

KG

11366

v.1059



Supplementary Notes

Plates 3535-11998.

interchanged

9491 }
92 }

10718 }
10716 }

11997 }
11998 }

8346 In err?

9785, 9786 pl. const.

275

Reg. 836 2
5215

Miss Fowler 115

Miss Fuller 80

Miss Burton 118

273 plates

214 912 8
 214 645 4
 214 1289

Find
least
copy.
sec.

Plate No	Date	$\Delta \alpha$	$\Delta \delta$	$\mu \alpha$	$\mu \delta$	Δt	$\mu \Delta t$	O-C	R.A.	Find least copy. sec.
3535	1913 July 22	+0.86	+5.7	+1.73	+18.1	+5.0	+7.0	-1.3	-0.8	-1.6
3536		0.98	+5.7			.54	+7.6	-1.9		
3601	Aug 12	+0.71	+0.4	+2.37	-2.38	+3.0	-0.7	+1.1		
3648	Aug 19	+0.61	+3.0	+1.73	+18.1	+3.5	+5.0	-2.0	+1.5	+1.0
3649		+0.79	+8.0			+4.3	+6.0	-2.0		
3669	Aug 20	+0.64	+8.7	+1.77	+13.75	+3.6	+5.0	-0.3		
3783	Sept 10	+0.95	+2.5	+2.15	+8.02	+4.4	+3.5	+1.0	-0.1	+0.3
3784		0.90	+2.9			.42	+3.3	-0.4		
3811	Sept 13	+0.83	+9.4	+1.80	+13.35	+4.6	+6.2	-1.8	-1.3	+0.9
3812		0.72	+3.6			+4.0	+5.3	-1.7		
3844	Sept 18	+0.76	+6.1	+1.79	+18.08	+4.9	+6.1	0	0	-2.3
3846		+0.76	+3.7	+1.78	+17.05	.49	+6.1	-2.4	ch	
3856	Sept 15	+0.72	+3.9	+1.73	+19.24	+4.2	+5.9	-2.0	-1.4	+0.2
3857		0.59	+3.9			+3.4	+4.9	-0.0		
4091		+0.92	-2.1	+2.93	-6.87	+3.7	-2.5	+0.4	-1.3	+0.3
4097	Oct 21	+0.83	-2.0			.34	-2.3	+0.3		
4238	Nov 6	+0.88	+4.1	+1.87	+12.55	+4.5	+5.6	-1.5		
4239	Nov 7	+0.89	+4.9	+1.78	+13.56	+5.0	+6.8	-1.9	+1.4	-0.1
4240						+5.8	+7.8	-3.0		
										Sum

Wd	Δt	O-C	P.A.	Diff Dec
+5.4	-1.7	-0.7	+0.2	
+5.0	-1.2			
+4.0	-1.6	-0.3		-1.6
+4.0	-3.2			
+1.9	+1.2	+0.9		-1.7
+2.1	-0.8			
+2.1	-0.9			
-7.6	-0.4			
-6.2	-0.5	-1.8		+2.0
-4.7	-0.1			
+5.7	+1.6	-0.4		+0.3
+5.8	+0.8			
+3.6	-2.2	-1.5		+0.6
+3.0	-0.9			
+0.3	-0.4	+0.4		+0.1
+0.3	-0.7			
+0.2	+1.0	-1.4		+0.3
-1.6	-0.2			
-6.7	+0.5			

These are not corrected to
 final sheets ^(values) for O-C of P.A. or Dec

But the differences between plates
 are the final values.

Plate No.	Date	$\Delta \alpha$	Δ
1913			
4295	Nov 12	+0.95	+
4296		0.88	+
4297	Nov 13	+0.94	+
4298		0.92	+
4303	Nov 14	+0.72	+
4304		+0.79	+
4309	Nov 14	+0.85	
4336	Nov 20	+0.67	-
4374	Nov 22	+0.76	-
4375		0.58	-
4423	Dec 8	+0.79	+
4424	"	0.75	+
4455	Dec 11	+1.06	+
4456		0.89	+
4465	Dec 13	+0.98	-
4466		+1.01	-
4478		+0.78	-
4481	Dec 14	+0.77	-
4503	Dec 18	+0.83	-

Hatch No.	Date	ΔL	ΔS	Δb	ΔT	$\Delta S \Delta T$	O-C	P. a	Exp. Acc
8295	Nov 12	+0.95	+3.7	+2.01	+1.52	+1.47	-1.7	-0.7	+0.2
8296		0.88	+3.8		+1.44	+5.0	-1.2		
8297	Nov 13	+0.94	+3.7	+2.16	+1.31	+4.9	-1.6	-0.3	-1.6
8298		0.92	+3.8		+1.31	+4.0	-3.2		
8303	Nov 14	+0.72	+3.1	+2.32	+1.8	+1.9	+1.2	+0.9	-1.7
8304		+0.79	+1.3		+1.34	+2.1	-0.8		
8309	Nov 19	+0.85	1.2	+2.34	+1.36	+2.1	-0.9		
8336	Nov 20	+0.67	-5.0	+2.17	+1.99	-9.6	-0.4		
8374	Nov 22	+0.76	-6.7	+2.11	+1.16	-6.2	-0.5	-1.8	+2.0
8375		0.58	-4.8		+1.27	-4.7	-0.1		
8423	Dec 8	+0.79	+4.1	+1.84	+1.18	+5.7	+1.5	-0.4	+0.3
8424		0.75	+4.6		+1.41	+5.8	+0.8		
8455	Dec 11	+1.06	+1.4	+2.27	+1.79	+4.7	-2.2	-1.5	+0.6
8456		0.89	+2.1		+1.39	+3.0	-0.9		
8465	Dec 13	+0.98	-0.6	+2.51	+0.68	+0.3	-0.4	+0.4	+0.1
8466		+1.01	-0.4		+1.40	+0.3	-0.7		
8478		+0.78	-1.2	+2.52	-0.68	+0.2	+1.0	-1.4	+0.3
8481	Dec 18	+0.77	-1.8	+2.51	-5.09	-1.6	-0.2		
8503	Dec 18	+0.83	-5.9	+2.10	-16.16	-6.4	+0.5		

Station	Date	$\Delta\alpha$	$\Delta\delta$	$\mu\alpha$	$\mu\delta$	Δt	$\mu\Delta t$	ΔC	$R.A.$	$W.H.$
1914	1914									
1914	Jan 5	+0.75	+2.6	+1.89	+12.39	+9.0	+4.9	-2.3	+13	+1.9
1914	Jan 5	0.90	+7.2			+4.8	+5.9	-1.7		
1914	Jan 6	+0.97	+3.3	+2.02	+10.91	+4.8	+5.2	-1.9	-0.2	-0.7
1914	Jan 6	0.92	+2.4			+4.6	+5.0	-2.6		
1914	Jan 10	+1.02	-2.0	+2.57	-3.81	+4.0	-1.3	-0.6	-0.5	+0.3
1914	Jan 10	+0.98	-1.7			+3.8	-1.4	-0.3		
1914	Jan 17	+0.60	-2.2	+2.14	-15.82	+2.8	-4.4	+2.2	+0.9	-1.6
1914	Jan 17	0.65	-3.6			+3.0	-4.8	+1.2		
1914	Feb 2	+0.91	+3.7	+1.94	+11.80	+4.7	+5.3	-1.6	+0.3	+0.3
1914	Feb 2	0.97	+3.9			+5.0	+5.7	-1.8		
1914	Feb 7	+1.10	+3.0	+2.25	+6.85	+4.9	+3.2	-0.3	+0.0	-0.5
1914	Feb 7	+1.17	+2.6			+5.2	+3.6	-0.0		
1914	Feb 5	+1.32	+1.0	+2.42	+3.09	+5.4	+1.7	-0.7	-1.3	+0.9
1914	Feb 5	+1.19	+1.9			+4.9	+1.5	+0.4		
1914	Mar 9	+1.15	-5.2	+2.37	-14.43	+4.9	-7.1	+1.9	+0.2	+1.0
1914	Mar 9	1.17	-4.3			+5.0	-7.2	+2.9		
1914	Mar 11	+0.97	-5.3	+2.23	-18.03	+4.3	-7.8	+2.5	-1.5	+1.6
1914	Mar 11	0.84	-3.5			+3.8	-6.8	+3.3		
1914	Mar 11	0.84	-5.6	+2.23	-18.17	+3.8	-6.8	+1.2	0	-2.1
1914	Apr 3	+0.81	-0.5	2.41	-5.79	+3.4	-1.9	+1.4	+4.3	-1.3
1914	Apr 3	1.24	-2.9			+5.1	-3.0	+0.1	ch	ch
1914	Apr 3									6.7

Plate	Date	$\Delta\alpha$	$\Delta\delta$	$\mu\alpha$	$\mu\delta$	ΔT	$\mu\delta\Delta T$	$\mu\delta\Delta T$	RA	Height
1917	1917									
279	Apr 5	+0.93	-6.7	+2.29	-13.11	+4.1	-5.3	-1.4	+0.19	+0.7
280		1.12	-6.0			+4.9	-6.4	+0.4		
304	Apr 10	+0.77	-5.6	+2.39	-15.86	+3.1	-4.9	-0.7	+0.11	+1.1
302		0.85	-4.4			+3.5	-5.6	+1.2		
502	May 6	+0.95	-6.5	+2.20	-17.49	+4.3	-7.5	+1.0	+0.18	+4.2
503		+1.03	-2.4			+4.7	-8.2	+5.8		
517	May 9	+1.39	-7.3	+2.61	-10.68	+5.3	-5.6	+1.3	-0.02	-1.1
518		1.37	-5.4			+5.2	-5.5	+0.1		
595	May 31	+0.92	-7.0	+2.10	-15.16	+4.4	-6.6	-0.4	+0.02	+1.2
596		0.94	-5.8			+4.5	-6.8	+1.0		
600	June 1	+0.79	-6.1	+2.07	-16.44	+5.8	-6.3	+0.2	+0.04	+1.2
601		0.87	-5.3			+4.2	-6.9	+1.6		
607	June 2	+0.89	-7.9	+2.10	-16.89	+4.2	-7.1	-0.8	+0.16	+0.6
605		+1.05	-7.6			+5.0	-8.4	+0.8		
827	July 4	+0.94	-2.3	2.68	-5.51	+3.5	-2.0	-0.3		
963	Aug 8	+0.73	+6.1	+1.79	+14.78	+4.1	+5.9	+0.2		
130	Sept 4	+0.67	+4.4	+1.81	+14.50	+3.7	+5.4	-1.0	-0.03	+0.3
131		0.64	+4.7			+3.5	+5.1	-0.7		
136		+0.64	+2.7	+1.80	+14.50	+3.6	+5.2	-2.5	-0.08	-1.8
138	Sept 6	+0.70	+3.9	+1.79	+13.63	+3.9	+5.3	-1.4	-0.04	+1.5
139		0.65	+2.7			+3.6	+5.0	-2.3		

1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100.

| Plate No. | Date | $\Delta\alpha$ | $\Delta\delta$ | $\mu\alpha$ | $\mu\delta$ | ΔT | insat | O-C | RA | Dec |
|-----------|--------------|----------------|----------------|-------------|-------------|------------|-------|------|-------|------|
| 6520 | 1917 Oct 1 | +0.82 | +5.2 | +1.81 | +18.29 | +4.5 | +6.5 | -1.3 | -0.06 | +1.3 |
| 6521 | | 0.72 | +6.3 | | | +4.0 | +5.6 | +0.7 | | |
| 6546 | Pop. in. age | | | | | | | | | |
| 6547 | Oct 2 | +0.70 | +9.7 | +1.77 | +18.29 | +4.0 | +5.6 | -0.9 | +0.01 | +0.8 |
| | | 0.71 | +4.3 | | | | +5.5 | -1.2 | | |
| 6577 | Oct 3 | +0.71 | +3.9 | +1.78 | +13.78 | +4.0 | +5.5 | -1.6 | -0.04 | +0.1 |
| 6578 | | 0.67 | +3.9 | | | +3.8 | +5.2 | -1.3 | | |
| 6597 | Oct 5 | +0.75 | +3.1 | +1.91 | +11.37 | +3.9 | +4.5 | -1.4 | -0.08 | +0.7 |
| 6598 | | 0.66 | +3.7 | | | +3.5 | +3.9 | -0.2 | | |
| 6600 | Oct 6 | +0.57 | +1.7 | +2.00 | +9.55 | +2.8 | +2.7 | -1.0 | | |
| 6609 | Oct 7 | +0.71 | +0.6 | +2.12 | +6.84 | +3.4 | +2.3 | -1.7 | +0.10 | +3.0 |
| 6610 | | 0.81 | +3.6 | | | +3.6 | +2.5 | +1.7 | | |
| 6611 | Oct 8 | +0.84 | +0.9 | +2.22 | +7.00 | +3.8 | +1.5 | -0.6 | -0.15 | -0.3 |
| 6612 | | 0.73 | +0.6 | | | +3.3 | +1.3 | -0.7 | | |
| 6747 | Oct 30 | +0.63 | +1.8 | +1.77 | +13.86 | +3.6 | +4.9 | -3.5 | +0.15 | +3.2 |
| 6748 | | 0.78 | +4.6 | | | +4.4 | +6.1 | -1.5 | | |
| 6771 | Nov 10 | +0.73 | +5.4 | +1.81 | +13.08 | +4.0 | +5.3 | +0.1 | +0.05 | -0.4 |
| 6772 | | 0.78 | +5.0 | | | +4.3 | +5.6 | -0.6 | | |
| 6778 | Nov 1 | +0.70 | +2.3 | +1.86 | +12.17 | +3.8 | +4.6 | -2.3 | -0.04 | -0.9 |
| 6779 | | 0.66 | +1.9 | | | +3.5 | +4.3 | -2.4 | | |
| 6780 | Nov 2 | +0.74 | +2.7 | +1.98 | +9.95 | +3.7 | +3.7 | -1.0 | +0.02 | -1.5 |
| 6781 | | 0.77 | +1.2 | | | +3.9 | +4.0 | -2.8 | | |

1917phae

| Plate No | DATE | Δα | δδ | μd | μs | ΔT | μSAT | O-C | RA | Dec |
|----------|-------------|-------|------|-------|--------|------|------|------|-------|------|
| 7665 | Jan 20 1915 | +0.83 | +7.6 | +1.82 | +19.21 | +4.5 | +6.5 | -1.9 | -0.15 | -2.3 |
| 7666 | | 0.72 | 2.7 | | | +4.0 | +5.7 | -3.3 | | |
| 7677 | Jan 26 | +1.02 | -0.2 | +2.28 | +2.03 | +4.5 | +0.9 | -1.1 | +0.15 | +0.5 |
| 7678 | | +1.18 | +0.6 | | | +5.2 | +1.1 | +0.7 | | |
| 7692 | Jan 29 | +1.08 | -3.7 | +2.26 | -9.09 | +5.4 | -4.9 | +1.2 | -0.06 | -0.3 |
| 7693 | | 1.02 | -3.9 | | | +4.6 | -4.1 | +0.2 | | |
| 7965 | Feb 20 | +0.99 | +2.0 | +2.07 | +8.59 | +4.8 | +4.1 | -2.1 | -0.10 | +0.6 |
| 7966 | | 0.90 | +2.3 | | | +4.4 | +3.8 | -1.5 | | |
| 7990 | Feb 25 | +4.06 | -3.7 | +2.28 | -7.43 | +4.7 | -3.5 | -0.2 | | |
| 8013 | Feb 27 | +0.90 | -5.9 | +2.15 | -13.98 | +4.2 | -5.6 | -0.3 | +0.05 | +0.9 |
| 8014 | | 0.95 | -6.3 | | | +4.4 | -6.0 | -0.3 | | |
| 8052 | Mar 2 | +0.78 | -3.3 | +2.12 | -16.75 | +3.7 | -6.2 | +2.9 | | |
| 8110 | Mar 4 | +0.79 | -4.6 | +2.31 | -17.11 | +3.4 | -4.8 | +0.2 | | |
| 8288 | Mar 23 | +1.02 | -1.1 | +2.27 | -2.37 | +4.5 | -1.1 | +0.0 | +0.14 | +0.6 |
| 8289 | | +1.16 | -1.0 | | | +5.1 | -1.2 | +0.2 | | |
| 8299 | Mar 24 | +1.06 | -3.7 | +2.25 | -5.80 | +4.7 | -2.7 | -0.7 | +0.12 | +0.1 |
| 8300 | | +1.06 | -3.3 | | | +4.7 | -2.7 | -0.6 | | |
| 8306 | Mar 26 | +0.97 | -0.3 | +2.15 | -11.79 | +4.5 | -5.3 | +5.0 | +0.03 | -3.7 |
| 8307 | ch | +4.00 | -4.0 | | | +4.8 | -5.5 | +1.5 | | |
| 8316 | Mar 27 | +0.90 | -4.5 | +2.11 | -19.3 | +4.3 | -6.1 | +1.6 | -0.21 | +1.7 |
| 8317 | | +0.73 | -3.0 | | | +3.5 | -5.1 | +2.0 | | |

| Plate No. | Date | $\Delta \alpha$ | $\Delta \delta$ | μ_{α} | μ_{δ} | ΔT | $\mu_{ST} \Delta T$ | O.C. | R.A. | with spec |
|-----------|---------|-----------------------|-----------------|----------------|----------------|------------|---------------------|--------------------|-------|-----------|
| 86376 | Mar 30 | +0.86 | -7.5 | +2.21 | -16.72 | +3.9 | -6.5 | +2.0 | -0.15 | -0.4 |
| 86377 | | +0.78 | -5.3 | | | +3.5 | -5.9 | +0.6 | | |
| 86378 | Apr 4 | +0.55 ^{12.9} | -1.6 | +2.68 | +0.33 | +2.0 | +0.1 | -1.7 | | |
| 86379 | May 29 | +0.69 | -1.2 | +2.83 | +1.15 | +2.4 | +0.8 | -1.5 | +0.07 | -1.1 |
| 86380 | | 0.81 | -2.3 | | | +2.8 | +0.3 | -2.0 | | |
| 86390 | May 30 | +0.79 | -3.0 | +2.69 | +5.96 | +2.9 | +1.7 | 4.7 [#] | -0.10 | +3.10 |
| 86391 | | +0.71 | 0.0 | | | +2.6 | +1.6 | -1.6 | | |
| 86499 | May 31 | +0.86 | +1.6 | +2.78 | +9.8 | +3.5 | +3.4 | -1.8 | -0.09 | +1.7 |
| 86500 | | 0.83 | +3.3 | | | +3.2 | +3.2 | +0.1 | | |
| 86900 | Jan 23 | 1.14 | -9.1 | +2.55 | -10.71 | +4.5 | -4.8 | +0.4 ^{un} | | |
| 87228 | Jan 28 | +0.75 | +1.9 | +2.40 | +11.91 | +3.1 | +3.7 | -1.8 | +0.02 | +0.4 |
| 87229 | | 0.77 | +2.2 | | | +3.2 | +3.8 | -1.6 | | |
| 87331 | Jan 29 | +0.82 | +5.1 | +2.20 | +13.88 | +3.7 | +5.2 | -0.1 | -0.11 | -1.9 |
| 87332 | | 0.71 | +3.2 | | | +3.2 | +4.5 | -1.3 | | |
| 88900 | July 24 | +1.11 | +0.6 | +2.68 | +6.56 | +4.1 | +2.7 | -2.1 | -0.07 | -2.3 |
| 88991 | | +1.03 | +1.6 | | | +3.8 | +2.5 | -0.9 | | |
| 89007 | July 27 | +0.57 | +2.2 | +2.17 | +17.80 | +2.7 | +3.9 | -1.7 | +0.05 | +0.1 |
| 89005 | | 0.65 | +2.7 | | | +3.0 | +4.4 | -2.0 | | |
| 90079 | Aug 25 | +0.79 | +4.6 | +1.97 | +15.38 | +3.8 | +5.8 | -1.2 | +0.06 | -0.4 |
| 90800 | | +0.80 | +5.2 | | | +4.0 | +6.1 | -0.9 | | |
| 90868 | Aug 26 | +0.79 | +6.8 | +1.93 | +17.85 | +3.8 | +5.7 | +0.7 | +0.03 | +2.0 |
| 90871 | | +0.76 | +7.5 | | | +3.9 | +5.8 | -1.3 | | |

| Plate No. | Date | $\Delta \alpha$ | $\Delta \delta$ | μ_{α} | μ_{δ} | i° | Δt | ΔS | ΔC | R.A. | Ref. Sec. |
|-----------|---------|-----------------------|-----------------|----------------|----------------|-------------|------------|--------------------|------------|-------|-----------|
| 86376 | Mar 30 | +0.86 | -7.5 | +2.21 | -16.72 | +3.9 | -6.5 | +2.0 | -0.15 | -0.4 | |
| 86377 | | +0.78 | -5.3 | | | +3.5 | -5.9 | +0.6 | | | |
| 86378 | Apr 7 | +0.55 ^{13.0} | -1.6 | +2.68 | +0.33 | +2.0 | +0.1 | -1.7 | | | |
| 86379 | May 29 | +0.69 | -1.2 | +2.83 | +1.15 | +2.4 | +0.8 | -1.5 | +0.07 | -1.1 | |
| 86380 | | 0.81 | -2.3 | | | +2.8 | +0.3 | -2.0 | | | |
| 86381 | May 30 | +0.79 | -3.0 | +2.69 | +5.96 | +2.9 | +1.7 | 4.7 [#] | -0.10 | +3.10 | |
| 86382 | | +0.71 | 0.0 | | | +2.6 | +1.6 | -1.6 | | | |
| 86383 | May 31 | +0.86 | +1.6 | +2.78 | +9.8 | +3.5 | +3.4 | -1.8 | -0.09 | +1.7 | |
| 86384 | | 0.83 | +3.3 | | | +3.2 | +3.2 | +0.1 | | | |
| 86385 | Jan 23 | 1.14 | -7.1 | +2.55 | -10.71 | +4.5 | -4.8 | +0.4 ^{un} | | | |
| 86386 | Jan 28 | +0.75 | +1.9 | +2.40 | +11.91 | +3.1 | +3.7 | -1.8 | +0.02 | +0.4 | |
| 86387 | | 0.77 | +2.2 | | | +3.2 | +3.8 | -1.6 | | | |
| 86388 | Jan 29 | +0.82 | +5.1 | +2.20 | +13.88 | +3.7 | +5.2 | -0.1 | -0.11 | -1.9 | |
| 86389 | | 0.71 | +3.2 | | | +3.2 | +4.5 | -1.3 | | | |
| 86390 | July 24 | +1.11 | +0.6 | +2.68 | +6.56 | +4.1 | +2.7 | -2.1 | -0.07 | -2.3 | |
| 86391 | | +1.03 | +1.6 | | | +3.8 | +2.5 | -0.9 | | | |
| 86392 | July 27 | +0.57 | +2.2 | +2.17 | +17.80 | +2.7 | +3.9 | -1.7 | +0.05 | +0.1 | |
| 86393 | | 0.65 | +2.7 | | | +3.0 | +4.4 | -2.0 | | | |
| 86394 | Aug 25 | +0.74 | +7.6 | +1.97 | +15.38 | +3.8 | +5.8 | -1.2 | +0.06 | -0.4 | |
| 86395 | | +0.80 | +5.2 | | | +4.0 | +6.1 | -0.9 | | | |
| 86396 | Aug 26 | +0.74 | +6.8 | +1.93 | +17.85 | +3.8 | +5.7 | +0.7 | +0.02 | +2.0 | |
| 86397 | | +0.76 | +4.5 | | | +3.9 | +5.8 | -1.3 | | | |

Diff.

| Plate No. | Date | $\Delta\alpha$ | $\Delta\delta$ | $\mu\alpha$ | $\mu\delta$ | AT | $\mu\Delta T$ | O-C | RA | Diff. |
|-----------|----------|----------------|----------------|-------------|-------------|------|---------------|------|-------|-------|
| 1915 | Sept. 18 | +4.81 | +2.7 | +2.36 | +10.62 | +3.4 | +3.6 | -0.9 | | |
| 194 | Sept. 21 | +0.70 | +2.0 | +1.97 | +15.12 | +3.5 | +5.4 | -3.4 | +0.03 | +2.3 |
| 195 | | +0.73 | +4.1 | | | +3.7 | +5.6 | -1.5 | | |
| 249 | Sept. 23 | +0.61 | +4.5 | +1.93 | +18.17 | +3.2 | +4.5 | -0.0 | +0.07 | -0.6 |
| 250 | | 0.68 | +3.9 | | | +3.5 | +5.0 | -1.1 | | |
| 263 | Sept. 27 | +0.80 | +1.2 | +2.13 | +5.74 | +3.7 | +2.1 | -0.9 | +0.02 | +1.0 |
| 264 | | 0.82 | +2.1 | | | +3.8 | +2.2 | -0.1 | | |
| 286 | Sept. 28 | 0.80 | +2.7 | +2.20 | +2.64 | +3.6 | +1.0 | +1.4 | | |
| 377 | Oct. 16 | +0.70 | +1.5 | +2.22 | +12.16 | +3.1 | +3.8 | -2.3 | -0.10 | +1.3 |
| 378 | | +0.60 | +3.2 | | | +3.1 | +3.8 | -0.6 | | |
| 388 | Oct. 21 | +0.63 | +3.7 | +1.93 | +13.09 | +3.3 | +4.3 | -0.9 | +0.12 | +1.0 |
| 389 | | +0.73 | +4.7 | | | +3.9 | +5.1 | -0.7 | | |
| 413 | Oct. 23 | +0.78 | +3.1 | +2.05 | +9.61 | +3.8 | +3.6 | -0.5 | -0.03 | -1.4 |
| 414 | | 0.75 | +1.6 | | | +3.6 | +3.5 | -1.9 | | |
| 421 | Oct. 24 | +0.64 | +2.7 | +2.17 | +6.57 | +3.0 | +2.0 | +0.4 | +0.23 | -1.6 |
| 422 | | 0.87 | +1.3 | | | +4.0 | +2.6 | -1.3 | | |
| 760 | Oct. 27 | +0.91 | +0.0 | +2.19 | -2.68 | +4.1 | -1.1 | +1.1 | -0.11 | +0.7 |
| 761 | | 0.81 | +0.6 | | | +3.7 | -1.0 | +1.6 | | |
| 779 | Oct. 30 | +0.94 | -0.8 | +2.02 | -10.68 | +4.6 | -4.9 | +4.1 | +0.09 | -3.4 |
| 792 | | +1.07 | -8.1 | | | +5.1 | -5.5 | +1.4 | | |

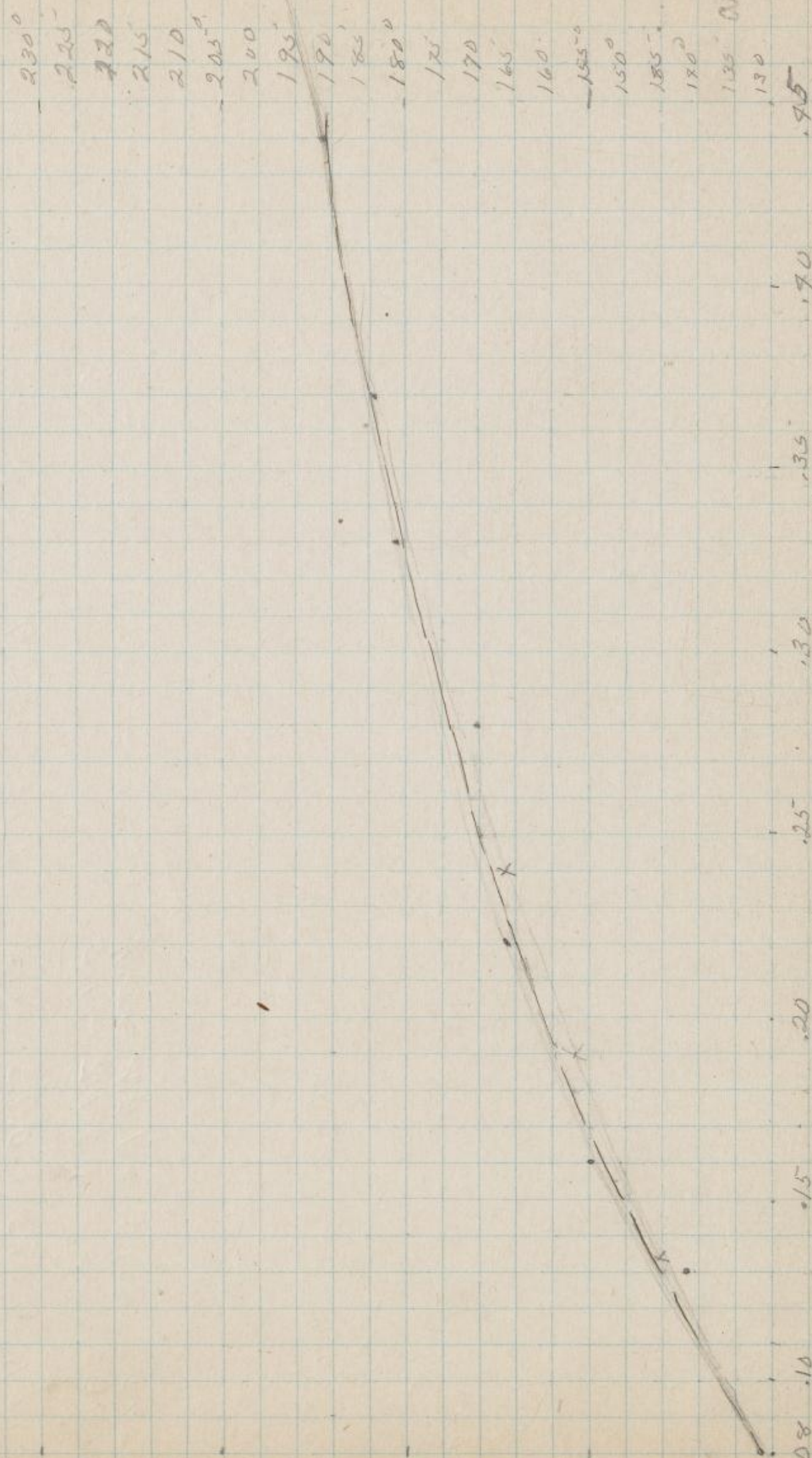
| Plate No | Date | $\Delta\alpha$ | $\Delta\delta$ | $\mu\alpha$ | $\mu\delta$ | AT | $\Delta\delta$ AT | O-C | R.A. Decl. | Diff. |
|----------|--------|----------------|----------------|-------------|-------------|------|-------------------|--------------------|------------|-------|
| 9795 | 1915 | | | | | | | | | |
| 9796 | Nov 1 | +0.86 | -6.2 | +1.97 | -19.25 | +4.4 | -6.2 | +0.0 | +0.15 | +0.3 |
| | | 1.01 | -3.9 | | | +5.1 | -7.3 | +1.4 | | |
| 9732 | Nov 17 | +0.92 | +5.0 | +1.90 | +13.37 | +4.8 | +6.5 | -1.5 ^{ch} | -0.26 | +0.5 |
| 9733 | | 0.66 | +7.3 | | | +3.5 | +4.6 | -0.3 ^{ch} | | |
| 9758 | Nov 18 | +0.66 | +4.1 | +1.97 | +12.3 | +3.4 | +4.2 | -0.1 ^{ch} | | |
| 9782 | Nov 22 | +0.89 | +1.2 | +2.21 | +1.59 | +4.0 | +0.6 | -0.6 | +0.01 | -1.0 |
| 9783 | | 0.85 | 0.0 | | | +3.8 | +0.6 | -0.6 | | |
| 9785 | Nov 29 | +0.78 | -0.4 | +2.16 | -7.67 | +3.6 | -1.7 | +1.3 | -0.04 | +0.2 |
| 9786 | | 0.81 | -0.0 | | | +3.7 | -1.7 | +1.7 | | |
| 9817 | Nov 26 | +0.82 | -2.9 | +2.01 | -9.78 | +4.1 | -4.1 | +1.2 | -0.06 | -0.4 |
| 9818 | | 0.76 | -3.3 | | | +3.7 | -3.7 | +0.4 | | |
| 9859 | Nov 30 | +0.89 | -3.5 | +1.98 | -15.10 | +4.2 | -6.4 | +2.9 | -0.05 | +0.1 |
| 9860 | | 0.79 | -3.9 | | | +4.0 | -6.0 | +2.6 | | |
| 9997 | Dec 15 | +0.67 | -0.3 | +1.93 | +12.17 | +3.5 | +4.2 | -7.5 ^{ch} | +0.07 | +1.1 |
| 9998 | | 0.79 | +1.7 | | | +3.8 | +4.7 | -3.3 | | |
| 10030 | Dec 16 | +0.81 | +4.1 | +1.99 | +10.95 | +4.1 | +4.2 | -0.1 | +0.08 | -0.5 |
| 10031 | | 0.85 | +3.5 | | | +4.3 | +4.5 | -1.0 | | |
| 10072 | Dec 21 | +0.92 | -1.2 | +2.18 | -3.79 | +4.2 | -1.6 | +0.4 | +0.08 | -0.4 |
| 10073 | | 0.90 | -1.6 | | | +4.1 | -1.6 | +0.0 | | |
| 10103 | Dec 22 | +0.77 | +1.6 | +2.12 | -6.78 | +3.6 | -2.3 | +3.9 | | ch |

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| Plate no | Date | $\Delta\alpha$ | $\Delta\delta$ | $\mu\alpha$ | $\mu\delta$ | ΔT | $\mu\delta\Delta T$ | $\sigma-c$ | RA | Dec |
|----------|---------|----------------|----------------|-------------|-------------|------------|---------------------|------------|-------|------|
| 10227 | Jan 19 | +0.92 | +0.7 | +2.13 | +6.21 | +1.43 | +2.7 | -2.3 | -0.16 | +0.8 |
| 10228 | | 0.76 | +1.2 | | | +3.6 | +2.2 | -1.0 | | |
| 10231 | Jan 17 | +0.77 | +0.8 | +2.20 | -2.52 | +3.4 | -0.8 | +1.6 | +0.05 | +0.9 |
| 10232 | | 0.79 | +1.7 | | | +3.6 | -0.9 | +2.6 | | |
| 10263 | Jan 18 | +0.91 | -7.2 | +2.15 | -5.83 | +4.2 | -2.5 | -1.9 | +0.12 | +2.4 |
| 10264 | | +1.04 | -1.8 | | | +4.8 | -2.8 | +1.0 | | |
| 10380F | Feb. 15 | +0.98 | -1.4 | +2.10 | -7.65 | +4.7 | -3.6 | +2.2 | -0.07 | -1.5 |
| 10386F | | +0.91 | -2.9 | | | +4.3 | -3.3 | +0.4 | | |
| 10532F | Mar. 11 | +1.12 | -0.3 | +2.21 | -0.49 | +5.1 | -0.3 | +0.0 | +0.08 | +1.2 |
| 10535F | | +1.14 | +1.0 | | | +5.2 | -0.3 | +1.3 | | |
| 10609 | Mar 23 | | | | | | | | +0.18 | +1.0 |
| 0605 | | | | | | | | | | |
| 0672 | Apr 10 | +4.01 | -2.9 | +2.06 | -7.97 | +4.9 | -3.9 | +1.5 | -0.09 | -3.0 |
| 0693B | | +0.92 | +1.0 | | | +4.5 | -3.6 | +2.6 | | |
| 0701B | Apr 13 | +0.93 | -6.6 | +1.92 | -13.57 | +4.8 | -6.5 | -0.1 | -0.09 | +0.9 |
| 0702 | | +0.88 | -5.7 | | | +4.6 | -6.2 | +0.5 | | |
| 0716B | Apr 15 | +0.80 | -3.1 | +2.00 | -19.86 | +4.0 | -5.9 | +2.8 | +0.00 | -2.2 |
| 0718B | | +0.82 | -4.8 | | | +4.1 | -6.1 | +1.3 | | |
| 0737 | May 11 | +0.82 | -5.5 | | | +4.3 | -6.0 | +0.5 | +0.04 | +0.6 |
| 0738B | | +0.88 | -4.9 | +1.89 | -13.86 | +4.7 | -6.5 | +1.6 | | |
| 10743 | May 12 | +0.67 | -0.6 | +1.97 | -17.95 | +3.4 | -5.0 | +2.7 | | |
| 10746B | | +0.71 | -6.0 | +2.03 | -19.51 | +3.5 | -5.1 | -0.9 | +0.01 | +1.0 |
| 10748B | | +0.75 | -4.7 | | | +3.7 | -5.3 | +0.7 | | |

Table page 136 B.A Vol 76 no 7.

P_1



P_1

360°

330

300

240

180

120

60

0

0

0.10

0.20

0.30

0.40

0.50

0.60

0.70

0.80

0.90

1.00

Quantity $\frac{p}{u}$ for use in
finder, Δr

For points uniformly
distributed over arc of
length θ

$$\frac{p}{u} = \frac{4(1 - \cos \theta)}{\theta(2 - \sin \theta)}$$

$$\frac{p}{u} =$$

The length of this arc is taken as 2θ less
than the distance between the extreme points measured

HNR

Apr 10 1917

Corr. for 2nd Order Refraction.

$$\Delta R = \frac{C}{2R}$$

$$C = \frac{\Sigma v.}{\frac{P}{n}}$$

| Plate | R | Age | date |
|-------|--------|-----|-------------|
| | | 5 | |
| | | 6 | |
| | | 7 | |
| 9377 | 1.9562 | 8 | Oct 16 '15 |
| | | 9 | |
| 10030 | 1.8535 | 10 | Dec 16 '15 |
| 9732 | 1.8783 | 11 | Nov 17 '15 |
| 9759 | 1.8670 | 12 | Nov 18 '15 |
| 9388 | 1.8737 | 13 | Oct 21 '15 |
| 10000 | 1.8565 | 14 | Oct 22 '15 |
| 9413 | 1.8590 | 15 | Oct 23 '15 |
| 9421 | 1.8395 | 16 | Oct 24 '15 |
| | | 17 | |
| 9783 | 1.8397 | 18 | Nov 20 '15 |
| 9760 | 1.8359 | 19 | Oct 27 '15 |
| | | 20 | |
| | | 21 | |
| 9491 | 1.8726 | 22 | Oct 30 '15 |
| 11219 | 1.8317 | 23 | Sept 20 '16 |
| 9495 | 1.9205 | 24 | Nov 1 '15 |
| 12 | 22.411 | | |
| | 1.867 | | |

$$\begin{array}{r}
 15 \sqrt{28.433} \\
 \underline{1.882} \\
 1.867 \\
 \underline{3.949} \\
 1.974
 \end{array}$$

$$\begin{array}{r}
 .04665 \\
 \hline
 3.983
 \end{array}
 = .0117$$

$$\begin{array}{r}
 .049 \\
 \hline
 3.98
 \end{array}
 = .0123$$

$$\begin{array}{r}
 1.974 \\
 \hline
 2.009
 \end{array}$$

$$\begin{array}{r}
 2.009 \\
 \hline
 3.983
 \end{array}$$

$$\Delta R = \frac{c}{81}$$

Plate R Age Date

13

10692 1.8947 7.5 Apr 10
11523 1.9893 8 Nov 3 '16

11592 1.9585 11 Nov 6 '16
11399 1.9940 12 Nov 7 '16
11580 1.9256 12 Nov 8 '16

11285 1.9711 14 Oct 10 '16
11301 1.9529 15 " 11 '16
11319 1.9256 16 " 12 '16

11331 1.8777 18 Oct 14 '16
11197 1.8832 19.5 Sept 16 '16
11201 1.8697 20.5 " 17 "
11337 1.8909 21 Oct 17 '16
11208 1.8371 22 " 19 '16
11709 1.8693 23 Nov 19 '16

11218 1.8310 25 " 25 '16
28.433

10737 1.8893 9.3 May 11 '16

10796 1.9971 12 May 13 '16

10933 2.0656 14 July 14
11209 2.0918 15 Aug 13

11039 1.9928 17 Aug 15

10761 2.0258 18 May 20 '16
10605 2.1055 18 Mar 23

> 7.114069 22
2.009 23

| Plate No. | Date | $\Delta\alpha$ | $\Delta\delta$ | $\mu\alpha$ | $\mu\delta$ | Δt | Δt | Δt | Δt |
|-----------|---------|----------------|----------------|-------------|-------------|------------|------------|------------|-------------|
| 10760 | May 20 | +0.67 | +0.6 | +2.56 | +9.00 | +0.26 | +2.3 | +1.7 | +0.21 + 1.9 |
| 10761 | " | +0.83 | +2.0 | | | +0.32 | +2.9 | -0.9 | |
| 10933 | July 14 | +0.84 | +2.4 | +2.65 | +9.78 | +0.32 | +3.1 | -0.7 | +0.07 - 1.6 |
| 10934 | " | +0.91 | +0.8 | | | +0.34 | +3.3 | -2.5 | |
| 10998 | Aug 12 | +0.77 | +5.4 | +2.41 | +14.10 | +0.32 | +4.5 | +0.9 | -0.09 - 1.2 |
| 10999 | " | +0.65 | +4.5 | | | +0.27 | +3.8 | +0.7 | |
| 11007 | Aug 13 | +0.75 | +5.9 | +2.26 | +15.78 | +1.33 | +5.2 | +0.2 | |
| 11039 | Aug 15 | +0.57 | +3.7 | +2.11 | +15.34 | +1.27 | +4.1 | -0.9 | |
| 11197 | Sept 16 | +0.86 | +1.2 | +2.26 | +9.51 | +1.38 | +1.7 | -0.5 | +0.10 - 0.5 |
| 11198 | " | +0.95 | +0.3 | | | +1.42 | +1.9 | -1.6 | |
| 11201 | Sept 17 | +0.92 | -1.2 | +2.23 | +1.31 | +1.41 | +0.5 | -1.7 | -0.04 - 0.1 |
| 11202 | " | +0.88 | -1.2 | | | +1.39 | +0.5 | -1.7 | |
| 11208 | Sept 19 | +0.98 | -2.8 | +2.15 | -4.67 | +0.45 | -2.1 | -0.7 | -0.07 + 0.8 |
| 11209 | " | +0.89 | -2.1 | | | +0.41 | -1.9 | -0.2 | |
| 11218 | Sept 20 | +0.88 | +0.3 | +2.07 | -7.21 | +0.42 | -3.2 | +3.5 | -0.04 - 1.5 |
| 11219 | " | +0.85 | -1.2 | | | +0.41 | -3.0 | +1.8 | |
| 11285 | Oct 10 | +0.67 | +5.7 | +2.14 | +13.78 | +0.31 | +4.3 | +1.4 | +0.03 - 1.8 |
| 11286 | " | +0.65 | +4.3 | | | +0.30 | +4.1 | +0.2 | |

| Vol. No. | Date | Δx | Δy | μx | μy | Δt | $\mu \Delta t$ | Δc | $\mu \Delta c$ |
|----------|---------|------------|------------|---------|---------|------------|----------------|------------|--------------------|
| 11301 | Oct. 11 | +0.85 | +4.5 | +2.19 | +11.81 | +0.39 | +4.6 | -0.1 | -0.08 -0.8 |
| 11302 | | +0.79 | +3.6 | | | +0.36 | +4.3 | -0.7 | |
| 11319 | Oct. 12 | +0.81 | +3.1 | +2.27 | +8.99 | +3.6 | +3.2 | +0.1 | +0.14 -0.1 |
| 11313 | | +0.95 | +3.0 | | | +4.2 | +3.8 | -0.8 | |
| 11331 | Oct. 14 | +0.92 | +0.5 | +2.29 | +2.70 | +4.0 | +0.9 | -0.4 | |
| 11334 | Oct. 17 | +1.03 | -2.2 | +2.10 | -6.41 | +4.9 | -3.1 | +0.9 | -0.04 -1.4 |
| 11337 | | +0.97 | -3.7 | | | +4.6 | -2.9 | -0.8 | |
| 11522 | Nov. 3 | +0.79 | +6.9 | | | +3.9 | +9.9 | +1.1 | +1.1 ~~ch~~ |
| 11523 | | +0.79 | +2.7 | 2.16 | +14.30 | +3.9 | +9.9 | -2.2 | -2.2 ~~ch~~ |
| 11542 | Nov. 6 | +0.61 | +2.0 | +2.09 | +13.95 | +2.9 | +4.0 | -2.0 | +0.7 +5.0 |
| 11549 | | +0.69 | +6.5 | | | +3.3 | +9.5 | +2.0 | +2.0 ~~ch~~ |
| 11549 | Nov. 7 | +0.65 | +7.8 | +2.13 | +12.57 | +3.0 | +3.8 | +1.0 | -0.05 -2.4 |
| 11550 | | +0.63 | +2.3 | | | +3.0 | +3.8 | -1.5 | |
| 11580 | Nov. 8 | +0.80 | +3.9 | +2.21 | +9.98 | +3.6 | +3.6 | -0.2 | -0.07 +0.7 |
| 11581 | | +0.72 | +3.9 | | | +3.2 | +3.2 | +0.7 | |
| 11597 | | | | | | | | | -0.02 +2.3 |
| 11636 | Nov. 11 | +1.06 | +0.3 | +2.29 | +1.04 | +0.46 | +4.8 | -4.5 | 50 |

| Plate No | Date | $\Delta \alpha$ | $\mu \alpha$ | $\Delta \delta$ | $\mu \delta$ | Δt | $\mu \Delta t$ | Δc | $\mu \Delta c$ |
|----------|---------|-----------------|--------------|-----------------|--------------|------------|----------------|------------|----------------|
| 11708 F | Nov. 18 | +0.89 | -6.4 | +1.84 | -13.23 | +0.48 | -6.4 | +0.0 | +0.01 +1.9 |
| 11709 F | | +0.89 | -4.6 | | | +0.48 | -6.4 | +1.8 | |
| 11870 F | Dec. 6 | +0.84 | +4.4 | +2.21 | +7.91 | +0.38 | +3.0 | +1.4 | +0.21 -1.5 |
| 11871 F | | +1.05 | +2.9 | | | +0.47 | +3.7 | -0.8 | |
| 11890 F | Dec. 7 | +0.92 | +4.0 | +2.26 | +5.14 | +0.41 | +2.1 | +1.9 | -0.08 -0.5 |
| 11891 F | | +0.84 | +3.6 | | | +0.38 | +1.9 | +1.7 | |
| 11909 F | Dec. 8 | +0.93 | -0.9 | +2.28 | +2.20 | +0.41 | +0.9 | -1.8 | -0.05 +1.5 |
| 11910 F | | +0.89 | +0.5 | | | +0.39 | +0.9 | -0.4 | |
| 11929 B | Dec. 10 | +1.00 | -1.0 | +2.18 | -4.40 | +0.46 | -2.0 | +1.0 | +0.09 -1.5 |
| 11925 B | | +1.11 | -2.9 | | | +1.01 | -2.2 | -0.2 | |
| 11931 B | Dec. 12 | +0.97 | -5.6 | +1.98 | -9.23 | +0.49 | -4.0 | -1.1 | -0.02 +2.1 |
| 11932 B | | +0.95 | -3.6 | | | +0.48 | -4.9 | +0.8 | |
| 11997 B | Dec. 29 | +0.79 | +4.6 | +2.11 | +13.27 | +0.37 | +0.6 | -1.0 | +0.02 +0.3 |
| 11998 B | | +0.77 | +4.8 | | | +0.36 | +0.5 | -0.1 | |

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| Plate | Mount | Alt | Rate | Hourly | Day |
|-------|-------|-----------|------|--------|----------------------|
| 33 33 | 70 | 19 7 +0.2 | -0.9 | 42 97 | 4 -0.6 -1.3 88 |
| 36 3 | 71 | 19 45 0.5 | +1.0 | 98 | 15 8 -0.6 -0.7 89 |
| 36 01 | 11 | 5 -0.8 | +0.6 | 43 03 | 3 -0.3 -1.7 46 19 |
| 36 48 | 18 | 3 -0.3 | -0.9 | 04 | 16 3 -0.3 +0.2 20 |
| 37 | 3 | -0.3 | +0.8 | 43 09 | 16 3 -0.3 -0.1 46 77 |
| 36 69 | 19 | 3 -0.3 | +1.6 | 43 36 | 23 2 -0.1 +1.7 |
| 37 83 | 10 | 85 -0.7 | +0.7 | 43 74 | 5 -0.8 +1.3 91 |
| 38 | 85 | -0.7 | +1.0 | 75 | 25 5 -0.8 +2.3 |
| 38 11 | 13 | 95 -0.7 | -3.3 | 44 23 | 3 -0.3 +0.9 98 |
| 12 | 37 | -0.5 | +0.3 | 28 | 11 3 -0.3 +1.2 |
| 38 47 | 14 | 3 -0.3 | +0.4 | 44 35 | 14 9 -0.6 +1.2 99 |
| 46 | 3 | -0.3 | -0.4 | 56 | 5 -0.8 +1.2 |
| 35 36 | 15 | 1 +0.2 | +0.2 | 49 63 | 8 -0.6 +0.6 79 |
| 57 | 1 | +0.2 | -1.1 | 66 | 16 8 -0.6 +0.4 89 |
| 40 96 | 22 | 3 -0.3 | -1.6 | 78 | 16 1 +0.2 -1.0 |
| 97 | 4 | -0.6 | -1.4 | 44 81 | 17 3 -0.3 -0.2 |
| 42 3 | 8 | -0.3 | -0.3 | 45 03 | 21 3 -0.3 -0.2 52 49 |
| 47 1 | 9 | -0.6 | -1.4 | 45 34 | 9 2 -0.1 -0.7 |
| 72 | 8 | -0.6 | +0.3 | 65 | 2 -0.1 -0.1 33 41 |
| 47 3 | 14 | 3 -0.3 | -0.8 | 45 71 | 2 -0.1 -0.1 46 77 |
| 96 | 14 | 3 -0.3 | -1.0 | 72 | 10 3 -0.3 -0.7 53 02 |
| | | | | | 2 -0.1 -0.1 46 77 |

| Plate | Hour | Min | Sec | Alt | Dist | Mag | Parallax | Proper Motion | Radial Velocity | | | | | | | |
|-------|------|------|------|------|-------|-------|----------|---------------|-----------------|------|-------|------|------|-----------|------|------|
| 5517 | 15 | 3 | -0.3 | -0.8 | 16:00 | 9 | -0.6 | +2.6 | 7066 | 11.5 | -0.1 | -1.8 | | | | |
| 18 | 3 | -0.3 | -0.4 | | | | | | | | | | | | | |
| 5595 | 73 | -0.3 | -1.3 | | 66:09 | 0 | 3 | -0.3 | -0.8 | 7100 | 123.7 | 0.5 | +2.0 | | | |
| 96 | 3 | -0.3 | +1.0 | | 10 | 3 | -0.3 | +0.4 | | 01 | 3.7 | 0.5 | +0.1 | | | |
| 5600 | 9 | -0.6 | +0.4 | | 66:11 | 0 | 2 | -0.1 | -0.5 | 7109 | 179 | 0.6 | -0.2 | | | |
| 01 | 2 | -0.1 | -2.3 | | 12 | 3 | -0.3 | -1.7 | | | | | | | | |
| 5609 | 9 | -0.6 | -1.1 | | 67:47 | 0 | 8 | -0.6 | -1.1 | 75 | 13.0 | 5 | -0.8 | +1.1 | | |
| 05 | 3 | -0.3 | -0.2 | | 48 | 9 | -0.6 | +1.0 | | 17 | 9 | -0.6 | +4.9 | for plate | | |
| 5782 | 7 | 11 | 3 | -0.3 | +0.3 | | | | | 75 | 78 | 0 | 5 | -0.8 | +2.5 | |
| 5963 | 0 | 8 | -0.6 | -0.5 | | 67:71 | 133 | -0.3 | -2.6 | 49 | 5 | -0.8 | +2.6 | | | |
| 6130 | 2 | -0.1 | -1.4 | | 72 | 3 | -0.3 | -3.3 | | | | | | | | |
| 31 | 2 | -0.1 | -1.0 | | 67:78 | 145 | -0.8 | -1.5 | | 73 | 71 | 4 | -0.6 | -2.8 | | |
| 36 | 15 | 2 | -0.1 | -0.1 | | 79 | 5 | -0.8 | -0.8 | 72 | 9 | -0.6 | +0.8 | | | |
| 138 | 17 | 3 | -0.3 | -0.1 | | 68:00 | 57 | -0.8 | -0.8 | | | | | | | |
| 39 | 3 | -0.3 | +0.4 | | 01 | 37 | -0.8 | -1.0 | | 78 | 11 | 0 | +0.2 | -1.0 | | |
| 6520 | 12 | 3 | -0.3 | -1.7 | 68:27 | 5 | -0.8 | -1.2 | | 76 | 92 | 143 | -0.3 | -0.9 | | |
| 21 | 9 | -0.6 | -0.9 | | 70 | 13 | 0 | 7 | -0.6 | +1.2 | 93 | 3 | -0.3 | -0.6 | | |
| 6546 | 13 | 3 | -0.3 | -2.4 | | 70:33 | 95 | 3.7 | 0.5 | +0.0 | 79 | 65 | 7 | 1 | +0.2 | -0.5 |
| 77 | 3 | -0.3 | -0.9 | | 57 | 7 | 1 | -0.6 | -0.3 | | 66 | 1 | +1.2 | +0.1 | | |
| 6577 | 14 | 3 | -0.3 | +0.3 | | 70:56 | 108 | 2.4 | 0.2 | -0.7 | 79 | 90 | 123 | -0.3 | -1.2 | |
| 78 | 3 | -0.3 | -0.1 | | 57 | 7 | 2.5 | 0.2 | -0.6 | | 80 | 13 | 143 | -0.3 | -0.6 | |
| 6597 | 15 | 3 | -0.3 | +0.4 | | 70:65 | 118 | 2 | 0.1 | +0.6 | 17 | 3 | -0.3 | -0.9 | | |
| 98 | 3 | -0.3 | -1.8 | | | | | | | | | | | | | |

| | | | | | | | | | | | |
|----------|------|------|------|------|-----|------|------|------|-----|------|------|
| Plate 10 | 17.3 | -0.3 | +0.5 | 8729 | 164 | -0.6 | +1.4 | 9388 | 133 | -0.3 | +1.0 |
| | 18 | -0.6 | -0.1 | 8731 | 175 | -0.8 | +3.8 | 89 | 3 | -0.3 | +0.1 |
| | 8 | -0.6 | +0.2 | 32 | 5 | -0.8 | +0.4 | 9713 | 163 | -0.3 | +1.0 |
| | 8 | -0.6 | +0.4 | 8890 | 125 | -0.8 | +1.3 | 18 | 163 | -0.3 | +1.0 |
| | 9 | -0.1 | +0.6 | 91 | 5 | -0.8 | +0.5 | 9721 | 164 | -0.6 | +0.4 |
| | 2 | -0.1 | +1.8 | 8909 | 162 | -0.1 | +0.1 | 22 | 4 | -0.6 | +1.4 |
| | 2 | -0.1 | +2.4 | 03 | 25 | -0.2 | -0.3 | 9760 | 194 | -0.6 | +1.1 |
| | 11 | -0.6 | +1.7 | 9079 | 134 | -0.6 | -0.6 | 61 | 4 | -0.6 | +0.7 |
| | 4 | -0.6 | +2.1 | 80 | 4 | -0.6 | +0.8 | 9791 | 225 | -0.8 | +3.0 |
| | 12 | -0.6 | +1.7 | 9086 | 163 | -0.3 | +1.1 | 92 | 4 | -0.6 | +1.2 |
| | 4 | -0.6 | -1.4 | 87 | 3 | -0.3 | +1.2 | 9495 | 245 | -0.8 | +2.9 |
| | 15 | +0.2 | -1.8 | 9193 | 95 | -0.8 | +0.3 | 96 | 5 | -0.8 | -0.2 |
| | 1 | +0.2 | +0.8 | 9194 | 133 | -0.3 | +3.7 | 9732 | 113 | -0.3 | -2.0 |
| | 20 | -0.6 | -0.9 | 93 | 3 | -0.3 | +0.2 | 33 | 3 | -0.3 | -0.8 |
| | 16 | -0.3 | -0.2 | 9299 | 14 | -0.6 | +0.6 | 9758 | 112 | -0.1 | -1.5 |
| | 3 | -0.3 | -1.1 | 50 | 4 | -0.6 | -0.1 | 83 | 4 | -0.6 | -1.7 |
| | 17 | -0.3 | -1.8 | 9263 | 194 | -0.6 | +0.9 | 9785 | 182 | -0.1 | -0.3 |
| | 17 | -0.3 | +0.5 | 64 | 4 | -0.6 | -0.7 | 86 | 4 | -0.6 | +0.2 |
| | 18 | -1.1 | +3.6 | 9286 | 205 | -0.8 | +1.2 | 9817 | 204 | -0.6 | +2.1 |
| | 6 | -1.1 | -0.5 | 9377 | 085 | -0.8 | +1.3 | 18 | 4 | -0.6 | +0.6 |
| | 11 | -0.6 | -0.5 | 78 | 5 | -0.8 | 0.0 | 9849 | 249 | -0.6 | +1.7 |
| | 16 | -0.6 | +2.0 | | | | | | | | |

| Plate | Memory | ΔR | Plate | Memory | ΔR | Plate | Memory | ΔR |
|-------|--------|------------|-------|--------|------------|-------|--------|------------|
| 9860 | B24 | 4 | -0.6 | -5.1 | 10702 | B11 | 3 | -0.3 |
| 9997 | D9 | 4 | -0.6 | -0.5 | 10716 | B13 | 3 | -0.3 |
| 98 | | 4 | -0.6 | -0.2 | 18 | 3 | -0.3 | |
| 10030 | 103 | -0.3 | -0.9 | 16737 | D9 | 5 | -0.8 | |
| 31 | 4 | -0.6 | -0.2 | 38 | 4 | -0.6 | | |
| 10072 | 154 | -0.6 | +0.3 | 10793 | 5 | -0.8 | | |
| 73 | 4 | -0.6 | +0.5 | 16796 | B12 | 4 | -0.6 | |
| 10103 | 164 | -0.6 | +0.4 | 98 | 4 | -0.6 | | |
| 10227 | B10 | 4 | -0.6 | -0.2 | 195 | -0.8 | | |
| 28 | 4 | -0.6 | -1.0 | 61 | 4 | -0.6 | | |
| 10231 | B13 | 2 | -0.1 | 16998 | 14 | 2 | -0.1 | |
| 32 | 2 | -0.1 | -0.5 | 99 | 3 | -0.3 | | |
| 10263 | B19 | 4 | -0.6 | +0.3 | 154 | 4 | -0.6 | |
| 64 | 4 | -0.6 | -0.0 | 11009 | B15 | 4 | -0.6 | |
| 10385 | 124 | -0.6 | +1.7 | 11039 | B11 | 6 | -1.1 | |
| 84 | 4 | -0.6 | -1.4 | 98 | 6 | -1.1 | | |
| 10532 | 83 | -0.3 | +0.7 | 11197 | B19 | 6 | -1.1 | |
| 33 | 85 | -0.8 | +1.0 | 98 | 6 | -1.1 | | |
| 10604 | 194 | -0.7 | +0.5 | 11201 | B20 | 4 | -0.6 | |
| 65 | 4 | -0.7 | +0.5 | 02 | 4 | -0.6 | | |
| 10692 | B8 | 3 | -0.3 | +0.2 | 11208 | 22 | 5 | -0.8 |
| 93 | 3 | -0.3 | +0.6 | 9 | 4 | -0.6 | | |
| 10701 | B11 | 3 | -0.3 | +1.9 | 11218 | 25 | 5 | -0.8 |

| Plate | Wavelength | Rate | Wavelength | Rate |
|-------|------------|------|------------|------|
| 11870 | 1245-0.7 | -0.1 | | |
| 71 | 45-0.7 | +0.7 | | |
| 11890 | 134-0.6 | -0.1 | | |
| 91 | 45-0.7 | +1.1 | | |
| 11909 | 1453-0.9 | +0.6 | | |
| 10 | 5-0.8 | +2.0 | | |
| 11929 | 165-0.8 | +1.4 | | |
| 35 | 6-1.1 | +0.9 | | |
| 11931 | 185-0.8 | -0.5 | | |
| 32 | 5-0.8 | +1.2 | | |
| 11997 | 55-0.8 | -0.7 | | |
| 48 | 5-0.8 | -7.9 | | |

| Plate | α | δ | $t+d.$ | $a-e$ |
|-------|----------|----------|--------|-------|
| 3535 | -49 6.6 | -49 6.8 | -1.3 | +0.2 |
| 36 | -49 8.6 | -49 8.8 | -0.8 | +0.2 |
| 3601 | -50 0.7 | -50 4.2 | -0.1 | +2.7 |
| 3648 | -50 1.4 | -50 1.1 | +0.1 | -0.3 |
| 49 | -50 1.4 | -50 0.4 | +1.0 | -1.0 |
| 3669 | -50 1.5 | -50 0.5 | -1.6 | -1.0 |
| 3783 | -50 4.1 | -50 1.5 | -1.3 | -2.6 |
| 84 | -50 3.3 | -50 3.2 | -3.1 | -0.1 |
| 3811 | -50 1.0 | -50 1.6 | +0.4 | +0.6 |
| 12 | -50 0.6 | -50 0.5 | -1.3 | -0.1 |
| 3844 | -49 9.6 | -49 8.8 | +3.9 | -0.8 |
| 46 | -49 9.3 | -49 9.5 | +1.4 | +0.2 |
| 3850 | -50 1.5 | -50 1.9 | -2.9 | +0.7 |
| 57 | -50 0.2 | -50 0.3 | +2.4 | +0.1 |
| 4096 | -50 2.7 | -50 3.0 | +0.8 | +0.3 |
| 97 | -49 8.6 | -50 0.0 | +1.0 | +1.4 |
| 4239 | -49 9.6 | -50 2.9 | +0.6 | +3.3 |
| 4291 | -50 1.3 | -50 1.0 | +0.3 | -0.3 |
| 72 | -49 9.3 | -50 0.4 | +0.8 | +1.1 |
| 4295 | -50 0.2 | -50 1.8 | +1.0 | +1.6 |
| 96 | -50 2.0 | -50 1.2 | -0.3 | +1.8 |
| | 13.5 | 19.4 | +1.0 | |

1a-2

| Plate | a | l | b+d | a-l |
|-------|---------|---------|------|------|
| 4297 | -50 0.2 | -50 0.3 | +1.4 | +2.8 |
| 98 | -50 0.3 | -50 0.3 | +1.4 | +2.9 |
| 4303 | -50 4.3 | -50 5.3 | -1.7 | +1.0 |
| 04 | -50 2.7 | -50 0.6 | -0.9 | -1.1 |
| 4309 | -50 2.3 | -50 2.5 | -1.2 | +0.2 |
| 4336 | -50 0.1 | -50 2.1 | +0.6 | +2.0 |
| 4374 | -50 0.7 | -50 1.9 | +0.6 | +1.2 |
| 75 | -49 9.4 | -50 3.5 | +0.2 | +3.8 |
| 4423 | -50 0.2 | -50 0.1 | -0.3 | -0.1 |
| 24 | -49 9.2 | -50 0.0 | +0.7 | +0.8 |
| 4455 | -50 0.1 | -50 1.7 | -0.2 | +1.6 |
| 56 | -50 3.0 | -50 3.0 | +1.3 | +0.0 |
| 4465 | -50 3.0 | -50 2.2 | +1.0 | -0.8 |
| 66 | -50 2.7 | -50 2.7 | -4.2 | +0.0 |
| 78 | -50 1.4 | -50 2.1 | -2.3 | +0.7 |
| 4481 | -50 3.5 | -50 6.0 | +1.4 | +2.5 |
| 4503 | -50 0.8 | -50 0.9 | +2.3 | +0.1 |
| 4554 | -50 2.7 | -50 4.3 | -1.0 | +1.6 |
| 55 | -50 2.9 | -50 3.6 | -0.6 | +0.7 |
| 4571 | -50 2.0 | -50 4.0 | -1.1 | +0.2 |
| 72 | -50 1.0 | -50 2.5 | +0.2 | +1.3 |
| | 32.5 | 52.5 | -40 | |

Plate
Dia
"e
brd
2.5

| Plate | a | b | c | d | e | f | g | h | i | j | k | l | m | n | o | p | q | r | s | t | u | v | w | x | y | z |
|-------|--------|--------|------|------|
| 4588 | -501.5 | -502.6 | -1.1 | | +1.1 |
| 89 | -501.7 | -504.3 | +0.7 | | +2.6 |
| 4619 | -502.4 | -503.7 | +2.0 | | +1.3 |
| 20 | -502.3 | -504.4 | +2.5 | | +2.1 |
| 4677 | -502.7 | -503.7 | +0.0 | | +1.0 |
| 78 | -502.3 | -503.0 | +0.0 | | +0.7 |
| 4690 | -501.3 | -501.6 | +0.9 | | +0.3 |
| 91 | -502.5 | -503.4 | -2.2 | | +0.9 |
| 4697 | -500.6 | -503.0 | -2.1 | | +2.8 |
| 98 | -501.9 | -502.6 | -2.3 | | +0.7 |
| 4931 | -503.0 | -502.3 | +3.2 | | +0.1 |
| 32 | -501.0 | -503.2 | +1.9 | | +2.2 |
| 4973 | -501.3 | -499.4 | +0.5 | | -1.9 |
| 74 | -501.9 | -499.3 | +0.1 | | -2.6 |
| 89 | -502.8 | -505.9 | -1.7 | | +3.1 |
| 5275 | -499.4 | -500.5 | -1.9 | |
| 16 | -500.3 | -501.5 | -1.9 | | +1.2 |
| 5249 | -501.2 | -502.1 | -0.8 | | +0.9 |
| 50 | -501.1 | -503.2 | +0.2 | | +2.1 |
| 5301 | -503.4 | -504.7 | +0.1 | | +1.3 |
| 02 | -503.6 | -503.3 | +0.0 | | -0.3 |
| 5502 | -500.5 | -501.0 | -0.5 | | +0.5 |
| 03 | -500.6 | -502.3 | +1.3 | | +1.7 |
| | 39.3 | 61.0 | -1.1 | |

| Plate | a | e | d+d | a-g | 10-12 |
|-------|--------|--------|------|------|------------|
| 5517 | -499.6 | -501.9 | +2.9 | -2.3 | 48.4. hloc |
| 18 | -500.9 | -504.5 | -2.3 | +5.6 | |
| 5595 | -499.8 | -500.4 | +1.4 | +0.6 | |
| 96 | -501.1 | -500.9 | -1.3 | -0.2 | |
| 5600 | -502.0 | -501.7 | +3.1 | -0.3 | |
| 01 | -499.5 | -500.7 | +0.9 | +1.2 | |
| 5604 | -499.0 | -500.0 | -0.5 | +1.0 | |
| 05 | -500.9 | -502.4 | +2.6 | +1.5 | |
| 5827 | -500.1 | -502.3 | +1.4 | +2.2 | |
| 5963 | -499.9 | -501.9 | -2.8 | +2.0 | |
| 6130 | -502.0 | -504.9 | +1.7 | +2.9 | |
| 31 | -504.8 | -505.7 | +1.0 | +0.9 | |
| 36 | -501.2 | -506.0 | -3.1 | +7.8 | |
| 6138 | -498.6 | -499.9 | -1.9 | +1.3 | |
| 39 | -499.7 | -501.3 | -0.6 | +1.6 | |
| 6520 | -501.6 | -503.4 | +2.9 | +1.8 | |
| 21 | -500.3 | -502.2 | -0.4 | +1.9 | |
| 6546 | -501.1 | -502.6 | +1.4 | +1.5 | |
| 47 | -500.7 | -502.2 | +1.3 | +1.5 | |
| 6577 | -502.7 | -503.3 | -1.4 | +0.6 | |
| 78 | -501.4 | -502.0 | +1.5 | +0.6 | |
| | 16.9 | 50.2 | +7.7 | 8.4 | |

| Date | a | e | b+d | a-e |
|------|--------|--------|------|------|
| 6597 | -501.4 | -498.1 | -1.6 | -3.3 |
| 98 | -501.2 | -497.8 | -1.2 | +3.6 |
| | -501.6 | -498.0 | | |
| 6600 | -501.1 | -500.0 | -0.1 | -1.1 |
| | | | | |
| 6609 | -500.3 | -500.6 | -1.5 | +0.3 |
| 10 | -501.0 | -504.4 | -3.4 | +3.4 |
| | | | | |
| 6611 | -502.5 | -500.5 | -1.8 | -2.0 |
| 12 | -502.8 | -500.3 | -3.8 | -2.5 |
| | | | | |
| 6747 | -501.6 | -503.0 | -0.6 | +1.4 |
| 48 | -500.0 | -502.4 | +0.4 | +1.2 |
| | | | | |
| 6771 | -503.0 | -499.0 | +0.2 | -4.0 |
| 72 | -502.7 | -501.3 | -1.8 | -1.4 |
| | | | | |
| 6778 | -500.7 | -503.2 | +0.1 | +2.5 |
| 79 | -501.3 | -503.3 | +1.5 | +2.0 |
| | | | | |
| 6780 | -501.5 | -503.2 | +1.4 | +1.7 |
| 81 | -501.4 | -502.7 | -0.2 | +1.3 |
| | | | | |
| 6800 | -500.4 | -504.4 | -0.7 | +4.0 |
| 01 | -501.0 | -503.3 | -0.6 | +2.3 |
| | | | | |
| 6827 | -500.2 | -503.5 | +0.7 | +3.3 |
| | | | | |
| 7013 | -504.4 | -504.9 | +1.2 | -0.3 |
| | | | | |
| 7053 | -499.0 | -499.9 | +0.3 | +0.9 |
| 54 | -498.4 | -498.1 | +0.3 | -0.3 |
| | 26.3 | 34.1 | -1.2 | |

| Plate | α | δ | $b+d$ | $a-a$ |
|-------|----------|----------|-------|-------|
| 7056 | -498.8 | -500.1 | -2.3 | +1.3 |
| 57 | -500.1 | -499.1 | -0.5 | -1.0 |
| 7065 | -502.8 | -503.4 | -0.5 | +0.6 |
| 66 | -500.9 | -500.3 | -0.3 | -0.6 |
| 7100 | -499.0 | -500.5 | -1.9 | +1.3 |
| 01 | -499.5 | -500.3 | -2.3 | +0.8 |
| 7109 | -500.4 | -498.6 | -2.1 | -1.8 |
| 7513 | -503.3 | -503.4 | -1.8 | +0.1 |
| 14 | -503.6 | -503.4 | -3.2 | -0.2 |
| 7548 | -502.6 | -504.9 | -1.2 | +2.3 |
| 49 | -502.4 | -505.5 | -3.2 | +3.1 |
| 7571 | -503.3 | -502.5 | -1.9 | -0.8 |
| 77 | -502.3 | -503.1 | -2.6 | +0.8 |
| 7665 | -501.1 | -500.3 | +0.4 | -0.8 |
| 66 | -501.3 | -500.1 | -0.7 | -1.2 |
| 7677 | -499.9 | -502.6 | +1.0 | +2.7 |
| 78 | -500.5 | -503.5 | +2.2 | +3.0 |
| 7692 | 499.9 | -502.5 | +1.9 | +2.6 |
| 93 | -499.1 | -501.1 | +0.3 | +1.9 |
| 7965 | -499.4 | -499.7 | -2.2 | +0.3 |
| 66 | -500.1 | -499.4 | -1.6 | -0.7 |
| 7990 | -498.7 | -501.0 | -0.0 | +2.3 |
| | 19.1 | 35.3 | -22.5 | - |

Plate 1 a b+d o-c

| Plate | a | e | b+d | a-e |
|-------|--------|--------|-------|------|
| 8013 | -499.3 | -501.2 | +2.4 | +1.7 |
| 14 | -499.3 | -501.5 | +1.3 | +2.0 |
| 8052 | -498.7 | -501.6 | +1.4 | +2.9 |
| 8110 | -502.0 | -504.3 | -3.5 | +2.3 |
| 8288 | -500.7 | -503.6 | -0.8 | +2.9 |
| 89 | -499.5 | -501.3 | +1.7 | +1.8 |
| 8299 | -500.9 | -500.6 | -1.8 | -0.3 |
| 8300 | -502.1 | -501.4 | -2.9 | -0.7 |
| 8306 | -499.8 | -500.6 | +2.5 | +0.8 |
| 07 | -499.8 | -501.9 | +0.8 | +2.1 |
| 8316 | -501.7 | -500.5 | +2.3 | -1.2 |
| 17 | -503.0 | -502.4 | +1.2 | -0.6 |
| 8346 | -500.5 | -502.9 | -2.7 | +2.4 |
| 47 | -500.4 | -504.5 | -1.5 | +4.1 |
| -8362 | -499.3 | -503.1 | +1.5 | |
| 8635 | -500.7 | -506.2 | -5.0 | +5.5 |
| 36 | -500.1 | -504.3 | -0.3 | +4.2 |
| 8639 | 501.6 | | | |
| 40 | -500.6 | -500.3 | +0.0 | -1.3 |
| | -501.3 | -502.0 | +0.1 | +0.7 |
| 8649 | -500.8 | -502.8 | +1.1 | +2.0 |
| 50 | -499.4 | -502.2 | +2.7 | +2.8 |
| 8690 | -500.2 | -502.4 | -0.5 | +2.2 |
| | 72.27 | 98.5 | -15.2 | |

Plate 1 a
b+d
c

| Plate | a | α | $\delta+d$ | $\alpha-c$ |
|-------|---------|----------|------------|------------|
| 8728 | -50 1.6 | -50 1.7 | +1.0 | +0.1 |
| 29 | -50 2.3 | -50 2.9 | +1.3 | +0.6 |
| 8731 | -49 9.9 | -50 1.7 | +1.8 | +1.8 |
| 32 | -49 9.9 | -50 4.0 | +1.9 | +1.1 |
| 8890 | -49 4.9 | -49 9.6 | +4.3 | +3.7 |
| 91 | -50 0.8 | -50 2.9 | +4.0 | +10.1 |
| 8904 | -50 1.8 | -50 2.9 | -1.6 | +1.1 |
| 05 | -50 1.3 | -50 2.0 | +0.6 | +0.7 |
| 9079 | -50 0.1 | -49 9.4 | -3.4 | -0.7 |
| 80 | -50 1.6 | -50 4.0 | +1.5 | +2.9 |
| 9086 | -49 8.8 | -50 1.3 | -2.7 | +2.5 |
| 87 | -50 0.2 | -50 0.5 | -1.5 | +0.3 |
| 9193 | -50 0.7 | -49 9.2 | -1.0 | -1.5 |
| 9194 | -49 9.5 | -50 1.8 | +0.8 | +2.3 |
| 95 | -50 0.3 | -50 1.0 | +0.1 | +0.7 |
| 9249 | -50 1.2 | -49 9.8 | -3.0 | -1 |
| 50 | -50 3.1 | -50 1.1 | -2.1 | -1.4 |
| 9263 | -50 2.0 | -50 2.5 | -0.5 | -2.0 |
| 64 | -50 1.5 | -50 2.9 | -0.0 | +0.5 |
| 9286 | -50 0.7 | -50 2.0 | -0.5 | +1.8 |
| 9377 | -50 0.2 | -50 2.5 | +3.3 | +1.3 |
| 78 | -49 9.3 | -50 3.6 | +1.1 | +2.3 |
| | 16.0 | 36.8 | -2.9 | +4.3 |

Photo | a | e | b+d. a e

| Plate | a | e | b+d | a-e |
|-------|--------|--------|-------|------|
| 9388 | -501.4 | -499.5 | -1.9 | -1.9 |
| 89 | -500.9 | -501.3 | -0.8 | +0.4 |
| 9413 | -500.5 | -504.4 | -1.0 | +3.9 |
| 14 | -501.4 | -503.7 | +0.3 | +2.2 |
| 9421 | -501.7 | -501.3 | +1.1 | -0.4 |
| 22 | -502.0 | -499.3 | +0.7 | -2.7 |
| 9460 | -500.3 | -501.8 | +0.8 | +1.5 |
| 61 | -499.7 | -502.1 | -0.2 | +2.4 |
| 9491 | -502.1 | -500.7 | +3.0 | -1.4 |
| 92 | -502.0 | -500.9 | +1.6 | -1.1 |
| 9495 | -502.6 | -502.6 | +2.5 | 0.0 |
| 96 | -502.9 | -501.2 | +1.1 | -1.7 |
| 9732 | -497.0 | -500.4 | +2.3 | +2.0 |
| 33 | -498.7 | -498.2 | +1.8 | -0.5 |
| 9754 | -502.2 | -501.7 | +1.4 | -0.5 |
| 9782 | -501.4 | -503.7 | -1.4 | +2.3 |
| 83 | -501.3 | -503.2 | -2.1 | +1.9 |
| 9785 | -502.0 | -504.8 | +6.0 | +2.8 |
| 86 | -501.7 | -506.1 | +7.0 | +4.4 |
| 9817 | -503.8 | -504.3 | -1.0 | +0.5 |
| 18 | -504.0 | -504.9 | +0.4 | +0.8 |
| | 29.7 | 46.1 | +21.6 | |

Photo 1 a b c
b+d a-e

| Plate | a | e | b+d | a-e |
|-------|--------|--------|-------|------|
| 9859 | -502.9 | -504.8 | -1.2 | +1.9 |
| 9860 | -502.4 | -505.2 | -2.6 | +2.8 |
| 9997 | -502.3 | -501.5 | +3.8 | -0.8 |
| 99 | -502.6 | -499.4 | +3.7 | -3.2 |
| 10030 | -500.2 | -502.8 | -2.4 | +2.6 |
| 31 | -501.2 | -501.6 | -1.0 | +0.4 |
| 10072 | -503.2 | -504.9 | -0.4 | +1.7 |
| 73 | -505.8 | -505.5 | +3.0 | -0.3 |
| 10103 | -501.1 | -503.2 | -9.0 | +2.3 |
| 11227 | -500.9 | -501.8 | +5.0 | +0.9 |
| 28 | -502.2 | -502.3 | +1.7 | +0.1 |
| 10231 | -502.9 | -504.7 | +3.5 | +1.8 |
| 32 | -501.9 | -503.1 | +0.5 | +1.2 |
| 10263 | -501.2 | -504.8 | +0.9 | +3.6 |
| 64 | -498.7 | -504.4 | -1.4 | +5.7 |
| 10385 | -499.4 | -502.2 | -0.4 | +2.8 |
| 86 | -500.2 | -502.7 | +0.9 | +2.5 |
| 10532 | -500.8 | -501.7 | +0.5 | +0.9 |
| 33 | -501.3 | -500.4 | +0.0 | -0.9 |
| 10604 | -504.9 | -508.2 | -1.5 | +3.3 |
| 05 | -503.3 | -506.0 | -1.3 | +2.7 |
| | 38.3 | 68.0 | +11.3 | |

Plate
a
e
b+d
a-e

| Plate | a | e | b+d | a-e |
|-------|--------|--------|-------|------|
| 10692 | -502.2 | -503.2 | -1.4 | +1.0 |
| 93 | -501.3 | -503.2 | -3.5 | +1.9 |
| 10701 | -500.4 | -500.3 | -4.1 | -0.1 |
| 02 | -500.8 | -500.7 | -2.3 | -0.1 |
| 10716 | -505.1 | -501.3 | -1.6 | -3.8 |
| 18 | -503.1 | -504.4 | -3.0 | +1.3 |
| 10737 | -500.3 | -496.5 | -0.1 | -3.8 |
| 38 | -499.8 | -501.6 | -0.8 | +1.8 |
| 10743 | -502.1 | -502.0 | +0.3 | -1.9 |
| 46 | -498.3 | -500.1 | -3.7 | +1.8 |
| 48 | -498.8 | -499.7 | +1.7 | +0.9 |
| 10760 | -501.2 | -502.7 | -1.9 | +1.5 |
| 61 | -501.4 | -504.0 | +3.0 | +2.6 |
| 10933 | -501.5 | -503.5 | -2.1 | +2.0 |
| 34 | -507.6 | -502.9 | -3.4 | +1.3 |
| 10998 | -500.8 | -500.4 | +3.5 | -0.4 |
| 99 | -498.8 | -497.3 | +3.8 | -1.5 |
| 11004 | -502.1 | -501.1 | +2.1 | -1.0 |
| 11039 | -501.5 | -502.1 | -1.1 | +0.6 |
| 11160 | -502.8 | -503.5 | -0.9 | +0.7 |
| 11197 | -499.6 | -502.6 | +0.5 | +3.0 |
| 98 | 23.5 | 31.3 | -15.0 | |

Plate No. 1 a b+d. are

| Plate No | a | α | $\delta+d.$ | $\alpha-e$ |
|----------|--------|----------|-------------|------------|
| 11201 | -500.1 | -503.4 | +0.6 | +3.3 |
| 11202 | -500.5 | -503.0 | -1.1 | +2.5 |
| 11208 | -503.6 | -506.0 | +0.2 | +2.4 |
| 11209 | -504.4 | -505.7 | +2.7 | +1.3 |
| 11218 | -501.3 | -501.7 | -0.8 | +0.4 |
| 11219 | -501.2 | -501.7 | -1.6 | +0.5 |
| 11285 | -500.5 | -501.6 | +0.5 | +3.9 |
| 11286 | -499.0 | -501.2 | -1.4 | +2.2 |
| 11301 | -501.3 | -504.0 | +4.2 | +2.7 |
| 11302 | -498.5 | -502.4 | +1.3 | +3.9 |
| 11314 | -501.7 | -501.5 | -0.3 | -0.2 |
| 11315 | -501.0 | -501.1 | -0.9 | +0.1 |
| 11331 | -500.9 | -502.4 | +0.9 | +1.5 |
| 11336 | -501.5 | -502.3 | -0.9 | +0.8 |
| 11337 | -503.0 | -504.5 | +0.5 | +1.5 |
| 11522 | -501.0 | -501.0 | -1.9 | +1.1 |
| 11523 | -502.4 | -502.6 | +0.7 | +0.2 |
| 11542 | -498.4 | -500.4 | +1.6 | +2.0 |
| 11544 | -499.2 | 497.7 | -1.1 | -1.5 |
| 11549 | 501.8 | | | |
| 11550 | -500.6 | -501.3 | +0.7 | -0.5 |
| | -503.6 | -502.9 | +0.8 | -0.7 |
| | 24.96 | 48.4 | +4.7 | |

Plate No. 1 a b+d are

| Plate No | a | l | b+d | a-e |
|----------|---------|---------|--------|------|
| 11580 | -502.8" | -503.0" | -2.5" | +0.2 |
| 81 | -504.2" | -503.7" | -4.0" | -0.8 |
| 11597 | -496.2" | -497.3" | -3.0" | +1.1 |
| 98 | -501.7" | -501.7" | -4.0" | 0.0 |
| 11636 | -503.7" | -505.5" | +1.1" | +1.8 |
| 11708 | -501.5" | -501.8" | +1.6" | +0.3 |
| 09 | -501.7" | -503.1" | +1.5" | +1.4 |
| 11870 | -500.7" | -501.7" | -2.6" | +1.0 |
| 71 | -501.8" | -500.3" | +0.8" | -1.5 |
| 11890 | -503.2" | -501.6" | +0.3" | -1.6 |
| 91 | -502.9" | -503.6" | +0.2" | +0.7 |
| 11909 | -502.7" | -503.0" | -2.9" | +0.3 |
| 10 | -502.6" | -503.7" | -2.1" | +1.1 |
| 11924 | -502.7" | -502.0" | +0.9" | -0.7 |
| 25 | -502.0" | -502.5" | -4.1" | +0.5 |
| 11931 | -499.8" | -503.1" | -3.6" | +3.3 |
| 32 | -503.8" | -503.0" | -2.0" | -0.8 |
| 11998 | -501.1" | -502.5" | -1.4" | - |
| 97 | -498.7" | -501.4" | -0.2" | +2.7 |
| | 33.8" | 48.2" | -26.1" | +1.4 |

-30.4
+6.4

$m = 501.1$ $m = 502.1$

Frame H.A 76, No 7

$$\begin{aligned} \text{Sum } a-e &= -126.1 \\ \text{Mean} &= -0.618 \end{aligned}$$

B+d

+11.0 -9.0
 +7.7 -1.1
 +21.6 -11.2
 +11.3 -22.5
 +4.7 -1.5
 -2.9
 -15.0
 -26.1

+46.3 -84.3

B+d by pages: +6

Page +

22 -12.7 +13.7 22 -6.2 +13.1
 23 -14.5 +10.9 23 -2.0 +23.6
 24 -12.6 +13.7 24 -4.8 +26.2
 25 -14.3 +22.1 25 -2.8 +31.5
 26 -17.3 +6.1 26 -14.9 +42.8
 27 -28.3 +5.8 27 -14.8 +15.6
 28 -19.0 +17.5 28 -4.1 +40.9
 29 -16.3 +21.7 29 -5.6 +30.5
 30 -8.4 +30.0 30 -10.2 +25.1
 31 -21.2 +23.5 31 -5.2 +37.2
 32 -29.9 +14.9 32 -12.6 +20.4
 33 -10.0 +14.7 33 -2.9 +30.3
 34 -32.5 +6.4 34 -5.9 +15.8

-237.0 +200.2

-92.5 +352.5

Mean -0.135

Mean +1.99

a

13.5
 32.5
 39.3
 16.9
 26.3
 19.1
 12.2
 16.0
 29.7
 38.3
 23.5
 24.9
 33.8

326.0

575.8

1.198

502.12

279 plates

| C.C. from final sheets | | | |
|------------------------|-------|-----------|-------|
| Sheet | P. A. | Pos. Rec. | Neg. |
| 1 | 3807 | + 1126 | -383 |
| 2 | 2409 | + 157 | -909 |
| 3 | 1787 | + 749 | -173 |
| 4 | 1936 | + 686 | -276 |
| 5 | 2274 | + 63 | -666 |
| 6 | 1880 | + 725 | 7 |
| 7 | 1972 | + 370 | -293 |
| 8 | 2186 | + 183 | -448 |
| 9 | 1990 | + 375 | -321 |
| 10 | 2348 | + 499 | -214 |
| 11 | 352 | + 91 | -101 |
| | 22956 | +5024 | -3763 |
| Mean | 1838 | | + .46 |

For list & notes for same on plate 2. pos. of Moon

Rules for correcting the Residuals

Multiply the quantities δa , δb by $\frac{1}{\sigma} = 2.5804$

so to reduce them to units of μ in the place.

To support the equations of condition and if

we for $x a + y b = n$

then compute $-x \delta a - y \delta b - 2.5804$

and add this to the old residuals.

Note that δa & δb have been signs changed

-2.5804 does not,

$a-c$ $b+d$ $\frac{p.a. sec.}{curv.}$ distribution of $a-c$ in $p.a.$ sec.
 with $\frac{p.a. sec.}{curv.}$ and $b-c$ signs.

