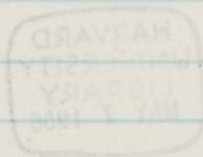


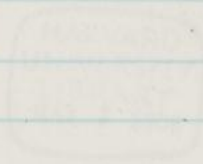
1838p102, p101, .4660

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RG 11305.405





13	α Ceti	660	
57	λ Cygni	1050	
127	δ Capricorni	420	
158	β Persei	1020	} 1680
223			
13	β Persei	660	
69	δ , μ Cephei		

o Ceti.

1838.	347.396	^{24.0} 23.5	16		
		25.0	24.5	2722	3.80
⁵ 347	1.354	24.5			
		22.8	23.6	2726	3.89
352.	375	22.3	22.3	2727	4.02
355.	333	20.3			
		22.5	21.4	2730	4.11
356.	333	18.8			
		18.6	18.7	2731	4.38
1839	12.396	11.6			
		11.5	11.6	2752	5.09
17.0		10.5			
		< 8	0	2757	
251.	521	16.8			
		19.1			
		^{04.4} 20.1	04.4	2991	
252.	521	18.1	20.1	2992	
255.	458	26.3	26.3	2995	3.62
267.	458	35.3	35.3		2.72
		> 31.5 33.3	0	3007	2.72
268.	580	35.8	35.8	3008	2.67
270.	375	37.3	37.3	3010	2.52
272.		36.8			
		< 37.4			
		39.0	37.9	3012	2.46
273.	500	37.3			
		^{15.6} 37.6	36.4	3013	2.61
274.	500	37.3			
		38.4			
		40.0	38.6	3014	2.37

1839.	274.500	<u>38.4</u>	38.5	3014	2.40
	278.500	>40.3	0		
		41.1			
		<u>38.6</u>	39.8	3018	2.27
	281.500	<u>40.1</u> —	3 40.1	3021	2.24
	282.521	<u>38.6</u>	4/38.6	3022	2.39
	285.437	39.3	6		
		38.6			
		39.3	39.1	3025	2.34
	287.479	39.3	8		
		39.3			
		<u>39.6</u>	39.4	3027	2.31
	292.458	<u>36.3</u> —	13 36.3	3032	2.62
	300.292	34.3	21		
		>33.3			
		>31.5 —	34.3	3040	2.82
	304.354	33.3	25		
		>33.3			
		>31.5	33.3	3044	2.92
	308.542	33.3	30		
		>33.3			
		>31.5 —	33.3	3048	2.92
	313.500	31.3	34		
		>33.3			
		>31.5			
		30.9	31.1	3053	3.14

i not given

1839. 316.450 30.8 37' 30.8 3056 3.17

not given
333.333 23.7 54 23.7 3073 3.88

343.396 < 19.1 64

> 16.1

> 18.0

20.9

20.9

3083 3.16

347.292 17.6 68

18.4

18.0

3087 4.45

361.292 11.0 82 11.0

3101 5.15

> 0

11.0

> 0

363.333 84 11.0

3103 5.15

1840

2.333 0 -88 0.

3107 0.

5.333 < 0 91

3110

210.562 < 8.6 298

< 0

< 8.6

< 0

214.562 301

3319

219.571 < 0 306

3324

221.542 308

3326

234.521 13.0 321 13.0

3339 4.95

236.521 > 18.0 323

> 16.1

< 14.1

17.6

16.9

17.2

3341 4.53

242.521 20.0 329 20.0

3347 4.25

243.500 21.8 329 21.8

3348 4.07

1840. 244.521	22.8	331		
	23.1			
	24.3			
	<u>22.5</u>	23.2	3349	3.93
245.571	<u>21.8</u>	332 21.8	3350	4.07
245.608	22.3	332		
	224.1			
	<u>24.0</u>	23.2	3350	3.93
256.512	24.8	343		
	26.3			
	<u>27.5</u>	26.2	3361	3.63
264.500	24.8	350		
	26.3			
	<u>26.5</u>	25.9	3369	3.66
265.458	22.8	351		
	26.3			
	<u>25.5</u>	24.9	3370	3.76
271.417	26.5	357		
	27.3	26.9	3376	3.56
	<u>225.8</u>	358		
271.521	<u>26.0</u>	358 26.0	3376	3.65
273.521	28.5	360		
	<u>27.3</u>	27.9	3378	3.46
274.500	26.3	360		
	<u>26.5</u>	26.4	3379	3.61
281.458	28.8	367 28.0		
	<u>29.0</u>	28.9	3386	3.36
283.500	29.5	2		
	28.8	29.2	3388	3.33

1840.	284.419	30.3	3		
	<u>29.5</u>			29.9	3389 3.26
291.354	24.8		10		
	<u>25.3</u>			25.0	3396 3.75
291.437	25.3		10		
	23.8				
	24.5				
	<u>24.5</u>			24.5	3396 3.80
298.417	22.8		17		
	23.5				
	<u>24.3</u>			23.5	3403 3.90
309.596	14.5		28		
	14.6				
	<u>14.5</u>			14.5	3414 4.80
314.458	17.8		33		
	17.1				
	18.9				
	17.1				
	<u>18.1</u>			17.8	3419 4.47
330.333	< 0.		49		3435
332.312			51		3437
1841.	226.512	23.8	312		
	<u>26.3</u>			25.0	3697 3.75
226.533	24.8		312		
	28.3				
	<u>27.5</u>			26.5	3697 3.60
228.537	28.5		314		
	<u>28.8</u>			28.6	3699 3.39
231.537	27.0		317		
	<u>26.8</u>			27.9	3702 3.46

1841.	232.529	28.3	318		
		<u>28.5</u>		284	3703 3.41
	234.521	28.3	320		
		<u>28.5</u>		284	3705 3.41
	237.542	26.5	323		
		26.3			
		<u>24.3</u>			
	241.542	27.3	417	25.7	3708 3.68
		<u>28.0</u>		27.6	3712 3.49
	255.646	20.8	18		
		24.3			
		<u>22.5</u>		22.5	3726 4.00
	257.508	20.8	20		
		22.9			
		<u>21.1</u>		21.6	3728 4.09
	257.575	21.8	20		
		23.5			
		<u>24.3</u>		23.2	3728 3.93
	258.450	20.8 —	20	20.8	3729 4.17
	262.437	17.8 —	24	17.8	3733 4.47
	263.487	< 15.8	25		
		15.6			
		<u>18.6</u>		17.1	3734 4.54
	263.550	18.6	26		
		16.1			
		<u>16.9</u>		17.2	3734 4.53
	264.529	18.6	27		
		18.6			
		18.9		18.7	3735 4.38

<u>1841</u>	265.542	18.6	28			
		19.1				
		<u>18.9</u>		18.9	3736	4.36
	279.525	<u>13.0</u>	32	13.0	3750	4.95
	291.375		53		3762	
	293.521		56		3764	
	301.458		63		3772	
<u>1842</u>	226.542	29.3	20			
		29.5				
		<u>31.3</u>		30.0	4062	3.25
	227.525	<u>29.3</u>	21	29.3	4063	3.32
	229.529	30.0	23			
		<u>< 30.3</u>		30.0	4065	3.25
	234.542	28.5	28			
		<u>28.5</u>		28.5	4070	3.40
	245.458	21.8	38			
		<u>< 23.3</u>		21.8	4081	4.07
	249.500	<u>16.3</u>	42	16.3	4085	4.62
	258.442		51		4094	
<u>1843</u>	213.562	10.6				
		<u>10.0</u>		10.3	4414	5.22
<u>1844</u>	45.283				4616	
<u>1845</u>	31.312				4963	
	35.292				4967	
	38.292	15.5				
		<u>17.7</u>		16.6	4970	4.59

1845	39.271	20.9			
		20.1			
		<u>18.3</u>		19.8	4971 4.27
	40.279	18.8			
		<u>21.9</u>		20.4	4972 4.21
1846	15.329	24.8	323		
		29.2			
		<u>28.3</u>		27.4	5312 3.51
	35.250	32.5	1		
		<u>31.3</u>		31.9	5332 3.06
	41.275	31.5	7		
		<u>30.5</u>		31.0	5338 3.15
	52.317	22.8	18		
		27.3			
		<u>26.5</u>		25.5	5349 3.70
	314.450	13.7	280		
		<u>13.6</u>		13.6	5611 4.89
	314.512	14.0	281		
		<u>13.9</u>		14.0	5611 4.85
	315.417	14.5	281		
		<u>14.1</u>		14.3	5612 4.82
	319.525	21.0	286	21.0	5616 4.15
	320.542	22.5	287		
		<u>25.8</u>		24.2	5617 3.83
	321.308	24.5	287		
		27.3			
		<u>28.5</u>		26.8	5618 3.57
	321.437	28.2	287		
		27.8		28.0	5618 3.45
		<u>22.5</u>			

1846.	323.267	<u>29.3</u> —	289	29.3	5620	3.32
	335.279	<u>35.3</u>	301	35.3	5632	2.72
	347.246	36.0	313			
		<u>39.1</u>		37.6	5644	2.49
	348.279	<u>36.0</u>	314	36.0	5645	2.65
	351.450	<u>35.3</u> —	317	35.3	5648	2.72
1847.	5.321	<u>34.6</u>	15	34.6	5667	2.79
	10.300	<u>35.8</u>	20	35.8	5672	2.67
	10.375	<u>35.1</u>	20	35.1	5672	2.74
	11.412	<u>35.3</u>	21	35.3	5673	2.72
	13.254	<u>35.1</u>	23	35.1	5675	2.74
	14.233	<u>34.3</u>	24	34.3	5676	2.82
	15.258	<u>34.8</u>	25	34.8	5677	2.77
	16.300	<u>34.3</u>	26	34.3	5678	2.82
	25.300	<u>33.8</u> —	35	33.8	5687	2.87
	54.292	22.5	64			
		25.5				
		<u>24.3</u>		24.1	5716	3.84
	60.287	<u>20.1</u>	70	20.1	5722	4.24
	224.537	—	235		5886	
	306.329	12.6	316			
		<u>13.0</u>		12.8	5968	4.97
	306.367	13.1	316			
		<u>13.0</u>		13.0	5968	4.95
	309.321	16.0	319			
		16.1				
		<u>17.4</u>		16.5	5971	4.60
	309.362	16.0	319			
		16.8				
		<u>17.4</u>		16.7	5971	4.58

1847.	309.475	16.6	319		
		<u>17.6</u>			
		<u>16.5</u>		16.9	5971 4.56
314.467		20.1	324		
		20.6			
		20.1			
		21.4			
		<u>19.3</u>		20.3	5976 4.22
330.292		<u>19.1</u> —	⁹ 340	19.1	5992 4.34
333.350		16.1	343		
		16.1			
		<u>16.0</u>		16.1	5995 4.64
335.287		17.9	¹⁴ 345		
		16.1			
		<u>17.0</u>		17.0	5997 4.55
339.267		15.0	¹⁸ 349		
		<u>14.6</u>		14.8	6001 4.77
339.479		15.0	¹⁸ 349		
		<u>15.1</u>		15.0	6001 4.75
342.358		16.0	²¹ 352		
		15.1			
		<u>16.1</u>		15.7	6004 4.68
345.379		13.0	²⁴ 355		
		<u>14.4</u> —		13.7	6007 4.88
346.271		14.7	²⁵ 356		
		<u>13.9</u>		14.3	6008 4.82
346.379		15.2	²⁵ 356		
		15.1			
		<u>15.9</u>		15.4	6008 4.71
348.304		14.7	²⁷ 358		
		<u>14.1</u>		14.4	6010 4.81

1847	359.200	<u>13.0</u>	38	13.0	6021	4.95
	359.350	13.5	38			
		<u>13.9</u>		13.7	6021	4.88
1848	2.271	10.6	46			
		<u>10.0</u>		10.3	6029	5.22
	3.258	11.6	47			
		<u>11.0</u>		11.3	6030	5.12
	4.254	10.3	48			
		<u>10.5</u>		10.4	6031	5.21
	7.246	10.3	51			
		<u>10.0</u>		10.2	6034	5.23
	10.279	9.6	54			
		<u>9.5</u>		9.6	6037	5.29
	26.262	6.1	70	6.1	6053	5.64
	32.304	-1.2	76	-1.2		
		<u>8.6 = 4.5</u>			6059	
	264.471	20.3	308			
		<u>21.6</u>		21.0	6291	4.15
	265.467	21.8	309			
		<u>24.3</u>		23.0	6292	3.95
	266.429	22.8	310			
		25.3				
		<u>25.5</u>		24.2	6293	3.83
	269.458	<u>27.7</u>	313			
		<u>27.6</u>		27.6	6296	3.49
	269.550	<u>27.7</u>	314	27.7	6296	3.48
	273.446	29.5	317			
		<u>29.8</u>		29.6	6300	3.29
	276.508	30.3	321			
		<u>30.5</u>				
		<u>29.9</u>		29.9	6303	3.26

1848.277.525	30.5	322		
	<u>< 30.3</u>		30.5	6304 3.20
280.517	29.5	325		
	<u>< 30.3</u>		29.5	6307 3.30
281.421	30.0	325		
	<u>< 30.3</u>		30.0	6308 3.25
293.400	30.5	337		
	<u>< 30.3</u>		30.5	6320 3.20
296.379	31.3	340		
	<u>30.8</u>		31.0	6323 3.15
296.471	< 30.3	340		
	<u>30.8</u>		30.8	6328 3.17
297.429	30.5	341		
	<u>30.8</u> —		30.6	6324 3.19
297.500	30.5	341		
	<u>30.9</u> —		30.7	6324 3.18
* 300.371	31.5	0		
	30.8			
	31.4		31.2	
	<u>> 30.5</u>		31.2	6327 3.13
300.492	31.3	0		
	31.4			
	31.8			
	<u>30.5</u>		31.2	6327 3.13
317.354	30.8	17		
	<u>< 30.3</u>		30.8	6344 3.17
319.508	31.0	19		
	<u>< 30.3</u>		31.0	6346 3.15
320.387	29.5	20		
	<u>29.5</u>		29.5	6347 3.30

1848.	325.325	27.8	25		
		<u>28.5</u> —		28.2	6352 3.43
	327.342	27.2	27		
		<u>27.3</u>		27.2	6354 3.53
	330.496	21.8	30		
		<u>24.8</u> —		23.3	6357 3.92
	337.508	24.5	38		
		<u>22.8</u>		23.6	6364 3.89
	353.412	14.0	53		
		<u>12.6</u>		13.3	6380 4.92
	355.267	13.0	55		
		12.6			
		<u>13.9</u>		13.2	6382 4.93
	356.367	12.1	56		
		12.5			
		<u>12.6</u>		12.4	6383 5.01
	357.400	10.6	57		
		<u>11.0</u>		10.8	6384 5.17
1849.	2.367	<u>6.6</u> —	67	6.6	6395 5.59
	15.267	<u>-0.7</u> —	80	-0.7	6408
	230.567	2.0	296		
		<u>-2.0</u>		3.0 ?	6623
	231.546	—	297		6624
	237.533	12.0	303		
		<u>10.6</u> —		11.3	6630 5.12
	252.492	16.0	317		
		16.6			
		<u>16.6</u>		16.4	6645 4.61
	254.487	<u>16.1</u>	319	16.1	6647 4.64
	264.492	20.8	329	20.8	6657 4.17

1849.	265.550	21.8	331		
		22.5			
		<u>21.1</u>		21.8	6658 4.07
	268.575	22.8	334		
		<u>23.8</u>		23.3	6661 3.92
	269.550	24.0	335		
		<u>22.3</u>		23.2	6662 3.93
	282.450	22.3	347		
		<u>23.5</u>		22.9	6675 3.96
	283.429	22.3	8		
		<u>23.8</u>		23.0	6676 3.95
	290.425	19.1	15		
		<u>17.6</u>		28.3	6683 3.42
	291.417	20.1	16		
		19.1			
		<u>17.8</u>		19.0	6684 4.35
	294.512	19.3	20		
		19.1			
		<u>13.1</u>		17.2	6687 4.53
1850.	256.550	30.5			
		29.8			
		<u>30.3</u>		30.2	7014 3.23
	258.542	29.3			
		30.5			
		<u>30.3</u>		29.9	7016 3.26
1851.	291.304	—	—		7414
	293.567	—	—		7416
	294.408	—	—		7417
1852.	206.583	22.3			
		22.1			
		<u>24.3</u>		22.9	7694 3.96

1852.	223.558	15.0				
		<u>15.9</u>		15.4	7711	4.71
	225.554	15.1				
		<u>14.7</u>		14.9	7713	4.76
	230.512	12.0				
		<u>12.6</u>		12.3	7718	5.02
1855.	365.312	11.7				
		18.1				
		<u>18.1</u>		17.6	8949	4.49
1856.	35.396	<u>33.3</u> —		33.3	8984	2.92
	36.287	<u>35.3</u>		35.3	8985	2.72
	47.262	<u>35.3</u> —	5	35.3	8996	2.72
	67.312	<u>30.8</u> ³ —	25	30.3	9016	3.22
	243.492	<u>1.0 = 0.0</u>	201		9192	
	270.492	0.0	228		9219	
		<u>-2.0 = -1.0</u>		-1.0	9219	
	273.525	0.0	232			
		<u>-2.0 = -1.0</u>		-1.0	9222	
	278.487	0.5	236			
		<u>-1.0</u> ?			9227	
	350.358	19.6	308			
		<u>18.8</u>		19.2	9299	4.33
	351.479	20.6	309			
		<u>18.8</u>		19.7	9300	4.28
	364.342	28.8	322			
		<u>28.5</u> —		28.6	9313	3.39
	364.396	29.0	322			
		<u>29.5</u>		29.2	9313	3.33
1857.	2.408	<u>29.0</u> —	325	29.0	9317	3.35
	3.450	<u>29.0</u> —	326	29.0	9318	3.35

1857.	19.362	32.3	342		
		31.3			
		<u>31.5</u>		31.7	9334 3.08
20.296	32.3		343		
		32.3 = 30.8?			
		31.1			
		<u>35.3 = 34.8</u>			9335
23.250	32.0		346		
		< 30.3 = < 30.8?			
		30.1			
		<u>35.8 = 35.3</u>			9338
29.250	32.3		3		
		< 30.3			
		31.3			
		<u>30.8</u>		31.5	9344 3.10
32.258	32.8		6		
		30.8			
		<u>31.8</u>		31.8	9347 3.07
36.271	31.8 = 32.0?		10		
		30.3			
		<u>35.8 = 35.3</u>			9351
38.308	31.3		12		
		< 30.3			
		<u>28.8</u>		30.0	9353 3.25
39.292	29.1		13		
		31.8			
		< 30.3		30.4	9354 3.21
43.271	31.3		17		
		< 28.3		31.3	9358 3.12
45.292	29.3		19		
	<u>29.2</u>			29.2	9360 3.33

1857	46.296	32.5	20			
		29.8				
		<u>27.8</u>		31.2	9361	3.13
47.287	29.5	21				
	<u>30.0</u>			29.8	9362	3.27
51.292	28.1	25				
	<u>28.7</u>			28.4	9366	3.41
53.283	27.7	27				
	<u>26.8</u>			27.2	9368	3.53
55.271	26.8	29				
	<u>25.5</u>			27.6	9370	3.49
55.287	26.7	29				
	<u>25.3</u>			26.0	9370	3.65
61.292	24.8	35				
	<u>20.8</u>			22.8	9376	3.97
296.533	—	271			9611	
314.408	15.0	288				
	<u>14.4</u>			19.7	9629	4.28
315.358	15.7	289				
	<u>13.6</u>			19.2	9630	2.3
319.421	20.1	293				
	21.9					
	<u>19.8</u>			20.6	9634	4.19
319.537	18.6	294				
	20.6					
	<u>21.6</u>			20.3	9634	4.22
320.417	21.5	294				
	<u>24.8</u>			23.2	9635	3.93
321.429	23.3	295				
	<u>25.3</u>			24.3	9636	3.82

1857	322.483	24.3	296		
		26.0			
		<u>25.8</u>		25.4	9637 3.71
	323.517	23.8	298		
		<u>25.8</u>			
		<u>25.3</u>		25.0	9638 3.75
	334.275	30.5	308		
		30.5			
		<u>28.3</u> —		29.8	9649 3.27
	335.300	30.8	309		
		<u>28.8</u> —		29.3	9650 3.32
	338.279	32.3	312		
		29.8			
		30.9			
		<u>30.6</u> —		30.9	9653 3.16
	340.300	32.3	314		
		<u>31.6</u> —		32.0	9655 3.05
	341.487	33.3	315		
		31.3			
		33.3			
		<u>32.8</u>		32.5	9658 3.00
	348.429	34.3	322		
		<u>33.3</u> —		34.8	9663 2.77
	348.442	33.6	322		
		<u>34.8</u> —		34.2	9663 2.83
	351.271	32.8	325		
		<u>33.5</u>		32.8	9666 2.97
	352.454	33.8	326		
		<u>34.8</u>		34.3	9667 2.82
	354.250	33.3	328		
		<u>34.8</u>		34.9	9669 2.85

1857	365.254	33.6	7		
		<u>32.8</u>		33.2	9680 2.93
1858	4.267	33.8	11		
		<u>34.5</u>		34.2	9684 2.83
	5.267	33.1	12		
		<u>34.0</u>		33.6	9685 2.89
	7.237	32.3	14		
		<u>33.8</u>		33.0	9687 2.95
	10.225	31.6	17		
		<u>33.3</u>		32.4	9690 3.01
	16.246	31.8	23		
		<u>29.6</u>		30.7	9696 3.18
	22.387	32.3 ^{29.5}	29		
		<u>30.5</u>		31.4	9702 3.11
	25.371	30.3	32		
		<u>29.1</u>		29.7	9705 3.28
	26.250	29.8	33		
		<u>30.5</u>			
		27.7 ^{8.3}		29.5	9706 3.30
	27.242	30.3	34		
		<u>29.1</u>		29.7	9707 3.28
	28.262	29.3	35		
		<u>29.5</u>			
		<u>27.8</u>		29.4	9708 3.31
	38.300	22.3	45		
		<u>23.5</u>		22.9	9718 3.96
	39.287	21.5	46		
		<u>22.8</u>		22.2	9719 4.03
	220.521	4.1	228	4.1	9900 5.84
	222.537	4.6		4.6	9902 5.79
	224.521	4.6		4.6	9904 5.79

1858.281.500	11.6	288		
	<u>11.0</u>		11.3	9961 5.12
282.521	11.9	290		
	14.0			
	<u>14.1</u>		13.3	9962 4.92
285.483	18.6	292		
	<u>17.1</u>		17.8	9965 4.47
288.462	23.3	295		
	25.5			
	<u>25.6</u>		24.8	9968 3.77
289.492	24.3	296		
	24.8			
	<u>26.5</u>		25.2	9969 3.73
290.508	27.3	298		
	<u>28.0</u>		27.6	9970 3.49
303.500	30.3	310		
	<u>28.8</u> < 27.8		29.6	9983 3.29
304.492	<u>29.3</u>	311	29.3	9984 3.32
307.492	<u>29.8</u>	314	29.8	9987 3.27
308.508	<u>30.3</u>	316	30.3	9988 3.22
313.504	30.8	321		
	<u>29.3</u> —		30.0	9993 3.25
316.521	<u>30.3</u> —	324	30.3	9996 3.22
327.429	31.0	6		
	<u>29.1</u> —		30.0	0007 3.25
332.437	29.5	11		
	29.7			
	< <u>27.8</u>		29.6	0012 3.29
334.433	28.3	13		
	29.0		28.6	0014 3.34

1858.	338.283	27.7	17			
		<u>27.1</u> —		27.4	0018	3.51
1859.	6.300	11.1	50			
		13.7				
		<u>13.4</u>		32.7	0057	2.98
	9.296	10.6	53			
		<u>12.0</u>		11.3	0054	5.12
	248.529	14.2	293			
		<u>15.1</u>		14.6	0293	4.79
	255.517	25.5	300			
		<u>24.5</u> —		25.0	0300	3.75
	261.500	29.3	305			
		<u>30.5</u>		29.9	0306	3.26
	267.525	32.3	312			
		29.8				
		<u>31.8</u>		31.3	0312	3.12
	272.462	33.3	316			
		31.3				
		33.3				
		<u>32.8</u>		32.5	0317	3.00
	276.450	32.3	320			
		<u>34.0</u>		33.3	0321	2.92
	276.508	32.1	321			
		<u>33.5</u>		32.8	0321	2.97
	277.467	31.8	321			
		<u>34.0</u>		32.9	0322	2.96
	278.483	32.8	322			
		<u>33.8</u> —		33.3	0324	2.92
	280.483	32.3	324			
		<u>34.3</u> —		33.3	0325	2.92

1859.281.479	31.8	325		
	<u>33.8</u> —		32.8	0326 2.97
285.450	33.1	2		
	<u>34.8</u> —		34.0	0330 2.85
285.496	33.3	2		
	<u>34.0</u> —		33.6	0330 2.89
295.450	31.6	12		
	30.3			
	<u>32.7</u>		31.4	0340 3.11
297.496	31.3	14		
	34.3			
	<u>32.8</u>		32.8	0342 2.97
306.433	31.8 to 31.323			
	<u>31.6</u>		31.6	0351 3.09
307.400	32.3	24		
	29.3			
	30.9			
	<u>31.3</u>		30.9	0352 3.16
310.442	31.5	27		
	29.3			
	<u>30.1</u>		30.3	0355 3.22
312.504	31.8	30		
	<u>31.3</u>		31.6	0357 3.09
314.429	30.8	31		
	<u>28.8 to 27.8</u>		29.8	0359 3.27
322.525	25.3	40		
	<u>27.2</u>		26.2	0367 3.63
325.421	26.8	42		
	<u>27.5</u>		27.2	0370 3.53
327.387	24.8	44		
	<u>25.5</u>		25.2	0372 3.73

1861	226.546	<u>29.3</u>	29.3	1002	3.32
	227.558	<u>28.5</u>	28.5	1003	3.40
	<u>233.508</u>	<u>27.6</u>	27.6	1009	3.49

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1841	102.542	<u>26.2</u>	26.2	3573
	103.437	<u>26.2</u>	26.2	3574
	103.517	<u>25.2</u>	25.2	3574
	109.500	<u>24.2</u>	24.2	3580
	116.500	<u>21.7</u>	21.7	3587
	117.496	<u>21.2</u>	21.2	3588
	118.437	<u>21.2</u>	21.2	3589
	128.458	<u>21.2</u>		
		18.1		
		<u>19.3</u>	19.5	3599
	129.458	<u>20.2</u>		
		18.3		
		<u>17.1</u>	18.5	3600
	130.471	<u>17.1</u>		
		<u>18.3</u>	17.7	3601
	131.479	<u>17.1</u>		
		<u>18.3</u>	17.7	3602
	132.458	<u>17.1</u>		
		18.3		
		<u>20.2</u>	18.5	3603
	142.446	<u>14.6</u>	14.6	3613
	144.487	<u>15.1</u>	15.1	3615
	196.458	—		3667
	226.437	—		3697
	262.437	—		3733

1841.278.292	—	—	3749
364.250	—	—	3835
1842.95.542	—	—	3931
96.517	—	—	3932
97.512	—	—	3933
98.550	—	—	3934
106.492	15.9	15.9	3942
107.542	17.4	17.4	3943
109.492	20.2	20.2	3945
112.417	—	—	3948
115.442	—	—	—
	22.3	—	—
	21.2	21.8	3951
115.500	22.3	—	—
	20.2	21.2	3951
116.412	22.3	—	—
	21.2	21.8	3952
117.442	23.3	—	—
	22.2	22.8	3953
119.475	25.2	25.2	3955
119.542	24.2	24.2	3955
123.458	22.2	22.2	3959
125.458	26.2	26.2	3961
125.475	25.7	25.7	3961
130.454	26.7	—	—
	25.5	26.1	3966
130.462	26.2	—	—
	26.0	26.1	3966
131.467	27.2	—	—
	27.0	27.1	3967

1842	131.542	26.2		
		<u>26.0</u>	26.1	3967
	132.437	27.2		
		<u>27.0</u>	27.1	3968
	132.500	26.2		
		<u>26.0</u>	26.1	3968
	133.542	27.7		
		<u>28.0</u>	27.8	3969
	135.458	26.2		
		<u>26.5</u>	26.4	3971
	137.458	27.0	27.0	3973
	138.458	27.2		
		<u>28.0</u>	27.6	3974
	139.521	26.7		
		<u>26.0</u>	26.4	3975
	145.475	24.2	}	3981
		<u>25.0</u>		
	145.487	24.2		
		<u>25.0</u>	24.6	3981
	146.417	24.2		
		<u>24.0</u>	24.1	3982
	149.475	23.2		
		<u>24.3 -</u>	23.8	3985
	152.500	21.2		
		<u>23.3 -</u>	22.2	3988
	153.437	21.2		
		<u>22.3</u>	21.8	3989
	154.529	21.2		
		<u>21.8</u>	21.5	3990
	155.454	21.2		
		<u>21.3</u>	21.2	3991

1842.157.508	21.7		
	<u>21.8</u>	21.8	3993
158.442	21.2		
	<u>21.3</u>	21.2	3994
159.467	19.9		
	<u>19.3</u>	19.6	3995
160.446	19.1		
	<u>18.8</u>	19.0	3996
161.467	18.9		
	18.1		
	<u>18.3</u>	18.4	3997
162.492	19.1		
	<u>19.3</u>	19.2	3998
163.462	18.6		
	<u>17.8</u>	18.2	3999
164.454	18.6		
	18.3		
	<u>17.9</u>	18.3	4000
165.496	18.6		
	18.9		
	<u>18.3</u>	18.6	4001
166.471	18.4		
	<u>18.3</u>	18.4	4002
177.442	17.1		
	<u>16.9</u>	17.0	4013
180.517	16.1		
	12.7		
	<u>14.9</u>	14.6	4016
181.450	<u>12.7</u>	12.7-	4017
182.475	15.1		
	12.2	13.6	4018

1842	183.495	<u>11.7</u>	11.7	4019
	184.454	<u>13.7</u>		
		<u>16.1</u>	14.9	4020
	185.500	12.2		
		<u>13.9</u>	13.0	4021
	187.492	<u>11.7</u>		
		<u>12.9</u>	12.3	4023
	191.483	11.2		
		<u>12.4</u>	11.8	4027
	196.508	<u>9.7</u>		
		<u>< 10.9</u>	9.7	4032
	198.508	<u>9.7</u>	9.7	4034
	214.500	6.0		
		<u>6.5</u>	6.2	4050
	219.458	6.0		
		<u>4.5</u>	5.2	4055
	220.446	6.0		
		<u>5.8</u>	5.9	4056
	224.533	3.5		
		<u>4.5</u>	4.0	4060
	226.533	3.5		
		<u>4.0</u>	3.8	4062
1843	113.492	—		4314
	118.446	—		4319
	140.500	<u>< 15.9</u>		
		<u>< 12.7</u>		
		<u>12.9</u>		
		<u>10.7</u>		
		<u>10.5</u>		
		<u>9.5</u>	10.9	4341

1843	155.462	715.9		
		712.7		
		<u>20.2</u>	20.2	4356
	156.525	14.7		
		<u>18.9</u>	16.8	4357
	158.467	22.7		
		<u>21.3</u>	22.0	4359
	166.467	- 24.7 -	24.7	4367
	167.454	<u>23.2</u>	23.2	4368
	167.508	<u>24.7</u>	24.7	4368
	168.429	<u>25.2 -</u>	25.2	4369
	168.442	25.7		
		<u>26.0</u>	25.8	4369
	171.475	26.7		
		<u>28.5</u>	27.6	4372
	176.471	26.2		
		<u>28.5</u>	27.4	4377
	177.467	<u>26.2</u>	26.2	4378
	185.458	27.2		
		<u>28.1</u>	27.6	4386
	187.421	27.2		
		<u>27.1</u>	27.2	4388
	192.487	27.2		
		<u>28.1</u>	27.6	4393
	198.450	26.2		
		28.0		
		<u>< 27.1</u>	27.1	4399
	199.500	25.7		
		<u>26.5</u>	26.1	4400
	205.425	26.2		
		<u>26.5</u>	26.4	4406

1843.207.492	24.2 or 24.7 24.8		
	<u>24.8</u>		4408
207.496	-		4408
212.500	22.7		4408
	<u>24.0</u>	26.4	4413
213.504	22.7		
	<u>24.0</u>	26.4	4414
215.442	22.2		
	<u>20.9</u>	21.6	4416
215.450	22.2		
	<u>20.9</u> -	21.6	4416
220.529	21.2		
	<u>18.9</u> -	20.0	4421
226.362	<u>18.9</u> -	18.9	4427
227.454	<u>17.9</u>	17.9	4428
229.437	16.9		
	<u>16.9</u>	16.9	4430
231.408	17.9		
	-		4432
240.396	13.7		
	<u>14.9</u> -	14.3	4441
243.437	11.2		
	<u>12.4</u>	11.8	4444
244.387	11.7		
	13.4		
	12.0		
	<u>10.0</u>	11.8	4445
248.417	10.7		
	11.5		
	9.5	10.6	4449

1843.251.446	9.2		
	10.5		
	8.5	9.4	4452
254.471	10.2		
	10.0		
	9.0	9.7	4455
255.346	9.0		
	10.0		
	8.5	9.2	4456
256.333	8.5		
	7.5	8.0	4457
261.408	5.5		
	6.5	6.0	4462
263.350	7.5		
	6.5	7.0	4464
264.417	5.5		
	6.5	6.0	4465
270.479	4.0		
	4.5	4.2	4471
272.425	5.0		
	5.0	5.0	4473
275.529	1.0	1.0	4476
286.333	2.0	2.0	4487
287.292	1.0	1.0	4488
300.296	—		4501
1844.83.550	—		4649
101.554	—		4667
160.475	4.0	4.0	4726
161.492	4.5		
	4.5		
	5.5	4.8	4727

1844	164.458	<u>4.5</u>	4.5	4730
	166.450	<u>5.5</u>		
		<u>5.7</u>		
		<u>6.5</u>	5.9	4732
169.471		<u>7.0</u>		
		<u>7.0</u>		
		<u>6.0</u>	6.7	4735
173.437		<u>8.5</u>	8.085	4739
175.458		<u>7.0</u>		
		<u>6.5</u>	6.8	4741
176.475		<u>8.0</u>		
		<u>7.3</u>	7.6	4742
184.421		<u>9.2</u>	9.2	4750
185.471		<u>9.0</u>		
		<u>9.5</u>	9.2	4751
188.446		<u>9.0</u>		
		<u>10.0</u>	9.5	4754
190.479		<u>11.0</u>		
		<u>11.2</u>	11.1	4756
196.458		<u>11.5</u>		
		<u>12.0</u>	11.8	4762
197.433		<u>12.2</u>		
		<u>11.9</u>	12.0	4763
201.529		<u>13.3</u>		
		<u>13.2</u>	13.2	4767
202.442		<u>14.7</u>		
		<u>14.2</u>	14.4	4768
203.429		<u>13.7</u>		
		<u>14.4</u>	14.0	4769
205.442		<u>15.2</u>		
		<u>15.4</u>	15.3	4771

1844	206.550	15.7		
		<u>15.9</u>	15.8	4772
215.508		18.4		
		20.4		
		<u>20.2</u>	20.0	4781
216.517		18.4		
		20.9		
		<u>< 19.2</u>	19.6	4782
221.417		18.4		
		<u>18.1</u> -	18.2	4787
221.429		20.4		
		20.1		
		<u>21.5</u>	20.7	4787
224.450		22.2		
		<u>21.9</u>	22.0	4790
293.508		6.5		
		<u>7.0</u>	68.0	4859
302.283		6.5		
		<u>6.5</u>	6.5	4868
305.271		5.5		
		5.5		
		<u>5.7</u>	5.6	4871
311.258		3.5		
		<u>3.3</u>	3.4	4877
312.371		2.5		
		<u>2.5</u>	2.5	4878
314.437		<u>1.5</u>	1.5	4880
321.325		—		4887
339.258		—		4905
1845	146.450	—		5078

1845.161.508	—		5093
188.454	<u>4.0</u>	4.0	5120
190.479	<u>3.5</u>	3.5	5122
197.450	<u>4.5</u>	4.5	5129
210.425	<u>5.7</u>		
	<u>5.3</u>	5.5	5142
220.458	<u>8.5</u>		
	<u>8.7</u>	8.6	5152
235.404	<u>14.7</u>		
	<u>13.9</u>	14.3	5167
236.392	<u>16.2</u>		
	<u>16.1</u>		
	<u>15.2</u>	15.8	5168
237.400	<u>15.7</u>		
	<u>16.9</u>		
	<u>15.2</u>	15.9	5169
238.400	<u>16.9</u>		
	<u>15.2</u>	16.0	5170
242.421	<u>19.1</u>		
	<u>18.4</u>		
	<u>17.6</u>	18.4	5174
244.400	<u>20.4</u>		
	<u>20.1</u>		
	<u>< 19.2</u>	20.2	5176
245.392	<u>20.4</u>		
	<u>20.3</u>		
	<u>20.2</u>	20.3	5177
246.429	<u>20.6</u>		
	<u>20.8</u>		
	<u>19.2</u>	20.2	5178

1845.247.412	20.9		
	21.3		
	<u>19.7</u>	20.6	5179
249.412	22.2		
	21.9		
	<u>22.3</u>	22.1	5181
250.412	24.2		
	23.5		
	24.3		
	<u>22.9</u>	24.0	5182
251.408	23.2		
	24.0		
	<u>23.3</u>	23.5	5183
252.408	25.4		
	<u>26.0</u>	25.7	5184
255.425	27.2		
	27.5		
	<u>27.1</u>	27.4	5187
256.421	29.0		
	28.2		5188
	<u>27.4</u>	28.2	
262.387	30.6		
	32.0		
	<u>17.1 = 18.6</u>		5194
263.317	<u>31.9</u>		
	<u>32.1</u>		5195
264.471	<u>32.1</u>	32.1	5196
265.354	31.6		
	<u>32.0</u>	31.6	5197
268.333	32.8	32.8	5200

1845.274.421	<u>32.8</u>	32.8	5206
280.333	<u>31.4</u>	31.4	5212
281.379	<u>31.9</u>	31.9	5213
283.408	<u>30.9</u>		
	<u>31.5</u>	31.2	5215
286.433	<u>29.6</u>		
	<u>31.0</u>	30.3	5218
287.350	<u>29.9</u>		
	<u>31.2</u>	30.6	5219
287.479	<u>28.6</u>		
	<u>30.0 -</u>	29.3	5219
287.487	<u>29.6</u>		
	<u>30.5</u>	30.0	5219
288.325	<u>29.1</u>		
	<u>31.0</u>	30.0	5220
293.371	<u>26.0</u>		
	<u>27.4 -</u>	26.7	
	<u>27.7</u>		
	<u>28.2</u>	28.0	5225
297.296	<u>28.2</u>		
	<u>28.2</u>	28.2	5229
302.279	<u>25.2</u>		
	<u>24.8</u>	25.0	5234
306.304	<u>22.7</u>		
	<u>21.9</u>	22.3	5238
307.287	<u>24.7</u>		
	<u>22.9 -</u>	24.7	5239
308.283	<u>23.5</u>		
	<u>21.9</u>		
	<u>23.0</u>	22.8	5240

1845	309.262	22.7		
		21.4		
		<u>< 22.0</u>	22.0	5241
	333.300	12.9		
		<u>11.7</u>	12.3	5265
	334.233	12.2		
		<u>11.9</u>	12.0	5266
1846	119.454	—		5416
	165	—		5462
	257.375	—		5554
	289.308	7.2		
		<u>7.5</u>	7.4	5586
	291.317	9.2		
		<u>< 7.7</u>	9.2	5588
	297.279	12.2		
		<u>12.2</u>	12.2	5594
	298.383	12.2		
		<u>11.9</u>	12.0	5595
	308.250	16.2		
		<u>15.7</u>	16.0	5605
	309.250	15.2		
		<u>16.4</u>	15.8	5606
	310.271	15.9		
		<u>16.4</u>	16.2	5607
	314.287	18.1		
		<u>19.1</u>	18.6	5611
	315.246	18.9		
		18.4		
		<u>20.2</u>	19.2	5612
	315.450	18.9		
		<u>< 18.2</u>	18.0	5612

1846.	317.237	18.9		
		<u>18.9</u>	18.9	5614
	320.267	18.4		
		19.1		
		<u>< 19.2</u>	18.8	5617
	321.246	19.1		
		²⁰ <u>19.1</u>		
		20.2	19.8	5618
	323.237	<u>< 19.2</u>		
		19.4		
		<u>20.9</u>	20.2	5620
	335.283	15.7		
		14.9		
		<u>15.7</u>	15.4	5632
1847.	13.296	6.0		
		<u>5.5 -</u>	5.8	5675
	14.254	6.5		
		6.0		
		<u>6.0</u>	6.2	5676
	15.262	5.0		
		<u>5.0</u>	5.0	5677
	127.537	—		5789
	155.475	—		5817
	185.475	—		5847
	196.475	—		5858
	224.537	—		5886
	245.442	—		5907
	261.492	<u>1.0</u>	1.0	5923
	271.367	<u>3.0</u>	3.0	5933
	288.350	6.2	6.2	5950

1847.288.350	5.5		
	<u>6.5</u>	6.1	5950
289.367	5.0		
	5.5		
	<u>5.3</u>	5.3	5951
299.312	<u>7.5</u>	7.5	5961
306.254	9.7		
	<u>9.2</u>	9.6	5968
307.262	9.2		
	<u>8.2</u>	8.7	5969
309.258	10.5		
	<u>10.2</u>	10.4	5971
314.242	11.5		
	<u>12.0</u>	11.8	5976
330.296	<u>23.5</u> -	23.5	5992
335.279	27.7		
	29.0		
	<u>28.6</u>	28.4	5997
	29.5		
	29.1		
	<u>27.2</u> -	28.6	5997
339.262	729.2		
	30.0		
	<u>31.6</u>	30.8	6001
	30.5		
	<u>30.1</u> -	30.6	6001
340.429	32.1-		
	<u>30.4</u> -	31.2	6002
342.225	31.0		
	33.6	32.3	6004

1847	345.312	34.3 -		
		<u>36.1 -</u>	35.2	6007
	346.246	<u>34.1 -</u>	34.1	6008
	346.375	<u>33.1 -</u>	33.1	6008
	347.237	<u>34.3</u>		
		<u>32.6 -</u>	36.4	6009
	348.300	<u>33.3</u>		
		<u>33.6 -</u>	33.4	6010
	349.237	<u>34.3</u>		
		<u>34.6 -</u>	34.4	6012
	351.246	<u>33.8</u>		
		<u>34.4 -</u>		
		<u>34.1</u>	34.1	6013
	352.262	<u>34.6</u>		
		<u>35.6 -</u>	35.1	6014
	359.296	<u>34.6</u>		
		<u>35.4 -</u>	35.0	6021
1848	2.246	<u>32.6</u>		
		<u>32.9 -</u>	32.8	6029
	2.258	<u>33.1 -</u>	33.1	6029
	3.246	<u>32.8</u>		
		<u>32.4 -</u>		
		<u>32.8 -</u>	32.4	6030
	4.250	<u>31.6</u>		
		<u>30.4 -</u>	31.0	6031
	4.262	<u>31.9</u>		
		<u>32.0 -</u>	31.9	6031
	7.237	<u>33.1</u>		
		<u>32.0 -</u>	33.1	6034
		<u>32.1</u>		
		<u>31.2 -</u>	31.6	6034

1848	10.262	30.6		
		<u>30.5</u>	30.6	6037
	10.271	31.1		
		<u>31.0</u>	31.0	6037
	17.237	30.0		
		<u>29.9</u>	30.0	6044
	26.254	26.4		
		27.5		
		<u>28.6</u>	27.5	6053
	27.250	28.1		
		26.7		
		<u>27.0</u>	27.3	6054
	29.258	24.7		
		<u>26.0</u>	25.4	6056
	32.279	23.2	23.2	6059
	72553	8.5		
		<u>7.7</u>	8.5	6099
	83.529	—	—	
		—	—	6110
	88.529	2.0		
		<u>1.1</u>	2.6	6115
	90.558	1.8		
		<u>2.8</u>	2.3	6117
	91.525	2.5		
		<u>2.1</u>	2.3	6118
	92.600	2.3		
		<u>2.8</u>	2.6	6119
	94.533	2.0		
		<u>1.1</u>	1.6	6121
	173.321	—	—	6300

1848.	299.369	—	—	6304
	296.283	—	—	6323
	300.279	—	—	6327
	317.267	—	—	6344
	355.262	—	—	6382
1849.	1.342	<u>3.3</u>	3.3	6394
	3.279	<u>4.5</u>		
		<u>4.8</u>	4.6	6396
	4.250	<u>5.0</u>		
		<u>5.5</u>		
		<u>5.0</u>	5.2	6397
	8.242	<u>6.5</u> —	6.5	6401
	15.254	<u>9.0</u>		
		<u>7.5 = 4.7</u>		6408
	34.258	<u>16.9</u>		
		<u>16.4</u>		
		<u>16.2</u> —	16.5	6427
	78.569	<u>6.0</u>		
		<u>6.0</u>		
		<u>6.5</u>	6.2	6471
	79.569	<u>5.5</u>		
		<u>6.0</u>		
		<u>6.5</u>	6.0	6472
	87.542	<u>4.0</u>		
		<u>5.1</u>	4.6	6480
	89.542	<u>2.0</u>		
		<u>3.3</u>	2.6	6482
	296.296	—	—	6689
1851.	68.542	—	—	7191
	286.300	—	—	7409

1851.	349.233	—		7472
1852.	73.525	5.5		
		5.5		
		<u>5.5</u>	5.5	7561
	74.533	5.5		
		3.1		
		5.0		
		<u>6.0</u>	4.9	7562
	79.571	7.5		
		<u>7.5</u>	7.5	7567
	87.521	9.0		
		9.5		
		<u>6.7</u>	8.4	7575
	93.533	10.2		
		<u>13.5</u>	11.8	7581
	96.517	8.7		
		<u>13.0</u>	10.8	7584
	99.483	11.0		
		<u>8.7</u>	9.8	7587
	100.525	11.5		
		<u>9.7</u>	10.6	7588
	104.571	10.7		
		<u>712.5</u>	10.7	7592
	107.575	11.2		
		<u>712.5</u>	11.2	7595
	111.525	13.9		
		<u>14.7</u>	14.3	7599
	112.567	14.2		
		<u>13.7</u>	14.0	7600
	113.575	15.7		
		<u>14.7</u>	15.2	7601

1852. 115.583	16.7		
	<u>16.4</u>	16.6	7603
116.558	16.7		
	<u>15.4</u>	16.0	7604
118.512	16.2		
	17.4		
	<u>17.2</u>	36.9	7606
124.542	20.4		
	22.4		
	<u>20.7</u> -	21.2	7612
126.504	21.2		
	20.4		
	<u>21.9</u>	21.2	7614
128.575	22.0		
	220.9		
	<u>222.9</u>	22.0	7616
132.425	22.2		
	220.9		
	<u>222.9</u>	22.2	7620
135.546	24.2		
	<u>27.1</u>	24.2	7623
138.529	<u>24.9</u>	24.9	7626
140.425	<u>25.2</u> -	25.2	7628
151.512	27.2		
	26.6		
	<u>27.1</u>	26.6	7639
158.439	25.7		
	<u>24.5</u>	25.1	7646
161.521	25.7		
	25.0	25.4	7649

1852	163.558	25.2		
		<u>24.5</u>	24.8	7651
	175.504	21.2		
		<u>22.9</u>	22.0	7666
	189.442	20.2		7677
	191.500	<u>20.9</u>	20.6	7677
	191.500	20.2		
		20.9		
		<u>19.9</u>	20.3	7679
	195.492	19.9		
		<u>18.9</u>	19.4	7683
	201.462	16.9		
		<u>17.9</u>	17.4	7689
	204.496	15.9		
		14.9		
		<u>13.9</u>	14.8	7692
	225.550	9.9		
		<u>11.5</u>	10.6	7703
	230.508	8.5		
		<u>7.7</u>	8.1	7718
1853	60.	—		7914
	99.519	—		7953
	118.558	—		7972
	121.554	—		7975
	124.591	—		7978
	125.558	—		7979
	128.591	—		7982
	133.521	1.1		
		<u>0.0</u>	0.6	7987
	134.499	0.1	0.1	7988

1853	136.512	<u>1.6</u>	1.6	7990
	143.519	<u>4.0</u>	4.0	7997
	149.454	6.0		
		3.5		
		<u>3.5</u>	4.3	8001
	151.512	5.0		
		5.5		
		<u>6.5</u>	5.7	8005
	155.425	6.0		
		<u>5.5</u>	5.8	8009
	160.599	<u>8.5</u>	8.5	8014
	162.467	10.0		
		<u>11.2</u>	10.6	8016
	163.504	12.0		
		<u>12.0</u>	12.0	8017
	169.450	15.9		
		<u>16.7</u> -	16.3	8021
	168.458	14.9		
		17.7		
		<u>14.9</u>	15.8	8022
	171.458	19.9		
		<u>18.7</u>	19.3	8025
	179.437	21.9		
		<u>21.7</u>	21.8	8033
	216.425	20.2		
		<u>18.9</u>	19.6	8070
	221.450	< 19.2		
		<u>17.9</u>	17.9	8075
	297.400	4.0		
		4.2	4.1	8151

1853.	304.329	3.0		573
		<u>2.3</u>	2.6	8158
	306.271	2.0		
		<u>2.1</u>	2.0	8160
	336.246	<u>-2.9</u>	-1.9	8190
1854.	90.579	—		8309
	137.558	<u>-1.9</u>	-1.9	8356
	140.558	<u>1.1</u>	1.1	8359
	142.571	<u>1.1</u>	1.1	8361
	145.504	<u>2.1</u>	2.1	8364
	146.487	<u>2.1</u>	2.1	8365
	148.454	2.6		
		<u>1.3</u>	2.0	8367
	150.467	2.3		
		<u>0.8</u>	1.6	8369
	152.471	<u>3.0</u>	3.0	8371
	157.504	<u>4.2</u>	4.2	8376
	186.567	<u>8.5</u>	8.5	8405
	200.471	15.7		
		17.1		
		<u>15.4</u>	16.1	8419
	201.521	16.2		
		16.9		
		<u>15.4</u>	16.2	8420
	202 ³ 572	16.9		
		<u>16.9</u>	16.9	8422
	204.450	18.1		
		<u>17.9</u>	18.0	8423
	205.462	17.6		
		<u>16.9</u>	17.2	8424

1854. 210.417	21.4		
	20.3		
	<u>19.7</u>	20.5	8429
218.400	21.3		
	<u>21.5</u>	21.4	8437
221.417	23.3		
	<u>22.2</u> -	22.8	8440
225.387	23.3		
	<u>24.2</u>	23.8	8444
225.404	21.3		
	<u>22.2</u> -	21.8	8444
241.467	23.2		
	24.5		
	<u>23.3</u>	23.7	8460
242.483	24.2		
	24.0		
	<u>23.3</u>	23.8	8461
246.433	23.7		
	24.5		
	<u>23.8</u>	24.0	8465
247.392	23.8		
	23.5		
	<u>23.0</u>	23.4	8466
249.387	22.7		
	<u>22.5</u>	22.6	8468
250.387	23.2		
	<u>22.3</u>	22.8	8469
251.404	22.7		
	22.5		
	<u>22.3</u>	22.8	8470

1854.	252.337	22.7		
		<u>22.8</u>	22.8	8471
	253.371	23.2		
		<u>23.3</u>	23.2	8472
	254.400	21.5		
		<u>22.3</u>	21.9	8473
	255.387	22.2		
		<u>22.3</u>	22.2	8474
	263.425	21.2		
		<u>20.5</u>	20.8	8482
	264.471	20.3		
		20.2		
		<u>21.4</u>	20.6	8483
	265.412	<u>20.1</u> -	20.1	8484
	270.396	17.3		
		<u>19.4</u>	18.4	8489
	271.396	19.4		
		<u>18.1</u>	18.8	8490
	301.321	12.7		
		<u>12.2</u>	12.4	8520
	303.279	11.2		
		<u>11.2.5</u>	11.2	8522
	304.287	10.7		
		<u>11.5</u>	11.1	8523
1855.	106.529	-		8690
	188.496	-2.9	-2.9	8772
	189.500	<u>-2.6</u>	-2.6	8773
	192.483	<u>-1.9</u>	-1.9	8776
	194.458	<u>-1.9</u>	-1.9	8778
	196.508	<u>-1.1</u>	-1.1	8780

1855.	202.471	<u>-0.9</u>	-0.9	8786
	203.458	<u>-0.4</u>	-0.4	8787
	207.546	<u>-0.4</u>	-0.4	8791
	213.437	1.3		
		<u>1.5</u>	1.4	8797
	217.512	1.6		
		<u>1.0</u>	1.3	8801
	222.408	2.1		
		<u>2.5</u>	2.3	8806
	223.400	3.1		
		4.0		
		<u>3.0</u>	3.4	8807
	225.504	3.1		
		5.0		
		<u>3.5</u>	3.9	8809
	229.375	6.0		
		4.5		
		<u>4.5</u>	5.0	8813
	233.387	8.0		
		7.5		
		<u>7.0</u>	7.5	8817
	251.467	<u>18.9</u>	18.9	8835
	253.475	21.1		
		20.2		
		<u>20.3</u>	20.5	8837
	262.454	<u>22.7</u>	22.7	8846
	262.458	25.2		
		<u>24.3</u>	24.8	8846
	263.487	25.4		
		26.0	25.7	8847

1855.	265.442	25.2		
		<u>26.0</u>	25.6	8849
	270.412	26.9		
		27.2		
		< <u>27.6</u>	27.0	8854
	278.492	29.0		
		29.2		
		<u>27.1</u>	28.4	8862
	279.400	28.1		
		<u>25.8</u>	27.0	8863
	282.342	28.1		
		<u>29.0</u>	28.6	8866
	289.396	28.0		
		19.7		
		< <u>27.1</u>	18.8	8873
	293.533	27.7		
		28.2		
		< <u>27.1</u> -	28.0	8877
	312.246	23.2		
		<u>21.3</u>	22.2	8896
	313.246	21.0		
		<u>20.8</u>	20.9	8897
	350.246	6.5		
		7.7	7.1	8934
	352.217	6.0		
		<u>8.5</u>	7.2	8936
1856.	215.471	-		9164
	225.517	-		9174
	237.392	-1.4	-1.4	9186
	237.483	-1.4	-1.4	9186

1856.	243.421	<u>1.6</u>	1.6	9192
	244.483	<u>1.1</u>	1.1	9193
	246.517	<u>2.3</u>		9194
		<u>3.0</u>	2.6	9195
	247.467	<u>3.1</u>		
		<u>3.0</u>	3.0	9196
	248.417	<u>3.1</u>		
		<u>3.0</u>	3.0	9197
	249.417	<u>3.3</u>		
		<u>4.0</u>	3.6	9198
	253.412	<u>5.0</u>		
		<u>1.5</u>		
		<u>5.1</u> —	3.9	9202
	254.425	<u>4.0</u>		
		<u>3.0</u>	3.5	9203
	255.425	<u>4.5</u>		
		<u>2.8</u>	3.6	9204
	258.400	<u>5.5</u> —	5.5 —	9207
	260.383	<u>3.8</u>		9208
		<u>5.5</u>	4.6	9209
	263.429	<u>4.5</u>		
		<u>6.5</u>	5.5 —	9212
	264.429	<u>4.5</u>		
		<u>4.0</u>		
		<u>6.7</u>	5.1	9213
	270.387	<u>6.0</u>		
		<u>5.5</u>		
		<u>8.0</u>	6.5	9219
	273.387	<u>6.5</u>		
		<u>5.8</u>	6.2	9222

1856.274.437	7.2		q2
	<u>7.5</u>	7.4	q223
278.342	7.7	7.7	q227
279.433	9.0		
	<u>7.2</u>	8.1	q228
282.333	11.2		
	<u>10.5</u>	10.8	q231
285.321	12.2	12.2	q234
288.304	15.4		
	<u>13.2</u>	14.3	q237
289.362	13.2		
	<u>17.2</u>	15.2	q238
291.300	14.9		
	18.2		
	17.9		
	<u>15.9 = 18.4</u>		q2 ⁴ ₅₀
293.354	19.9		
	18.9		
	16.9 = 17.9		
	<u>20.1</u>		q2 ⁴ ₅₂
294.254	20.9		
	19.9		
	<u>21.0</u>	20.6	q2 ⁴ ₅₃
295.296	21.2		
	21.9		
	20.4		
	16.6 = 17.9 -		
	22.5		
	20.9		
	18.9 -		q2 ⁴ ₅₄

1856.296.283	23.0		
	21.9		
	<u>17.4 = 17.9</u>		9245
298.279	22.8		
	23.5		
	<u>25.2</u>	23.8	9247
299.271	25.7		
	<u>24.3</u>	25.0	9248
301.279	27.0		
	27.2		
	<u>26.6</u>	26.9	9250
302.325	27.7		
	27.2		
	<u>27.6</u>	27.5	9251
303.325	28.2		
	27.9		
	<u>27.1</u>	27.7	9252
304.271	28.2		
	28.5		
	<u>26.6</u>	27.8	9253
305.271	28.0		
	27.9		
	<u>28.4</u>	28.1	9254
306.304	28.7		
	29.2		
	<u>28.1</u>	28.4	9255
307.300	28.7		
	28.1		
	<u>29.2 -</u>	28.4	9256
310.317	30.0		
	28.6		
	29.6		9259

1856.316.292	30.7		
	<u>28.4</u>	29.6	9265
319.242	31.5		9265
	<u>29.4</u>	30.4	9268
321.292	29.1		
	<u>31.5</u>	30.3	9270
322.242	31.0		
	<u>29.9</u>	30.4	9281
334.279	29.7		
	27.1		
	<u>28.5</u>	28.4	9283
337.229	28.7		
	28.7		
	<u>26.6</u>	28.0	9286
339.379	27.7		
	<u>27.7</u>	27.7	9288
343.258	27.7		
	<u>27.9</u> —	27.8	9292
346.308	25.5		
	<u>26.7</u>	26.1	9295
347.237	24.0		
	<u>24.9</u>	24.4	9296
350.254	< 22.5		
	<u>23.7</u>	23.7	9299
352.275	23.2		
	<u>22.3</u>	22.8	9301
360.312	20.2		
	<u>21.4</u>		
	<u>14.4</u> —	20.8	9309
1857. 23.246	9.0		
	8.7	8.8	9338

1857. 237.558	—		9552
290.417	—		9605
314.296	-0.4		
	3.8		9629
315.296	0.6		9630
318.279	2.3		
	1.8		9633
319.271	2.8		
	1.8		9634
320.275	3.8		
	4.8		9635
323.271	6.5		
	6.3	6.4	9638
324.271	7.5		
	5.0	6.2	9639
334.242	15.9		
	13.4	14.6	9649
335.237	14.2		
	17.2	15.7	9650
336.233	14.9		
	15.9		1
	717.7	15.4	9651
338.242	17.9		
	18.4	18.2	9653
340.229	20.9		
	18.3		
	18.7	19.3	9655
341.250	21.4		
	20.3		
	20.2	20.6	9656

1857	342.296	21.0		
	<u>22.0</u>	21.5	9657	
343.225	<u>21.7</u> -	21.7 -	9658	
348.321	25.7			
	<u>27.0</u>	26.4	9663	
351.246	28.7			
	29.7			
	28.1			
	<u>28.5</u> -	28.8	9666	
352.225	29.5			
	<u>28.6</u>	29.0	9667	
352.300	28.4			
	30.7			
	<u>29.9</u>	29.7	9667	
354.242	31.0			
	<u>30.6</u>	30.8		
	31.0			
	<u>28.4</u> -	29.7	9669	
365.233	<u>33.6</u>	33.6	9680	
1858	4.229	31.1		
	<u>31.5</u> -	31.3		
	33.3			
	<u>31.5</u> -	32.4	9684	
4.271	<u>33.3</u>	33.3	9684	
5.229	<u>32.1</u> -	32.1 -	9685	
	<u>33.1</u> -	33.1 -	9685	
7.242	<u>33.1</u>	33.1	9687	
10.229	31.6			
	<u>31.5</u>	31.6	9690	
16.242	29.9		9696	
	31.0	31.4		

1858.	22.23f	29.1		
		<u>31.0</u>	30.0	9702
	25.271	<u>28.4</u>	28.4	9705
	26.250	28.1		
		<u>29.2</u>	28.6	9706
	27.242	27.1		
		<u>28.2</u>	27.6	9707
	28.262	< 27.1		
		<u>28.5</u>	28.5	9708
	288.28f	—		9968
	327.23f	—		0007
1859.	7.292	—		0052
	22.275	—		0067
	66.51f	7.0		
		<u>7.5</u> —	7.2	0111
	67.53f	8.0		
		<u>8.5</u> —	8.2	0112
	68.550	<u>7.5</u>	7.5	0113
	69.529	8.0		
		<u>9.0</u>	8.5	0114
	81.492	5.8		
		<u>6.5</u>	6.2	0126
	86.546	8.0		
		<u>8.2</u>	8.1	0131
	116.500	<u>0.1</u>	0.1	0161
1861.	225.492	—		0270
1862	263.454	6.0		
		<u>6.5</u>	6.2	0308

S Cancer

1850. 47.521 13.5

>12.0

1851. 37.358 12.5

11.553.300 7.0

61.321 11.0

13.3

87.354 14.0

>12.0

353.437 13.0

11.0

355.496 >12.0

13.3

359.550 >12.0

12.8

362.583 13.0

>12.0

1852. 2.504 13.5 —

10.308 13.5

12.475 13.5

>12.0

19.417 11.8

>12.0

20.429 11.8

>12.022.400 4.5 —23.512 14.5

25.592 11.5

>12.0

1852.	26.458	12.0
		<u>11.5</u>
	26.512	12.3
		<u>>12.0</u>
	30.625	12.0
		<u>>12.0</u>
	49.450	13.5
	50.575	12.5
		<u>>12.0</u>
	54.383	12.0
		<u>>12.0</u>
	55.342	12.3
		<u>>12.0</u>
	56.508	12.0
		<u>>12.0</u>
	67.329	11.5
	68.321	10.5
		<u>12.5</u>
	73.487	12.5
		<u>>12.0</u>
	74.487	11.8
		<u>>12.0</u>
	77.396	13.5
	79.329	—
	79.337	—
	79.358	1.5 (5-foot)
	79.375	4.0
	79.404	4.5
	79.446	4.3 (5-foot)
	79.483	5.0

1852	79.525	7.2 d.s. & 5-ft.
	79.571	9.0
		9.5
	80.308	12.0
		13.5 5-ft.
	80.317	12.5
		>12.0
	80.421	12.3
		>12.0
	80.429	12.5
		13.5 5-ft.
	80.592	12.5
	81.325	14.0
	81.500	14.5
	82.312	14.5
	82.604	14.5
		} Schmidt
	83.333	13.0
	84.404	11.5
		12.5
	84.487	12.3
	85.329	12.5
	85.450	13.0
	86.329	13.5
	86.450	13.3
	87.325	13.0
	87.454	13.0
	87.546	11.5
	88.312	14.5 —
	88.500	12.5
		13.0 —

1852	93.375	12.5
		<u>13.0</u>
	95.429	<u>13.0</u>
	96.417	<u>13.5</u>
	98.537	10.5
		<u>7.0 5 ft.</u>
	99.342	<u>13.5</u>
	100.396	12.8
	100.5	<u>12.5</u>
	100.525	12.0
		<u>12.5</u>
	102.458	<u>11.5 —</u>
	103.446	<u>12.5</u>
	103.492	<u>12.5</u>
	104.367	<u>13.5</u>
	105.367	<u>13.0</u>
	106.546	<u>—</u>
	107.354	12.5
		<u>12.3</u>
	107.417	12.3
		<u>12.0</u>
	107.583	<u>11.5 —</u>
	110.525	12.5
		<u>>12.0</u>
	111.375	13.0
		<u>13.0</u>
	111.529	<u>13.0</u>
	112.387	13.0
		<u>13.3</u>
	113.446	13.8

1852.	115.412	12.5
		<u>12.0</u>
	116.462	<u>13.0</u>
	117.358	<u>2.0</u>
	117.387	3.0
		<u>2.7</u>
	117.442	4.5
		<u>5.7</u>
	117.496	9.0
		<u>78.7</u>
	117.533	<u>11.0</u>
	118.367	<u>13.5</u>
	119.367	<u>12.5</u>
	125.404	13.0
		<u>13.5</u>
	126.446	12.0
		<u>12.0</u>
	130.458	13.5 <i>hazy.</i>
	268.676	16.5 <i>Murmann</i>
		<i>av. 5-1-1</i>
	289.542	12.5
		12.5
		<u>>12.0</u>
	290.550	13.0
		<u>12.8</u>
	291.554	12.5
		<u>12.0</u>
	293.562	13.0
		<u>12.0</u>
	294.529	13.5
		13.5

* with heliometer

1852.	311.512	13.5	
	315.467	13.0	
	323.483	11.5	
		<u>712.0</u>	
	330.521	13.5	
	332.571	13.0	
	332.571	13.0	
		<u>13.5</u>	
	333.562	14.0	5-ft.
	343.471	12.5	
		12.0	
		<u>712.0</u>	
	345.475	12.5	hazy
	346.433	12.5	
		12.0	
		<u>712.0</u>	
	353.521	12.5	
		<u>13.0</u>	
	354.504	5.7	}
		<u>3.0</u>	
	354.554	7.7	
		7.0	
		7.0	
	354.600	10.0	}
		9.5	
	363.517	13.0	
1853.	316.512	13.5	
		<u>13.5</u>	hazy
	26.250	2.7	hazy
	26.267	2.2	—
	26.329	2.5	—
		<u>2.5</u>	—

1853.	26.354	<u>2.05-foot</u>
	27.258	<u>12.5</u>
	35.479	<u>13.3 -</u>
	35.533	<u>12.8</u>
	35.571	<u>10.8</u>
		<u>12.0</u>
	35.596	<u>10.0</u>
		<u>11.0</u>
	60.396	<u>12.5 -</u>
	87.342	<u>13.5</u>
		<u>13.0</u>
	97.392	<u>13.0</u>
	115.362	<u>12.5</u>
		<u>13.0</u>
	121.371	<u>6.0</u>
	121.387	<u>9.5 5-ft.</u>
	304.525	<u>13.8</u>
		<u>13.5</u>
	328.450	<u>13.5</u>
	334.458	<u>13.5</u>
		<u>12.0</u>
	336.454	<u>12.8</u>
	337.521	<u>12.5</u>
	338.558	<u>13.8</u>
	339.400	<u>2.7</u>
	339.442	<u>2.7 very hazy</u>
	339.475	<u>4.7</u>
	339.529	<u>5.0 -</u>
		<u>7.7</u>
		<u>8.0 good</u>

1853. 958.546 9.0

10.0

1854. 2.537 8.5

10.522.308 12.324.412 13.575.346 13.076.392 13.878.333 14.078.429 10.510.0

78.446 < 9.5 x

11.0 x78.475 9.5 x78.517 6.5 x5.7 x78.537 5.0 x6.2 x78.567 3.0 x3.0 x

78.579 < 2.0 x

2.2 x

78.600 < 2.0 x

2.2 x78.612 0.7 +78.617 3.7 — x78.629 1.5 Benzenberg; —.79.425 13.887.492 13.089.387 14.5

x 30-in telescope + Benzenberg's telescope

1854. 90.429 13.5
92.417 14.3
93.333 14.8
97.529 3.2
97.550 2.7
97.554 2.7
97.558 2.5
97.571 2.0
97.587 2.5

101.346 13.3

106.429 15.2

108.375 11.5

11.0

108.496 13.8

109.383 13.5

111.421 13.0

~~353~~
^{il} ^m
[#]353 12.56 9.5 -

13.24 8.7

14.2 8.0

14.53 6.3

5.7

15.25 5.0

4.7

16.1 3.5

2.5

16.18 2.0

2.0

16.37 1.0

(C-O) ^{C-O}
 (being corrected
 to Paris time and
 for aberration)

+193^m +206

+165 +178

+127 +140

+76 +89

+44 +57

+8 +21

-9 +4

-28 -15

16^h 9^m = true mean.

	d	h	m	$(C-o)$	$(C-o)_{cor.}$
1854.753	16.37	2.0		-28 ^m	-15
	16.50	1.0		-41	-28
	16.50	2.0			
	17.3	0.7		-54	-41
	17.3	1.5			
	17.18	0.7		-69	-56
	17.18	2.0			
	17.35	1.0		-86	-73
	17.35	2.0			
	17.51	1.2		-102	-89
		2.5			
	18.16	1.2		-127	-114
		2.2			
	18.30	1.7		-141	-128
		2.7			

1855.	64 ^{x1} 8.44 ^m	9.0	+310	+332
	9.10	8.5	+284	+306
	9.29	6.8	+265	+287
	9.38	6.0	+256	+278
		5.2		
	10.22	5.0	+212	+234
		4.7-		
	11.15	2.2	+159	+181
		2.0-		
	12.4	1.2	+110	+132
		0.7		
	12.14	1.5	+100	+122
		1.5		
	12.29	1.7	+85	+107
		1.2		

13^h 54^m = Assumed
time of min.
(discrepancy of 1 day)

x minimum with 5 ft. and with Kessels. Correction Kessels for

1855. $d^h m.$ 64. 13 10 2.0 $(C-o)$ $(C-o)_{corr.}$
 $+44^m$ $+66$

1.5

13 25 2.5- $+29$ $+51$

96.383 14.0

13.8

101.379 14.5

13.8

102. $d^h m.$ 9. 3 8.0 $+204$ $+230$

9.38 5.8 $+169$ $+195$

5.4

10.5 4.5 $+142$ $+168$

4.4

10.57 0.7 $+90$ $+116$

2.5

11.35 -0.3 $+52$ $+78$

1.7

11.49 0.5 $+38$ $+64$

2.0

12.7 0.7 $+20$ $+46$

2.5

$12^h 27^m =$ Assumed
 time of min.
 (discrepancy of 1 day.)

293.529 13.5

13.0

1856. 1.508 13.5

8. 8 18 7.0 $+95$ $+119$

1.7-

8. 41 5.0 $+72$ $+96$

5.7

8. 57 4.0 $+56$ $+80$

4.7

$9^h 53^m =$ Time of min.

1856. 88^d 9^h 21^m <2.0 (C-O) (C-O)_{cor.}
+32^m +56

1.7

2.5

9 35 0.2 +18 +42

2.0

9 49 0.2 +4 +28

3.0

10 3 0.0 -10 +14

2.2

10 20 0.5 -27 -3

3.0

10 37 1.5 -44 -20

3.5—

107^d 9^h 34^m 3.5 -26 0

9 42 2.2 -34 -8

3.7

9 53 1.5 -45 -19

3.7

10 3 0.5 -55 -29

3.2

10 22 0.0 -74 -48

3.2

10 32 0.7 -84 -58

>4.5

10 54 0.5 -106 -80

>5.0

11 8 0.5 or 0.7 -120 -94

>5.0

11 28 0.2 -140 -114

>5.0

9^h 8^m = Time of min.

1856. $10^d 11^h 36^m$ 0.7 $(C-o)$ $(C-o)_{corr.}$
 -148^m -122
 >5.0

12 13 1.2 -185 -159

12 50 1.0 -222 -196

363.533 <3.7

1857. 30.517 13.3

12.0

54.517^d 5.8 $+216$ $+236$

6.7

5 53 2.5 $+180$ $+200$ $8^h 53^m = \text{Time of rising}$

>5.0

6 13 1.5 $+160$ $+180$

>4.0

6 38 0.2 $+135$ $+155$

3.5

6 59 1.0 $+114$ $+134$

4.0

7 24 1.5 $+89$ $+109$

4.5

8 3 1.0 $+50$ $+70$

>5.0

8 22 2.5 $+31$ $+51$

>5.0

9 35 3.0 -42 -22

10 20 3.2 -87 -67

3.5

85.367 13.3

318.537 12.5

1858. 21.512 5.0

3.9

1858. 21.537 6.3
 5.7
 39.471 14.5
 334.437 —
 334.492 4.8

1859. 36.425 6.3

1860. 40th 9^h 16^m 8.0

9 50 4.0

5.2

9 56 3.5 Yiele.

9 59 5.7 —

10 6 3.3

4.9

10 21 5.2 Yiele.

10 25 3.0 —

10 27 2.8

4.7

4.5

10 45 2.5

3.0

10 48 3.7 Yiele

10 58 3.0 "

11 0 2.0

11 0 0.7 —

11 4 3.0

1.2 good

11 6 0.7

3.0 Yiele.

(C-o) (C-o) corr.
 + 312^m + 331

+ 278 + 297

+ 272 + 291

+ 269 + 288

+ 262 + 281

+ 247 + 266

+ 243 + 262

+ 241 + 260

+ 223 + 242

+ 220 + 239

+ 210 + 229

+ 208 + 227

+ 208 + 227

+ 204 + 223

+ 202 + 221

24^h 28^m = Time of min.

β Persei

1840.

53^d 10^h 45^m.

A.L. 22

1220

11 0 2.0 p 3

11 7 2.0 "

11 14 1.0 "

11 23 1.5 "

11 29 1.0 "

11 32 1.0 "

11 38 1.0 "

11 41 2.0 "

11 45 1.0 "

11 49 0.5 "

11 51 1.0 "

11 54 1.0 "

11 57 2.0 "

12 5 0.0 "

12 10 2.0 "

12 14 2.0 "

12 18 3.0 "

12 24 3.0 "

12 28 3.0 "

12 32 4.0 " 3

12 38 4.0 " 3

12 48 " 3

12 54 " 3

13 6 " 3

13 41 3rd mag.

56^d 8^h 30^m

x with Earnshaw; Correction of clock for M.T. = -33' 6".4

1840. 56^d 8^h 30^m

Ah 25. 8 52 < 3.8

9 51 9 13 2.5^{p3}_p

9 25 3.0 "

9 35 2.0 "

9 38 3.0 "

9 42 2.0 "

9 51 1.0 "

9 57 1.0 "

10 1 2.0 "

10 4 2.0 } "

10 6 2.0 }^x "

10 9 3.0 "

10 56 1.9 — " 8

11 40 2.8

Mar 19 79^d 7^h 35^m 70.0 "

7 34 7 39 0.2 "

7 43 0.0 0.4 p

7 44 2.0 d.s. "

7 46 2.0 0.5 v.d.s. p

7 50 0.0 — "

1.2 E.S. "

2.0 0.1 "

7 55 — "

3.0 0.1 "

7 59 5.0 "

205^d 11^h 20^m 4.0 "

" 7

11 36 4.0 "

1840	205 ^d	11 ^h 42 ^m	71.9	Sp
		11 48	2.8	—
14 Sept 1	245 ^x	13 ^h 0 ^m	0.7	
14 15		13 30	< 0.7	
			4.0	p
		13 52	-0.3	
		14 4	0.3	p a
		14 10	3.0	p
		14 14	2.2	"
		14 17	2.2	"
		14 20	2.0	"
		14 22	4.0	" —
		14 25	4.0	"
			< 0.7	
		14 29	4.0	"
			-0.3	- 5.7
		14 32	0.7	6.7
		14	4.0	"
		14 35	1.7	
		14 43	> 5.0	"
			2.7	—
Sept 27	271 ^d	8 28	0.7	
9 44			> 5.0	p —
		8 46	4.0	" —
		9 34	-0.7	"
		9 38	-0.7	"
		9 41	-1.2	"
		9 44	-2.0	" #

1840.271° 9^h 48^m -2.0 p

9 51 0.0 "

9 54 0.5 "

9 57 0.0 "

10 0 0.0 "

10 2 2.0 "

10 5 0.0 "

10 8 0.0 "

10 11 0.0 "

10 13 1.0 "

10 15 2.0 "

10 17 1.0 "

10 19 2.0 "

10 22 2.0 "

10 26 2.0 "

10 29 3.5 "

10 45 4.0 "

11 25

74.2

12 40 *B = B. chertis*

12 40

Oct-17 291° 10^h 46^m 3.0 p

10 50

0.7

7.7

1.2 - 4

0.7 - 4

10 50 2.0 p

0.2 + 0

-0.3

7.7

-0.3

10 56 2.0 p

0.2 + 6

0.7

8.7

0.7

10 59 3.0 p

1.2 + 9

1.7⁺

8.7

1.7

11 2 3.0 p

1.2 + 12

1840291 ^o 11 ^h 2 ^m	2.7	9.7	+12
	0.2	7.2	0.2
11 5	4.0 p	2.2	+15
	2.7	8.7	2.7
	0.2	6.2	8.4
	2.1 p b	0.3	
11 12	4.0 p	9.7	2.2 +22
	3.7	3.7	
	1.2	7.2	1.2
	2.4	8.4	2.4
11 17	4.0 p	2.2	+27
	3.7	9.7	3.7
	1.2	7.2	1.2
	2.4	8.4	2.4
11 22	4.0 p	2.2	+32
	72.4	115.2 ÷ 14 = 8.2	

Dec 19. 1354 ^o 11 ^h 24 ^m			-106
13 10	5.2		
11 42	2.2		-88
11 52	2.2		-78
	3.2		
12 11	2.7	9.2	-59
	3.5 p	2.4	
12 28	1.7	8.7	-42
	3.0 p	1.9	
12 47	2.5 p	1.4	-23
12 52	2.5 "	1.4	-18
12 55	2.5 "	1.4	-15
12 59	2.0 "	0.9	-11
13 2	2.0 "	0.9	-8

1840. B54° 13^h 4^m 2.0 p 0.9

13 8 1.7 " 0.6

13 10 1.5 " 0.4

13 12 2.0 " 0.9

13 15 2.0 " 0.9

13 19 2.2 " 1.0

13 22 2.5 " 1.4

13 25 3.0 " 1.9

13 28 2.5 " 1.4

13 38 3.5 " 2.4

 $+1.0 = 4.2$

13 55 4.0 p 2.9

5.2 " 4.1

 $17.9 \div 2 = 8.9$ Dec 22 B57° 5^h 0^m

10 4

3.3

5 28

2.3

6 28

7 18 7.7
6.2

8 34 4.0 p 2.9 -90

2.2 8.2

3.7 9.7

9 24 3.0 p 1.9 -40

0.7 7.7

9.29 2.5 p 1.4 -35

-0.3 4.2

1840.357 ^h 9 ^m 34 ^m	3.0 p	1.9	- 30
	1.7 8.7		
9 39	2.5 "	1.4	- 25
	1.7 9.2		
9 44	2.5 "	1.4	- 20
	0.7 8.2		
9 48	2.0 "	0.9	- 16
	0.7 8.7		
9 52	2.0 "	0.9	- 12
	0.7 8.7		
9 56	2.5 "	1.4	- 8
	-0.3 7.2		
9 58	2.0 "	0.9	- 6
	0.7 8.7		
10 1	2.0 "	0.9	- 3
	0.7 8.7		
10 4	2.0 "	0.9	+ 0
	0.7 8.7		
10 6	2.0 "	0.9	+ 2
	0.7 - 8.7		
10 13	2.0 p	0.9	+ 9
	1.7 - 9.7		
10 16	2.0 p	0.9	+ 12
	2.2 - 0.2		
10 17	2.5 p	1.4	+ 13
	2.7 0.2		
10 19	3.0 "	1.9	+ 15
	2.7 9.7		
10 22	3.0 "	1.9	+ 18
	2.7 9.7		

1840.357 ^d 10 ^h 26 ^m	3.0 p	1.9	+22
	2.7 9.7		
	1.7 8.7		
	10 33 3.5 "	2.4	+29
10 40	3.7 0.2		
	2.7 9.2		
	3.5 "	2.4	+36
	3.2 9.7		
Due 25360 ^d 11 18 5 ^h 1 ^m	7.2	$\frac{6.3}{221.6 \div 25} = 8.9$	+74
	2.2 8.7		
	3.7 0.2		-58
	3.5 p	3.1	
5 59	5 13 3.0 "	2.6	-46
	2.2 9.2		
	2.7 9.7		
	5 19 3.0 "	2.6	-40
5 25	2.2 9.2		
	2.7 9.7		
	3.0 "	2.6	-34
	2.2 9.2		
5 31	2.7 -9.7		
	2.0 "	1.6	-28
	1.7 9.7		
	1.2 9.2		
5 35	2.5 "	2.1	-24
	2.7 0.2		
	1.7 8.7		
	5 38 2.0 "	1.6	-21
5 42	1.7 9.7		
	1.2 9.2		
	2.0 "	1.6	-17

1840. B60° 5' 42"	1.7	9.7	-17
	1.2	9.2	
5 45	1.0 p	0.6	-14
5 47	2.0 "	1.6	-12
5 48	1.0 "	0.6	-11
5 50	1.0 "	0.6	-9
5 52	1.0 "	0.6	-7
5 54	0.0 "	9.6	-5
5 56	1.0 "	0.6	-3
5 58	2.0 "	1.6	-1
6 1	1.0 "	0.6	+2
6 3	1.0 "	0.6	+4
6 7	2.0 "	1.6	+8
	0.7		
6 10	2.0 "	1.6	+11
	1.7	9.7	
6 14	2.0 "	1.6	+15
	1.7	9.7	
6 17	2.5 "	2.1	+18
	2.7	0.2	
6 27	2.0 "	1.6	+28
	2.7	0.7	
6 40	3.0 "	2.6	+41
	2.7	9.7	
	1.7	8.7	
6 56	3.0 "	2.6	+54
	3.2	9.2	
	2.2	9.8	
γ 55	6.2		+116

1840.360^d 8^h 29^m

8 57

10 8

11 0^x

$$229.9 \div 24 = 9.6$$

1841. 9^d 7^h 8^m
 44 11 0

mar 18 44^{*} 9 10 3.0 p
 10 4

9 35 1.0 "
 9 44 -1.0 "
 9 55 -1.0 "

10 2 1.5 " —
 10 6 -1.5 "

x

x

1841. $\gamma\gamma^{\circ}$ 10° 9^m -1.0°
 10° 14 0.0°
 10° 18 0.0°
 10° 22 0.5°
 10° 27 2.0°
 10° 30 1.0°
 10° 35 1.0°
 10° 43 2.0°
 10° 47 3.0°

" ϵ

10° 52 3.0°

" $\epsilon -$

10° 58 $3.0^{\circ} \epsilon$

" ϵ

11° 5 3.5°

11° 16^x 4.0°

Aug 14 226^+ 19° 57 $—$

~~20 4~~ 20° 4 $—$

22° 40 20° $10 = \gamma \text{ Regulus}$

20° 30

6.8

21° 30

x

1.8

†

1841.226°	21 ^h 30 ^m	1.8		-70
		1.7		
21 43	3.0 p		2.7	-57
		1.8	8.8	
		2.7	9.7	
21 55	3.0 "		2.7	-45
		2.7	9.7	
22 0	3.0 "		2.7	-40
		2.7	2.4	
22 5	2.5 "		2.2	-35
		2.7	0.2	
22 14	2.0 "		1.7	-26
		1.7	9.7	
22 22	2.0 "		1.7	-18
		1.2	9.2	
22 28	2.0 "		1.7	-12
		1.2	9.2	
22 37	1.5 "		1.2	-3
		1.2	9.7	
22 45 ⁺	1.5 "		1.2	+5
		1.2	9.7	
22 50 ⁺	1.5 "		1.2	+10
		1.2	9.7	
22 57 ⁺	2.0 "		1.7	+17
		1.7	9.7	
23 7	2.0 "		1.7	+27
		1.7	9.7	
23 14	2.0 "		1.7	+34
		2.2	0.2	

x

+

1841.226² 23^h 26^m 3.0 p 2.7 +46

2.7 9.7

2.2 9.2

3.3 0.3

23 40 3.8 9.8 +60

3.7 9.7

4.0 " 3.7

2.7 $173.9 \div 18 = 9.7$

272^x 21 24 -59

Sept 29

1.3

1.2

~~22 23~~

3.7

21 45 3.0 p 2.9 -38

1.3 8.3

22 12 2.5 " 2.4 -11

22 15 3.0 " 2.9 -8

0.3

22 22 2.0 " 9.7 1.9 -1

1.7 9.7

1.7 Wolken

22 28 2.5 p 2.4 +5

2.7 0.2

2.2 9.7

22 37 2.5 " 2.4 +14

2.7 0.2

2.2 9.7

22 45 2.5 " 2.4 +22

2.7 0.2

2.2⁺ 9.7

x

1841. 272 ^s 22 ^h 54 ^m			2.5 p	2.4	+31
			2.7	0.2	
			2.2	9.7	
23	4		3.0 "	2.9	+41
			3.2	0.2	
			3.2	0.2	
23	12		3.0 "	2.9	+49
			3.7	0.7	
			3.7	0.7	
23	19		3.5 "	3.4	+56
			4.2	0.7	
23	30		4.0 "	3.9	+67
			4.2	0.2	
			1.8	7.8	
23	38		4.0 "	3.9	+75
			5.2	1.2	
			3.3	9.3	
23	45 ^x		5.3	$198.3 \div 20 = 9.9 +82$	
278	6	48	5.7		
292 ⁺	10	10	2.0 p	0.9	-37
Oct-19	10	25	1.5 "	0.4	-22
10	47		0.7	9.2	
	10	29	1.5 "	0.4	-18
			0.7	9.2	
	10	38	0.0 "	8.9	-9
	10	43 ⁺	0.5 "	9.4	-4
			-1.3	8.2	
	10	49	0.7 "	9.6	+2
				$26.6 \div 3 = 8.9$	

x

+

≠

1841.	292 ^{d^x hⁿ m}	10 56	0.7 p	9.6	+ 9
	315	11 30	4.7		
1842.	294 ⁺	1 9	1.5 p	2.8	- 58
Oct-21		1 47	0.7 "	2.0	- 20
2 7		1 56	1.0 "	2.3	- 11
	2 8	0.5 "		1.8	+ 1
	2 19	0.7 "		2.0	+ 12
	2 23	1.5 "		2.8	+ 16
	2 30	1.2 "		2.5	+ 23
	2 41	2.0 "		3.3	+ 34

2.2 0.2
2 50 2.5 " 3.8 + 43

3.7 1.2
3 0 3.0 " 4.3 + 53

5.2 2.2
337⁺ 3 9 3.5 " 4.8 + 42
6 20 5.2 " 5.3 ÷ 4 = 1.3

Dec 3

12 17	11 40	1.0 "	0.7	- 37
		0.7 9.7		
	12 5	-1.0 "	8.7	- 12
	12 10	-0.5 "	9.2	- 7
	12 13	-1.0 "	8.7	- 4
	12 19	-1.0 "	8.7	+ 2

x

+

+

1842.337 ^d	12 ^h 25 ^m	-0.7 p	9.0	+ 8
	12 31	0.0 "	9.7	+ 14
	12 35	0.0 or -0.5 p	9.7 or 9.2	+ 18
	12 44	0.0 p	9.7	+ 27
	12 52	0.0 "	9.7	+ 35
	13 0	0.5 "	0.2	+ 43
	13 7	1.0 "	0.7	+ 50
	13 22	1.7 "	1.4	+ 65
340 ^x	0 33	2.2 "	4.5	

Dec 6

1 59

		4.7 ^{2.5}		
	1 6	1.5 "	3.8	- 53
	1 24	0.2 "	2.5	- 35
	1 36	0.0 "	2.3	- 23
	1 44	0.0 "	2.3	- 15
	1 49	0.0 "	2.3	- 10
	1 55	-1.0 "	1.3	- 4
	2 0	-0.7 "	1.6	+ 1
	2 9 ⁺	0.0 ^{at most} or -0.5 p	2.3 or 1.8	+ 10
	2 14	0.0 p	2.3	+ 15
	2 20 ⁺	—		+ 21
	2 28	0.0 p	2.3	+ 29
	2 34	0.2 "	2.5	+ 35
	2 39	0.2 "	2.5	+ 40
	2 52	1.0 "	3.3	+ 53
	3 7	2.0 "	4.3	+ 68
	3 21	3.0 "	5.3	+ 82

1843.256^{TP}

1843.

7 41	5.0	2.2	6.9 - 3 = 2.3
8 1	2.8		

S-M-13^x_p

9 4 +

1843. 256 ² 8 ^h 14 ^m	1.3	9.3	-50
	2.0 p	3.0	
	2.2	0.2	
	1.7	9.7	
8 27	1.0 "	2.0	-37
	1.7	0.7	
8 37	0.5 "	1.5	-27
	1.2	0.7	
8 47	0.0 or 0.5 p	1.0 or 1.5	-17
	1.2	1.2 or 0.7 = 0.9	
8 50	0.0 or 0.5 p	1.0 or 1.5	-14
8 55	-0.5 p	0.5	-9
	1.2	1.7	
9 0	-0.7 "	0.3	-4
	0.7	1.4	
9 5	0.5 "	1.5	+1
	1.4	0.9	
9 12	0.5 "	1.5	+8
	1.9	1.4	
	1.8	1.3	
9 20	-0.5 "	0.5	+16
	1.2	1.7	
9 25	0.0 "	1.0	+21
	1.8	1.8	
9 34	0.7 "	0.7	+30
	2.6	1.9	
9 40	1.0 "	2.0	+36
	2.3	1.3	
9 44	1.0 "	2.0	+40
	1.8	0.8	
	2.2	1.2	

1843.256² 9^h 50^m 1.5 p 2.5 +46

2.3 0.8

2.7 1.2

10 26 4.8 208.9 ÷ 19 = 10

296 7 48

300 5 48

78.8

6 53

7 37

8 48

307 8 42

331 5 48

1844. 23^x 5 42 2.5 p 1.8 - 74

Jan 23 1.8 9.3

6 56 6 6 1.5 " 0.8 - 50

6 33 1.5 " 0.8 - 23

-0.2 8.3

6 43 0.7 " 0.0 - 13

6 49 1.0 " 0.3 - 7

6 59 0.5 " 9.8 + 3

7 6 1.0 " 0.3 + 10

7 12 1.2 " 0.5 + 16

7 20 2.0 " 1.3 + 24

1.8 9.8

x

1844.	23° 7' 31"	3.0 P	2.3	+25
1845.	193° 12' 18"	73.8	9.8	
	236 9 0	6.3	37.2 ÷ 4 = 9.3	

~~Oct 29~~~~9 51~~

10 23	1.8	9.6
	1.2	9.0
	1.9	9.7
	2.2 p	1.7

10 39	1.4	9.4
-------	-----	-----

2.0 "	1.5
-------	-----

10 52	0.7 "	0.2
-------	-------	-----

262	6 56	0.7	0.0
		2.0 "	47.7 ÷ 5 = 9.5
			2.3

1.8	9.8
-----	-----

7 3	1.5 "	1.8
-----	-------	-----

2.8	1.3
-----	-----

7 18	3.8	9.8
------	-----	-----

4.0 "	4.3
	30.9 ÷ 3 = 0.3

302	6 30
-----	------

~~Oct 29~~~~9 51~~

6 54

8 20

4.8	1.8
-----	-----

3.0 "	4.9
-------	-----

9 4

1.8	0.3
-----	-----

1.5 "	3.4
-------	-----

1.9	0.4
-----	-----

9 29

-0.7 "

1.2	-22
-----	-----

		Grads.	ρ	β	Time
1845.302	9 ^h 29 ^m	1.3	2.0	1.3	-22
	9 42	-1.2	ρ	0.7	-9
		1.2	2.4	1.2	
	9 49	-1.7		0.2	-2
	10 3	-1.2		0.7	+12
		0.7	1.9	0.7	
	10 11	-1.0		0.9	+20
		1.7	2.7	1.7	
		2.3	3.3	2.3	
	10 23	0.0		1.9	+32
		1.9	1.9	1.9	

By signing and forwarding the enclosed receipt, you will confer a favor on

10 40	2.0		3.9	+49
	2.8	0.8	2.8	
10 57	3.0		4.9	+66
	5.3	2.3	5.3	

$$11 50 \quad 78.8 \quad 22.4 \div 12 = 1.9 + 119$$

1846 261	8 15	3.2		4.5	+ 24 -86
Sun-18		3.7	0.5		
9 41	8 31	2.5		3.8	50 -70
		3.2	0.7		
	8 47	1.5		2.8	66 -54
		2.5	1.0		
	9 16	0.5		1.8	95 -25
		1.7	1.2		
	9 33	0.0		1.3	110 -8
		1.5	1.5		

		Grade	ρ	β	Time
1845.302	9 ^h 29 ^m	1.3	2.0	1.3	-22
	9 42	-1.2 p		0.7	-9
		1.2	2.4	1.2	
	9 49	-1.7 "		0.2	-2
	10 3	-1.2 "		0.7	+12
		0.7	1.9	0.7	
	10 11	-1.0 "		0.9	+20
		1.7	2.7	1.7	
		2.3	3.3	2.3	
	10 23	0.0 "		1.9	+32
		1.9	1.9	1.9	
		2.6	2.6	2.6	
	10 34	0.5 "		2.4	+43
	10 40	2.0 "		3.9	+49
		2.8	0.8	2.8	
	10 57	3.0 "		4.9	+66
		5.3	2.3	5.3	

$$11\ 50\ 78.8 \quad 22.4 \div 12 = 1.9 + 119$$

1846.261	8 15	3.2 "		4.5	+ 24 -86
Sun-18		3.7	0.5		
9 41	8 31	2.5 "		0.8	-50-70
		3.2	0.7		
	8 47	1.5 "		2.8	66 -54
		2.5	1.0		
	9 16	0.5 "		1.8	75 -25
		1.7	1.2		
	9 33	0.0 "		1.3	75 -8
		1.5	1.5		

1846 26 1^d 9^h 46^m 0.0 p 1.3 +5

1.5 1.5

10 Q 0.5" 1.8 +19

2.0 1.5

10 10 1.2" 2.5 +29

2.7 1.5

10 22 1.2" 2.5 +41

2.7 1.5

10 43 1.5" 1.7 2.8 +62

3.2 1.7

321 7 30 12.6 ÷ 10 = 1.3

1847 5 7 44 } -0.5"
 7 52 } -0.5"
 7 57 } -0.2"
 8 9 } x -1.0"
 8 16 } -0.7"
 8 28 } -0.5"

306 6 40

Nov 2

10 6

7 50

8 28 7.8
 6.5

8 44 7.2
 5.5

9 8 5.9
 5.0

5.2

x

1847.306° 10' 0"		1.6	8.6	-6
		1.2	8.2	
		3.0 p	2.7	
10	9	1.8	9.3	+3
		1.2	8.7	
		2.5"	2.2	
10	26	2.8	0.3	+20
		2.7	0.2	
		2.5"	2.2	
10	47	3.3	0.3	+41
		3.2	0.2	
		3.0"	2.7	
11	17	5.3	1.3	+71
309	5-51	4.0"	3.7	
		87119 = 9.7		
Nov 5		4.8		
7	18	4.7		
7	15	3.3	1.3	-3
		2.0"	3.3	
		3.7	1.7	
7	27	1.5"	2.8	+9
		2.8	1.3	
		3.2	1.7	
7	37	2.7"	4.0	+19
		4.0	1.3	
		4.0	1.3	
7	51	3.0"	4.3	+33
		4.2	1.2	
		4.3	1.3	
8	5	4.0"	5.3	+47
		4.9	0.9	
		5.0	1.0	

1847. 309^s 8^h 18^m

+60

5.7
5.3

1848. 7 8 43 = 6.2 +85
 6.2
 5.8 $13.0 \div 10 = 1.3$
 Jan 7 6 21
 8 58 7 22 -96

5.2 5.2
 7 53 -65

4.7 1.2 4.7
 3.5 p 4.1

8 21 -37

2.7 0.7 2.7
 2.0 " 2.6

8 35 1.0 " 1.6 -23

0.2^x 9.2 0.3

8 48 1.0 p 1.6 -10

2.0 1.0 2.0

8 54 0.5 " 1.1 -4

1.2 0.7

9 3 0.5 " 1.1 +5

1.2 0.7

9 14 1.0 " 1.6 +16

9 28 2.0 " 2.6 +30

2.0 0.0

9 38 2.5 " 3.1 +40

3.0 0.5

9 52 +54

4.2 1.0 3.8
 3.2 95.0 $\div 9 = 0.6$

1848.	γ^d	10^h	31^m	
	10	5	7	1.0 p
				-36
Jan 10	5	12	1.0 "	-31
5-43	5	20	0.5 "	-23
	5	28	0.2 "	-15
	5	38	0.2 "	-5
	5	47	0.2 "	+4
	5	57	0.2 "	+14
	6	4	0.5 "	+21
	6	9	0.7 "	+26
	6	17	1.5 "	+34
	6	24	1.0 "	+41
	6	35	1.5 "	+52
			3.2 "	
	6	43 ^x	2.8 "	+60
			0.5 "	

Jan 27	27	7	53	
10 43	8	46		
			6.2	
	9	17		-86
			4.9	1.7
			3.2 "	54
	9	33		-70
			5.2	2.0
			3.2 "	54
	10	9		-34
			4.2	2.2
			2.0 "	4.2
	10	18	0.2 "	2.4 -25
			3.2	3.0

x
f

1848. 27^d 10^h 29^m 0.0 p^x 2.2 -14

2.2 2.2

10 36 0.0 "† 2.2 -7

10 44 -0.5" 1.7 +1

10 54 -0.2" 2.0 +11

11 8 0.0" 2.2 +25

11 40 2.2"† 4.4 +57

12 7 3.2" — 5.4 +84

12 7 11.1 ÷ 5 = 2.2

1849. 8 6 36

8.2

7 12

7 36 7.2^p

5.7

230 13 36

309 9 16

5.4

9 33 4.2^p

2

1850. 30 9 15

Jan 30

11 30

9 45

7.2

10 15

6.7

5.7

4.0 p

* See foot note P. 201.

1850. $30^{\circ} 10' 43''$ $+1.20$
 $+1.0$
 $+1.5$
 $+1.7$
~~10 54~~ $+1.7$
~~11 2~~ $+0.0$
 $0.0''$
 11 13 $-0.7''$
 11 24 $-1.2''$
 11 30 $-1.5''$
 11 37 $-1.2''$
 11 43 $-0.7''$
 11 49 $-0.5''$
 11 55 $-0.2''$
 12 5 $-0.2''$
 12 14 $0.0''$
 12 24 $0.5''$
 12 36 $1.5''$

12 56 $3.0''$

13 28

 1851. 55^x 10 7 $2.0''$ 0.0 1.8 -28
 Feb 24 2.0
 10 35 10 17 $2.0''$ 1.8 -18
 1.5 9.5
 10 43 $1.2''$ 1.0 $+8$
 1.0 9.8
 10 54 $1.7''$ 1.5 $+19$
 11 5 $2.5''$ 2.3 $+30$
 11 33 $3.5''$ 3.3 $+58$
 $29.3 \div 3 = 9.8$

1851. 293^d 9^h 34^m

Oct 20

9 51

2.2

3.0 p

4.1

-17

9 49

-2

1.7

9.7

2.0 "

3.1

10 1

+10

2.2

0.7

1.5 "

2.6

10 18

+24

5.7

2.7

3.0 "

4.1

10 33

+42

4.2

0.2

4.0 "

5.1

10 50

+59

6.2

2.2

4.0 "

5.1

 $555 \div 5 = 1.1$

12 17

1852 80^x

Mar 20

9 10

7 28

7 46

9 4

-6

1.1

1.5 "

9.6

1.4

9 16

1.1

9.6

+6

1.5 "

1.4

9 25

2.3

0.3

+15

2.0 "

1.9

9 39

3.0 "

9.8

2.9

+29

2.8

x

1852 $80^{\circ} 9^{\text{h}} 56^{\text{m}}$ 3.0 p 0.1 2.9 +46
3.1

$$49.4 \div 5 = 9.9$$

206	10 49	5.2	—		-128
July 24 th	11 15	4.2	0.2		-102
12 57		4.0 p		5.0	
	11 57	3.7	1.0		-60
		2.7 "		3.7	
	12 6	3.2	0.7		-51
		2.5 "		3.5	
	12 16	2.7	0.7		-41
		2.0 "		3.0	
	12 29	2.5	0.8		-28
		1.7 "		2.7	
	12 42	2.7	1.7		-15
		1.0 "		2.0	
	12 51	2.2	1.2		-6
		1.0 "		2.0	
	13 9	2.2	1.5		+12
		0.7 "		1.7	
	13 18	2.7	1.5		+21
		1.2 "		2.2	
	13 27	3.0	1.0		+30
		2.0 "		3.0	
	13 45	4.2	1.2		+48
		3.0 "		4.0	
	13 56	4.0	0.0	5.0	+59
		4.0 "	11.5 \div 11 = 1.0		
229	9 56	5.8			
		5.2			
	12 20*	4.8			
		6.7			

1852. 252² 10² 57^m 5.3 2.3
 4.2 1.2
 3.0 p 4.8
 11 21 5.8
 5.2 $3.5 \div 2 = 1.8$

1853. 35 11 36 5.5 Harry
 12 8 2.8 } 9.8
 3.0 p } 2.9
 12 36 1.8 } * 9.8
 2.0 " } 1.9
 12 48 0.0 " 9.9
 13 28 0.0 " 9.9
 13 44 1.7 " } 16
 1.8 " } + 0.1
 14 10 3.0 " } $29.7 \div 3 = 9.9$
 210 10 38 2.0 " Stockholm 3.2

3.2 1.2
 276⁺ 7 38 3.8
 Oct 3 3.7
 8 33 75.0 " ?
 8 17 1.8 8.3 - 16
 2.0 8.5
 3.5 " 1.5
 8 29 0.8 7.3 - 4
 1.2 7.7
 3.5 " 1.5
 8 41 1.3 7.8 + 8
 0.7 7.2
 3.5 " 1.5

1853. 276^d 8^h 48^m 2.3 8.6 +15

2.0 8.3

3.7 P 1.7

9 0 2.3 +27

2.5

> 5.0 "

9 7 2.8 +34

2.7

> 5.0 "

9 21 2.6 +48

2.2

> 5.0 "

9 28 3.8 +55

3.7

10 6 5.3 +93

5.2

10 57 7.7 +144

11 55 8.7 63.7 ÷ 8 = 8.0

296^x 7 13 7.8

Oct-73 10 3 2.6 9.6 -57

11 0 2.2 9.2

3.0 " 3.1

10 26 1.1 9.9 -34

0.7 9.5

1.2 " 1.3

10 33 0.5 " 0.6 -27

10 39 1.0 " 1.1 -21

10 45 0.0 " 0.1 -15

10 50 -0.5 " 9.6 -10

x

1853.296	10 ^h 57 ^m x	0.2 p	0.3	-3
	11 3	1.2 "	1.3	+3
	11 10	2.0 "	2.1	+10
		2.3	0.3	
		2.2	0.2	
	11 16	2.2 "	2.3	+16
		2.8	0.6	
		2.7	0.5	
	11 24	3.2 "	3.3	+24
		3.6	0.4	
		3.7	0.5	
	11 30	2.5 " Mary	2.6	+30
		3.3	0.8	
	11 49	4.0 "	4.1	+49
		4.5	0.5	

		3.7	9.7	
			$131.7 \div 13 = 0.1$	
299 ⁺ 6 44	2.0"		2.9	-27
Qd-26	2.3	0.3		
7 11	6 53	1.7"	2.6	-18
	1.8	0.1		
7 1	1.0"		1.9	-10
	2.8	1.8		
	2.7	1.7		
7 6	1.0"		1.9	-5
	1.8	0.8		
	1.2	0.2		
7 11	0.7"		1.6	+0
	1.8	1.1		
	1.5	0.8		

x
+

1853.299^d 7^h 17^m 1.0 p 1.9 +6

2.3 1.3

1.5 0.5

7 21 1.2 " 2.1 +10

2.1 0.9

2.0 0.8

7 28 1.5 " 2.4 +17

2.3 x 0.8
11.1 ÷ 13 = 0.9

316⁺ 9 13
Dec 12

7.8

12 0 10 9 5.8

5.2

10 39 4.8

4.7

75.0 "

10 55 3.8

4.7

75.0 "

11 16 2.1 8.9 -44

2.0 8.8

3.2 " 2.1

11 35 1.3 8.6 -25

1.7 9.0

2.7 " 1.6

11 51 1.3 9.1 -9

1.7 9.5

2.2 " 1.1

12 0 0.8 8.6 +0

1.2 9.0

2.2 " 1.1

1853.316^d 12^h 9^m 1.8 9.6 +9

2.2 0.0

2.2 p 1.1

12 23 0.8 8.3 +23

1.2 8.7

2.5 " 1.4 +34

12 34 1.8 8.8

1.7 8.7

3.0 " 1.9

12 46 2.1 8.6 +46

1.7 8.2

3.5 " 2.4

13 4 3.3 +64

3.7

>5.0 "

13 34 5.5 +94

5.9

>5.0 " $\times 1424 \div 16 = 8.9$

336⁺ 10 53

Dec 2

7.8

13 44

11 51

6.8

6.2

12 14

5.3

4.4

x

336° 12^m 39^m 3.8 1.8 -65
3.5 1.5

13 8 2.0 p 3.1
1.2 " 0.6 2.3 -36
1.8

13 20 0.0 " 1.1 -24

13 27 0.5 " 1.6 -17
1.1 0.6

13 37 -0.5 " 0.6 -7
0.6 1.1

13 45 -0.2 " 0.9 +1

13 52 -0.2 " 0.9 +8

14 0 0.0 " 1.1 +16

14 9 0.2 " 1.3 +25

14 15 0.5 " 1.6 +31

14 25 1.0 " 2.1 +41

14 32 2.3 1.3
1.5 " 2.6 +48
2.3 0.8

14 43 2.0 " 3.1 +59
2.8 0.8

14 51 2.5 " 3.6 +67
3.8 1.3

339° 9 23 3.3 0.8 $\frac{9.8}{9} = 1.1$
2.7 0.2
2.5 " $\frac{3.0}{10 \div 2} = 0.5$

1854.	20 ^s 6 ^m 34 ^m x	5.3	1.3	-71
Jan 20		4.2	0.2	
7 45		4.0 p		4.2
	6 44	3.8	9.8	-61
		4.0	0.0	
		4.0 "		4.2
		3.7	9.7	
	6 54	2.8	9.8	-51
		3.0	0.0	
		3.0 "		3.2
		3.2	0.2	
	7 13	2.1	9.6	-32
		2.2	9.7	
		2.5.		2.7
		2.2	9.7	
	7 24	2.6	0.6	-21
		2.7	0.7	
		2.0 "		2.2
		2.4	0.4	
	7 33	1.8	0.6	-12
		1.7	0.5	
		1.2 "		1.4
		1.2	0.0	
	7 43	1.8	0.1	-2
		1.7	0.0	
		1.7 "		1.9
		1.7	0.0	
	7 51	1.8	9.8	+6
		1.7	9.7	
		2.0 "		2.2
		2.2	0.2	

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