

ROYAL OBSERVATORY, GREENWICH.

OBSERVATIONS OF AZIMUTH,

WITH THE

ALT AZIMUTH.

1880.

DAY AND HOUR.	No. of Observations.	NAME OF OBJECT.	Position of Object from Pole of Observation.	Seconds of Horizontal Transit over Vertical Wires.						Correction for Parallax & Refraction.	Concluded Clock Time of Horizontal Transit over Vertical Wire observed.		Clock Slow.	Sidereal Time.	Readings of Microscopes of Horizontal Circle.				
				First.	Second.	Third.	Fourth.	Fifth.	Sixth.		Clock Time.				a	b	c	d	
											h	m							s
Jan. 11	h	c 1	2 L L L L	Left	274	261	207	..	39.5	43.0	..	5. 52. 32.16	17.67	5. 52. 49.03	4'63.2	4'96.2	4'66.6	4'74.4	
11	c	2	3 L L L L	Right	59	59	57	18.0	217	25.3	..	6. 3. 15.23	17.66	6. 3. 32.89	8'80.3	7'18.2	7'43.0	7'00.4	
12	c	3	Collimator	Right	..	..	..	..	..	..	..	..	..	..	5'85.0	4'04.2	4'19.0	3'87.9	
12	c	4	Collimator	Left	..	..	..	..	..	..	..	..	..	..	9'17.5	5'10.0	5'56.4	5'07.7	
Jan. 2	10	w	5 Collimator	Left	..	..	..	..	..	..	..	..	..	..	5'16.1	5'52.5	5'58.2	5'08.2	
10	w	6	Collimator	Right	..	..	..	..	..	..	..	..	..	..	3'67.8	3'88.4	4'07.9	3'77.9	
11	w	7	2 Orionis	Left	19.1	18.7	35.7	0.2	31	6.0	+0.13	5. 24. 57.06	17.05	5. 25. 15.01	1'267	1'440	1'318	1'220	
11	w	8	2 Orionis	Right	38.6	41.2	44.0	48.0	51.3	0.46	+0.13	5. 33. 45.55	17.05	5. 34. 3.60	4'683	5'044	4'834	4'571	
11	w	9	2 Hydrie.	Left	46.7	50.2	54.1	58.9	2.6	3.8	+0.13	5. 43. 56.68	17.04	5. 44. 15.58	1'287	1'501	1'348	1'238	
11	w	10	2 Hydrie.	Right	1.5	5.1	9.0	13.7	10.2	0.18	+0.13	5. 52. 11.41	17.04	5. 52. 48.45	6'37.4	6'535	6'711	6'490	
11	w	11	2 L L L L	Left	49.8	53.5	57.5	2.8	6.8	10.6	+0.13	6. 12. 0.26	17.03	6. 12. 17.29	6'88.4	7'25.9	7'32.7	7'13.2	
11	w	12	2 L L L L	Right	3.3	6.8	10.7	16.3	20.0	2.4	+0.13	6. 25. 13.65	17.03	6. 25. 35.67	8'81.3	9'30.9	1'20.8	0'83.7	
Jan. 3	11	h	15 2 Orionis	Right	44.3	47.3	50.3	54.6	57.7	0.7	+0.09	6. 15. 59.51	16.60	6. 16. 9.21	3'31.9	3'740	3'578	3'447	
11	h	14	2 Orionis	Left	20.6	28.3	31.3	36.2	39.3	5.6	+0.09	6. 25. 33.31	16.60	6. 25. 49.21	3'67.2	4'116	3'821	3'606	
11	h	15	2 Androm.	Right	49.8	44.9	49.4	56.1	0.5	5.7	+0.09	6. 36. 52.94	16.59	6. 37. 9.53	3'35.6	3'884	3'850	3'351	
11	h	16	2 Androm.	Left	13.9	18.2	22.6	28.9	33.2	37.6	+0.09	6. 46. 25.82	16.59	6. 46. 42.41	4'701	5'062	5'131	4'693	
12	h	17	Collimator	Right	..	..	..	..	..	..	..	..	..	..	6'55.9	5'85.4	5'48.6	5'38.7	
12	h	18	Collimator	Left	..	..	..	..	..	..	..	..	..	..	5'14.0	5'307	5'491	4'97.5	
17	h	19	2 L L L L	Right	8.1	10.8	14.2	18.1	21.5	24.6	+0.09	12. 13. 16.37	16.47	12. 13. 32.84	2'37.3	3'121	3'301	2'56.2	
17	h	20	2 L L L L	Left	16.5	19.3	22.5	26.8	30.2	33.6	+0.09	12. 27. 24.77	16.47	12. 27. 41.74	0'51.6	0'70.9	0'801	0'49.8	
Jan. 4	20	ad	21 2 L L L L	Right	10.9	14.2	17.7	22.5	25.5	28.4	+0.03	14. 31. 19.91	15.86	14. 31. 35.77	1'690	2'104	1'853	1'566	
20	ad	22	2 L L L L	Left	36.3	29.5	33.3	37.7	41.0	44.4	+0.03	14. 38. 35.31	15.85	14. 38. 51.16	3'52.2	3'866	3'933	3'635	
20	ad	23	2 Serpentes	Left	7.1	10.2	13.3	17.7	20.9	24.2	+0.03	14. 46. 15.51	15.85	14. 46. 31.36	4'47.8	5'141	4'674	3'881	
20	ad	24	2 Serpentes	Left	14.4	17.8	21.0	25.2	28.2	31.3	+0.03	14. 50. 23.08	15.85	14. 50. 38.93	3'80.3	3'356	3'523	2'881	
Jan. 15	5	gr	25 1 L L L L	Left	3.8	7.1	10.2	14.7	18.3	21.1	+0.03	0. 24. 12.56	9.95	0. 24. 22.51	1'000	1'310	1'270	1'053	
15	gr	26	1 L L L L	Right	32.3	35.5	38.8	43.7	46.6	49.8	+0.03	0. 43. 41.15	9.94	0. 43. 51.09	4'43.5	5'10.9	5'081	5'243	
Jan. 17	5	h	27 1 L L L L	Left	44.1	46.0	50.3	54.8	58.1	1.0	+0.09	1. 3. 52.62	8.77	1. 4. 1.39	0'55.6	0'59.9	0'78.2	0'36.9	
17	5	h	28 1 L L L L	Left	48.0	51.2	54.5	58.9	1.5	4.8	+0.09	1. 10. 56.49	8.76	1. 11. 1.25	0'97.5	1'241	1'311	0'96.9	
Jan. 18	5	ad	29 1 L L L L	Right	45.1	48.3	51.9	56.5	59.2	2.6	+0.03	0. 20. 53.93	7.97	0. 21. 1.30	6'55.7	6'991	6'984	6'565	
18	5	ad	30 1 L L L L	Left	33.6	36.6	39.7	43.8	47.9	10.3	+0.03	0. 30. 2.30	7.97	0. 30. 10.17	5'63.8	5'981	5'933	5'723	
Jan. 19	5	h	31 1 L L L L	Right	42.6	46.1	49.5	54.0	57.9	1.2	+0.03	0. 49. 52.00	7.62	0. 49. 59.62	4'62.9	4'880	5'010	4'541	
5	h	32	1 L L L L	Left	59.5	42.2	45.8	50.1	54.1	1.0	+0.03	1. 18. 48.13	7.62	1. 18. 55.75	3'52.3	3'400	3'513	3'166	
6	h	33	3 Piscium	Left	44.0	48.1	51.1	55.1	58.6	1.2	+0.03	1. 30. 53.92	7.61	1. 31. 0.21	2'97.2	3'589	3'691	3'204	
6	h	34	3 Piscium	Right	5.3	5.8	6.1	6.3	6.7	1.1	+0.03	1. 44. 3.01	7.61	1. 44. 10.02	0'700	0'944	0'940	0'920	
6	h	35	3 Urs. Maj.	Left	18.0	22.5	27.3	33.8	38.4	43.1	+0.03	2. 3. 30.61	7.60	2. 3. 38.21	1'070	1'441	1'396	0'995	
6	h	36	3 Urs. Maj.	Right	47.2	51.7	56.4	2.9	7.5	12.3	+0.03	2. 11. 59.70	7.60	2. 11. 7.36	3'85.6	4'017	4'065	3'835	
7	h	37	Collimator	Right	..	..	..	..	..	..	..	..	..	..	5'10.3	4'018	4'101	3'835	
7	h	38	Collimator	Left	..	..	..	..	..	..	..	..	..	..	7'10.4	5'446	5'544	5'080	
Jan. 20	6	T	39 1 L L L L	Left	5.0	8.2	12.2	16.0	20.0	24.1	+0.25	1. 34. 14.71	7.01	1. 34. 21.72	1'58.3	2'036	2'156	1'833	
6	T	40	1 L L L L	Right	2.5	5.5	9.2	13.1	17.0	21.1	+0.25	1. 43. 11.98	7.01	1. 43. 18.99	4'78.7	5'037	5'124	4'658	
6	T	41	Collimator	Left	..	..	..	..	..	..	..	..	..	..	4'98.9	5'286	5'381	4'900	
6	T	42	Collimator	Right	..	..	..	..	..	..	..	..	..	..	3'691	3'845	3'997	3'720	

The observations of transits are usually made by the galvanic or chronographic method, the wires employed being s, t, u, v, w, x , taken in the order of transit. Face Right, or s, w, u, t, v ; Face Left, the times are then referred immediately to the Sidereal Standard. Whenever the observations are made by eye and ear, the wires employed are q, r, s, t, u, v ; Face Right, or s, t, u, v, q, r ; Face Left, the times then recorded are those of another clock, Graham 1.

For Tabular Equivalents of Microscopes, it is assumed that s^1 corresponds to t^2 , or t^2 of a , to t^2 of b , to t^2 of c , and to t^2 of d .

Correction for Runs of Microscopes for 100", -0.0074 ; from January 15, -0.00728 .

1. Very cloudy.

2. Very faint; cloudy.

13. Diffused.

28. Diffused and unsteady; cloudy.

19, 20. Thin clouds passing.

43, 44. Very faint.

All the microscopes were read on the negative side of the micrometer-zero.

Concluded Reading of Horizontal Circle.	Approx. Zenith Distance.	Correction for Refraction.	Readings of Levels parallel to the Axis of the Vertical Circle.										Concluded Level Inclination.	Correction for Level.	Corrected Reading of Horizontal Circle.				Concluded Azimuth, measuring from S. to W. or N. E.	No. of Reference.				
			a	p	p	t	t	h	l	m	n	v			s	t	u	v						
117. 42. 58.67	67. 43	+ 5.32	42.3	198.5	30.5	194.0	53.8	225.0	50.2	239.6	4.24	+ 3.55	117. 43. 7.34	286. 47. 13.02	1									
89. 59. 33.36	66. 13	+ 5.28	46.2	210.5	40.0	207.5	66.5	237.0	63.0	251.5	17.21	+ 3.12	109. 39. 50.10	289. 3. 37.78	2									
191. 38. 4.76	90. 1	+ 4.92	..	..	..	..	..	..	..	..	..	0.00	191. 37. 59.84	180. 42. 1.52	3									
11. 37. 53.93	90. 1	+ 4.92	..	..	..	..	..	..	..	..	..	0.00	11. 37. 58.84	180. 41. 21.52	4									
Jan. 11	h	3	Collimator	Left	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..				
11	h	4	Collimator	Right	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..				
11	h	5	2 Orionis	Left	11. 37. 53.93	90. 1	+ 4.92	..	..	..	..	..	..	..	..	..	..	..	..	..				
11	h	6	2 Orionis	Right	191. 37. 59.84	90. 1	+ 4.92	..	..	..	..	..	..	..	..	..	..	..	..	..				
11	h	7	2 Hydrie.	Left	19.1	18.7	35.7	0.2	31	6.0	+0.13	5. 24. 57.06	17.05	5. 25. 15.01	1'267	1'440	1'318	1'220	5					
11	h	8	2 Hydrie.	Right	38.6	41.2	44.0	48.0	51.3	0.46	+0.13	5. 33. 45.55	17.05	5. 34. 3.60	4'683	5'044	4'834	4'571	6					
11	h	9	2 L L L L	Left	46.7	50.2	54.1	58.9	2.6	3.8	+0.13	5. 43. 56.68	17.04	5. 44. 15.58	1'287	1'501	1'348	1'238	7					
11	h	10	2 L L L L	Right	1.5	5.1	9.0	13.7	10.2	0.18	+0.13	5. 52. 11.41	17.04	5. 52. 48.45	6'37.4	6'535	6'711	6'490	8					
11	h	11	2 L L L L	Left	49.8	53.5	57.5	2.8	6.8	10.6	+0.13	6. 12. 0.26	17.03	6. 12. 17.29	6'88.4	7'25.9	7'32.7	7'13.2	9					

OBSERVATIONS OF AZIMUTH, WITH THE ALTAZIMUTH.

DAY AND HOUR	OBSERV. No. or Reference	NAME OF OBJ.	POSITION or Direction of Vertical Circle	SIZES OF HORIZONTAL TRANSIT over VERTICAL WIRE						CORRECTION for Refraction or Aberration	CLOCKED Clock Time of Horizontal Transit over Vertical Wire in h. m. s.	CLOCK Slow	Sideral Time	Readings of Microscopes of Horizontal Circle									
				FRACTIONAL SECOND	TENTH SECOND	HUNDREDTH SECOND	FIFTH MINUTE	TENTH MINUTE	HUNDREDTH MINUTE					a	b	c	d						
																		FRACTIONAL SECOND	TENTH SECOND	HUNDREDTH SECOND	FIFTH MINUTE	TENTH MINUTE	HUNDREDTH MINUTE
Jan. 22.	5 AD	1 D L	Right	53.8	58.1	2.8	9.0	13.8	18.2	+ 0.03	0. 48. 5	6.08	0. 48. 12.07	6.562	1.096	0.992	0.670						
	5 AD	1 Collimator	Right	..	..	..	..	..	..	..	..	..	..	3.856	.940	.922	38.95						
	5 AD	3 Collimator	Right	..	..	..	..	..	..	..	..	..	..	5.23	.587	.571	51.71						
	5 AD	4 D L	Left	4.0	4.8	9.7	25.3	..	23.0	+ 0.03	1.34. 10.75	6.08	1.34. 16.83	1.780	1.990	1.931	1.600						
	6 AD	5 Aldebaran	Left	21.0	24.6	28.1	33.3	37.2	40.8	+ 0.03	1.44. 30.38	6.07	1.44. 36.36	5.900	5.912	5.937	5.616						
	6 AD	6 Aldebaran	Right	27.4	31.0	34.8	39.3	43.6	47.3	+ 0.03	1.49. 37.40	6.07	1.49. 43.47	3.626	3.636	3.660	3.741						
Jan. 25.	5 T	7 D L	Right	8.1	12.5	17.1	21.9	27.4	31.6	+ 0.23	1. 9. 20.16	4.40	1. 9. 24.56	3.917	3.952	3.933	3.154						
	5 T	8 D L	Left	17.8	22.0	26.2	31.3	36.0	41.2	+ 0.23	1.17. 29.63	4.40	1.17. 34.63	3.383	3.764	3.681	3.744						
	6 T	9 Pscium	Right	26.0	28.8	31.9	36.0	39.1	42.1	+ 0.23	1.45. 34.21	4.39	1.45. 38.60	0.686	1.044	0.993	0.551						
	6 T	10 Pscium	Left	16.2	19.5	22.1	26.4	29.6	33.5	+ 0.23	1.51. 24.38	4.39	1.51. 28.99	0.285	0.513	0.510	0.74						
Jan. 26.	5 AD	11 Collimator	Right	..	..	..	..	..	..	..	..	..	..	3.749	3.970	4.112	3.813						
	5 AD	12 Collimator	Left	..	..	..	..	..	..	..	..	..	..	5.011	5.530	5.921	4.989						
	5 AD	13 Aldebaran	Left	20.6	23.4	26.2	30.4	34.8	39.8	+ 0.03	1.37. 36.71	3.90	1.37. 40.65	3.603	3.616	3.640	3.743						
	5 AD	14 Aldebaran	Right	25.5	14.3	18.1	23.3	27.9	32.8	+ 0.03	1.37. 20.73	3.90	1.34. 24.63	3.610	3.706	3.891	3.615						
	5 AD	15 Rigel	Left	35.9	42.8	46.5	51.5	55.0	58.5	+ 0.03	1.47. 49.91	3.90	1.47. 52.91	2.116	2.330	2.333	2.088						
	5 AD	16 Rigel	Right	51.1	54.4	58.0	26.6	6.8	9.8	+ 0.03	1.53. 0.31	3.90	1.53. 4.21	2.066	2.428	1.368	1.466						
	6 AD	17 D L	Right	39.9	49.7	54.4	50.5	54.5	58.0	+ 0.03	2. 3. 47.45	3.90	2. 15. 51.33	3.123	3.581	4.750	4.231						
	6 AD	18 D L	Left	51.3	55.7	59.8	5.8	10.3	14.2	+ 0.03	2.12. 2.86	3.89	2.12. 6.75	3.400	3.474	3.444	3.186						
Jan. 27.	5 HF	19 Collimator	Right	..	..	..	..	..	..	..	..	..	..	3.763	3.919	4.041	3.777						
	5 HF	20 Collimator	Left	..	..	..	..	..	..	..	..	..	..	5.000	5.520	5.909	4.956						
	5 HF	21 a Lyre ..	Right	34.5	38.6	43.6	50.4	55.1	59.6	+ 0.09	2.47. 47.06	3.50	2.27. 50.56	3.680	3.149	3.247	3.460						
	6 HF	22 a Lyre ..	Left	4.7	9.7	19.4	20.2	25.1	29.5	+ 0.09	2.38. 17.21	3.50											

The observations of transits are usually made by the galvanic or chronographic method, the wires employed being *s, t, u, v, w, x*, taken in the order of transit, Face Right, or *x, w, v, u, t, s*, Face Left; the times are then referred immediately to the Sidereal Standard. Whenever the observations are made by eye and ear, the wires employed are *r, s, x, y, z*, Face Right, or *z, y, x, s, r*, Face Left; the times then recorded are those of another clock, Graham 1.

For Tabular Equivalents of Microscopes, it is assumed that $5'$ corresponds to $7^{*}7$ of a , to $7^{*}6$ of b , to $7^{*}8$ of c , and to $7^{*}9$ of d .

Correction for Runs of Microscopes for 100th, -0th.

• **Claude**

29. The division under microscope c being illegible, the reading 11° 123 has been supplied by comparison with the readings for Aldebaran Right and Right on January 26, a Lyra Left on January 27, and a Hydor Right on January 30.

38. Very unsteady,

AT THE ROYAL OBSERVATORY, GREENWICH, IN THE YEAR 1880

Quintid. and Horizontal Circle.	Approx. Zenith Distance.	Correction for Collima- tion.	Readings of Levels parallel to the Axis of the Vertical Circle.										Con- densation Level tion.	Correction for Level.	Corrected Reading of Horizontal Circle.	Concluded Azimuth, measured from S. to W. N. and E.			No. of Re- ference.
			<i>a</i>	<i>f</i>	<i>g</i>	<i>h</i>	<i>i</i>	<i>k</i>	<i>l</i>	<i>m</i>	<i>o</i>	<i>p</i>				<i>q</i>			
			"	"	"	"	"	"	"	"	"	"				"	"	"	
291. 15. 32.52	40. 49	- 4' 58"	45.8	228.0	30.4	223.6	55.9	256.2	46.9	276.5	20.41	+ 5.22			292. 15. 31.74	180. 42. 32.06			1
291. 38. 49.8	40. 49	- 1' 00"	..	..	..	..	..	..	..	..	..	..			191. 38. 49.2	280. 42. 07.2			
11. 37. 56.58	40. 49	- 1' 00"	..	..	..	..	..	..	..	..	..	..			11. 38. 11. 45	180. 42. 14.5			
121. 56. 43.96	40. 49	- 1' 47.1	30.9	211.0	15.1	206.3	38.0	235.3	30.0	256.0	2.83	+ 12.19			121. 51. 74.6	291. 55. 77.8			
135. 47. 12.13	40. 49	- 6.17	3.5	214.3	19.3	210.4	41.8	229.1	34.0	259.1	6.56	+ 6.92			135. 47. 12.13	280. 42. 07.2			
314. 7. 12.28	47. 17	- 6.23	48.0	228.1	33.0	224.0	57.9	254.2	48.8	273.8	20.48	+ 6.23			314. 7. 12.28	303. 11. 12.60			
26. 7. 43.46	72. 58	- 4.79	46.7	252.3	18.8	252.9	53.5	269.2	42.0	283.2	21.90	+ 2.35			26. 7. 41.02	256. 11. 49.88			
71. 48. 43.70	71. 48	- 4.74	19.9	267.3	23.8	268.1	50.7	282.2	11.0	251.1	- 77.74	- 3.73			71. 48. 43.70	256. 11. 50.64			
160. 30. 50.07	72. 58	- 4.79	46.7	252.3	18.8	252.9	53.5	269.2	42.0	283.2	21.90	+ 2.35			160. 30. 50.07	256. 11. 49.88			
196. 30. 15.23	46. 42	+ 6.29	43.5	228.9	27.0	224.2	50.0	258.4	39.6	276.0	18.83	- 1.43			196. 30. 15.19	5. 34. 26.05			
191. 58. 1.73	90. 1	- 4.58	..	..	..	..	..	..	..	..	..	..			191. 57. 57.15	180. 42. 1.67			
101. 57. 51.60	90. 1	- 4.58	..	..	..	..	..	..	..	..	..	..			101. 57. 51.60	180. 42. 07.6			
130. 52. 49.60	48. 53	- 6.08	52.5	238.0	34.9	233.0	60.9	267.0	58.0	288.4	28.10	+ 12.19			130. 52. 53.01	296. 56. 57.53			
132. 8. 1.67	132. 8	+ 6.14	25.9	211.6	8.8	206.2	30.9	236.8	21.9	258.9	0.31	+ 12.59			132. 8. 2.20	290. 11. 24.92			
138. 31. 25.19	73. 38	+ 4.77	28.7	214.0	11.8	209.3	34.3	236.6	25.1	265.1	30.4	+ 3.29			138. 31. 25.19	307. 35. 37.77			
210. 41. 25.49	75. 1	- 4.79	48.0	228.0	33.0	224.0	57.9	254.2	48.8	273.8	20.48	+ 6.23			210. 41. 25.49	256. 11. 49.88			
269. 27. 50.49	75. 15	- 4.74	46.9	252.4	30.0	227.1	55.1	269.0	44.9	281.1	22.22	+ 2.35			269. 27. 50.49	256. 11. 50.64			
269. 27. 50.49	74. 94	- 2.4	2.76	212.2	20.62	4.6	212.4	24.9	230.3	15.5	252.6	- 54.4	+ 5.63		269. 27. 58.33	258. 2. 2.83			
191. 38. 0.34	90. 1	- 4.58	..	..	..	..	..	..	..	..	..	..			191. 37. 55.76	180. 42. 07.8			
101. 57. 50.33	90. 1	- 4.58	..	..	..	..	..	..	..	..	..	..			101. 57. 50.33	180. 41. 59.43			
145. 51. 57.89	75. 10	- 4.74	32.4	216.2	16.2	211.9	37.2	239.2	28.3	261.0	5.30	- 2.37			145. 51. 56.78	314. 55. 55.30			
327. 37. 15.74	76. 18	+ 4.71	51.2	235.0	34.6	230.0	57.9	260.0	48.8	281.1	24.83	- 2.59			327. 37. 15.74	136. 41. 22.38			
12. 31. 48.06	40. 10	- 6.05	43.5	227.2	27.3	222.7	49.1	251.1	40.3	272.7	19.74	+ 2.21			12. 31. 48.22	25. 16. 49.74			
126. 46. 26.06	40. 10	- 6.05	43.5	227.2	27.3	222.7	49.1	251.1	40.3	272.7	19.74	+ 2.21			126. 46. 26.06	25. 16. 49.74			
95. 30. 27.03	73. 55	+ 4.72	30.3	203.2	3.1	197.9	21.5	232.2	12.7	244.3	9.74	+ 1.55			95. 30. 33.00	264. 34. 37.53			
95. 30. 27.03	73. 50	+ 4.73	..	..	..	..	..	..	..	..	..	..			95. 30. 33.05	264. 34. 37.57			
279. 32. 53.17	74. 45	- 4.80	48.5	231.3	31.7	225.9	52.4	253.8	43.5	274.2	20.16	+ 1.84			279. 32. 53.21	268. 36. 54.74			
319. 32. 53.17	74. 28	- 4.80	..	..	..	..	..	..	..	..	..	..			319. 32. 53.22	268. 36. 54.78			
29. 30. 35.65	50. 40	- 5.34	42.8	237.3	25.3	232.7	49.2	269.8	36.8	293.8	23.46	+ 5.37			29. 30. 35.76	308. 34. 40.24			
141. 51. 20.15	58. 45	+ 5.36	26.7	221.0	8.0	215.7	29.0	249.6	16.7	274.0	8.00	+ 5.55			141. 51. 20.15	310. 54. 19.57			
152. 25. 20.25	44. 20	+ 6.34	30.9	224.8	12.0	219.2	33.2	242.1	21.1	274.9	5.56	+ 5.78			152. 25. 20.25	311. 21. 20.79			
335. 49. 20.57	43. 27	- 6.66	46.9	239.7	28.1	233.0	51.0	270.0	37.8	293.2	15.13	+ 11.51			335. 49. 20.52	374. 53. 29.96			
29. 38. 1.89	44. 35	- 6.53	49.7	216.2	34.6	209.8	58.4	234.0	51.2	259.3	25.93	+ 1.08			29. 38. 2.44	311. 1. 56.92			
325. 37. 7.09	60. 16	- 5.35	4.88	229.2	219.0	38.0	215.5	61.8	246.2	54.0	261.1	18.24	+ 1.45		325. 37. 5.66	314. 31. 1.14			
146. 47. 19.83	69. 63	+ 9.38	50.9	219.0	37.8	215.2	59.2	243.9	52.1	260.0	16.91	+ 10.27			146. 47. 23.06	315. 51. 24.14			
191. 38. 2.34	90. 1	- 4.58	..	..	..	..	..	..	..	..	..	..			191. 37. 57.57	180. 41. 58.24			
11. 37. 57.36	40. 1	- 4.58	..	..	..	..	..	..	..	..	..	..			11. 38. 1.94	180. 42. 2.42			
123. 29. 23.65	75. 44	+ 4.73	43.4	209.9	28.1	204.2	49.9	235.0	44.0	252.1	8.33	+ 1.50			123. 29. 29.88	292. 32. 30.36			
305. 27. 44.85	74. 28	- 4.75	50.0	216.2	34.5	210.2	57.2	242.8	50.3	258.8	15.00	+ 2.1			305. 27. 42.51	294. 31. 40.79			
11. 37. 57.49	40. 1	- 4.58	..	..	..	..	..	..	..	..	..	..			11. 37. 57.57	180. 41. 58.95			
191. 37. 57.41	90. 1	- 4.58	..	..	..	..	..	..	..	..	..	..			191. 37. 58.23	180. 41. 53.31			
205. 16. 5.56	44. 54	+ 6.04	66.3	227.3	50.7	219.6	73.9	252.0	67.6	266.1	27.94	+ 13.78			205. 15. 53.87	14. 19. 38.73			
17. 54. 41.19	70. 16	+ 6.71	59.8	227.3	50.7	219.6	73.9	252.0	67.6	266.1	27.94	+ 13.78			17. 54. 41.19	315. 51. 23.97			
67. 32. 2.30	45. 18	+ 6.71	59.8	227.3	50.7	219.6	73.9	252.0	67.6	266.1	27.94	+ 13.78			67. 32. 2.30	56. 58. 2.30			
29. 35. 20.80	77. 11	+ 6.79	59.9	224.2	43.9	217.4	67.9	250.5	60.0	263.5	27.8	+ 21.5			29. 35. 23.34	58. 38. 23.82			

Co-efficient of Correction for Collimation, Face Right, $-4''\cdot58$.

The value of one division of each level scale is assumed to be one second of

Level Indication for Horizontal Position of Axis of Vertical Circle, 14" 23.

Zero of Azimuth. January 22. $10^{\circ} 55' 50'' \cdot 68$; January 25. $10^{\circ} 55' 51'' \cdot 14$; January 26 to 30. $10^{\circ} 55' 55'' \cdot 48$; January 30 and 31. $10^{\circ} 55'$

The Collimator is generally bisected, by wire ϵ ; the correction applied to the Micrometer-equivalents to reduce the

13. The level-reading f was set down 268².

4. Correction applied in forming circle-reading for mean of wires observed, $-22'' \cdot 57$.

25, 27. By computation it appeared that the difference between the azimuth of the point opposite the Sun and the azimuth of the first limb of the Moon was $2^{\circ} 43'$ and $2^{\circ} 41'$. The same difference applied to the computed azimuths for defect of illumination is $+0''$:01 for both.

was 0°. 16' in each case. The corresponding correction applied to the concluded azimuths for defect of illumination is +8°. 01' for both.

30. Correction applied in forming circle-reading for mean of wires observed, $+46''\cdot85$. 39. The level-reading i was set down $67''\cdot2$.

OBSERVATIONS OF AZIMUTH, WITH THE ALTAMIZUTH.

DAY AND HOUR.	OBSERV.	NAME OF OBJECT.	Position of Instrument, Face of Telescope, etc.	Seconds of Horizontal Transit over Vertical Wire.						Clock Slow.	Sideral Time.	Readings of Microscopes of Horizontal Circle.						No. for Reference.
				Clock Slow.								Readings of Microscopes of Horizontal Circle.						
				First.	Second.	Third.	Fourth.	Fifth.	Sixth.			a	b	c	d	e	f	
Jan. 31. 13	JP	2 L....	Left	58.0	1.3	5.0	9.9	13.7	17.0	+0.07	9. 8. 7.55	0.85	9. 8. 8.40	6.300	6.448	6.586	6.356	
	JP	2 L....	Right	46.0	4.9	2.3	53.0	57.8	12. 4. 8	+0.07	9. 10. 55.40	0.84	9. 10. 56.24	6.304	6.452	6.590	6.360	
Feb. 1. 14	C	3 L....	Right	47.7	5.0	5.2	50.2	54.2	5.9	+0.07	10. 14. 55.55	0.34	10. 14. 56.58	1.704	2.173	2.504	1.646	
	C	2 L....	Left	14.3	17.7	21.0	25.8	29.3	33.6	+0.07	10. 55. 23.45	0.33	10. 55. 23.78	6.320	6.538	6.661	6.141	
	C	4 Regular.	Left	55.8	59.0	2.3	6.4	9.8	13.2	+0.07	11. 12. 4.42	0.33	11. 12. 4.75	2.356	3.765	5.338	3.062	
	C	6 Regular.	Right	12.5	14.6	18.6	23.5	28.5	33.1	+0.07	11. 17. 21.05	0.33	11. 17. 21.38	5.282	5.709	6.060	5.390	
Feb. 3. 17	AD	7 Serpenti.	Left	58.1	1.0	4.3	9.0	12.2	15.4	+0.03	13. 5. 57.70	0.84	13. 5. 58.54	2.225	2.633	2.968	2.114	
	AD	8 Serpenti.	Left	12.1	15.4	19.3	23.1	26.9	+0.03	14. 2. 17.63	58.84	14. 3. 16.47	3.928	4.016	4.038	3.872		
	AD	9 L....	Right	53.3	56.5	59.9	4.8	8.5	12.3	+0.03	14. 21. 24.58	58.84	14. 22. 1.98	3.928	4.016	4.038	3.872	
	AD	10 L....	Left	37.1	30.4	34.0	38.5	42.0	45.2	+0.03	14. 29. 36.33	58.84	14. 30. 35.03	3.820	4.008	4.120	3.851	
	AD	11 Collimator	Left	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	AD	12 Collimator	Left	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Feb. 12. 5	T	13 L....	Right	50.8	54.4	58.2	3.1	6.8	10.5	+0.23	2. 48. 0.86	49.58	2. 48. 50.44	6.980	7.333	7.530	5.784	
	T	14 L....	Left	59.3	2.9	6.5	11.9	15.5	19.2	+0.23	2. 56. 9.45	49.57	2. 56. 56.92	7.014	7.354	7.535	5.841	
	T	15 L....	Left	59.3	2.9	6.5	11.9	15.5	19.2	+0.23	3. 9. 3.48	49.56	3. 9. 3.48	4.086	4.433	4.635	4.136	
	T	16 Aldebaran	Right	55.3	58.9	2.0	6.3	9.7	13.2	+0.23	3. 13. 4.36	49.56	3. 13. 4.36	5.185	5.538	5.666	5.118	
	T	17 L....	Right	28.0	24.0	27.3	31.9	35.3	38.6	+0.23	3. 23. 19.98	49.55	3. 23. 19.98	7.365	7.604	7.733	7.291	
	T	18 L....	Left	1.2	4.5	7.7	12.4	15.8	19.2	+0.23	3. 28. 10.36	49.54	3. 28. 10.36	6.465	6.591	6.782	6.255	
Feb. 13. 5	HP	19 Collimator	Right	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	HP	20 Collimator	Left	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	HP	21 L....	Left	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	HP	22 L....	Left	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	HP	23 L....	Left	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	HP	24 L....	Left	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	HP	25 L....	Left	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	HP	26 L....	Left	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Feb. 16. 5	C	27 L....	Left	59.2	1.3	4.8	9.3	12.8	15.9	..	2. 59. 7.42	49.68	2. 59. 56.62	6.556	6.822	7.050	6.804	
	C	28 L....	Right	5.1	8.2	11.7	16.0	19.3	22.5	..	3. 1. 9. 36	49.68	3. 1. 9. 36	5.040	5.316	5.577	5.244	
	C	29 Collimator	Left	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	C	30 Collimator	Left	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	C	31 Orionis	Left	36.8	39.7	48.1	50.0	56.0	..	..	5. 36. 47.88	49.70	5. 37. 37.58	3.855	3.962	4.190	3.896	
	C	32 Orionis	Left	14.0	16.0	20.0	24.3	27.4	30.4	..	5. 41. 22.17	49.70	5. 42. 11.87	2.940	3.036	3.244	2.946	
Feb. 17. 5	T	33 Collimator	Right	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	T	34 Collimator	Left	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	T	35 L....	Left	27.2	30.5	34.0	38.7	41.9	45.3	+0.23	3. 6. 36.50	49.86	3. 6. 36.50	5.325	5.582	5.744	5.349	
	T	36 L....	Left	56.9	0.1	3.6	8.1	11.8	15.0	+0.23	3. 6. 1.36	49.86	3. 6. 1.36	5.600	5.916	5.977	5.644	
	T	37 L....	Left	10.3	13.6	16.9	20.3	23.6	26.9	+0.23	3. 5. 37.81	49.86	3. 5. 37.81	6.435	6.705	6.905	6.662	
	T	38 L....	Left	47.0	50.0	53.2	57.7	60.7	63.8	+0.23	3. 58. 55.65	49.87	3. 59. 45.26	6.383	6.705	6.905	6.662	
	T	39 Regular.	Left	9.2	13.4	16.6	20.3	23.6	26.9	+0.23	4. 6. 9.83	74.88	4. 6. 9.83	7.740	7.788	7.788	7.788	
	T	40 Regular.	Left	6.6	10.0	14.3	19.3	23.6	27.9	+0.23	4. 9. 17.33	49.87	4. 10. 7.30	7.002	7.120	7.120	7.066	
Feb. 18. 10	AD	41 L....	Left	12.6	17.2	21.8	26.0	30.7	35.1	+0.03	7. 25. 24.91	50.05	7. 26. 14.96	7.022	7.222	7.363	7.273	
	AD	42 L....	Right	34.5	38.7	43.6	49.4	54.3	59.0	+0.03	7. 32. 40.61	50.06	7. 33. 36.67	6.999	7.279	7.506	7.404	
Feb. 19. 7	JP	43 L....	Left	23.1	26.3	30.1	34.9	38.4	..	+0.07	4. 47. 30.63	50.06	4. 48. 20.69	5.181	5.359	5.534	4.890	
	JP	44 L....	Right	12.0	15.3	18.9	23.0	27.0	30.3	+0.07	4. 59. 21.79	50.06	5. 0. 11.35	5.078	5.300	5.538	5.018	

The observations of transits are usually made by the galvanic or chronographic method, the wires employed being *a, b, c, d, e, f, g, h, i, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z, taken in the order of transit, made by eye and wire, the wires employed are *a, b, c, d, e, f, g, h, i, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z; Face Right, or *a, b, c, d, e, f, g, h, i, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z; Face Left: the times then recorded are those of another clock, Graham 1.***

For Tabular Equivalents of Microscopes, it is assumed that *s'* corresponds to *s*, to *t* of *a*, to *t* of *b*, to *t* of *c*, and to *t* of *d*.
Correction for Run of Microscopes for 100", -0.07", from February 12, -0.07".

1. 2. Tremulous.

4. The reading of microscope *b* was set down 2.910. As this is evidently erroneous, the reading 6.538 has been supplied by comparison with readings for *a* & *l*. Left on January 31, and for a Serpenti Left with another observation made with the instrument in nearly the same position on February 3.

43. 44. Observed through clouds in the clouds.

26. 28. Cloudy.

AT THE ROYAL OBSERVATORY, GREENWICH, IN THE YEAR 1850.

Concluded Reading of Horizontal Circle.	Approx. Zenith Distance.	Correction for Collimation.	Readings of Levels parallel to the Axis of the Vertical Circle.												Concluded Reading of Level.	Correction Level.	Corrected Reading of Horizontal Circle.	Concluded Azimuth, measuring from S. to W., N. and E.	No. for Reference.
			a	f	g	h	i	j	k	l	m	n	o	p					
140. 4. 6.72	72.57	+4.79	50.0	214.9	35.0	208.1	56.7	239.3	50.0	255.3	13.66	+0.17	140. 4. 11.68	36.0	8. 12.16	1			
321. 42. 27.17	71.38	-4.83	51.4	216.3	35.6	209.5	57.9	241.0	51.5	257.0	15.04	+0.17	321. 42. 22.61	31.1	45. 26.33	2			
154. 46. 12.67	73.30	-4.78	50.2	223.9	33.9	217.4	58.0	243.9	49.7	257.0	17.78	+0.63	154. 46. 13.98	32.3	55. 20.89	3			
154. 46. 12.67	72.35	+4.80	45.0	219.8	32.5	214.0	51.2	246.0	43.0	265.0	14.10	+0.07	154. 46. 13.98	32.3	55. 20.89	4			
217. 17. 1.06	71.25	+6.92	49.5	223.4	32.2	216.4	54.0	248.9	49.9	267.0	17.10	-3.32	217. 17. 4.66	26.1	51. 17.45	5			
9. 8. 3.176	41.48	-6.87	50.0	219.0	25.0	213.0	49.3	244.0	41.5	265.0	12.98	-1.40	9. 8. 3.2349	28.1	52. 30.40	6			
33. 11. 31.70	49.14	-6.05	51.8	225.4	35.5	218.8	60.1	255.0	51.0	273.0	21.35	+6.12	33. 11. 31.71	32.6	53. 36.43	7			
158. 47. 51.51	48.47	+6.00	49.4	220.0	30.3	214.0	53.8	248.2	45.1	266.9	15.36	-1.19	158. 47. 56.21	32.7	51. 18.85	8			
158. 47. 51.51	47.47	+6.03	49.4	220.0	30.3	214.0	53.8	248.2	45.1	266.9	15.36	-1.19	158. 47. 56.21	32.7	51. 18.85	9			
158. 47. 51.51	47.47	+6.03	49.4	220.0	30.3	214.0	53.8	248.2	45.1	266.9	15.36	-1.19	158. 47. 56.21	32.7	51. 18.85	10			
158. 47. 51.51	47.47	+6.03	49.4	220.0	30.3	214.0	53.8	248.2	45.1	266.9	15.36	-1.19	158. 47. 56.21	32.7	51. 18.85	11			
158. 47. 51.51	47.47	+6.03	49.4	220.0	30.3	214.0	53.8	248.2	45.1	266.9	15.36	-1.19	158. 47. 56.21	32.7	51. 18.85	12			
158. 47. 51.51	47.47	+6.03	49.4	220.0	30.3	214.0	53.8	248.2	45.1	266.9	15.36	-1.19	158. 47. 56.21	32.7	51. 18.85	13			
158. 47. 51.51	47.47	+6.03	49.4	220.0	30.3	214.0	53.8	248.2	45.1	266.9	15.36	-1.19	158. 47. 56.21	32.7	51. 18.85	14			
158. 47. 51.51	47.47	+6.03	49.4	220.0	30.3	214.0	53.8	248.2	45.1	266.9	15.36	-1.19	158. 47. 56.21	32.7	51. 18.85	15			
158. 47. 51.51	47.47	+6.03	49.4	220.0	30.3	214.0	53.8	248.2	45.1	266.9	15.36	-1.19	158. 47. 56.21	32.7	51. 18.85	16			
158. 47. 51.51	47.47	+6.03	49.4	220.0	30.3	214.0	53.8	248.2	45.1	266.9	15.36	-1.19	158. 47. 56.21	32.7	51. 18.85	17			
158. 47. 51.51	47.47	+6.03	49.4	220.0	30.3	214.0	53.8	248.2	45.1	266.9	15.36	-1.19	158. 47. 56.21	32.7	51. 18.85	18			
158. 47. 51.51	47.47	+6.03	49.4	220.0	30.3	214.0	53.8	248.2	45.1	266.9	15.36	-1.19	158. 47. 56.21	32.7	51. 18.85	19			
158. 47. 51.51	47.47	+6																	

OBSERVATIONS OF AZIMUTH. WITH THE ALTAZ

DAY AND HOUR	OBSERV. No. for Reference.	NAME OF OBJECT.	Position of Transit Circle.	Seconds of Horizontal Transit over Vertical Wire.						Correction for Refraction.	Computed Clock Time of Transit over Wire of Observation.	Clock Slow.	Sidereal Time.	Readings of Microscopes of Horizontal Circle.								
				First.										Second.	Third.	Fourth.	Fifth.	Sixth.	a	b	c	d
				First.	Second.	Third.	Fourth.	Fifth.	Sixth.													
Apr. 17.	h	AD 5	Collimator	Left	..	..	..	..	..	..	..	..	..	5:33.7	5:46	5:59	5:58.1					
	AD 5	AD 5	Collimator	Right	..	..	..	..	..	..	..	..	..	3:66.7	3:70	3:90	4:21					
Apr. 18.	h	TP 4	1 L.....	Left	46.0	42.2	55.2	57.0	..	3.2	+ 0.17	8.55.54.4	5:38.5	8.56.48.6	3:61.6	3:48	3:65	4.1				
	TP 4	TP 4	1 L.....	Right	..	..	13.2	16.2	21.3	24.3	+ 0.17	9.39.20.8	5:38.5	9.40.14.7	3:20.2	7:27	8:04	8.100				
Apr. 19.	7	T 5	1 L.....	Right	5.1	8.2	11.5	15.8	19.0	22.1	+ 0.23	8.55.54.385	5:37.8	8.51.76.3	5:74.8	5:19.1	4:56	4:28.1				
	T 5	T 5	1 L.....	Left	35.2	38.0	44.1	45.6	49.0	52.1	+ 0.23	8.56.43.578	5:37.8	8.57.37.53	3:20.6	4:06	3.13	2:21				
	T 5	T 5	Collimator	Right	..	..	..	..	..	..	..	..	..	3:35.3	3:60	3.47	3.3					
	T 5	T 5	Collimator	Left	..	..	..	..	..	..	..	..	..	3:25.5	3:42	3.63	3.63					
	T 5	T 5	1 L.....	Left	45.7	45.5	51.4	56.5	59.5	52	+ 0.23	10. 5.42.8	5:37.8	10. 5.48.6	5:25.6	4:56	4.56					
	T 5	T 5	1 L.....	Left	37.6	40.9	44.5	49.4	52.9	56.2	+ 0.23	10. 5.47.11	5:37.8	10. 6.49.9	0:65.5	0:51	0.7	0:59.9				
Apr. 20	8	C 11	1 L.....	Right	20.3	23.1	26.0	36.0	43.4	57.2	..	9.40.38.48	5:37.9	9.41.22.7	8:03.7	8:14.1	8:38	8:47.0				
	C 11	C 11	1 L.....	Left	14.9	18.1	21.0	25.2	30.4	34.5	..	9.40.38.48	5:37.9	9.41.22.7	8:03.7	8:14.1	8:38	8:47.0				
	C 11	C 11	1 L.....	Left	5.61	5.5	5.6	5.6	11.2	16.0	20.1	10. 7. 8.17	5:37.9	10. 8. 1.96	3:10.2	3:14.3	3:36	3.85				
	C 11	C 11	1 L.....	Left	8.3	12.3	17.0	23.4	27.8	32.2	..	10. 12.20.17	5:37.9	10. 13.13.56	0:51.4	0:44	0:63.4	0:88.5				
	C 11	C 11	1 L.....	Right	45.5	49.5	54.3	56.8	59.8	52.9	..	10. 18.34.50	5:37.9	10. 19.48.39	4:77.8	4:45	4:58	5.05				
	C 11	C 11	1 L.....	Left	31.2	34.0	37.2	41.5	44.6	47.5	..	10. 32.26.33.2	5:37.9	10. 32.33.12	5:50.2	5:40	5.45	5.36				
	C 11	C 11	Collimator	Right	..	..	..	..	..	..	..	..	..	3:17.0	3:20	3.64	3.26					
	C 11	C 11	Collimator	Left	..	..	..	..	..	..	..	..	..	5:20	5:21	5:44	5:50					
	C 11	C 11	1 L.....	Left	..	..	..	..	..	..	..	..	..	5:10.2	5:26.1	5:54	5:56					
Apr. 21	8	AD 10	1 L.....	Right	5.10	5.41	5.74	1.9	5.1	5.3	+ 0.03	9.29.59.66	5:36.8	9.30. 53.34	4:19.3	4:14	5.26	5:36.3				
	AD 10	AD 10	1 L.....	Left	29.3	31.4	35.7	40.1	45.3	46.5	+ 0.03	9.37.39.71	5:36.8	9.38.31.59	3:41.4	3:26.8	3.51	3.63				
	AD 10	AD 10	1 L.....	Left	23.0	31.2	34.8	39.6	43.4	46.5	+ 0.03	9.47.37.93	5:36.8	9.48.30.93	3:22.7	3:10	3.66	3.67				
	AD 10	AD 10	1 L.....	Left	25.3	28.6	32.3	37.1	41.4	38.	+ 0.03	9.51.34.56	5:36.8	9.52.37.3	3:22.7	3:10	3.66	3.67				
	AD 10	AD 10	1 L.....	Left	54.3	57.5	1.1	6.2	9.3	13.0	+ 0.03	9.56. 36.6	5:36.8	9.56. 36.6	5:36.8	5:36.8	5:36.8	5:36.8				
	AD 10	AD 10	1 L.....	Left	8.3	11.8	15.4	20.2	23.9	..	+ 0.03	10. 3. 15.95	5:36.7	10. 4. 9.62	2:28.1	2:10	2:27	2:56				
	AD 10	AD 10	Collimator	Right	..	..	..	..	..	..	..	..	..	3:16.2	3:20	3.81	3:21					
	AD 10	AD 10	Collimator	Left	..	..	..	..	..	..	..	..	..	5:33.4	5:36	5.63	5.63					
Apr. 22.	7	T 27	1 L.....	Left	15.4	18.8	22.5	27.2	31.0	34.2	+ 0.25	9.13.25.05	5:36.5	9.14.18.70	6:23.3	6:13.2	6:33.3	6:67.3				
	T 28	T 28	1 L.....	Right	..	44.8	48.3	53.1	56.4	59.6	+ 0.25	9.16.52.67	5:36.5	9.20.46.32	5:43.6	5:45.5	5:48.2	5:50.8				
	T 29	T 29	Collimator	Right	..	..	..	..	..	..	..	..	..	5:36.5	5:38	5.88	5.88					
	T 29	T 29	Collimator	Right	..	..	..	..	..	..	..	..	..	5:36.5	5:38	5.88	5.88					
	T 29	T 29	1 L.....	Left	18.7	22.4	25.6	30.5	33.5	37.0	+ 0.25	9. 54.28.18	5:36.5	9.55.21.83	7:11.2	7:23	7:38	7:61.4				
	T 30	T 30	1 L.....	Right	8.6	12.0	15.5	20.2	23.8	27.0	+ 0.25	10. 0.18.05	5:36.5	10. 1.11.70	5:59.1	5:57	6:06	6:18.3				
Apr. 23.	7	JP 33	Collimator	Left	..	..	..	..	..	..	..	..	..	5:35.3	5:37	5:57.8	5:57.8					
	JP 33	JP 33	Collimator	Left	..	..	..	..	..	..	..	..	..	5:38.4	5:40	5.62	5.62					
	JP 33	JP 33	Collimator	Right	..	..	..	..	..	..	..	..	..	5:38.4	5:40	5.62	5.62					
	JP 33	JP 33	1 L.....	Right	59.4	58.8	2.6	7.0	10.8	13.7	+ 0.07	10. 33.44.59	5:36.8	10.33.58.17	5:03.3	4:56.1	4:58.2	4:58.2				
	JP 33	JP 33	1 L.....	Right	35.0	35.0	38.6	42.8	47.0	51.2	+ 0.07	10. 41.47.02	5:36.8	10.42.37.37	5:03.3	4:56.1	4:58.2	4:58.2				
	JP 33	JP 33	Regulus	Left	56.0	56.0	2.3	6.7	10.0	13.0	+ 0.07	10. 53.44.47	5:35.8	10.54.58.15	5:01.8	4:54.0	4:56.1	4:56.1				
	JP 33	JP 33	1 L.....	Left	38.5	41.8	44.8	49.3	52.5	55.9	+ 0.07	11. 0.47.14	5:35.8	11. 1.40.72	5:04.0	4:53.4	4:55.5	4:56.0				
Apr. 24.	10	C 39	1 L.....	Left	15.4	18.8	22.0	26.6	30.3	33.5	..	11. 14.24.45	5:35.1	11. 15.12.74	7:40.4	7:33.4	7:53.3	7:99.2				
	C 40	C 40	1 L.....	Left	45.8	49.2	55.2	57.2	..	7.38	..	11. 16.54.87	5:35.1	11. 17.48.18	5:03.3	4:56.1	4:58.2	4:58.2				
	C 41	C 41	1 L.....	Right	8.5	11.8	15.4	20.3	24.3	26.6	..	11. 25.17.64	5:35.1	11.26.10.93	5:04.0	4:57.0	4:58.2	4:58.2				
	C 42	C 42	1 L.....	Left	38.0	41.2	44.9	49.2	52.6	55.9	..	11. 27.40.96	5:35.1	11.28.40.21	5:04.0	4:57.0	4:58.2	4:58.2				
	C 43	C 43	Collimator	Left	..	..	..	..	..	..	..	..	..	5:36.5	5:38	5.88	5.88					
	C 44	C 44	Collimator	Right	..	..	..	..	..	..	..	..	..	3:16.2	3:20	3.81	3:21					

The observations of transits are usually made by the galvanic or chronographic method, the wires employed being *s, t, u, v, w, x*, taken in the order of transit, *Face Right*, or *s, w, v, u, t, x*, *Face Left*; the times are then referred immediately to the Sidereal Standard. Whenever the observations are made by *Face Right* and ear, the wires employed are *g, r, s, x, y, z*, *Face Right*, or *z, y, z, s, r, g*, *Face Left*; the times then recorded are those of another clock, (Graham's).

For Tabular Equivalents of Microscopes, it is assumed that r' corresponds to 8% of all four

Correction for Buns of Microscopes for 100" = 2" : 11.

3. Observed through cloud : very faint. 4. Young clouds.

4. Your class

16.01.1

22. The readings of microscopes *c* and *d* were set down 27:144 and 27:300 respectively.

32. Microscopes *a* and *b* were read on the negative side of the micrometer-zero

Concluded Reading of Horizontal Circle.	Approx. Zenith Distance.	Correction for Collimation.	Readings of Levels parallel to the Axis of the Vertical Circle.												Concluded Level Elevation.	Correction for Level.	Corrected Reading of Horizontal Circle.	Concluded Altitude, measuring from the Axis to W., N. or E.	No. of Baromet.
			a			f			g			h							
			dire.	div.	dire.	div.	div.	div.	div.	div.	dire.	div.	dire.	m					
11. 32. 43.94	90. 1 + 4.80	..	..	..	..	..	..	..	..	..	..	..	..	..	0.000	11. 32. 48.74	180. 42. 12.76		
191. 32. 50.13	90. 1 + 4.80	..	..	..	..	..	..	..	..	..	..	..	..	..	0.000	191. 32. 45.33	180. 42. 9.35		
104. 42. 10.07	36.56 + 7.99	45.9	103.5	55.1	209.1	65.7	226.5	64.4	236.8	12.51 + 1.92	1.92	42. 12.64	1.92	42. 12.64	3.51. 38.35				
31. 20. 19.00	32.25 + 7.72	36.8	24.0	68.0	258.0	75.3	253.8	74.8	250.5	22.90 + 15.40	15.40	31. 20. 15.68	15.40	31. 20. 15.68	2. 29. 49.39				
35. 25. 10.01	42.34 - 7.93	62.0	202.0	71.0	214.9	81.6	136.8	83.0	242.7	23.51 + 13.68	13.68	35. 25. 25.60	13.68	35. 25. 25.60	3. 43. 31.4700				
176. 42. 34.76	42.30 + 7.10	64.0	184.6	56.1	109.5	63.2	151.0	62.0	226.7	7.51 + 3.49	3.49	176. 42. 31.66	3.49	176. 42. 31.66	6. 28. 3. 6.78				
191. 32. 51.87	90. 1 + 4.80	..	..	..	..	..	..	..	..	..	..	..	..	..	0.000	191. 32. 47.07	180. 42. 8.17		
11. 32. 41.61	90. 1 + 4.80	..	..	..	..	..	..	..	..	..	..	..	..	..	0.000	11. 32. 46.41	180. 42. 7.81		
201. 32. 17.21	41. 29. 22	57.8	107.0	67.0	211.0	76.4	204.0	75.0	239.1	19.47 + 9.79	9.79	201. 32. 12.51	9.79	201. 32. 12.51	11. 47. 14.59				
134. 0. 26.56	41. 1 + 7.32	49.2	189.3	59.0	203.2	67.7	218.1	68.9	230.3	10.56 + 0.15	0.15	134. 0. 24.63	0.15	134. 0. 24.63	3. 28. 3. 95.43				
355. 49. 51.83	47.34 - 6.47	56.0	204.8	63.0	210.9	74.9	235.5	73.3	230.3	23.36 + 10.35	10.35	355. 49. 45.51	10.35	355. 49. 45.51	344. 50. 18.71				
177. 49. 40.51	47.30 - 6.47	56.0	204.8	63.0	210.9	74.9	235.5	73.3	230.3	10.34 + 0.41	0.41	177. 49. 34.47	0.41	177. 49. 34.47	346. 50. 10.74				
50. 51. 57.18	48.40 + 7.18	45.0	202.0	69.0	218.0	71.0	246.5	136.8	186.0	5.61 + 2.32	2.32	50. 51. 51.86	2.32	50. 51. 51.86	2. 20. 1. 2.32				
231. 45. 21.83	77. 47 - 4.91	40.0	188.0	49.0	204.5	70.7	217.4	56.2	231.3	5.48 + 1.13	1.13	231. 45. 15.79	1.13	231. 45. 15.79	220. 54. 38.56				
20. 12. 53.74	41. 1 + 7.01	56.8	207.8	68.0	213.0	76.0	230.2	75.0	230.2	14.93 + 0.35	0.35	20. 12. 53.39	0.35	20. 12. 53.39	9. 22. 14.47				
201. 32. 43.01	42. 21 + 6.99	43.0	191.0	52.5	207.4	59.4	219.6	59.0	234.0	8.74 + 0.25	0.25	201. 32. 36.02	0.25	201. 32. 36.02	202. 57. 14.39				
191. 32. 50.12	90. 1 + 4.80	..	..	..	..	..	..	..	..	..	..	..	..	..	0.000	191. 32. 45.31	180. 42. 8.11		
11. 32. 39.91	90. 1 + 4.80	..	..	..	..	..	..	..	..	..	..	..	..	..	0.000	11. 32. 43.82	180. 42. 6.62		
339. 18. 1.33	57. 7 - 5.72	54.7	204.7	67.0	220.2	75.2	244.8	78.8	236.2	3.55 + 8.32	8.32	339. 18. 3.93	8.32	339. 18. 3.93	327. 18. 26.73				
161. 25. 3.18	56.33 + 5.76	37.0	196.0	46.3	206.5	55.4	231.7	53.8	238.9	6.61 + 2.70	2.70	161. 25. 11.54	2.70	161. 25. 11.54	330. 24. 32.44				
148. 1. 59.89	42.30 + 7.06	36.8	189.3	55.5	205.4	54.4	222.0	52.9	237.4	5.40 + 0.56	0.56	148. 1. 52.59	0.56	148. 1. 52.59	317. 11. 33.59				
359. 24. 4.59	42.35 - 7.12	56.8	202.8	63.3	213.2	74.4	240.9	72.1	236.7	24.50 + 13.64	13.64	359. 24. 51.56	13.64	359. 24. 51.56	348. 54. 14.41				
359. 24. 51.56	42.35 - 7.12	56.8	202.8	63.3	213.2	74.4	240.9	72.1	236.7	24.50 + 13.64	13.64	359. 24. 51.56	13.64	359. 24. 51.56	348. 54. 14.41				
140. 55. 56.97	74. 48 + 4.97	36.8	189.3	45.8	205.2	54.6	221.9	52.9	237.1	3.45 + 1.43	1.43	140. 56. 3.37	1.43	140. 56. 3.37	310. 5. 26.17				
191. 32. 50.78	90. 1 + 4.80	..	..	..	..	..	..	..	..	..	..	..	..	..	0.000	191. 32. 45.98	180. 42. 8.78		
11. 32. 44.74	90. 1 + 4.80	..	..	..	..	..	..	..	..	..	..	..	..	..	0.000	11. 32. 47.94	180. 42. 10.34		
144. 28. 42.73	69. 2 + 5.14	39.4	192.6	48.0	208.4	58.0	226.3	55.8	241.2	8.71 + 0.76	0.76	144. 28. 36.63	0.76	144. 28. 36.63	318. 38. 13.43				
325. 50. 22.45	68.21 + 5.16	48.8	202.0	57.0	218.1	67.0	235.1	64.2	250.1	17.79 + 2.82	2.82	325. 50. 20.11	2.82	325. 50. 20.11	315. 8. 47.91				
11. 32. 39.91	90. 1 + 4.80	..	..	..	..	..	..	..	..	..	..	..	..	..	0.000	11. 32. 43.82	180. 42. 6.62		
325. 50. 48.90	69. 2 + 5.14	39.4	192.6	48.0	208.4	58.0	226.3	55.8	241.2	8.71 + 0.76	0.76	325. 50. 46.58	0.76	325. 50. 46.58	318. 38. 13.43				
150. 14. 35.66	42. 8 + 7.16	40.0	192.7	49.3	210.3	57.0	232.5	54.8	240.8	8.21 + 2.32	2.32	150. 14. 33.69	2.32	150. 14. 33.69	319. 4. 8.14				
332. 9. 56.77	41. 33 - 7.24	50.8	204.0	58.8	219.0	67.0	235.2	64.2	250.1	18.81 + 0.16	0.16	332. 9. 58.59	0.16	332. 9. 58.59	321. 19. 21.49				
11. 32. 44.74	90. 1 + 4.80	..	..	..	..	..	..	..	..	..	..	..	..	..	0.000	11. 32. 48.94	180. 42. 18.59		
191. 32. 33.36	90. 1 + 4.80	..	..	..	..	..	..	..	..	..	..	..	..	..	0.000	191. 32. 38.36	180. 42. 18.01		
152. 41. 31.38	71.57 + 5.05	43.0	190.2	51.9	209.9	61.8	221.1	61.2	235.1	8.78 + 0.62	0.62	152. 41. 26.33	0.62	152. 41. 26.33	321. 51. 26.50				
134. 41. 36.85	71.12 - 5.07	54.9	201.1	63.8	217.9	73.0	231.1	61.2	235.1	11.49 + 0.74	0.74	134. 41. 30.87	0.74	134. 41. 30.87	319. 41. 18.56				
321. 3. 10.22	32. 1 + 7.02	42.3	70.8	214.5	80.1	248.4	38.1	248.4	23.21	27.09 + 19.30	19.30	321. 3. 1.10	19.30	321. 3. 1.10	20. 50. 57.55				
213. 28. 1.26	45. 45 + 7.33	37.2	184.1	46.9	200.2	55.5	213.5	58.5	227.0	2.40 + 0.36	0.36	213. 28. 19.97	0.36	213. 28. 19.97	22. 37. 58.42				
164. 14. 15.94	73.38 + 5.00	39.3	191.2	49.8	208.0	57.4	224.5	56.0	240.1	8.21 + 0.73	0.73	164. 14. 12.67	0.73	164. 14. 12.67	333. 3. 40.23				
164. 14. 15.94	73.29 + 5.01	39.3	191.2	49.8	208.0	57.4	224.5	56.0	240.1	8.21 + 0.74	0.74	164. 14. 12.69	0.74	164. 14. 12.69	333. 3. 40.28				
346. 45. 27.68	72.50 + 5.02	34.6	206.8	62.3	221.6	71.9	338.5	70.0	235.2	23.36 + 3.38	3.38	346. 41. 20.14	3.38	346. 41. 20.14	345. 4. 53.80				
346. 45. 27.68	72.48 + 5.03	34.6	206.8	62.3	221.6	71.9	338.5	70.0	235.2	23.36 + 3.38	3.38	346. 41. 20.14	3.38	346. 41. 20.14	345. 4. 53.80				
134. 41. 36.85	71.12 - 5.07	54.9	201.1	63.8	217.9	73.0	231.1	61.2	235.1	11.49 + 0.74	0.74	134. 41. 30.87	0.74	134. 41. 30.87	319. 41. 18.56				
191. 32. 35.91	90. 1 + 4.80	..	..	..	..	..	..	..	..	..	..	..	..	..	0.000	191. 32. 40.97	180. 42. 13.35		

Co-efficient of Correction for Collimation, Face Right. $-4''$:80.

The value of one division of each level scale is assumed to be one seco

Level Indication for Horizontal Position of Axis of Vertical Circle, 10

Zero of Azimuth, April 16 and 17, $10^{\circ}.50'.35''.98$; April 18, 10° .

10°. 50'. 30" - 55 : April 24, 10°. 50'. 32" - 44.

4. 24. 38. Corrections applied in forming circle-readings for mean of wires observed $+18''.77$, $+17''.66$, and $+15''.02$ respectively.

20. The level-reading *a* was set down, and

40, 42. By computation it appeared that the difference between the azimuth of the point opposite the Sun and the azimuth of the second limb of the Moon was $3^{\circ} 12'$ and $3^{\circ} 21'$ in such cases respectively. The corresponding corrections to the Concluded Azimuths for defect of illumination are $-1^{\circ} 17'$

DAY AND HOUR.	Observer.	No. of Reference.	NAME OF OBJECT.	Position of Object of Vertical Circle.	Readings of Horizontal Transit over Vertical Wires.						Concluded Clock Time of Observation.	Clock Slow.	Sidereal Time.	Readings of Microscopes of Horizontal Circle.						
					First.									Clock Time of Observation.	Clock Slow.	Sidereal Time.	REV.	REV.	REV.	REV.
					1.	2.	3.	4.	5.	6.										
Apr. 25. 11	AD	1	α Leonis ... Left	Left	74. 10 ⁶	14. 14	19. 0	25. 2	57	+0.03	12. 54. 16.65	53.34	12. 55. 0.90	0.535	0.204	0.531	0.856			
	AD	2	α Leonis ... Right	Right	18. 22	23. 5	30. 3	34. 3	37. 7	+0.03	13. 5. 28.18	53.34	13. 6. 21.64	5.616	5.516	5.799	5.949			
	AD	3	α Hydre ... Left	Left	23. 56	56. 7	57. 0	58. 7	59. 1	59. 2	+0.03	13. 17. 24.3	53.34	13. 17. 53.77	27.719	27.719	27.719	27.719		
	AD	4	α Hydre ... Right	Right	20. 5	38. 7	39. 7	42. 0	46. 0	49. 4	+0.03	13. 21. 35.56	53.34	13. 22. 3.92	8.780	8.782	8.911	8.962		
	AD	5	β 2 Leonis ... Left	Left	53. 27	27. 1	30. 7	35. 6	39. 4	44. 3	+0.03	13. 26. 32.26	53.34	13. 27. 2.60	1.186	1.180	1.199	1.646		
	AD	6	β 2 Leonis ... Right	Right	53. 8	56. 9	58. 8	59. 5	59. 12	+0.03	13. 34. 13.06	53.34	13. 35. 6.40	4.874	5.012	5.745	5.538			
Apr. 26. 10	T	7	Collimator ... Left	Left	...	...	...	...	...	...	...	...	...	5.136	5.354	5.465	5.585			
	T	8	Collimator ... Right	Right	...	...	...	...	...	...	...	...	...	3.743	3.484	3.776	4.293			
	T	9	β 2 Leonis ... Left	Left	19. 14	23. 5	27. 1	32. 7	36. 2	37. 7	+0.03	13. 14. 29.88	53.26	13. 15. 23.14	3.168	3.283	3.472	3.514		
	T	10	β 2 Leonis ... Right	Right	13. 11	17. 8	21. 3	27. 0	30. 7	32. 7	+0.03	13. 20. 20.71	53.26	13. 21. 13.97	2.832	2.933	3.064	3.188		
	T	11	α Leonis ... Left	Left	52. 32	32. 8	40. 9	50. 1	53. 6	57. 7	+0.03	13. 31. 44.61	53.26	13. 32. 37.87	1.386	1.419	1.613	1.717		
	T	12	α Leonis ... Right	Right	52. 8	30. 2	38. 7	46. 1	52. 1	57. 7	+0.03	13. 36. 5.48	53.26	13. 36. 58.74	0.943	0.931	0.950	0.982		
	T	13	α Hydre ... Left	Left	28. 5	32. 5	34. 4	41. 4	45. 2	49. 2	+0.03	13. 45. 39.21	53.26	13. 46. 32.47	5.928	5.926	6.077	6.168		
	T	14	α Hydre ... Right	Right	57. 7	1. 1	5. 0	10. 4	14. 2	18. 0	+0.03	13. 50. 7.96	53.26	13. 51. 1.22	5.927	5.926	6.083	6.303		
Apr. 27. 11	WC	15	Collimator ... Left	Left	...	...	...	...	...	...	...	...	...	5.307	5.306	5.582	5.721			
	WC	16	Collimator ... Right	Right	...	...	...	...	...	...	...	...	...	3.874	3.587	3.959	4.194			
Apr. 30. 13	T	17	Collimator ... Right	Right	...	...	...	...	...	...	...	...	...	3.874	3.666	3.956	4.121			
	T	18	Collimator ... Left	Left	...	...	...	...	...	...	...	...	...	5.786	5.336	5.649	5.725			
	T	19	α Serpens ... Left	Left	4. 8	7. 8	11. 1	15. 1	18. 2	21. 0	+0.25	15. 25. 13.20	53.18	15. 26. 6.38	0.921	0.930	0.961	0.957		
	T	20	α Antares ... Left	Left	48. 2	51. 5	55. 2	59. 1	62. 8	66. 8	+0.25	15. 45. 57.81	53.18	15. 46. 5.09	0.921	0.930	0.961	1.161		
	T	21	α Antares ... Right	Right	3. 2	6. 4	9. 8	13. 1	16. 4	19. 7	+0.25	15. 50. 12.41	53.18	15. 51. 5.51	6.121	6.125	6.586	6.685		
	T	22	β 2 Leonis ... Right	Right	58. 6	24. 6	40. 1	51. 1	58. 1	64. 7	+0.25	15. 46. 9.13	53.18	15. 47. 2.31	7.526	7.527	7.993	8.196		
May 1. 14	T	23	β 2 Leonis ... Left	Left	4. 6	8. 2	12. 1	17. 1	21. 1	24. 9	+0.25	15. 52. 14.91	53.18	15. 53. 8.08	3.183	3.083	3.188	3.566		
	TP	24	α Serpens ... Right	Right	42. 5	47. 8	53. 0	58. 2	63. 4	68. 4	+0.17	16. 42. 51.05	53.16	16. 43. 43.97	7.615	7.515	7.861	7.978		
	TP	25	α Antares ... Left	Left	20. 7	24. 2	27. 6	32. 1	36. 2	39. 2	+0.17	17. 8. 30.12	53.17	17. 9. 23.04	7.788	7.787	7.931	8.392		
	TP	26	α Antares ... Right	Right	24. 5	27. 6	31. 0	36. 2	40. 4	44. 7	+0.17	17. 16. 33.62	53.17	17. 17. 26.54	5.331	5.331	5.588	5.777		
	TP	27	Collimator ... Right	Right	...	...	...	...	...	...	...	...	...	4.028	3.603	3.968	4.187			
	TP	28	Collimator ... Left	Left	...	...	...	...	...	...	...	...	...	5.331	5.571	5.686	5.777			
May 11. 8	TP	29	β 2 Leonis ... Right	Right	51. 8	50. 2	58. 9	4. 3	8. 0	11. 7	+0.17	17. 52. 1.82	53.17	17. 52. 54.73	6.878	6.675	6.986	7.309		
	TP	30	β 2 Leonis ... Left	Left	57. 6	0. 9	4. 6	9. 9	13. 3	16. 0	+0.17	18. 18. 7.37	53.17	18. 19. 0.28	7.004	7.010	7.433	7.658		
	T	31	β 1 Leonis ... Right	Right	46. 2	50. 6	55. 5	1. 9	6. 5	10. 9	+0.23	11. 7. 58.83	51.40	11. 8. 5.03	4.023	3.854	4.047	4.115		
	T	32	β 1 Leonis ... Left	Left	28. 5	32. 8	37. 3	43. 0	48. 5	52. 7	+0.23	11. 18. 40.78	51.40	11. 19. 32.18	5.583	5.455	5.686	5.728		
	T	33	Collimator ... Right	Right	...	...	...	...	...	...	...	...	...	5.331	5.561	5.686	5.728			
	T	34	Collimator ... Left	Left	...	...	...	...	...	...	...	...	...	4.028	3.603	3.968	4.187			
May 12. 8	T	35	Regulus ... Right	Right	14. 1	17. 3	20. 4	25. 0	29. 6	34. 1	+0.23	11. 34. 23.10	51.36	11. 35. 14.47	4.024	3.856	4.080	4.120		
	T	36	Regulus ... Left	Left	12. 1	14. 9	18. 5	23. 2	26. 6	30. 0	+0.23	11. 38. 21.51	51.36	11. 39. 12.49	4.024	3.955	4.172	4.200		
	C	37	Collimator ... Left	Left	...	...	...	...	...	...	...	...	...	5.382	5.431	5.720	5.848			
	C	38	Collimator ... Right	Right	...	...	...	...	...	...	...	...	...	4.294	3.707	4.070	4.549			
May 12. 8	C	39	α Cygni ... Left	Left	25. 0	30. 1	34. 8	41. 4	46. 2	50. 8	...	11. 36. 38.15	51.15	11. 37. 29.30	3.533	3.770	3.640	4.034		
	C	40	β 1 Leonis ... Right	Right	28. 4	31. 7	35. 7	40. 8	44. 8	48. 1	...	11. 49. 49.57	51.15	11. 50. 32.12	8.400	8.312	8.440	8.756		
	C	41	β 1 Leonis ... Left	Left	54. 3	58. 5	63. 9	68. 1	72. 4	76. 1	...	12. 0. 6.57	51.14	12. 0. 5.771	6.058	7.311	7.356			
	C	42	Regulus ... Right	Right	19. 3	23. 5	26. 2	31. 1	34. 7	38. 2	...	12. 10. 58.62	51.14	12. 11. 49.76	7.454	7.141	7.652	7.939		
	C	43	Regulus ... Left	Left	49. 2	52. 1	55. 0	57. 6	60. 4	63. 2	...	12. 16. 28.53	51.14	12. 17. 19.07	7.454	7.290	7.600	3.171		

The observations of transits are usually made by the galvanic or chronographic method, the wires employed being $\alpha, \beta, \gamma, \delta, \epsilon$, taken in the order of the list. The Sidereal Standard is used for the times are then referred immediately to the mean of the five wires. Whenever the observations are made by the galvanic method, the times are then referred immediately to the mean of the five wires. For Tabular Equivalents of Microscopes, it is assumed that ϵ' corresponds to $8''$ of ϵ of all four.

Correction for Runs of Microscopes for $100''$, $-0''$ 11; from May 11, $-0''$ 5.

12. All the microscopes were read on the negative side of the micrometer-zero.
13. Very diffused and ill-defined. Microscopes α and δ were read on the negative side of the micrometer-zero.
14. Very diffused.

Unconcluded Reading of Horizontal Circle.	Approx. Zenith Distance.	Correction for Collimation.	Readings of Levels parallel to the Axis of the Vertical Circle.										One-Quarter of Level Inclination.	Correction for Level.	Corrected Reading of Horizontal Circle.	Concluded Azimuth, measured from S. to W., N., and E.	No. of Reference.
			a	b	c	d	e	f	g	h	i	j					
			div.	div.	div.	div.	div.	div.	div.	div.	div.	div.					
236. 30. 18.06	48. 13	6.42	37.2	190.3	45.6	206.2	54.5	224.6	54.8	243.3	6.31	+3.89	236. 30. 28.57	43. 59. 51.95	1		
59. 43. 22.55	78. 1	4.90	36.7	200.5	45.0	216.5	55.2	234.1	54.4	249.6	6.06	+4.56	59. 43. 20.81	48. 50. 46.05	2		
71. 1. 42.57	78. 1	4.91	40.6	194.3	49.3	211.0	58.7	228.3	56.2	247.7	10.04	-0.07	71. 1. 37.59	50. 11. 32.7	3		
74. 23. 42.57	78. 1	4.91	18.9	182.9	44.0	202.3	51.8	219.9	50.3	239.1	4.47	+1.95	74. 23. 40.62	49. 12. 36.9	4		
166. 45. 49.69	77. 4	4.92	30.7	193.7	48.1	209.5	57.2	227.1	54.6	244.1	9.03	-0.39	166. 45. 51.00	33. 35. 16.68	5		
348. 28. 1.42	76. 39	4.93	51.8	205.8	59.9	221.2	68.9	239.3	66.2	254.0	20.88	+1.42	348. 27. 58.91	33. 37. 24.59	6		
11. 32. 37.59	90. 1	+4.80	..	..	..	..	..	..	..	..	..	0.00	11. 32. 42.44	180. 42. 9.85	7		
11. 32. 37.59	90. 1	+4.80	..	..	..	..	..	..	..	..	..	0.00	11. 32. 42.44	180. 42. 9.85	7		
151. 6. 53.56	85. 27	+4.81	34.0	201.8	41.5	218.3	47.8	236.0	42.8	256.0	0.70	+0.07	151. 6. 58.47	130. 16. 21.91	8		
332. 16. 45.05	84. 24	4.82	42.6	210.2	49.8	226.7	57.8	246.0	51.4	264.0	18.18	+0.70	332. 16. 38.93	321. 26. 2.32	10		
52. 5. 54.97	42. 20	71.3	417	209.0	49.0	215.8	55.2	243.4	50.4	261.0	17.18	+7.13	52. 5. 54.97	41. 14. 18.36	11		
42. 14. 54.97	42. 20	71.3	417	209.0	49.0	215.8	55.2	243.4	50.4	261.0	17.18	+7.13	42. 14. 54.97	41. 14. 18.36	11		
256. 58. 36.37	81. 58	+4.85	35.0	203.0	44.0	219.0	47.9	234.5	43.0	254.0	0.84	+1.12	256. 58. 34.24	66. 8. 4.73	13		
77. 53. 34.29	82. 26	4.84	26.0	203.4	34.0	210.4	38.0	224.5	34.1	245.0	0.63	-1.31	77. 53. 28.14	76. 2. 51.03	14		
11. 32. 47.02	90. 1	+4.80	..	..	..	..	..	..	..	..	..	0.00	11. 32. 46.82	180. 42. 11.83	15		
191. 32. 51.71	90. 1	+4.80	..	..	..	..	..	..	..	..	..	0.00	191. 32. 46.33	180. 42. 11.36	16		
191. 32. 51.71	90. 1	+4.80	..	..	..	..	..	..	..	..	..	0.00	191. 32. 47.01	180. 42. 11.54	17		
11. 32. 47.50	90. 1	+4.80	..	..	..	..	..	..	..	..	..	0.00	11. 32. 47.37	180. 42. 14.02	18		
6. 30. 21.56	44. 44	-6.82	47.8	208.0	55.0	224.0	63.8	242.0	60.0	259.0	19.96	+9.35	6. 30. 4.69	35. 35. 39.32	19		
182. 45. 34.95	77. 57	+4.91	42.6	208.0	55.0	224.0	63.8	242.0	60.0	259.0	19.96	+9.35	182. 45. 37.93	35. 35. 53.45	20		
34. 8. 34.84	41. 5	4.98	20.2	215.4	22.6	226.0	38.9	239.0	57.0	255.0	17.06	+1.49	34. 8. 42.44	35. 5. 11.03	21		
318. 34. 36.21	84. 8	-4.82	40.9	203.6	49.0	219.0	56.2	236.0	51.4	254.0	16.64	+0.61	318.34.32.00	30. 47. 58.63	22		
139. 45. 49.49	83. 24	+4.83	39.1	202.0	48.8	219.0	54.4	235.0	50.2	253.0	12.44	-0.20	139. 46. 39.62	308. 36. 26.23	23		
32. 24. 33.38	46. 40	-6.60	50.5	209.0	58.0	225.0	67.7	243.5	63.9	260.5	22.30	+10.94	32. 24. 37.72	22. 34. 1.91	24		
201. 20. 22.99	78. 31	4.90	20.5	209.0	50.8	217.2	57.8	235.0	54.7	252.0	20.13	+0.90	201. 20. 26.99	169. 6. 69.51	25		
22. 29. 32.99	78. 31	4.90	47.2	205.9	54.9	221.7	62.8	238.7	59.2	255.2	-18.20	+1.53	22. 29. 19.61	11. 38. 48.30	26		
11. 32. 44.34	90. 1	+4.80	..	..	..	..	..	..	..	..	..	0.00	11. 32. 44.00	180. 42. 13.83	27		
191. 32. 52.77	90. 1	+4.80	..	..	..	..	..	..	..	..	..	0.00	191. 32. 48.57	180. 42. 11.76	28		
78. 138. 19. 57	78. 38	4.90	38.2	197.2	48.3	213.9	52.0	228.5	47.7	246.2	9.02	-0.03	78. 138. 19.50	30. 7. 28.80	29		
323. 49. 17.45	75. 35	-4.96	44.0	205.0	53.2	221.0	59.6	236.8	54.9	251.4	10.91	+1.34	323. 49. 13.81	31. 58. 38.00	30		
116. 12. 12.50	71. 7	-6.66	41.5	194.0	50.3	210.3	61.3	226.7	60.0	241.1	18.73	+1.03	116. 12. 17.11	105. 5. 21.77	31		
39. 4. 0.80	72. 40	-6.42	41.5	193.7	50.0	209.4	59.8	225.3	58.8	240.2	0.81	+0.41	39. 4. 5.83	103. 17. 37.91	32		
11. 32. 45.05	90. 1	+4.41	..	..	..	..	..	..	..	..	..	0.00	11. 32. 46.49	180. 42. 11.54	33		
13. 5. 44.18	43. 14	-4.41	..	..	..	..	..	..	..	..	..	0.00	13. 5. 42.77	180. 42. 12.50	34		
42. 16. 54.97	42. 16	+6.44	38.5	191.1	47.0	207.0	56.0	221.8	54.4	236.6	6.46	+0.70	42. 16. 57.44	34. 18. 17.74	35		
46. 27. 32.19	42. 16	-6.46	53.2	206.0	62.0	221.6	70.8	236.3	69.3	251.5	21.31	+10.72	46. 27. 32.11	33. 56. 54.19	36		
11. 32. 46.74	90. 1	+4.41	..	..	..	..	..	..	..	..	..	0.00	11. 32. 50.65	180. 42. 11.10	37		
191. 32. 51.71	90. 1	+4.41	..	..	..	..	..	..	..	..	..	0.00	191. 32. 51.30	180. 42. 11.04	38		
231. 57. 58.17	76. 4	-4.34	40.0	190.3	49.4	206.8	57.0	221.1	55.5	236.8	17.00	-0.01	231. 57. 57.17	101. 6. 23.18	39		
69. 52. 47.15	69. 52	-4.70	44.9	195.2	54.4	211.9	61.5	226.8	60.2	241.6	12.00	+0.36	69. 52. 49.81	102. 49. 14.26	40		
29. 29. 11.26	71. 34	+4.65	41.0	191.0	50.0	207.0	56.5	221.2	53.0	236.6	7.33	+1.17	29. 29. 17.18	104. 38. 57.63	41		
46. 54. 30.16	46. 54	-4.65	44.9	195.2	54.4	211.9	61.5	226.8	60.2	241.6	12.00	+0.36	46. 54. 32.81	102. 49. 14.26	42		
58. 16. 45.49	47. 32	-5.98	54.8	205.0	63.3	221.0	69.3	234.3	69.0	248.0	18.00	+8.87	58. 16. 48.32	47. 26. 8.77	43		

DAY AND HOUR.	OBSERV. No. for Reference.	NAME OF OBJECT.	Position of Object in Vertical Circle.	Seconds of Horizontal Transit over Vertical Wires.					Correction or Refraction.	Concluded Clock Time of Transit over Vertical Wires.		Clock Error.	Sidereal Time.	Readings of Microscopes of Horizontal Circle.				
				First.	Second.	Third.	Fourth.	Fifth.		Sixth.	a			b	c	d		
May 13.	W C	1	1 L	Right	186	227	280	336	383	432	+0.03	11. 18. 30.83	5080	11. 19. 21.64	0707	0648	0751	1021
	W C	2	1 L	Left	213	267	316	376	421	468	+0.03	11. 16. 34.46	5080	11. 17. 25.26	3176	3163	3682	3848
	W C	3	Regulus	Left	405	521	558	595	59	73	+0.03	11. 50. 38.21	5080	11. 51. 40.91	1785	1768	2025	2185
	W C	4	Regulus	Right	493	494	531	578	17	4	+0.03	11. 55. 55.46	5080	11. 56. 42.06	6104	6042	6677	6840
	W C	5	Hydrae	Right	672	92	126	173	209	242	+0.03	12. 9. 15.10	5080	12. 10. 5.90	3698	3689	4138	4314
	W C	6	Hydrae	Left	416	447	482	532	567	593	+0.03	12. 16. 50.73	5080	12. 17. 41.53	5663	5647	6063	6240
	W C	7	Collimator	Left	..	..	..	..	..	..	..	..	..	..	5496	5583	5841	5981
	W C	8	Collimator	Right	..	..	..	..	..	..	..	..	..	..	4074	3749	4081	4379
May 14.	T	9	1 L	Right	160	202	246	308	353	395	+0.03	11. 20. 27.96	5049	11. 20. 18.45	4768	4616	4815	5072
	T	10	1 L	Left	171	214	259	319	365	406	+0.03	11. 38. 29.50	5049	11. 39. 19.50	3153	3141	3944	4285
	T	11	Collimator	Right	..	..	..	..	..	..	..	..	..	..	4133	3915	4126	4601
	T	12	Collimator	Left	..	..	..	..	..	..	..	..	..	..	5378	5466	5753	5983
	T	13	Regulus	Right	417	445	481	522	558	594	+0.03	12. 0. 30.55	5048	12. 1. 41.03	1150	1131	1266	1444
	T	14	Regulus	Left	448	483	502	565	595	636	+0.03	12. 4. 54.48	5048	12. 5. 44.46	6961	6901	7401	7601
	T	15	Hydrae	Left	570	60	470	86	122	155	+0.03	12. 13. 65.38	5048	12. 13. 57.01	2738	2505	2903	3326
	T	16	Hydrae	Right	186	219	257	303	339	373	+0.03	12. 17. 28.21	5048	12. 18. 18.69	4997	4925	5185	5626
May 15.	A D	17	Collimator	Right	..	..	..	..	..	..	..	..	..	..	4743	3876	4281	4735
	A D	18	Collimator	Left	..	..	..	..	..	..	..	..	..	..	5046	5058	5011	5139
	A D	19	1 L	Right	53	93	135	187	230	267	+0.03	11. 25. 16.11	5021	11. 26. 6.53	8332	8226	8471	8800
	A D	20	1 L	Left	124	164	205	261	301	341	+0.03	11. 24. 23.30	5021	11. 25. 13.51	6026	5943	6881	7196
	A D	21	Regulus	Left	41	75	108	150	190	224	+0.03	11. 42. 13.26	5021	11. 43. 23.60	4753	4400	4881	5296
	A D	22	Regulus	Right	566	598	633	81	113	148	+0.03	11. 46. 56.68	5020	11. 46. 50.98	4904	4834	5077	5392
	A D	23	Procyon	Right	12	49	88	141	183	219	+0.03	12. 1. 11.56	5020	12. 2. 1.76	4210	4256	4496	4816
	A D	24	Procyon	Left	63	40	80	133	172	209	+0.03	12. 17. 10.65	5020	12. 18. 0.85	6230	6186	6538	6868
May 16.	C	25	1 L	Left	553	590	25	79	118	155	..	11. 52. 5.36	5000	11. 52. 55.58	3548	3516	3858	4070
	C	26	1 L	Right	49	84	120	173	210	247	..	12. 1. 14.72	5000	12. 2. 4.72	4434	4311	4553	4830
	C	27	Polaris	Left	213	265	318	366	414	460	..	12. 14. 35.37	5000	12. 15. 25.37	5150	5134	5510	5786
	C	28	Polaris	Right	202	255	305	378	431	483	..	12. 20. 34.18	4999	12. 21. 24.17	5583	5446	5653	5930
	C	29	Regulus	Left	418	421	558	596	62	81	..	12. 26. 58.27	4999	12. 27. 48.26	3212	2984	3364	3782
	C	30	Regulus	Right	86	120	154	206	245	278	..	12. 32. 18.15	4999	12. 33. 1.14	4714	4576	4828	5104
	C	31	1 L	Left	288	326	365	417	454	484	+0.03	13. 1. 39.21	4941	13. 2. 8.64	7843	7583	8038	8470
	C	32	1 L	Right	264	295	334	385	423	461	+0.03	13. 7. 26.26	4941	13. 8. 25.67	3121	3083	3308	3649
May 17.	T	33	2 Leonis	Right	371	424	473	524	567	603	+0.03	13. 15. 35.93	4941	13. 16. 25.34	2363	2290	2604	2735
	T	34	2 Leonis	Left	270	300	336	386	421	454	+0.03	13. 19. 36.35	4940	13. 20. 25.77	6201	5876	6346	6677
	T	35	Hydrae	Right	474	477	127	167	207	243	+0.03	13. 24. 10.53	4940	13. 24. 5.53	5185	5143	5562	5791
	T	36	Hydrae	Left	439	475	513	564	603	633	+0.03	13. 27. 54.06	4940	13. 28. 43.46	6128	6053	6264	6490
	T	37	Collimator	Right	..	..	..	..	..	..	..	..	..	..	5408	5548	5833	5936
	T	38	Collimator	Left	..	..	..	..	..	..	..	..	..	..	4149	3782	4067	4645
	T	39	1 L	Left	53	86	119	163	203	225	+0.03	13. 50. 14.21	4935	13. 51. 3.56	5058	5213	5526	5768
	T	40	1 L	Right	305	332	364	409	439	476	+0.03	13. 58. 38.90	4935	13. 59. 28.32	4321	4244	4761	5011
May 18.	T	41	Regulus	Right	371	424	473	524	567	603	+0.03	14. 6. 46.53	4934	14. 7. 35.82	5052	5116	5411	5719
	T	42	Regulus	Left	180	213	257	306	342	376	+0.03	14. 10. 38.45	4934	14. 11. 17.79	8136	7964	8410	8772
	T	43	Hydrae	Left	490	525	561	599	637	673	+0.03	14. 11. 58.63	4934	14. 12. 57.99	4130	4126	4560	4915
	T	44	Hydrae	Right	327	360	394	444	482	515	+0.03	14. 19. 42.23	4934	14. 20. 31.67	6548	6447	6706	6941
	T	45	Collimator	Right	..	..	..	..	..	..	..	..	..	..	5563	5563	5983	6038
	T	46	Collimator	Left	..	..	..	..	..	..	..	..	..	..	4127	3781	4045	4538

The observations of transit are usually made by the galvanic or chronographic method, the wires employed being $a, b, c, d, e, f, g, h, i, k, m, n$, taken in the order of transit, e Face Right, or $a, b, c, d, e, f, g, h, i, k, m, n$ Face Left: the times then referred indicated to the Sidereal Standard. Whenever the observations are made by eye, and the wires employed are g, f, e, d, c, b, a Face Right, or g, f, e, d, c, b, a Face Left: the times thus recorded are those of another clock, or gun.

For Tabular Equivalents of Microscopes, it is assumed that g' corresponds to $8'$ of all four.

Correction for Hums of Microscopes for $100''$, $-0.07''$.

2, 3, 4. Tremulous.

14. Microscopes a and b were bent on the negative side of the micrometer-zero.

Concluded Reading of Horizontal Circle.	Approx. Zenith Distance.	Correction for Observation.	Readings of Level parallel to the Axis of the Vertical Circle.										Concluded Reading of Level.	Correction for Level.	Corrected Reading of Horizontal Circle.	Concluded Azimuth, measured from S. to W. N. and E.	No. for Reference.
			d	f	g	h	i	k	l	m	n	o					
o	h	o	d	div.	div.	div.	div.	div.	div.	div.	div.	h	o	o	h		
97. 0. 28.38	58.31	- 5' 17	48.3	190.8	57.6	206.3	68.2	222.1	69.3	234.2	12' 10	+ 0' 61	97. 0. 23.82	86. 9. 44.27	1		
280. 27. 42.4	61.16	+ 5' 63	36.4	170.6	45.9	105.1	55.0	200.8	55.6	221.1	- 0' 06	+ 6' 12	280. 27. 15.39	89. 35. 35.94	2		
434. 30. 57.1	61.47	+ 6' 56	38.6	185.6	48.3	108.1	56.2	213.1	57.3	225.0	+ 2' 20	+ 18.90	434. 30. 40.49	93. 40. 49.49	3		
53. 18. 54.23	43.42	- 6' 16	61.8	206.6	70.4	205.8	79.8	235.7	70.6	248.0	+ 25.35	+ 83.50	53. 19. 1.97	42. 28. 21.42	4		
55. 52. 44.82	60.40	- 4' 71	61.2	200.0	69.8	210.0	78.9	235.2	78.5	247.7	+ 24.74	+ 50.00	55. 52. 39.17	45. 1. 45.62	5		
237. 30. 13.24	70.31	+ 4' 48	36.2	181.1	46.7	197.2	53.3	210.1	54.0	223.7	+ 0' 00	0' 00	237. 30. 13.24	86. 11. 41.11	6		
11. 34. 50.83	90. 1	- 4' 41	..	..	..	..	..	..	..	..	..	..	..	11. 34. 50.83	180. 41. 15.99	7	
191. 32. 57.15	90. 1	- 4' 41	..	..	..	..	..	..	..	..	..	..	..	191. 32. 57.15	180. 41. 15.99	8	
86. 34. 50.90	54.38	- 5' 42	55.0	187.8	63.1	202.3	77.9	217.8	80.9	226.8	+ 14.10	+ 2' 10	86. 34. 47.67	75. 42. 8.12	9		
268. 27. 28.23	55.51	+ 5' 33	42.4	175.3	52.6	189.7	63.0	204.8	66.8	216.6	+ 0' 05	0' 00	268. 27. 28.23	77. 36. 48.68	10		
191. 32. 56.94	90. 1	- 4' 41	..	..	..	..	..	..	..	..	..	..	..	191. 32. 56.94	180. 42. 15.68	11	
11. 32. 47.22	90. 1	+ 4' 41	..	..	..	..	..	..	..	..	..	..	..	11. 32. 47.22	180. 42. 15.68	12	
53. 35. 44.99	45.48	- 6' 15	63.2	197.8	74.8	210.3	84.0	226.0	88.0	235.0	+ 23.10	+ 11.65	53. 35. 30.42	42. 43. 10.87	13		
234. 50. 1.09	46.14	+ 6' 11	47.9	182.0	58.0	163.6	80.0	210.7	79.9	219.9	+ 6.64	+ 4.28	234. 50. 11.48	43. 29. 51.93	14		
236. 46. 42.00	70. 6	+ 4' 69	47.0	181.3	56.9	105.2	67.0	209.6	69.8	218.8	+ 37.0	+ 19.60	236. 46. 42.74	45. 26. 9.19	15		
57. 48. 0.06	70.36	+ 4' 67	63.6	197.2	73.3	212.0	83.8	220.0	86.0	230.2	+ 14.14	+ 3.88	57. 47. 59.77	46. 37. 10.12	16		
191. 32. 57.89	90. 1	- 4' 41	..	..	..	..	..	..	..	..	..	..	..	191. 32. 58.48	180. 42. 17.57	17	
11. 32. 55.22	90. 1	+ 4' 41	..	..	..	..	..	..	..	..	..	..	..	11. 32. 55.22	180. 42. 17.57	18	
71. 4. 50.74	55.46	- 5' 38	37.7	171.4	67.9	206.3	79.5	213.3	80.8	223.0	+ 17.46	+ 5.71	71. 4. 39.33	60. 14. 18.82	19		
253. 20. 42.91	55.50	+ 5' 68	40.0	174.2	50.0	188.8	60.0	204.8	62.6	213.4	+ 0' 33	+ 9.43	253. 20. 45.82	62. 30. 50.1	20		
227. 42. 49.11	43.57	+ 6' 35	45.8	180.0	55.5	104.3	63.9	211.2	67.1	221.1	+ 5' 01	+ 6.97	227. 42. 43.61	16. 32. 20.82	21		
48. 57. 58.18	44.10	+ 6' 31	64.8	200.0	74.7	214.1	85.0	226.0	88.0	235.0	+ 23.10	+ 11.65	48. 57. 53.11	36. 12. 7.47	22		
86. 7. 30.57	71.35	+ 4' 46	54.9	190.1	64.8	203.2	75.0	222.3	75.9	232.2	+ 15.04	+ 1.31	86. 7. 27.43	75. 16. 40.42	23		
269. 23. 17.03	70. 4	+ 4' 39	36.3	173.2	49.7	189.8	57.9	205.4	60.0	216.7	- 0' 75	+ 3.40	269. 23. 13.04	74. 34. 44.13	24		
242. 13. 15.28	50.44	+ 5' 70	36.5	179.2	46.4	196.0	56.0	210.5	56.9	224.0	+ 0.60	+ 6.32	242. 13. 29.50	51. 22. 48.68	25		
342. 37. 40.99	51.52	+ 5' 61	55.5	188.8	65.0	214.0	74.5	229.9	74.9	241.6	+ 10.10	+ 8.51	342. 37. 41.99	52. 47. 0.99	26		
341. 33. 10.17	71.47	+ 4' 48	48.0	180.0	55.5	104.3	63.9	211.2	67.1	221.1	+ 5' 01	+ 6.97	341. 33. 10.17	16. 32. 20.82	27		
234. 50. 1.09	46.14	+ 6' 11	47.9	182.0	58.0	163.6	80.0	210.7	79.9	219.9	+ 6.64	+ 4.28	234. 50. 11.48	43. 29. 51.93	28		
242. 16. 58.98	48.47	+ 5' 86	35.5	179.0	46.0	195.5	51.0	207.8	53.5	222.1	- 1' 33	+ 10.97	242. 17. 15.75	50. 15. 35.94	29		
46. 02. 55.48	47.45	- 5' 91	55.5	190.0	65.0	214.8	72.2	221.9	72.0	241.6	+ 18.05	+ 6.46	46. 02. 56.13	50. 15. 35.94	30		
244. 24. 42.56	50.24	+ 5' 21	53.9	186.0	65.0	212.0	55.0	210.0	54.8	234.2	+ 4' 00	+ 4.49	244. 24. 52.16	53. 34. 11.32	31		
65. 51. 55.88	58.30	- 5' 17	45.9	190.1	55.2	212.1	66.1	220.0	64.1	242.1	+ 13.41	+ 1.96	65. 51. 32.67	53. 1. 11.86	32		
46. 02. 6.27	48.47	+ 5' 76	56.6	206.4	44.3	216.7	53.3	230.3	53.6	237.6	+ 19.69	+ 6.00	46. 02. 14.20	33. 51. 53.93	33		
73.8. 3.43.40	70. 8	- 6' 70	37.0	180.0	47.3	185.3	57.0	207.7	57.8	220.7	+ 0' 00	0' 00	73. 8. 3.43.40	180. 42. 15.68	34		
234. 50. 1.09	46.14	+ 6' 11	47.9	182.0	58.0	163.6	80.0	210.7	79.9	219.9	+ 6.64	+ 4.28	234. 50. 11.48	43. 29. 51.93	35		
236. 46. 42.00	70. 6	+ 4' 69	47.0	181.3	56.9	105.2	67.0	209.6	69.8	218.8	+ 37.0	+ 19.60	236. 46. 42.74	45. 26. 9.19	36		
11. 32. 49.79	90. 1	+ 4' 41	..	..	..	..	..	..	..	..	..	..	..	11. 32. 49.79	180. 42. 15.68	37	
191. 32. 58.20	90. 1	- 4' 41	..	..	..	..	..	..	..	..	..	..	..	191. 32. 53.79	180. 42. 15.68	38	
208. 30. 21.94	51.26	+ 5' 56	42.9	194.2	51.4	209.8	61.8	227.8	60.8	243.1	+ 11.48	- 0' 20	208. 30. 27.25	17. 39. 49.66	39		
341. 3. 23.973	52.50	+ 5' 57	55.8	207.3	63.0	223.0	74.5	240.0	73.5	255.0	+ 24.41	+ 10.00	341. 3. 24.410	17. 39. 49.66	40		
55. 37. 37.39	55.50	+ 5' 68	40.0	174.2	50.0	188.8	60.0	204.8	62.6	213.4	+ 0' 33	+ 9.43	55. 37. 40.82	62. 30. 50.1	41		
234. 50. 1.09	46.14	+ 6' 11	47.9	182.0	58.0	163.6	80.0	210.7	79.9	219.9	+ 6.64	+ 4.28	234. 50. 11.48	43. 29. 51.93	42		
237. 12. 40.75	70.18	+ 4' 68	37.8	189.5	46.9	205.6	55.1	217.7	54.2	237.0	+ 5' 00	+ 1.83	237. 12. 42.76	42. 23. 9.87	43		
58. 18. 55.86	70.51	+ 4' 47	50.7	202.2	59.0	218.2	68.0	234.6	60.2	249.1	+ 18.00	+ 2.36	58. 18. 53.75	47. 48. 28.48	44		
11. 34. 50.83	90. 1	- 4' 41	..	..	..	..	..	..	..	..	..	..	..	11. 34. 50.83	180. 41. 15.99	45	
191. 32. 57.15	90. 1	- 4' 41	..	..	..	..	..	..	..	..	..	..	..	191. 32. 53.70	180. 42. 15.68	46	

DAY AND HOUR.	Observer.	No. of Reference.	NAME OF OBJECT.	Position of Vertical Circle.	Readings of Horizontal Transit over Vertical Wires.					Concluded Clock Time of Horizontal Transit over Vertical Wires observed.	Clock Slow.	Sidereal Time.	Readings of Microscopes of Horizontal Circle.					
					Seconds of Horizontal Transit over Vertical Wires.								Clock Slow.	Sidereal Time.	Readings of Microscopes of Horizontal Circle.			
					First.	Second.	Third.	Fourth.	Fifth.						a	b	c	d
May 19, 10.																		
AD	1	1	1 L.....	Right	362.35.53	42.6	..	..	..	+0.03	13.54.36.40	48.90	13.55.28.39	23.53	18.28	24.02	25.98	
AD	2	1	1 L.....	Left	48.15.51	50.0	50.5	3.7	6.5	+0.03	14.13.57.51	48.90	14.14.16.50	19.81	12.64	22.02	24.02	
AD	3	1	1 S Perseus	Left	18.51.21.0	16.5	20.4	32.6	30.8	+0.03	14.22.27.23	48.90	14.23.16.23	5.164	4.872	5.414	5.634	
AD	4	4	4 S Perseus	Left	12.14.18.1	22.4	22.4	35.0	38.8	+0.03	14.20.20.35	48.90	14.20.30.34	5.635	5.465	5.883	5.974	
AD	5	5	5 Collimator	Left	..	..	..	..	..	..	..	..	..	..	..	..	..	
AD	6	6	6 Collimator	Left	..	..	..	..	..	..	..	..	..	13.50.38.67	41.88	4.771	4.510	
May 20, 10.																		
C	7	7	7 L.....	Left	27.7.36.5	32.7	38.3	41.6	44.7	..	13.38.36.08	48.61	13.39.24.65	4.934	4.646	5.047	5.450	
C	8	8	8 L.....	Right	2.58.28.8	32.2	36.7	40.1	43.3	..	13.52.34.48	48.60	13.53.23.38	12.90	13.30	15.24	16.80	
C	9	9	9 S Perseus	Left	2.58.28.8	32.2	36.7	40.1	43.3	..	15.31.31.41	48.60	15.4.20.92	3.969	3.949	4.910	5.633	
C	10	10	10 S Perseus	Left	3.50.35.8	38.2	42.7	46.1	49.6	..	14.4.40.50	48.60	14.5.19.16	4.537	4.331	4.718	4.892	
C	11	11	11 Collimator	Right	..	..	..	..	..	..	..	..	..	11.86	3.867	4.519	4.676	
C	12	12	12 Collimator	Left	..	..	..	..	..	..	..	..	..	5.466	5.516	5.770	5.935	
May 21, 8.																		
JR	13	13	1 L.....	Right	38.7.41.6	45.2	49.6	53.2	56.5	+0.07	12.12.47.56	48.27	12.13.35.86	8.112	8.194	8.460	8.732	
JR	14	14	1 L.....	Left	34.7.37.0	40.8	44.8	48.9	52.1	+0.07	12.12.47.56	48.27	12.13.35.86	8.112	8.194	8.460	8.732	
JR	15	15	15 Collimator	Right	..	..	..	..	..	..	..	..	..	..	..	..	..	
JR	16	16	16 Collimator	Right	..	..	..	..	..	..	..	..	..	..	..	..	..	
JR	17	17	17 Regulus	Left	50.8.38.7	38.7	42.4	47.1	50.7	+0.07	15.44.36.38	48.21	15.45.48.56	4.537	4.331	4.718	4.892	
JR	18	18	18 S Perseus	Left	12.4.7.8	13.1	16.5	19.8	..	+0.07	16.1.7.77	48.21	16.1.40.66	4.537	4.331	4.718	4.892	
JR	19	19	19 S Perseus	Left	8.0.10.9	13.9	18.7	23.4	28.1	+0.07	16.1.7.77	48.21	16.1.40.66	4.537	4.331	4.718	4.892	
JR	20	20	20 Regulus	Left	4.8.8.6	12.4	17.8	..	..	+0.07	16.15.10.97	48.20	16.15.50.17	1.014	1.058	1.478	1.714	
May 22, 8.																		
T	21	21	21 Collimator	Left	..	..	..	..	..	..	..	..	..	..	..	..	..	
T	22	22	22 Collimator	Right	..	..	..	..	..	..	..	..	..	..	..	..	..	
T	23	23	23 Hydra	Left	2.6.1.6	9.6	14.4	18.5	22.5	+0.03	12.28.12.88	47.96	12.29.0.24	1.415	1.382	1.582	2.026	
T	24	24	24 Hydra	Left	3.8.4.1	12.0	16.3	20.5	24.5	+0.03	12.28.12.88	47.96	12.29.0.24	1.415	1.382	1.582	2.026	
T	25	25	25 L.....	Right	43.2.46.2	40.5	45.3	50.0	54.3	+0.03	12.47.35.53	47.96	12.48.40.31	9.992	9.814	10.435	10.619	
T	26	26	26 Leonis.	Left	39.4.7.2	6.2	10.9	15.4	19.5	+0.03	13.8.9.75	47.95	13.8.56.70	4.283	4.404	4.754	4.895	
T	27	27	27 Leonis.	Left	54.7.36.8	8.8	9.5	9.1	12.4	+0.03	13.14.3.53	47.93	13.14.51.48	7.757	7.640	7.966	8.276	
May 23, 10.																		
AD	28	28	28 L.....	Left	32.3.35.7	30.2	44.0	47.5	50.8	+0.03	14.21.41.61	47.43	14.22.29.04	7.476	7.223	7.521	8.116	
AD	29	29	29 L.....	Right	40.6.32.5	30.4	43.8	47.3	50.8	+0.03	14.20.58.91	47.42	14.20.46.53	6.066	5.737	6.411	6.631	
AD	30	30	30 S Perseus	Left	48.4.51.6	34.6	58.9	62.7	66.0	+0.03	14.20.58.91	47.42	14.20.46.53	6.066	5.737	6.411	6.631	
AD	31	31	31 S Perseus	Left	48.4.51.6	34.6	58.9	62.7	66.0	+0.03	14.20.58.91	47.42	14.20.46.53	6.066	5.737	6.411	6.631	
May 24, 13.																		
C	32	32	32 L.....	Right	12.4.7.8	13.1	16.5	19.8	..	..	17.24.10.58	46.88	17.24.57.46	3.872	4.016	4.198	4.356	
C	33	33	33 S Perseus	Left	2.5.6.2	12.4	18.0	21.2	..	..	17.35.11.90	46.88	17.35.59.81	4.081	4.223	4.398	4.556	
C	34	34	34 Aquila	Left	10.8.14.1	17.4	22.0	25.2	28.6	..	17.45.6.65	46.87	17.46.5.65	1.930	1.796	1.940	2.034	
C	35	35	35 Aquila	Left	2.58.28.8	30.1	34.6	39.1	41.2	..	17.50.34.42	46.87	17.51.19.26	6.836	6.786	6.840	6.894	
C	36	36	36 Collimator	Left	..	..	..	..	..	..	..	..	..	5.41	5.460	5.744	5.886	
C	37	37	37 Collimator	Right	..	..	..	..	..	..	..	..	..	4.130	3.819	4.140	4.680	
May 25, 10.																		
TP	38	38	38 Collimator	Right	..	..	..	..	..	..	..	..	..	..	..	..	..	
TP	39	39	39 Collimator	Left	..	..	..	..	..	..	..	..	..	..	..	..	..	
TP	40	40	40 S Perseus	Left	49.4.25.3	53.5	58.4	63.4	68.4	+0.17	15.55.31.36	46.47	15.56.37.86	3.066	3.034	3.792	3.983	
TP	41	41	41 S Perseus	Left	49.4.25.3	53.5	58.4	63.4	68.4	+0.17	15.55.31.36	46.47	15.56.37.86	3.066	3.034	3.792	3.983	
TP	42	42	42 Regulus	Right	28.7.34.3	36.7	42.1	46.3	50.7	+0.17	15.26.57.97	46.46	15.27.26.03	6.735	6.506	6.774	7.087	
TP	43	43	43 Regulus	Left	26.6.29.8	34.3	39.6	43.6	47.7	+0.17	15.33.36.96	46.45	15.34.23.34	7.838	7.748	7.808	8.065	
TP	44	44	44 L.....	Right	15.45.29.8	40.9	45.8	50.7	55.6	+0.17	15.45.29.8	46.45	15.46.16.62	6.735	6.719	7.075	7.343	
TP	45	45	45 L.....	Right	35.2.38.3	42.7	47.3	51.7	54.8	+0.17	15.33.36.96	46.45	15.34.23.34	7.838	7.748	7.808	8.065	

The observations of transits are usually made by the galvanic or chronographic method, the wires employed being $\alpha, \mu, \eta, \epsilon, \delta$, taken in the order of transit, α

DAY AND HOUR.	Observer.	No. of Reference.	NAME OF OBJECT.	Position of Object (Face of Vertical Circle).	Seconds of Horizontal Transit over Vertical Wires.					Correction for Personal Equation.	Concluded Clock Time of Transit (Face of Vertical Circle observed).			Clock Slow.	Sidereal Time.	Readings of Microscopes of Horizontal Circle.					
					First.	Second.	Third.	Fourth.	Fifth.		Sixth.	h	m			s	rev.	h	m	s	rev.
May 26, 12	JP	1	Antares ..	Right	15° 18' 28"	22° 35' 26"	26° 30' 33"	30° 33' 37"	35° 30' 33"	+0.07	16. 5. 24.69	46° 03'	16. 6. 10.72	1.662	1.798	1.950	2.208				
	JP	2	Antares ..	Left	25° 18' 24"	31° 36' 40"	40° 43' 30"	45° 30' 33"	+0.07	16. 11. 34.27	46° 02'	16. 12. 20.92	1.140	0.992	1.174	1.740					
	JP	3	2 L.	Right	33° 58' 32"	43° 14' 48"	52° 30' 33"	57° 30' 33"	+0.07	16. 32. 45.70	46° 02'	16. 33. 31.72	4.967	4.708	4.998	5.259					
	JP	4	2 L.	Left	33° 58' 32"	43° 14' 48"	52° 30' 33"	57° 30' 33"	+0.07	16. 32. 45.70	46° 02'	16. 33. 31.72	4.967	4.708	4.998	5.259					
	JP	5	Collimator	Right	33° 58' 32"	43° 14' 48"	52° 30' 33"	57° 30' 33"	+0.07	16. 32. 45.70	46° 02'	16. 33. 31.72	4.967	4.708	4.998	5.259					
	JP	6	Collimator	Left	33° 58' 32"	43° 14' 48"	52° 30' 33"	57° 30' 33"	...	...	...	...	...	4.967	4.708	4.998	5.259				
	JP	7	a Aquila ..	Left	44° 5' 47.8"	50° 53' 32"	58° 0' 11"	1' 1"	+0.07	18. 53. 37.97	45° 98'	18. 54. 38.93	7.714	7.857	8.065	8.340					
	JP	8	a Aquila ..	Left	44° 5' 47.8"	50° 53' 32"	58° 0' 11"	1' 1"	+0.07	18. 53. 37.97	45° 98'	18. 54. 38.93	7.714	7.857	8.065	8.340					
May 28, 14	C	9	2 L.	Left	20° 16' 11"	17° 15' 28"	25° 58' 29"	34° 11' 1"	+0.07	18. 41. 10.93	45° 10'	18. 42. 10.93	45° 10'	18. 42. 10.93	45° 10'	18. 42. 10.93					
	C	10	2 L.	Right	3° 5' 9"	9° 14' 18"	18° 21' 25"	27° 30' 33"	+0.07	18. 51. 12.33	45° 10'	18. 51. 12.33	45° 10'	18. 51. 12.33	45° 10'	18. 51. 12.33					
	C	11	Capella ..	Left	18° 5' 23.8"	24° 34' 38"	34° 38' 21"	45° 1"	+0.07	19. 1. 31.37	45° 10'	19. 1. 31.37	45° 10'	19. 1. 31.37	45° 10'	19. 1. 31.37					
	C	12	Capella ..	Right	18° 5' 23.8"	24° 34' 38"	34° 38' 21"	45° 1"	+0.07	19. 1. 31.37	45° 10'	19. 1. 31.37	45° 10'	19. 1. 31.37	45° 10'	19. 1. 31.37					
	C	13	a Aquila ..	Left	38° 1' 10"	42° 8' 11.3"	49° 31' 13"	56° 31' 13"	+0.07	19. 12. 6.36	45° 09'	19. 12. 6.36	45° 09'	19. 12. 6.36	45° 09'	19. 12. 6.36					
	C	14	a Aquila ..	Right	38° 1' 10"	42° 8' 11.3"	49° 31' 13"	56° 31' 13"	+0.07	19. 12. 6.36	45° 09'	19. 12. 6.36	45° 09'	19. 12. 6.36	45° 09'	19. 12. 6.36					
	C	15	Collimator	Left	38° 1' 10"	42° 8' 11.3"	49° 31' 13"	56° 31' 13"	+0.07	19. 12. 6.36	45° 09'	19. 12. 6.36	45° 09'	19. 12. 6.36	45° 09'	19. 12. 6.36					
	C	16	Collimator	Right	38° 1' 10"	42° 8' 11.3"	49° 31' 13"	56° 31' 13"	+0.07	19. 12. 6.36	45° 09'	19. 12. 6.36	45° 09'	19. 12. 6.36	45° 09'	19. 12. 6.36					
May 29, 13	T	17	Collimator	Left	38° 1' 10"	42° 8' 11.3"	49° 31' 13"	56° 31' 13"	...	...	...	...	...	5.065	5.364	5.683	5.985				
	T	18	Collimator	Right	38° 1' 10"	42° 8' 11.3"	49° 31' 13"	56° 31' 13"	...	...	...	...	...	4.154	3.842	4.138	4.742				
	T	19	a Serpens ..	Left	38° 0' 56"	42° 5' 8"	51° 11"	14° 5"	+0.23	17. 12. 5.90	44° 78'	17. 12. 50.68	1.828	1.663	1.807	2.529					
	T	20	Antares ..	Left	38° 0' 56"	42° 5' 8"	51° 11"	14° 5"	+0.23	17. 12. 5.90	44° 78'	17. 12. 50.68	1.828	1.663	1.807	2.529					
	T	21	Antares ..	Left	4° 8' 01"	13° 15' 10"	19° 16' 28"	28° 30' 33"	+0.03	19. 2. 13.01	44° 02'	19. 2. 13.01	44° 02'	19. 2. 13.01	44° 02'	19. 2. 13.01					
	T	22	2 L.	Left	33° 54' 39"	43° 14' 48"	52° 30' 33"	57° 30' 33"	+0.23	17. 30. 46.00	44° 78'	17. 31. 30.78	3.465	3.276	3.400	3.826					
	T	23	2 L.	Right	21° 34' 28"	28° 34' 32"	38° 1' 11"	47° 30' 33"	+0.23	17. 33. 31.76	44° 78'	17. 34. 16.34	2.760	2.723	2.810	3.446					
May 31, 14	AD	24	2 L.	Left	2° 5' 6"	10° 15' 15"	19° 19' 26"	28° 30' 33"	+0.03	19. 2. 13.01	44° 02'	19. 2. 13.01	44° 02'	19. 2. 13.01	44° 02'	19. 2. 13.01					
	AD	25	2 L.	Right	12° 11' 15"	19° 35' 25"	29° 31' 32"	39° 31' 32"	+0.03	19. 11. 3.53	44° 02'	19. 11. 3.53	44° 02'	19. 11. 3.53	44° 02'	19. 11. 3.53					
	AD	26	a Aquila ..	Left	22° 25' 55"	28° 38' 32"	36° 38' 32"	44° 38' 32"	+0.03	19. 18. 0.91	44° 01'	19. 18. 44.92	2.666	2.179	2.400	2.560					
	AD	27	a Aquila ..	Left	22° 25' 55"	28° 38' 32"	36° 38' 32"	44° 38' 32"	+0.03	19. 18. 0.91	44° 01'	19. 23. 14.77	5.084	4.833	5.066	6.280					
	AD	28	Collimator	Right	22° 25' 55"	28° 38' 32"	36° 38' 32"	44° 38' 32"	...	...	...	...	...	4.516	3.863	4.141	6.017				
	AD	29	Collimator	Left	22° 25' 55"	28° 38' 32"	36° 38' 32"	44° 38' 32"	...	...	...	...	...	5.110	3.552	3.829	6.203				
June 4-15	AD	30	2 L.	Left	4° 8' 01"	13° 15' 10"	23° 36' 27"	34° 11' 1"	+0.03	20. 6. 16.31	43° 28'	20. 6. 38.69	6.450	6.263	6.513	6.883					
	AD	31	2 L.	Right	34° 1' 58.2"	26' 8"	12° 14' 11"	19° 30' 33"	+0.03	20. 14. 5.38	43° 28'	20. 14. 47.96	4.353	4.250	4.473	4.924					
	AD	32	a Aquila ..	Left	30° 38' 32"	41° 45' 48"	48° 31' 1"	56° 31' 13"	+0.03	20. 22. 43.66	43° 27'	20. 22. 43.66	43° 27'	20. 22. 43.66	43° 27'	20. 22. 43.66					
	AD	33	a Aquila ..	Left	54° 58' 32"	10° 54' 8"	8° 11"	14° 5"	+0.03	20. 32. 33.37	43° 27'	20. 27. 45.60	4.339	4.003	4.168	4.951					
	AD	34	Collimator	Right	...	...	...	...	...	...	...	...	...	4.090	3.846	4.117	4.679				
	AD	35	Collimator	Left	...	...	...	...	...	...	...	...	...	5.498	3.979	4.359	6.003				
June 11, 8	JP	36	2 L.	Right	0° 4' 47"	9° 15' 10"	19° 16' 24"	24° 30' 33"	+0.07	13. 35. 12.35	39° 12'	13. 35. 51.47	8.362	8.217	8.383	8.823					
	JP	37	2 L.	Left	48° 17' 35.37	36' 36'	8° 12'	13° 12'	+0.07	13. 51. 0.66	39° 12'	13. 51. 36.81	3.451	3.372	3.501	4.160					
	JP	38	Antares ..	Right	16° 6' 23.52	28° 31' 33'	34° 30' 33"	42° 30' 33"	+0.07	16. 15. 26.65	39° 08'	16. 16. 31.47	7.900	8.081	8.124	8.513					
	JP	39	Antares ..	Left	16° 6' 23.52	28° 31' 33'	34° 30' 33"	42° 30' 33"	+0.07	16. 15. 26.65	39° 08'	16. 16. 31.47	7.900	8.081	8.124	8.513					
	JP	40	a Serpens ..	Left	20° 25' 23.52	26° 38' 32"	34° 30' 33"	42° 30' 33"	+0.07	16. 18. 37.32	39° 07'	16. 19. 36.29	1.530	1.522	1.546	2.103					
	JP	41	a Serpens ..	Right	20° 25' 23.52	26° 38' 32"	34° 30' 33"	42° 30' 33"	+0.07	16. 18. 37.32	39° 07'	16. 19. 36.29	1.530	1.522	1.546	2.103					
	JP	42	Collimator	Right	20° 25' 23.52	26° 38' 32"	34° 30' 33"	42° 30' 33"	+0.07	16. 18. 37.32	39° 07'	16. 19. 36.29	1.530	1.522	1.546	2.103					
	JP	43	Collimator	Left	20° 25' 23.52	26° 38' 32"	34° 30' 33"	42° 30' 33"	...	...	...	...	...	4.000	3.750	4.028	4.660				
	JP	44	Collimator	Right	20° 25' 23.52	26° 38' 32"	34° 30' 33"	42° 30' 33"	...	...	...	...	...	5.477	5.552	5.808	6.100				
June 12, 8	T	44	Collimator	Right	...	...	...	...	...	...	...	...	...	4.883	3.805	4.055	4.643				
	T	45	Collimator	Left	...	...	...	...	...	...	...	...	...	5.463	5.565	5.836	6.011				

DAY AND HOUR.	OBSERV. No. of Reference.	NAME OF OBJECT.	Position of Vertical Circle.	Seconds of Horizontal Transit over Vertical Wires.						Correction for Refraction.	Corrected Clock Time of Transit of Mean of Vertical Wires observed.	Clock Slow.	Sidereal Time.	Readings of Microscopes of Horizontal Circle.								
				First.	Second.	Third.	Fourth.	Fifth.	Sixth.					a	b	c	d					
																		rev.	rev.	rev.	rev.	
																						s
June 12.	8	T 1	1	1	Left	33.4	37.2	41.5	47.2	51.7	55.9	+0.23	13.49	44.71	38.50	13.50	23.21	0.23	0.23	0.79	0.92	
	8	T 2	1	1	Right	43.0	46.8	51.0	57.1	61.1	66.0	+0.23	13.55	54.33	38.49	13.56	32.82	0.23	0.23	0.88	0.41	0.35
	9	T 3	1	1	Left	31.7	34.9	38.0	42.6	45.8	49.7	+0.23	14.4	40.51	38.49	14.19	19.00	7.92	7.58	8.02	8.53	8.23
	9	T 4	1	1	Right	23.5	26.0	28.6	33.0	36.1	39.5	+0.23	14.9	30.95	38.49	14.10	9.44	15.93	16.53	16.97	17.23	17.23
	9	T 5	1	1	Left	21.1	25.0	30.3	37.2	42.1	46.8	+0.23	14.15	34.08	38.49	14.16	12.37	9.55	9.65	9.91	10.02	10.02
	9	T 6	1	1	Right	44.3	48.9	54.0	60.8	64.4	70.4	+0.23	14.19	57.03	38.49	14.20	36.02	4.39	4.55	4.57	4.85	4.85
June 14.	9	HR 7	Collimator	Right	..	..	..	..	..	..	..	..	..	..	..	..	4.68	3.74	4.09	4.97	4.71	
	9	HR 8	Collimator	Right	..	..	..	..	..	..	..	..	..	..	..	..	4.68	3.68	3.86	5.99	5.77	
	10	T 9	1	1	Left	50.5	54.0	58.3	63.8	67.7	71.8	+0.09	15.56	25.04	37.37	15.57	3.31	4.02	3.98	4.09	4.79	
	10	HR 10	1	1	Right	..	..	..	..	..	..	..	..	..	..	..	3.66	3.45	3.68	5.88	5.88	
June 17.	9	WO 11	1	1	Left	51.2	54.5	57.5	60	58	8.8	+0.03	14.26	50.00	35.52	14.26	35.52	8.34	8.85	8.514	7.971	
	9	WO 12	1	1	Right	27.2	50.3	54.1	58.6	62.0	65.8	+0.03	15.1	36.98	35.51	15.2	11.79	8.58	8.56	7.81	8.93	
	10	WO 13	Collimator	Right	..	..	..	..	..	..	..	..	..	..	..	..	4.04	3.73	4.01	4.91	4.534	
	10	WO 14	Collimator	Left	..	..	..	..	..	..	..	..	..	..	..	..	5.93	3.675	3.996	6.083	6.083	
June 18.	9	TR 15	1	1	Left	27	50	51	13.7	17.2	20.3	+0.17	14.21	11.65	35.08	14.21	46.75	0.624	0.534	0.552	1.165	
	9	TR 16	1	1	Right	28	60	61	14.0	17.5	20.3	+0.17	14.33	11.84	35.08	14.33	46.92	0.699	1.134	1.139	1.744	
June 19.	8	C 17	1	1	Right	11.5	14.5	18.2	22.8	26.5	29.7	..	14.8	8.203	34.25	14.8	8.575	2.976	3.131	3.354	3.564	
	9	C 18	1	1	Left	33.2	36.6	40.0	44.6	48.1	51.3	..	14.30	42.30	34.24	14.31	16.54	0.766	0.521	0.697	1.166	
	9	C 19	1	1	Left	43.6	48.6	51.7	56.1	59.1	62.1	..	14.39	53.88	34.23	14.40	28.81	0.681	0.681	0.947	1.450	
	9	C 20	1	1	Left	54.2	57.8	61.2	64.8	68.3	71.8	..	14.44	35.75	34.23	14.45	7.98	0.688	0.735	0.614	0.666	
	9	C 21	Antares ..	Left	37.5	40.7	44.2	49.2	52.5	56.0	..	..	14.50	46.68	34.23	14.51	20.91	0.720	0.720	0.945	1.450	
	9	C 22	Antares ..	Left	10	4.5	8.0	12.8	16.4	19.1	..	..	14.56	10.59	34.22	14.56	44.95	0.731	0.430	0.680	1.210	
June 20.	11	TR 20	1	1	Left	31	63	10.0	14.8	19.3	21.9	+0.07	16.58	12.47	33.58	16.58	46.05	0.117	0.034	0.430	0.602	
	11	TR 21	1	1	Left	16.6	20.1	23.6	28.6	31.9	35.4	+0.07	17.24	21.0	33.58	17.24	38.65	0.433	0.055	0.571	0.600	
	11	TR 22	1	1	Left	56.6	59.8	63.0	67.3	70.5	73.7	+0.07	17.24	38.65	33.57	17.24	38.65	4.602	1.422	1.776	5.531	
	11	TR 23	1	1	Left	40.2	43.6	47.0	50.4	53.8	56.8	+0.07	17.29	48.49	33.57	17.30	22.06	2.741	2.857	3.074	3.168	
	12	TR 24	Antares ..	Right	8.2	11.4	15.1	20.0	23.4	26.6	+0.07	17.40	17.49	33.57	17.40	51.00	7.955	0.005	0.825	4.84	4.84	
	12	TR 25	Antares ..	Left	13.6	16.9	20.4	25.0	28.6	32.0	+0.07	17.46	22.82	33.57	17.46	56.36	1.429	1.150	1.365	1.942	1.942	
June 21.	9	TR 26	1	1	Left	58.4	62.5	66.1	70.0	73.8	77.4	+0.17	14.44	8.89	32.09	14.44	41.88	0.403	3.800	3.983	4.452	
	9	TR 27	1	1	Left	4.3	7.5	11.6	16.7	20.9	24.4	+0.17	14.50	14.34	32.09	14.50	47.33	0.758	3.784	3.915	4.637	
	9	TR 28	1	1	Left	57.7	60.5	64.2	68.0	71.8	75.4	+0.17	15.25	3.72	32.08	15.25	36.72	7.800	2.845	3.311	3.435	
	9	TR 29	1	1	Left	16.4	19.8	23.0	27.8	31.5	34.4	+0.17	15.31	20.65	32.08	15.31	38.63	0.688	3.885	4.145	4.243	
	9	TR 30	1	1	Left	54.2	57.8	61.2	64.8	68.3	71.8	+0.17	16.23	3.87	32.09	16.23	36.72	2.777	2.405	2.713	3.253	
	9	TR 31	1	1	Left	58.3	61.8	65.3	68.8	72.3	75.8	+0.17	16.28	8.04	32.09	16.28	40.00	6.000	0.666	0.538	6.568	
	11	TR 32	1	1	Left	13.9	16.5	19.5	24.2	27.8	30.5	+0.17	16.37	22.10	32.09	16.37	55.13	5.737	5.711	5.996	6.110	
	12	TR 33	Collimator	Right	..	..	..	..	..	..	..	+0.17	16.45	56.67	32.09	16.44	29.61	8.195	7.790	8.242	8.781	
	12	TR 34	Collimator	Left	..	..	..	..	..	..	..	..	..	..	..	..	4.05	3.780	4.00	4.91	4.91	
	12	TR 35	Collimator	Left	..	..	..	..	..	..	..	..	..	..	..	..	5.403	5.334	5.790	5.941	5.941	
June 22.	T 50	1	2	1	Right	26.6	30.2	33.9	38.0	42.0	46.2	+0.23	16.3	36.61	32.00	16.4	8.61	2.995	3.145	3.485	3.706	
	11	T 40	Collimator	Right	..	..	..	..	..	..	..	..	..	..	..	..	12.0	5.26	5.36	5.42	5.592	
	11	T 41	Collimator	Right	..	..	..	..	..	..	..	..	..	..	..	..	..	4.053	3.746	4.03	4.252	
	12	T 42	1	2	Left	27	60	92	14.5	17.8	21.2	+0.23	17.33	12.11	31.95	17.32	44.47	5.995	5.711	6.002	6.556	

The observations of transits are usually made by the galvanic or chronographic method, the wires employed being *s, t, u, v, w, x, y, z*, taken in the order of transit, Face Right; or *s, t, u, v, w, x, y, z*, Face Left; the times are then referred immediately to the Sideral Standard. Whenever the observations are made by Graham's.

For Tabular Equivalents of Microscopes, it is assumed that *s'* corresponds to *85 s* of all four. Correction for Runs of Microscopes for $100''$, $-0''$.

5. Microscopes *a, b, c* were read on the negative side of the micrometer-zero.
 7. Very tremulous.
 16. Very faint and tremulous.
 29. This observation, giving a discordant result, has not been used in subsequent sections.
 38. The readings of all the microscopes have been corrected, giving a discordant result, has not been used for determination of instrumental errors.
 41. The reading of microscope *b* was not down $4''$ 46.

Concluded Reading of Horizontal Circle.	Approx. Zenith Distance.	Correction for Collima- tion.	Readings of Levels parallel to the Axis of the Vertical Circle.												Con- cluded Level Inclination.	Correction for Level.	Corrected Reading		Concluded Azimuth, measuring from S. to W. N. and E.	No. of Reference.
			Vertical Circle.														Horizontal Circle.			
			a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	
27.3. 20. 19.55	68. 24	+ 2.81	36.8	17.39	46.0	18.78	57.2	20.30	60.0	21.36	-2.71	+ 0.28	27.3. 20. 28.64	81. 20. 46.08	1					
94. 32. 23.92	60. 20	+ 2.79	52.7	18.09	62.0	20.43	75.8	21.79	75.6	22.94	-13.20	+ 0.02	94. 32. 21.15	85. 41. 38.50	2					
139. 19. 45.41	60. 20	+ 3.48	57.9	19.54	66.2	20.91	78.9	23.54	80.1	23.50	-18.50	- 4.72	159. 10. 47.17	328. 29. 1.61	3					
340. 51. 61.14	48. 14	- 3.50	51.0	18.88	59.4	20.53	72.1	21.92	73.2	22.90	-11.88	- 1.12	340. 51. 1.53	350. 0. 18.97	4					
341. 34. 55.81	75. 49	+ 2.60	52.7	19.05	61.6	20.04	73.0	22.01	74.3	23.68	-13.45	- 0.08	341. 34. 58.42	350. 44. 15.96	5					
162. 17. 51.20	76. 9	- 2.69	56.2	19.43	65.8	20.33	77.0	21.26	78.8	23.54	-17.68	+ 1.12	162. 17. 53.53	151. 25. 32.7	6					
191. 32. 56.74	90. 1	- 2.61	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
112. 52. 50.47	90. 1	- 2.61	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
272. 42. 52.15	81. 3	+ 2.64	37.1	17.66	47.0	19.08	51.9	20.93	33.5	21.40	-3.39	+ 2.50	11. 32. 53.63	180. 42. 10.00	7					
94. 45. 18.98	81. 39	+ 0.63	54.7	19.41	63.8	20.82	72.2	22.25	72.2	23.53	-15.13	+ 0.06	94. 45. 16.51	180. 42. 9.45	8					
210. 54. 57.17	85. 36	+ 2.82	48.7	18.84	58.1	20.33	72.1	22.20	71.1	23.12	-11.88	+ 0.51	210. 55. 2.51	20. 4. 18.88	9					
39. 34. 32.41	69. 40	- 2.78	63.5	20.33	71.6	21.71	84.6	23.41	83.9	24.41	-25.28	+ 4.47	39. 34. 34.10	28. 43. 50.47	10					
191. 32. 55.78	90. 1	- 2.61	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
11. 32. 54.68	90. 1	- 2.61	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
194. 45. 33.26	70. 15	+ 2.77	57.1	18.87	67.4	20.31	79.6	21.80	81.3	22.59	-15.14	- 0.72	194. 45. 33.31	180. 42. 11.56	11					
17. 40. 42.36	70. 27	- 2.77	62.8	19.40	72.6	20.86	84.3	22.30	86.7	23.15	-20.44	+ 2.59	17. 40. 42.18	6. 49. 38.55	12					
357. 6. 55.80	75. 0	- 2.70	55.5	18.90	69.5	20.30	83.0	21.78	85.5	22.61	-16.68	+ 0.95	357. 6. 53.05	346. 16. 9.36	13					
182. 15. 28.15	74. 23	+ 2.71	64.0	19.32	74.2	20.80	86.5	21.18	89.0	23.50	-20.28	- 2.16	182. 15. 29.35	351. 24. 46.68	14					
170. 44. 8.20	46. 14	+ 3.31	64.0	19.37	74.0	20.80	85.8	21.10	89.0	23.58	-16.68	- 7.32	170. 44. 9.39	359. 30. 19.90	15					
352. 18. 30.77	60. 46	- 3.63	56.0	18.56	66.5	20.00	77.6	21.30	80.5	22.15	-12.59	- 0.53	352. 18. 28.01	341. 27. 41.92	16					
340. 51. 61.15	48. 14	- 3.50	51.0	18.88	59.4	20.53	72.1	21.92	73.2	22.90	-11.88	- 1.12	340. 51. 1.53	350. 0. 18.97	17					
27. 32. 48.86	79. 48	+ 2.63	64.5	19.40	74.3	20.80	86.0	21.10	89.0	23.58	-16.68	- 7.32	27. 32. 49.12	346. 57. 5.43	18					
20. 35. 13.17	76. 39	- 2.68	57.8	19.96	66.8	20.39	80.3	21.43	78.8	23.47	-20.28	+ 2.11	20. 35. 12.60	9. 44. 37.34	19					
102. 47. 40.74	42. 26	+ 3.87	51.2	19.33	61.0	20.20	73.9	21.11	73.7	22.86	-15.09	- 0.64	102. 47. 41.17	12. 27. 34.74	20					
202. 47. 40.74	42. 26	+ 3.87	51.2	19.33	61.0	20.20	73.9	21.11	73.7	22.86	-15.09	- 0.64	202. 47. 41.17	11. 57. 11.92	21					
24. 51. 41.74	42. 28	- 3.85	50.9	20.23	68.7	21.63	80.8	22.48	80.0	24.59	-23.54	+ 11.29	24. 51. 41.98	14. 1. 9.56	22					
28. 44. 48.21	42. 28	- 3.63	61.1	20.33	69.4	21.77	81.9	22.59	80.5	24.31	-21.53	+ 2.12	28. 44. 47.68	17. 4. 9.56	23					
10. 5. 53.45	49. 48	+ 2.68	49.8	19.32	58.7	20.58	70.4	22.43	69.3	23.97	-15.03	- 0.50	10. 5. 53.05	10. 15. 16.23	24					
156. 27. 24.65	84. 6	+ 4.03	62.0	19.11	72.1	20.50	80.0	22.48	80.0	23.97	-15.03	- 0.67	156. 27. 26.99	345. 36. 46.65	25					
357. 32. 53.73	83.50	- 4.93	34.2	18.34	64.9	19.78	76.1	21.40	79.3	22.21	-11.48	- 0.19	357. 32. 51.91	326. 44. 48.17	26					
357. 36. 46.68	78.35	- 4.90	61.3	19.08	71.8	20.30	80.0	22.48	80.0	23.97	-15.03	- 0.67	357. 36. 48.96	345. 36. 46.68	27					
129. 22. 23.81	82.51	+ 4.00	61.5	19.10	71.3	20.49	80.8	21.88	83.1	22.65	-17.14	- 0.82	129. 22. 26.51	341. 31. 47.74	28					
17. 17. 39.52	75. 8	+ 4.10	63.8	19.41	73.5	20.79	81.0	22.01	74.2	22.80	-19.08	- 1.25	17. 17. 41.32	346. 21. 1.03	29					
358. 18. 41.28	77.54	- 4.10	58.7	18.91	69.2	20.37	75.8	21.49	78.7	22.44	-14.59	+ 0.37	358. 18. 37.43	347. 27. 56.71	30					
34. 28. 28.10	46. 19	- 3.58	60.8	20.00	70.7	21.49	80.0	22.57	80.2	24.17	-19.14	+ 11.69	34. 28. 29.01	15. 30. 57.56	31					
213. 59. 51.40	46. 42	+ 5.51	54.8	18.31	63.7	20.00	72.8	21.13	75.7	22.00	-16.68	+ 2.53	213. 59. 52.23	22. 49. 17.80	32					
191. 32. 56.72	90. 1	- 2.61	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
11. 32. 48.71	90. 1	- 2.61	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
357. 16. 58.68	82. 7	- 3.85	47.8	19.03	57.0	20.50	67.9	21.32	68.2	23.33	-11.84	- 1.18	357. 16. 52.65	326. 26. 11.64	33					
11. 32. 48.38	90. 1	- 2.79	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
191. 32. 56.56	90. 1	- 2.61	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
34. 28. 28.49	46. 19	- 3.58	60.8	20.00	70.7	21.49	80.0	22.57	80.2	24.17	-19.14	+ 11.69	34. 28. 29.01	15. 30. 57.56	34					

DAY AND HOUR.	OBSERV.	NAME OF OBJECT.	Position of Object in Altazimuth Circle.	Seconds of Horizontal Transit over Vertical Wires.						Correction for Refraction & Parallax.	Concluded Clock Time of Horizontal Transit over Vertical Wires observed.						Clock Slow.	Sidereal Time.	Readings of Microscopes of Horizontal Circle.			
				First.	Second.	Third.	Fourth.	Fifth.	Sixth.		a	b	c	d								
															h	m			s	h	m	s
June 23. 11	C	1	Collimator	Right	..	..	..	..	..	..	..	..	..	..	..	4'53	3'76	4'06	4'59			
11	C	2	Collimator	Left	..	..	..	..	..	..	..	..	..	..	..	..	5'34	5'44	5'50	5'96		
12	C	3	» L.....	Right	15'2	18'8	22'3	27'0	30'6	34'1	..	..	..	..	..	17'49	24'6	31'3	37'6			
12	C	4	» L.....	Left	18'8	22'3	25'8	30'4	34'0	37'5	..	..	..	..	..	17'38	28'8	31'7	37'5			
June 24. 12	HP	5	» L.....	Left	33'0	36'6	40'6	45'6	49'1	52'5	+0'00	18. 22. 14'12	31'07	18. 22. 14'12	31'07	18. 22. 14'12	31'07	18. 22. 14'12	31'07			
12	HP	6	» L.....	Left	15'8	18'8	22'1	26'5	30'0	33'1	+0'00	21. 12. 34'47	31'00	21. 12. 34'47	31'00	21. 12. 34'47	31'00	21. 12. 34'47	31'00			
June 25. 11	TP	7	» Ophiuchi	Right	4'7	7'6	10'8	15'1	18'2	21'2	+0'17	17. 25. 13'10	30'23	17. 25. 13'10	30'23	17. 25. 13'10	30'23	17. 25. 13'10	30'23			
11	TP	8	» Ophiuchi	Left	48'0	51'0	54'2	58'4	1'6	4'5	+0'17	17. 31. 56'42	30'23	17. 31. 56'42	30'23	17. 31. 56'42	30'23	17. 31. 56'42	30'23			
11	TP	9	Antares ..	Right	12	4'5	8'0	13'0	16'0	19'8	+0'17	17. 38. 10'50	30'23	17. 38. 10'50	30'23	17. 38. 10'50	30'23	17. 38. 10'50	30'23			
11	TP	10	Antares ..	Left	47'0	50'4	54'0	58'6	2'1	5'0	+0'17	17. 45. 36'52	30'23	17. 45. 36'52	30'23	17. 45. 36'52	30'23	17. 45. 36'52	30'23			
12	TP	11	» L.....	Right	29'3	32'6	36'0	41'2	44'8	48'4	+0'17	19. 0. 38'90	30'18	19. 0. 38'90	30'18	19. 0. 38'90	30'18	19. 0. 38'90	30'18			
13	TP	12	» L.....	Left	58'3	1'8	3'0	10'0	13'4	16'8	+0'17	19. 15. 7'72	30'18	19. 15. 7'72	30'18	19. 15. 7'72	30'18	19. 15. 7'72	30'18			
June 26. 1	TP	13	Collimator	Left	..	..	..	..	..	..	..	..	..	..	..	..	5'18	5'32	5'66	5'88		
1	TP	14	Collimator	Right	..	..	..	..	..	..	..	..	..	..	..	..	4'02	4'32	4'06	4'54		
12	T	15	» L.....	Right	16	5'1	8'9	14'1	18'2	22'0	+0'23	18. 11. 11'88	29'60	18. 11. 11'88	29'60	18. 11. 11'88	29'60	18. 11. 11'88	29'60			
12	T	16	» L.....	Left	38'3	42'6	47'8	51'0	55'2	58'4	+0'23	18. 21. 48'58	29'60	18. 21. 48'58	29'60	18. 21. 48'58	29'60	18. 21. 48'58	29'60			
12	T	17	» Aquila	Right	10'1	12'6	15'8	20'0	24'2	28'4	+0'23	18. 31. 28'88	29'60	18. 31. 28'88	29'60	18. 31. 28'88	29'60	18. 31. 28'88	29'60			
12	T	18	» Aquila	Left	28'0	30'8	34'2	38'6	41'9	44'8	+0'23	18. 35. 36'56	29'60	18. 35. 36'56	29'60	18. 35. 36'56	29'60	18. 35. 36'56	29'60			
June 28. 10	HP	19	» Serpentis	Right	7'1	10'5	13'1	17'0	20'8	23'6	+0'00	16. 53. 15'46	29'36	16. 53. 15'46	29'36	16. 53. 15'46	29'36	16. 53. 15'46	29'36			
10	HP	20	» Serpentis	Left	36'6	42'6	48'6	50'3	53'5	56'5	+0'00	17. 0. 48'16	28'35	17. 0. 48'16	28'35	17. 0. 48'16	28'35	17. 0. 48'16	28'35			
11	HP	21	Antares ..	Right	4'0	4'1	4'2	4'8	5'1	5'4	+0'00	17. 7. 49'21	28'35	17. 7. 49'21	28'35	17. 7. 49'21	28'35	17. 7. 49'21	28'35			
11	HP	22	Antares ..	Left	31'3	34'6	38'0	42'6	46'2	49'6	+0'00	17. 16. 40'47	28'34	17. 16. 40'47	28'34	17. 16. 40'47	28'34	17. 16. 40'47	28'34			
14	HP	23	» L.....	Right	48'3	51'0	53'8	1'3	4'2	7'0	+0'00	19. 55. 58'76	28'26	19. 55. 58'76	28'26	19. 55. 58'76	28'26	19. 55. 58'76	28'26			
14	HP	24	» L.....	Left	53'6	57'0	1'0	6'5	10'5	14'1	+0'00	20. 7. 39'1	28'26	20. 7. 39'1	28'26	20. 7. 39'1	28'26	20. 7. 39'1	28'26			
June 29. 12	JP	25	» Aquila	Right	10'0	12'0	14'0	16'0	18'0	20'0	+0'00	18. 40. 18'30	27'41	18. 40. 18'30	27'41	18. 40. 18'30	27'41	18. 40. 18'30	27'41			
12	JP	26	» Aquila	Left	15'0	17'0	19'0	21'0	23'0	25'0	+0'00	18. 45. 30'56	27'41	18. 45. 30'56	27'41	18. 45. 30'56	27'41	18. 45. 30'56	27'41			
13	JP	27	» L.....	Right	23'8	27'3	31'8	36'2	41'6	45'4	+0'00	19. 9. 34'56	27'40	19. 9. 34'56	27'40	19. 9. 34'56	27'40	19. 9. 34'56	27'40			
13	JP	28	» L.....	Left	12'8	17'0	21'0	26'8	31'0	34'5	+0'00	19. 19. 23'92	27'39	19. 19. 23'92	27'39	19. 19. 23'92	27'39	19. 19. 23'92	27'39			
June 30. 3	JP	29	Collimator	Right	..	..	..	..	..	..	..	..	..	..	..	..	4'15	3'79	4'12	4'69		
3	JP	30	Collimator	Left	..	..	..	..	..	..	..	..	..	..	..	..	5'34	5'41	5'74	5'88		
14	T	31	» L.....	Right	7'3	11'5	15'9	21'7	25'8	30'0	+0'23	20. 23. 18'96	26'81	20. 23. 18'96	26'81	20. 23. 18'96	26'81	20. 23. 18'96	26'81			
14	T	32	» L.....	Left	..	..	..	..	..	..	..	..	..	..	..	..	3'88	3'63	3'81	4'49		
15	T	33	Collimator	Right	..	..	..	..	..	..	..	..	..	..	..	..	5'19	4'47	5'01	5'82		
July 1. 14	C	34	» L.....	Right	30'4	34'8	39'3	43'3	49'6	54'2	..	20. 46. 42'12	25'97	20. 46. 42'12	25'97	20. 46. 42'12	25'97	20. 46. 42'12	25'97			
14	C	35	» L.....	Left	36'7	41'0	45'5	51'6	55'6	59'6	..	20. 55. 48'43	25'96	20. 55. 48'43	25'96	20. 55. 48'43	25'96	20. 55. 48'43	25'96			
15	C	36	» Aquila	Left	0'1	3'3	6'7	11'3	14'5	17'9	..	21. 18. 8'92	25'95	21. 18. 8'92	25'95	21. 18. 8'92	25'95	21. 18. 8'92	25'95			
15	C	37	» Aquila	Right	36'8	39'8	42'8	47'6	50'6	53'9	..	21. 22. 45'25	25'95	21. 22. 45'25	25'95	21. 22. 45'25	25'95	21. 22. 45'25	25'95			
15	C	38	Collimator	Right	..	..	..	..	..	..	..	..	..	..	..	..	3'72	3'63	3'54	4'00		
15	C	39	Collimator	Left	..	..	..	..	..	..	..	..	..	..	..	..	5'00	5'06	5'02	5'24		
July 2. 15	TP	40	» L.....	Right	..	47'4	47'3	53'7	58'3	2'6	+0'17	21. 51. 53'05	25'21	21. 51. 53'05	25'21	21. 51. 53'05	25'21	21. 51. 53'05	25'21			
July 11. 8	AD	41	» L.....	Right	12'6	16'7	20'8	26'6	30'6	34'6	+0'03	15. 42. 23'68	19'08	15. 42. 23'68	19'08	15. 42. 23'68	19'08	15. 42. 23'68	19'08			
11	AD	42	» L.....	Left	23'5	27'5	31'5	37'1	41'1	45'2	+0'03	15. 50. 34'31	19'08	15. 50. 34'31	19'08	15. 50. 34'31	19'08	15. 50. 34'31	19'08			

The observations of transits are usually made by the galvanic or chronographic method, the wires observed being α , γ , ϵ , δ , ζ , taken in the order of transit, Face Right; or α , γ , ϵ , δ , ζ , Face Left; the times are then referred immediately to the Sidereal Standard. Where the transits are observed by eye and ear, the wires employed are γ , ϵ , δ , ζ , Face Right; or γ , ϵ , δ , ζ , Face Left; the times then recorded are those of another clock, Graham's.

For Baric Equivalents of Microscopes, it is assumed that γ corresponds to δ of all four. Correction for Errors of Microscopes for $100''$, $10''$, $1''$, from July 11, $+0''$, $-0''$.

6. Very faint at times; cloudy.
25. 26. Diffused and tremulous.
34. Tremulous.

7. 8. Diffused.
40. Very ill-defined and tremulous; cloudy.
42. Very cloudy.

11, 12, 15, 16, 23, 24, 31. Cloudy.

Concluded Reading of Horizontal Circle.	Approx. Zenith Distance.	Correction for Collimation.	Readings of Levels parallel to the Axis of the Vertical Circle.												Concluded Reading of Level Inclination.	Correction for Level.	Corrected Reading of Horizontal Circle.	Concluded Azimuth, measured from S. to W., N., and E.	No. for Reference.								
			a		f		g		h		i		j							k		l		m		n	
			div.	div.	div.	div.	div.	div.	div.	div.	div.	div.	div.	div.						div.	div.	div.	div.	div.	div.	div.	
			a	f	g	h	i	j	k	l	m	n	a	f						g	h	i	j	k	l	m	n
191. 32. 56'98	90. 1 — 5'79	..	..	..	..	..	..	..	..	..	..	..	..	..	0'00	191. 32. 51'19	180. 42. 10'58	1									
111. 32. 44'77	90. 1 — 5'79	..	..	..	..	..	..	..	..	..	..	..	..	..	0'00	111. 32. 50'56	180. 42. 9'15	2									
144. 35. 33'13	75. 41 — 5'96	56'5	197'5	66'0	112'4	75'3	225'5	75'5	237'6	184'1	+ 1'31	160. 36. 25'48	180. 42. 47'43	3													
366. 36. 17'96	76. 14 — 5'96	53'5	194'0	66'3	208'8	78'0	222'5	71'6	235'4	147'4	— 0'49	160. 36. 23'33	335. 45. 47'53	4													
136. 27. 22'88	74. 16 — 6'02	57'5	198'8	66'7	209'0	77'6	220'8	78'7	231'0	172'1	+ 1'5	136. 27. 27'75	345. 36. 46'74	5													
17. 59. 24'83	74. 44 — 6'26	60'2	195'8	66'9	214'0	80'0	231'2	80'4	242'0	22'03	+ 3'15	17. 58. 39'81	7. 8. 18'96	6													
9. 24. 11'19	38. 49 — 9'34	59'7	197'1	68'9	211'8	81'2	239'6	81'8	240'6	21'34	+ 10'19	9. 24. 12'14	538. 33. 31'46	7													
192. 1. 3'11	38. 49 — 9'24	54'9	192'6	64'2	207'2	76'0	224'0	76'7	235'2	16'35	+ 3'99	192. 1. 8'36	1. 2. 07'68	8													
20. 32. 38'43	79. 23 — 5'89	51'7	189'1	61'1	203'8	73'3	221'0	72'8	231'1	12'80	+ 0'05	20. 32. 43'47	17. 25. 3'69	9													
20. 32. 50'54	79. 29 — 5'99	64'9	182'8	73'9	216'7	85'8	234'5	85'9	244'0	16'11	+ 0'01	20. 32. 56'18	17. 25. 3'69	10													
71. 8. 5'94	71. 8 — 12'52	50'7	188'7	66'2	203'5	70'8	217'8	72'2	229'0	11'56	+ 0'53	71. 8. 18'36	312. 37. 17'11	11													
153. 28. 25'50	69. 38 — 6'18	56'9	184'4	65'2	208'5	76'1	223'0	77'4	235'1	17'00	+ 1'43	153. 28. 30'25	322. 37. 49'12	12													
11. 32. 44'50	90. 1 — 5'79	..	..	..	..	..	..	..	..	..	..	..	..	0'00	11. 32. 36'28	180. 42. 9'61	13										
191. 32. 57'31	90. 1 — 5'79	..	..	..	..	..	..	..	..	..	..	..	..	0'00	191. 32. 51'52	180. 42. 10'58	14										
305. 12. 22'50	78. 41 — 5'91	43'0	183'1	54'6	198'5	65'0	215'8	65'1	226'8	6'40	+ 1'35	305. 12. 17'26	294. 21. 36'58	15													
127. 20. 20'63	77. 13 — 5'93	54'4	194'2	63'2	203'3	76'2	226'8	76'0	237'3	17'05	+ 0'89	127. 20. 34'67	296. 29. 53'96	16													
165. 5. 17'71	67. 27 — 8'12	58'7	192'0	68'8	213'4	80'0	236'0	80'3	241'2	21'31	+ 0'88	165. 5. 17'73	334. 24. 37'07	17													
346. 28. 34'75	45. 11 — 8'16	54'8	194'3	54'4	196'6	75'7	226'1	75'8	237'2	17'11	+ 3'93	346. 28. 35'34	335. 57. 49'86	18													
36. 41. 28'49	48. 18 — 7'88	70'2	199'5	79'2	212'5	92'0	229'6	94'2	231'4	+ 12'83		36. 41. 33'44	25. 50. 50'11	19													
279. 17. 18'14	78. 50 — 7'81	53'1	182'5	62'5	196'0	73'4	213'4	77'0	222'0	10'24	+ 2'63	279. 17. 22'58	28. 16. 45'25	20													
21. 24. 48'95	78. 14 — 5'91	65'2	195'4	75'3	209'9	87'1	225'7	88'8	234'7	22'60	+ 0'00	21. 24. 48'95	10. 34. 2'62	21													
78. 36. 10'84	78. 36 — 12'52	50'7	188'7	66'2	203'5	70'8	217'8	72'2	229'0	11'56	+ 0'53	78. 36. 15'31	12. 34. 32'42	22													
229. 22. 58'28	68. 44 — 6'21	43'5	180'4	55'3	195'2	64'1	208'8	64'2	219'1	3'05	+ 3'93	229. 22. 48'14	288. 32. 41'24	23													
121. 41. 18'39	67. 7 — 6'27	56'4	194'2	65'8	208'8	77'0	223'6	78'6	233'8	17'28	+ 1'75	121. 41. 22'91	290. 50. 39'58	24													
348. 5. 5'28	44. 53 — 8'20	57'7	183'8	68'0	198'4	80'0	215'1	81'8	223'2	13'75	+ 0'61	348. 5. 5'69	337. 12. 16'12	25													
460. 46. 58'41	70. 40 — 8'24	65'9	193'0	74'9	206'0	87'0	221'2	89'0	230'9	21'95	+ 0'16	460. 46. 58'49	335. 16. 19'52	26													
97. 39. 5'21	74. 4 — 5'86	57'7	185'7	69'0	196'6	79'6	215'1	80'0	221'2	13'49	+ 0'07	97. 39. 11'03	266. 48. 32'46	27													
279. 28. 45'71	77. 35 — 5'93	48'2	170'9	53'0	184'5	63'5	198'1	64'2	205'9	+ 23'31	+ 3'60	279. 28. 36'38	268. 37. 37'81	28													
191. 32. 59'08	90. 1 — 5'79	..	..	..	..	..	..	..	..	..	..	..	..	0'00	191. 32. 53'29	180. 42. 13'33	29										
11. 32. 46'58	90. 1 — 5'79	..	..	..	..	..	..	..	..	..	..	..	..	0'00	11. 32. 32'22	180. 42. 12'17	30										
279. 16. 18'25	71. 48 — 6'11	41'8	176'9	51'8	191'2	61'8	209'0	64'0	219'3	1'98	+ 3'67	279. 15. 52'04	285. 23. 11'98	31													
191. 32. 51'52	90. 1 — 5'79	..	..	..	..	..	..	..	..	..	..	..	..	0'00	191. 32. 45'46	180. 42. 5'40	32										
11. 32. 43'50	90. 1 — 5'79	..	..	..	..	..	..	..	..	..	..	..	..	0'00	11. 32. 49'09	180. 42. 9'65	33										
271. 50. 23'98	72. 50 — 6'06	39'0	181'8	49'0	197'3	58'0	213'5	58'4	227'0	3'05	+ 3'09	271. 50. 16'83	260. 59. 35'28	34													
93. 28. 32'47	71. 37 — 6'11	40'0	188'0	55'5	203'6	66'0	221'0	65'0	230'3	9'74	+ 1'13	93. 28. 46'66	262. 38. 5'11	35													
223. 18. 7'38	47. 1 — 7'91	52'0	194'7	61'0	197'8	76'8	216'8	76'0	228'0	10'55	+ 0'20	223. 18. 15'23	324. 37. 51'68	36													
279. 22. 41'90	67. 24 — 5'82	58'9	189'9	67'4	216'6	76'6	223'0	76'0	244'8	23'55	+ 7'77	279. 22. 41'90	288. 32. 41'24	37													
191. 32. 53'56	90. 1 — 5'79	..	..	..	..	..	..	..	..	..	..	..	..	0'00	191. 32. 47'77	180. 42. 6'02	38										
11. 32. 41'38	90. 1 — 5'79	..	..	..	..	..	..	..	..	..	..	..	..	0'00	11. 32. 47'77	180. 42. 6'22	39										
268. 46. 29'82	71. 44 — 6'10	34'8	179'3	47'9	195'1	54'2	208'0	54'4	220'3	+ 1'13	+ 4'71	268. 46. 19'01	257. 35. 37'46	40													
93. 48. 19'68	79. 40 — 4'60	55'8	191'2	64'8	203'5	78'2	223'3	78'7	233'5	16'51	+ 0'80	93. 48. 16'18	82. 57. 33'75	41													
275. 26. 21'21	80. 41 — 4'58	33'8	187'4	60'5	189'0	56'0	201'1	56'8	212'1	+ 1'49	+ 2'32	275. 26. 20'71	84. 35. 47'46	42													

OBSERVATIONS OF AZIMUTH, WITH THE ALTIZIMUTH,

DAY AND HOUR.		OBSERV.	No. of Reference.	NAME OF OBJECT.	Position of Object of Vertical Circle.	Seconds of Horizontal Transit over Vertical Wires.						Concluded Clock Time of Horizontal Transit over Mean of Vertical Wires observed.	Clock Slow.	Sidereal Time.	Readings of Microscopes of Horizontal Circle.						
						First.	Second.	Third.	Fourth.	Fifth.	Sixth.				a	b	c	d			
																			e		f
July 11.	9	AD	1	a Serpens	Left	43.5	48.6	51.8	56.1	59.1	2.2	+0.3	15.58.53.91	19.08	15.59.12.99	0.492	0.793	0.749	1.087	1	
	9	AD	2	a Serpens	Right	43.8	46.4	49.7	53.9	57.2	0.1	+0.3	16. 3.51.88	19.07	16. 4.10.05	0.492	0.793	0.749	1.087	2	
	9	AD	3	Antares	Right	20.1	23.2	26.9	31.3	35.0	38.3	+0.3	16. 8.29.30	19.07	16. 8.48.27	3.542	3.739	3.683	4.105	3	
	9	AD	4	Antares	Left	20.5	23.8	27.2	32.4	37.4	38.5	+0.3	16. 12.29.60	19.07	16. 12.48.67	3.839	3.658	3.863	4.442	4	
July 13.	8	HD	5	a Serpens	Right	50.7	53.5	56.5	0.7	4.0	6.8	+0.3	15.32.58.79	17.70	15.33.16.58	2.812	2.987	3.152	3.338	5	
	8	HD	6	a Serpens	Left	10.6	13.7	16.8	21.2	24.2	27.1	+0.3	15.39.10.02	17.70	15.39.36.81	1.750	1.515	1.688	2.203	6	
	8	HD	7	Antares	Right	17.0	20.4	23.8	28.5	33.0	37.5	+0.3	15.44.53.27	17.70	15.45.11.05	4.529	4.660	4.490	5.283	7	
	8	HD	8	Antares	Left	14.2	17.6	21.0	25.4	30.8	36.2	+0.3	15.48.51.57	17.78	15.50. 9.13	3.771	3.581	3.868	4.686	8	
	9	HD	9	d 1 L....	Left	51.3	55.2	58.8	1.1	7.9	11.0	+0.3	15.53. 1.57	17.78	15.53.19.53	0.549	0.838	0.686	1.146	9	
	9	HD	10	d 1 L....	Right	1.3	5.0	8.9	14.1	17.9	21.6	+0.3	16. 3.11.56	17.78	16. 3.29.53	1.721	1.077	1.192	2.007	10	
July 14.	8	C	11	d 1 L....	Left	42.8	46.5	49.8	54.7	58.3	2.1	+0.3	15.46.52.33	16.84	15.47. 9.17	7.336	7.922	8.121	8.412	11	
	9	C	12	d 1 L....	Right	20.9	24.6	28.3	33.3	37.3	40.6	...	...	16.20.30.83	16.84	16.20.47.65	2.516	2.386	2.704	3.153	12
July 15.	8	AD	13	d 1 L....	Left	41.5	45.0	48.6	53.3	57.0	0.2	+0.3	15.48.50.95	16.15	15.49. 7.11	3.643	3.401	3.713	4.193	13	
	8	AD	14	d 1 L....	Right	36.6	40.0	43.7	48.5	51.9	55.4	...	...	15.57.40.03	16.14	15.58. 2.19	5.347	5.338	5.566	5.770	14
	9	AD	15	a Serpens	Right	2.7	5.3	8.5	12.8	16.1	19.4	+0.3	16. 6.10.76	16.14	16. 6.26.90	3.222	3.203	3.381	3.500	15	
	23	AD	16	a Serpens	Left	35.0	38.2	41.1	45.6	48.6	51.5	+0.3	16.10.43.56	16.13	16.10.59.49	3.036	2.737	3.043	3.631	16	
	23	AD	18	Collimator	Right	...	...	...	...	...	...	...	...	...	...	5.516	5.627	5.860	6.040	17	
	23	AD	18	Collimator	Right	...	...	...	...	...	...	...	...	...	...	...	4.109	3.833	4.074	4.641	18
July 16.	8	T	19	d 1 L....	Right	4.9	8.1	11.5	16.5	19.9	23.3	+0.3	15.54.14.26	15.35	15.54.29.61	8.078	8.167	8.358	8.612	19	
	8	T	20	d 1 L....	Left	3.1	5.4	7.8	10.4	12.9	15.4	+0.3	16. 1.40.58	15.36	16. 1.55.92	3.007	3.027	3.285	3.588	20	
	9	T	21	a Serpens	Left	36.6	39.8	41.9	46.4	49.5	52.5	+0.3	16.20.44.41	15.33	16.20.59.74	3.443	3.569	3.646	4.200	21	
	9	T	22	a Serpens	Right	45.2	48.1	51.3	55.8	58.9	62.0	+0.3	16.23.35.78	15.33	16.23.50.97	3.453	3.563	3.646	4.200	22	
	9	T	23	a Antares	Right	5.6	8.8	12.3	17.0	20.4	23.6	+0.3	16.42.30.17	15.35	16.42.30.17	2.076	2.195	2.404	2.609	23	
	9	T	24	a Antares	Left	8.2	11.6	15.0	19.3	23.0	26.3	+0.3	16.47.17.30	15.35	16.47.32.82	0.935	0.715	0.869	1.510	24	
July 19.	8	AD	25	Collimator	Right	...	...	...	...	...	...	...	...	...	...	...	3.913	3.770	3.963	4.538	25
	8	AD	26	Collimator	Left	...	...	...	...	...	...	...	...	...	...	...	5.935	5.547	5.779	5.945	26
	9	AD	27	d 1 L....	Right	18.5	21.0	23.4	26.3	29.3	32.3	+0.3	16.43.56.70	15.00	16.46. 9.70	6.303	6.100	6.248	7.145	27	
	9	AD	28	d 1 L....	Left	18.5	21.0	23.4	26.3	29.3	32.3	+0.3	16.43.56.70	15.00	16.46. 9.70	6.303	6.100	6.248	7.145	28	
	10	AD	29	a Pegasi	Left	35.2	38.1	43.2	48.9	53.9	56.9	+0.3	17.20.40.06	12.98	17.20.56.90	3.443	3.569	3.646	4.200	29	
	10	AD	30	a Pegasi	Left	2.5	6.6	10.7	16.1	20.3	24.1	+0.3	17.26.24.31	12.91	17.26.24.31	1.763	1.621	1.715	2.180	30	
July 20.	9	T	31	d 1 L....	Right	3.3	6.5	10.4	15.0	19.2	22.7	+0.3	16.29.16.16	12.11	16.29.25.37	2.256	2.385	2.714	3.036	31	
	9	T	32	d 1 L....	Left	36.1	39.9	43.2	48.1	51.8	55.1	+0.3	16.29.16.16	12.11	16.29.25.37	2.256	2.385	2.714	3.036	32	
	9	T	33	Collimator	Left	...	...	...	...	...	...	...	...	...	...	...	4.267	3.800	4.033	4.603	33
	9	T	34	Collimator	Left	...	...	...	...	...	...	...	...	...	...	...	5.069	4.545	4.788	5.266	34
	10	T	35	a Perse	Left	6.8	11.8	16.7	22.7	28.6	33.4	+0.3	17.23.30.35	12.11	17.23.30.35	0.886	0.012	1.013	1.085	35	
	10	T	36	a Perse	Left	5.9	10.8	15.9	22.0	27.3	32.5	+0.3	17.27.19.40	12.18	17.27.31.58	3.755	3.579	3.818	4.418	36	
July 21.	9	HD	31	Collimator	Left	...	...	...	...	...	...	...	...	...	...	...	5.310	5.458	5.686	5.851	37
	9	HD	32	Collimator	Right	...	...	...	...	...	...	...	...	...	...	...	4.028	3.754	3.984	4.591	38
	9	HD	33	a Serpens	Left	28.9	31.9	35.0	39.6	43.7	46.0	+0.3	17. 7.37.44	11.68	17. 7.42.91	3.534	3.410	3.516	3.739	39	
	9	HD	34	a Serpens	Left	27.1	30.3	33.9	38.7	43.5	46.0	+0.3	17.12.56.04	11.68	17.13. 7.73	3.262	2.764	3.081	3.578	40	
	9	HD	35	a Serpens	Left	37.2	41.0	44.8	50.0	54.8	57.4	+0.3	17.10.19.87	11.68	17.10.19.87	5.018	4.827	4.978	5.530	41	
	10	HD	36	a Serpens	Left	26.0	30.0	33.9	39.0	43.9	46.0	+0.3	17.25.50.81	11.68	17.25.48.49	3.411	3.377	3.880	4.410	42	
	10	HD	37	d 1 L....	Right	6.1	9.6	13.2	18.1	22.5	26.0	+0.3	17.47.15.60	11.67	17.47.15.60	0.971	0.701	1.041	1.703	43	
	10	HD	38	d 1 L....	Right	4.3	7.6	10.4	15.1	19.9	24.0	+0.3	17.49.52.59	11.67	17.50. 4.26	...	...	...	...	44	

The observations of transits are usually made by the galvanic or chronographic method, the wires employed being *a, u, v, w, z*, taken in the order of transit, made by eye and ear, the wires employed are *g, h, i, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z*, Face Right; the times then recorded are of another clock, Graham's.

For Tabular Equivalents of Microscopes, it is assumed that *g'* corresponds to *88°* of all four.

Correction for Runs of Microscopes for $100''$, $+0''$, $-0''$.

5.6. Diffused.

9. Point; cloudy.

12. 28. 33. Cloudy.

35. Microscope *p* was read on the negative side of the micrometer-zero.

Concluded Reading of Horizontal Circle.	Approx. Zenith Distance.	Correction for Collimation.	Readings of Levels parallel to the Axis of the Vertical Circle.												One-eighth Level Division.	Correction for Level.	Corrected Reading of Horizontal Circle.	Concluded Azimuth, measured from S. to W. N. and E.	No. of Reference.
			<i>e</i>	<i>f</i>	<i>g</i>	<i>h</i>	<i>i</i>	<i>k</i>	<i>l</i>	<i>m</i>	<i>n</i>	<i>o</i>	<i>p</i>						
			dir.	dir.	dir.	dir.	dir.	dir.	dir.	dir.	dir.	dir.	dir.						
<i>o</i>	<i>r</i>	<i>s</i>	<i>t</i>	<i>u</i>	<i>v</i>	<i>w</i>	<i>x</i>	<i>y</i>	<i>z</i>	<i>aa</i>	<i>ab</i>	<i>ac</i>	<i>ad</i>	<i>ae</i>	<i>af</i>	<i>ag</i>	<i>ah</i>	<i>ai</i>	
19. 54. 10. 20.76	44.52	+6.42	53.3	189.3	62.3	203.1	73.9	222.1	76.2	231.1	14.16	-2.32	198.10.24.86	7.10.47.41	1				
19.54.34.44	44.50	-6.41	63.3	200.2	72.3	213.6	85.2	231.3	85.3	241.2	24.08	+1.74	199.14.49.77	6. 3.57.84	2				
7.47.15.62	77.38	-4.64	58.3	165.0	67.7	202.2	80.2	236.8	79.9	236.6	12.11	+1.61	7.47.12.50	336.56.50.14	3				
18.82.42.20.8	77.36	+4.64	58.3	166.0	67.7	202.2	80.2	236.8	80.2	237.8	19.09	-1.77	188.42.22.95	357.31.40.50	4				
9.1.49.07	44.40	+6.43	62.2	195.2	71.4	202.9	84.5	226.7	86.4	236.2	21.48	+7.5	9.1.50.37	358.11.07	5				
19.16.41.47	44.40	+6.43	55.3	188.7	63.2	207.9	77.7	223.7	83.3	233.8	18.81	+1.48	2.22.34.74	351.32.48	6				
2.22.50.49	78.6	-4.63	59.7	183.0	69.2	207.1	81.1	223.7	82.0	233.8	17.86	+1.29	10.21.42.50	351.32.48	7				
18.81.30.47.47	77.53	+4.63	59.1	187.7	65.7	205.7	80.0	233.8	82.0	233.8	18.81	+1.48	18.81.30.47	351.32.48	8				
25.50.33.24.79	76.32	+4.66	44.2	177.8	53.6	191.6	64.7	207.7	66.2	216.8	2.83	+1.0	25.50.33.24	351.32.48	9				
72.16. 7.71	77.37	-4.64	56.3	190.0	66.2	204.4	77.7	233.3	79.3	239.9	15.54	+0.81	72.16. 3.88	61.40.21.43	10				
55. 9.46.77	74. 0	-4.71	66.4	196.5	77.0	213.3	90.8	238.7	94.0	238.0	25.34	+3.87	55. 9.45.93	44.19. 6.56	11				
24.21.21.50.4	77.30	+4.71	47.5	178.0	58.2	191.8	68.0	206.8	71.0	210.0	4.34	+1.58	24.21.21.42.14	31.31. 2.77	12				
231.22.12.47	73.37	+4.73	50.0	174.3	60.0	188.0	75.9	205.2	78.8	210.2	5.36	+1.93	231.22.12.47	30.31.42.84	13				
74.20. 4.71	72.3	107.1	83.3	201.1	69.9	221.2	105.2	234.0	23.63	+4.42	43.25.14.12	34.32.38.12	14						
20.21.55.16	45. 2	-6.40	70.0	185.1	69.8	208.0	74.7	224.4	98.7	232.1	25.50	+1.64	20.21.55.16	34.32.38.12	15				
45.10.50.45	45. 1	+6.39	57.9	182.4	68.0	195.8	82.9	212.3	83.9	219.0	13.03	-1.17	45.10.50.45	31.26.15.67	16				
19.13.52.27	90. 1	+4.33	..	..	..	..	..	..	..	..	..	0.00	11.32.56.97	11.26.19.95	17				
191.31.58.60	90. 1	-4.33	..	..	..	..	..	..	..	..	..	0.00	191.31.57.67	18.42.20.52	18				
27.59.53.48	74.16	-4.71	71.8	189.0	81.4	216.0	90.6	227.8	99.1	235.0	27.46	+4.4	27.59.53.47	17. 0.14.40	19				
20.41.59.10	74.37	-4.70	56.7	182.3	66.0	195.3	80.5	212.6	83.0	219.1	11.04	+0.42	20.42. 3.78	15.11.20.01	20				
205.44. 8.06	74.31	+3.63	57.2	183.4	67.8	197.5	81.0	214.0	83.2	220.4	13.14	+1.27	205.44.12.14	14.03.37.39	21				
27.59.59.84	74.46	-4.63	71.1	188.7	80.0	216.2	90.4	227.8	99.1	235.0	27.46	+4.4	27.59.59.83	16.39.27.16	22				
15.31.23.15	77.44	+4.63	66.6	185.1	77.2	208.0	90.2	224.1	93.6	232.0	23.10	+2.43	15.31.20.97	4.40.24.22	23				
196.40.35.57	77.46	-4.63	66.6	185.1	77.2	208.0	90.2	224.1	93.6	232.0	23.10	+2.43	196.40.35.55	5.50. 0.78	24				
191.31.53.40	90. 1	-4.33	..	..	..	..	..	..	..	..	..	0.00	191.31.40.50.87	180.42. 5.56	25				
11.32.48.88	90. 1	+4.33	..	..	..	..	..	..	..	..	..	0.00	11.33.53.41	180.42. 8.10	26				
27.59.59.84	74.16	-4.63	71.1	188.7	80.0	216.2	90.4	227.8	99.1	235.0	27.46	+4.4	27.59.59.83	16.39.27.16	27				
17.8. 1.33.1	77.28	+4.64	60.7	188.8	70.2	203.1	84.9	218.3	87.8	226.1	17.49	+1.49	17.8. 1.40.70	34.38.13.95	28				
27.53.53.21	75.10	-4.68	43.2	172.5	53.8	186.8	66.8	201.3	60.5	207.8	1.53	-3.10	27.53.53.21	34.37.16.31	29				
66.56. 7.74	74.20	+4.71	56.0	185.1	66.0	195.3	79.9	214.7	82.7	222.8	13.31	+2.41	66.56. 9.04	26.6. 5.37.3	30				
335.50. 4.65	81.33	-4.58	58.0	184.2	68.0	197.4	80.9	213.1	84.8	220.2	13.34	+0.22	335.50. 0.23	324.50.14.98	31				
162.27.31.58	90. 1	+4.62	60.9	187.6	70.8	201.2	82.9	216.2	86.9	224.1	16.31	+0.87	162.27.31.53	32.31.50.62	32				
191.31.57.75	90. 1	-4.33	..	..	..	..	..	..	..	..	..	0.00	191.31.57.75	180.42. 7.91	33				
11.32.49.75	90. 1	+4.33	..	..	..	..	..	..	..	..	..	0.00	11.32.49.77	180.42. 4.41	34				
191.31.57.75	90. 1	-4.68	74.0	185.5	84.2	215.7	95.7	230.2	99.3	238.3	30.10	-4.75	31.30. 2.06	30.29.16.75	35				
212.17.19.61	75.12	-4.68	51.8	179.3	62.0	193.3	73.0	202.8	75.9	213.7	7.33	-1.19	212.17.18.74	20.21.28.43	36				
11.32.49.75	90. 1	+4.33	..	..	..	..	..	..	..	..	..	0.00	11.32.50.27	180.42. 4.96	37				
191.31.57.75	90. 1	-4.63	..	..	..	..	..	..	..	..	..	0.00	191.31.57.75	180.42. 6.20	38				
48.20. 4.65	67.07	+6.05	20.1	79.3	21.7	91.1	23.17	93.1	24.16	28.14	+14.50	0.00	48.21.13.65	30.21.47.73	39				
222.51.50.71	74.25	+4.62	50.9	182.8	61.0	197.1	72.3	213.1	75.4	222.0	9.08	+2.43	222.51.50.68	35. 7.10.46	40				
105.57.58.49	48.49	-4.70	60.7	191.8	70.3	206.9	81.9	216.2	80.2	220.2	-6.40	+4.75	105.57.58.47	66.21.35.17	41				
287.12.11.03	75.30	-4.68	48.2	180.9	57.8	195.0	68.2	209.0	69.8	218.8	5.96	-1.37	287.14.11.91	326.23.25.67	42				
191.31.57.75	76.36	+4.66	..	..	..	..	..	..	..	..	..	-1.40	191.31.57.75	326.23.25.60	43				
337.14.17.97	72.30	-4.66	..	..	..	..	..	..	..	..	..	..	337.14.11.91	326.23.25.60	44				

DAY AND HOUR.	Observer.	No. for Reference.	NAME OF OBJECT.	Position of Object in Horizontal Circle.	Readings of Horizontal Transits over Vertical Wires.						Concluded Azimuth from Mean of Vertical Wires observed.	Clock Slow.	Readings of Microscopes of Horizontal Circle.			Sideralis/Time.	Readings of Microscopes of Horizontal Circle.			
					First.	Second.	Third.	Fourth.	Fifth.	Sixth.			a.	b.	c.		rev.	alt.	tert.	d.
July 21. 10.	hr	1	1 L. ...	Left	55.4	58.8	2.4	7.1	10.6	14.0	+0.09	18. 3. 4.81	11.66	18. 3. 16.47	4.401	4.210	4.314	4.826		
July 21. 10.	hr	2	2 L. ...	Left	29.8	33.6	36.9	41.8	45.1	48.5	+0.09	18. 3. 5.3932	11.66	18. 5. 50.98	...	...	...	...		
July 22. 9.	c	3	a Serpens	Right	58.9	2.0	5.4	9.7	13.1	16.3	...	17. 19. 17.57	11.00	17. 19. 18.57	2.260	2.041	2.362	2.699		
July 22. 9.	c	4	a Serpens	Left	32.2	32.5	35.9	40.3	43.8	46.6	...	17. 25. 38.03	11.00	17. 25. 40.93	0.330	0.041	0.364	0.830		
July 22. 9.	c	5	Antares	Left	55.3	58.6	2.1	7.2	10.4	13.8	...	17. 34. 25.86	10.99	17. 34. 28.86	6.166	5.835	6.166	6.730		
July 22. 9.	c	6	Antares	Left	55.3	58.6	2.1	7.2	10.4	13.8	...	17. 45. 43.55	10.99	17. 45. 46.55	3.000	2.678	3.030	3.456		
July 22. 10.	c	7	2 L. ...	Right	18.5	22.2	25.6	30.8	34.4	37.9	...	17. 51. 28.23	10.99	17. 51. 30.98	7.734	7.826	8.180	8.506		
July 22. 10.	c	8	2 L. ...	Left	17.1	20.8	24.6	29.6	33.2	36.7	...	18. 4. 27.00	10.98	18. 4. 30.78	6.632	6.470	6.611	7.001		
July 22. 10.	c	9	Collimator	Right	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
July 22. 10.	c	10	Collimator	Left	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
July 23. 11.	AD	11	3 L. ...	Left	42.5	46.2	49.8	55.0	58.6	2.0	+0.03	18. 37. 52.38	10.40	18. 38. 2.78	0.341	0.513	0.461	0.536		
July 23. 11.	AD	12	3 L. ...	Left	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
July 23. 11.	AD	13	Collimator	Right	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
July 23. 11.	AD	14	Collimator	Left	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
July 24. 10.	T	14	Collimator	Left	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
July 24. 10.	T	15	Collimator	Right	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
July 24. 10.	T	16	2 L. ...	Right	0.5	4.8	8.6	12.6	17.4	21.3	+0.23	18. 11. 11.13	9.71	18. 11. 20.84	4.008	3.761	3.952	4.585		
July 24. 10.	T	17	a Aquile	Left	18.6	22.1	25.2	29.7	32.8	36.1	+0.23	18. 19. 27.65	9.71	18. 19. 37.36	4.242	4.063	4.278	4.921		
July 24. 10.	T	18	a Aquile	Left	38.4	41.3	44.5	49.0	52.2	55.3	+0.23	18. 24. 47.01	9.70	18. 24. 56.71	1.369	1.353	1.240	1.803		
July 24. 10.	T	19	2 L. ...	Left	6.2	10.2	13.9	...	...	...	+0.23	18. 43. 10.20	9.69	18. 43. 10.71	7.747	7.207	7.187	7.713		
July 27. 13.	WC	20	Collimator	Left	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
July 27. 13.	WC	21	Collimator	Right	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
July 27. 13.	WC	22	2 L. ...	Left	54.2	58.1	2.5	8.3	12.4	16.5	+0.03	21. 27. 5.36	7.33	21. 27. 12.69	1.607	1.659	2.053	2.356		
July 29. 11.	AD	23	Collimator	Left	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
July 29. 11.	AD	24	Collimator	Right	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
July 29. 11.	AD	25	a Aquile	Left	47.4	43.4	46.5	50.6	53.9	56.8	+0.03	19. 27. 48.63	6.00	19. 27. 54.63	7.332	6.993	7.150	7.846		
July 29. 11.	AD	26	a Aquile	Left	26.9	29.0	32.0	35.2	40.2	43.2	+0.03	19. 32. 35.10	6.00	19. 32. 41.10	4.511	4.466	4.889	5.095		
July 29. 11.	AD	27	a Arietis.	Left	52.3	56.8	0.7	6.6	10.8	14.9	+0.03	19. 38. 3.71	6.00	19. 38. 9.71	2.912	2.882	2.961	3.444		
July 29. 11.	AD	28	a Arietis.	Right	21.6	25.6	30.0	35.9	40.2	44.2	+0.03	19. 42. 32.95	5.99	19. 42. 38.94	1.784	1.682	2.110	2.476		
July 29. 11.	AD	29	2 L. ...	Left	14.3	18.6	23.0	29.0	33.4	37.6	+0.03	20. 43. 26.03	5.97	20. 43. 32.03	7.510	7.398	7.796	8.121		
July 29. 11.	AD	30	2 L. ...	Left	44.5	48.9	53.5	59.2	63.8	68.0	+0.03	20. 51. 56.35	5.96	20. 52. 2.31	7.748	7.643	7.776	8.108		
July 30. 13.	C	31	Collimator	Right	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
July 30. 13.	C	32	Collimator	Left	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
July 30. 13.	C	33	2 L. ...	Left	11.0	15.2	20.2	26.4	...	...	...	22. 46. 18.20	5.10	22. 46. 23.36	3.944	3.700	3.944	4.520		
July 30. 13.	C	34	2 L. ...	Left	56.8	1.3	6.1	12.4	17.2	21.7	...	22. 55. 9.25	5.18	22. 55. 14.43	3.344	3.293	3.566	3.641		
July 31. 14.	JP	35	2 L. ...	Left	55.3	59.4	4.2	10.8	15.4	19.4	+0.07	22. 6. 11.90	5.38	22. 6. 11.90	5.38	5.38	5.801	6.108		
July 31. 14.	JP	36	2 L. ...	Right	8.8	13.1	17.8	24.1	28.4	32.7	+0.07	22. 15. 25.36	4.41	22. 15. 25.36	8.413	8.270	8.600	9.068		
July 31. 14.	JP	37	Collimator	Right	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
July 31. 14.	JP	38	Collimator	Left	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
Aug. 1. 15.	AD	39	2 L. ...	Left	46.4	51.0	55.5	1.6	6.1	10.6	+0.03	23. 35. 58.56	3.80	23. 35. 2.36	5.803	5.733	6.133	6.599		
Aug. 1. 15.	AD	40	2 L. ...	Left	4.0	8.4	13.1	19.1	24.0	28.3	+0.03	23. 44. 16.16	3.80	23. 44. 19.96	0.471	0.486	0.530	0.784		
Aug. 2. 15.	T	41	2 L. ...	Left	40.5	45.1	49.8	56.0	62.2	67.3	+0.23	24. 12. 5.43	0.40	24. 12. 56.02	8.458	8.202	8.830	9.252		
Aug. 2. 15.	T	42	2 L. ...	Left	33.8	38.0	1.7	8.2	12.7	16.8	+0.23	24. 20. 5.43	3.14	24. 20. 5.43	2.061	2.076	2.093	2.365		

The observations of transits are usually made by the galvanic or chronographic method, the wires employed being s, n, e, w, n, s , taken in the order of transit, Face Right, or s, w, n, e, n, s , Face Left; the times are then referred immediately to the Sideralis Standard. Whenever the observations are made by eye and ear, the wires employed are s, r, e, n, s, r , Face Right, or s, e, n, r, e, r , Face Left; the times then recorded are those of another clock, Graham's.

For Tabular Equivalents of Microscopes, it is assumed that s' corresponds to $8''$ of s four. Correction for Runs of Microscopes for $100''$, $+0''\cdot02$.

11. Very faint; cloudy.

34. Tremulous.

12. The reading of microscope d was set down $6''\cdot06$.

25. Very faint; observed in partially illuminated field.

19. 22. Cloudy.

33. Very cloudy.

40. Faint.

Concluded Reading of Horizontal Circle.	Approx. Zenith Distance.	Correction for Collimation.	Readings of Levels parallel to the Axis of the Vertical Circle.										Concluded Zenith Distance.	Correction for Level.	Corrected Reading of Horizontal Circle.	Concluded Azimuth, measuring from S. to W., N., and E.	No. for Reference.
			s	r	e	n	s	r	e	n	s	r					
			dir.	dis.	dir.	dis.	dir.	dis.	dir.	dis.	dir.	dis.					
o	r	e	n	s	r	e	n	s	r	e	n	s	r	e	n	s	r
160. 42. 37.87	75.34	+ 4.68	66.5	199.3	75.5	212.9	87.0	227.7	88.5	237.2	24.33	- 3.21	160. 42. 37.34	329. 51. 54.09	1		
44. 46. 28.30	79.17	- 5.98	67.8	202.0	76.0	215.8	90.0	232.2	91.5	242.7	27.19	+ 13.21	44. 46. 35.53	33. 53. 52.11	3		
226. 45. 14.58	79.42	+ 5.93	47.5	182.0	57.0	195.5	69.7	212.1	71.0	221.6	7.18	- 3.94	226. 45. 14.58	33. 53. 41.03	4		
207. 18. 59.87	79.16	- 5.93	36.5	191.0	66.0	203.4	79.0	221.7	80.0	230.8	16.30	- 0.85	207. 18. 59.87	16. 28. 0.21	5		
23. 36. 56.55	79.26	- 6.1	63.8	198.4	73.0	213.0	85.7	228.2	87.2	238.0	23.41	+ 1.16	23. 36. 56.55	17. 46. 8.98	6		
32. 29. 45.28	78.0	- 6.0	45.5	180.0	55.0	194.2	66.0	208.5	67.5	218.2	4.36	- 1.60	32. 29. 45.28	51. 36. 56.83	7		
145. 13. 57.26	76.32	+ 4.66	67.2	202.0	76.4	216.0	88.0	231.1	90.2	241.0	26.60	...	145. 13. 57.26	314. 32. 14.97	8		
191. 32. 55.99	90. 1	- 4.53	...	...	...	...	...	...	...	...	...	...	191. 32. 55.99	180. 42. 7.64	9		
11. 32. 45.97	90. 1	+ 4.53	...	...	...	...	...	...	...	...	...	...	11. 32. 45.97	180. 42. 6.68	10		
137. 30. 22.46	74. 15	+ 4.71	64.9	194.1	74.8	208.0	88.0	226.2	90.8	234.9	23.71	- 3.06	137. 30. 22.46	366. 39. 40.69	11		
11. 32. 47.46	90. 1	- 4.53	...	...	...	...	...	...	...	...	...	...	11. 32. 47.46	180. 42. 9.09	12		
191. 32. 56.28	90. 1	- 4.53	...	...	...	...	...	...	...	...	...	...	191. 32. 56.28	180. 42. 8.33	13		
11. 32. 46.59	90. 1	+ 4.53	...	...	...	...	...	...	...	...	...	...	11. 32. 46.59	180. 42. 7.50	14		
191. 32. 55.99	90. 1	- 4.53	...	...	...	...	...	...	...	...	...	...	191. 32. 55.99	180. 42. 7.14	15		
207. 54. 16.97	80. 1	- 4.7	175.4	52.2	190.5	60.0	203.5	63.1	216.2	0.54	+ 1.66	207. 54. 16.97	330. 10. 50.72	16			
34.1. 41.101	45.21	- 6.26	52.0	186.0	62.8	204.4	71.7	216.1	73.2	226.5	11.21	- 0.61	34.1. 41.101	331. 55. 46.18	17		
162. 45. 11.02	45.57	+ 6.30	64.0	196.0	71.6	210.0	81.9	227.8	84.0	237.1	21.41	+ 2.24	162. 45. 11.02	293. 22. 20.35	18		
124. 13. 57.26	76.32	+ 4.67	60.8	195.7	70.0	210.0	82.8	226.8	82.5	236.8	20.53	...	124. 13. 57.26	180. 42. 12.10	19		
11. 32. 50.11	90. 1	- 4.53	...	...	...	...	...	...	...	...	...	...	11. 32. 50.11	180. 42. 12.34	20		
191. 32. 56.92	90. 1	- 4.53	...	...	...	...	...	...	...	...	...	...	191. 32. 56.92	180. 42. 10.09	21		
256. 36. 7.97	60.39	- 5.20	4.7	176.6	51.8	191.2	60.2	204.7	62.1	215.2	0.44	- 6.41	256. 35. 36.36	385. 44. 14.08	22		
11. 32. 50.45	90. 1	+ 4.53	...	...	...	...	...	...	...	...	...	...	11. 32. 50.45	180. 42. 13.80	23		
191. 32. 57.70	90. 1	- 4.54	...	...	...	...	...	...	...	...	...	...	191. 32. 57.70	180. 42. 11.99	24		
184. 37. 19.92	43. 3	+ 6.64	63.8	202.0	72.8	215.2	87.0	226.5	86.3	245.7	26.16	- 15.31	184. 39. 11.41	355. 38. 30.99	25		
6. 12. 50.36	75.59	- 6.65	51.8	190.0	61.0	203.4	74.0	223.8	75.5	238.4	13.84	+ 2.14	6. 12. 49.82	355. 33. 4.65	26		
82. 1. 44.86	42.33	+ 6.20	49.0	188.0	65.4	204.8	74.9	224.8	74.5	239.6	10.10	- 0.84	82. 1. 45.70	251. 11. 9.52	27		
269. 51. 11.97	74.53	- 4.98	38.8	177.0	49.0	191.3	59.4	203.3	60.2	214.6	0.36	- 0.34	269. 51. 1.20	252. 1. 0.36	28		
26. 4. 35.02	76.57	- 4.65	39.9	179.0	49.0	193.3	59.3	210.3	58.8	221.1	1.35	- 2.44	26. 4. 47.93	253. 13. 46.73	29		
85. 34. 35.95	75.42	+ 4.67	58.6	189.2	59.8	204.3	71.8	222.5	70.5	235.1	12.70	- 0.22	85. 34. 41.20	254. 44. 0.22	30		
191. 32. 42.54	90. 1	+ 4.53	...	...	...	...	...	...	...	...	...	...	191. 32. 42.54	180. 42. 6.98	31		
191. 32. 53.94	90. 1	- 4.53	...	...	...	...	...	...	...	...	...	...	191. 32. 53.94	180. 42. 9.58	32		
97. 5. 1. 261	64.48	- 5.01	37.0	185.0	45.2	191.2	52.5	213.9	51.9	228.5	2.06	- 4.61	97. 5. 0.820	254. 10. 29.90	33		
236. 37. 1.21	62.38	- 5.06	46.0	193.5	54.2	208.3	62.9	223.1	61.0	237.1	10.74	+ 0.53	236. 37. 1.21	253. 46. 26.73	34		
77. 48. 26.59	77.38	+ 4.64	50.9	193.7	59.7	209.8	72.6	226.1	71.0	237.1	14.90	- 0.67	77. 48. 30.76	246. 57. 50.27	35		
256. 25. 7.03	72.21	- 4.66	34.0	176.8	43.9	190.8	53.0	206.8	52.3	217.8	- 3.21	- 3.66	256. 24. 38.71	248. 34. 1.86	36		
191. 32. 55.05	90. 1	- 4.53	...	...	...	...	...	...	...	...	...	...	191. 32. 55.05	180. 42. 7.20	37		
11. 32. 45.15	90. 1	+ 4.53	...	...	...	...	...	...	...	...	...	...	11. 32. 45.15	180. 42. 9.59	38		
84. 6. 8.32.27	72.35	- 4.75	33.4	179.3	43.1	194.6	56.0	212.2	50.9	226.0	- 1.68	- 4.25	84. 6. 8.297	253. 17. 49.18	39		
28. 35. 20.90	71.35	+ 4.78	40.4	193.3	53.1	209.3	66.8	228.0	64.5	243.8	13.08	- 0.41	28. 35. 23.27	247. 44. 47.18	40		
262. 8. 15.43	75.53	- 4.67	36.6	182.0	45.6	197.2	55.0	214.8	54.1	228.0	1.60	- 1.55	262. 8. 1.111	251. 14. 22.11	41		
83. 21. 16.93	73.31	+ 4.69	49.5	191.8	54.7	207.0	66.0	223.7	64.1	238.0	11.63	+ 0.63	83. 21. 2.10	252. 30. 47.16	42		

DAY AND HOUR.	OBSERV.	NAME OF OBJECT.	Position of Vertical Circle.	Seconds of Horizontal Transit over Vertical Wire.					Clock Error.	Clock Time.	Sidereal Time.	Readings of Microscopes of Horizontal Circle.				Unobserved Reading of Horizontal Circle.	Approx. Zenith Distance.	Correction for Collimation.	Readings of Levels parallel to the Axis of the Vertical Circle.												Corrected Reading of Horizontal Circle.	Concluded Azimuth, measured from W. to N. and E.	No. of Reference.		
				First.	Second.	Third.	Fourth.	Fifth.				rev.	rev.	rev.	rev.				e	f	g	h	i	j	k	l	m	n	o	p					
Sept. 13.	0	1	Mark	Left	..	..	..	..	..	..	..	6520	6664	6890	6870	355. 4.2947	93.	7	+ 492	554	1980	650	2130	..	..	..	..	785	+ 037	355. 4.3476	164. 13.5366	1			
	0	1	Mark	Right	..	..	..	..	..	..	..	6524	6736	6940	6910	175. 4.4418	93.	7	+ 492	554	1980	650	2130	..	..	..	..	668	- 031	175. 4.3693	164. 13.5385	2			
	7	0	D 1 L	Left	51'50	55'58	5'3	67	100	..	18.40	19'00	3000	18.40	31'00	184. 10.1771	73.34	+ 513	610	2070	700	2164	880	2330	820	2440	1380	- 327	180. 10.1937	535. 10.5847	3				
	7	0	D 1 L	Right	40'50	54'57	0'3	37	170	..	18.53	58'00	3000	18.54	28'04	7980	87.10.487	73.29	+ 513	569	1970	660	2164	880	2330	780	2400	1975	+ 208	5. 10.4633	339. 20.4033	4			
	7	0	Arctis	Left	57'1	1'0	56	113	105	..	10.18	8.33	3000	10.18	38'34	3410	5. 10.487	78.21	+ 513	569	1970	660	2164	880	2330	810	2440	1380	- 327	259. 34.4819	248. 44. 709	5			
	8	0	Arctis	Right	50	100	143	205	245	..	10.14	17'38	3000	10.14	47'38	8368	7. 10.219	78.21	+ 513	569	1970	660	2164	880	2330	810	2440	1380	- 327	5. 10.219	335. 10.1713	6			
	8	0	Aquile	Left	28'7	31'5	34	38	47	..	10.31	36'63	3000	10.32	6'63	4230	168. 22.5634	42.59	+ 723	580	1990	680	2140	780	2420	2053	774	2402	2053	+ 837	188. 22.4921	357. 32. 811	7		
	8	0	Aquile	Right	33'8	36'9	39	44	47	..	10.37	42'03	3000	10.38	12'03	4936	188. 22.5634	42.56	+ 723	580	1990	680	2140	780	2420	2053	774	2402	2053	+ 837	191. 32.4726	180. 42. 516	8		
	9	0	Collimator	Left	..	..	..	..	..	..	..	..	3954	3790	3986	148. 22.5634	42.56	+ 723	580	1990	680	2140	780	2420	2053	774	2402	2053	+ 837	191. 32.4726	180. 42. 516	9			
	9	0	Collimator	Right	..	..	..	..	..	..	..	..	3974	3588	3656	113. 42.4712	40. 1	+ 492	..	..	..	..	..	..	..	..	..	..	..	..	..	113. 42.4704	180. 42. 516	10	
Sept. 14.	1	AD	11 Mark	Left	..	..	..	..	..	..	..	8163	8403	8720	8744	355. 4.3614	93.	7	+ 492	543	2013	633	2163	..	..	..	..	878	+ 042	355. 4.3548	164. 13.5433	11			
	1	AD	11 Mark	Right	..	..	..	..	..	..	..	7033	6766	7052	7300	175. 4.4911	93.	7	+ 492	543	2013	633	2163	..	..	..	..	763	- 036	175. 4.3563	164. 13.5448	12			
	7	AD	13 Collimator	Left	..	..	..	..	..	..	..	3886	3695	3927	4193	11.32.5003	90.	1	+ 492	..	..	..	..	..	..	..	..	..	..	..	..	191. 32.4511	180. 42. 516	13	
	7	AD	14 Collimator	Right	..	..	..	..	..	..	..	5303	5392	5644	5599	11.32.4712	90.	1	+ 492	..	..	..	..	..	..	..	..	..	..	..	..	113. 42.4704	180. 42. 516	14	
Sept. 15.	2	HP	15 Mark	Right	..	..	..	..	..	..	..	7707	6840	7100	7398	175. 4.4265	93.	7	+ 492	532	2060	616	2156	..	..	..	..	775	- 037	175. 4.3736	164. 13.5478	15			
	2	HP	16 Mark	Left	..	..	..	..	..	..	..	6900	6018	6212	6151	355. 4.3106	93.	7	+ 492	552	2076	638	2178	..	..	..	..	988	+ 040	355. 4.3646	164. 13.5481	16			
	2	HP	17 Collimator	Right	..	..	..	..	..	..	..	3940	3696	3935	4219	11.32.5088	90.	1	+ 492	..	..	..	..	..	..	..	..	..	..	..	..	11.32.4704	180. 42. 516	17	
	2	HP	18 Collimator	Left	..	..	..	..	..	..	..	5303	5392	5644	5599	11.32.4712	90.	1	+ 492	..	..	..	..	..	..	..	..	..	..	..	..	113. 42.4704	180. 42. 516	18	
	7	HP	19 D 1 L	Left	12'2	13'0	190	238	268	304	+ 000	18.50	21'34	28'01	18.59	50'53	336	43.1793	71.	- 2	530	569	2041	650	2189	767	2362	742	2480	2250	+ 300	336. 43.1069	335. 43.2419	19	
	7	HP	20 D 1 L	Right	41'0	44'7	47'7	52'3	55'9	591	+ 000	18.50	21'34	28'01	18.59	50'53	336	43.1793	71.	- 2	530	569	2041	650	2189	767	2362	742	2480	2250	+ 300	336. 43.1069	335. 43.2419	20	
	7	HP	21 Aequile	Left	32'0	33'1	38'2	42'4	45'7	48'6	+ 000	10.45	40'46	28'80	10.46	9'33	2010	17. 10.219	78.21	+ 513	569	1970	660	2164	880	2330	780	2400	1975	+ 208	5. 10.4633	339. 20.4033	21		
	7	HP	22 Aequile	Right	10'0	12'8	15'9	20'3	23'3	26'5	+ 000	10.52	18'23	28'88	10.53	44'13	0039	168. 22.5634	42.56	+ 723	580	1990	680	2140	780	2420	2053	774	2402	2053	+ 837	191. 32.4726	180. 42. 516	22	
	7	HP	23 Aequile	Left	6'6	9'6	12'9	17'6	20'6	23'8	+ 000	18.10	15'25	28'18	18.10	34'47	0039	168. 22.5634	42.56	+ 723	580	1990	680	2140	780	2420	2053	774	2402	2053	+ 837	191. 32.4726	180. 42. 516	23	
	7	HP	24 Aequile	Right	14'4	17'3	20'3	25'0	28'4	31'2	+ 000	18.10	15'25	28'18	18.10	34'47	0039	168. 22.5634	42.56	+ 723	580	1990	680	2140	780	2420	2053	774	2402	2053	+ 837	191. 32.4726	180. 42. 516	24	
Sept. 16.	6	JP	31 Aequile	Left	35'3	58'3	21	72	112	148	..	18.48	46'7	27'87	18.48	32'34	0240	17. 10.219	78.21	+ 513	569	1970	660	2164	880	2330	780	2400	1975	+ 208	5. 10.4633	339. 20.4033	25		
	6	JP	32 Aequile	Right	49'1	52'3	59	66	72	78	..	18.56	5'40	27'87	18.56	5'40	0240	17. 10.219	78.21	+ 513	569	1970	660	2164	880	2330	780	2400	1975	+ 208	5. 10.4633	339. 20.4033	26		
	7	JP	33 Libræ	Left	33'3	36'6	40'3	45'4	48'6	51'2	+ 000	18.24	24'33	28'17	18.25	11'02	2182	19.43	2020	7300	..	..	..	..	..	..	..	..	..	..	..	241. 31.2198	240. 31.2198	27	
	7	JP	34 Libræ	Right	32'2	36'1	40'0	45'0	48'0	51'0	+ 000	18.24	24'33	28'17	18.25	11'02	2182	19.43	2020	7300	..	..	..	..	..	..	..	..	..	..	..	241. 31.2198	240. 31.2198	28	
	7	JP	35 D 1 L	Left	32'2	36'1	40'0	45'0	48'0	51'0	+ 000	18.24	24'33	28'17	18.25	11'02	2182	19.43	2020	7300	..	..	..	..	..	..	..	..	..	..	..	241. 31.2198	240. 31.2198	29	
	7	JP	36 D 1 L	Right	43'1	46'0	50'4	55'1	59'1	63	+ 000	18.20	33'02	28'17	18.20	31'49	3948	39.02	4038	4200	..	..	..	..	..	..	..	..	..	..	..	..	304. 36.2891	304. 36.2891	30
	7	JP	37 D 1 L	Left	43'1	46'0	50'4	55'1	59'1	63	+ 000	18.20	33'02	28'17	18.20	31'49	3948	39.02	4038	4200	..	..	..	..	..	..	..	..	..	..	..	..	304. 36.2891	304. 36.2891	31
	7	JP	38 D 1 L	Right	43'1	46'0	50'4	55'1	59'1	63	+ 000	18.20	33'02	28'17	18.20	31'49	3948	39.02	4038	4200	..	..	..	..	..	..	..	..	..	..	..	..	304. 36.2891	304. 36.2891	32
	7	JP	39 D 1 L	Left	43'1	46'0	50'4	55'1	59'1	63	+ 000	18.20	33'02	28'17	18.20	31'49	3948	39.02	4038	4200	..	..	..	..	..	..	..	..	..	..	..	..	304. 36.2891	304. 36.2891	33
	7	JP	40 D 1 L	Right	43'1	46'0	50'4	55'1	59'1	63	+ 000	18.20	33'02	28'17	18.20	31'49	3948	39.02	4038	4200	..	..	..	..	..	..	..	..	..	..	..	..	304. 36.2891	304. 36.2891	34
Sept. 17.	7	0	31 D 1 L	Right	0'6	4'3	8'2	13'4	17'4	21'8	..	18.30	10'81	27'87	18.30	38'69	3454	34.62	3876	3610	..	..	..	..	..	..	..	..	..	..	..	223. 17. 10.219	223. 17. 10.219	35	
	7	0	32 D 1 L	Left	0'6	4'3	8'2	13'4	17'4	21'8	..	18.48	46'7	27'87	18.48	32'34	0240	17. 10.219	78.21	+ 513	569	1970	660	2164	880	2330	780	2400	1975	+ 208	5. 10.4633	339. 20.4033	36		
	7	0	33 Aequile	Left	49'1	52'3	59	66	72	78	..	18.56	5'40	27'87	18.56	5'40	0240	17. 10.219	78.21	+ 513	569	1970	660	2164	880	2330	780	2400	1975	+ 208	5. 10.4633	339. 20.4033	37		
	7	0	34 Aequile	Right	5'8	8'7	11'8	16'1	19'5	23'3	..	10.45	40'46	28'80	10.46	9'33	2010	17. 10.219	78.21	+ 513	569	1970	660	2164	880	2330	780	2400	1975	+ 208	5. 10.4633	339. 20.4033	38		
	7	0	35 Collimator	Left	..	..	..																												

DAY AND HOUR.	Observer.	No. of Reference.	NAME OF OBJECT.	Position of Object of Observation.	Seconds of Horizontal Transit over Vertical Wires.						Correction for Refraction.	Observed Clock Time of Horizontal Transit.	Concluded Clock Time of Horizontal Transit (after Vertical Wires observed).	Clock Slow.	Sidereal Time.		Readings of Microscopes of Horizontal Circle.			
					First.	Second.	Third.	Fourth.	Fifth.	Sixth.					a	b	c	d		
					s	s	s	s	s	s					h	m	s	h	m	s
Oct. 12.	a	TP	1	Mark	Right	..	..	..	..	..	..	..	..	..	..	7034	6723	7013	7380	
		TP	2	Mark	Left	..	..	..	..	..	..	..	..	..	..	7034	6723	7013	7380	
		TP	3	Collimator	Right	..	..	..	..	..	..	..	..	..	..	7491	5029	5249	5136	
		TP	4	Collimator	Left	..	..	..	..	..	..	..	..	..	..	7491	5029	5249	5136	
		TP	5	Collimator	Right	..	..	..	..	..	..	..	..	..	..	7491	5029	5249	5136	
		TP	6	Collimator	Left	..	..	..	..	..	..	..	..	..	..	7491	5029	5249	5136	
		TP	7	Capella	Right	18°5	21'8	25°2	29'3	33°2	36°4	+0.17	19.10.27.65	18°54	19.10.46.19	6183	5680	6113	6348	
		TP	8	Capella	Left	14°3	17'5	20°9	25'4	28°9	32'1	+0.17	19.10.23.32	18°54	19.10.41.86	5319	3312	3636	3533	
		TP	9	Capella	Right	4°8	31'3	13°9	20'1	35°4	29'6	+0.17	19.23.17.34	18°54	19.25.35.88	4651	4655	4946	4775	
		TP	10	Capella	Left	2°7	32'2	36°9	45'3	48°4	52'6	+0.17	19.26.40.33	18°54	19.28.38.56	4326	4307	4531	4386	
		TP	11	Aquile	Right	4°3	47'1	50°1	54'2	57°4	0'7	+0.17	19.36.52.35	18°54	19.37.10.89	1567	1297	1535	1867	
		TP	12	Aquile	Left	12°4	15'4	18°5	22'0	26°1	28'8	+0.17	19.41.20.87	18°54	19.41.39.41	6900	7014	7333	7157	
Oct. 13.	AD	11	Mark	Right	..	..	..	..	..	..	..	..	..	..	..	7048	6778	7017	7413	
	AD	12	Mark	Left	..	..	..	..	..	..	..	..	..	..	..	7048	6778	7017	7413	
	AD	13	Collimator	Right	..	..	..	..	..	..	..	..	..	..	..	7731	5029	5249	5136	
	AD	14	Collimator	Left	..	..	..	..	..	..	..	..	..	..	..	7731	5029	5249	5136	
Oct. 14.	HP	15	Collimator	Right	..	..	..	..	..	..	..	..	..	..	..	7731	5029	5249	5136	
	HP	16	Collimator	Left	..	..	..	..	..	..	..	..	..	..	..	7731	5029	5249	5136	
	HP	17	Collimator	Right	..	..	..	..	..	..	..	..	..	..	..	7731	5029	5249	5136	
	HP	18	Collimator	Left	..	..	..	..	..	..	..	..	..	..	..	7731	5029	5249	5136	
	HP	19	Aquile	Right	..	..	..	..	..	..	..	..	..	..	..	7731	5029	5249	5136	
	HP	20	Aquile	Left	..	..	..	..	..	..	..	..	..	..	..	7731	5029	5249	5136	
Oct. 15.	T	21	Collimator	Right	..	..	..	..	..	..	..	..	..	..	..	7731	5029	5249	5136	
	T	22	Collimator	Left	..	..	..	..	..	..	..	..	..	..	..	7731	5029	5249	5136	
	T	23	Collimator	Right	..	..	..	..	..	..	..	..	..	..	..	7731	5029	5249	5136	
	T	24	Collimator	Left	..	..	..	..	..	..	..	..	..	..	..	7731	5029	5249	5136	
	T	25	Aquile	Right	..	..	..	..	..	..	..	..	..	..	..	7731	5029	5249	5136	
	T	26	Aquile	Left	..	..	..	..	..	..	..	..	..	..	..	7731	5029	5249	5136	
Oct. 16.	C	27	Mark	Right	..	..	..	..	..	..	..	..	..	..	..	7731	5029	5249	5136	
	C	28	Mark	Left	..	..	..	..	..	..	..	..	..	..	..	7731	5029	5249	5136	
	C	29	Collimator	Right	..	..	..	..	..	..	..	..	..	..	..	7731	5029	5249	5136	
	C	30	Collimator	Left	..	..	..	..	..	..	..	..	..	..	..	7731	5029	5249	5136	
	C	31	Collimator	Right	..	..	..	..	..	..	..	..	..	..	..	7731	5029	5249	5136	
	C	32	Collimator	Left	..	..	..	..	..	..	..	..	..	..	..	7731	5029	5249	5136	
Oct. 17.	AD	33	Collimator	Right	..	..	..	..	..	..	..	..	..	..	..	7731	5029	5249	5136	
	AD	34	Collimator	Left	..	..	..	..	..	..	..	..	..	..	..	7731	5029	5249	5136	
Oct. 18.	HP	35	Aquile	Right	..	..	..	..	..	..	..	..	..	..	..	7731	5029	5249	5136	
	HP	36	Aquile	Left	..	..	..	..	..	..	..	..	..	..	..	7731	5029	5249	5136	
	HP	37	Collimator	Right	..	..	..	..	..	..	..	..	..	..	..	7731	5029	5249	5136	
	HP	38	Collimator	Left	..	..	..	..	..	..	..	..	..	..	..	7731	5029	5249	5136	
	HP	39	Collimator	Right	..	..	..	..	..	..	..	..	..	..	..	7731	5029	5249	5136	
	HP	40	Collimator	Left	..	..	..	..	..	..	..	..	..	..	..	7731	5029	5249	5136	
	HP	41	Collimator	Right	..	..	..	..	..	..	..	..	..	..	..	7731	5029	5249	5136	
	HP	42	Collimator	Left	..	..	..	..	..	..	..	..	..	..	..	7731	5029	5249	5136	
	HP	43	Mark	Right	..	..	..	..	..	..	..	..	..	..	..	7731	5029	5249	5136	
	HP	44	Mark	Left	..	..	..	..	..	..	..	..	..	..	..	7731	5029	5249	5136	
	HP	45	Mark	Right	..	..	..	..	..	..	..	..	..	..	..	7731	5029	5249	5136	

OBSERVATIONS OF AZIMUTH, WITH THE ALTAZIMUTH.

DAY AND HOUR.	OBSERV. OR OBJ.	NAME OF OBJECT.	Position of Equatorial Pole of Reference Star.	Seconds of Horizontal Transit over Vertical Wire.						Computed Clock Time of Horizontal Transit over Vertical Wire observed.			Readings of Microscopes of Horizontal Circle.						
				First.	Second.	Third.	Fourth.	Fifth.	Sixth.	Correction for Personal Equation.	Clock.	Slow.	Sidereal Time.	a			d		
														rev.	rev.	rev.	rev.	rev.	rev.
Nov. 10.	6	Collimator	Left	..	..	..	..	..	..	..	..	5:153	5:318	5:504	5:507				
10	6	Collimator	Right	..	..	..	..	..	..	..	..	3:925	3:615	3:933	4:245				
10	6	Collimator	Left	19'8	26'9	26'9	30'6	33'8	36'9	+ 0'23	21. 14. 28'58	18'10	21. 14. 46'58	18'15	20'03	2:357	2:253		
Nov. 11.	0	AD 4	Mark ..	Left	..	..	..	..	..	..	..	..	..	..	..	..			
0	AD 5	Mark ..	Right	..	..	..	..	..	..	..	..	..	..	..	..	..			
7	AD 7	Collimator	Right	..	..	..	..	..	..	..	..	..	..	..	..	..			
8	AD 8	Collimator	Right	..	..	..	..	..	..	..	..	..	..	..	..	..			
8	AD 8	Collimator	Left	58'4	1'5	4'8	8'8	12'2	15'2	+ 0'03	23. 32. 21'91	30'63	23. 32. 42'17	1:26	0:51	7:47	5:60		
8	AD 8	Collimator	Left	58'4	1'5	4'8	8'8	12'2	15'2	+ 0'03	23. 32. 21'91	30'63	23. 32. 42'17	1:26	0:51	7:47	5:60		
Nov. 12.	5	JP 10	1 L ..	Left	5'30	3'1	7'0	12'1	15'9	19'5	+ 0'07	20. 38. 9'50	18'32	20. 38. 27'82	1:68	1:54	1:76	2:03	
6	JP 11	1 L ..	Right	51'4	54'9	58'7	4'0	7'6	11'3	+ 0'07	20. 46. 1'39	18'32	20. 46. 19'71	2:08	2:10	5:11	2:07		
6	JP 11	Collimator	Right	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
23	JP 13	Collimator	Right	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
23	JP 15	Mark ..	Right	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
23	JP 15	Mark ..	Left	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
Nov. 13.	1	C 16	Mark ..	Left	..	..	..	..	..	..	..	..	..	..	..	..	..		
1	C 16	Mark ..	Right	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
1	C 16	Mark ..	Left	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
1	C 16	Mark ..	Right	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
Nov. 14.	5	T 18	1 L ..	Left	..	24'4	28'8	35'0	39'4	+ 0'23	20. 46. 32'15	17'95	20. 46. 50'08	1:42	1:31	1:43	1:56		
5	T 19	1 L ..	Right	38'6	42'5	46'6	52'4	56'7	..	+ 0'23	20. 33. 49'78	17'95	20. 34. 7'73	0:08	0:01	0:53	0:56		
Nov. 15.	11	JP 20	1 L ..	Right	1'7	5'1	8'3	12'5	16'5	19'4	+ 0'07	3. 2. 10'77	17'95	3. 2. 28'48	4:34	4:44	4:62	4:37	
21	JP 21	1 L ..	Left	35'6	35'1	42'4	47'0	50'0	53'1	+ 0'07	3. 10. 44'60	17'95	3. 11. 2'21	7:50	7:42	7:52	7:50		
22	JP 21	Collimator	Left	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
23	JP 23	Mark ..	Right	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
Nov. 16.	0	HP 24	Mark ..	Right	..	..	..	..	..	..	..	..	..	..	..	..	..		
0	HP 25	Mark ..	Left	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
4	HP 26	A Aquila	Left	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
8	HP 28	1 L ..	Left	10'2	14'2	18'2	23'9	29'2	..	+ 0'09	23. 35. 19'31	17'58	23. 35. 37'11	5:06	4:58	5:30	5:66		
8	HP 28	1 L ..	Right	8'4	12'7	17'2	24'0	29'7	..	+ 0'09	23. 33. 20'41	17'58	23. 33. 37'99	4:54	4:46	5:33	5:52		
10	HP 32	1 L ..	Left	4'2	8'6	13'0	19'1	24'0	27'6	+ 0'09	23. 36. 16'17	17'58	23. 36. 33'75	..	..	..	..		
10	HP 32	Collimator	Right	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
10	HP 32	Collimator	Left	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
Nov. 17.	1	C 33	Mark ..	Left	..	..	..	..	..	..	..	..	..	..	..	..	..		
6	C 34	Mark ..	Right	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
6	C 35	1 L ..	Left	6'3	10'8	15'3	21'3	25'9	30'2	..	..	..	..	..	..	..	..		
6	C 36	2 L ..	Left	12'4	16'8	21'8	27'4	32'3	36'4	+ 0'09	22. 22. 24'12	17'53	22. 22. 41'55	3:68	3:57	4:18	3:40		
7	C 37	Pegasi	Left	7'7	10'7	14'0	18'2	21'9	24'8	..	..	..	..	..	..	..	..		
7	C 38	Pegasi	Right	52'5	55'6	58'9	3'4	6'6	9'6	..	..	..	..	..	..	..	..		
7	C 39	Ursae Maj.	Left	10'6	15'8	21'0	26'3	33'5	38'7	+ 0'09	22. 47. 1'19	17'53	22. 47. 18'63	4:35	4:25	5:00	3:90		
7	C 40	Ursae Maj.	Right	39'5	44'6	49'9	57'2	2'3	7'2	..	..	..	..	..	..	..	..		
8	C 41	Collimator	Right	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
8	C 41	Collimator	Left	..	..	..	..	..	..	..	..	..	..	..	..	..	..		

The observations of transits are usually made by the galvanic or chronographic method, the wires employed being *s, t, u, v, w, x*, taken in the order of transit Face Right, or *x, w, v, u, t, s*, Face Left; the times are then referred immediately to the Sidereal Standard. Whenever the observations are made by eye and ear, the wires employed are *q, r, s, x, y, z*, Face Right, or *z, y, x, s, r, q*, Face Left; the times then recorded are those of another clock, Graham's.

For Tabular Equivalents of Microseconds, it is assumed that 1

Correction for Runs of Microscopes for 100' = $\alpha'' : 0.3$

4, 25. Microscope α was read on the negative side of the micrometer, zero

10. 11. Observed through passing cloud.

24, 25. Very faint

28, 29, 30. Very cloudy at times.

Concluded Reading of Horizontal Circle.	Approx. Zenith Distance.	Correction for Collimation.	Readings of Lens parallel to the Axis of the Vertical Circle.												One Circle Reduction.	Correction for Level.	Corrected Reading of Horizontal Circle.	Concluded Azimuth, measuring from S. to W. N. and E.	No. for Reference.				
			e		f		g		h		i		k							l		m	
			dir.	dts.	dir.	dts.	dir.	dts.	dir.	dts.	dir.	dts.	dir.	dts.						dir.	dts.	dir.	dts.
11.32. 39.33	go. 1 + 5 01	..	..	..	..	..	..	..	..	..	..	..	..	..	00 00	11.32. 44.17	180. 42. 53.30	4					
101.32. 50.37	go. 1 - 5 01	..	..	..	..	..	..	..	..	..	..	..	..	..	00 00	101.32. 45.36	180. 42. 65.38	5					
350. 11. 15.63	58.37 - 5 05	37.9	207.0	46.8	214.0	59.1	232.0	53.2	247.1	111.6	00 00	11.32. 44.17	180. 42. 53.30	4									
355. 4. 33.54	go. 7 + 5 02	37.9	207.0	46.8	214.0	59.1	232.0	53.2	247.1	111.6	00 00	355. 4. 37.66	164. 13. 35.97	16									
175. 4. 40.01	go. 7 - 5 02	37.9	207.0	46.8	214.0	59.1	232.0	53.2	247.1	111.6	00 00	175. 4. 39.08	164. 13. 35.97	16									
101.32. 33.60	go. 1 - 5 01	..	..	..	..	..	..	..	..	..	..	..	..	..	00 00	101.32. 45.36	180. 42. 65.38	5					
11.32. 46.93	go. 1 + 5 01	..	..	..	..	..	..	..	..	..	..	..	..	..	00 00	11.32. 51.84	180. 42. 97.13	7					
51. 12. 31.01	go. 1 + 5 01	..	..	..	..	..	..	..	..	..	..	..	..	..	00 00	51. 12. 35.96	180. 42. 97.13	7					
103.36. 10.34	51. 2 + 6 44	55.7	212.1	52.7	217.7	67.8	236.3	63.7	250.3	171.3	+ 17.9	12.25. 19.82	1.34. 57.73	8									
355. 4. 31.59	51. 2 + 6 44	55.7	212.1	52.7	217.7	67.8	236.3	63.7	250.3	171.3	+ 17.9	12.25. 19.82	1.34. 57.73	8									
130. 18. 23.16	62.43 + 5 64	53.0	207.2	60.2	222.0	73.3	242.2	69.6	256.1	227.5	- 6.06	130. 18. 22.71	290. 27. 43.75	10									
6. 12. 6.23	61.40 - 5 60	37.7	191.2	40.2	207.7	57.9	233.8	54.8	240.6	7.86	- 1.31	6. 12. 6.37	150. 41. 33.60	10									
11.32. 45.00	go. 1 - 5 01	..	..	..	..	..	..	..	..	..	..	..	..	..	00 00	11.32. 47.01	180. 42. 49.13	11					
101.32. 51.01	go. 1 - 5 01	..	..	..	..	..	..	..	..	..	..	..	..	..	00 00	101.32. 46.00	180. 42. 51.11	11					
175. 4. 42.89	go. 7 + 5 02	63.0	219.2	70.6	237.8	83.9	247.2	83.8	259.1	33.3	- 0.07	175. 4. 42.89	180. 42. 54.93	16									
355. 4. 31.59	go. 7 - 5 02	63.0	219.2	70.6	237.8	83.9	247.2	83.8	259.1	33.3	- 0.07	355. 4. 36.34	180. 43. 13.25	15									
355. 4. 33.12	go. 7 + 5 02	62.6	211.0	52.0	207.0	65.0	226.0	63.5	238.0	10.54	- 0.04	355. 4. 38.10	164. 13. 36.01	16									
175. 4. 43.03	go. 7 - 5 02	62.6	211.0	52.0	207.0	65.0	226.0	63.5	238.0	10.54	- 0.04	175. 4. 37.02	164. 13. 34.93	17									
104.50. 51.28	68.31 + 5 30	45.0	194.3	54.0	210.1	66.0	230.0	64.0	242.2	13.33	- 0.84	104.50. 55.83	275. 24. 03.74	18									
186.15. 11.77	67.24 + 5 34	35.3	184.8	44.9	201.0	56.8	219.1	53.1	232.2	3.26	- 3.31	186.15. 3.03	275. 24. 03.74	18									
20. 30. 36.57	32.44 - 9 26	38.2	205.8	45.1	211.8	36.8	243.2	40.0	259.8	14.93	+ 5.79	20. 30. 32.03	9. 41. 50.53	20									
201. 4. 34.63	32.38 + 9 21	37.7	220.7	40.8	237.3	73.4	250.0	63.6	274.8	30.60	- 0.99	204. 4. 30.00	9. 41. 50.53	20									
355. 4. 33.52	go. 7 + 5 02	37.2	200.8	45.3	214.6	58.0	232.2	53.0	247.9	111.0	00 00	355. 4. 38.54	164. 13. 34.96	16									
175. 4. 44.91	go. 7 - 5 02	35.0	215.9	62.0	231.8	76.9	233.1	70.7	267.3	20.90	- 0.97	175. 4. 38.92	164. 13. 35.23	14									
175. 4. 43.75	go. 7 - 5 02	56.2	214.8	63.8	230.9	77.0	230.7	72.0	264.2	28.70	- 0.04	175. 4. 37.79	164. 13. 34.11	21									
355. 4. 32.86	go. 7 + 5 02	36.2	197.2	47.5	213.5	59.3	231.9	53.5	247.0	11.04	- 0.04	355. 4. 37.06	164. 13. 34.22	15									
18. 25. 38.40	go. 7 - 7 33	40.0	204.6	49.0	216.7	63.5	241.2	58.0	276.5	17.65	- 6.88	18. 25. 37.95	7.33. 14.27	26									
200. 55. 7.42	71.47 + 7 34	51.8	218.9	58.3	226.3	71.9	248.0	64.1	262.2	24.81	+ 14.44	200. 53. 0.20	10. 56. 22.67	27									
263.36. 10.13	75.15 - 6 23	30.0	210.0	47.2	217.9	55.5	233.3	50.8	243.0	13.35	- 0.87	263.36. 4.40	285. 47. 38.91	29									
119.38. 14.39	51.10 + 6 43	36.1	198.0	44.2	214.8	51.9	231.3	47.3	248.9	31.91	+ 1.80	119.38. 22.66	285. 47. 38.93	30									
101.32. 47.59	go. 1 + 6 47	..	..	..	..	..	..	..	..	..	..	00 00	101.32. 45.36	180. 42. 74.71	21								
101.32. 47.59	go. 1 + 6 47	..	..	..	..	..	..	..	..	..	..	00 00	101.32. 45.36	180. 42. 74.71	21								
11.32. 41.47	go. 1 - 5 01	..	..	..	..	..	..	..	..	..	..	00 00	11.32. 44.17	180. 42. 47.80	12								
35. 4. 31.19	go. 7 - 5 02	32.2	203.8	42.2	209.0	49.0	219.8	51.4	230.0	45.3	257.5	10.94	- 0.01	355. 4. 36.20	164. 13. 35.62	33							
204. 4. 43.39	go. 7 - 5 02	40.0	219.0	36.3	233.0	70.3	238.0	62.1	275.3	18.00	- 0.93	175. 4. 36.44	164. 13. 35.40	34									
204. 4. 43.39	go. 7 - 5 02	40.0	219.0	36.3	233.0	70.3	238.0	62.1	275.3	18.00	- 0.93	175. 4. 36.44	164. 13. 35.40	34									
7. 2. 12.11	71.45 - 5 22	40.0	211.0	47.0	228.0	58.0	240.0	49.0	266.0	18.53	+ 3.13	204. 4. 43.39	256. 11. 41.88	36									
310. 47. 35.06	72.47 + 7 26	55.5	218.0	58.0	228.0	63.0	242.0	60.0	270.0	17.41	- 3.87	310. 47. 35.06	256. 11. 41.88	36									
204. 4. 43.39	71.45 - 5 22	40.0	211.0	47.0	228.0	58.0	240.0	49.0	266.0	18.53	+ 3.13	204. 4. 43.39	256. 11. 41.88	36									
310. 43. 25.22	72.48 + 7 25	51.0	201.8	38.0	218.6	43.7	234.2	37.3	253.0	16.54	+ 3.50	310. 43. 25.22	256. 11. 41.88	36									
165. 33. 46.91	73.10 - 5 24	50.0	210.0	57.0	238.0	60.0	250.0	56.0	270.0	17.50	- 0.93	165. 33. 46.91	256. 11. 41.88	36									
101.32. 48.04	go. 1 - 5 01	..	..	..	..	..	..	..	..	..	..	00 00	101.32. 45.36	180. 42. 3.08	41								
101.32. 48.04	go. 1 - 5 01	..	..	..	..	..	..	..	..	..	..	00 00	101.32. 45.36	180. 42. 2.48	42								

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Co-efficient of Correction for Collimation, Face Right, $-5^{\circ} 81$
 (The value of one division of each level scale is assumed to be one second of arc)

The value of one division of each level scale is assumed to be one second.

Zero of Azimuth, November 9 and 10, $10^{\circ} 50' 38'' \cdot 78$; November 11 to 14, $10^{\circ} 50' 42'' \cdot 09$; from November 15 and 16, $10^{\circ} 50' 43'' \cdot 68$; November 17, $10^{\circ} 50' 40'' \cdot 02$.

The Collimator and Mark are generally bisected by wire *v*; the correction applied to the Micrometer-equivalents to reduce the Concluded Reading of Horizontal Circle to the reading corresponding to the mean of the wires is for Face Right, $+31^{\circ}.46$, and for Face Left, $-31^{\circ}.46$.

(b) the readings taken on the preceding day,

26. 27. The level readings *i. k. l. m.* having been omitted by the Observer, have been supplied by comparison with

16, 17. The level readings l, k, l, m , having been omitted by the Somerset, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2

DAY AND HOUR.	Observer.	No. for Reference.	NAME OF OBJECT.	Position of Object in Right Ascension and Declination	Seconds of Horizontal Transit over Vertical Wires.						Concluded Clock Time of Horizontal Transit over Mean of Vertical Wires observed.	Clock Slow.	Sidereal Time.	Readings of Microscopes of Horizontal Circle.					
					First.	Second.	Third.	Fourth.	Fifth.	Sixth.				Corrections for Equation of Time.	a	b	c	d	
					s	s	s	s	s	s				s	rev.	rev.	rev.	rev.	
Nov. 19.	h	TP	1 Mark	Right	..	..	..	..	..	..	..	..	7017	6772	7118	7415			
	1	TP	3 Mark	Left	..	..	..	..	..	..	..	..	8281	8383	8737	8686			
	1	TP	3 Collimator	Left	..	..	..	..	..	..	..	..	5500	5412	5721	5550			
	1	TP	4 Collimator	Right	..	..	..	..	..	..	..	..	4900	5067	4700	4356			
	1	TP	6 Pegasi ..	Left	43° 8'	439'	402'	534'	570'	01"	+ 017	22.47.51.57	1791	22.48.	9'48"	7052	6719	7438	7406
	7	TP	6 Pegasi ..	Right	31° 30'	340'	372'	418'	450'	482"	+ 017	22.53.59.70	1791	22.53.57.61	2170	2193	2442	2323	
	7	TP	6 Ursa Maj.	Right	56° 7'	155'	70'	140'	191'	241"	+ 017	23.17.10.59	1792	23.17.10.59	3915	3677	3935	4188	
	7	TP	8 Ursa Maj.	Left	45° 50'	554'	55'	76'	120'	126"	+ 017	23.12.59.00	1792	23.12.59.00	1868	1981	2181	2234	
	8	TP	2 L	Right	35° 32'	304'	436'	498'	544'	585"	+ 017	23.28.46.99	1792	23.29.	49'	0194	0002	0634	
	8	TP	10 L	Left	55° 8'	071'	43'	50'	150'	190"	+ 017	23.35.70.62	1792	23.35.25.54	3534	3449	3667	3637	
Nov. 20.	o	TP	11 Mark	Right	..	..	..	..	..	..	..	..	7110	6852	7180	7532			
	12	TP	12 Mark	Left	..	..	..	..	..	..	..	..	8332	8336	8900	8833			
	8	TP	13 Collimator	Left	..	..	..	..	..	..	..	..	5233	5353	5661	5601			
	8	TP	14 Collimator	Right	..	..	..	..	..	..	..	..	3948	3658	3974	4322			
	8	TP	15 L	Right	58° 30'	74'	131'	172'	212'	237"	+ 007	0.3.10.20	1861	0.3.10.20	2328	2161	2650	2822	
	8	TP	16 L	Left	33° 38'	382'	421'	483'	524'	562"	+ 007	0.7.45.10	1861	0.7.45.10	1262	1240	1352	1492	
	8	TP	17 A Aquile ..	Right	41° 46'	501'	531'	556'	585'	607"	+ 007	0.22.53.12	1862	0.23.11.74	8352	8248	8533	8662	
	8	TP	18 A Aquile ..	Left	26° 30'	342'	396'	437'	475'	475"	+ 007	0.28.57.05	1862	0.28.55.07	2722	2710	2763	2782	
	9	TP	19 Aldebaran	Right	48° 58'	567'	581'	607'	617'	617"	+ 007	0.34.45.34	1862	0.35.41.16	7338	7364	7971	7859	
	9	TP	20 Aldebaran	Left	58° 38'	26'	87'	125'	162'	162"	+ 007	0.44.56.63	1863	0.44.24.72	7187	7058	7340	7488	
Nov. 21.	c	21	L	Right	6° 6'	104'	146'	207'	250'	293"	..	1.38.17.73	1937	1.38.37.10	1130	11030	1154	11584	
	c	22	L	Left	3° 3'	70'	120'	170'	222'	262"	..	1.16.14.87	1939	1.16.34.26	3659	3539	3828	3810	
	c	23	L	Right	13° 31'	164'	198'	240'	270'	303"	..	2.17.14.10	1940	2.17.14.10	0290	0261	0410	0564	
	c	24	L	Left	52° 55'	582'	588'	608'	628'	667"	..	2.34.01.68	1940	2.34.19.88	1434	1526	1770	1606	
	11	c	5 Bet Centi ..	Right	41° 9'	461'	497'	542'	575'	570"	..	2.40.51.90	1940	2.41.11.30	6058	5986	6290	6182	
	11	c	5 Bet Centi ..	Left	19° 28'	232'	264'	314'	348'	381"	..	2.48.28.95	1940	2.48.49.35	6310	5920	6050	6253	
	11	TP	25 Collimator	Right	..	..	..	..	..	..	..	..	3966	3655	4015	4277			
Nov. 21.	11	TP	26 Collimator	Left	..	..	..	..	..	..	..	..	5349	5426	5756	5637			
	13	TP	27 L	Right	18° 6'	219'	262'	312'	353'	..	+ 003	4.56.26.67	2000	4.56.46.67	5367	5383	5853	5863	
Nov. 23.	30	Mark	Right	..	..	..	..	..	..	..	..	..	6975	6707	7070	7341			
	23	TP	31 Mark	Left	..	..	..	..	..	..	..	..	9710	9395	9138	9082			
	12	TP	32 L	Right	11° 18'	255'	302'	345'	385'	406"	+ 017	3.18.32.70	2030	3.18.53.00	6608	6265	6647	6936	
	12	TP	33 L	Left	19° 23'	272'	325'	368'	405'	426"	+ 017	4.38.30.65	2031	4.38.50.36	6972	6702	6982	7089	
Nov. 24.	22	TP	34 Mark	Right	..	..	..	..	..	..	..	..	6989	6700	7001	7372			
	22	TP	35 L	Left	..	..	..	..	..	..	..	..	9983	9810	9230	9160			
Nov. 25.	1	36 Mark	Left	..	..	..	..	..	..	..	..	..	8340	8470	8729	8740			
	1	37 Mark	Right	..	..	..	..	..	..	..	..	..	7027	6828	7045	7420			
	13	o	38 A Orionis ..	Left	5° 15'	45'	117'	149'	178'	..	..	5.28.96.68	2134	5.38.31.02	6647	6636			
	13	o	39 A Orionis ..	Right	55° 58'	10'	5'	85'	115'	..	..	5.35.32.7	2135	5.35.24.62	0836	1000	1215	1100	
	14	o	40 Collimator	Left	..	..	..	..	..	..	..	..	5306	5434	5600	5558			
	14	o	41 Collimator	Right	..	..	..	..	..	..	..	..	4920	5718	4001	4324			
Nov. 26.	T	42 L	Right	48° 05'	504'	583'	631'	676'	713"	+ 023	11.14.56.40	2163	11.15.24.03	1650	1836	2083	2057		
	19	T	43 L	Left	54° 57'	03'	48'	79'	110'	110"	+ 023	11.23.28.65	2163	11.23.18.48	7126	6820	7158	7435	

The observations of transits are usually made by the galvanic or chronographic method, the wires employed being s_1, s_2, s_3, s_4 , taken in the order of transit, Face Right, or s_4, s_3, s_2, s_1 , Face Left; the times are then referred immediately to the Sidereal Standard. Whenever the observations are made by the eye and circle, the wires employed are s_1, s_2, s_3, s_4 , Face Right, or s_4, s_3, s_2, s_1 , Face Left; the times then recorded are those of another clock, Graham's.

For Tabular Equivalents of Microscopes, it is assumed that s_1 corresponds to s_2 of all four. Correction for Runs of Microscopes for $100''$, $-0''$, -0.2 .

1, 2. Very faint.

29. Extremely faint; cloudy.

33, 35. Extremely diffused and tremulous.

35. Microscope a was read on the negative side of the micrometer-zero.

5, 7, 8, 9. Tremulous and diffused.

31. Microscopes a and b were read on the negative side of the micrometer-zero.

33, 39. Cloudy.

37. Microscope c was set down $6''$ 42.

23, 26. Very cloudy.

31. Microscopes a and b were read on the negative side of the micrometer-zero.

33, 39. Cloudy.

37. Microscope c was set down $6''$ 42.

Concluded Reading of Horizontal Circle.	Approx. Zenith Distance.	Correction for Collimation.	Readings of Levels parallel to the Axis of the Vertical Circle.								Cor- rection for Level Index.	Correc- tion for Level.	Corrected Reading of Horizontal Circle.	Concluded Azimuth, measured from S. to W., N., and E.	No. for Reference.
			e	f	g	h	i	k	l	m					
			div.	div.	div.	div.	div.	div.	div.	div.					
175. 4.40.12	63. 7	- 5' 02	476	223.6	54.6	241.9	67.0	262.0	59.0	281.3	29.58	- 0' 99	175. 4.36.21	164. 13.53.76	1
355. 4.52.12	63. 7	+ 5' 02	299	36.3	221.5	69.0	241.5	39.9	261.9	10.64	- 0' 03	355. 4.47.33	164. 13.52.61	2	
11. 32.43.15	90. 1	+ 5' 01	..	..	..	..	..	..	..	..	..	..	11. 32.43.16	180. 421. 58.9	3
191. 32.53.85	90. 1	- 5' 01	..	..	..	..	..	..	..	..	..	..	191. 32.48.34	180. 422. 58.9	4
215. 46.11.09	44. 26	+ 1' 13	464	221.0	53.1	238.1	64.8	259.8	55.8	278.2	27.15	- 16.23	215. 46. 201	24. 58.19.56	5
37. 46.20.97	44. 26	- 1' 10	390	221.0	46.8	231.5	56.7	251.0	48.6	270.3	19.83	+ 8.65	37. 46.20.97	25. 55.42.07	6
167. 27.17.48	53. 1	- 7' 10	390	221.0	46.8	231.5	56.7	251.0	48.6	270.3	19.83	+ 8.65	167. 27.18.80	156. 36.56.35	7
348. 21.15.00	74. 10	+ 5.13	305	204.0	47.2	212.2	45.5	237.7	38.8	257.5	9.05	+ 0.31	348. 21.20.91	248. 34.37.90	8
259. 45.13.11	77. 36	- 5' 13	342	208.0	41.2	215.0	49.9	241.8	42.1	260.9	12.90	+ 0.37	259. 45.13.85	248. 34.37.90	9
175. 7.16.27	76. 46	+ 5' 13	239	199.6	33.2	217.0	49.9	241.8	42.1	260.9	12.90	+ 0.37	175. 7.16.27	250. 1.31.84	10
175. 4.46.13	63. 7	- 5' 02	466	226.9	53.4	244.3	65.0	263.4	55.8	283.5	30.23	- 1' 03	175. 4.40.18	164. 13.57.73	11
355. 4.53.85	63. 7	+ 5' 02	269	207.4	53.4	244.3	65.0	263.4	55.8	283.5	30.23	- 1' 03	355. 4.53.87	164. 13.56.52	12
11. 32.41.95	90. 1	+ 5' 01	..	..	..	..	..	..	..	..	..	..	11. 32.41.95	180. 421. 43.1	13
191. 32.52.06	90. 1	- 5' 01	..	..	..	..	..	..	..	..	..	..	191. 32.47.03	180. 422. 4.60	14
289. 56.39.74	81. 26	- 5' 03	344	214.0	40.0	238.8	40.5	250.0	41.6	271.3	16.60	+ 0' 83	289. 56.49.16	246. 45.43.05	15
78. 25.47.41	80. 48	+ 5' 08	207	200.0	26.8	212.2	33.4	233.5	25.7	257.2	1.56	+ 1.56	78. 25.47.45	247. 55.11.50	16
207. 50.19.18	70. 36	- 5' 31	195	195.8	24.8	214.8	30.4	230.8	25.0	252.1	1.41	+ 1.53	207. 50.19.18	247. 55.11.50	17
271. 10.17.82	71. 28	+ 5' 39	33.8	210.8	28.0	240.8	34.7	250.8	30.2	260.8	15.33	+ 1.58	271. 10.17.82	247. 55.11.50	18
265. 44.29.14	71. 28	+ 5' 39	33.8	210.8	28.0	240.8	34.7	250.8	30.2	260.8	15.33	+ 1.58	265. 44.29.14	247. 55.11.50	19
117. 49.16.50	56. 28	+ 6' 01	276	206.8	33.9	224.2	40.1	241.0	32.2	261.8	8.48	+ 1.81	117. 49.16.52	285. 38.47.21	20
267. 20.47.35	77. 16	- 5' 14	32.0	214.0	50.4	232.0	48.5	253.0	38.0	273.4	16.38	+ 1.81	267. 20.47.38	256. 30. 5.93	21
94. 17.12.33	71. 41	+ 5' 28	18.5	199.8	24.6	217.4	28.9	237.2	20.5	255.1	0.30	+ 1.84	94. 17.12.33	263. 26.43.97	22
355. 25.12.36	47. 50	+ 6' 09	47.	200.0	34.7	220.0	40.0	240.0	30.0	260.0	10.00	+ 1.84	355. 25.12.36	263. 26.43.97	23
11. 32.43.15	75. 5	- 5' 11	32.3	213.5	39.4	231.5	44.0	247.0	35.2	269.0	14.01	+ 0.74	11. 32.43.15	180. 421. 58.9	24
222. 48.45.05	47. 41	+ 5' 17	40.8	209.0	59.0	247.9	62.0	268.8	52.0	283.7	29.58	+ 0.94	222. 48.45.05	31. 28. 78.5	25
191. 32.53.19	90. 1	- 5' 01	..	..	..	..	..	..	..	..	..	..	191. 32.47.18	180. 422. 7.05	27
11. 32.44.19	90. 1	+ 5' 01	..	..	..	..	..	..	..	..	..	..	11. 32.44.19	180. 421. 43.1	28
299. 2.49.10	58. 1	- 5' 01	341	218.8	41.4	237.7	51.7	257.2	42.0	278.7	20.12	+ 3.61	299. 2.48.90	288. 12. 8.77	29
175. 4.40.21	63. 7	- 5' 02	44.3	225.3	50.7	243.4	64.1	263.0	55.1	284.2	28.80	- 0' 53	175. 4.34.24	164. 13.54.11	30
355. 4.53.39	63. 7	- 5' 02	277	208.3	33.7	226.0	44.6	241.1	36.8	263.3	10.84	- 0' 52	355. 4.45.39	164. 13.53.65	31
280. 34.27.89	76. 40	+ 5' 15	268	193.7	34.2	212.4	42.6	232.0	33.5	252.0	1.41	+ 1.53	280. 34.27.89	269. 43.40.54	32
108. 20.28.97	70. 35	+ 5' 30	42.8	208.0	47.0	224.4	40.0	239.7	33.9	253.2	1.62	+ 1.73	108. 20.30.62	277. 29.32.41	33
175. 4.39.77	63. 7	- 5' 02	60.3	213.9	68.7	229.4	82.6	249.7	78.8	261.7	36.35	- 1' 04	175. 4.33.58	164. 13.53.58	34
355. 4.53.91	63. 7	+ 5' 02	39.7	192.3	49.9	209.0	61.8	227.7	58.3	240.3	21.03	- 0' 58	355. 4.53.85	164. 13.57.72	35
355. 4.31.86	63. 7	+ 5' 02	41.0	192.8	50.8	208.8	62.1	227.5	60.0	249.5	10.46	- 0' 04	355. 4.26.84	164. 13.56.71	36
175. 4.42.21	63. 7	- 5' 02	61.0	216.0	69.0	228.0	82.8	248.0	79.3	260.8	36.12	- 1' 03	175. 4.34.59	164. 13.56.04	37
183. 38.54.82	44. 17	+ 7' 17	48.8	217.0	37.8	237.8	60.0	260.0	54.5	279.1	11.99	- 11.99	183. 38.50.00	352. 48. 9.87	38
191. 32.43.83	90. 1	+ 5' 01	..	..	..	..	..	..	..	..	..	..	191. 32.43.83	180. 421. 43.1	39
11. 32.42.48	90. 1	- 5' 01	..	..	..	..	..	..	..	..	..	..	11. 32.42.48	180. 421. 43.1	40
191. 32.52.83	90. 1	- 5' 01	..	..	..	..	..	..	..	..	..	..	191. 32.48.27	180. 422. 4.34	41
358. 21. 8.42	58. 17	- 5' 89	34.8	197.8	44.0	214.3	53.0	234.1	47.9	250.8	9.96	- 1' 00	358. 21. 1.53	347. 30.20.42	42
180. 30.12.77	58. 17	+ 5' 09	36.8	211.8	63.0	233.8	76.6	256.2	69.0	270.0	29.86	- 11.00	180. 30. 1.53	347. 30.20.42	43

DAY AND HOUR.	Observer.	No. of Reference.	NAME OF OBJECT.	Position of Object.	Readings of Horizontal Transit over Vertical Wires.										Corrected Clock Time of Transit over Mean of Vertical Wires observed.		Clock Slow.	Sidereal Time.	Readings of Microscopes of Horizontal Circle.				No. of Reference.		
					First.														a b c d						
					First.	Second.	Third.	Fourth.	Fifth.	Sixth.	Seventh.	Eighth.	Ninth.	Tenth.	h	m			s	rev.	rev.	rev.		rev.	
Nov. 26.	19	T	1	Regulus ..	Left	27	61	94	139	173	205	237	269	301	333	365	397	11.32.11.38	11.32.33.51	7996	7751	8146	8363	1	
	19	T	2	Regulus ..	Right	47	50	54	53	59	24	58	2	3	5	7	9	11	11.32.18.57	11.32.38.17	7976	7780	8025	8036	2
	20	T	3	Mark	Left	..	..	..	..	..	..	..	..	..	..	..	..	..	..	8265	8427	8781	8712	3	
	20	T	4	Mark	Right	..	..	..	..	..	..	..	..	..	..	..	..	..	..	7966	8146	8412	8450	4	
	23	T	5	Collimator	Left	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4906	5000	4902	4301	5	
	23	T	6	Collimator	Right	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5365	5440	5376	5665	6	
Nov. 27.	18	HT	7	2 L	Right	36	40	45	43	48	51	55	59	63	67	71	75	10.35.45.89	10.36.1.15	2159	2046	2047	2140	7	
	18	HT	8	2 L	Left	33	38	43	41	46	50	53	57	61	65	69	73	10.36.23.31	10.36.29.46	2166	1863	2066	2168	8	
	19	HT	9	3 Cygni ..	Right	57	15	64	128	170	220	265	310	355	400	445	490	11.5.9.66	11.5.31.19	1250	1212	1256	1367	9	
	19	HT	10	3 Cygni ..	Left	53	58	20	61	139	183	227	272	317	362	407	452	11.12.6.16	11.12.18.47	8312	8181	8566	8580	10	
	19	HT	11	Regulus ..	Right	61	9	12	10	20	28	37	46	55	64	73	82	11.21.14.74	11.21.27.05	2302	2199	2480	2566	11	
	19	HT	12	Regulus ..	Left	21	3	8	20	37	54	71	88	105	122	139	156	11.27.31.34	11.27.35.65	6588	6370	6724	7010	12	
	19	HT	13	Collimator	Right	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4030	3698	4020	4308	13	
	19	HT	14	Collimator	Left	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5325	5401	5702	5866	14	
	20	HT	15	Mark	Left	..	..	..	..	..	..	..	..	..	..	..	..	..	..	9766	9912	10169	10379	15	
	20	HT	16	Mark	Right	..	..	..	..	..	..	..	..	..	..	..	..	..	..	7020	6740	7057	7379	16	
Nov. 28.	20	T	17	2 L	Right	53	88	121	168	203	237	271	305	339	373	407	441	11.29.14.75	11.29.37.77	3516	3358	3500	3643	17	
	20	T	18	2 L	Left	33	58	83	118	153	188	223	258	293	328	363	398	11.33.45.15	11.34.1.15	2159	2040	2146	2181	18	
	19	T	19	Regulus ..	Right	47	5	56	54	59	64	69	74	79	84	89	94	11.52.19.56	11.52.19.56	0507	0602	0756	0907	19	
	20	T	20	Regulus ..	Left	31	6	9	14	17	21	25	29	33	37	41	45	11.56.12.35	11.56.33.13	1005	9785	1004	1036	20	
	20	T	21	Collimator	Right	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4030	3768	4012	4286	21	
	20	T	22	Collimator	Left	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5324	5441	5728	5947	22	
Dec. 4.	5	T	23	1 L	Right	54	27	10	62	98	132	166	200	234	268	302	336	21.56.3.85	21.56.29.86	3516	3266	3191	2727	23	
	5	T	24	1 L	Left	23	29	35	38	41	45	49	53	57	61	65	69	21.56.15.17	21.56.15.17	7441	7081	7364	7886	24	
	5	T	25	3 Pegasi ..	Left	..	29	32	36	39	43	47	51	55	59	63	67	22.20.2.21	22.20.2.21	0745	0750	0820	0845	25	
	5	T	26	3 Pegasi ..	Right	..	12	15	19	23	28	32	37	41	46	51	56	22.24.17.83	22.24.17.83	1665	1592	1711	1926	26	
	6	T	27	Collimator	Right	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3285	3241	3743	3961	27	
	6	T	28	Collimator	Left	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4055	3766	4035	4362	28	
Dec. 5.	1	AD	29	Mark	Right	..	..	..	..	..	..	..	..	..	..	..	..	..	..	7120	6834	7042	7154	29	
	1	AD	30	Mark	Left	..	..	..	..	..	..	..	..	..	..	..	..	..	..	9831	9681	10019	10286	30	
Dec. 6.	1	TP	31	Mark	Right	..	..	..	..	..	..	..	..	..	..	..	..	..	..	7170	6862	7135	7274	31	
	1	TP	32	Mark	Left	..	..	..	..	..	..	..	..	..	..	..	..	..	..	9877	9607	10000	10156	32	
	6	TP	33	1 L	Right	34	37	40	45	49	53	57	61	65	69	73	77	22.4.13.39	22.4.18.67	7441	7081	7364	7886	33	
	6	TP	34	1 L	Left	23	26	29	30	33	36	39	42	45	48	51	54	22.59.59.98	22.59.59.98	2531	2311	2668	2957	34	
	6	TP	35	3 Pegasi ..	Left	45	48	52	56	60	64	68	72	76	80	84	88	23.54.47.72	23.54.47.72	3422	3087	3418	3747	35	
	22	TP	36	Collimator	Left	46	49	53	57	61	65	69	73	77	81	85	89	23.10.55.46	23.11.22.69	7235	7140	7445	7538	36	
Dec. 7.	0	T	37	Mark	Right	..	..	..	..	..	..	..	..	..	..	..	..	..	..	9831	9671	9964	10215	37	
	0	T	38	Mark	Left	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4030	3766	4019	4297	38	
Dec. 8.	5	T	39	1 L	Right	26	56	85	132	163	193	223	253	283	313	343	373	21.52.11.13	21.52.39.12	9816	9503	10035	10265	39	
	12	C	43	3 Orionis.	Right	30	38	38	36	41	44	47	50	53	56	59	62	21.52.11.13	21.52.39.12	9816	9502	10061	10281	40	

The observations of transits are usually made by the galvanic or chronographic method, the wire employed being s, t, u, v, w, x , taken of the order of transit, eye and ear, the wire employed are q, r, s, t, u, v , Face Right, at s, t, u, v, w, x , Face Left, at q, r, s, t, u, v , the times then recorded are those of another clock, Graham's.

For Tabular Equivalents of Microscopes, it is assumed that s' corresponds to $8's$ of our four. Correction for Runs of Microscopes for $100''$, $-0.002''$.

9, 10. Diffused and tremulous.

30, 32, 40. Microscope a was read on the negative side of the micrometer zero.

33. Cloudy.

15. Microscope a and b were read on the negative side of the micrometer zero.

41. Microscope a, b , and c were read on the negative side of the micrometer zero.

Unobserved Reading of Horizontal Circle.	Approx. Zenith Distance.	Correction for Collimation.	Readings of Levels parallel to the Axis of the Vertical Circle.										Corr. Level Reduction.	Corrected Reading of Horizontal Circle.	Concluded Azimuth, corrected from S. to W., N., and E.	No. of Reference.
			a	f	g	h	i	k	l	m	n	o				
			div.	div.	div.	div.	div.	div.	div.	div.	div.	div.				
224.14.45.20	43.0	+7.34	58.3	320.1	64.6	237.7	77.7	257.0	69.6	270.2	31.65	-21.91	224.14.30.72	33.43.50.59	1	
29.40.43.20	43.20	-7.30	37.2	200.4	46.0	215.7	35.5	234.8	50.4	231.2	11.59	+0.30	29.40.35.43	34.38.56.01	2	
355.4.31.29	93.7	+5.02	34.6	190.8	42.9	215.0	31.9	214.1	46.8	247.0	8.91	+0.17	355.4.36.14	164.13.57.01	3	
175.4.43.29	93.7	+5.02	34.6	190.8	42.9	215.0	31.9	214.1	46.8	247.0	8.91	+0.17	175.4.47.13	164.13.57.00	4	
191.34.53.29	90.1	+5.01	30.1	179.9	63.0	236.5	77.0	255.7	70.3	270.3	31.58	..	191.34.52.18	180.42.47.99	5	
11.32.44.10	90.1	+5.01	30.1	179.9	63.0	236.5	77.0	255.7	70.3	270.3	31.58	..	11.32.49.12	180.42.47.99	6	
336.1.54.50	68.38	-3.12	19.0	3.2	215.3	4.8	234.6	4.3	252.6	7.85	-1.31	336.1.47.90	323.11.7.77	7		
158.36.13.67	67.47	+5.41	48.2	214.8	55.0	231.0	66.7	251.1	59.4	267.7	24.24	-0.32	158.36.14.66	327.45.31.53	8	
216.40.34.60	78.25	+5.12	55.7	221.9	63.3	238.4	72.0	251.1	59.4	267.7	24.24	-0.32	216.40.38.47	265.49.58.34	9	
57.49.57.29	77.56	+5.12	55.7	221.9	63.3	238.4	72.0	251.1	59.4	267.7	24.24	-0.32	57.49.57.29	265.49.58.34	10	

OBSERVATIONS OF AZIMUTH, WITH THE ALTAZIMUTH

[illegible]

The observations of transits are usually made by the galvanic or chronographic method, the wires employed being s, t, u, v, w, x , taken in the order of transit, Face Right, or x, w, v, u, t, s , Face Left; the times are then referred immediately to the Sidereal Standard. Whenever the observations are made by eye and ear, the wires employed are q, r, s, x, y, z , Face Right, or x, y, z, s, r, q , Face Left; the times then recorded are those of another clock, Graham's.

For Tabular Equivalents of Microscopes, it is assumed that $5'$ corresponds to $8^{\circ}.5$ of all four.
Correction for Runs of Microscopes for $100''$. $-\alpha'' \cdot .03$.

7, 15, 22, 38. Microscope α was read on the negative side of the micrometer-zero.

10. Faint: sky thick.

40, 41, 45. Cloudy.

Concluded Reading Horizontal Circle.	Approx. Zenith Distance.	Correction for Collima- tion.	Readings of Levels parallel to the Axis of the Vertical Circle.												Cor- rec- tion for Level.	Correc- tion for Level.	Corrected Reading of Horizontal Circle.	Corrected Azimuth, measured to W. N., from S. E.	Sine of Difference.				
			a				f				g									h			
			a	f	g	h	a	f	g	h	a	f	g	h						a	f	g	h
173. 12. 21.12	45. 17	+ 7.13	55.5	215.1	62.5	230.5	74.0	249.7	68.5	264.0	27.48	-1.71	151.40, 12. 12.54	342. 21. 33.34	6								
173. 12. 56.46	45. 21	- 5.29	58.0	215.9	63.6	230.7	76.4	245.5	71.0	260.5	26.85	+ 2.51	151.40, 12. 16.45	342. 21. 16.45	7								
335. 51. 1.80	1. 74	+ 1.57	32.0	191.0	40.0	207.5	47.4	222.0	44.3	238.0	0.75	+ 2.48	153. 53. 1. 05	143. 0. 26.32	8								
11. 32. 42.33	96. 1	+ 5.02	..	..	..	..	..	..	..	..	..	..	11. 32. 40. 37	180. 42. 7.07	9								
191. 32. 52.65	96. 1	+ 5.02	..	..	..	..	..	..	..	..	..	..	191. 32. 47.38	180. 42. 7.35	10								
175. 4. 46.94	93. 7	- 5.08	58.0	217.3	65.2	235.0	78.8	233.5	75.0	267.8	31.05	- 1.65	175. 4. 40.81	164. 13. 58.91	6								
355. 4. 33.95	93. 7	+ 5.08	58.9	193.0	42.2	209.3	54.9	228.2	51.0	243.0	6.94	+ 0.35	355. 4. 38.26	164. 13. 56.06	7								
175. 12. 45.44	90. 1	+ 5.07	..	..	..	..	..	..	..	..	..	..	11. 32. 30.51	180. 42. 7.79	8								
143. 50. 21.11	90. 1	+ 5.07	..	..	..	..	..	..	..	..	..	..	191. 32. 46.94	180. 42. 4.12	9								
142. 52. 52.91	93. 7	- 5.08	58.9	193.0	42.2	209.3	54.9	228.2	51.0	243.0	6.94	+ 0.35	355. 4. 38.26	164. 13. 56.06	10								
325. 42. 56.93	45. 25	+ 6.02	58.9	217.1	63.9	232.1	80.1	250.5	75.3	265.7	31.13	-1.47	151.40, 12. 16.45	342. 21. 16.45	11								
355. 42. 56.93	55. 25	- 6.07	33.9	192.1	40.9	208.1	54.0	223.1	47.4	238.1	0.75	+ 2.48	153. 53. 1. 05	143. 0. 26.32	12								
151. 51. 30.36	49. 24	- 6.06	48.7	197.3	56.4	221.1	69.4	230.4	61.0	255.2	30.67	+ 7.33	51. 15. 30.30	40. 24. 48.19	13								
232. 21. 39.11	49. 24	+ 6.06	40.0	197.1	48.1	213.7	60.0	231.6	56.6	246.0	11.61	- 0.03	352. 21. 43.72	41. 21. 3.00	14								
175. 4. 42.73	93. 7	- 5.08	59.7	213.0	67.3	228.0	82.2	248.1	79.3	261.2	29.85	- 0.98	175. 4. 36.67	164. 13. 55.95	6								
355. 4. 33.42	93. 7	+ 5.08	56.8	189.9	40.7	207.0	59.1	224.0	56.1	237.9	7.19	- 0.14	355. 4. 38.26	164. 13. 57.19	7								
11. 32. 43.93	90. 1	+ 5.07	..	..	..	..	..	..	..	..	..	..	11. 32. 40.37	180. 42. 8.18	8								
191. 32. 54.14	90. 1	+ 5.07	..	..	..	..	..	..	..	..	..	..	191. 32. 49.07	180. 42. 8.53	9								
182. 18. 36.26	42. 48	- 7.31	40.9	194.0	49.8	210.2	60.7	228.2	57.7	242.0	10.44	- 1.38	182. 18. 30.43	351. 57. 32.66	10								
212. 19. 35.26	42. 20	+ 7.53	54.9	208.4	62.0	223.1	74.3	241.9	70.9	256.0	10.44	- 1.38	212. 19. 27.53	351. 57. 32.66	11								
355. 42. 56.93	49. 24	- 6.07	49.3	207.4	56.0	220.0	66.7	235.3	68.3	253.2	18.70	+ 5.97	37. 36. 3.98	26. 45. 38.16	12								
39. 30. 10.03	49. 35	- 6.63	48.0	197.4	53.2	214.5	64.0	234.5	66.6	254.0	6.28	- 0.99	355. 4. 38.26	164. 13. 57.19	13								
355. 4. 33.79	93. 7	+ 5.08	28.0	197.4	53.2	214.5	64.0	234.5	66.6	254.0	6.28	- 0.99	355. 4. 38.26	164. 13. 57.19	14								
175. 4. 42.18	93. 7	+ 5.08	53.8	230.3	60.0	239.7	74.2	252.5	60.0	279.7	32.12	- 1.12	175. 4. 35.58	164. 13. 57.19	15								
191. 32. 51.35	90. 1	+ 5.07	..	..	..	..	..	..	..	..	..	..	191. 32. 46.94	180. 42. 7.49	16								
191. 32. 41.60	90. 1	+ 5.07	..	..	..	..	..	..	..	..	..	..	191. 32. 46.94	180. 42. 7.49	17								
101. 28. 9.67	57. 57	- 3.98	27.0	195.3	39.0	213.1	44.2	231.1	30.0	251.4	4.91	- 4.38	30. 27. 49.31	289. 37. 20.32	18								
122. 40. 41.37	57. 50	+ 1.60	66.5	211.1	51.2	228.4	56.2	246.3	51.5	264.0	18.65	- 4.54	122. 40. 33.89	291. 50. 7.07	19								
122. 40. 41.37	57. 50	+ 1.60	66.5	211.1	51.2	228.4	56.2	246.3	51.5	264.0	18.65	- 4.54	122. 40. 33.89	291. 50. 7.07	20								
199. 25. 22.27	42. 29	- 7.51	40.0	208.0	49.0	224.2	57.5	243.8	51.0	259.4	10.36	- 5.30	199. 25. 14.59	8. 35. 45.44	21								
355. 42. 57.90	42. 29	- 7.51	40.0	208.0	49.0	224.2	57.5	243.8	51.0	259.4	10.36	- 5.30	355. 42. 50.71	324. 29. 43.91	22								
355. 20. 27.51	77. 21	- 5.20	57.0	203.0	44.1	221.3	34.2	240.1	38.0	258.2	1.38	- 3.89	355. 20. 20.74	324. 29. 43.91	23								
156. 6. 36.19	76. 44	+ 5.21	52.0	219.8	58.3	230.6	79.3	249.3	69.0	280.5	- 5.83	+ 15.31	157. 41. 18.22	164. 13. 58.91	24								
284. 39. 7.25	66.40	- 5.52	24.0	187.0	35.2	204.0	47.0	221.9	38.2	239.4	-1.41	- 5.61	284. 39. 18.65	271. 45. 38.86	25								
104. 10. 8.45	63.27	+ 5.57	41.0	204.0	49.0	221.2	61.0	239.1	39.2	256.9	15.70	- 4.87	104. 10. 15.75	271. 45. 38.86	26								
320. 7. 18.24	41. 72	+ 1.72	41.0	204.0	49.0	221.2	61.0	239.1	39.2	256.9	15.70	- 4.87	320. 7. 23.09	341. 30. 53.30	27								
320. 7. 18.24	49.31	- 6.67	40.0	206.8	52.0	213.0	53.0	230.9	50.8	250.5	17.38	- 4.97	320. 7. 23.09	341. 30. 53.30	28								
334. 32. 4.32	72.21	- 5.20	36.0	198.0	41.0	215.3	52.0	230.9	48.5	247.0	8.80	- 5.83	334. 32. 11.41	341. 30. 53.30	29								
155. 41. 33.63	76.54	+ 5.21	55.3	218.0	63.0	234.3	72.0	249.3	69.0	280.5	- 5.83	+ 15.31	157. 41. 18.22	164. 13. 58.91	30								
355. 4. 30.95	93. 7	- 5.08	32.7	191.2	41.9	207.8	53.3	223.6	50.7	241.3	5.36	- 0.33	355. 4. 35.70	164. 13. 56.06	31								
175. 4. 42.73	93. 7	+ 5.08	60.7	221.9	67.9	234.3	84.0	253.5	78.3	268.2	33.46	- 0.71	175. 4. 36.65	164. 13. 58.91	32								
159. 2. 19.97	34. 1	+ 9.07	61.0	218.7	68.0	235.0	84.0	253.5	78.3	268.2	33.46	- 0.71	159. 2. 24.33	328. 11. 18.34	33								
341. 50. 1.94	33.25	- 9.07	33.0	191.2	41.9	207.8	53.3	223.6	50.7	241.3	5.36	- 0.33	341. 50. 7.31	328. 11. 18.34	34								
159. 2. 19.97	90. 1	+ 5.07	..	..	..	..	..	..	..	..	..	..	191. 32. 46.94	180. 42. 4.12	35								
101. 32. 51.91	90. 1	+ 5.07	..	..	..	..	..	..	..	..	..	..	191. 32. 46.94	180. 42. 4.12	36								
212. 55. 31.50	48.32	+ 6.77	30.5	207.3	38.0	223.3	68.8	247.0	65.0	256.2	21.43	- 8.70	212. 55. 28.22	22. 4. 49.43	37								
212. 55. 31.50	48.32	+ 6.77	30.5	207.3	38.0	223.3	68.8	247.0	65.0	256.2	21.43	- 8.70	212. 55. 28.22	22. 4. 49.43	38								

Co-efficient of Correction for Collimation, Face Right, $-5''.07$.

The value of one division of each level scale is assumed to be one second of arc.

Travel Indication for Horizontal Position of Axis of

Level Indication for Horizontal Position of Axis of Vertical Circle, 11' 00".

Zero of Azimuth, December 7 and 8, $10^{\circ} 50' 40'' \cdot 23$; December 9, $10^{\circ} 50' 42'' \cdot 72$; December 12, $10^{\circ} 50' 42'' \cdot 72$.

The Collimator and Mark are generally bisected by wire r ; the correction applied to the micrometer, eq. 1, is

OBSERVATIONS OF AZIMUTH, WITH THE ALTAZIMUTH,

DAY AND HOUR.	OBSERV- ER.	Star No. Reference.	NAME OF OBJECT.	Orbital Face of Vertical Circle.	Seconds of Horizontal Transl. over Vertical Wire.					Correc- tion for Equation.	Clock Time of Horizontal Transit observed.	Clock Slow.	Sidereal Time.	Readings of Microscopes of Horizontal Circle.				
					Second.				Fourth.					Fifth.	Sixth.			
					a	b	c	d										
Dec. 14. 6	HP	1	Collimator	Right	..	..	..	..	..	..	..	..	3920	3.578	3.896	4.275		
	HP	2	Collimator	Left	..	..	..	..	..	..	..	..	5130	5.300	5.560	5.495		
Dec. 15. 06	T	3	1 L.....	Left	25.6	29.8	34.3	40.7	45.9	50.2	+ 0.23	3. 7. 37.98	32.92	23. 8. 10.90	6.442	6.343	6.908	7.028
	T	4	1 L.....	Left	59.7	42.9	9.0	15.0	..	..	+ 0.23	23.13. 7.21	31.93	23. 8. 10.90	4.703	4.581	4.78	4.751
Dec. 16. 7	TP	5	2 L.....	Left	58.4	2.3	7.3	13.7	18.5	23.8	+ 0.17	0.33. 10.65	33.29	0.33. 43.96	2.888	2.793	2.953	3.011
	TP	6	2 L.....	Left	59.1	3.3	8.1	14.7	18.8	23.7	+ 0.17	1.14. 11.45	33.30	1.14. 44.75	4.832	4.687	5.389	5.449
	22	TP	7 Mark.....	Right	..	..	..	..	..	..	..	..	..	7.068	6.799	7.063	7.149	
	22	TP	8 Mark.....	Left	..	..	..	..	..	..	..	..	..	77.75	0.003	0.738	0.714	
	22	TP	9 Collimator	Left	..	..	..	..	..	..	..	..	..	3.924	5.797	5.913	5.929	
	22	TP	10 Collimator	Right	..	..	..	..	..	..	..	..	..	3.928	3.615	3.343	4.288	
Dec. 17. 1	AD	11	Mark.....	Right	..	..	..	..	..	..	..	..	..	6.992	3.766	7.005	7.400	
	AD	12	Mark.....	Left	..	..	..	..	..	..	..	..	..	97.43	0.025	0.266	0.261	
Dec. 18. 1	C	13	Mark.....	Left	..	..	..	..	..	..	..	..	..	7.720	0.036	0.066	0.159	
	C	14	Mark.....	Right	..	..	..	..	..	..	..	..	..	7.034	6.763	7.343	7.420	
	C	15	Rigel.....	Left	43.3	46.0	50.6	55.6	59.2	63.8	+ 0.03	1. 8. 53.07	34.51	1. 9. 27.58	1.080	1.056	1.084	1.256
	C	16	Rigel.....	Right	33.8	36.1	39.7	44.8	48.3	51.9	+ 0.03	1.13. 42.27	34.51	1.14. 16.78	3.044	3.142	3.600	3.610
	C	17	Pisces.....	Right	46.5	49.4	52.6	56.8	59.8	63.8	+ 0.03	1.19. 34.65	34.51	1.20. 29.16	3.320	3.348	3.744	3.610
	C	18	Pisces.....	Left	11.8	12.9	14.0	15.1	16.2	17.3	+ 0.03	1.25. 54.53	34.51	1.25. 54.53	3.610	3.610	3.610	3.610
	C	19	2 L.....	Left	48.1	52.3	56.5	60.7	65.0	71.0	+ 0.03	1.30. 59.55	34.52	1.31. 34.07	6.330	6.162	6.448	6.341
	C	20	2 L.....	Left	31.8	36.0	40.3	46.2	50.6	54.8	+ 0.03	1.38. 43.28	34.52	1.39. 17.80	5.057	4.884	5.695	5.626
	C	21	Collimator	Right	..	..	..	..	..	..	..	..	..	3.910	3.710	4.045	4.360	
	C	22	Collimator	Left	..	..	..	..	..	..	..	..	..	5.456	5.470	5.744	5.853	
Dec. 20. 9	HP	23	Collimator	Right	..	..	..	..	..	..	..	..	..	3.968	3.577	3.858	4.261	
	HP	24	Collimator	Left	..	..	..	..	..	..	..	..	..	5.084	5.574	5.875	5.420	
	10	25	2 L.....	Left	37.7	42.5	47.6	52.7	57.7	62.5	+ 0.09	4. 0. 50.52	35.83	4. 1. 26.35	1.952	1.829	2.050	2.169
	10	26	2 L.....	Left	37.4	41.1	45.1	51.2	56.2	61.0	+ 0.09	4.12. 28.26	35.83	4. 13. 24.09	0.910	0.853	0.921	1.021
	11	HP	27 3 Orionis	Right	37.8	40.3	43.8	48.3	51.4	54.5	+ 0.09	4.28. 46.11	35.83	4. 29. 21.94	3.055	3.118	3.352	3.466
	11	HP	28 3 Orionis	Left	39.7	42.6	47.7	50.6	53.8	56.1	+ 0.09	4.39. 47.99	35.84	4. 40. 23.83	7.061	6.793	7.110	7.345
Dec. 21. 0	AD	29 3 Orionis	Right	..	..	..	..	..	..	..	..	..	..	7.032	6.782	7.053	7.413	
	0	AD	30 Mark.....	Left	..	..	..	..	..	..	..	..	..	9.671	9.338	9.623	9.127	
	0	AD	31 Collimator	Right	..	..	..	..	..	..	..	..	..	3.166	5.538	5.072	5.241	
	0	AD	32 Collimator	Right	..	..	..	..	..	..	..	..	..	2.979	5.591	5.050	5.169	
	11	AD	33 3 Orionis	Left	58.9	2.3	7.2	9.8	12.9	16.0	+ 0.03	4.36. 7.55	36.43	4. 36. 43.98	2.401	2.218	3.231	2.656
	11	AD	34 3 Orionis	Right	21.2	24.1	27.3	31.8	34.8	38.0	+ 0.03	4.40. 29.56	36.44	4. 41. 6.00	5.953	5.732	5.973	5.148
	11	15	Regulus.....	Left	31.2	35.2	40.5	50.1	58.1	71.0	+ 0.03	4.42. 51.38	36.44	4. 46. 46.39	5.455	5.683	5.711	5.438
	11	16	Regulus.....	Left	31.2	35.1	39.2	44.7	48.8	52.5	+ 0.03	4.49. 41.93	36.44	4. 50. 18.39	4.861	4.799	4.951	5.042
	11	AD	35 2 L.....	Left	19.0	23.8	28.6	33.3	36.4	40.3	+ 0.03	4.53. 39.63	36.44	4. 54. 6.07	8.253	8.189	8.461	8.602
	11	AD	38 2 L.....	Right	27.2	36.9	39.1	40.4	44.2	48.2	+ 0.03	5. 0. 37.70	36.44	5. 1. 14.14	7.366	7.366	7.988	8.007
Dec. 22. 2	T	5	Mark.....	Left	..	..	..	..	..	..	..	..	..	97.26	0.041	0.296	0.345	
	T	45	Mark.....	Right	..	..	..	..	..	..	..	..	..	7.083	6.779	7.005	7.465	
Dec. 23. 12	T	41	2 L.....	Left	8.7	12.8	16.5	22.0	25.9	29.5	+ 0.23	6.1. 19.45	37.18	6. 1. 56.75	4.013	3.900	3.967	4.174
	13	T	43 Collimator	Right	..	..	..	..	..	..	..	..	..	2.763	2.430	2.424	3.052	
	15	T	43 Collimator	Left	..	..	..	..	..	..	..	..	..	5.265	5.412	5.706	5.602	

The observations of transits are usually made by the galvanic or chronographic method, the wires employed being *s, t, u, v, w, x*, taken in the order of transit, Face Right, or *x, w, v, u, t, s*, Face Left; the times are then referred immediately to the Sideral Standard. Whenever the observations are made by eye and ear, the wires employed are *q, r, s, x, y, z*, Face Right, or *z, y, x, s, r, q*, Face Left; the times then recorded are those of another clock, Graham 1.

For Tabular Equivalents of Microscopes, it is assumed that 5' corresponds to 8' 5 of all for
Correction for Runs of Microscopes for 100'', -0'' 02.

3, 5, 6, 25, 26, 28. Cloudy.

12, 13, 39. Microscope *a* was read on the negative side of the micrometer-zero

30. Microscopes *a* and *b* were read on the negative side of the micrometer-zero

Concluded Reading of Horizontal Circle.			Approx. Zenith Distance.	Correction for Collimation.	Residues of Levels parallel to the Axis of the Vertical Circle.												Corrected level Inclination.	Correction for Level.	Corrected Reading of Horizontal Circle.	Concluded Azimuth, measured from W. to N. and E.	No. of Reference.
a	b	c			d	e	f	g	h	i	k	l	m	n	o	p					
191. 32. 50.00	90. 1	5.07	..	..	..	..	..	..	..	..	..	..	..	..	..	191. 32. 44.95	180. 42. 6.14	2			
11. 32. 38.77	90. 1	5.07	..	..	..	..	..	..	..	..	..	..	..	..	..	11. 32. 43.99	180. 42. 5.20	2			
268. 58. 55.73	69. 45	5.40	22.0	17.9	30.0	195.9	40.0	212.6	37.0	218.0	-69.1	-6.83	268. 58. 43.51	258. 8. 4.72	4						
89. 56. 53.63	69. 45	5.43	44.7	20.1	52.8	219.0	53.0	217.7	67.5	215.8	-1.98	-1.98	89. 56. 57.08	256. 6. 18.29	4						
94. 16. 43.72	65. 18	5.08	23.8	20.3	42.7	220.6	58.8	239.4	45.3	257.0	12.35	-0.34	94. 16. 48.96	263. 26. 10.17	5						
281. 52. 39.53	75. 1	5.91	20.1	18.74	28.0	204.4	34.0	219.9	29.0	238.4	+4.85	+0.84	281. 52. 44.78	275. 41. 5.29	5						
175. 4. 42.31	93. 7	5.08	52.6	26.8	59.2	244.2	73.2	268.9	65.8	288.9	+4.44	+2.31	175. 4. 30.06	164. 13. 37.71	6						
355. 4. 30.47	93. 7	5.08	23.8	19.72	31.0	215.0	39.7	235.0	33.6	235.5	9.74	-0.42	355. 4. 35.53	164. 13. 36.78	7						
11. 32. 41.59	90. 1	5.07	..	..	..	..	..	..	..	..	..	..	11. 32. 46.58	180. 42. 7.67	9						
191. 32. 51.28	90. 1	5.07	..	..	..	..	..	..	..	..	..	..	191. 32. 46.21	180. 42. 7.10	10						
175. 4. 40.56	93. 7	5.08	53.0	22.7	51.9	242.9	69.0	258.3	64.1	286.2	34.54	-1.24	175. 4. 34.77	164. 13. 35.45	11						
355. 4. 32.65	93. 7	5.08	23.8	19.90	31.7	216.9	40.0	236.0	34.2	235.5	+4.99	+0.36	355. 4. 32.74	164. 13. 37.98	11						
355. 4. 31.04	93. 7	5.08	23.6	20.0	30.3	218.0	40.5	236.9	34.0	238.0	5.29	-0.34	355. 4. 35.48	164. 13. 36.99	12						
175. 4. 41.63	93. 7	5.08	49.5	22.68	57.0	245.5	70.7	266.8	61.4	285.3	+4.90	+1.13	175. 4. 37.35	164. 13. 36.61	14						
130. 5. 39.90	78. 37	5.17	47.0	21.62	44.0	230.3	49.3	255.0	46.0	270.0	25.11	-2.71	130. 5. 33.57	209. 15. 3.37	15						
311. 6. 58.15	75. 16	5.39	23.8	19.92	33.5	212.0	43.5	239.0	38.0	247.0	27.8	-1.88	311. 6. 52.59	234. 56. 18.67	16						
5. 47. 5.31	46. 41	5.47	33.5	20.26	41.5	222.0	50.0	236.8	46.5	253.8	10.70	-0.82	5. 47. 10.96	237. 47. 39.20	17						
187. 38. 54.96	46. 37	5.48	50.5	21.90	58.0	270.0	70.0	284.2	64.0	310.0	+15.43	+2.82	187. 38. 47.99	237. 43. 11.12	18						
88. 33. 44.44	74. 59	5.23	34.0	20.26	35.0	212.0	43.5	239.0	38.0	247.0	27.8	-1.88	88. 33. 47.99	237. 43. 11.12	19						
269. 79. 79.79	74. 59	5.23	34.0	20.26	35.0	212.0	43.5	239.0	38.0	247.0	27.8	-1.88	269. 79. 56.51	237. 43. 11.12	20						
191. 32. 54.53	90. 1	5.07	..	..	..	..	..	..	..	..	..	..	191. 32. 49.16	180. 42. 10.64	21						
11. 32. 43.26	90. 1	5.07	..	..	..	..	..	..	..	..	..	..	11. 32. 48.23	180. 42. 9.57	22						
191. 32. 49.36	90. 1	5.07	..	..	..	..	..	..	..	..	..	..	191. 32. 44.75	180. 42. 8.84	23						
183. 32. 37.08	90. 1	5.07	..	..	..	..	..	..	..	..	..	..	11. 32. 42.15	180. 42. 6.68	24						
291. 16. 6.45	72. 48	5.51	25.7	19.90	33.8	217.8	39.4	235.4	32.5	259.8	4.91	-2.08	283. 13. 39.06	272. 23. 25.39	25						
105. 35. 32.72	41. 0	5.56	50.2	22.22	30.0	212.0	43.5	239.0	38.0	247.0	27.8	-1.88	105. 35. 37.71	274. 40. 3.50	26						
343. 26. 57.83	46. 17	5.47	33.5	20.26	41.5	222.0	50.0	236.8	46.5	253.8	10.70	-0.82	343. 26. 57.83	237. 43. 11.12	27						
175. 4. 41.63	93. 7	5.08	54.9	23.1	62.5	250.2	76.8	271.0	69.1	313.3	38.40	-1.43	175. 4. 35.33	164. 13. 39.86	28						
355. 4. 29.34	93. 7	5.08	19.6	26.6	21.32	26.6	23.18	30.5	23.12	0.83	-0.58	-0.58	355. 4. 30.34	164. 13. 38.37	29						
101. 32. 34.80	90. 1	5.07	..	..	..	..	..	..	..	..	..	..	101. 32. 44.00	180. 42. 8.53	30						
191. 32. 49.07	90. 1	5.07	..	..	..	..	..	..	..	..	..	..	191. 32. 44.00	180. 42. 8.53	31						
150. 51. 26.53	46. 31	5.69	34.1	20.93	36.0	216.4	40.0	237.0	61.0	288.3	36.08	-23.20	150. 51. 10.12	235. 5. 04.65	32						
547. 18. 9.99	45. 14	5.39	23.9	19.92	33.5	212.0	43.5	239.0	38.0	247.0	27.8	-1.88	547. 18. 9.99	237. 43. 11.12	33						
102. 17. 55.50	72. 40	5.51	26.8	20.24	34.0	219.9	42.9	240.2	33.4	260.5	7.79	-1.10	102. 17. 55.50	237. 43. 11.12	34						
107. 24. 57.67	75. 27	5.24	30.2	20.25	31.0	215.0	39.7	235.0	33.6	235.5	9.74	-0.42	107. 24. 57.67	237. 43. 11.12	35						
88. 40. 31.10	74. 24	5.26	33.8	19.90	33.8	217.8	39.4	235.4	32.5	259.8	4.91	-2.08	88. 40. 31.10	237. 43. 11.12	36						
355. 4. 32.07	93. 7	5.08	28.8	18.30	37.8	202.1	48.8	221.9	44.2	236.5	0.64	-0.30	355. 4. 35.56	164. 13. 36.66	37						
175. 4. 42.32	93. 7	5.08	66.5	23.53	74.8	240.0	80.0	261.8	84.0	261.6	25.14	-3.07	175. 4. 35.73	164. 13. 36.13	38						
191. 32. 71.85	81. 18	5.13	53.0	21.12	53.6	226.0	73.8	247.9	68.0	261.6	25.14	-3.07	191. 32. 71.85	237. 43. 11.12	39						
191. 32. 52.77	90. 1	5.07	..	..	..	..	..	..	..	..	..	..	191. 32. 47.70	180. 42. 4.31	40						
11. 32. 42.81	90. 1	5.07	..	..	..	..	..	..	..	..	..	..	11. 32. 47.88	180. 42. 8.28	41						

Constant of Correction for Collimation, Face Right, $-5''.07$

the value of one division of each level scale is assumed to be one second of arc

Level Indication for Horizontal Position of Axis of Vertical Circle, 11"-61.

Level Indication for horizontal rods: December 11 to 18, $10^{\circ}, 40', 38''$; December 20 and 21, $10^{\circ}, 50', 35''$; July, December 22 to 24, $10^{\circ}, 50', 39''$.
Zero of Azimuth, December 11 to 18, $10^{\circ}, 40', 38''$; December 20 and 21, $10^{\circ}, 50', 35''$; July, December 22 to 24, $10^{\circ}, 50', 39''$.
The Collimator and Mark are generally bisected by wire ϵ ; the correction applied to the Micrometer-equivalents to reduce the Concluded Reading α to the true value is for Face Right, $+31''.46$, and for Face Left, $-31''.46$.
Horizontal Circle to the reading corresponding to the mean of the wires is for Face Right, $+31''.46$, and for Face Left, $-31''.46$.

σ_{mean} = standard deviation in fanning circle-reading for mean of wires observed, = 52''·90

4. Correction applied in forming circle-rod

34. Level-reading l was set down $79^{\text{d}} \pm 1$.

OBSERVATIONS OF AZIMUTH, WITH THE ALTAZIMUTH,

DAY AND HOUR.	Observer.	No. for Reference.	NAME OF OBJECT.	Position of Guaranteed Base of Vertical Circle.	Seconds of Horizontal Transit over Vertical Wires.						Correction for Equation.	Concluded Clock Time of Horizontal Transit over Mean of Vertical Wires observed.	Clock Slow.	Sidereal Time.	Readings of Microscopes of Horizontal Circle.			
					First.	Second.	Third.	Fourth.	Fifth.	Sixth.					a	b	c	d
					s	s	s	s	s	s		h m s	s	h m s	rev.	rev.	rev.	rev.
Dec. 23. 13	T	1	2 L....	Right	15.7	19.3	23.2	28.3	32.2	36.0	+ 0.23	7. 5. 26.01	37.29	7. 6. 3.30	5.165	5.185	5.714	5.789
13	T	2	a Orionis.	Right	42.5	45.5	48.5	53.3	56.4	59.6	+ 0.23	7. 14. 51.20	37.29	7. 15. 28.49	0.595	0.769	0.982	0.812
13	T	3	a Orionis.	Left	29.4	32.6	35.9	40.4	43.8	46.7	+ 0.23	7. 18. 38.36	37.30	7. 19. 15.66	4.565	4.206	4.716	4.903
Dec. 24. 1	JP	4	Mark....	Left	..	..	..	..	..	..	..	..	..	..	9.773	0.035	0.183	0.199
1	JP	5	Mark....	Right	..	..	..	..	..	..	..	..	..	..	7.046	6.731	7.045	7.437
15	JP	6	2 L....	Left	59.0	2.6	6.2	11.3	14.9	18.3	+ 0.17	8. 45. 8.80	37.64	8. 45. 46.53	0.361	0.333	0.329	0.563
15	JP	7	2 L....	Right	11.5	15.0	18.3	23.6	27.2	30.6	+ 0.17	8. 56. 21.74	37.64	8. 56. 58.88	0.465	0.553	0.900	1.002
15	JP	8	Regulus.	Right	3.1	6.2	9.6	14.0	17.1	20.1	+ 0.19	9. 14. 11.85	37.65	9. 14. 49.36	2.180	2.759	3.033	2.950
15	JP	9	Regulus.	Left	42.3	..	..	..	..	..	..	9. 21. 51.97	37.65	9. 22. 52.62	5.528	5.235	5.544	5.907
15	JP	10	Collimator	Right	..	..	..	..	..	..	..	..	..	..	3.950	3.565	3.879	4.247
15	JP	11	Collimator	Left	..	..	..	..	..	..	..	..	..	..	5.225	5.292	5.600	5.260
Dec. 28. 2	HP	12	Mark....	Right	..	..	..	..	..	..	..	..	..	..	7.117	6.760	7.006	7.448
2	HP	13	Mark....	Left	..	..	..	..	..	..	..	..	..	..	8.250	8.435	8.783	8.729

The observations of transits are usually made by the galvanic or chronographic method, the wires employed being s, t, u, v, w, x , taken in the order of transit, Face Right, or s, w, v, u, t, s Face Left, the times are then referred immediately to the Sidereal Standard. Whenever the observations are made by eye and ear, the wires employed are q, r, s, p, s, r Face Right, or s, p, s, r, s, q Face Left; the times then recorded are those of another clock, Graham 1.

For Tabular Equivalents of Microscopes, it is assumed that s' corresponds to $8''$ of all four. Correction for Runs of Microscopes for $100''$, $-0''$ 02.

4. Microscope s was read on the negative side of the micrometer-zero.

6 to 9. Cloudy.

AT THE ROYAL OBSERVATORY, GREENWICH, IN THE YEAR 1880.

Concluded Reading of Horizontal Circle.	Approx. Zenith Distance.	Correction for Collima- tion.	Readings of Levels parallel to the Axis of the Vertical Circle.								Con- cluded Level Indica- tion.	Correction for Level.	Corrected Reading of Horizontal Circle.	Concluded Azimuth, measured from S. to W., N. and E.	No. for Reference.
			a	f	g	h	i	k	l	m					
			dir.	dir.	dir.	dir.	dir.	dir.	dir.	dir.					
301. 28. 13.15	77. 57	- 5.19	25.5	183.2	35.0	200.2	44.6	218.0	41.0	233.1	2.43	- 2.99	301. 28. 4.97	290. 37. 25.37	1
40. 35. 28.46	47. 34	- 6.87	48.9	206.8	57.0	222.5	68.5	241.5	63.9	256.0	20.04	+ 8.25	40. 35. 29.84	29. 44. 50.24	2
221. 47. 42.79	47. 52	+ 6.83	49.4	207.0	57.2	223.0	68.9	242.2	64.7	256.9	21.16	- 8.64	221. 47. 49.98	36. 57. 1.38	3
355. 4. 32.02	35. 7	+ 5.08	30.1	191.1	39.3	208.3	50.7	227.7	46.3	243.9	4.68	- 0.37	355. 4. 36.73	164. 13. 57.13	4
175. 4. 41.59	93. 7	- 5.08	60.0	221.3	68.0	237.7	82.0	258.7	76.6	273.7	34.75	- 1.25	175. 4. 35.25	164. 13. 55.66	5
135. 5. 14.70	75. 36	+ 5.23	46.0	216.3	52.1	233.9	66.0	257.7	55.8	273.0	24.98	- 3.42	135. 5. 16.51	302. 14. 36.91	6
317. 30. 26.58	74. 19	- 5.27	30.2	200.9	37.8	218.0	49.5	239.9	39.3	256.3	8.11	- 0.98	317. 30. 20.33	306. 39. 40.73	7
352. 46. 39.91	40. 5	- 7.87	27.0	197.0	34.7	215.0	41.7	232.7	35.5	252.3	4.49	- 8.16	352. 46. 23.68	341. 53. 43.98	8
175. 38. 40.87	30. 44	+ 7.93	54.9	225.0	61.0	241.5	72.4	263.4	62.8	279.6	32.58	- 25.23	175. 38. 23.57	344. 47. 43.97	9
191. 32. 49.76	90. 1	- 5.07	..	..	..	..	..	..	..	..	..	..	191. 32. 44.69	180. 42. 50.09	10
11. 32. 39.20	90. 1	+ 5.07	..	..	..	..	..	..	..	..	..	..	11. 32. 44.27	180. 42. 46.71	11
175. 4. 42.31	93. 7	- 5.08	61.2	216.7	69.0	232.0	83.6	253.7	79.1	267.0	32.79	- 1.14	175. 4. 36.09	164. 13. 57.49	12
355. 4. 31.16	93. 7	+ 5.08	35.4	190.8	45.5	208.4	57.8	227.7	53.7	241.5	7.60	- 0.22	355. 4. 36.00	164. 13. 57.40	13

Coefficient of Correction for Collimation, Face Right, $-5''$ 07.

The value of one division of each level scale is assumed to be one second of arc.

Level Indication for Horizontal Position of Axis of Vertical Circle, $11''$ 60.

Zero of Azimuth, December 22 to 24, 10^h 55^m 39^s 60; December 28, 10^h 50^m 38^s 60.

The Collimator and Mark are generally bisected by wire r ; the correction applied to the Micrometer-equivalents to reduce the Concluded Reading of the Horizontal Circle to the reading corresponding to the mean of the wires is for Face Right, $+31''$ 46, and for Face Left, $-31''$ 46.

9. Correction applied in forming circle-reading for mean of wires observed, $+23''$ 90.