564	"	4	22 13	22 23	73.638

1972					1974						
1569	June	6	22 28	22 38	75.648	2259	June	9	22 59	23 11	42208.670
1578	"	10	22 27	22 37	79.647	2264	"	15	0 09	0 21	13.719
1587	"	15	22 19	22 29	84.642	2267	"	17	0 16	0 20	15.721
1588	"	16	23 00	23 05	85.669	2268	"	21	21 30	21 42	20.567
1589	"	17	22 19	22 29	86.642	2278	"	22	22 32	22 42	21.651
1613	July	3	21 26	21 36	502.605	2280	"	23	22 25	22 39	22.647
1624	"	6	21 29	21 39	05.607	2286	"	26	21 30	21 42	29.608
1632	"	7	21 12	21 22	06.595	2296	"	27	21 59	22 19	26.631
1636	"	8	21 23	21 33	07.603	2304	July	7	21 35	21 49	42236.571
1640	"	11	21 53	22 03	10.624	2310	"	8	21 33	21 45	37.569
1644	"	16	21 21	21 31	15.601	2313	"	10	21 21	21 33	42239.602
1654	"	30	21 11	21 21	29.594	2324	"	11	21 29	21 41	40.608
1658	Aug.	3	21 55	22 01	33.582	2334	"	12	21 13	21 25	41.555
1669	"	4	21 56	22 08	34.627	2345	"	13	21 14	21 26	42.556
1676	"	5	21 53	22 05	35.625	2365	"	16	22 37	22 49	45.655
1683	"	9	22 08	22 18	41539.634	2376	"	19	22 32	22 44	48.651
1693	"	12	21 48	21 58	42.620	2389	"	20	22 27	22 39	49.648
1697	"	15	21 30	21 42	45.608	2401	"	21	22 24	22 36	50.646
	1973					2409	"	27	21 11	21 23	56.595
1968	Apr.	13	2 49	3 03	786.831	2423	"	29	21 55	22 07	58.626
1973	May	21	21 38	21 52	824.615	2427	Aug.	7	21 13	21 25	42267.597
1979	"	22	21 38	21 43 ^{1/2}	25.611	2438	"	9	20 50	21 02	69.581
1980	"	22	23 16	23 29	.682	2448	Aug.	10	21 12	21 24	70.596
1981	"	29	21 31	21 46	32.610	2463	"	13	21 15	21 29	73.599
1982	June	2	22 16	22 31	36.641	2473	"	14	21 24	21 36	74.604
1987	"	4	22 29	22 40	56.609	2483	"	17	20 22	20 38	77.563
1989	"	24	22 19	22 29	58.642	2490	"	18	20 25	20 37	78.563
1992	"	25	21 52	22 07	59.625	2496	"	19	20 24	20 36	79.563
1999	"	29	0 06	0 18	62.717		1975				
2004	"	29	23 48	24 00	63.704	2507	May	2	2 32	2 46	42534.818
2008	July	1	23 57	0 07	65.713	2509	"	6	21 28	41	42539.607
2014	"	3	21 41	21 56	67.617	2515	"	7	21 16	28	42540.598
2022	"	4	21 30	21 44	68.609	2521	"	8	20 51	21 03	42541.582
2031	"	5	21 48	22 00	69.621	2529	"	9	21 27	39	42542.606
2040	"	6	22 14	22 26	70.639	2536	"	10	21 46	22 00	42543.620
2042	"	7	22 35	22 49	71.654	2540	"	11	21 08	22	44.593
2050	"	10	22 58	23 12	74.670	2541	"	13	20 44	56	46.578
2057	"	21	21 51	22 03	41885.623	2548	"	16	20 48	21 00	48.580
2068	"	23	22 54	23 06	87.667	2556	"	17	20 51	21 03	50.582
2080	"	29	22 05	22 17	93.633	2563	"	19	0 51	1 03	51.747
2094	Aug.	3	21 25	21 37	98.605	2561	"	19	21 07	21 19	42552.592
2104	"	4	22 12	22 26	99.638	2573	June	1	22 11	23	42565.637
2112	"	5	22 35	22 47	44900.653	2574	"	1	22 51	23 06	42565.666
2116	"	19	21 00	21 12	914.588	2579	"	3	21 47	59	67.620
2128	"	22	21 04	21 14	17.590	2584	"	6	23 16	30	70.683
2146	"	28	20 48	21 00	23.579	2585	"	8	1 15	1 25	71.764
2155	"	29	20 21	20 33	24.560	2586	"	8	23 38	50	72.697
	1974					2591	"	9	21 43	55	73.617
2228	May	15	23 26	23 38	42183.689	2597	"	10	21 50	22 03	74.623
2231	"	17	22 00	22 12	42185.629	2603	"	12	22 44	56	76.666
2236	"	18	23 42	23 52	86.699	2604	"	13	23 38	50	77.697
2238	"	19	21 17	21 29	87.599	2608 ^a	June	19	22 40	52	83.560
2247	"	20	21 55	22 07	42188.626	2608	"	27	21 44	21 56	91.618
2251	"	23	21 35	21 47	91.612	2614	"	28	21 23	35	92.603
2256	"	24	21 47	21 59	92.620	2621	"	29	21 43	55?	93.617
2258	"	27	23 50	0 02	95.706	2633	"	30	21 18	21 30	94.599

1975					1977						
2645	July	1	21 23	35	95.603	2883	June	2/13	22 17	22 32	307.642
2656	"	4	21 55	22 07	98.626	2884	"	"	22 37	22 57	.658
2666	"	5	21 24	36	99.604	2885	14/15	"	22 50	22 05	309.623
2676	"	11	0 09	0 21	42605.719	2886	"	"	22 10	22 30	.639
2683	"	12	21 16	28	06.599	2887	15/16	"	22 47	23 02	310.663
2687	"	14	21 40	52	08.615	2888	"	"	23 05	23 25	310.677
2692	"	15	21 37	49	09.613	2889	19/20	"	22 00	22 15	314.630
2702	"	16	21 45	57	610.619	2890	"	"	22 20	22 41	.646
2713	"	28	22 25	38	622.655	2891	20/21	"	22 45	23 00	315.658
2717	"	29	21 29	41	623.605	2892	"	"	22 05	23 25	.677
2737	Aug.	4	21 17	29	629.599	2893	21/22	"	21 26	21 41	316.606
2738	"	4	21 40	52	629.615	2894	"	"	21 45	22 05	.621
2743	"	7	20 48	21 00	632.579	2895	22/23	"	21 30	21 45	317.610
2751	"	8	20 51	21 03	633.581	2896	"	"	21 47	22 07	.623
2762	"	12	21 47	59	637.620	2897	23/24	"	21 47	22 03	318.622
2773	"	15	21 23	35	640.603	2898	"	"	22 05	22 25	.635
2776	"	16	22 23	35	641.645	2899	July 10/11	"	21 12	21 25	335.554
2777	"	26	21 08	20	651.592	2900	"	"	21 32	21 50	.570
2785	"	27	21 17	29	652.899	2901	12/13	"	21 35	21 50	337.571
1976					2902	"	"	21 55	22 15	.587	
2812	May	20/21	22 08	19	42919.634	2903	13/14	"	21 08	21 23	338.552
2813	"	"	22 31	22 43	.651	2904	"	"	21 26	21 46	.567
2814	June	1/2	21 45	21 55	31.618	2905	17/18	"	21 23	21 38	342.563
2815	"	"	22 01	22 13	.630	2906	"	"	21 41	22 01	.576
2816	"	"	22 45	22 57	.660	2909	Aug. 1/2	"	21 17	21 30	43357.600
2817	"	5/6	22 37	22 48	65.654	2910	"	"	21 32	21 50	.612
2818	"	"	22 51	23 02	.664	2912	14/15	"	20 51	21 05	43370.582
2819	"	21/22	22 37	22 48	81.654	2913	"	"	21 10	21 30	.597
2820	"	"	22 50	23 01	.663						
2821	"	22/23	22 52	23 02	52.665						
1977											
2857	May	9/10	0 40	0 50	43273.740						
2858	"	"	1 40	1 20	.760						
2859	"	11/12	21 40	21 50	75.615						
2860	"	"	21 55	22 15	.628						
2861	"	15/16	21 45	21 56	79.618						
2862	"	"	22 10	22 36	.639						
2863	"	16/17	22 37	22 47	80.654						
2864	"	"	22 50	23 10	.667						
2865	"	18/19	23 02	23 10	82.671						
2866	"	"	01 05	01 25	.760						
2867	"	20/21	22 20	22 30	84.642						
2868	"	"	22 35	22 55	84.656						
2869	"	23/24	00 07	00 24	87.719						
2870	"	"	0 28	0 36	.731						
2871	"	24/25	21 30	21 42	88.608						
2872	"	"	21 42	22 07	.622						
2873	"	25/26	22 12	22 25	89.638						
2874	"	"	22 30	22 50	.653						
2875	"	26/27	21 20	21 40	90.604						
2876	"	"	21 45	22 00	.616						
2877	June	8/9	23 30	23 45	3303.692						
2878	"	"	23 50	0 10	.708						
2879	"	10/11	21 52	22 13	305.626						
2880	"	"	22 16	22 36	.643						

16^h 14.^m7 -22° 53'

1968				244+							
20	June	17	22 52	23 02	0025.665	1005	July	14	22 01	22 21	47.633
31	July	1	23 18	23 28	39.683	1019	"	17	22 02	22 22	50.633
37	"	9	22 50	23 00	47.663	1056	"	29	22 31	22 57	62.656
47	"	10	22 18	22 26	48.640	1074	Aug.	15	21 20	21 40	79.604
48	"	10	22 40	22 50	.656	1085	"	16	21 50	22 10	80.625
62	"	20	22 50	23 05	58.665	1110	"	20	21 18	21 33	84.601
71	"	22	21 12	21 27	60.597	1112	"	21	20 57	21 17	85.588
80	"	24	22 20	22 30	62.643	1134	"	29	20 31	20 46	93.568
89	"	25	22 29	22 44	63.650	1143	"	31	20 30	20 45	95.567
96	"	28	22 36	22 51	66.661	1972					
155	Aug.	28	20 44	21 01	97.578	1511	May	19	01 00	01 15	41456.760
1969						1531	"	22	00 54	01 14	59.753
245	June	9	01 20	01 34	381.769	1561	June	2	23 56	00 16	71.713
256	"	16	22 58	23 12	89.670	1572	"	7	23 52	00 12	75.710
279	July	11	22 24	22 38	414.647	1590	"	17	22 42	23 02	86.661
1970						1614	July	3	21 46	22 06	41502.622
470	May	27	00 56	01 11	733.851	1645	"	16	21 37	21 57	15.616
476	"	28	00 50	01 05	34.790	1666	Aug.	4	20 42	21 02	34.578
483	"	29	00 50	01 05	35.790	1695	"	15	20 39	20 59	45.576
502	June	7	00 40	01 00	44.743	1973					
514	"	9	00 15	00 35	46.726	1976	May	22	0 16	0 36	824.726
526	"	14	00 40	00 55	51.741	1985	June	2	23 57	0 17	36.713
533	"	25	22 35	22 45	63.653	1994	"	25	22 46	23 06	59.664
536	"	27	22 05	22 15	65.632	2002	"	29	22 39	22 59	63.659
546	"	30	22 00	22 07	68.627	2023	July	4	21 51	22 11	68.626
558	July	5	21 43	21 53	73.617	2041	"	7	21 51	22 11	71.626
593	Aug.	1	21 30	21 40	800.608	2065	"	23	21 35	21 55	87.615
595	"	2	21 20	21 30	01.601	2078	"	29	21 07	21 27	93.595
599	"	3	20 50	21 00	02.580	2103	Aug.	4	21 44	22 04	41899.621
613	"	4	20 50	21 00	03.576	2115	"	19	20 26	20 46	41914.567
619	"	5	20 50	21 00	04.580	1974					
633	"	6	20 45	20 55	05.576	2242	May	20	0 26	0 46	42187.733
649	"	7	21 02	21 12	06.588	2249	"	21	0 24	0 49	88.735
665	"	8	20 45	20 55	07.576	2262	June	10	0 19	0 29	42208.725
680	"	21	20 30	21 40	20.566	2271	"	21	22 40	23 00	20.660
693	"	23	20 41	20 51	22.574	2279	"	22	23 10	23 29	21.681
705	"	25	20 20	20 30	24.559	2282	"	23	23 20	23 40	22.688
1971						2287	"	26	22 13	22 33	25.641
834	May	5	2 10	2 30	1076.799	2296	"	27	21 59	22 19	26.631
862	"	19	0 50	1 00	90.747	2305	July	7	22 00	22 20	36.632
865	"	22	2 11	2 31	93.806	2311	"	8	22 00	22 20	37.632
872	"	23	0 46	1 06	94.747	2313	"	10	21 38	21 58	39.617
884	"	29	0 25	0 45	100.740	2325	"	11	21 50	22 10	42240.625
896	"	30	0 40	1 00	01.743	2335	"	12	21 33	21 53	41.613
905	"	31	0 45	1 05	02.747	2346	"	13	21 34	21 54	42.614
911	June	14	23 37	23 57	17.699	2358	"	15	21 14	21 34	44.600
918	"	15	23 20	23 40	18.688	2362	"	16	21 17	21 37	45.602
933	"	17	22 50	23 10	20.667	2373	"	19	21 15	21 35	48.601
952	"	21	22 32	22 52	41124.654	2386	"	20	21 04	21 29	49.597
963	"	22	23 00	23 20	25.674	2398	"	21	21 10	21 31	50.598
974	"	26	22 40	23 00	29.660	2421	"	29	21 00	21 15	58.589
990	"	29	22 35	22 55	32.656	2426	Aug.	7	20 43	21 03	67.578
999	July	2	22 38	22 58	35.658	2447	"	10	20 39	20 59	70.576
						2471	"	14	20 27	20 47	74.567

16 h 14^m7 -22° 53'

1975

2516	May	7	22	48	23	09	42540.666
2524	"	9	0	02	0	22	541.716
2532	"	10	0	21	0	42	542.730
2545	"	14	1	19	1	39	546.770
2554	"	17	2	42	3	02	549.827
2560	"	18	1	20	40		42550.770
2564	"	19	1	13	33		551.765
2583	June	4	1	48	2	07	567.790
2598	"	10	23	22	33		574.716
2609	"	27	22	16	30		591.643
2615	"	28	22	05	25		592.635
2623	"	29	22	34	54		593.655
2635	"	30	22	07	21		594.636
2648	July	1	23	09	29		595.679
2657	"	4	22	14	34		598.642
2667	"	5	21	49	09		599.624
2689	"	14	22	40	23	01	608.660
2694	"	15	22	44	23	08	609.663
2752	Aug.	8	21	15	35		42633.601

16^h 21.2^m -26° 25'

1968				244+							
24	June	19	23 00	23 10	0027.670	2288	June	26	22 51	23 11	25.667
32	July	1	23 47	23 57	39.702	2297	"	27	22 41	23 01	26.660
94	"	28	21 31	21 46	66.610	2315	July	10	22 09	22 29	39.638
1970						2326	"	11	22 22	22 42	40.647
477	May	28	01 30	01 45	734.807	2336	"	12	22 07	22 27	41.637
484	"	29	01 15	01 30	35.807	2347	"	13	22 01	22 28	42.638
537	June	27	22 27	22 37	65.647	2359	"	15	21 40	22 00	44.618
547	"	30	22 23	22 30	68.644	2363	"	16	21 42	22 02	45.619
559	July	5	21 59	22 09	73.628	2374	"	19	21 40	22 00	48.618
572	"	6	22 06	22 16	74.633	2387	"	20	21 36	21 56	49.615
596	Aug.	2	21 33	21 43	801.610	2399	"	21	21 38	21 88	50.617
600	"	3	21 06	21 16	02.592	2422	"	29	21 21	21 41	58.605
614	"	4	21 05	21 15	03.600						
620	"	5	21 03	21 00	04.589	2514	May	7	3 00	3 20	42539.840
634	"	6	21 00	21 10	05.587	2518	"	8	1 33	2 00	540.783
650	"	7	21 20	21 30	06.601	2525	"	9	1 00	1 20	541.756
1971						2533	"	10	1 08	1 28	542.762
871	May	23	0 21	0 41	1094.730	2546	"	14	1 47	2 07	546.789
883	"	28/29	23 58	00 18	1100.714	2553	"	17	2 05	2 25	549.802
895	"	30	0 14	00 34	1101.725	2594	June	10	1 19	1 38	573.769
904	"	31	0 12	00 32	02.724	2600	"	11	0 29	0 49	574.735
910	June	14	23 11	23 31	17.681	2622	"	29	22 03	22 23	593.634
934	"	17	23 17	23 37	20.685	2636	"	30	22 32	52	594.654
953	"	21	22 58	23 18	24.672	2647	July	1	22 42	23 02	595.661
964	"	22	23 25	23 45	25.691	2668	"	5	22 49	23 09	599.666
975	"	26	23 05	23 25	29.677	2688	"	14	22 03	22 24	608.634
991	"	29	23 02	23 22	32.675	2693	"	15	22 02	22 07	609.635
1000	July	2	23 09	23 29	35.680	2744	Aug.	7	21 12	21 32	632.599
1006	"	14	22 27	22 47	47.651						
1018	"	17	21 32	21 52	50.613						
1031	"	19	22 26	22 31	41152.644						
1055	"	29	22 05	22 25	62.635						
1972											
1512	May	19	1 47	2 03	41456.788						
1567	June	5	23 54	00 14	73.711						
1581	"	10	23 37	23 57	79.699						
1615	July	3	22 21	22 41	502.647						
1634	"	7	22 08	22 25	06.636						
1667	Aug.	4	21 08	21 28	34.596						
1691	"	12	20 44	21 04	42.579						
1973											
2003	June	29	23 09	23 29	863.680						
2024	July	4	22 24	22 44	68.649						
2032	July	5	22 19	22 40	69.645						
2065	"	23	22 02	22 22	87.633						
2079	"	29	21 38	21 58	93.617						
2111	Aug.	5	21 17	21 29	900.599						
1974											
2243	May	20	1 13	1 33	42187.766						
2250	"	21	1 10	1 30	88.764						
2272	June	21	23 16	23 36	42220.685						
2283	"	23	23 49	0 11	22.708						

16^h 30.3^m -12° 58'

	1969					244+
235	May	21	00 35	00 59	0362.741	
240	"	25	22 04	22 44	67.642	
250	June	10	00 09	00 49	82.729	
	1970					
535	June	27	21 40	22 00	765.618	
573	July	6	22 25	22 40	74.647	
604	Aug.	3	22 40	23 00	802.660	
	1971					
829	May	4	2 00	2 20	1075.792	
873	"	23	1 14	1 29	94.765	
935	June	17/18	23 46	00 16	1120.709	
962	"	22	22 23	22 53	25.651	
992	"	29/30	23 38	00 08	32.703	
1021	July	17	23 08	23 33	50.681	
1058	"	29	23 36	23 56	62.699	
1135	Aug.	29	21 00	21 15	41193.547	
	1972					
1521	May	20	1 08	1 28	41457.763	
1565	June	4	22 41	22 51	73.657	
1591	June	17	23 24	23 34	86.687	
1627	July	6	22 53	23 08	505.667	
1646	"	16	22 12	22 32	15.640	
1674	Aug.	5	20 57	21 22	35.590	
1692	"	12	21 10	21 37	42.600	
	1973					
1986	June	3	1 31	1 51	836.778	
2026	July	4	23 29	23 54	68.695	
2081	"	29	22 38	23 00	93.689	
2129	Aug.	22	21 22	21 42	41917.606	
2156	"	29	20 45	21 05	24.580	
	1974					
2234	May	18	2 26	2 51	42185.819	
2241	"	19	23 33	23 58	186.699	
2284	June	24	0 29	0 54	223.738	
2402	July	21	22 50	23 15	50.669	
	1975					
2519	May	8	3 15	3 40	42540.859	
2531	"	9	23 41	0 07	542.704	
2575	June	2	0 03	0 28	565.719	
2610	"	27	23 28	23 53	591.695	
2646	July	1	22 01	22 06	595.634	
2714	"	28	23 21	23 46	42622.690	
2739	Aug.	4	22 56	23 16	629.671	

16^h 40^m.3 +36° 32'

1968				244+							
19	June	17	22 30	22 40	0025.650	625	Aug.	5	23 30	23 40	04.691
33	July	2	00 16	00 26	39.723	638	"	6	22 15	22 25	05.639
38	"	9	23 16	23 26	47.681	653	"	7	22 25	22 35	06.669
40	"	10	00 16	00 26	.723	669	"	8	22 10	22 20	07.635
49	"	10	23 16	23 26	48.681	684	"	21	22 00	22 10	20.628
58	"	20	02 08	02 18	57.801	695	"	23	21 20	21 30	22.601
66	"	21	01 33	01 43	58.777	704	"	24	00 10	00 20	.719
76	"	23	01 27	01 37	60.772	709	"	25	21 40	21 50	24.614
86	"	25	02 00	02 10	62.795		1971				
100	"	29	00 37	00 47	66.738	830	May	4	2 30	2 35	41075.813
124	Aug.	7	22 49	22 59	76.722	881	"	28	22 40	22 53	100.657
140	"	15	01 59	02 09	83.853	909	June	14	22 37	22 50	117.655
1969						942	"	18	22 02	22 15	21.631
209	Apr.	12	01 34	01 45	323.778	951	"	21	22 13	22 26	24.638
210	"	12	01 54	02 04	.791	973	"	26	22 22	22 35	41129.644
214	"	13	01 09	01 19	24.760	983	"	28	23 39	23 52	31.698
215	"	13	01 31	01 41	.775	1009	July	15	00 13	00 21	47.724
217	"	13	02 50	03 00	.830	1025	"	18	00 54	01 07	50.750
220	"	14	01 06	01 26	25.761	1043	"	25	22 34	22 48	58.651
221	"	14	01 53	02 03	.790	1045	"	27	22 09	22 22	60.635
223	"	14	03 04	03 10	.839	1064	Aug.	11	22 38	22 50	75.656
226	"	21	00 43	00 53	32.742	1076	"	15	22 29	22 42	79.649
228	"	21	02 10	02 20	.802	1100	"	18	22 00	22 13	82.629
231	May	16	23 05	23 15	58.674	1115	"	21	22 50	23 05	85.665
239	"	24	22 47	22 57	66.661	1131	"	25	21 04	21 16	89.590
242	"	26	21 49	21 59	68.621	1136	"	29	21 21	21 33	93.607
252	June	10	01 58	02 08	82.794	1154	Sept.	18	20 53	21 03	213.582
255	"	16	22 07	22 17	89.633		1972				
266	"	25	22 05	22 15	98.632	1506	May	18	2 49	2 54	41455.827
1970						1526	"	21	00 55	01 05	41458.750
378	Mar.	9	2 35	2 45	654.820	1541	"	23	3 02	3 12	60.838
463	May	7	0 41	0 51	713.740	1560	June	2	23 36	23 48	71.696
466	"	26	22 45	22 55	33.660	1570	"	6	22 54	23 04	75.666
469	"	27	00 25	00 36	.771	1579	"	10	22 43	22 53	79.659
471	"	27	21 55	22 10	34.627	1616	July	3	22 51	23 03	502.665
474	"	27	23 40	23 53	.699	1626	"	6	22 26	22 36	05.647
479	"	28	22 53	23 10	35.668	1637	"	8	21 52	22 04	07.624
482	"	29	00 15	00 30	.765	1641	"	11	22 12	22 27	10.639
497	June	6	21 50	22 10	44.625	1657	"	30	22 18	22 33	29.643
501	"	7	00 05	00 25	.719	1662	Aug.	3	23 42	23 54	33.700
509	"	7	22 17	22 32	45.640	1678	"	5	22 43	22 55	35.659
512	"	8	23 15	23 35	46.681	1685	"	9	22 52	23 05	39.666
515	"	9	0 57	1 17	.757	1701	"	15	23 35	23 49	45.676
519	"	9	22 30	22 45	47.651		1973				
534	"	25	23 15	23 25	63.681	1978	May	22	2 04	2 19	41824.799
552	July	1	0 45	0 23	68.721	2029	July	5	1 13	1 28	68.764
565	"	6	0 50	1 00	73.746	2043	"	7	22 59	23 13	71.671
569	"	6	2 16	2 26	.806	2072	"	24	1 01	1 13	87.755
574	"	6	23 07	23 20	74.676	2100	Aug.	4	0 04	0 18	98.716
587	"	11	23 07	23 17	79.675	2106	"	4	22 58	23 12	99.670
589	"	26	21 25	21 35	94.604	2118	"	19	21 46	22 00	41914.620
602	Aug.	3	21 35	21 45	802.612	2121	"	21	23 41	23 53	16.699
612	"	4	1 20	1 30	.767	2139	"	24	21 42	21 56	19.617
616	"	4	21 50	22 00	03.622						

16^h 40^m.3 +36° 32'

1974

2232	May	17	22 28	22 42	42185.649
2239	"	19	21 52	22 06	87.624
2248	"	20	22 31	22 45	88.651
2252	"	23	22 03	22 17	91.632
2257	"	24	22 23	22 37	92.646
2263	June	10	0 49	1 03	208.747
2265	"	15	0 32	0 46	12.735
2281	"	23	22 49	23 03	21.664
2308	July	7	23 35	23 49	36.696
2313	"	8	22 50	23 04	37.665
2391	"	20	23 01	23 22	49.677
2412	"	27	22 17	22 31	56.642
2424	"	29	22 13	22 27	58.139
2451	Aug.	10	22 10	22 35	42270.638
2467	"	13	23 15	23 24	73.682
2484	"	17	20 55	21 09	77.585

1975

2506	Apr.	21	21 30	21 38	42524.607
2510	May	6	22 35	22 51	42539.654
2522	"	8	21 25	21 39	541.605
2530	"	9	22 01	22 15	542.630
2537	"	11	22 39	22 53	543.657
2549	"	16	21 20	21 34	549.602
2558	"	17	23 42	23 56	550.700
2568	"	19	22 22	22 37	552.645
2609a	June	19	23 24	23 38	583.688
2632	"	29	3 18	3 32	593.850
2644	"	30	3 16	3 30	594.849
2705	July	16	23 05	23 19	610.675
2724	"	30	22 59	23 15	624.672
2733	Aug.	1	21 59	22 13	626.629
2761	"	9	21 26	21 40	634.606
2774	"	15	21 53	22 07	640.625

16^h 45^m.1 -01^o 53'

1968				244+						
21	June 18	00 07	00 17	0025.717	2058	July 21	22 13	22 25	85.638	
25	" 19	23 25	23 35	27.688	2098	Aug. 3	23 07	23 21	98.676	
34	July 2	00 43	00 53	39.742	2132	" 22	22 56	23 10	41917.669	
39	" 9-10	23 58	00 08	47.711	2157	" 29	21 22	21 36	24.603	
50	" 10	23 44	23 54	48.701		1974				
95	" 28	22 05	22 20	66.634	2229	May 16	0 32	0 42	42183.734	
159	Aug. 28	22 46	23 03	97.663	2240	" 19	22 45	22 55	87.660	
173	Sept. 12	22 00	22 18	112.631	2253	" 23	23 12	23 22	91.678	
	1970				2260	June 9	23 22	23 32	208.685	
467	May 26	23 27	23 37	733.689	2269	" 21	21 55	22 05	20.625	
472	" 27	22 25	22 40	34.646	2306	July 7	22 57	23 07	38.668	
475	" 28	00 25	00 40	.772	2349	" 13	23 01	23 11	44.671	
480	" 28	23 20	23 35	35.685	2410	" 27	21 35	21 45	58.611	
485	" 29	01 45	01 53	.828	2428	Aug. 7	21 40	21 50	67.615	
498	June 6	22 25	22 45	44.649	2474	" 14	21 43	21 53	74.617	
503	" 7	1 15	1 35	.767	2498	" 19	21 07	21 17	79.592	
538	" 27	22 45	22 55	65.660		1975				
551	July 1	0 02	0 09	68.713	2512	May 7	1 48	1 58	42539.786	
577	" 7	1 12	1 22	74.763	2550	" 16	23 30	23 41	549.691	
626	Aug. 5	23 45	23 55	804.701	2580	June 3	22 43	22 55	567.659	
639	" 6	22 30	22 40	05.649	2592	" 9	22 38	22 53	573.653	
654	" 7	22 40	22 50	06.656	2617	" 28	0 20	0 30	592.725	
670	" 8	22 25	22 35	07.646	2634	" 30	21 44	21 54	594.617	
685	" 21	22 15	22 25	20.639	2658	July 4	22 49	22 59	598.663	
696	" 23	21 45	21 55	22.618	2684	" 12	21 57	22 09	606.627	
710	" 25	22 00	22 10	24.628	2703	" 16	22 08	22 20	610.635	
	1971				2718	" 29	22 09	22 19	623.635	
836	May 5	3 21	3 36	41076.848	2755	Aug. 8	22 50	23 00	633.663	
864	" 22	1 45	1 57	93.785	2786	" 27	21 37	21 47	652.612	
882	" 28	23 13	23 25	41100.680						
917	June 15	22 55	23 10	18.668						
966	" 23	0 20	0 32	25.726						
984	" 29	0 08	0 20	31.718						
1008	July 14/15	23 50	00 02	47.706						
1022	" 17	23 42	23 54	50.700						
1046	" 27	23 06	23 18	60.675						
1086	Aug. 16	22 21	22 33	80.644						
1114	" 21	22 30	22 45	85.651						
	1972									
1503	May 18	1 32	1 47	41455.778						
1525	" 21	0 19	0 34	58.727						
1559	June 2	22 59	23 14	71.671						
1571	" 6	23 14	23 26	75.681						
1592	" 17	23 51	00 16	86.711						
1617	July 3	23 20	23 35	502.686						
1633	" 7	21 34	21 46	06.611						
1670	Aug. 4	22 26	22 38	34.647						
1694	" 12	22 04	22 19	42.633						
1698	Aug. 15	21 50	22 05	41545.624						
	1973									
1969	Apr. 13	3 20	3 34	786.852						
1974	May 21	23 05	23 19	824.675						
1993	June 25	22 20	22 34	59.644						
2015	July 3	22 41	22 56	67.659						

$16^{\text{h}} 45^{\text{m}}.9 \quad +47^{\circ} 36'$

1968						244+
51	July	11	01 05	01 15	00	46.757
59	"	20	02 33	02 43		57.818
67	"	21	02 03	02 21		58.800
101	"	29	00 55	01 13		66.753
128	Aug.	11	00 30	00 48		79.795

16^h 55^m.0 -04° 03'

1968				244+							
22	June	18	00 32	00 42	0025.734	1656	July	30	21 57	22 09	29.627
26	"	19	23 48	23 58	27.704	1699	Aug	15	22 47	22 59	45.662
41	July	10	00 54	01 09	47.751		1973				
52	"	11	01 37	01 52	48.781	1975	May	21	23 36	23 51	824.697
65	"	21	00 49	01 04	58.748	1984	June	2	23 20	23 45	36.691
99	"	29	00 06	00 21	66.718	1996	"	26	0 08	0 22	59.719
160	Aug.	28	23 14	23 31	97.683	2016	July	3/4	23 53	0 05	67.708
	1970					2045	"	7	23 30	23 45	71.693
468	May	27	0 02	0 12	733.709	2059	"	21	22 36	22 48	85.654
473	"	27	23 14	23 29	34.682	2084	"	30	0 10	0 24	93.720
478	"	28	01 55	2 10	.834	2105	Aug.	4	22 37	22 51	99.656
481	"	29	23 50	0 05	35.706	2117	"	19	21 25	21 39	41914.606
499	June	6	22 55	23 15	44.670	2158	"	29	21 46	22 00	24.620
504	"	7	1 49	2 09	.791		1974				
513	"	8	23 35	23 55	46.698	2230	May	16	1 15	1 25	42183.764
520	"	9	22 57	23 12	47.668	2233	"	18	1 38	1 48	85.780
521	"	13	0 25	0 30	50.727	2254	"	23	23 35	23 45	91.694
522	"	13	0 33	0 45	.734	2261	June	9	23 52	0 02	208.706
523	"	13	0 55	1 10	.753	2270	"	21	22 21	22 31	20.643
524	"	13	1 15	1 35	.767	2307	July	7	23 10	23 19	38.677
540	"	27	23 37	23 47	65.696	2350	"	13	23 16	23 26	44.681
550	"	30	23 42	23 50	68.699	2390	"	20	22 52	23 02	51.665
608	Aug.	4	0 05	0 15	802.715	2411	"	27	21 59	22 09	58.628
642	"	6	23 30	23 40	05.691	2429	Aug.	7	21 56	22 06	67.626
657	"	7	23 35	23 45	06.694	2475	"	14	22 06	22 16	74.633
673	"	8	23 25	23 35	07.687	2497	"	19	20 42	20 52	79.574
688	"	21	23 10	23 20	20.677		1975				
699	"	23	22 35	22 45	22.653	2513	May	7	2 30	2 40	42539.815
	1971					2581	June	3/4	23 53	0 03	567.707
837	May	5	3 45	4 00		2593	"	10	0 07	0 17	42573.716
875	"	23	1 59	2 11	41094.795	2618	"	28	0 58	1 08	592.752
886	"	29	1 22	1 35	100.769	2659	July	4	23 11	23 24	598.679
919	June	15	23 48	0 00	118.704	2685	"	11	22 21	22 33	606.644
955	"	21/22	23 55	00 07	24.709	2704	"	16	22 43	22 55	610.659
985	"	29	00 28	00 48	131.735	2719	"	29	22 37	22 47	623.654
1016	July	15	23 14	23 25	48.687	2756	Aug.	8	23 09	23 19	633.676
1059	"	30	00 07	00 20	62.717	2787	"	27	22 03	22 13	652.630
1101	Aug.	18	22 21	22 33	82.644		1972				
1515	May	19	2 57	3 08	41456.835						
1520	"	20	0 39	0 51	57.740						
1537	"	23	0 16	0 28	60.724						
1562	June	3	1 09	1 21	71.760						
1566	"	4	23 10	23 22	73.678						
1574	"	7	0 53	01 05	75.749						
1580	"	10	23 13	23 25	79.679						
1594	"	18	0 45	0 57	86.744						
1618	July	3	23 42	23 57	502.701						
1625	"	6	21 49	22 01	05.622						
1635	"	7	22 44	22 54	41506.659						
1638	"	8	22 23	22 36	07.646						
1647	"	16	23 10	23 22	15.677						

17^h 00.1^m -26° 12'

1968				244+		1971					
156	Aug.	28	21 14	21 31	0097.599	1099	Aug.	18	21 21	21 41	41182.605
1969							"	21	21 25	21 45	85.608
244	June	9	00 36	01 01	381.742	1152	Sept.	18	19 51	20 11	213.542
249	"	9	01 59	02 19	.798		1972				
251	"	10	01 26	01 46	82.775	1505	May	18	2 28	2 38	41455.818
258	"	17	00 58	01 23	89.757	1514	"	19	2 34	2 44	56.819
263	"	20	23 09	23 34	93.682	1522	"	20	2 10	2 20	57.802
264	"	21	00 20	00 45	.731	1527	"	21	1 28	1 43	58.774
267	July	2	22 00	22 25	405.634	1533	"	22	2 04	2 16	59.800
271	"	5	23 09	23 29	08.680	1538	"	23	1 06	1 18	60.759
276	"	8	22 30	22 55	11.655	1568	June	5	0 35	0 40	73.734
277	"	8	23 06	23 17	.675	1573	"	7	0 19	0 34	75.727
278	"	11	21 45	22 10	14.623	1582	"	11	0 17	0 29	79.725
283	"	12	21 35	22 00	15.616	1593	"	18	0 22	0 34	86.728
285	"	12	22 50	23 15	.668	1655	July	30	21 27	21 42	529.611
289	"	13	21 38	22 03	416.618	1659	Aug.	3	22 07	22 19	33.634
291	"	13	23 00	23 25	.675	1668	"	4	21 39	21 51	34.615
296	"	14	21 43	22 08	17.622	1675	"	5	21 32	21 44	35.610
298	"	14	22 54	23 10	.668	1690	"	10	21 09	21 20	40.593
303	"	22	22 12	22 37	25.642	1696	"	15	21 04	21 16	45.590
309	Aug.	2	22 03	22 28	36.636		1973				
322	"	19	20 41	21 06	53.579	1977	May	22	1 20	1 35	41824.769
1970						1995	June	25	23 31	23 46	59.693
539	June	27	23 05	23 25	765.677	2025	July	4	22 51	23 05	68.665
548	"	30	22 45	22 52	68.658	2033	"	5	22 47	23 02	69.663
561	July	5	22 59	23 09	73.669	2049	"	10	22 34	22 48	74.653
598	Aug.	2	22 20	22 30	801.642	2067	"	23	22 32	22 46	87.652
601	"	3	21 47	22 03	02.619	2095	Aug.	3	21 52	22 06	98.624
615	"	4	21 30	21 45	03.609	2145	"	28	20 17	20 41	41923.562
621	"	5	21 25	21 40	04.647		1974				
636	"	6	21 20	21 30	05.601	2244	May	20	1 47	2 07	42187.790
651	"	7	21 35	21 45	06.611	2273	June	21	23 46	0 00	220.703
667	"	8	21 20	21 30	07.601	2284	"	26	23 31	23 45	28.693
681	"	21	20 50	21 00	20.580	2298	"	27	23 11	23 25	26.679
707	"	25				2316	July	10	22 36	22 50	34.655
1971						2327	"	11	22 49	23 03	42240.664
831	May	3	02 50	03 05	41075.826	2337	"	12	22 34	22 48	41.653
866	"	22	02 45	03 00	93.828	2348	"	13	22 33	22 47	42.653
874	"	23	01 35	01 50	94.779	2364	"	16	22 15	22 29	45.640
885	"	29	00 55	01 15	100.753	2375	"	19	22 12	22 26	48.638
897	"	30	01 13	01 33	01.766	2388	"	20	22 08	22 22	49.635
906	"	31	01 32	01 35	02.773	2400	"	21	22 07	22 21	50.635
965	June	22	23 53	00 13	25.710	2439	Aug.	9	21 14	21 28	69.598
976	"	26	23 31	23 51	29.695	2472	"	14	20 56	21 10	74.585
1001	July	2	23 45	00 05	35.705		1975				
1007	"	14	23 21	23 41	47.688	2599	June	11	0 04	0 17	42574.716
1020	"	17	22 30	22 50	50.653	2625	"	29	23 40	23 54	593.699
1057	"	29	23 05	23 25	62.677	2637	"	30	23 04	23 18	594.674
936	June	18	00 26	00 46	20.733	2669	July	5	23 30	23 46	599.693
954	"	21	23 26	23 46	24.692	2690	"	14	23 11	23 24	608.678
1075	Aug.	15	21 50	22 10	79.625						

17^h 35^m.5 -03° 15'

1968						244+
28	June 20	00 37	00 47	0027.738		
53	July 11	02 36	02 56	48.824		
72	" 22	21 45	22 08	60.624		
82	"24-25	23 53	00 13	62.711		
93	" 26	00 24	00 44	63.732		
167	Sept. 6	22 07	22 27	106.637		

18^h 22^m.1 -24° 54'

1968				244+	1973						
56	July	20	00 49	01 01	0057.747	2052	July	11	0 08	0 28	74.721
63	"	20	23 39	23 56	58.700	2060	"	21	23 03	23 10	85.672
73	"	22	22 37	22 54	60.657	2069	"	23	23 20	23 40	87.688
83	"	25	00 35	00 52	62.739	2082	"	29	23 10	23 31	93.675
90	"	25	23 14	23 26	63.681	2096	Aug.	3	22 13	22 33	98.641
97	"	28	23 08	23 25	66.678	2113	"	5	23 01	23 21	900.674
115	Aug.	1-2	23 59	00 16	70.714	2130	"	22	21 55	22 15	41917.628
126	"	10	23 19	23 35	79.745	2147	"	28	21 12	21 32	23.599
132	"	14	22 03	22 17	83.691		1974				
145	"	26	21 55	22 09	95.626	2235	May	18	3 21	3 36	42185.853
149	"	27	21 57	22 11	96.628	2246	"	20	3 15	3 35	87.851
157	"	28	21 49	22 03	97.622	2274	June	22	0 40	1 00	220.743
165	Sept.	6	21 03	21 17	106.597	2290	"	27	0 20	0 40	25.729
179	"	27	19 27	19 41	28.520	2299	"	28	0 10	0 30	26.722
180	"	27	19 49	20 03	128.539	2317	July	10	23 15	23 35	39.684
	1969					2328	"	11	23 20	23 40	40.618
259	June	17	01 50	02 04	389.790	2338	"	12	23 16	23 38	41.682
297	July	14	22 23	22 37	417.646	2351	"	13	23 40	0 00	42.694
310	Aug.	2	22 44	23 04	36.663	2366	"	16	23 00	23 20	45.674
323	"	19	21 17	21 31	53.600	2378	"	19	23 14	23 34	42248.613
337	"	21	21 45	21 59	55.620	2392	"	20	23 38	23 58	49.700
355	Sept.	11	20 40	20 55	76.574	2403	"	21	23 22	23 42	50.689
	1970					2413	"	27	22 46	23 06	56.664
505	June	7	2 25	2 45	744.816	2430	Aug.	7	22 22	22 42	67.647
527	"	14	1 20	1 35	51.769	2440	"	9	21 43	22 03	69.620
541	"	28	0 03	0 13	65.714	2464	"	13	21 38	21 58	73.617
553	July	1	0 38	0 45	68.738	2476	"	14	22 23	22 43	74.648
606	Aug.	3	23 25	23 35	802.687	2491	"	18	20 47	21 07	78.581
623	"	5	22 55	23 05	04.667	2499	"	19	21 24	21 44	79.607
640	"	6	22 52	23 02	05.665		1975				
655	"	7	23 00	23 10	06.669	2527	May	9	2 50	3 10	42541.833
671	"	8	22 45	22 55	07.660	2555	"	17	3 20	3 40	549.854
686	"	21	22 30	22 40	20.649	2601	June	11	1 50	2 10	574.792
697	"	23	22 00	22 10	22.628	2611	"	28	0 10	0 30	591.722
711	"	25	22 20	22 30	24.642	2626	"	29	0 03	0 23	42593.717
	1971					2639	"	30	0 04	0 24	594.718
877	May	23	2 49	3 04	41094.831	2649	July	1	23 52	0 13	595.710
937	June	18	0 58	1 13	120.753	2660	"	4	23 48	0 08	598.707
967	"	23	0 42	0 57	25.742	2670	"	5	0 00	0 20	599.715
1023	July	18	0 05	0 20	150.717	2677	"	11	0 26	0 46	605.733
1077	Aug.	15	23 09	23 24	179.678	2695	"	15	23 24	23 48	609.692
1137	"	29	21 50	22 05	93.623	2706	"	16	23 38	23 58	610.700
	1972					2725	"	30	23 39	23 55	624.699
1529	May	21	2 41	2 56	41458.825	2729	"	31-1	23 55	0 10	625.710
1534	"	22	2 33	2 48	59.820	2740	Aug.	4	23 38	23 55	629.699
1540	"	23	2 32	2 52	60.821	2745	"	7	21 54	22 14	632.628
1576	June	7	1 55	2 15	75.795	2753	"	8	21 54	22 14	633.628
1583	"	11	1 10	1 30	79.764	2767	"	13	23 34	23 49	638.695
1595	"	18	1 17	1 37	86.769		1975				
1660	Aug.	3	22 32	22 54	533.655	2788	Aug.	27	22 24	22 46	42652.649
	1973					2778	"	26	21 39	21 59	42651.592
1997	June	26	0 56	1 16	41859.754						
2000	"	29	0 41	1 01	62.744						
2027	July	5	0 13	0 33	68.724						

18^h 33.9^m -23° 58'

1968				244+							
57	July	20	01 15	01 25	0057.764	1677	Aug.	5	22 15	22 30	35.641
64	"	21	00 11	00 24	58.721	1684	"	9	22 27	22 42	39.649
74	"	22	23 08	23 21	60.677	1700	"	15	23 05	23 20	45.676
84	"	25	01 10	01 23	62.762		1973				
91	"	25	23 37	23 50	63.697	1990	June	25	0 39	0 54	858.741
98	"	28	23 39	23 52	66.698	2005	"	30	0 19	0 34	63.727
110	"	29	23 39	23 52	67.698	2028	July	5	0 50	1 05	68.748
127	Aug.	10-11	23 49	00 02	79.764	2035	"	5/6	23 57	0 12	69.711
134	"	14	23 22	23 35	83.746	2053	"	11	0 39	0 54	74.741
150	"	27	22 28	22 41	96.649	2070	"	23/24	23 47	0 02	87.707
158	"	28	21 11	21 24	97.596	2083	"	29	23 43	23 58	93.702
166	Sept.	6	21 23	21 36	106.604	2097	Aug.	3	22 45	23 00	98.661
181	"	27	20 23	20 36	28.562	2114	"	5	23 27	23 42	900.691
	1969					2131	"	22	22 24	22 39	41917.647
247	June	9	03 05	03 17	381.841	2148	"	28	21 40	21 55	23.616
261	"	17	03 04	03 14	89.840		1974				
286	July	12	23 27	23 39	415.690	2275	June	22	1 11	1 24	42220.763
304	"	22	23 00	23 12	25.671	2291	"	27	0 48	1 03	25.747
311	Aug.	2	23 23	23 35	36.687	2300	"	28	0 43	0 58	26.744
316	"	12	21 30	21 45	46.609	2318	July	10	23 48	0 03	39.706
324	"	19	22 05	22 17	53.633	2329	"	11	23 45	0 00	40.703
332	"	20	22 52	23 05	54.666	2339	"	12	23 42	23 57	41.701
338	"	21	22 05	22 17	55.633	2352	"	14	0 05	0 20	42.717
346	Sept.	3	21 24	21 36	68.604	2367	"	16	23 25	23 40	45.690
356	"	11	21 04	21 16	76.590	2379	"	19	23 46	0 01	48.704
	1970					2393	"	21	0 02	0 17	49.715
528	June	14	1 50	2 05	751.789	2404	"	21	23 55	0 10	50.710
542	"	28	0 25	0 35	65.729	2414	"	27	23 13	23 28	56.681
554	July	1	0 55	1 02	68.749	2431	Aug.	7	22 48	23 08	67.764
607	Aug.	3	23 40	00 00	802.696	2441	"	9	22 58	23 13	69.671
624	"	5	23 10	23 20	04.677	2449	"	10	21 45	22 00	70.620
641	"	6	23 10	23 20	05.677	2465	"	13	22 12	22 27	73.639
656	"	7	23 15	23 25	06.680	2492	"	18	21 11	21 33	78.601
672	"	8	23 02	23 12	07.671	2500	"	19	22 04	22 20	79.633
687	"	21	22 45	22 55	20.660		1975				
698	"	23	22 15	22 25	22.639	2528	May	9	3 25	3 45	42541.857
712	"	25	22 35	22 45	24.653	2535	"	10	3 20	3 37	542.853
	1971					2544	"	14	0 54	0 57	546.747
878	May	23	3 09	3 24	41094.846	2577	June	2	3 02	3 17	565.840
888	"	29	2 14	2 29	1100.806	2595	"	10	1 52	2 06	573.791
922	June	16	1 10	1 25	18.762	2627	"	29	0 37	0 52	593.732
957	"	22	1 32	1 47	24.777	2640	"	30	0 32	0 49	594.736
1002	July	3	0 28	0 43	35.733	2650	July	1	0 18	0 33	42595.726
1024	"	18	0 24	0 39	50.730	2661	"	4	0 21	0 37	598.728
1060	"	30	0 33	0 48	62.736	2671	"	5	0 25	0 45	599.733
1078	Aug.	15	23 33	23 48	79.694	2678	"	11	0 56	1 11	605.753
1102	"	18	22 45	23 00	82.661	2696	"	16	0 03	0 23	609.717
1138	"	29	22 12	22 27	93.638	2707	"	17	0 05	0 25	610.719
1153	Sept.	18	20 18	20 33	41213.559	2720	"	29/30	23 38	0 13	623.712
	1972					2726	"	31	0 20	0 35	624.727
1584	June	11	1 37	1 52	479.781	2730	Aug.	1	0 20	0 35	625.727
1620	July	4	0 54	1 09	502.751	2746	"	7	22 25	22 40	632.647
1648	"	16	23 35	23 50	515.696	2754	"	8	22 21	22 36	633.644
1672	Aug.	4	23 14	23 32	34.724	2763	"	12	22 25	22 40	637.647
						2779	"	26	22 17	22 32	651.641
						2789	"	27	22 59	23 14	652.670

19^h 15.0^m +30° 06'

1968				244+						
42	July	10	01 40	01 50	0047.781	1066	Aug. 11/12	23 42	00 02	75.703
55	"	11	03 37	03 47	48.863	1104	" 18/19	23 38	00 08	82.703
60	"	20	03 14	03 24	57.847	1139	" 30	1 21	1 41	93.772
68	"	21	02 31	02 46	58.819		1972			
88	"	25	02 56	03 11	62.836	1535	May 22	2 54	3 09	41459.835
104	"	29	02 21	02 36	66.812	1577	June 7	2 23	2 43	75.815
116	Aug.	2	01 58	02 15	70.796	1597	" 18	2 18	2 36	86.811
129	"	11	01 18	01 33	79.827	1619	July 4	0 17	0 35	502.726
138	"	15	01 04	01 16	83.823	1629	" 7	0 19	0 39	05.728
162	"	29	01 13	01 28	97.763	1642	" 11	23 36	23 56	10.699
169	Sept.	11	00 05	00 20	110.717	1650	" 17	0 32	0 52	15.738
175	"	13	00 13	00 28	12.722	1663	Aug. 4	0 03	0 23	33.717
	1969					1680	" 5	23 48	0 08	35.707
281	July	12	00 10	00 25	414.720	1686	" 9	23 21	23 41	39.689
284	"	12	22 14	22 29	15.640	1703	" 16	0 32	0 52	46.738
290	"	13	22 19	22 34	16.643		1973			
299	"	14	23 26	23 41	17.690	1998	June 28	23 38	23 58	41862.700
307	"	23	01 47	02 02	25.788	2013	July 2	2 42	3 02	65.827
312	Aug.	3	00 11	00 26	36.722	2021	" 4	2 31	2 51	67.820
318	"	17	23 02	23 17	51.673	2039	" 6	2 19	2 39	69.812
326	"	19	23 23	23 38	53.688	2046	" 7/8	23 55	0 15	71.712
347	Sept.	3	21 47	22 02	68.621	2064	" 22	1 21	1 41	85.772
357	"	11	22 12	22 27	76.639	2088	" 30	2 19	2 41	93.813
	1970					2093	Aug. 3	2 41	3 01	97.827
506	June	7	3 00	3 40	744.840	2110	" 5	1 19	1 39	99.770
516	"	9	1 45	2 05	46.788	2122	" 22	0 06	0 26	41916.719
529	"	14	2 15	2 35	51.809	2134	" 22/23	23 56	0 16	17.713
543	"	28	0 55	01 05	65.749	2141	" 24	22 39	22 59	19.659
555	July	1	1 15	1 25	68.764	2150	" 28	22 40	23 00	23.660
566	"	6	1 15	1 25	73.764	2160	" 29	22 49	23 09	24.666
570	"	6	2 35	2 45	.819		1974			
578	"	7	1 29	1 39	74.773	2277	June 22	2 22	2 42	42220.814
588	"	7	23 27	23 37	79.689	2302	" 28	1 50	2 10	26.792
591	"	26	22 11	22 21	94.636	2309	July 7	23 59	0 19	35.715
609	Aug.	4	0 25	0 35	802.729	2341	" 13	0 49	1 09	40.749
618	"	4	22 34	22 41	03.650	2381	" 20	0 47	1 07	47.748
622	"	5	22 35	22 45	04.653	2416	" 28	0 22	0 42	55.731
629	"	6	0 50	1 00	.764	2433	Aug. 7	23 58	0 18	67.714
643	"	6	23 50	0 00	05.705	2456	" 12	23 32	23 52	72.696
658	"	7	23 50	0 00	06.705	2504	" 20	0 31	0 56	80.739
674	"	8	23 40	23 50	07.698		1975			
689	"	21	23 25	23 35	20.687	2542	May 13	22 34	22 54	42546.656
700	"	23	22 50	23 00	22.663	2570	" 20	1 27	1 47	552.775
713	"	25	22 55	23 05	24.667	2588	June 9	1 30	1 50	572.778
	1971					2606	" 14	1 17	1 37	577.769
843	May	6	1 00	1 20	41077.757	2610a	" 20	0 43	1 01	583.744
868	"	22	3 30	3 45	93.859		1975			
889	"	29	2 43	3 03	100.828	2618	June 28	1 28	1 48	42592.776
912	June	15	1 12	1 32	41117.765	2662	July 5	1 14	1 38	598.768
958	"	22	1 53	2 13	24.794	2691	" 15	2 13	2 16	608.801
993	"	30	0 15	0 35	32.726	2698	" 16	1 13	1 33	609.765
1011	July	15	1 18	1 38	47.769	2741	Aug. 5	0 43	1 05	629.746
1047	"	27	23 24	23 44	60.690	2770	" 14	1 13	1 33	638.773
						2781	" 26/27	23 54	0 14	651.711

19^h 51.^m9 +18° 41'

1968				244+	1971						
43	July	10	02 11	02 26	0047.805	994	June	30	0 44	0 59	32.744
69	"	21	03 03	03 23	58.843	996	"	30	2 01	2 16	.797
106	"	29	03 14	03 34	66.850	1003	July	3	0 50	1 05	35.748
130	Aug.	11	02 04	02 34	79.864	1012	"	15	1 50	2 05	47.790
136	"	15	00 13	00 33	83.782	1027	"	18	1 45	2 00	50.786
163	"	29	01 39	01 59	97.784	1029	"	18	2 51	3 06	.832
170	Sept.	11	00 34	00 54	110.739	1032	"	19	23 33	23 48	52.694
176	"	13	00 43	01 03	12.745	1034	"	20	00 36	00 51	.738
	1969					1048	"	27/28	23 54	00 09	60.709
260	June	17	02 38	02 53	389.823	1050	"	28	1 04	1 19	.758
282	July	12	01 00	01 20	414.757	1062	"	30	1 37	2 04	62.783
288	"	13	00 56	01 16	15.754	1067	Aug.	12	0 18	0 33	75.726
292	"	13	23 42	00 02	16.703	1079	"	16	0 35	0 50	79.738
300	"	15	00 20	00 40	17.729	1081	"	16	1 36	1 51	.780
306	"	23	01 08	01 28	25.763	1090	"	17	2 32	2 47	41180.819
313	Aug.	3	00 34	00 54	36.739	1105	"	19	0 56	1 11	82.752
319	"	17	23 24	23 44	51.690	1107	"	19	1 56	2 11	.794
328	"	20	00 30	00 50	53.736	1117	"	22	0 30	0 50	85.736
350	Sept.	3	23 31	23 51	68.695	1132	"	25	21 32	21 47	89.610
358	"	11	22 35	22 55	76.656	1140	"	30	1 47	2 02	93.788
	1970					1155	Sept.	18	21 35	21 55	213.615
517	June	9	2 10	2 40	746.806		1972				
530	"	14	2 55	3 10	51.835	1523	May	20	3 48	3 58	41457.870
544	"	28	1 15	1 37	65.764	1539	"	23	1 36	1 51	60.781
556	July	1	1 40	1 50	68.781	1585	June	11	2 12	2 27	79.805
567	"	6	1 30	1 45	73.776	1621	July	4	1 27	1 42	502.774
571	"	6	2 50	3 00	.830	1630	"	7	1 01	1 17	05.756
579	"	7	1 43	1 58	74.785	1643	"	12	0 06	0 21	10.718
610	Aug.	4	0 40	0 50	802.740	1651	"	17	0 57	1 12	15.753
627	"	6	0 07	0 17	04.717	1664	Aug.	4	0 34	0 49	41533.738
645	"	7	0 10	0 25	05.720	1681	"	6	0 21	0 36	35.728
659	"	8	0 10	0 25	06.720	1687	"	9	23 49	00.06	39.707
675	"	9	0 00	0 15	07.713	1704	"	16	0 56	1 11	45.753
690	"	21	23 45	0 00	20.703		1973				
701	"	23	23 10	23 20	22.677	2001	June	29	2 20	2 35	41862.811
714	"	25	23 15	23 30	24.682	2010	July	2	1 00	1 15	65.754
	1971					2018	"	4	0 52	1 07	67.750
867	May	22	3 10	3 25	41093.845	2036	"	6	0 31	0 46	69.735
890	"	29	3 09	3 24	100.838	2047	"	8	0 30	0 45	71.734
898	"	30	1 41	1 56	01.783	2062	"	22	0 14	0 29	85.723
913	June	15	1 46	1 58	17.786	2075	"	28	0 30	0 45	91.734
921	"	16	0 39	0 54	18.740	2089	Aug.	3	1 02	1 17	97.756
923	"	16	1 38	1 53	.781	2107	"	4	23 43	23 58	99.702
938	"	18	1 20	1 35	20.769	2119	"	19	22 17	22 32	41914.642
940	"	18	2 25	2 40	.814	2123	"	22	0 36	0 51	16.739
947	"	19	1 19	1 34	21.768	2142	"	24	23 15	23 30	41919.682
948	"	19	2 19	2 34	.810	2151	"	28	23 12	23 27	23.680
959	"	22	2 24	2 39	24.813		1974				
968	"	23	1 03	1 18	41125.757	2285	June	24	2 25	2 45	44222.816
970	"	23	2 33	2 48	.819	2293	"	27	2 04	2 24	25.801
978	"	27	0 25	0 40	29.731	2320	July	11	0 50	1 11	39.751
980	"	27	1 38	1 53	.781	2354	"	14	1 13	1 33	42.766
987	"	29	2 39	2 54	31.824	2369	"	17	0 31	0 81	45.737
						2382	"	20	1 13	1 33	48.766
						2417	"	28	0 55	1 15	56.783

19^h 51^m9 +18° 41'

1974

2434	Aut.	8	0 24	0 56	67.736
2443	"	9	23 56	0 16	69.713
2459	"	13	1 12	1 32	72.765
2480	"	15	1 24	1 44	74.774
2487	"	17	23 14	23 34	77.683
2505	"	20	?	1 25	79.760

1975

2526	May	4	1 59	2 19	42541.797
2538	"	11	2 15	2 36	543.657
2552	"	17	1 31	1 51	549.778
2572	"	20	2 49	3 09	552.832
2582	June	4	0 22	0 40	567.730
2587	"	9	0 10	0 30	572.722
2605	"	14	0 11	0 31	577.723
2611a	"	20	1 55	2 15	583.795
2628	"	29	1 05	1 25	593.760
2652	July	1	1 19	1 39	595.770
2663	"	4	1 44	2 04	598.788
2680	"	11	1 49	2 09	605.791
2699	"	16	2 08	2 28	609.804
2715	" 28/29		23 57	0 17	622.713
2734	Aug.	1	23 45	0 00	626.703
2742	"	5	1 56	2 16	629.796
2758	"	9	0 11	0 31	633.723
2765	"	13	0 01	0 21	637.716
2782	"	27	0 29	0 49	651.735

1977

2911	Aug.	1/2	22 11	22 24	43354.637
2914	"	14/15	21 49	22 04	43370.623
2916	"	17/18	21 08	21 23	43373.552
2918	"	18/19	21 20	21 35	4.702
2924	"	22/23	20 22	20 37	8.562
2925	"	24/25	20 35	20 50	80.571
2926	"	25/26	20 40	20 55	81.575

20^h 51.^m2 -12° 42'

	1969					244+
348	Sept.	3	22 34	22 54	0468.656	
	1973					
2011	July	2	1 32	1 57	41865.781	
2019	"	4	1 17	1 42	67.770	
2037	"	6	1 03	1 28	69.761	
2054	"	11	1 06	1 31	74.763	
2071	"	24	0 28	0 53	87.736	
2101	Aug.	4	0 35	1 00	98.741	
2135	"	23	0 23	0 48	41917.733	

21^h 28^m.1 +12° 00'

1969				244+	1972					
331	Aug.	20	03 24	03 39	0453.856	1689	Aug. 10	0 50	1 25	39.755
333	"	20	23 26	00 00	54.697	1706	" 16	1 57	2 27	45.813
334	"	21	00 40	01 10	.747					
335	"	21	01 19	01 51	.774	1991	June 25	1 07	2 02	858.774
336	"	21	02 14	02 44	.812	2007	" 30	1 46	2 16	63.792
339	"	21	22 46	23 21	55.669	2020	July 4	1 54	2 24	67.798
340	"	21	23 38	00 13	.706	2038	" 6	1 39	2 09	69.788
341	"	22	00 31	01 06	.742	2048	" 8	1 09	1 39	71.767
342	"	22	01 09	01 44	.769	2056	" 11	2 17	2 47	74.814
344	Sept.	2	21 00	21 30	67.594	2073	" 24	1 26	1 56	87.778
345	"	2	21 32	22 02	.616	2076	" 28	0 53	1 23	91.752
351	"	10	20 37	21 07	75.577	2091	Aug. 3	1 28	1 58	97.773
352	"	10	21 11	21 41	.602	2108	" 5	0 06	0 36	99.723
353	"	10	22 02	22 32	.636	2125	" 22	1 32	2 02	41916.783
354	"	10	22 34	23 04	.659	2137	" 23	1 24	1 54	17.777
360	"	11	23 44	23 59	76.702	2143	" 24/25	23 39	0 09	19.704
361	"	19	21 20	21 50	84.607	2152	" 28/29	23 31	0 01	23.699
362	"	19	21 50	22 09	.625					
363	Oct.	3	20 25	20 45	98.566	2294	1974			
364	"	3	20 47	21 07	.581	2321	June 27	2 51	3 21	42225.838
365	"	3	21 19	21 39	.603	2331	July 11	1 24	1 54	39.777
366	"	3	21 41	22 01	.619	2342	" 12	0 56	1 26	40.758
						2357	" 13	1 27	1 57	41.778
						2357	" 14	2 57	3 27	42.842
691	1970	Aug.	22	00 10	00 25	820.720	" 16	2 47	3 17	44.885
702	"	"	23	23 25	23 40	22.689	" 17	1 07	1 37	45.765
715	"	"	25	23 37	23 52	24.697	" 20	1 43	2 13	48.790
							" 21	2 16	2 46	49.813
							" 22	0 57	1 27	50.758
							" 28	2 29	2 59	56.822
924	1971	June	16	2 13	2 43	41118.811	Aug. 8	1 37	2 07	67.786
939	"	"	18	1 46	2 16	20.792	" 10	23 20	23 52	70.692
946	"	"	19	1 44	2 14	21.791	" 13	0 04	0 34	72.772
969	"	"	23	1 56	2 26	41125.799	" 13	2 22	2 52	72.817
979	"	"	27	1 00	1 30	29.760	" 13	23 33	0 03	73.700
981	"	"	27	2 11	2 41	.810	" 15	0 11	0 41	74.726
995	"	"	30	1 17	1 47	32.772	" 15	2 30	3 00	74.823
997	"	"	30	2 22	2 52	.817	" 17	22 28	22 58	77.655
1013	July	15	2 23	2 53	47.818	2482	" 18	22 21	22 51	78.650
1028	"	18	2 12	2 42	50.810	2486	" 19	23 20	23 50	79.691
1033	July	19/20	23 55	00 25	52.715	2494				
1035	"	20	1 00	1 30	.760	2502				
1049	"	28	0 15	0 45	60.729					
1051	"	28	1 25	1 55	.778	2508	1975			
1063	"	30	2 11	2 24	62.803	2539	May 2	3 38	4 08	42534.870
1068	Aug.	12	0 46	1 16	75.747	2547	" 11	3 22	3 48	543.850
1080	"	16	1 00	1 30	79.760	2566	" 14	2 35	3 00	546.824
1082	"	16	2 02	2 32	.803	2578	" 19	2 41	3 10	551.829
1091	"	17	3 03	3 33	80.846	2590	June 2	3 32	3 48	565.861
1106	"	19	1 20	1 50	82.774	2602	" 9	2 51	3 19	572.837
1108	"	19	2 22	2 52	.817	2607	" 10	2 28	2 59	574.822
1119	"	22	2 10	2 30	85.806	2612a	" 14	2 04	2 36	577.806
1141	"	30	2 12	2 42	93.810	2613	" 20			583.
						2620	" 27	1 44	2 08	591.790
						2629	" 28	2 00	2 30	592.802
1622	1972	July	4	1 52	2 12	502.793	" 29	1 36	2 05	593.781
1652	"	"	17	1 28	1 58	15.780	" 30	1 24	1 59	594.780
1665	Aug.	4	0 56	1 26	33.758	2641				

1975

2653	July	2	1 01	2 19	595.795
2664	"	5	2 19	2 49	598.815
2673	"	6	1 38	2 08	599.787
2681	"	12	2 15	2 45	605.813
2686	"	13	2 36	3 06	606.827
2700	"	16	2 36	3 08	609.828
2710	"	17	1 12	1 35	42610.766
2716	"	29	2 31	2 56	622.822
2721	"	30	0 50	1 19	623.753
2728	"	31			
2732	Aug.	1	2 08	2 28	625.804
2735	"	2	1 24	1 49	626.775
2750	"	8	2 41	3 06	632.329
2775	"	16	1 23	1 30	640.768
2791	"	28	0 25	0 55	652.736

21^h 31.4^m -01° 00'

1968				244+	1970						
44	July	10	02 40	02 50	0047.823	580	July	7	2 09	2 19	74.801
70	"	21	03 31	03 41	58.859	611	Aug.	3	1 00	1 16	802.755
75	"	23	00 32	00 44	60.735	628	"	5	0 25	0 40	04.731
77	"	23	01 56	02 08	.793	646	"	6	0 30	0 45	05.734
79	"	23	02 57	03 09	.836	660	"	7	0 30	0 45	06.734
81	"	24	23 11	23 23	62.679	676	"	8	0 20	0 35	07.727
85	"	25	01 34	01 46	.778	692	"	21	0 31	0 41	20.733
92	"	26	00 00	00 12	63.713	703	"	23	23 50	0 05	22.706
102	"	29	01 19	01 31	66.767	716	"	25	28 55	0 10	24.709
105	"	29	02 44	02 56	.826						
108	"	29	22 29	22 41	67.649	1586	1972				
109	"	29	22 58	23 10	.669	1623	June	11	2 33	2 48	41479.820
111	"	30	00 03	00 15	.715	1631	July	4	2 21	2 36	502.812
112	"	30	01 08	01 20	.760	1653	"	7	1 26	1 48	05.776
113	"	30	02 15	02 27	.806	1673	"	17	2 05	2 25	15.802
114	"	30	03 14	03 26	.847	1682	Aug. 4/5	23	41	0 11	34.706
117	Aug.	4	22 39	22 53	73.657	1688	"	6	0 47	1 12	41535.750
118	"	4	23 40	23 54	.700	1705	"	10	0 19	0 44	39.731
119	"	5	00 34	00 48	.737		"	16	1 24	1 49	45.775
120	"	5	01 27	01 41	.774	2012	1973				
121	"	5	02 21	02 35	.810	2030	July	2	2 11	2 36	865.807
122	"	5	03 07	03 21	.843	2055	"	5	1 46	2 14	68.792
123	"	5	03 52	04 06	.875	2063	"	11	1 45	2 10	74.790
125	"	7	23 35	23 47	76.754	2086	"	22	0 47	1 12	85.750
131	"11	11	03 00	03 15	79.898	2092	"	30	1 11	1 36	93.766
133	"	14	22 58	23 10	83.729	2109	Aug.	3	2 05	2 30	97.827
135	"11-15	23	49 00	01 01	.764	2126	"	5	0 47	1 12	99.750
137	"	15	00 41	00 53	.800	2138	"	22	2 17	2 43	41916.812
139	"	15	01 30	01 42	.834	2144	"	23	2 04	2 29	17.803
141	"	15	02 19	02 31	.868	2154	"	25	0 19	0 44	19.730
142	"	15	03 07	03 19	.900		"	29	0 47	1 12	23.750
143	"	15	03 52	04 04	.933	2303	1974				
146	"	27	02 37	02 49	95.822	2322	June	28	2 33	2 58	42226.824
148	"	27	21 35	21 47	96.612	2332	July	11	2 09	2 29	39.805
151	"	27	23 35	23 47	.695	2343	"	12	1 46	2 11	40.791
152	"	28	01 35	01 47	.778	2355	"	13	2 05	2 30	41.804
154	"	28	03 36	03 48	.863	2360	"	14	1 52	2 17	42.795
164	"	29	02 16	02 28	97.807	2371	"	16	2 14	2 39	44.810
171	Sept.	11	01 14	01 26	110.714	2385	"	17	1 46	2 11	45.791
177	"	13	01 52	02 04	12.822	2395	"	20	2 48	3 13	48.833
	1969					2408	"	21	1 05	1 30	49.761
287	July	13	00 32	00 44	415.735	2419	"	22	2 17	2 42	50.813
301	"	15	00 49	01 01	17.747	2437	"	28	2 00	2 25	56.801
308	"	23	02 12	02 24	25.804	2446	Aug.	8	2 15	2 40	67.811
317	Aug.	12	23 16	23 25	46.681	2453	"	10	1 43	2 08	69.789
320	"	18	00 24	00 36	51.729	2460	"	11	0 07	0 32	70.722
330	"	20	02 57	02 12	53.837	2470	"	13	1 40	2 05	42272.787
349	"	20	23 03	23 15	68.673	2481	"	14	0 53	1 18	73.754
359	"	20	23 21	23 36	76.686	2488	"	15	1 55	2 20	74.797
	1970					2495	"	17	23 41	0 06	77.704
531	June	14	3 20	3 25	751.849		"	18	23 00	23 25	78.676
568	July	6	2 00	2 10	73.795						

21^h 31^m.4 -01° 00'

1975

2596	June	10	2 34	2 54	42573.822
2630	"	29	2 10	2 35	593.807
2642	July	1	2 07	2 32	594.805
2654	"	2	2 37	3 02	595.826
2665	"	5	2 57	2 23	598.840
2674	"	6	2 23	2 48	599.817
2701	"	16	3 13	3 38	609.851
2711	"	17	1 04	2 19	610.796
2723	"	30	2 07	2 29	623.804
2749	Aug.	8	2 01	2 26	632.801
2760	"	9			42633.
2766	"	13	0 39	1 09	637.746
2771	"	14	2 09	2 34	638.806
2784	"	27	2 26	2 49	651.817

21^h 38.1^m -23° 22'

	1969				244+
321	Aug. 18	00 49	01 03	0451.748	
327	" 19	23 55	00 20	53.714	
	1971				
1014	July 15	2 58	3 13	41147.837	
1053	" 28	3 03	3 23	60.842	
1069	Aug. 12	1 25	1 45	75.774	
1118	" 22	1 01	1 21	85.758	
	1973				
2074	July 24	2 07	2 27	887.803	
2087	" 30	1 51	2 11	93.792	
2102	Aug. 4	1 09	1 39	98.767	
2124	" 22	1 07	1 27	41916.762	
2136	" 23	0 59	1 18	17.756	
2153	" 29	0 18	0 38	23.728	
	1974				
2323	July 11	2 43	3 03	42239.882	
2344	" 13	2 43	3 03	41.882	
2356	" 14	2 26	2 46	42.817	
2372	" 17	2 22	2 42	45.814	
2384	" 20	2 20	2 40	48.813	
2396	" 21	1 51	2 11	49.792	
2407	" 22	1 49	2 09	50.291	
2418	" 28	1 25	1 45	56.774	
2435	Aug. 8	1 06	1 26	67.761	
2444	" 10	0 30	0 50	69.736	
2454	" 11	0 37	0 56	70.741	
2458	" 13	0 39	0 59	72.742	
2469	" 14	0 19	0 39	73.728	
2479	" 15	0 49	1 09	74.749	
2489	" 18	0 19	0 32	77.726	
2503	" 19	23 58	0 18	79.714	
	1975				
2631	June 30	2 48	3 08	42593.831	
2643	July 1	2 48	3 08	594.831	
2655	" 2	3 12	3 32	595.848	
2675	" 6	2 54	3 14	599.836	
2682	" 12	2 51	3 11	605.834	
2712	" 17	2 38	2 58	610.825	
2722	" 30	1 37	1 57	623.783	
2736	Aug. 2	2 01	2 18	626.798	
2746	" 8	1 25	1 45	632.774	
2759	" 9	1 37	1 57	633.783	
2769	" 14	0 41	1 01	638.744	
2772	" 14	2 47	3 17	638.835	
2783	" 27	1 12	1 32	651.765	
2792	" 28	1 04	1 31	652.762	