

THE
WORLD

861

[illegible]

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U. Cephei.

B. Lyrae.

R. Canis Majoris

S. Cancri.

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(Various stars)

Dec 13, 1898—

Measurement of stars in Pleiades for standards of magn. 1

Dec. 13, 1895.

Gr. M Time	Diff. Magn.	Av. Dev.	Gr. M Time	Diff. Magn.	Av. Dev.	Gr. M Time	Diff. Magn.	Av. Dev.
Star m with star f.	+5.61	+1.9	Star h with star f	+2.53	+0.3	star g compared with f	+0.11	-.01
	+5.24	-.18		+2.45	-.02		+0.12	.00
11 29 29	+5.42	±.185	11 51 54	+2.50	±.025	12 15 59	+0.12	-.005
l	+5.25	+1.0	l	+2.25	-.04	l	+0.02	-.04
	+5.05	-.10		+2.35	+0.3		+0.11	+0.05
	+5.15	±.100		+2.32	±.035		+0.06	±.045
	+5.28	±.142		+2.41	±.030		+0.09	±.025
l	+5.33	+0.5	l	+2.35	-.05	l	+0.04	.00
	+5.22	-.06		+2.45	+0.5		+0.05	+0.01
11 35 32	+5.25	±.055	11 59 50	+2.40	±.050	12 25 23	+0.04	+0.005
a	+4.93	-.15	a	+2.43	-.01	a	+0.35	+0.05
	+5.22	+1.14		+2.44	.00		+0.24	-.06
	+5.05	±.145		+2.44	-.005		+0.30	±.055
	+5.15	±.100		+2.42	±.028		+0.17	±.030
Star l with star f	+4.27	-.03	star j with star f	+1.50	+0.1	star n with star f	+6.26	-.32
	+4.33	+0.3		+1.75	-.01		+6.89	+3.1
11 42 6	+4.30	±.030	12 7 50	+1.79	±.010	13 4 59	+6.58	±.15
l	+4.13	+0.1	l	+1.59	-.01	l	+6.20	-.09
	+4.11	-.01		+1.62	+0.2		+6.44	+1.0
	+4.12	±.010		+1.60	±.015		+6.34	±.095
	+4.21	±.020		+1.70	±.02		+6.46	±.205
l	+4.14	-.04	l	+1.75	+0.3		+6.20	.00
	+4.22	+0.04		+1.70	-.02		+6.21	+0.01
11 47 16	+4.18	±.040	12 13 15	+1.72	±.025	13 10 12	+6.20	+0.005
a	+4.20	-.03	a	+1.83	+0.7		+6.16	+1.14
	+4.32	+0.04		+1.69	-.07		+5.89	-.14
	+4.25	±.035		+1.76	±.070		+6.02	±.140
	+4.23	±.038		+1.74	±.048		+6.11	±.072

Measurement of stars in Pleiades for standards
of magn.

Dec. 13, 1898

Dec. 14, 1898

Gr. M Time	Diff. Magn.	Av. Dev.	Gr. M Time	Diff. Magn.	Av. Dev.	Gr. M Time	Diff. Magn.	Av. Dev.
star h with star f	a +0.69 -0.01		star y with star f	a -2.23 -0.01		star y with star f	a -2.44	.02
	+0.70 00			-2.22 00			-2.47	.01
13 23 39	+0.70 -0.005		14 13 8	-2.22 -0.005			-2.46	.015
	b +0.48 +0.02			b -2.52 -0.01			a -2.45	.01
	+0.44 -0.02			-2.50 +0.01			-2.44	.00
	+0.46 ±0.020			-2.51 ±0.010			-2.44	.005
	+0.58 ±0.018			-2.36 ±0.008			-2.45	.010
	b +0.00 -0.04			b -2.56 -0.02			a -2.35	+0.05
	+0.09 +0.05			-2.51 +0.03			-2.46	-.06
13 32 19	+0.54 ±0.045		14 20 2	-2.54 ±0.025			-2.40	±0.055
	a +0.69 +0.05			a -2.33 -0.01			b -2.36	+0.02
	+0.60 -0.04			-2.30 +0.02			-2.39	-.01
	+0.64 ±0.045			-2.32 ±0.015			-2.35	±0.015
	+0.09 ±0.045			-2.43 ±0.020			-2.39	±0.035
star x with star f	a -3.79 -0.03		star h with star f	b +0.42 00		star x with star f	b -3.86 -0.01	
	-3.72 +0.04			+0.41 -0.01			-3.84	+0.01
13 44 15	-3.76 ±0.035			+0.42 -0.005			-3.85	±0.010
	b -3.53 +0.12		<u>Dec. 14, '98</u>	a +0.45 +0.02			a -3.75	-.04
	-3.77 -0.12			+0.44 -0.02			-3.67	+0.04
	-3.65 ±0.120			+0.46 ±0.020			-3.71	±0.049
	-3.70 ±0.078			+0.44 ±0.012			-3.78	±0.025
	-3.93 -0.01			a +0.47 -0.04			a -3.90	-.06
	-3.91 +0.01			+0.55 +0.04			-3.78	+0.06
				+0.51 ±0.040			-3.84	±0.060
13 52 15	-3.92 ±0.010			b +0.51 +0.03			b -3.58	-.09
	-3.57 +0.03			+0.44 -0.04			-3.70	+0.09
	-3.64 -0.04			+0.48 ±0.035			-3.79	±0.090
	-3.60 ±0.035			+0.50 ±0.088			-3.52	±0.080
	-3.76 ±0.022							

Measurement of stars in Pleiades for standards of magn.

Dec. 14, 1898.

Gr. M. Time	Diff. Magn.	av. Dev.	Gr. M. Time	Diff. Magn.	av. Dev.	Gr. M. Time	Diff. Magn.	av. Dev.
star l with star f	b +4.20 +0.2		star h with star f	b +2.48 +0.05		star g with star f	b +0.10 +0.02	
	+4.15 -0.3			+2.38 -0.05			+0.07 -0.01	
	+4.18 ±0.25			+2.43 ±0.00			+0.08 ±0.15	
	a +4.21 -0.1			a +2.59 +0.03			a +0.05 .00	
	+4.24 +0.2			+2.54 -0.02			+0.07 -0.01	
	+4.22 ±0.15			+2.56 ±0.20			+0.05 -0.05	
	+4.20 ±0.20			+2.50 ±0.38			+0.08 ±0.10	
	a +4.26 -0.06			a +2.41 -0.05			a +0.11 +0.04	
	+4.37 +0.05			+2.51 +0.05			+0.07 +0.02	
	+4.32 ±0.35			+2.46 ±0.00			+0.09 ±0.020	
	b +4.16 -0.04			b +2.44 -0.04			b +0.09 +0.03	
	+4.25 +0.05			+2.51 +0.03			+0.02 -0.04	
	+4.20 ±0.45			+2.48 ±0.30			+0.06 ±0.30	
	+4.26 ±0.50			+2.47 ±0.42			+0.05 ±0.28	
star m with star f	b +5.26 +0.04		star j with star f	b +1.72 -0.05				
	+5.19 -0.03			+1.82 +0.05				
	+5.22 ±0.30			+1.77 ±0.30				
	a +5.33 +0.09			a +1.69 -0.01				
	+5.15 -0.09			+1.70 .00				
	+5.24 ±0.090			+1.70 ±0.05				
	+5.23 ±0.062			+1.74 ±0.025				
	a +5.35 -0.09			a +1.59 -0.03				
	+5.57 +0.10			+1.64 +0.02				
	+5.46 ±0.095			+1.62 ±0.20				
	b +5.36 +0.06			b +1.69 -0.07				
	+5.23 -0.07			+1.82 +0.06				
	+5.30 ±0.067			+1.76 ±0.065				
	+5.38 ±0.081			+1.69 ±0.45				

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Continued from
book 14. R 78

U. Cephei

G. M. Time ^{20.66} Magn. ^{10.20} Av. Dev.

12 23 59 $+0.76 \pm .01$

$+0.66 \pm .01$

12 23 59 $+0.71 \pm .01$

b. $+0.57 \pm .00$

$+0.44$

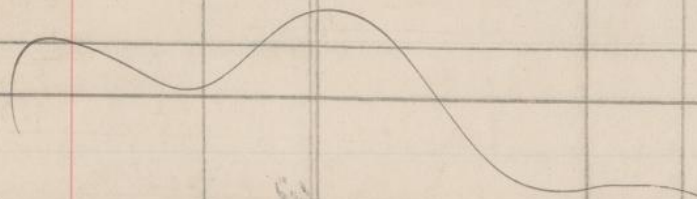
12 32 27 $+0.50$

Continued from P. 78. Book 14.

U. Cephei

Dec. 29, 1898

G. M. Time ^{20.66} Magn. ^{10.20} Av. Dev.



Continued from
book 14 Page 78.

Jan. 8. 1899.

U. Cephei

Jan. 8. 1897			Jan. 8. 1897			Jan. 8. 1897			
S.M. Time	Diff. Magn	Av. Lev.	S.M. Time	Diff. Magn	Av. Lev.	S.M. Time	Diff. Magn	Av. Lev.	
a.	+0.69	-.07	a.	-0.20	+ .12	b.	+0.77	+ .02	
	+0.82	+ .06		-0.44	-.12		+0.73	-.02	
12 23 59	+0.76	±.065	13 04 25	-0.32	±.12	10 32 4	+0.75	±.02	
b.	+0.68	+ .02	b.	-0.31	+ .03	a.	+0.69	+ .01	
	+0.63	-.03		-0.37	-.03		+0.68	00	
	+0.66	±.025		-0.34	±.03		+0.68	±.005	
	+0.71	±.045		-0.33	±.075		+0.72	±.012	
b.	+0.57	±.00	b.	-0.31	+ .06	a.	+0.66	-.04	
	+0.57	±.00		-0.43	-.06		+0.75	+ .05	
12 32 27	+0.57	±.00	13 13 8	-0.37	±.06	10 37 43	+0.70	±.045	
a.	+0.52	+ .08	a.	-0.45	+ .03	b.	+0.82	+ .05	
	+0.36	-.08		-0.50	-.02		+0.72	-.05	
	+0.44	±.08		-0.48	±.025		+0.77	±.05	
	+0.50	±.04		-0.42	±.042		+0.74	±.047	
a.	+0.18	-.01	Dec. 29. 1898	b.	+0.52	+ .06	b.	+0.78	-.02
	+0.20	+ .01		+0.39	-.07		+0.81	+ .01	
12 44 4	+0.19	±.01	10 19 25	+0.46	±.065	10 44 8	+0.80	±.015	
b.	+0.10	-.01	a.	+0.43	-.02	a.	+0.70	+ .02	
	+0.12	+ .01		+0.47	+ .02		+0.67	-.01	
	+0.11	±.01		+0.45	±.02		+0.68	±.015	
	+0.15	±.01		+0.46	±.042		+0.74	±.015	
b.	+0.11	-.05	a.	+0.60	+ .04	a.	+0.12	+ .02	
	-0.00	+ .06		+0.53	-.03		+0.07	-.03	
12 54 45	+0.06	±.055	10 25 38	+0.56	±.035	13 26 35	+0.10	±.025	
a.	-0.09	+ .07	b.	+0.58	-.02	b.	+0.16	+ .06	
	-0.24	-.08		+0.63	+ .03		+0.05	-.05	
	-0.16	±.075		+0.60	±.025		+0.10	±.055	
	-0.05	±.065		+0.58	±.03		+0.10	±.04	

U. Cephæi.

Dec. 29, 1898

Jan. 3, 1899.

Gr. M. Time			Diff. magn.	av. lev.	Gr. M. Time			Diff. magn.	av. lev.	Gr. M. Time			Diff. magn.	av. lev.
b			+0.09	+0.05	a			+0.35	+0.05	a			+0.22	+0.02
			-0.01	-0.05				+0.24	-0.06				+0.17	-0.03
13	34	36	+0.04	±0.05	13	8	17	+0.30	±0.055	12	4	47	+0.20	±0.025
a			-0.09	-0.01	b			+0.08	-0.02	b			+0.22	+0.02
			-0.07	+0.01				+0.11	+0.01				+0.18	-0.02
			-0.08	±0.01				+0.10	±0.015				+0.20	±0.02
			-0.02	±0.03				+0.20	±0.035				+0.20	±0.02
a			-0.12	.00	b			-0.11	+0.05	b			+0.16	+0.04
			-0.13	-0.01				-0.20	-0.04				+0.07	-0.05
13	42	14	-0.12	±0.005	13	24	46	-0.16	±0.045	12	12	4	+0.12	±0.045
b			-0.22	-0.03	a			-0.21	+0.09	a			-0.06	±0.04
			-0.16	±0.03				-0.38	-0.08				-0.13	-0.03
			-0.19	±0.03				-0.30	±0.085				-0.10	±0.035
			-0.16	±0.017				-0.23	±0.045				+0.01	±0.04
b			-0.27	+0.07	Jan. 18, 1899			+0.69	+0.05	a			-0.29	+0.03
			-0.40	-0.06				+0.58	-0.06				-0.35	-0.03
13	50	13	-0.34	±0.065	11	46	38	+0.64	±0.055	12	21	33	-0.32	±0.03
a			-0.43	+0.05	b			+0.61	+0.06	b			-0.27	+0.03
			-0.52	-0.04				+0.49	-0.06				-0.33	-0.03
			-0.48	±0.045				+0.55	±0.06				-0.30	±0.03
			-0.41	±0.055				+0.60	±0.058				-0.31	±0.03
a			-0.49	-0.01	b			+0.39	-0.01					
			-0.48	±0.00				+0.41	+0.01					
13	57	15	-0.48	±0.005	11	56	37	+0.40	±0.01					
			-0.52	-0.02	a			+0.19	-0.01					
			-0.48	+0.02				+0.20	.00					
			-0.50	±0.02				+0.20	±0.005					
			-0.49	±0.012				+0.30	±0.008					

U. Cephei.

Feb. 9, 1899

Mr. M. Tins	Diff. Magn.	av. Lev.	Mr. M. Tins	Diff. Magn.	av. Lev.	Mr. M. Tins	Diff. Magn.	av. Lev.
9	+0.15	+0.07		-0.47	+0.05	IV a	-1.55	-0.01
	+0.02	-0.06		-0.56	-0.04		-1.52	+0.02
11 7 16	+0.08	± 0.05	11 34 53	-0.52	± 0.045	13 35 38	-1.54	± 0.05
6	+0.11	.00	6	-0.49	+0.03	b	-1.49	+0.01
	+0.11	.00		-0.56	-0.04		-1.50	.00
	+0.11	.00		-0.52	± 0.035		-1.50	± 0.005
	+0.10	± 0.032		-0.52	± 0.04		-1.52	± 0.01
6	+0.06	+0.03	Mar 25, 1899			V b	-1.48	+0.03
	0.00	-0.03	I b	-1.49	-0.01		-1.54	-0.03
11 13 19	+0.03	± 0.03	13 00 06	-1.48	± 0.01	13 39 51	-1.51	± 0.03
a	-0.15	+0.02	a	-1.52	+0.02	a	-1.52	+0.02
	-0.19	-0.02		-1.55	-0.02		-1.56	-0.02
	-0.17	± 0.02		-1.54	± 0.02		-1.54	± 0.02
	-0.07	± 0.025		-1.51	± 0.015		-1.52	± 0.025
a	-0.27	.03	II a	-1.55	-0.01	VI. a	-1.49	+0.01
	-0.20	+0.04		-1.52	+0.02		-1.51	-0.01
11 19 36	-0.24	± 0.035	13 10 07	-1.54	± 0.015	14 07 05	-1.50	± 0.01
b	-0.21	+0.02	b	-1.55	+0.01	b	-1.58	-0.02
	-0.22	.00		-1.57	-0.01		-1.53	+0.03
	-0.22	+0.01		-1.56	± 0.01		-1.56	± 0.025
~~11 28 46~~	-0.23	± 0.022		-1.55	± 0.012		-1.53	± 0.017
b	-0.26	+0.06	III b	-1.58	-0.02	VII b	-1.58	+0.01
	-0.27	-0.07		-1.58	+0.01		-1.60	-0.01
11 28 16	-0.32	± 0.065	13 22 21	-1.56	± 0.015	14 17 05	-1.59	± 0.01
a	-0.43	-0.01	a	-1.49	+0.03	a	-1.53	-0.03
	-0.42	.00		-1.55	-0.03		-1.48	+0.02
	-0.42	-0.05		-1.52	± 0.03		-1.50	± 0.025
	-0.37	± 0.025		-1.54	± 0.02		-1.54	± 0.017

U. Cephei.

Gr. M. Time			Diff. map	av. Sw.	Gr. M. Time			Diff. map	av. Sw.	Gr. M. Time			Diff. map	av. Sw.
~~VII~~ a			-1.44	+0.02	~~XII~~ a			-1.44	.00	~~XVI~~ a			-1.47	+0.03
			-1.45	-0.02				-1.45	-0.01				-1.54	-0.04
14	27	24	-1.46	± 0.02	15	06	00	-1.44	± 0.01	15	45	42	-1.50	± 0.05
b			-1.53	-0.01	b			-1.44	+0.02	b			-1.59	-0.03
			-1.52	.00				-1.49	-0.03				-1.53	+0.03
			-1.52	± 0.05				-1.46	± 0.05				-1.56	± 0.03
			-1.49	± 0.12				-1.45	± 0.17				-1.53	± 0.32
~~IX~~ b			-1.51	.00	~~XIII~~ b			-1.54	-0.01					
			-1.57	.00				-1.52	± 0.01					
14	35	06	-1.57	.00	15	13	01	-1.53	± 0.01					
a			-1.55	-0.01	a			-1.45	.00					
			-1.52	+0.02				-1.49	-0.01					
			-1.54	± 0.15				-1.45	± 0.05					
			-1.52	± 0.07				-1.50	± 0.07					
~~X~~ a			-1.48	+0.04	~~XIV~~ a			-1.46	+0.03					
			-1.55	-0.03				-1.52	-0.03					
14	46	15	-1.52	± 0.05	15	22	07	-1.49	± 0.03					
b			-1.60	-0.02	b			-1.54	.00					
			-1.56	+0.02				-1.55	-0.01					
			-1.58	± 0.02				-1.54	± 0.05					
			-1.55	± 0.27				-1.52	± 0.17					
~~XI~~ b			-1.56	-0.02	~~XV~~ b			-1.57	-0.01					
			-1.51	± 0.03				-1.54	+0.02					
14	53	46	-1.54	± 0.25	15	30	21	-1.56	± 0.15					
a			-1.47	+0.01	a			-1.45	.00					
			-1.45	.00				-1.48	.00					
			-1.45	± 0.05				-1.45	.00					
			-1.51	± 0.15				-1.52	± 0.07					

U. Cephei.

Mar. 27, 1899.

Gr. M. Time	Diff	av.	Gr. M. Time	Diff	av.	Gr. Mean Time	Diff	av.
	magn.	Dev.		magn.	Dev.		magn.	Dev.
I ^b	-1.58	+0.02	I ^b	-1.69	+0.02	IX ^b	-1.62	-0.05
	-1.63	-0.03		-1.73	-0.02		-1.52	+0.05
12 45 29	-1.60	±0.025	13 31 32	-1.71	±0.02	14 35 45	-1.57	±0.05
a	-1.63	-0.01	a	-1.61	+0.01	a	-1.55	+0.04
	-1.62	.00		-1.64	-0.02		-1.63	-0.04
	-1.62	±0.005		-1.62	±0.015		-1.59	±0.04
	-1.61	±0.01		-1.66	±0.017		-1.55	±0.03
II ^a	-1.59	+0.01	VI ^a	-1.60	.00	X ^a	-1.56	+0.02
	-1.61	-0.01		-1.59	-0.01		-1.60	-0.02
12 55 55	-1.60	±0.01	13 43 20	-1.60	±0.005	14 43 43	-1.55	±0.02
b	-1.67	-0.03	b	-1.55	-0.02	b	-1.57	+0.01
	-1.62	+0.03		-1.55	+0.01		-1.60	-0.02
	-1.64	±0.03		-1.56	±0.015		-1.58	±0.015
	-1.62	±0.02		-1.55	±0.01		-1.58	±0.017
III ^b	-1.71	-0.03	VII ^b	-1.51	+0.06	XI ^b	-1.53	+0.02
	-1.65	+0.03		-1.63	-0.06		-1.59	-0.02
13 07 45	-1.65	±0.03	13 52 05	-1.57	±0.06	14 51 43	-1.57	±0.02
a	-1.57	+0.03	a	-1.67	-0.03	a	-1.56	+0.04
	-1.63	-0.03		-1.62	+0.02		-1.65	-0.05
	-1.60	±0.03		-1.64	±0.025		-1.60	±0.03
	-1.64	±0.03		-1.60	±0.042		-1.55	±0.032
IV ^a	-1.54	+0.04	VIII ^a	-1.59	+0.03	XII ^a	-1.55	+0.05
	-1.62	-0.04		-1.65	-0.03		-1.66	-0.06
13 15 24	-1.58	±0.04	14 24 32	-1.62	±0.03	15 07 12	-1.60	±0.05
b	-1.70	.00	b	-1.61	+0.03	b	-1.54	-0.02
	-1.71	-0.01		-1.66	-0.02		-1.51	+0.01
	-1.70	±0.005		-1.64	±0.025		-1.52	±0.015
	-1.64	±0.022		-1.63	±0.027		-1.56	±0.035

B Lyrae

Jan. 11. 1899.

189

Gr. M. Time	Diff. Magn.	av. Liv.	Gr. M. Time	Diff. Magn.	av. Liv.	Gr. M. Time	Diff. Magn.	av. Liv.	
6	-3.23	-.01	a	-3.14	-.04	a	-2.86	+.05	
	-3.22	.00		-3.05	+.05		-2.96	-.05	
10 25.4	-3.22	$\pm .005$	11 20.0	-3.10	$\pm .045$	10 32.6	-2.91	$\pm .05$	
a	-3.18	+.05	b	-3.10	+.02	b	-2.99	+.02	
	-3.25	-.05		-3.13	-.01		-3.03	-.02	
	-3.23	$\pm .05$		-3.12	$\pm .015$		-3.01	$\pm .02$	
	-3.22	$\pm .027$		-3.11	$\pm .03$		-2.96	$\pm .035$	
a	-3.24	-.02	b	-3.11	+.03	b	-3.01	-.01	
	-3.20	+.02		-3.16	-.02		-2.99	+.01	
10 30.9	-3.22	$\pm .02$	11 37.1	-3.14	$\pm .025$	10 43.9	-3.00	$\pm .01$	
b	-3.29	-.02	a	-3.17	-.05	a	-2.95	+.01	
	-3.25	+.02		-3.08	+.06		-2.98	-.02	
	-3.27	$\pm .02$		-3.12	$\pm .055$		-2.96	$\pm .015$	
	-3.24	$\pm .02$		-3.13	$\pm .04$		-2.98	$\pm .012$	
a	-3.23	-.01	Jan. 12. 1899	a	-2.92	-.05	a	-2.92	-.02
	-3.22	.00		-2.82	+.05		-2.89	+.01	
10 46.0	-3.22	$\pm .005$	10 15.7	-2.87	$\pm .05$	10 58.5	-2.90	$\pm .015$	
b	-3.18	+.02	b	-3.06	-.03	b	-3.03	+.01	
	-3.21	-.01		-3.00	+.03		-3.06	-.02	
	-3.20	$\pm .015$		-3.03	$\pm .03$		-3.04	$\pm .015$	
	-3.21	$\pm .01$		-2.95	$\pm .04$		-2.97	$\pm .015$	
b	-3.26	-.02	b	-2.99	+.01	b	-3.06	-.02	
	-3.22	+.02		-3.01	-.01		-3.04	+.01	
10 57.2	-3.24	$\pm .02$	10 23.7	-3.00	$\pm .01$	11 7.0	-3.05	$\pm .01$	
a	-3.14	+.04	a	-2.86	+.01	a	-3.02	-.02	
	-3.22	-.04		-2.88	-.01		-2.98	+.02	
	-3.18	$\pm .04$		-2.87	$\pm .01$		-2.00	$\pm .02$	
	-3.21	$\pm .03$		-2.94	$\pm .01$		-3.02	$\pm .015$	

B Lyrae.

Jan. 12. 1899								
G.M. Time	Diff. Magn.	Av. Lev.	G.M. Time	Diff. Magn.	Av. Lev.	G.M. Time	Diff. Magn.	Av. Lev.
a	-3.06	+0.02	II	-3.07	+0.03	VI	-3.01	-0.03
	-3.09	-0.01		3.14	-0.04		-2.96	+0.02
11 19.6	-3.08	± 0.015	13 25 46	3.10	± 0.035	14 30 7	-2.95	± 0.025
b	-2.98	.00		2.93	+0.09		-3.06	-0.03
	-2.98	.00		3.11	-0.09		-3.00	+0.03
	-2.98	.00		3.02	± 0.09		-3.03	± 0.03
	-3.03	± 0.007		-3.06	± 0.062		-3.00	± 0.028
b	-2.99	-0.01	III	3.15	-0.03	VII	3.10	+0.02
	-2.98	.00		3.12	+0.03		3.14	-0.02
11 28.5	-2.98	± 0.005	13 40 03	3.15	± 0.03	14 47 12	3.12	± 0.02
a	-2.98	+0.02		3.12	.00		3.05	-0.06
	-3.01	-0.01		3.13	-0.01		2.96	+0.06
	-3.00	± 0.015		3.12	± 0.005		3.02	± 0.06
	-2.99	± 0.01		-3.14	± 0.015		3.07	± 0.04
a	-3.01	+0.03	IV	-3.02	+0.01	VIII	-2.91	+0.01
	-2.94	+0.04		3.04	-0.01		-2.93	-0.01
11 38.6	-2.98	± 0.035	14 1 53	3.03	± 0.01	14 59 02	-2.92	± 0.01
b	-3.00	± 0.00	V	3.05	.00		-3.03	-0.03
	-3.00	± 0.00		3.05	.00		-2.96	+0.04
	-3.00	± 0.00		3.05	.00		-3.00	± 0.035
	-2.99	± 0.017		3.06	± 0.005		-2.96	± 0.022
June 2 1899	-3.05	+0.02	IX	3.15	+0.03		-3.01	-0.01
	3.11	-0.01		3.10	+0.02		-2.95	+0.02
13 10 23	3.10	± 0.015	14 20 06	3.12	± 0.025	15 12 10	-3.00	± 0.015
1	3.10	-0.04		3.04	-0.06		-3.02	-0.04
	3.02	+0.04		2.93	+0.05		-2.95	+0.03
	3.06	± 0.04		2.95	± 0.025		-2.95	± 0.035
	3.05	± 0.028		3.05	± 0.04		-2.99	± 0.025

Continue to P. 89.

R. Canis Majoris
Comp. Star = $\delta\delta - 15^{\circ} 177^{\circ} (2.1)$

Jan 21 1899

Gr. Mean Time	Left. Magn.	Av. Lev.	Gr. Mean Time	Left. Magn.	Av. Lev.	Gr. Mean Time	Left. Magn.	Av. Lev.
a	-3.47	+1.5	b	-3.62	.00	b	-3.68	-0.1
	-3.78	-1.6		-3.63	-0.1		-3.66	+0.2
14 49 19	-3.62	$\pm .155$	13 42.7	-3.62	$\pm .005$	14 19.2	-3.68	$\pm .015$
b	-3.58	.00	a	-3.52	+0.2	a	-3.61	-0.3
	-3.59	$\pm .01$		-3.56	-0.2		-3.55	+0.3
	-3.58	$\pm .005$		-3.54	$\pm .02$		-3.58	$\pm .03$
	-3.60	$\pm .08$		-3.58	$\pm .012$		-3.63	$\pm .022$
b	-3.67	-0.3	a	-3.57	-0.3	a	-3.53	+0.4
	-3.62	+0.2		-3.48	+0.3		-3.61	-0.4
14 51.7	-3.64	$\pm .025$	13 51.1	-3.51	$\pm .03$	14 45.8	-3.57	$\pm .04$
a	-3.59	-0.3	b	-3.68	+0.4	b	-3.60	+0.3
	-3.53	+0.3		-3.76	-0.4		-3.66	-0.3
	-3.56	$\pm .03$		-3.72	$\pm .04$		-3.63	$\pm .03$
	-3.60	$\pm .027$		-3.62	$\pm .035$		-3.63	$\pm .035$
a	-3.40	-0.6	b	-3.72	-0.6	b	-3.69	+0.1
	-3.52	+0.6		-3.61	+0.5		-3.72	-0.2
15 5 11.5	-3.46	$\pm .06$	14 2.5	-3.66	$\pm .055$	14 53.7	-3.70	$\pm .015$
b	-3.57	+0.3	a	-3.50	+0.3	a	-3.53	+0.1
	-3.64	-0.4		-3.56	-0.3		-3.56	-0.2
	-3.60	$\pm .035$		-3.53	$\pm .03$		-3.54	$\pm .015$
	-3.53	$\pm .047$		-3.60	$\pm .042$		-3.62	$\pm .015$
Jan 26 1899	-3.47	-0.2	a	-3.56	-0.2	a	-3.48	+0.2
b	-3.43	+0.2		-3.53	+0.1		-3.53	-0.3
13 28.5	-3.45	$\pm .02$	14 10.3	-3.54	$\pm .015$	15 1.1	-3.50	$\pm .025$
b	-3.64	-0.2	b	-3.64	+0.2	b	-3.63	+0.3
	-3.60	+0.3		-3.67	-0.1		-3.57	-0.3
	-3.62	$\pm .02$		-3.66	$\pm .015$		-3.60	$\pm .03$
	-3.54	$\pm .02$		-3.60	$\pm .015$		-3.55	$\pm .027$

R. Canis Majoris.

El. M. Time	Diff. Magn.	Av. Elev.	El. M. Time	Diff. Magn.	Av. Elev.	El. M. Time	Diff. Magn.	Av. Elev.
	-3.63	+01		-3.68	.00	IV	-3.58	+02
	-3.64	.00		-3.67	+01		-3.61	-.01
15 11.5	-3.64	$\pm .005$	15 48.5	-3.68	$\pm .005$	13 19.3	-3.60	$\pm .015$
a	-3.51	+03	a	-3.64	.00	a	-3.59	-.03
	-3.58	-.04		-3.63	+01		-3.53	+03
	-3.54	$\pm .035$		-3.64	$\pm .015$		-3.56	$\pm .03$
	-3.59	$\pm .02$		-3.66	$\pm .005$		-3.58	$\pm .022$
a	-3.49	+03	Jan. 26, 1899	-3.65	+05	V	-3.57	.00
	-3.56	-.03	I	-3.75	-.05		-3.57	.00
15 21.9	-3.52	$\pm .03$	12 52.0	-3.70	$\pm .05$	13 30.3	-3.57	.00
b	-3.62	.00	b	-3.63	-.03	b	-3.52	.00
	-3.62	.00		-3.57	+03		-3.57	+01
	-3.62	.00		-3.60	$\pm .03$		-3.52	$\pm .005$
	-3.57	$\pm .015$		-3.65	$\pm .04$		-3.54	$\pm .002$
b	-3.63	+01	II	-3.58	$\pm .00$	VI	-3.56	+01
	-3.66	-.02		-3.57	+01		-3.58	-.01
15 32.5	-3.64	$\pm .015$	13 1.0	-3.58	$\pm .005$	13 38.3	-3.57	$\pm .01$
a	-3.59	+01	a	-3.56	+02	a	-3.58	-.02
	-3.62	-.02		-3.59	-.01		-3.55	+01
	-3.60	$\pm .015$		-3.58	$\pm .015$		-3.56	$\pm .005$
	-3.62	$\pm .015$		-3.58	$\pm .01$		-3.56	$\pm .012$
a	-3.57	-.01	III	-3.64	.00	VII	-3.49	.00
	-3.55	+01		-3.64	.00		-3.49	.00
15 40.3	-3.56	$\pm .01$	13 8.7	-3.64	.00	13 44.3	-3.49	.00
b	-3.60	.00	b	-3.63	-.02		-3.56	.00
	-3.61	-.01		-3.59	+02		-3.56	.00
	-3.60	$\pm .005$		-3.61	$\pm .02$		-3.56	.00
	-3.58	$\pm .007$		-3.62	$\pm .01$		-3.52	.00

R. Canis Majoris

Gr. Mean Time	Diff. av. Per	Gr. Mean Time	Diff. av. Per	Gr. Mean Time	Diff. av. Per
VIII. 6	-3.60 -0.02	XII. 6	-3.57 -0.01	Jan. 27. 1899	-3.62 -0.01
	-3.56 +0.02		-3.56 .00	III	-3.60 +0.01
14 2.7	-3.58 ±0.02	14 40.0	-3.56 -0.005	12 55.7	-3.61 ±0.01
a	-3.57 -0.01	a	-3.57 .00	a	-3.68 -0.02
	-3.54 +0.02		-3.51 .00		-3.63 +0.01
	-3.56 ±0.015		-3.51 .00		-3.66 ±0.015
	-3.57 ±0.017		-3.54 -0.002		-3.64 ±0.012
IX. a	-3.56 -0.01	XIII. a	-3.50 +0.02	IV. a	-3.62 -0.04
	-3.54 +0.01		-3.53 -0.01		-3.55 +0.03
14 15.2	-3.55 ±0.01	14 48.9	-3.52 ±0.015	13 6.3	-3.58 ±0.035
b	-3.57 .00	b	-3.56 .00	b	-3.68 -0.02
	-3.57 .00		-3.56 .00		-3.65 +0.01
	-3.57 .00		-3.56 .00		-3.66 ±0.015
a	-3.56 ±0.005		-3.54 ±0.007		-3.62 ±0.025
X. b	-3.57 +0.01	XIV. b	-3.57 +0.02	V. b	-3.62 +0.01
	-3.60 -0.02		-3.61 -0.02		-3.64 -0.01
14 23.3	-3.58 ±0.015	14 57.3	-3.59 ±0.02	13 19.7	-3.63 ±0.01
a	-3.58 -0.02	a	-3.44 ±0.02	a	-3.51 +0.02
	-3.51 +0.02		-3.46 -0.01		-3.55 -0.02
	-3.53 ±0.02		-3.47 ±0.015		-3.53 ±0.02
	-3.56 ±0.017		-3.52 ±0.017		-3.58 ±0.015
XI. a	-3.55 -0.01	XV. a	-3.44 +0.01	VI. a	-3.54 -0.02
	-3.54 .00		-3.46 -0.01		-3.51 +0.01
14 30.9	-3.54 -0.005	15 5.7	-3.45 ±0.01	13 26.3	-3.52 ±0.015
b	-3.54 .00	b	-3.56 .00	b	-3.57 +0.01
	-3.54 .00		-3.56 .00		-3.60 -0.02
	-3.54 .00		-3.56 .00		-3.58 ±0.015
	-3.54 -0.002		-3.50 ±0.005		-3.55 ±0.015

R. Canis Majoris

Gr. Mean T.	Diff. Magn.	Av. Lev.	Gr. Mean Time	Diff. Magn.	Av. Lev.	Gr. Mean Time	Diff. Magn.	Av. Lev.
I	-3.62	.00	~~IX~~	-3.64	-.04	~~XIII~~	-3.57	+.03
	-3.62	.00		-3.57	+.03		-3.63	-.03
12 36.9	-3.62	.00	14 20.4	-3.60	$\pm .035$	14 149.9	-3.60	$\pm .03$
a	-3.51	.00	a	-3.59	-.04	a	-3.50	+.02
	-3.51	.00		-3.51	+.04		-3.53	+.03
	-3.51	.00		-3.55	$\pm .04$		-3.52	$\pm .015$
	-3.56	.00		-3.58	$\pm .037$		-3.56	$\pm .022$
II	-3.54	.00	~~IX~~	-3.56	-.02	~~XIV~~	-3.48	+.03
	-3.53	+.01		-3.53	+.01		-3.54	-.03
12 46.8	-3.54	+.005	14 26.5	-3.54	$\pm .025$	14 58.3	-3.51	$\pm .03$
b	-3.62	.00	b	-3.59	+.07	b	-3.65	+.01
	-3.62	.00		-3.73	-.07		-3.68	-.02
	-3.62	.00		-3.66	$\pm .07$		-3.66	$\pm .015$
	-3.58	+.002		-3.60	$\pm .042$		-3.58	$\pm .022$
~~VII~~	-3.60	+.02	~~IX~~	-3.57	+.05	~~XV~~	-3.64	.00
	-3.65	-.03		-3.67	-.05		-3.63	+.01
13 36.2	-3.62	$\pm .025$	14 32.9	-3.62	$\pm .05$	15 6.6	-3.64	+.005
a	-3.59	+.01	a	-3.57	-.01	a	-3.52	.00
	-3.61	-.01		-3.56	.00		-3.51	+.01
	-3.60	$\pm .01$		-3.56	$\pm .005$		-3.52	+.005
	-3.61	$\pm .017$		-3.57	$\pm .027$		-3.58	+.005
VIII	-3.58	+.02	~~XII~~	-3.58	.00	~~XVI~~	-3.55	-.03
	-3.62	-.02		-3.57	+.01		-3.48	+.04
14 12.6	-3.60	$\pm .02$	14 40.0	-3.58	$\pm .005$	15 13.3	-3.52	$\pm .035$
b	-3.55	+.04	b	-3.62	+.04	b	-3.61	-.01
	-3.65	-.05		-3.70	-.04		-3.59	+.01
	-3.60	$\pm .05$		-3.66	$\pm .04$		-3.60	$\pm .01$
	-3.60	$\pm .035$		-3.62	$\pm .022$		-3.56	$\pm .022$

18

Comp. Star = +19° 2022 (9.0)

I Canis.

Jan. 30 1899

Gr. Mean Time			Gr. Mean Time			Gr. Mean Time		
Mag. Der.			Mag. Der.			Mag. Der.		
I			V			IV		
-1.37 ±.03			-1.42 ±.00			-1.32 ±.00		
-1.43 ±.03			-1.41 ±.01			-1.32 ±.00		
13 47.2	-1.40 ±.03	14. 40.0	-1.42 ±.005	11 53 30	-1.32 ±.00			
a	-1.29 ±.02	a	-1.28 ±.02	b	-1.32 ±.00			
	-1.25 ±.02		-1.31 ±.01		-1.31 ±.01			
	-1.27 ±.02		-1.30 ±.015		-1.32 ±.005			
	-1.34 ±.025		-1.36 ±.01		-1.32 ±.002			
II			I			V		
-1.25 ±.03			-1.38 ±.02			-1.36 ±.03		
-1.30 ±.02			-1.35 ±.01			-1.42 ±.03		
13 58.2	-1.28 ±.025	11 02 37.8	-1.36 ±.015	12 5 47.0	-1.39 ±.03			
b	-1.42 ±.04	a	-1.30 ±.00	a	-1.33 ±.01			
	-1.33 ±.05		-1.29 ±.01		-1.34 ±.00			
	-1.38 ±.045		-1.30 ±.005		-1.34 ±.005			
	-1.33 ±.035		-1.33 ±.01		-1.36 ±.017			
III			II			VI		
-1.36 ±.02			-1.22 ±.03			-1.33 ±.01		
-1.32 ±.02			-1.28 ±.03			-1.36 ±.02		
14 15.8	-1.34 ±.02	11 34 15	-1.25 ±.03	12 59 37.8	-1.34 ±.015			
a	-1.27 ±.01	b	-1.33 ±.01	b	-1.33 ±.03			
	-1.28 ±.00		-1.32 ±.00		-1.40 ±.04			
	-1.28 ±.005		-1.32 ±.005		-1.36 ±.035			
	-1.31 ±.012		-1.28 ±.017		-1.35 ±.025			
IV			III			VII		
-1.22 ±.01			-1.36 ±.01			-1.42 ±.02		
-1.20 ±.01			-1.34 ±.01			-1.39 ±.01		
14 29.2	-1.21 ±.01	11 43 35.8	-1.35 ±.01	13 09 16.8	-1.40 ±.015			
b	-1.43 ±.02	a	-1.35 ±.04	a	-1.28 ±.01			
	-1.39 ±.02		-1.27 ±.04		-1.30 ±.01			
	-1.41 ±.02		-1.31 ±.04		-1.29 ±.01			
	-1.31 ±.015		-1.33 ±.025		-1.34 ±.012			

S Cancer.

h. Mean T.	Diff. Magn.	Av. Dev.	h. Mean Time	Diff. Magn.	Av. Dev.	h. Mean Time	Diff. Magn.	Av. Dev.
VIII a	-1.31	-0.01	XII a	-1.34	-0.02	III b	-1.37	-0.05
	-1.29	+0.01		-1.31	+0.01		-1.28	+0.04
13 16 48.3	-1.30	± 0.01	14 42 16.3	-1.32	± 0.015	14 59.1	-1.32	± 0.045
b	-1.40	.00	b	-1.38	-0.02	a	-1.34	-0.02
	-1.40	.00		-1.35	+0.01		-1.31	+0.01
	-1.40	.00		-1.36	± 0.015		-1.32	± 0.015
	-1.35	± 0.005		-1.34	± 0.015		-1.32	± 0.03
IX b	-1.44	.00	XIII b	-1.31	+0.02	IV a	-1.26	+0.04
	-1.44	.00		-1.35	-0.02		-1.34	-0.04
13 23 58	-1.44	.00	14 49 24.5	-1.33	± 0.02	15 24.5	-1.30	± 0.04
a	-1.22	+0.01	a	-1.20	+0.04	b	-1.34	+0.02
	-1.24	-0.01		-1.32	-0.04		-1.37	-0.01
	-1.23	± 0.01		-1.26	± 0.04		-1.36	± 0.015
	-1.34	± 0.005		-1.30	± 0.03		-1.33	± 0.027
X a	-1.24	+0.04	Feb 4. I. b	-1.43	-0.01	V b	-1.37	+0.01
	-1.32	-0.04		-1.41	+0.01		-1.38	.00
13 35 1.5	-1.28	± 0.04	14 42.1	-1.42	± 0.01	15 31.8	-1.38	± 0.005
b	-1.41	-0.02	a	-1.24	-0.01	a	-1.31	-0.01
	-1.37	+0.02		-1.22	+0.01		-1.28	+0.02
	-1.39	± 0.02		-1.23	± 0.01		-1.30	± 0.015
	-1.34	± 0.03		-1.32	± 0.01		-1.34	± 0.01
XI b	-1.36	.00	II a	-1.28	-0.02			
	-1.36	.00		-1.25	+0.01			
14 29 4.3	-1.36	.00	14 51.3	-1.26	± 0.015			
a	-1.33	-0.01	b	-1.31	-0.01			
	-1.30	+0.02		-1.30	.00			
	-1.32	± 0.015		-1.30	± 0.005			
	-1.34	± 0.007		-1.28	± 0.01			

S. Crater.

Feb. 10 1899.

Gr. Mean Time			Lift Magn.	Av. Lev.	Gr. Mean Time			Lift Magn.	Av. Lev.	Gr. Mean Time			Lift Magn.	Av. Lev.
I ^a			-0.61	+0.1	V ^b			-0.82	.00	IX ^b			-1.00	+0.1
			-0.63	-0.1				-0.83	-0.1				-1.02	-0.1
14	34	36	-0.62	±.01	15	21	7	-0.82	±.005	16	5	49	-1.01	±.01
a			-0.58	.00	a			-0.77	+0.03	a			-1.07	+0.1
			-0.58	.00				-0.84	-0.04				-1.09	-0.1
			-0.58	.00				-0.80	±.035				-1.08	±.01
			-0.60	±.005				-0.81	±.02				-1.04	±.01
II ^a			-0.66	-0.1	VI ^a			-0.82	-0.1	X ^a			-1.08	.00
			-0.64	+0.1				-0.81	.00				-1.08	.00
14	47	33	-0.65	±.01	15	28	52	-0.81	±.005	16	15	12	-1.08	.00
b			-0.51	+0.03	b			-0.83	.00	b			-1.12	-0.02
			-0.56	-0.02				-0.83	.00				-1.07	+0.03
			-0.54	±.025				-0.83	.00				-1.10	±.025
			-0.60	±.017				-0.82	±.002				-1.09	±.012
III ^b			-0.65	+0.03	VII ^b			-0.79	+0.03	Feb. 24, 1899.			-1.47	-0.03
			-0.71	-0.03				-0.84	-0.02	I. a			-1.42	+0.02
14	59	12	-0.68	±.03	15	50	27	-0.82	±.025	15	13	59	-1.44	±.025
a			-0.72	+0.03	a			-0.91	+0.02	b			-1.16	+0.03
			-0.78	-0.03				-0.95	-0.02				-1.22	-0.03
			-0.75	±.03				-0.93	±.02				-1.19	±.03
			-0.72	±.03				-0.88	±.022				-1.32	±.027
IV ^a			-0.78	.00	VIII ^a			-1.03	-0.1	II. b			-1.19	+0.02
			-0.79	-0.1				-1.00	+0.02				-1.23	-0.02
15	7	22	-0.78	±.005	15	58	6	-1.02	±.015	15	19	37	-1.21	±.02
b			-0.78	+0.02	b			-0.96	+0.01	a			-1.27	.00
			-0.83	-0.03				-0.98	-0.01				-1.27	.01
			-0.80	±.025				-0.97	±.01				-1.27	.00
			-0.79	±.015				-1.00	±.012				-1.24	±.01

S Cancer.

G.M. Time	Diff Magn.	Av. Lev.	G.M. Time	Diff Magn.	Av. Lev.	G.M. Time	Diff Magn.	Av. Lev.
II a	-1.31	-01	II b	-0.82	-02	VI b	-1.04	+02
	-1.30	.00		-0.77	+03		-1.07	-01
15 27 36	-1.30 ± 005		14 50 14	-0.80 ± 025		15 28 45	-1.06 ± 015	
b	-1.22	.00	a	-0.96	+04	a	-1.16	-02
	-1.17	+01		-1.03	-03		-1.12	+02
	-1.18 ± 005			-1.00 ± 035			-1.14 ± 02	
	-1.24 ± 005			-0.90 ± 03			-1.10 ± 017	
IV b	-1.22	-04	III a	-0.94	+04	VII a	-1.18	.00
	-1.18	+03		-1.01	-03		-1.17	+01
15 35 51	-1.18 ± 035		15 0 00	-0.98 ± 035		15 40 13	-1.18 ± 005	
a	-1.36	.00	b	-0.91	+03	b	-1.05	+05
	-1.36	.00		-0.96	-02		-1.15	-05
	-1.36	.00		-0.94 ± 025			-1.10 ± 05	
	-1.27 ± 017			-0.96 ± 03			-1.14 ± 037	
V a	-1.37	-01	IV b	-1.01	+07	VII b	-1.13	+03
	-1.36	.00		-1.15	-07		-1.20	-04
15 45 53	-1.36 ± 005		15 11 38	-1.08 ± 07		15 52 27	-1.16 ± 035	
b	-1.24	.00	a	-1.00	+04	a	-1.04	+07
	-1.24	.00		-1.08	-04		-1.18	-07
	-1.24	.00		-1.04 ± 04			-1.11 ± 07	
	-1.30 ± 007			-1.06 ± 037			-1.14 ± 053	
Mar. 1, 99.	-0.85 ± 01		V a	-1.07	+03	IX a	-1.21	.00
I	-0.88	-02		-1.00	-04		-1.21	.00
14 41. 6	-0.86 ± 015		15 19 52	-1.04 ± 035		16 4 23	-1.21	.00
b	-0.83	+01	b	-0.95	+03	b	-1.08	+06
	-0.85	-01		-1.00	-02		-1.19	-05
	-0.84 ± 01			-0.98 ± 025			-1.14 ± 055	
	-0.85 ± 012			-1.01 ± 03			-1.18 ± 027	

The rest of the obs. of this date.

R Canis Majoris.

Feb. 14, 1899.

W. M. Trice

Left.	h. m.	Time	Diff. Magn.	Ar. Dev.	h. m.	Time	Diff. Magn.	Ar. Dev.	h. m.	Time	Diff. Magn.	Ar. Dev.		
		I ^a	-3.51	-.03		V ^a	-3.57	+0.01		IX ^a	-3.44	+0.02		
			-3.44	+0.04			-3.58	.00			-3.47	-.01		
12	53	15	-3.48	±0.035	13	22	3.8	-3.58	±0.005	14	17	19.5	-3.46	±0.05
		b	-3.60	-.02		b	-3.61	+0.03		b	-2.62	-.07		
			-3.56	+0.02			-3.68	-.04			-3.48	+0.07		
			-3.58	±0.02			-3.64	±0.035			-3.55	±0.07		
			-3.53	±0.027			-3.61	±0.02			-3.50	±0.042		
		II ^b	-3.66	-.03		VI ^b	-3.61	.00		X ^b	-3.55	+0.01		
			-3.60	+0.03			-3.61	.00			-3.57	-.01		
12	59	33	-3.63	±0.03	13	55	32.5	-3.61	.00	14	23	27.7	-3.56	±0.01
		a	-3.49	+0.01		a	-3.51	-.01		a	-3.54	+0.02		
			-3.51	-.01			-3.48	+0.02			-3.57	-.01		
			-3.50	±0.01			-3.50	±0.015			-3.56	±0.05		
			-3.56	±0.02			-3.56	±0.07			-3.56	±0.012		
		III ^a	-3.48	+0.02		VII ^a	-3.53	+0.02		XI ^a	-3.52	+0.02		
			-3.51	-.01			-3.57	-.02			-3.57	-.02		
13	7	15	-3.50	±0.015	14	2	7	-3.55	±0.02	15	8	17.5	-3.54	±0.025
		b	-3.57	+0.02		b	-3.67	-.03		b	-3.64	+0.04		
			-3.61	-.02			-3.61	+0.03			-3.72	-.04		
			-3.59	±0.02			-3.64	±0.03			-3.68	±0.04		
			-3.54	±0.017			-3.60	±0.025			-3.61	±0.032		
		IV ^b	-3.62	.00		VIII ^b	-3.57	+0.03		XII ^b	-3.64	.00		
			-3.63	-.01			-3.64	-.04			-3.64	.00		
13	14	47.5	-3.62	±0.005	14	10	18	-3.60	±0.035	15	9	25.7	-3.64	.00
		a	-3.58	-.01		a	-3.56	-.04		a	-3.48	+0.02		
			-3.56	+0.01			-3.48	+0.04			-3.52	-.02		
			-3.57	±0.01			-3.52	±0.04			-3.50	±0.02		
			-3.60	±0.007			-3.56	±0.037			-3.57	±0.01		

R Canis Majoris.

Mr. M. Time	Diff. Magn.	Av. Lev.	Mr. M. Time	Diff. Magn.	Av. Lev.	Mr. M. Time	Diff. Magn.	Av. Lev.
<u>XIII</u> ^a	-3.58	-.03	<u>2</u> ^b	-3.57	-.01	<u>6</u> ^b	-3.63	-.02
	-3.52	+0.03		-3.54	+0.02		-3.59	+0.02
13 15 22.5	-3.55	±.03	13 33 32	-3.56	±.015	14 15 04	-3.61	±.02
^b	-3.69	-.03	^a	-3.47	-.01	^a	-3.48	+0.02
	-3.64	+0.02		-3.44	+0.02		-3.52	-.02
	-3.66	±.025		-3.46	±.015		-3.50	±.02
	-3.60	±.027		-3.51	±.015		-3.56	±.02
<u>XIV</u> ^b	-3.64	-.02	<u>3</u> ^a	-3.39	+0.03	<u>7</u> ^a	-3.55	-.01
	-3.61	+0.01		-3.44	-.04		-3.53	+0.01
13 21 52.7	-3.62	±.015	13 42 26.	-3.42	±.035	14 25 5	-3.54	±.01
^a	-3.61	+0.01	^b	-3.53	-.03	^b	-3.56	.00
	-3.58	-.02		-3.48	+0.02		-3.56	.00
	-3.60	±.015		-3.50	±.025		-3.56	.00
	-3.61	±.015		-3.46	±.03		-3.55	±.005
<u>XV</u> ^a	-3.58	+0.02	<u>4</u> ^b	-3.49	+0.04	<u>8</u> ^b	-3.58	.00
	-3.62	-.02		-3.57	-.04		-3.59	-.01
13 27 14.7	-3.60	±.02	13 50 39	-3.53	±.04	14 26 24	-3.58	±.005
^b	-3.60	.00	^a	-3.47	-.03	^a	-3.47	-.02
	-3.60	.00		-3.41	+0.03		-3.43	+0.02
	-3.60	.00		-3.44	±.03		-3.45	±.02
	-3.60	±.01		-3.48	±.035		-3.52	±.012
~~13 28 19~~			<u>5</u> ^a	-3.44	-.02	<u>9</u> ^a	-3.45	-.03
^a	-3.42	-.01		-3.40	+0.02		-3.40	+0.02
<u>I</u> ^a	-3.40	+0.01						
13 23 40	-3.41	±.01	13 58 14.5	-3.42	±.02	14 33 57	-3.42	±.025
^b	-3.60	.00	^b	-3.54	-.01	^b	-3.55	.00
	-3.59	+0.01		-3.52	+0.01		-3.55	.00
	-3.60	+0.005		-3.53	±.01		-3.55	.00
	-3.50	±.007		-3.48	±.015		-3.48	±.012

R. Canis Majoris.

Feb. 20 1899.

Gr. M. Time	Diff.	av.	Gr. M. Time	Diff.	av.	Gr. M. Time	Diff.	av.
	magn.	lev.		magn.	lev.		magn.	lev.
10 ^b	-3.63	-01	14 ^b	-3.57	-04	18 ^b	-3.49	+04
	-3.60	+02		-3.49	+04		-3.57	-04
14 40 57	-3.62	±0.15	15 25 58	-3.53	±0.4	15 53 52	-3.53	±0.4
a	-3.44	+04	a	-3.52	-02	a	-3.50	.00
	-3.53	-05		-3.49	+01		-3.49	+01
	-3.48	±0.45		-3.50	±0.15		-3.50	±0.05
	-3.55	±0.8		-3.52	±0.27		-3.52	±0.22
11 ^a	-3.41	+05	15 ^a	-3.53	+01	19 ^a	-3.56	-02
	-3.51	-05		-3.55	-01		-3.52	+02
14 48 00	-3.46	±0.5	13 33 34	-3.54	±0.1	15 59 7	-3.54	±0.2
b	-3.54	.00	b	-3.57	-01	b	-3.54	+02
	-3.55	-01		-3.55	+01		-3.58	-02
	-3.54	±0.05		-3.56	±0.1		-3.56	±0.2
	-3.55	±0.27		-3.55	±0.1		-3.55	±0.2
12 ^b	-3.51	+01	16 ^b	-3.58	-02	20 ^b	-3.55	-01
	-3.53	-01		-3.55	+01		-3.53	+01
14 54 29	-3.52	±0.1	15 40 08	-3.56	±0.15	16 03 35	-3.54	±0.1
a	-3.54	-02	a	-3.55	-03	a	-3.57	-02
	-3.50	+02		-3.48	+04		-3.53	+02
	-3.52	±0.2		-3.52	±0.35		-3.55	±0.2
	-3.52	±0.25		-3.54	±0.25		-3.54	±0.5
13 ^a	-3.50	-02	17 ^a	-3.37	+09			
	-3.47	+08		-3.54	-08			
15 20 00	-3.48	±0.15	15 46 43	-3.46	±0.85			
b	-3.57	+02	b	-3.54	-02			
	-3.55	-02		-3.51	+01			
	-3.53	±0.2		-3.52	±0.15			
	-3.50	±0.17		-3.49	±0.5			

R. Canis Majoris

Feb. 23, 1899.

Gr. M. Time	Diff. Magn.	av. Lev.	Gr. M. Time	Diff. Magn.	av. Lev.	Gr. M. Time	Diff. Magn.	av. Lev.
<u>I</u> a	-3.43	+0.04	<u>II</u> a	-3.59	+0.03	<u>IX</u> a	-3.60	-0.02
	-3.51	-0.04		-3.65	-0.03		-3.56	+0.02
13 09 40	-3.47	± 0.04	13 41 21	-3.62	± 0.03	14 31 09	-3.58	± 0.03
b	-3.57	+0.03	b	-3.63	+0.02	b	-3.60	-0.04
	-3.63	-0.03		-3.67	-0.02		-3.52	+0.04
	-3.60	± 0.03		-3.65	± 0.02		-3.56	± 0.04
	-3.54	± 0.035		-3.64	± 0.025		-3.57	± 0.03
<u>II</u> b	-3.56	+0.02	<u>VI</u> b	-3.63	-0.01	<u>X</u> b	-3.63	.00
	-3.59	-0.01		-3.62	+0.02		-3.63	.00
13 15 56	-3.58	± 0.015	13 49 56	-3.62	± 0.015	14 39 00	-3.63	.00
a	-3.45	+0.01	a	-3.58	+0.04	a	-3.61	-0.02
	-3.47	-0.01		-3.66	-0.04		-3.57	+0.02
	-3.46	± 0.01		-3.62	± 0.04		-3.59	± 0.02
	-3.52	± 0.012		-3.62	± 0.027		-3.61	± 0.01
<u>III</u> a	-3.59	-0.02	<u>VII</u> a	-3.60	-0.03	<u>XI</u> a	-3.55	-0.03
	-3.55	+0.02		-3.54	+0.03		-3.50	+0.02
13 21 44	-3.57	± 0.02	13 57 41	-3.57	± 0.03	14 45 18	-3.52	± 0.025
b	-3.61	-0.01	b	-3.66	.00	b	-3.62	-0.02
	-3.58	+0.02		-3.65	+0.01		-3.59	+0.01
	-3.60	± 0.015		-3.66	± 0.005		-3.60	± 0.015
	-3.58	± 0.017		-3.62	± 0.017		-3.56	± 0.02
<u>IV</u> b	-3.65	+0.05	<u>VIII</u> b	-3.63	+0.01	<u>XII</u> b	-3.51	+0.04
	-3.75	-0.05		-3.64	.00		-3.59	-0.04
13 29 32	-3.70	± 0.05	14 5 47	-3.64	± 0.005	14 53 37	-3.55	± 0.04
a	-3.61	+0.05	a	-3.59	+0.03	a	-3.59	-0.01
	-3.71	-0.05		-3.65	-0.03		-3.58	.00
	-3.66	± 0.05		-3.62	± 0.03		-3.58	± 0.005
		± 0.05		-3.63	± 0.017		-3.56	± 0.022

R. Canis Majoris.

Feb. 24, 1899.

U.S.N. Time	Diff. Mag.	av. Dev.	U.S.N. Time	Diff. Magn.	av. Dev.	U.S.N. Time	Diff. Magn.	av. Dev.
XIII. a	-3.62	+0.2	XVII. a	-3.64	.00	X a	-3.38	-.06
	-3.67	-.03		-3.65	-.01		-3.26	+0.6
14 59 33	-3.64	±0.025	15 28 52	-3.64	±0.05	12 40 55	-3.32	±0.6
b	-3.63	-.01	b	-3.62	.00	b	-3.46	-.02
	-3.60	+0.2		-3.63	-.01		-3.42	+0.2
	-3.60	±0.15		-3.62	±0.05		-3.44	±0.2
	-3.63	±0.2		-3.63	±0.05		-3.38	±0.4
XIV. b	-3.60	+0.2	XVIII. b	-3.60	.00	II b	-3.45	+0.2
	-3.64	-.02		-3.58	+0.1		-3.49	-.03
15 4 02	-3.62	±0.2	15 34 42	-3.60	±0.05	12 44 20	-3.47	±0.2
a	-3.57	.00	a	-3.58	+0.2	a	-3.42	.00
	-3.57	.00		-3.61	-.01		-3.43	-.01
	-3.57	.00		-3.60	±0.15		-3.42	±0.05
	-3.60	±0.1		-3.60	±0.1		-3.44	±0.15
XV. a	-3.56	.00	XIX. a	-3.53	+0.2	III a	-3.31	+0.3
	-3.57	-.01		-3.57	-.02		-3.37	-.23
15 13 26	-3.56	±0.05	15 41 49	-3.55	±0.2	2 50 20	-3.34	±0.3
b	-3.62	+0.2	b	-3.54	+0.4	b	-3.44	+0.2
	-3.65	-.01		-3.62	-.04		-3.48	-.02
	-3.64	±0.15		-3.58	±0.4		-3.46	±0.2
	-3.60	±0.1		-3.56	±0.3		-3.49	±0.25
XVI. b	-3.59	+0.2	XX. b	-3.55	+0.3	IV b	-3.36	.00
	-3.63	-.02		-3.60	-.02		-3.36	.00
15 21 54	-3.61	±0.2	15 50 12	-3.58	±0.25	2 58 03	-3.36	.00
a	-3.62	+0.1	a	-3.56	+0.2	a	-3.34	.00
	-3.64	-.01		-3.60	-.02		-3.33	+0.1
	-3.63	±0.1		-3.58	±0.2		-3.34	±0.05
	-3.63	±0.15		-3.58	±0.2		-3.35	±0.07

R. Canis da ajous.

<i>Li. M. Time</i>	<i>Diff. Magn</i>	<i>av. Dev</i>	<i>Li. M. Time</i>	<i>Diff. Magn</i>	<i>av. Dev</i>	<i>Li. M. Time</i>	<i>Diff. Magn</i>	<i>av. Dev</i>
V. a	-3.29	+0.03	IX. a	-3.06	-0.01	XIII. a	-2.93	+0.03
	-3.35	-0.03		-3.04	+0.01		-2.98	-0.02
13 3 22	-3.32	± 0.03	13 34 22	-3.05	± 0.01	14 12 23	-2.96	± 0.03
b	-3.39	+0.01	b	-3.07	+0.04		-2.89	+0.05
	-3.41	-0.01		-3.15	-0.04		-3.00	-0.06
	-3.40	± 0.01		-3.11	± 0.04		-2.94	± 0.05
	-3.36	± 0.02		-3.08	± 0.025		-2.95	± 0.04
VI. b	-3.29	-0.03	X. b	-3.12	.00	XIV. b	-2.92	+0.02
	-3.24	+0.02		-3.12	.00		-2.97	-0.03
13 10 43	-3.26	± 0.025	13 44 27	-3.12	.00	14 18 13	-2.94	± 0.025
a	-3.24	-0.02	a	-3.02	-0.02	a	-2.86	+0.04
	-3.21	+0.01		-2.99	+0.01		-2.97	-0.03
	-3.22	± 0.015		-3.00	± 0.015		-2.92	± 0.035
	-3.24	± 0.02		-3.06	± 0.007		-2.93	± 0.03
VII. a	-3.21	-0.03	XI. a	-2.98	-0.04	Feb. 25 99 I. a	-3.45	-0.03
	-3.16	+0.02		-2.90	+0.04		-3.57	+0.03
13 18 21	-3.18	± 0.025	13 53 11	-2.94	± 0.04	14 4 12	-3.48	± 0.03
b	-3.24	.00	b	-3.07	-0.01	b	-3.57	.00
	-3.24	.00		-3.06	+0.02		-3.58	.00
	-3.24	.00		-3.04	± 0.015		-3.58	.00
	-3.21	± 0.017		-3.00	± 0.027		-3.53	± 0.015
VIII. b	-3.23	-0.05	XII. b	-3.02	-0.01	II. b	-3.61	-0.03
	-3.14	+0.04		-3.00	+0.01		-3.56	+0.02
13 28 47	-3.18	± 0.045	14 13 06	-3.01	± 0.01	14 10 34	-3.58	± 0.025
a	-3.03	+0.05	a	-2.96	-0.02	a	-3.56	-0.02
	-3.12	-0.04		-2.93	+0.01		-3.52	+0.02
	-3.08	± 0.045		-2.94	± 0.015		-3.54	± 0.02
	-3.13	± 0.045		-2.98	± 0.012		-3.56	± 0.022

Canis Majoris.

Gr. M. Time	Diff. Magn	av. Lev.	Gr. M. Time	Diff. Magn	av. Lev.	Gr. M. Time	Diff. Magn	av. Lev.
III ^a	-3.58	+0.04	IV ^a	-3.64	-0.05	XI ^a	-3.51	+0.03
	-3.67	-0.05		-3.54	+0.05		-3.56	-0.02
14 17 21 ^b	-3.62	±0.045	14 48 8 ^b	-3.59	±0.05	15 24 31 ^b	-3.54	±0.025
	-3.56	+0.03		-3.68	-0.02		-3.62	-0.03
	-3.62	-0.03		-3.65	+0.01		-3.56	+0.03
	-3.69	±0.03		-3.66	±0.015		-3.59	±0.03
	-3.60	±0.037		-3.62	±0.032		-3.56	±0.027
IV ^b	-3.61	+0.05	VII ^b	-3.73	-0.03	XII ^b	-3.57	+0.01
	-3.70	-0.04		-3.68	+0.02		-3.60	-0.02
14 23 57 ^a	-3.66	±0.045	13 00 55 ^a	-3.70	±0.025	15 34 10 ^a	-3.58	±0.015
	-3.58	.00		-3.60	-0.03		-3.48	-0.02
	-3.58	.00		-3.54	+0.03		-3.45	-0.01
	-3.58	.00		-3.57	±0.03		-3.46	±0.015
	-3.62	±0.022		-3.64	±0.027		-3.52	±0.015
V ^a	-3.54	-0.02	IX ^a	-3.45	+0.02	XIII ^a	-3.44	.00
	-3.50	+0.02		-3.49	-0.02		-3.45	-0.01
14 31 7 ^b	-3.52	±0.02	15 9 4 ^b	-3.47	±0.02	15 42 18 ^b	-3.44	±0.005
	-3.61	-0.02		-3.56	-0.01		-3.40	+0.03
	-3.57	+0.02		-3.54	+0.01		-3.46	-0.03
	-3.59	±0.02		-3.55	±0.01		-3.43	±0.03
	-3.56	±0.02		-3.51	±0.015		-3.44	±0.017
VI ^b	-3.56	+0.03	X ^b	-3.50	+0.03	XIV ^b	-3.45	+0.01
	-3.62	-0.03		-3.56	-0.03		-3.47	-0.01
14 40 ^a	-3.59	±0.03	15 16 09 ^a	-3.53	±0.03	15 53 52 ^a	-3.46	±0.01
	-3.62	-0.02		-3.57	-0.01		-3.32	+0.02
	-3.57	+0.03		-3.55	+0.01		-3.36	-0.02
	-3.60	±0.025		-3.56	±0.01		-3.34	±0.02
	-3.60	±0.027		-3.54	±0.02		-3.40	±0.015

R. Canis Majoris.

Gr. M. Time	Diff. Magn.	av. Elev.	Gr. M. Time	Diff. Magn.	av. Elev.	Gr. M. Time	Diff. Magn.	av. Elev.
V. a	-3.38	-0.01	III a	-3.56	-0.04			
	-3.36	+0.01		-3.49	+0.04			
16 3 1	-3.37	± 0.01	15 32 34	-3.52	± 0.04			
b	-3.44	-0.05	b	-3.67	+0.01			
	-3.34	+0.05		-3.68	.00			
	-3.39	± 0.05		-3.68	± 0.05			
	-3.38	± 0.03		-3.60	± 0.02			
VI b	-3.37	+0.01	IV b	-3.65	-0.01			
	-3.88	.00		-3.68	+0.01			
16 10 10	-3.38	± 0.01	15 40 57	-3.64	± 0.01			
a	-3.31	-0.02	a	-3.54	-0.02			
	-3.27	+0.02		-3.50	+0.02			
	-3.29	± 0.02		-3.52	± 0.02			
	-3.34	± 0.015		-3.58	± 0.015			
Feb. 27. 98	-3.47	+0.03	V. a	-3.58	-0.02			
I a	-3.54	-0.04		-3.54	+0.02			
15 14 38	-3.50	± 0.035	15 48 11	-3.56	± 0.02			
b	-3.74	-0.02	b	-3.65	-0.02			
	-3.69	+0.03		-3.61	+0.02			
	-3.72	± 0.025		-3.63	± 0.02			
	-3.61	± 0.03		-3.60	± 0.02			
II b	-3.69	-0.01	VI b	-3.64	.00			
	-3.67	+0.01		-3.64	.00			
15 24 41	-3.68	± 0.01	15 56 42	-3.64	.00			
a	-3.59	-0.04	a	-3.58	-0.02			
	-3.57	+0.04		-3.53	+0.01			
	-3.53	± 0.04		-3.56	± 0.015			
	-3.62	± 0.025		-3.60	± 0.02			

Continued from.

I Ceti.

Book. 14, Page. 98-99.

Photometric W. 662.
Magn. Comp. Star = 9.20

Date.	Tabular	Quantity	Diff. Magn.	G.M.T.	Residuals	Jul-Day	Book & Page
99 Feb. 4.	-2.32	-2.44	-2.41	-2.35	-2.38	13 46.7	103-204
" "	-2.44	-2.42	-2.57	-2.48	-2.46	13 55.3	" -205
" 9.	-1.95	-2.32	-2.27	-2.25	-2.20	14 24.6	" 220
" "	-2.23	-2.23	2.27	-2.26	-2.24	14 32.5	" 221
" 10	-2.20	-2.10	2.11	-2.11	-2.13	12 53.8	104. 1
" "	-1.98	-2.05	-2.18	-2.17	-2.10	13 1.7	" 2
" 20	-1.76	-1.79	-1.74	-1.76	-1.76	12 39.4	" 32
" "	-1.74	-1.76	-1.77	-1.77	-1.76	12 46.9	" 33
" 23.	1.59	-1.64	-1.67	-1.63	-1.64	12 45.5	" 58
" "	1.53	-1.69	-1.89	-1.67	-1.70	12 50.1	" 59
" 25	-1.62	-1.56	-1.64	-1.61	-1.60	12 57.2	" 103
" "	-1.60	-1.70	-1.64	-1.61	-1.64	13 2.7	" 104
" 27	-1.44	-1.40	-1.42	-1.41	-1.42	12 44.6	" 123
" "	-1.46	-1.48	-1.48	-1.49	-1.48	12 50.8	" 124
99 Mar. 8	-0.99	-1.08	-1.05	-1.10	-1.06	12 32.2	" 162
" "	-1.16	-1.10	-1.18	-1.13	-1.14	12 37.2	" 163
" 16	-0.74	-0.83	-0.85	-0.73	-0.78	12 3.8	" 198
" "	-0.78	-0.80	-0.86	-0.80	-0.81	12 13.4	" 199

Av. Luv.	A-B.	Magn. O. Luv.	mean.
± 0.045	.00		
± 0.012	+07		
± 0.099	-12		
± 0.002	+03		
± 0.025	+04		
± 0.02	+16		
± 0.012	+03		
± 0.005	+02		
± 0.022	+03		
± 0.095	+03		
± 0.022	-03		
± 0.032	-03		
± 0.012	.00		
± 0.007	-01		
± 0.032	-04		
± 0.027	+03		
± 0.052	-01		
± 0.02	+04		

continued from
p. 21.S. Cancri.

mar 1-99-

Gr. M. Time	Diff Magn	av. Dev.	Gr. M. Time	Diff Magn	av. Dev.	Gr. M. Time	Diff Magn	av. Dev.
<u>X</u> b	-1.18	+0.02	<u>XIV</u> b	-1.23	-0.07	<u>IV</u> a	-1.23	-0.02
	-1.22	-0.02		-1.20	+0.02		-1.19	+0.02
16 12 47	-1.20	±0.02		-1.32	±0.05	12 00 15	-1.21	±0.02
a	-1.21	-0.01	a	-1.41	-0.03	b	-1.27	-0.01
	-1.30	±0.00		-1.36	+0.02		-1.25	+0.01
	-1.30	±0.005		-1.38	±0.025		-1.26	±0.01
	-1.25	±0.012		-1.35	±0.02		-1.24	±0.015
<u>XI</u> a	-1.27	+0.01	<u>mar 10</u>			<u>V</u> b	-1.31	-0.08
	-1.30	-0.02	<u>I</u> b	-1.21	-0.03		-1.15	+0.08
				-1.24	+0.04			
16 25 17	-1.28	±0.015	11 33 27.5	-1.28	±0.035	12 10 41.5	-1.23	±0.05
b	-1.27	-0.01	a	-1.18	.00	a	-1.21	-0.05
	-1.25	+0.01		-1.18	.00		-1.16	+0.05
	-1.26	±0.01		-1.18	.00		-1.16	±0.05
	-1.27	±0.012		-1.23	±0.017		-1.20	±0.065
<u>XII</u> b	-1.22	+0.03	<u>II</u> a	-1.16	+0.03	<u>VI</u> a	-1.11	-0.01
	-1.28	-0.03		-1.22	-0.03		-1.08	+0.02
16 37 20	-1.25	±0.03	11 44 11.5	-1.19	±0.03	12 22 14.0	-1.10	±0.015
a	-1.25	+0.04	b	-1.27	+0.02	b	-1.07	+0.03
	-1.33	-0.04		-1.31	-0.02		-1.14	-0.04
	-1.29	±0.04		-1.29	±0.02		-1.10	±0.035
	-1.27	±0.035		-1.34	±0.025		-1.10	±0.025
<u>XIII</u> a	-1.25	+0.06	<u>III</u> b	-1.31	+0.03	<u>VII</u>	-1.11	+0.01
	-1.37	-0.06		-1.26	-0.02		-1.02	+0.00
	-1.31	±0.06	11 49 29.0	-1.34	±0.025	12 36 9.0	-1.02	±0.005
b	-1.31	-0.05	a	-1.24	.00		-1.07	+0.01
	-1.22	+0.04		-1.23	+0.01		-1.04	+0.02
	-1.26	±0.045		-1.24	±0.005		-1.06	±0.015
	-1.28			-1.29	±0.015		-1.09	±0.025

J. Cancri.

Gr. M. Time	Gr. M. Time	Gr. M. Time	Gr. M. Time	Gr. M. Time	Gr. M. Time	Gr. M. Time	Gr. M. Time
Drift Magn.	Drift Magn.	Drift Magn.	Drift Magn.	Drift Magn.	Drift Magn.	Drift Magn.	Drift Magn.
Av. Lev.	Av. Lev.	Av. Lev.	Av. Lev.	Av. Lev.	Av. Lev.	Av. Lev.	Av. Lev.
VIII	VII	XVI					
-0.95	-0.81	-0.66					
-1.02	-0.81	-0.66					
12 51 1.5	13 40 50	14 25 16.5					
-0.98 ± 0.35	-0.81	-0.66					
b	-0.85	-0.65					
-1.06 ± 0.2	-0.85	-0.66					
-1.03 ± 0.1	-0.85	-0.66					
-1.04 ± 0.15	-0.85	-0.66 ± 0.02					
-1.01 ± 0.25	-0.83	-0.63 ± 0.02					
IX ^b	XII	XVII					
-1.01	-0.87	-0.10					
-1.00	-0.84	-0.11					
13 8 57.5	13 51 19	15 57 54.0					
-1.00 ± 0.05	-0.86 ± 0.15	-0.10 ± 0.05					
a	-0.84	-0.16					
-0.99	-0.85	-0.05					
-0.98	-0.84	-0.10					
-0.98 ± 0.05	-0.84 ± 0.05	-0.10 ± 0.05					
-0.99 ± 0.05	-0.85 ± 0.10	-0.10 ± 0.30					
X ^a	XIV	I ^a					
-1.01	-0.74	-1.02 ± 0.4					
-0.94	-0.77	-1.10					
13 19 27.5	14 00 15.2	14 25 52					
-0.98 ± 0.35	-0.76 ± 0.15	-1.06 ± 0.4					
b	-0.85	-0.93					
-0.93	-0.85	-0.93					
-1.02	-0.80	-0.96					
-0.98 ± 0.45	-0.82 ± 0.25	-0.90 ± 0.35					
-0.98 ± 0.3	-0.79 ± 0.2	-0.95 ± 0.37					
XI	XV	II ^b					
-0.97	-0.80	-0.91					
-0.96	-0.82	-0.89					
13 30 40	14 " 19.2	14 39 37					
-0.96 ± 0.05	-0.81 ± 0.1	-0.96 ± 0.1					
-0.85	-0.61	-1.16					
-0.86	-0.64	-1.14					
-0.86 ± 0.05	-0.62 ± 0.15	-1.15 ± 0.1					
-0.91 ± 0.05	-0.72 ± 0.12	-1.02 ± 0.1					

S. lauri.

March 29, 1899

Gr. M. Time	Defo	Av	Gr. M. Time	Defo	Av	Gr. M. Time	Defo	Av
	Magn	Dev.		Magn	Dev.		Magn	Dev.
III. a	-1.16	-0.8	IV. a	-1.17 ± 0.5		VI. a	-1.24	+0.3
	-1.00	+0.8		-1.26 ± 0.4			-1.30	-0.3
14 48 17	-1.08 ± 0.5		15 40 01	-1.22 ± 0.45	16 09 09	-1.27 ± 0.3		
b	-0.94 ± 0.2		b	-1.12 ± 0.4		b	-1.26	-0.2
	-0.98	-0.2		-1.20	-0.4		-1.21	+0.2
	-0.96 ± 0.2			-1.16 ± 0.4			-1.24 ± 0.25	
	-1.02 ± 0.45			-1.19 ± 0.42			-1.26 ± 0.27	
IV. b	-0.88 ± 0.4		VIII. b	-1.12 ± 0.3		XII. b	-1.20	+0.2
	-0.97	-0.5		-1.18	-0.3		-1.25	-0.3
14 59 40	-0.92 ± 0.45	15 48 06	-1.15 ± 0.3	16 15 45	-1.22 ± 0.25			
a	-1.06 ± 0.4		a	-1.19 ± 0.3		a	-1.27 ± 0.2	
	-1.14	-0.4		-1.24	-0.2		-1.31	-0.2
	-1.10 ± 0.4			-1.22 ± 0.25			-1.29 ± 0.2	
	-1.01 ± 0.42			-1.18 ± 0.27			-1.26 ± 0.22	
V. a	-1.16	.00	IX. a	-1.16 ± 0.4				
	-1.17	-0.1		-1.25	-0.5			
15 12 16	-1.16 ± 0.05	15 54 42	-1.20 ± 0.45					
b	-1.12 ± 0.2		b	-1.19	.00			
	-1.16	-0.2		-1.19	.00			
	-1.14 ± 0.2			-1.19	.00			
	-1.15 ± 0.17			-1.20 ± 0.22				
VI. b	-1.13	-0.1	X. b	-1.13 ± 0.4				
	-1.11	+0.1		-1.21	-0.4			
15 20 01	-1.12 ± 0.1	16 02 15	-1.17 ± 0.4					
a	-1.18 ± 0.2		a	-1.24 ± 0.6				
	-1.22	-0.2		-1.36	-0.6			
	-1.20 ± 0.2			-1.30 ± 0.6				
	-1.16 ± 0.15			-1.24 ± 0.5				

J. Cancri.

Mar. 29/1899

Gr. M. Time	Left Magn.	Gr. M. Time	Diff Magn.	av. Dev.	Gr. M. Time	Diff Magn.	av. Dev.
I a	-1.15 -02	II a	-0.91 +01		IX a	-0.57 +01	
	-1.11 +02		-0.94 -02			-0.59 -01	
12 29 7	-1.13 ±02	13 20 42	-0.92 ±015		14 20 20	-0.55 ±01	
b	-1.04 +12	b	-0.76 ±02		b	-0.51 -01	
	-1.25 -12		-0.79 -01			-0.45 +02	
	-1.16 ±12		-0.75 ±015			-0.50 ±015	
	-1.14 ±07		-0.85 ±015			-0.54 ±012	
II b	-0.94 -02	VI b	-0.71 .00		X b	-0.44 +01	
	-0.91 +01		-0.71 .00			-0.46 -01	
12 41 45	-0.92 ±015	13 42 42	-0.71 .00		14 37 17	-0.45 ±01	
a	-0.96 +01	a	-0.67 +01		a	-0.42 +02	
	-0.98 -01		-0.70 -02			-0.47 -03	
	-0.97 ±01		-0.68 ±015			-0.44 ±025	
	-0.94 ±012		-0.70 ±007			-0.44 ±017	
III a	-0.95 +03	VII a	-0.65 +01		XI a	-0.35 -01	
	-1.00 -02		-0.68 -02			-0.32 +02	
12 59 13	-0.95 ±025	13 55 46	-0.66 ±015		15 1 17	-0.34 ±015	
b	-0.87 -03	b	-0.69 -03		b	-0.25 .00	
	-0.80 +04		-0.63 +03			-0.25 .00	
	-0.84 ±035		-0.66 ±03			-0.25 .00	
	-0.91 ±03		-0.66 ±022			-0.30 ±007	
IV b	-0.83 -02	VIII b	-0.63 -01		XII b	-0.24 -06	
	-0.79 +02		-0.61 +01			-0.11 +07	
13 10 13	-0.81 ±02	14 8 10	-0.62 ±01		15 11 00	-0.15 ±065	
a	-0.91 .00	a	-0.60 -02		a	-0.23 +02	
	-0.91 .00		-0.57 +01			-0.27 -02	
	-0.91 .00		-0.58 ±015			-0.25 ±02	
	-0.91 ±01		-0.60 ±012			-0.22 ±042	

S. Cancri.

Gr. M. Time	Diff. Magn.	av. Per.	Gr. M. Time	Diff. Magn.	av. Per.	Gr. M. Time	Diff. Magn.	av. Per.
~~XII~~ a	-0.20	.00	~~XVII~~ a	+0.21	-.01	~~XI~~ a	+0.49	-.07
	-0.20	.00		+0.23	+0.01		+0.64	+0.05
15 25 49 _b	-0.20	.00	16 17 39	+0.22	±0.01	16 58 40	+0.56	±0.05
	-0.13	-.01	b	+0.62	+0.06	b	+0.68	+0.01
	-0.11	+0.01		+0.50	-.06		+0.66	-.01
	-0.12	±0.01		+0.56	±0.06		+0.67	±0.01
	-0.06	±0.05		+0.39	±0.05		+0.62	±0.042
~~XIV~~ b	-0.09	-.02	~~XVIII~~ b	+0.43	-.01			
	-0.05	±0.02		+0.44	.00			
15 30 44	-0.107	±0.02	16 25 10	+0.44	±0.005			
d	-0.14	-.01	a	+0.29	+0.03			
	-0.12	+0.01		+0.24	-.02			
	-0.13	±0.01		+0.26	±0.025			
	-0.10	±0.05		+0.35	±0.05			
~~IV~~ a	-0.13	-.02	~~IX~~ a	+0.31	-.03			
	-0.09	+0.02		+0.35	+0.02			
15 42 23	-0.10	±0.02	16 33 34	+0.33	±0.02			
b	-0.01	-.01	b	+0.47	+0.01			
	+0.06	+0.01		+0.46	.00			
	+0.00	±0.01		+0.46	±0.005			
	-0.06	±0.05		+0.40	±0.07			
~~XVI~~ b	+0.20	-.06	~~XX~~ b	+0.52	+0.01			
	+0.32	+0.06		+0.50	-.01			
16 11 16	+0.26	±0.06	16 45 20	+0.51	±0.01			
a	+0.21	+0.04	a	+0.46	-.02			
	+0.13	-.04		+0.51	+0.03			
	+0.17	±0.04		+0.48	±0.025			
	+0.22	±0.05		+0.50	±0.07			

Comp. Star = δ U. + $19^{\circ} 20' 22''$ (9.0)

37

S. Cancri.

April 17/1899.

April 17/1899.

Star	Time	Diff Magn	Ar. Rev	Star	Time	Diff Magn	Ar. Rev	Star	Time	Diff Magn	Ar. Rev
1	a	-0.97	-0.01	5	a	-0.71	+0.05	9	a	-0.64	-0.01
		-0.94	+0.02			-0.52	-0.06			-0.62	.01
12	22 54	-0.96	± 0.05	13	03 54	-0.76	-0.055	13	49 06	-0.63	± 0.01
	b	-0.88	-0.02		b	-0.69	-0.02		b	-0.39	-0.01
		-0.83	+0.03			-0.64	+0.02			-0.36	.02
		-0.86	± 0.05			-0.66	± 0.05			-0.35	± 0.05
		-0.91	± 0.02			-0.71	± 0.04			-0.50	± 0.02
2	b	-0.57	+0.02	6	b	-0.62	+0.01	10	b	-0.33	-0.01
		-0.91	-0.02			-0.60	+0.01			-0.31	.01
12	33 01	-0.59	± 0.02	13	17 24	-0.61	± 0.01	13	59 35	-0.32	± 0.01
	a	-0.50	0.00		a	-0.65	+0.01		a	-0.41	-0.01
		-0.79	+0.06			-0.66	0.00			-0.35	+0.02
		-0.50	± 0.05			-0.66	± 0.05			-0.40	± 0.05
		-0.54	± 0.07			-0.64	± 0.07			-0.36	± 0.02
3	a	-0.50	.01	7	a	-0.67	-0.02	11	a	-0.40	-0.01
		-0.52	-0.01			-0.63	+0.02			-0.35	.01
12	45 00	-0.51	± 0.01	13	29 09	-0.65	± 0.02	14	08 23	-0.39	± 0.01
	b	-0.75	.01		b	-0.45	+0.03		b	-0.25	-0.04
		-0.50	-0.01			-0.54	-0.03			-0.20	.04
		-0.79	± 0.01			-0.51	± 0.03			-0.24	± 0.04
		-0.50	± 0.01			-0.55	± 0.05			-0.32	± 0.05
4	b	-0.75	.04	8	b	-0.47	.01	12	b	-0.22	-0.02
		-0.53	-0.04			-0.49	-0.01			-0.19	.01
12	55 55	-0.79	± 0.04	13	39 00	-0.45	± 0.01	14	19 00	-0.20	± 0.05
	a	-0.75	.01		a	-0.63	-0.02		a	-0.34	± 0.02
		-0.50	-0.01			-0.59	.02			-0.29	.03
		-0.79	± 0.01			-0.61	± 0.02			-0.32	± 0.02
		-0.79	± 0.025			-0.54	± 0.05			-0.26	± 0.02

R. Canis Majoris.

march 24, '99

Gr. Mean Time	Diff. Magn.	av. Dev.	Gr. Mean Time	Diff. Magn.	av. Dev.	Gr. Mean Time	Diff. Magn.	av. Dev.
I a	-3.49	-0.05	V a	-3.45	.05	IX a	-3.59	-.04
	-3.33	+0.05		-3.55	-.05		-3.51	+0.04
13 14.47	-3.41	±0.05	13 51 05	-3.50	±0.05	14 45 53	-3.55	±0.04
b	-3.39	+0.06	b	-3.49	.02	b	-3.45	+0.07
	-3.51	+0.06		-3.53	-.02		-3.58	-.06
	-3.45	±0.06		-3.51	±0.02		-3.52	±0.05
	-3.43	±0.07		-3.50	±0.05		-3.54	±0.05
II b	-3.47	-.03	VI b	-3.45	+0.01	X b	-3.56	-.01
	-3.41	+0.03		-3.47	-.01		-3.58	-.01
13 24 13	-3.44	±0.03	14 20 53	-3.46	±0.01	14 57 40	-3.57	±0.01
a	-3.53	+0.01	a	-3.55	.00	a	-3.57	-.01
	-3.56	-.02		-3.55	.00		-3.56	.00
	-3.54	±0.05		-3.55	.00		-3.56	±0.05
	-3.49	±0.02		-3.50	±0.05		-3.56	±0.05
III a	-3.56	.00	VII a	-3.50	.03	XI a	-3.55	-.01
	-3.56	.00		-3.56	-.03		-3.53	.01
13 33 13	-3.56	.00	14 28 09	-3.53	±0.03	15 10 34	-3.54	±0.01
b	-3.62	+0.01	b	-3.59	+0.03	b	-3.57	.02
	-3.64	-.01		-3.66	-.04		-3.61	-.02
	-3.63	±0.01		-3.62	±0.05		-3.59	±0.02
	-3.60	±0.05		-3.58	±0.02		-3.56	±0.05
IV b	-3.67	-.03	VIII b	-3.61	+0.05	XII b	-3.58	.04
	-3.62	+0.02		-3.71	-.05		-3.65	-.03
13 42 38	-3.64	±0.05	14 36 08	-3.66	±0.05	15 22 00	-3.62	±0.05
a	-3.51	+0.04	a	-3.53	-.01	a	-3.56	.00
	-3.59	-.04		-3.55	-.01		-3.56	.00
	-3.55	±0.04		-3.54	±0.01		-3.56	.01
	-3.60	±0.02		-3.60	±0.03		-3.60	±0.05

B Lyrae.
R. Canis Majoris. Phot. W.

Cont. from P. 13.

June 2, 1899

Gr. M. Time	Light mag.	av. Dev.	Gr. M. Time	Light mag.	av. Dev.	Gr. M. Time	Light mag.	av. Dev.
<u>X</u> b	-2.94	-.01	<u>XIV</u> b	2.95	+0.2			
	2.92	+0.01		2.99	-0.2			
10 33 22	2.93	±.01	16 51 36	2.97	±.02			
a	-2.94	+0.04	a	3.05	-.01			
	3.02	-.04		3.04	+0.0			
	-2.98	±.04		3.04	±.005			
~~10 59 25~~	~~-2.96~~	~~±.025~~		~~3.00~~	~~±.012~~			
<u>XI</u> a	3.02	.00	June 3, 1899	-3.13	±.02			
	-3.02	.00	<u>I</u>	-3.17	-.02			
10 59 25	-3.02	.00	13 23 17	-3.15	±.02			
b	-2.99	.01	b	-3.18	-.06			
	-3.00	.00		-3.05	+0.07			
	-3.00	±.005		-3.12	±.06			
	-3.01	±.002		-3.14	±.042			
<u>XII</u> b	-2.95	-.01	<u>II</u> b	-3.61	+0.3			
	2.94	.00		-3.05	-.04			
16 15 16	2.94	-.005	13 41 52	-3.04	±.035			
a	3.00	+0.2	a	-3.11	+0.3			
	3.05	-.03		-3.16	-.04			
	3.02	±.025		3.14	±.035			
	2.98	±.015		-3.09	±.035			
<u>XIII</u> a	-3.07	-.03						
	3.02	+0.02						
16 30 09	3.04	±.025						
b	2.99	.04						
	3.07	-.04						
	3.03	±.04						
	3.04	±.032						

*B Lyræ**R. Canis Majoris*

B Lyrae
R. Cassiopeiae

Nova Sagittarii

1898ph

Date.		Comp. Star =				Diff.	G.M.T.	Photometric				W. Lbs.			
		Tabular Quantity				Magn.		Residuals				Jul Day	Book & Page.		
99	March	12.	+1.72 _b	+1.60 _b	+1.45 _a	+1.35 _a	+1.54	21	15.4	.06	.06	.04	.03	4726	104 192
			+1.50 _a	+1.46 _b	+1.49 _b	+1.57 _b	+1.50	21	26.5	.02	.02	.04	.04	"	" 193
99	April	9.	+1.55 _b	+1.54 _b	+1.55 _a	+1.51 _a	+1.70	20	46.1	.02	.02	.04	.03	4754	105
"	"	"	+1.55 _b	+1.52 _b	+1.72 _b	1.79	+1.64	20	55.0	.01	.00	.04	.03	"	"
99	"	15	+1.75	+1.52	+1.57	+1.69	+1.70	15	35.4	.03	.04	.06	.06	4763	106 1
"	"	"	+1.55	+1.67	+1.69	+1.74	+1.67	15	45.0	.04	.05	.03	.02	"	" 2

Av. Lev.	A-B.	Nova Magn.	mean.
± 0.047	+ .25		
± 0.03	+ .05		
± 0.027	+ .32		
± 0.02	+ .24		
± 0.047			
± 0.035			

Comp. $\text{Star} = \text{Sun} + 32^\circ 25' 70'' (9.3)$

Apr. 19, 1899.

Dr. M. Tins			U. Crona			Dr. M. Tins		
Diff	Magn	Star	Diff	Magn	Star	Diff	Magn	Star
I			IIa			IIb		
-2.02	-05		-1.94	-02		-1.84	.01	
-1.92	+05		-1.91	+01		-1.86	-01	
15 23 51	-1.97	+05	16 0 51	-1.92	+015	13 22 53	-1.85	+01
b	-2.00	-03	b	-2.03	+03	a	-1.74	.02
	-1.94	+03		-1.98	-02		-1.79	-03
	-1.97	+03		-2.00	+025		-1.76	+025
	-1.97	+04		-1.96	+02		-1.80	+017
IIb			Ia			V a		
-1.97	+02		-1.71	-03		-1.77	.01	
2.01	-02		-1.66	.02		-1.78	.01	
15 30 30	-1.99	+02	12 55 30	-1.68	+025	13 33 2	-1.78	+015
a	-1.87	+02	b	-1.78	.02	b	-1.92	-04
	-1.91	-02		-1.82	.02		-1.84	.04
	-1.84	+02		-1.80	+02		-1.88	+04
	-1.94	+02		-1.74	+022		-1.83	+027
III a			II b			IV b		
-1.90	-02		-1.86	-02		-1.89	-03	
-1.87	+01		-1.81	.03		-1.82	.04	
15 44 57	-1.88	+015	13 05 01	-1.84	+025	13 46 20	-1.86	+035
b	-1.87	+05	a	-1.72	.04	a	-1.81	.01
	-1.98	-06		-1.81	-05		-1.83	-01
	-1.92	+053		-1.76	+045		-1.82	+01
	-1.90	+035		-1.80	+035		-1.84	+022
IV b			III a			VII a		
-1.82	+12		-1.69	.05		-1.88	-02	
-2.06	-12		-1.78	-04		-1.83	+03	
15 54 8	-1.94	+12	13 13 7	-1.74	+045	13 58 20	-1.86	+025
a	-1.87	+03	b	-1.88	-05	b	-1.88	-02
	-1.92	-02		-1.78	.05		-1.92	+02
	-1.90	+025		-1.83	+05		-1.90	+02
	-1.92	+072		-1.78	+047		-1.88	+022

U. Coronae

12th. Time. III ^b	Diff. Magn.	an. Len.	12th. Time. IV ^b	Diff. Magn.	an. Len.	12th. Time. VIII ^b	Diff. Magn.	an. Len.
	-1.97	.00		-1.99	.02		-2.01	-.03
	-1.97	.00		-2.03	-.02		-1.96	.02
14 05. 30 ^a	-1.97	.00	13 37 04 ^a	-2.01	±.02	14 09 50 ^a	-1.95	±.02
	-1.91	-.02		-1.92	.00		-1.91	±.01
	-1.87	±.02		-1.91	.01		-1.93	-.01
	-1.89	±.02		-1.92	±.01		-1.92	±.01
	-1.93	±.01		-1.96	±.05		-1.95	±.01
Apr 22, 1899. I ^a	-1.86	.05	II ^a	-1.86	.02	Apr 24, 1899. I ^a	-1.82	.02
	-1.96	-.05		-1.90	-.02		-1.86	-.02
13 04 04 ^b	-1.91	±.05	13 46 17 ^b	-1.88	±.02	12 36 06 ^b	-1.84	±.02
	-2.00	.00		-1.93	.04		-1.97	±.05
	-1.99	.01		-2.01	-.04		-2.13	-.05
	-2.00	±.05		-1.97	±.04		-2.05	±.05
	-1.96	±.02		-1.92	±.03		-1.94	±.03
II ^b	-2.04	-.02	II ^b	-1.95	.03	II ^b	-1.89	.03
	-2.01	.01		-2.00	-.02		-1.94	-.02
13 16 46 ^a	-2.02	±.05	13 54 18 ^a	-1.98	±.05	12 45 04 ^a	-1.92	±.05
	-1.78	±.06		-1.91	.00		-1.73	-.01
	-1.91	-.07		-1.91	.00		-1.72	.00
	-1.84	±.065		-1.91	.00		-1.72	±.05
	-1.93	±.04		-1.94	±.02		-1.82	±.05
III ^a	-1.92	.00	III ^a	-1.96	-.04	III ^a	-1.72	±.02
	-1.93	-.01		-1.89	.03		-1.96	±.02
13 34 17 ^b	-1.92	±.05	14 3 00 ^b	-1.92	±.05	12 55 27 ^b	-1.84	±.02
	-1.96	.00		-1.87	±.05		-1.99	±.01
	-1.97	-.01		-1.96	-.04		-2.00	.00
	-1.96	±.05		-1.92	±.05		-2.00	±.05
	-1.94	±.05		-1.92	±.04		-1.92	±.02

Apr 24 Continued			V. Corona					
Gr. M. Time	Depth	Gr. Low	Gr. M. Time	Depth	Gr. Low	Gr. M. Time	Depth	Gr. Low
IV b	-1.98	-06	I a	-1.71	.05	V a	-1.94	.00
	-1.56	+06		-1.51	-.05		-1.94	.00
13 04 48	-1.92	±06	13 9 34	-1.76	±05	13 41 38	-1.94	.00
a	-1.79	+03	b	-1.50	.0F	b	-1.91	+03
	-1.56	-.04		-1.96	-.0F		-1.96	-.02
	-1.82	±035		-1.88	±0F		-1.94	±025
	-1.87	±032		-1.82	±065		-1.94	±027
V a	-1.76	+08	II b	-1.93	.06			
	-1.92	-.08		-2.05	-.06			
13 22 22	-1.84	±0F	13 15 04	-1.99	±06			
b	-1.96	-.02	a	-1.94	-.01			
	-1.92	+02		-1.93	+01			
	-1.94	±02		-1.94	±01			
April 26, 99	-1.59	±05		-1.96	±035			
I a	-1.94	-.0F	III a	-1.56	.06			
	-1.79	+07		-1.97	-.05			
12 35 37	-1.56	±075	13 24 58	-1.92	±055			
b	-1.96	-.01	b	-1.93	-.03			
	-1.94	+01		-1.88	+02			
	-1.95	±01		-1.90	±025			
	-1.90	±043		-1.91	±04			
II b	-1.98	.00	IV b	-1.58	-.02			
	-1.98	.00		-1.54	+02			
12 42 05	-1.98	-.00	13 33 16	-1.56	±02			
a	-1.98	-.02	a	-1.51	±04			
	-1.88	±02		-1.59	-.04			
	-1.90	±02		-1.55	±04			
	-1.94	±01		-1.56	±03			

May 26/1899

U. Coronae

h. m. Time	Diff Magn	Per Sec	h. m. Time	Diff Magn	Per Sec	h. m. Time	Diff Magn	Per Sec
I a	-1.92	-03	V a	-1.90	.00	IV b	-1.95	.05
	-1.26	+03		-1.90	.00		-2.04	-04
13 9 36 _b	-1.59	±03	13 47 00 _b	-1.90	.00	13 29 56 _a	-2.00	±040
	-2.05	-04		-1.91	-01		-1.97	-01
	-1.97	+04		-1.59	±01		-1.95	±01
	-2.01	±04		-1.90	±01		-1.96	±01
	-1.95	±035		-1.90	±005		-1.95	±020
II b	-2.07	-08	May 31/1899	-1.94	.01	V a	-2.00	-02
	-2.01	+03	I a	-1.96	-01		-1.97	+01
13 17 52 _a	-2.04	±035	13 6 32 _b	-1.95	±01	13 37 01 _b	-1.95	±015
	-1.51	+03		-1.99	-03		-2.00	.04
*	1.55	-04		-1.92	+04		-2.07	-03
	-1.54	±035		-1.96	±035		-2.04	±035
	-1.94	±032		-1.96	±002		-2.01	±025
III a	-1.91	+01	II b	-1.99	.01			
	-1.93	-01		-2.00	.00			
13 26 03 _b	-1.92	±01	13 14 12 _a	-2.00	.005			
	-1.95	-01		-2.00	.00			
	-1.94	+01		-1.99	.01			
	1.94	±01		-2.00	.005			
	-1.93	±01		-2.00	.005			
IV b	-1.97	-01	III a	-2.00				
	-1.95	+01		-2.03				
13 37 07 _a	-1.96	±01	13 22 50 _b	-2.02				
	-1.93	-03		-2.03				
	-1.55	+02		-2.00				
	-1.90	±025		-2.02				
	-1.93	±025		-2.02				

H. Cronar

U. Coronae.

U. Cronas

V. Cronus.

S. Cancun

April 17 1899

Gr. M. Time	diff magn	av. lev	Gr. M. Time	diff magn	av. lev	Gr. M. Time	diff magn	av. lev
13 ^a	-0.22	.01	17 ^a	+0.15	-.03	21 ^a	+0.46	-.02
	-0.24	-.01		+0.20	.02		+0.51	+.03
14 33 17 ^b	-0.23	±.01	15 25 59 ^b	+0.15	±.023/6	7 3F ^b	+0.45	±.025
	-0.05	-.03		+0.32	.00		+0.59	.03
	-0.02	.03		+0.33	.01		+0.53	-.03
	-0.05	±.03		+0.32	±.005		+0.56	±.03
	-0.14	±.02		+0.25	±.015		+0.52	±.027
14 ^b	-0.01	.01	15 ^b	+0.35	-.03	22 ^b	+0.60	-.03
	-0.03	-.01		+0.41	.03		+0.65	.02
14 46 25 ^a	-0.02	±.01	15 36 28 ^a	+0.38	±.03	16 19 49 ^a	+0.64	±.025
	-0.11	.00		+0.35	.01		+0.62	-.01
	-0.11	.00		+0.34	.00		+0.64	.01
	-0.11	.00		+0.34	±.005		+0.63	±.01
	-0.06	±.005		+0.36	±.017		+0.64	±.027
15 ^a	+0.01	-.01	18 ^a	+0.33	-.02	23 ^a	+0.67	.01
	+0.02	.00		+0.37	.02		+0.66	.00
15 03 04 ^b	+0.02	±.005	15 45 28 ^b	+0.35	±.02	16 35 31 ^b	+0.66	±.005
	+0.06	-.01		+0.51	.05		+0.72	.02
	+0.08	±.01		+0.40	-.06		+0.76	±.02
	+0.07	±.01		+0.46	±.055		+0.74	±.02
	+0.04	±.007		+0.40	±.037		+0.70	±.012
16 ^b	+0.13	-.01	20 ^b	+0.46	.01	24 ^b	+0.55	±.02
	+0.16	.02		+0.44	-.01		+0.51	±.02
15 14 08 ^a	+0.14	±.015	15 53 05 ^a	+0.45	±.01	16 45 14 ^a	+0.53	±.02
	+0.10	-.01		+0.41	-.02		+0.50	-.02
	+0.12	.01		+0.45	.02		+0.53	±.01
	+0.11	±.01		+0.43	±.02		+0.52	±.015
	+0.12	±.012		+0.44	±.015		+0.52	±.017

Canon

Gr. M. Time	Diff Magn	av. Dec	Gr. M. Time	Diff Magn	av. Dec	Gr. M. Time	Diff Magn	av. Dec
<u>25</u> ^a	+0.54	.00	IV ^b	-0.97	-.02	VIII ^b	-1.36	-.10
	+0.53	-.01		-0.93	.02		-1.17	.09
16 52 20 ^b	+0.54 ±.005		13 19.4 ^a	-0.95 ±.02		14 21.1 ^a	-1.26 ±.095	
	+0.93	.01		-1.05	.01		-1.30	-.02
	+0.92	.00		-1.10	-.01		-1.25	.03
	+0.92 ±.005			-1.09 ±.01			-1.25 ±.025	
	+0.55 ±.005			-1.02 ±.015			-1.27 ±.06	
April 27 1899 ^a	-0.57	.01	V ^a	-1.05	.02	IX ^a	-1.25	.00
I ^a	-0.59	-.01		-1.09	-.02		-1.25	.00
12 39.7 ^b	-0.55 ±.01		13 34.7 ^b	-1.07 ±.02		14 29.6 ^b	-1.25	.00
	-0.74	.04		-1.00	.04		-1.44	-.16
	-0.53	-.05		-1.07	-.03		-1.12	±.16
	-0.75 ±.045			-1.04 ±.035			-1.25	±.16
	-0.53 ±.027			-1.06 ±.027			-1.25	±.08
II ^b	-0.79	.02	VI ^b	-1.03	.02	X ^b	-1.44	.05
	-0.53	-.02		-1.07	-.02		-1.61	-.09
12 52.4 ^a	-0.51 ±.02		13 57.0 ^a	-1.05 ±.02		15 37.1 ^a	-1.52 ±.097	
	-1.04	-.06		-1.13	-.03		-1.44	-.11
	-0.93	.05		-1.07	±.03		-1.22	±.11
	-0.95 ±.055			-1.10 ±.03			-1.33	±.11
	-0.90 ±.037			-1.05 ±.025			-1.42	
III ^a	-1.01	.03	VII ^a	-1.26	-.04	XI ^a	-1.26	-.04
	-1.06	-.02		-1.15	.04		-1.19	.03
13 3.9 ^b	-1.04 ±.025		14 6.4 ^b	-1.22 ±.04		15 46.8 ^b	-1.22 ±.035	
	-0.90	.04		-1.17	-.04		-1.45	.02
	-0.97	-.03		-1.09	.04		-1.52	-.02
	-0.94 ±.035			-1.13 ±.04			-1.50	±.02
	-0.99 ±.03			-1.15 ±.04			-1.26	±.027

S Cancer.

h. m. Time	Diff Magn	av. Par.	h. m. Time	Diff Magn	av. Par.	h. m. Time	Diff Magn	av. Par.
<u>XII</u> b	-1.41 .01		<u>XVI</u> b	-1.37 .06		May 6. 1899. <u>I</u> a	+0.34 .02	
	-1.44 .02			-1.49 .06			+0.31 .01	
15 55.2	-1.42 ± 0.15	16 44.1	-1.43 ± 0.06			15 00 00	+0.32 ± 0.15	
a	-1.25 .01	a	-1.25 .05			b	+0.35 .01	
	-1.30 .01		-1.45 ± 0.05				+0.35 ± 0.02	
	-1.29 ± 0.01		-1.23 ± 0.05				+0.36 ± 0.03	
	-1.36 ± 0.02		-1.33 ± 0.05				+0.34 ± 0.05	
<u>XIII</u> a	-1.23 .03	<u>XVII</u> a	-1.14 .04			<u>II</u> b	+0.34 .02	
	-1.29 .03		-1.22 .04				+0.35 ± 0.02	
16 9.6	-1.26 ± 0.03	16 53.2	-1.15 ± 0.04			15 09 45	+0.36 ± 0.02	
b	-1.35 .01	b	-1.39 .01			a	+0.33 ± 0.01	
	-1.40 .01		-1.36 ± 0.02				+0.31 .01	
	-1.39 ± 0.01		-1.38 ± 0.05				+0.32 ± 0.01	
	-1.32 ± 0.02		-1.25 ± 0.03				+0.34 ± 0.05	
<u>XIV</u> b	-1.42 .02	<u>XVIII</u> b	-1.41 .03			<u>III</u> a	+0.36 .00	
	-1.39 ± 0.01		-1.36 .02				+0.37 ± 0.01	
16 23.1	-1.40 ± 0.15	17 0.6	-1.38 ± 0.25			15 17 27	+0.36 ± 0.15	
a	-1.34 ± 0.05	a	-1.33 ± 0.02			b	+0.43 .02	
	-1.24 ± 0.05		-1.29 ± 0.02				+0.47 ± 0.02	
	-1.29 ± 0.05		-1.31 ± 0.02				+0.45 ± 0.02	
	-1.34 ± 0.02		-1.34 ± 0.02				+0.40 ± 0.02	
<u>XV</u> a	-1.24 .00					<u>IV</u> b	+0.51 .03	
	-1.24 .00						+0.52 ± 0.04	
16 32.5	-1.24 .00					15 36 59	+0.54 ± 0.35	
b	-1.38 .00					a	+0.64 ± 0.04	
	-1.39 .01						+0.71 ± 0.03	
	-1.39 ± 0.05						+0.62 ± 0.35	
	-1.31 ± 0.02						+0.61 ± 0.35	

L. Cancri.

Yr. M. Time	Diff Magn	Gr. Per.	Yr. M. Time	Diff Magn	Gr. Per.	Yr. M. Time	Diff Magn	Gr. Per.
I a	-0.33	-05	V 2	+0.05	-05			
	-0.17	+0F		+0.14	+04			
13 9 01	-0.23 ± 0F	14 2 3F	b	+0.10	± 045			
b	-0.29	.03		+0.24	-03			
	-0.24	+02		+0.30	+03			
	-0.26	± 025		+0.27	± 03			
	-0.26	± 032		+0.1F	± 03F			
~~II~~ b	-0.19	-05	VI b	+0.33	-06			
	-0.09	+05		+0.40	+04			
13 24 44	-0.14 ± 05	14 20 42	a	+0.36	± 05			
a	-0.1F	.00		+0.30	-04			
	-0.17	01		+0.39	+05			
	-0.1F	± 005		+0.34	± 045			
	-0.16	± 02F		+0.35	± 04F			
~~III~~ a	-0.11	.00	VII a	+0.38	-06			
	-0.11	.00		+0.50	+06			
13 3F 14	-0.11	.00	14 42 40	+0.44	± 06			
b	+0.05	-06	b	+0.57	-04			
	+0.07	.01		+0.59	+04			
	+0.06	± 01		+0.55	± 04			
	-0.02	± 005		+0.55	± 05			
IV b	-0.03	-10						
	+0.17	+10						
13 49 34	+0.07	± 10						
a	+0.04	.00						
	+0.09	.01						
	+0.0F	± 005						
	+0.0F	± 052						

Comp. Star = $\delta - 7^{\circ} 39' 43''$ (7.0)

Apr. 21. 1899.

J. L. L. L.

18

Lat. Time	Diff. Magn	alt.	Lat. Time	Diff. Magn	alt.	Lat. Time	Diff. Magn	alt.	
I ^a	-2.06	-.06	II ^a	-2.03	-.03	II ^b	-2.04	.00	
	-1.94	.06		-1.96	.04		-2.04	.00	
15 16 13	-2.00	±.06	15 52 37	-2.00	±.035	14 37 50	-2.04	.00	
b	-2.05	.01	b	-2.05	.03	a	-1.95	.03	
	-2.06	.00		-2.11	-.03		-2.04	-.03	
	-2.06	±.005		-2.05	±.03		-2.01	±.03	
	-2.03	±.032		-2.04	±.032		-2.02	±.015	
II ^b	-2.13	-.03	IV ^b	-2.10	.00	III ^a	-2.01	-.01	
	-2.05	.02		-2.09	-.01		-1.95	.02	
15 22 50	-2.10	±.025	16 0 10	-2.10	±.005	14 45 28	-2.00	±.05	
a	-2.03	-.04	a	-1.95	.00	b	-2.10	-.02	
	-1.95	.04		-1.95	.00		-2.05	±.03	
	-1.99	±.04		-1.95	.00		-2.05	±.025	
	-2.04	±.032		-1.95	±.002		-2.04	±.02	
III ^a	-1.85	.00	IV ^a	-1.92	.00	IV ^b	-2.04	.01	
	-1.59	-.01		-1.93	-.01		-2.06	-.01	
15 33 14	-1.85	±.005	16 6 50	-1.92	.005	15 15 52	-2.05	±.01	
b	-2.00	.04	b	-2.05	-.02	a	-1.95	-.01	
	-2.07	-.03		-2.05	±.01		-1.92	±.02	
	-2.04	±.035		-2.06	±.015		-1.94	±.015	
	-1.96	±.02		-1.99	±.01		-2.00	±.012	
IV ^b	-2.15	-.05	April 22 1899	I ^a	-2.00	-.04	V ^a	-1.90	.00
	-2.04	.06		-1.92	.04		-1.90	.00	
15 42 34	-2.10	±.055	14 25 51	-1.96	±.04	15 25 07	-1.90	.00	
a	-1.97	-.06	b	-2.00	-.02	b	-2.05	.04	
	-1.85	.06		-2.05	.03		-2.13	-.04	
	-1.91	±.06		-2.05	±.025		-2.09	±.04	
	-2.00	±.057		-2.02	±.03		-2.00	±.02	

Apr. 22 continued

Librae

Gr. M. Time	Diff Magn	av. lev	Gr. M. Time	Diff Magn	av. lev	Gr. M. Time	Diff Magn	av. lev
IV b	-2.02	.04	IIIa	-1.92	.04	VII b	-1.87	-.01
	-2.11	-.05		-2.00	-.04		-1.83	+.01
15 36 34 _a	-2.06	±.045	13 15 51	-1.96	±.04	14 40 05 _a	-1.86	±.01
	-1.96	.01	b	-2.05	-.01		-1.76	-.06
	-1.98	-.01		-2.02	±.02		-1.63	+.07
	-1.97	±.01		-2.04	±.015		-1.70	±.065
	-2.02	±.027		-2.00	±.027		-1.78	±.037
VII a	-1.96	-.02	IV b	-2.05	-.01	VIII a	-1.65	.00
	-1.93	+.01		-2.03	+.01		-1.65	.00
18 46 35 _b	-1.94	±.015	13 29 27 _a	-2.04	±.01	14 54 42 _b	-1.65	.00
	-2.07	-.01		-1.85	-.01		-1.75	+.03
	-2.05	+.01		-1.82	+.02		-1.82	-.04
	-2.06	±.01		-1.84	±.015		-1.78	±.035
	-2.00	±.012		-1.94	±.012		-1.73	±.017
I a	-1.83	+.01	V a	-1.79	.03	IX b	-1.66	.00
Apr. 26.	-1.86	-.02		-1.86	-.04		-1.67	-.01
13 00 54 _b	-1.84	±.05	13 42 01 _b	-1.82	±.035	15 35 54 _a	-1.66	±.008
	-2.01	+.02		-1.99	-.01		-1.55	-.03
	-2.04	±.02		-1.95	.00		-1.48	+.04
	-2.02	±.015		-1.95	±.005		-1.52	±.035
	-1.93	±.015		-1.90	±.02		-1.59	±.02
II b	-2.01	.02	VI a	-1.74	.00	X a	-1.49	-.03
	-2.05	-.02		-1.73	+.01		-1.43	+.03
13 10 38 _a	-2.03	±.02	14 31 24 _b	-1.74	±.005	15 45 08 _b	-1.46	±.03
	-1.95	.01		-1.91	-.04		-1.66	±.01
	-1.99	-.01		-1.83	±.04		-1.65	±.01
	-1.96	±.01		-1.87	±.04		-1.67	±.01
	-2.00	±.015		-1.80	±.025		-1.56	±.02

J Libras

Apr 26 1899

Gr. M. Time

Diff Magn

ar

Gr. M. Time

Diff Magn

ar

Gr. M. Time

Diff Magn

ar

I b

-1.64 ±03

April 29 1899 Ia

-1.94 ±04

May 3 Ia

1.55 ±05

-1.70 -03

-2.02 ±04

-1.94 ±04

15 53 38

-1.67 ±03

15 47 32

-1.98 ±04

12 45 06

-1.90 ±045

a

-1.45 ±01

b

-2.15 -03

b

-2.01 ±05

-1.48 -02

-2.08 ±03

-2.11 -03

-1.46 ±015

-2.12 ±03

-2.06 ±05

-1.56 ±022

-2.05 ±035

-1.98 ±042

VII a

-1.39 ±05

II b

-2.15 ±01

II b

-2.05 ±03

-1.49 -05

-2.13 ±01

-2.11 -03

16 03 42

-1.44 ±05

15 56 02

-2.14 ±01

12 54 20

-2.05 ±03

b

-1.65 -05

a

-2.08 -02

a

-1.50 ±08

-1.57 ±06

-2.05 ±01

-1.95 ±07

-1.60 ±055

-2.06 ±015

-1.58 ±075

-1.52 ±052

-2.10 ±012

-1.98 ±022

VIII b

-1.61 -03

III a

-2.05 ±01

III a

-1.90 ±02

-1.56 ±02

-2.07 ±01

-1.55 ±03

16 14 33

-1.58 ±025

16 07 26

-2.06 ±01

13 6 54

-1.55 ±025

a

-1.53 -11

b

-2.16 -04

b

-2.05 -02

-1.31 ±11

-2.09 ±03

-2.04 ±02

-1.42 ±11

-2.12 ±035

-2.06 ±02

-1.50 ±067

-2.09 ±032

-1.97 ±022

XIV a

-1.33 -03

IV b

-2.00 ±05

-1.25 ±02

-1.90 ±05

16 29 57

-1.30 ±025

13 16 59

-1.95 ±05

b

-1.35 -06

a

-1.74 ±05

-1.27 ±05

-1.54 ±05

-1.32 ±055

-1.79 ±05

-1.31 ±04

-1.57 ±05

May 3, 1899.

Lehas.

Gr. M. Time	Diff. Magn.	Av. Lev.	Gr. Mean Time	Diff. Mag.	Av. Lev.	Gr. M. Time	Diff. Magn.	Av. Lev.
13 25 17	IX a	-1.74 +10	15 10 53	IX b	-1.75 -02	15 54 59	XIII b	-1.52 +02
		-1.94 +10			-1.74 +02			-1.53 -01
		-1.54 ±10			-1.76 ±02			-1.54 ±015
		-2.06 -06			-1.42 +10			-1.36 +15
		-1.95 ±05			-1.62 -10			-1.66 -15
		-2.00 ±055			-1.52 ±10			-1.51 ±10
		-1.92 ±055			-1.64 ±06			-1.52 ±052
14 35 14	VI a	-1.71 +01	15 20 52	X a	-1.64 +06	16 4 38	XIV a	-1.39 -09
		-1.74 -02			-1.53 -05			-1.22 +08
		-1.72 ±015			-1.58 ±055			-1.30 ±045
		-1.97 -00			-1.71 +01			-1.62 -12
		-1.96 .00			-1.73 -01			-1.39 +11
		-1.96 ±005			-1.72 ±01			-1.50 ±115
		-1.84 ±01			-1.65 ±032			-1.40 ±10
14 45 20	VII b	-1.77 .01	15 36 02	XI. b	-1.65 -05	16 12 32	XV. b	-1.54 -08
		-1.79 -01			-1.56 +04			-1.38 +08
		-1.77 ±01			-1.60 ±045			-1.46 ±05
		-1.77 -06			-1.51 -04			-1.25 -01
		-1.65 ±06			-1.43 +04			-1.22 +02
		-1.71 ±06			-1.47 ±04			-1.24 ±015
		-1.74 ±035			-1.54 ±042			-1.35 ±047
14 55 17	VIII a	-1.50 -05	15 46 03	XII a	-1.38 .04			
		-1.64 +05			-1.46 -04			
		-1.72 ±05			-1.42 ±04			
		-1.72 -04			-1.52 +03			
		-1.51 .05			-1.55 -03			
		-1.76 ±045			-1.53 ±03			
		-1.73 ±062			-1.45 ±035			

Librae.

May 10, 1899

h m Time	Diff Magn	av. Dev	h m Time	Diff Magn	av. Dev	h m Time	Diff Magn	av. Dev
I ^a	-1.52	.03	V ^a	-1.54	.04	IX ^a	-1.73	.00
	-1.76	.03		-1.92	.04		-1.73	.00
12 53 27	-1.79	±0.3	13 33 34 _b	-1.54	±0.4	14 05 53 _b	-1.73	.00
b	-1.96	.05		-1.95	.02		-1.52	-.02
	-2.12	.05		-2.02	-.02		-1.79	±0.1
	-2.04	±0.5		-2.06	±0.2		-1.50	±0.15
	-1.92	±0.55		-1.94	±0.3		-1.76	±0.17
II ^b	-1.95	.02	VI ^b	-2.02	-.01	X ^b	-1.56	-.05
	-2.03	-.03		-2.06	.00		-1.69	.09
13 2 13	-2.00	±0.25	13 41 03	-2.01	±0.05	14 20 47	-1.75	±0.05
a	-1.92	-.01	a	-1.75	.00		-1.62	-.01
	-1.90	.01		-1.75	.00		-1.59	±0.1
	-1.91	±0.1		-1.75	±0.0		-1.60	±0.1
	-1.96	±0.17		-1.59	±0.02		-1.69	±0.04
III ^a	-1.53	±0.1	VII ^a	-1.50	-.04			
	-1.55	-.01		-1.73	.03			
13 12 16	-1.54	±0.1	13 45 12	-1.76	±0.35			
b	-1.97	.03	b	-1.97	-.04			
	-2.02	-.02		-1.59	.04			
	-2.00	±0.25		-1.93	±0.04			
	-1.92	±0.17		-1.54	±0.37			
IV ^b	-1.96	.04	VIII ^b	-1.52	.02			
	-2.05	-.05		-1.55	-.01			
13 27 14	-2.00	±0.45	13 56 45	-1.54	±0.15			
a	-1.52	.04	a	-1.65	-.02			
	-1.59	-.03		-1.65	.01			
	-1.56	±0.35		-1.66	±0.05			
	-1.93	±0.4		-1.75	±0.15			

J. Lebal

May 15, 1899.

R.M. Time	Diff Magn	At Per	R.M. Time	Diff Magn	At Per	R.M. Time	Diff Magn	At Per
I ^a			II ^a			May 23, 1899 I		
	-1.22	-05		-1.86	.02		-1.63	.02
	-1.72	.05		-1.91	-.03		-1.81	-.02
13 24 27	-1.43	±.05	14 49 55	-1.88	±.025		-1.73	±.05
b	-1.92	.01		-1.96	±.09	13 21 43	-2.11	-.07
	-2.00	-.01		-2.14	±.09		-1.96	±.05
	-1.99	±.01		-2.05	±.09		-2.04	±.075
	-1.91	±.03		-1.96	±.052		-1.82	±.075
II ^b			VI ^b					
	-1.92	.08		-2.14	-.04			
	-2.09	-.09		-2.06	±.04			
13 36 43	-2.00	±.05	14 35 35	-2.10	±.04			
a	-1.82	.02		-2.06	±.01			
	-1.91	-.01		-2.05	-.01			
	-1.90	±.015		-2.07	±.01			
	-1.95	±.05		-2.08	±.025			
III ^a			VII ^a					
	-1.86	.00		-1.91	±.02			
	-1.86	.00		-1.95	-.02			
13 47 00	-1.86	.00	15 21 34	-1.93	±.02			
b	-2.11	-.05		-2.12	-.05			
	-2.00	.06		-2.01	±.09			
	-2.06	±.055		-2.10	±.055			
	-1.96	±.038		-2.02	±.052			
IV ^b			VIII ^b					
	-2.02	.00		-2.04	.14			
	-2.02	.00		-2.31	-.13			
14 41 37	-2.02	.00	15 30 41	-2.12	±.135			
a	-1.86	-.01		-1.92	±.04			
	-1.84	.01		-2.06	-.04			
	-1.85	±.01		-2.02	±.04			
	-1.96	±.005		-2.10	±.052			

W. Virginia

May 9, 1899.

Gr. M. Time	Diff Magn	av. Rev.	Gr. M. Time	Diff Magn	av. Rev.	Gr. M. Time	Diff Magn	av. Rev.	
I ^b	+2.46	.05	II ^b	+2.52	-.04	III ^a	+2.72	-.02	
	+2.56	.05		+2.61	+.05		+2.76	+.02	
15 37 9 ^a	+2.57	±.05	16 18 01 ^a	+2.56	±.045	15 54 51 ^b	+2.74	±.02	
	+2.59	.03		+2.57	.00		+2.73	-.02	
	+2.52	.04		+2.57	.00		+2.77	+.02	
	+2.56	±.035		+2.57	.00		+2.75	±.02	
	+2.54	±.042		~~+2.54~~	~~±.022~~		+2.74	±.02	
II ^a	+2.54	.05	May 10, 1899.	IV ^b	+2.50	.00	V ^b	+2.72	-.02
	+2.44	.05		I ^a	+2.51	.01		+2.76	+.02
15 45 54 ^b	+2.49	±.05	15 26 26 ^a	+2.50	±.005	16 06 25 ^a	+2.74	±.02	
	+2.59	-.05		+2.69	-.01		+2.66	.00	
	+2.70	+.06		+2.72	+.02		+2.66	.00	
	+2.64	±.055		+2.70	±.05		+2.66	.00	
	+2.56	±.052		+2.75	±.01		+2.70	±.01	
III ^b	+2.63	-.01	II ^a	+2.72	-.01				
	+2.66	±.02		+2.74	.01				
15 54 25 ^a	+2.64	±.015	15 34 50 ^b	+2.73	±.01				
	+2.54	.00		+2.51	±.04				
	+2.53	-.01		+2.73	-.04				
	+2.54	±.005		+2.77	±.04				
	+2.59	±.01		+2.75	±.025				
IV ^a	+2.59	±.05	III ^b	+2.76	.02				
	+2.48	-.06		+2.73	-.01				
16 9 32 ^b	+2.54	±.055	15 43 56 ^a	+2.74	±.015				
	+2.57	±.01		+2.69	.01				
	+2.56	.00		+2.67	-.01				
	+2.56	±.005		+2.65	±.01				
	+2.55	±.03		+2.71	±.012				

May 10, 1899.

W Virginia

May 29, 1899

May 29, 1899

Alt time	Diff	Ar	Gr Mean Time	Diff	Ar	Alt time	Diff	Ar
magn	Rev.			magn	Rev.	magn	Rev.	
~~III~~ b	+2.60	.00	I b	+2.46	-.02	V. b	+2.45	-.06
	+2.61	.01		2.56	.02		+2.59	.05
15 41 40	+2.60	±.05	15 41 40	2.45 ±.02		16 25 07	+2.54	±.03
a	+2.55	.01	a	2.32	+0.04	a	+2.56	.00
	+2.54	.00		2.56	-.04		2.56	.00
	+2.54	±.005		2.54	±.04		2.56	.00
	+2.55	±.005		+2.57	±.03		2.55	±.03
~~III~~ a	+2.57	.03	II a	+2.60	+0.02			
	+2.51	-.03		2.55	-.03			
15 49 32	+2.54	±.03	15 49 32	2.52	±.025			
b	+2.50	-.04	b	2.55	-.01			
	+2.57	.03		2.52	+0.02			
	+2.54	±.035		2.54	±.015			
	+2.54	±.032		+2.56	±.02			
~~IV~~ b	+2.42	-.06	III b	+2.60	.00			
	+2.59	+0.05		2.61	.01			
15 56 51	+2.54	±.055	15 56 41	2.60	±.005			
a	+2.56	.00	a	2.55	.01			
	+2.56	.00		2.54	.00			
	+2.56	.00		2.54	±.005			
	+2.55	±.025		2.57	±.005			
I b			IV a	2.57	.03			
				2.51	-.03			
16 17 21			16 17 21	2.54	±.03			
a			b	2.50	-.04			
				2.57	+0.03			
				2.57	±.035			
				2.52	±.032			

W Virginis

June 1.12.99

Gr. M. Time	Diff Magn	Ar. Per	Gr. M. Time	Diff Magn	Ar. Per	Gr. M. Time	Diff Magn	Ar. Per
I b	+3.62	.07	V b	+3.60	-.02			
	3.76	-.07		3.65	+0.03			
14 46 13	3.69	±0.07	15 26 30	3.62	±0.25			
a	3.57	.03	a	3.62	+0.03			
	3.52	-.04		3.56	-.03			
	3.56	±0.05		3.57	±0.03			
	+3.62	±0.02		+3.60	±0.25			
II a	+3.57	-.01						
	3.54	+0.02						
14 55 33	3.52	±0.15						
b	3.69	+0.03						
	3.63	-.03						
	3.66	±0.03						
	+3.57	±0.22						
III b	+3.64	+0.02						
	3.59	-.03						
13 05 34	3.62	±0.25						
a	+3.57	.01						
	3.54	-.02						
	3.56	±0.15						
	+3.57	±0.02						
IV a	+3.52	+0.04						
	3.51	-.03						
15 17 10	3.54	±0.35						
b	3.65	+0.01						
	3.63	-.01						
	3.64	±0.01						
	+3.57	±0.22						

M-Virginis

Phot. meas. W. D. K.

Japetus.

Date.	Tabular Quantity.	Half Magn.	Half H. T.	Residuals	Jul. Day.	Book & Page
1899. 5. 12	$+1.71 + 1.57$ $+1.56 + 1.55$ $+1.60 + 1.51$ $+1.60 + 1.79$	$+1.60$ $+1.63$	16 22.7	$.05 .05 .04 .05$ $.00 .01 .10 .09$	4786	106 195
5. 15	$+1.10 + 1.22$ $+0.92 + 1.05$ $+1.02 + 1.20$ $+1.17 + 1.01$	$+1.14$ $+1.04$	16 08.3	$.06 .06 .07 .09$ $.05 .05 .05 .05$	4790	207 208
5. 17	$+1.53 + 1.43$ $+0.95 + 1.21$ $+0.75 + 1.21$	$+1.24$	16 12.8	$.05 .05 .22 .21$	4792	215 107
5. 30	$-0.05 + 0.09$ $+0.35 + 0.29$ $+0.03 + 0.10$	$+0.22$ $+0.28$	16 24.5	$.07 .07 .01 .00$ $.04 .05 .03 .04$	4805	57 58
6. 1.	$+0.20 + 0.14$ $+0.17 + 0.26$	$+0.20$	16 27.1	$.03 .03 .05 .04$	4807	90
6. 6	$+0.12 + 0.11$ $+0.17 + 0.22$ $+0.22 + 0.22$ $+0.03 + 0.12$	$+0.17$ $+0.18$	16 26.0	$.04 .03 .03 .02$ $.00 .00 .07 .05$	4812	154 155
6. 10	$+0.20 + 0.35$ $+0.17 + 0.07$	$+0.20$	16 10.3	$.05 .07 .05 .05$	4816	185
6. 13		$+2.53$	15 48.2	$.04 .03 .00 .00$	4819	
		$+2.45$	15 56.7	$.01 .00 .01 .01$	"	
6. 16		$+2.75$	15 26.2	$.09 .05 .06 .07$	4822	
		$+2.72$	15 34.6	$.04 .04 .05 .05$	"	
6. 19		$+2.94$	16 17.5	$.06 .06 .01 .01$	4825	
		$+2.92$	16 31.5	$.02 .02 .05 .04$	"	
6. 27		$+1.60$	16 13.4	$.02 .01 .02 .03$	4833	
		$+1.56$	16 20.9	$.00 .00 .01 .01$	"	
6. 29		$+1.77$	15 26.4	$.02 .01 .02 .02$	4835	
		$+1.74$	15 35.5	$.05 .05 .02 .01$	"	
6. 30		$+1.59$	16 7.6	$.03 .04 .01 .02$	4836	
		$+1.55$	16 16.7	$.04 .04 .02 .02$	4836	
7. 3		$+2.03$	15 46.6	$.00 .00 .02 .03$	4839	
		$+2.04$	16 00.1	$.00 .00 .03 .03$	4839	
7. 10		$+3.24$	16 57.5	$.01 .02 .30 .30$	4846	
		$+3.27$	17 7.7	$.04 .03 .04 .05$	"	

Mr. Lev.	A-B	Magn. Japetus	Mean	Comp Star =
± 0.06	± 23	} these obs. were not meas. of Japetus.		
± 0.05	± 14			
± 0.075	-0.05			$-21^{\circ} 46 45 (9.1)$
± 0.05	$+0.09$			
± 0.03	-45			$-21^{\circ} 46.41 (9.0)$
± 0.035	$+40$			$-21^{\circ} 46 05 (9.0)$
± 0.04	$+25$			
± 0.035	$+0.5$			$-21^{\circ} 46 05 (9.0)$
± 0.03	$+0.6$			$-21^{\circ} 46 05 (9.0)$
± 0.035	$+1.1$			
± 0.062	$+1.6$			$-21^{\circ} 46 05 (9.0)$
± 0.015	$+0.6$			$-21^{\circ} 45 94 (9.2)$
± 0.005	-0.5			
± 0.075	-0.1			$-21^{\circ} 45 94 (9.2)$
± 0.045	-0.5			
± 0.035	$+35$			$-21^{\circ} 45 94 (9.2)$
± 0.032	$+3.2$			
± 0.020	$+2.5$			$-21^{\circ} 45 64 (9.3)$
± 0.005	$+2.5$			
± 0.005	-0.2			$-21^{\circ} 45 64 (9.3)$
± 0.032	$+0.7$			
± 0.025	$+0.6$			$-21^{\circ} 45 64 (9.3)$
± 0.030	-0.5			
± 0.012	-0.2			$-21^{\circ} 45 64 (9.3)$
± 0.015	-0.7			
± 0.155	-2.5			$-21^{\circ} 45 54 (9.7)$
± 0.040	-1.5			

Cont. on P. 82.

(Titan)

Photometric

W. Q. H.

Date.	Tabular Quantity	Diff Magn.	h. m. s.	Residuals	J. R.	Book Page
1899. 5. 15	$\begin{matrix} a \\ b \end{matrix} \begin{matrix} +1.01 \\ +1.04 \end{matrix} \begin{matrix} +1.05 \\ +1.13 \end{matrix}$	+1.06	16 22.8	.01.02.02.03	4790	106. 209
	$\begin{matrix} a \\ b \end{matrix} \begin{matrix} +0.58 \\ +0.94 \end{matrix} \begin{matrix} +1.05 \\ +1.16 \end{matrix}$	+1.00	16 50.8	.03.03.05.06	"	" 210
5. 17. (2)	$\begin{matrix} a \\ b \end{matrix} \begin{matrix} -0.54 \\ -0.59 \end{matrix} \begin{matrix} -0.63 \\ -0.73 \end{matrix}$	-0.77	16 0.2	.02.03.05.05	4792	" 214
	(1) $\begin{matrix} a \\ b \end{matrix} \begin{matrix} -0.68 \\ -0.60 \end{matrix} \begin{matrix} -0.51 \\ +1.00 \end{matrix}$	-0.77	15 50.0	.04.04.09.12	"	" 213
5. 30	$\begin{matrix} a \\ b \end{matrix} \begin{matrix} -1.69 \\ -1.65 \end{matrix} \begin{matrix} -1.50 \\ -1.41 \end{matrix}$	-1.56	16 43.3	.02.02.04.05	4505	107. 59
	$\begin{matrix} a \\ b \end{matrix} \begin{matrix} -1.30 \\ 1.30 \end{matrix} \begin{matrix} 1.50 \\ 1.49 \end{matrix}$	-1.46	16 51.0	.00.00.00.01	"	" 60
6. 1.	$\begin{matrix} a \\ b \end{matrix} \begin{matrix} -1.67 \\ -1.67 \end{matrix} \begin{matrix} -1.43 \\ -1.53 \end{matrix}$	-1.58	16 4.9	.00.00.06.06	4507	" 58
	$\begin{matrix} a \\ b \end{matrix} \begin{matrix} -1.49 \\ -1.47 \end{matrix} \begin{matrix} -1.58 \\ -1.60 \end{matrix}$	-1.54	16 13.7	.01.01.01.01	"	" 59
6. 6.	$\begin{matrix} a \\ b \end{matrix} \begin{matrix} -1.01 \\ -1.07 \end{matrix} \begin{matrix} -1.29 \\ -1.34 \end{matrix}$	-1.15	16 45.2	.03.03.03.02	4512	156
	$\begin{matrix} a \\ b \end{matrix} \begin{matrix} 1.59 \\ -1.32 \end{matrix} \begin{matrix} -1.23 \\ -1.32 \end{matrix}$	-1.42	16 52.8	.11.10.03.03	4512	157
6. 13		+0.44	15 9.1	.04.05.04.04	4519	
		+0.52	15 24.5	.03.04.06.06		
6. 16		+0.49	15 43.6	.01.01.05.05	4522	
		+0.45	15 50.2	.03.03.03.02		
6. 19		+0.49	16 42.1	.04.04.01.01	4525	
		+0.46	16 49.4	.02.01.02.03		
6. 21		+0.55	15 22.1	.02.03.01.00	4527	
		+0.43	15 32.1	.06.05.05.09		
[6. 27		-1.40	16 29.9	.05.05	4533	
6. 29		-1.35	15 44.5	.06.06.00.00	4535	
		-1.29	15 52.6	.01.01.01.01		
6. 30		-1.46	16 23.6	.00.01.05.05	4536	
		-1.40	16 30.9	.06.05.02.03		
7. 1		-1.40	15 27.2	.14.13.07.07	4537	
		-1.35	15 40.4	.05.04.02.02		
7. 3		-1.35	16 16.3	.02.03.05.05	4539	
		-1.42	16 23.7	.03.03.07.06		
7. 10		-0.34	17 19.0	.05.09.01.01	4546	
		-0.32	17 26.5	.03.03.00.00		

Art. Rev.	A-B.	mag Mean	mean	Comp. Star =
± 0.02	-0.2			$-21^{\circ} 4645(9.1)$
± 0.042	-19			
± 0.035	-1.4			$-21^{\circ} 4641(9.0)$
± 0.065	-2.6			
± 0.032	$+2.1$			$-21^{\circ} 4605(9.0)$
± 0.002	$+2.0$			
± 0.03	$+1.5$			$-21^{\circ} 4605(9.0)$
± 0.01	$+1.1$			
± 0.032	-1.2			$-21^{\circ} 4605(9.0)$
± 0.062	-1.2			
± 0.042	-2.3			$-21^{\circ} 4594(5.3)$
± 0.045	$+0.4$			
± 0.045	$+1.2$			$-21^{\circ} 4594(5.2)$
± 0.025	$+0.7$			
± 0.025	$+1.0$			$-21^{\circ} 4594(5.2)$
± 0.020	$+0.5$			
± 0.015	-3.6			$-21^{\circ} 4594(5.2)$
± 0.070	-2.2			
± 0.050	$+2.0$			$-21^{\circ} 4564(9.3)$
± 0.030	-0.3			$-21^{\circ} 4564(9.3)$
± 0.010	-2.0			
± 0.025	$+1.6$			$-21^{\circ} 4564(9.3)$
± 0.040	$+1.6$			
± 0.002	$+3.5$			$-21^{\circ} 4564(9.3)$
± 0.032	$+0.7$			
± 0.035	$+1.5$			$-21^{\circ} 4564(9.3)$
± 0.045	$+3.0$			
± 0.045	$+0.4$			$-21^{\circ} 4554(5.7)$
± 0.025	$+1.4$			

Continued

Librae.

May 24 1899.

Comp. Star = δ 10. $-7^{\circ} 39' 43'' (7.0)$

h. m. Time	Diff Magn	Cor. Sec.	h. m. Time	Diff Magn	Cor. Sec.	h. m. Time	Diff Magn	Cor. Sec.
I a	-1.65	.03	IV a	1.62	-.04	IX a	1.52	.02
	-1.72	-.04		1.55	.03		1.55	-.01
12 52.3° b	1.65	± 0.35	13 37.5° b	1.52	± 0.35	14 20.2 b	1.54	± 0.15
	1.52	-.10		1.54	-.02		1.61	-.01
	1.63	.09		1.57	.01		1.59	.01
	1.72	± 0.95		1.52	± 0.15		1.60	± 0.1
	-1.70	± 0.65		-1.70	± 0.25		-1.57	± 0.12
II b	1.94	.06	V b	1.74	.01	X b	1.05	-.02
	2.07	-.07		1.76	-.01		1.51	.02
13 1.2 a	2.00	± 0.65	13 47.7 a	1.75	± 0.1	14 35.2 a	1.53	± 0.2
	-1.77	-.05		1.60	-.02		1.40	-.05
	1.65	.04		1.57	.01		1.30	.05
	1.72	± 0.45		1.58	± 0.15		1.35	± 0.5
	-1.56	± 0.55		-1.66	± 0.12		-1.44	± 0.35
III a	1.65	-.02	VII a	-1.42	.03	XI a	1.34	.00
	1.61	.02		1.45	-.03		1.34	.00
13 11.6 b	1.63	± 0.2	13 55.4 b	-1.42	± 0.3	14 46.5 b	1.34	± 0.0
	1.53	-.01		1.77	-.07		1.45	-.05
	1.57	.01		1.64	.06		1.34	.06
	1.52	± 0.1		1.70	± 0.65		1.40	± 0.53
	-1.72	± 0.15		-1.55	± 0.45		-1.37	± 0.20
IV b	1.54	.06	VIII b	1.66	.02	XII b	1.40	.01
	-1.95	-.05		1.70	-.02		1.42	-.01
13 19.1 a	1.90	± 0.55	14 2.6 a	1.68	± 0.2	14 55.7 a	1.41	± 0.1
	1.77	-.07		1.56	-.03		1.24	.01
	1.64	.06		1.50	.03		1.26	-.01
	1.70	± 0.65		1.53	± 0.3		1.25	± 0.1
	-1.50	± 0.6		-1.60	± 0.25		-1.33	± 0.1

Likab.

75

1898

Mr. M. Time	Diff Magn	Gr	Mr. M. Time	Diff Magn	Gr	Mr. M. Time	Diff Magn	Gr	
<u>XIII</u> ^a	1.28	-04	<u>XVII</u> ^a	0.99	-01	May 25-1899	<u>I</u> ^a	-1.94	-02
	1.20	.04		-0.96	.02			-1.90	+02
15 15.5 ^b	1.24	±04	16 12.7 ^b	0.98	±015	15 45 55 ^b		-1.92	±02
	1.24	.02		0.99	.03			-2.15	.04
	1.28	-02		1.04	-02			-2.27	-05
	1.26	±02		1.02	±025			-2.22	±045
	-1.25	±03		-1.00	±02			-2.07	±032
<u>XIV</u> ^b	1.20	-04	<u>XVIII</u> ^b	1.03	-01	<u>II</u> ^b		-2.04	.06
	1.19	.05		1.02	.06			-2.15	.05
15 27.2	1.24	±045	16 21.7 ^a	1.02	±005			-2.10	±055
	1.13 ^a	.00		0.95	±02	15 56 21 ^a		-1.96	.02
	1.13	.00		0.99	-02			-2.00	-02
	1.13	.00		0.97	±02			-1.98	±02
	-1.15	±022		-0.94	±0102			-2.04	±038
<u>XV</u> ^a	1.11	.01				<u>III</u> ^a		-2.00	.00
	1.13	-01						-2.00	.00
15 37.9	1.12	±01				16 3 16 ^b		-2.00	.00
	1.14 ^b	-03						-2.05	.00
	1.00	.03						-2.05	.00
	1.11	±03						-2.05	.00
	-1.12	±02						-2.02	.00
<u>XVI</u> ^b	1.06	-02				<u>IV</u> ^b		-2.07	-03
	1.03	±03						-2.02	.02
16 4.6	1.04	±025				16 10 35 ^a		-2.04	±025
	0.96 ^a	.00						-2.00	-02
	0.97	-01						-1.95	±03
	0.96	±005						-1.92	±025
	-1.00	±015						-2.01	±025

Likae

May 29, 1899.

Gr. M. Time

Lift ar
Magn Rev

Gr. M. Time

Lift ar
Magn Rev

Gr. M. Time

Lift ar
Magn Rev

-1.22 .00

IV

-1.97 .03

VIII

-1.91 .02

-1.29 .01

-1.90 .04

-1.27 .02

12 59 25

-1.28 ±0.05

13 23 6.7

-1.94 ±0.35

14 17 35.0

-1.89 ±0.2

-2.01 .01

-2.01 .01

2.02 ±0.3

-1.98 .02

-1.99 ±0.1

2.00 ±0.3

-2.00 ±0.15

-2.00 ±0.1

2.05 ±1.3

-1.94 ±0.1

-1.97 ±0.2

1.97 ±1.25

May 30, 1899

I

-1.95 .03

V

-2.01 ±0.2

May 31, 1899

I a

-1.50 .05

-1.25 ±0.4

2.05 .02

1.33 ±0.9

-1.92 ±0.35

2.03 ±0.2

1.42 ±0.59

12 57 55.0

-1.56 .03

13 33 29.3

1.93 .03

14 15 02

1.54 .00

-1.92 .03

1.56 .04

1.54 .00

-1.89 ±0.3

1.80 ±0.35

1.54 .00

-1.90 ±0.32

1.96 ±0.25

1.42 ±0.44

II

-1.90 .02

VI

-1.51 ±0.4

II b

-1.50 .02

-1.93 .01

1.59 ±0.4

II

1.59 .02

13 5 6.7

-1.92 ±0.15

13 50 15

1.55 ±0.4

14 24 30

1.57 ±0.2

-2.00 .02

2.06 ±0.1

-1.36 .00

-2.04 .02

2.04 ±0.1

1.36 .00

-2.02 ±0.2

2.05 ±0.1

1.36 .00

-1.97 ±0.15

1.95 ±0.25

1.46 ±0.1

III

-2.09 .05

VII

-2.10 ±0.4

III a

-1.35 .01

-2.00 ±0.4

2.03 ±0.3

-1.35 .02

13 13 43.0

-2.04 ±0.15

14 5 20.5

2.06 ±0.35

14 34 31

-1.36 ±0.15

-1.93 ±0.3

2.01 ±0.9

-1.40 ±0.2

-2.00 .04

1.54 ±0.5

-1.37 ±0.1

-1.96 ±0.35

1.92 ±0.5

1.38 ±0.15

-2.00 ±0.4

1.99 ±0.6

1.37 ±0.15

J. Libal

Gr. M. Time	Diff Magn	Ar. Sec	Gr. M. Time	Diff Magn	Ar. Sec	Gr. M. Time	Diff Magn	Ar. Sec
<u>IV</u> b	-1.36	.00	<u>VIII</u> b	-1.11	-.01	<u>XII</u> b	-1.03	.03
	-1.36	.00		-1.09	+.01		1.10	+.04
14 45 51	-1.36	.00	15 41 04	1.10	+.01	1 6 39 12	1.06	±.035
a	-1.32	±.02	a	1.05	-.04	a	.96	.00
	-1.27	-.03		.99	+.05		.95	.01
	-1.30	±.025		1.04	±.045		.96	±.005
	-1.33	±.018		-1.07	±.025		-1.01	±.02
<u>V</u> a	-1.27	-.03	<u>VIII</u> a	-0.91	+.03	<u>XIII</u> a	-0.92	+.04
	1.22	.02		.96	-.02		1.00	-.04
15 4 15	1.24	±.025	16 3 14	.94	±.025	1 6 49 39	.96	±.04
b	1.29	.03	b	.99	.00	b	1.05	±.02
	1.34	-.02		.99	.00		1.10	-.02
	1.32	±.025		.99	.00		-1.12	±.02
	-1.25	±.025		-0.96	.012			±.03
<u>VI</u> b	-1.31	-.06	<u>X</u> b	-1.05	-.02	<u>XIV</u> b	-1.13	+.01
	-1.19	+.06		1.01	+.02		1.16	-.02
15 16 56	-1.25	±.06	16 14 25	1.03	±.02	1 7 02 25	1.14	±.015
a	-1.19	-.05	a	.95	+.04	a	1.03	+.03
	-1.09	+.05		.96	-.04		1.10	-.04
	-1.14	±.05		.92	±.04		1.06	±.035
	-1.20	±.055		-0.98	±.03		-1.10	±.025
<u>VII</u> a	-1.11	.01	<u>XI</u> a	-0.93	-.01	<u>XV</u> b	-1.09	-.03
	-1.12	.00		.92	.00		1.04	±.02
15 27 20	-1.12	±.005	16 26 42	.92	±.01	1 7 10 32	1.06	±.025
b	-1.13	±.02	b	1.01	±.03	a	1.24	.00
	-1.17	-.02		1.06	-.02		1.25	.01
	-1.15	±.02		1.04	±.025		1.24	±.005
	-1.14	±.012		-0.92	±.015		-1.15	±.015

J Libal

J. Lihab.

Comp. * = 0m.

Name. Ceraski's New Var.

June 3, 1899.

John Timmer's

I

 Lift - av
 Magn Lev.
 -0.09 -0.05
 +0.01 +0.05

 Jr. M. Timmer's
 V

 Lift - av
 Magn Lev.
 +0.05 +0.03
 0.00 -0.02

 Jr. Meantime
 IX

 Lift - av
 Magn Lev.
 +0.27 -0.01
 +0.25 0.0

15 44 32

a

 -0.04 ± 0.05
 -0.27 +0.03
 -0.32 -0.02
 -0.30 ± 0.05

16 16 33

a

 +0.02 ± 0.05
 -0.12 0.0
 -0.11 +0.01
 -0.12 ± 0.05

17 13 22

a

 +0.25 ± 0.05
 +0.22 +0.02
 +0.17 -0.03
 +0.20 ± 0.05

II

a

 -0.17 ± 0.05
 -0.27 +0.02
 -0.31 -0.02

VI

a

 -0.05 ± 0.05
~~-0.05~~ +0.01
 -0.06 0.0

X

a

 +0.24 ± 0.05
 +0.23 -0.05
 +0.33 +0.05

15 51 31

b

 -0.29 ± 0.02
 -0.16 -0.04
 -0.09 +0.03
 -0.12 ± 0.05

16 32 43

b

 -0.06 ± 0.05
 +0.05 -0.03
 +0.10 +0.02
 +0.05 ± 0.05

17 32 01

b

 +0.25 ± 0.05
 +0.22 -0.12
 +0.45 +0.13
 +0.35 ± 0.13

III

b

 -0.20 ± 0.05
 -0.11 +0.01
 -0.14 -0.02

VII

b

 +0.01 ± 0.05
 +0.16 +0.04
 +0.05 -0.04

XI

b

 +0.32 ± 0.09
 +0.45 -0.04
 +0.57 +0.05

15 59 51

a

 -0.12 ± 0.05
 -0.29 -0.04
 -0.21 +0.04
 -0.25 ± 0.04

16 50 14

a

 +0.12 ± 0.04
 +0.03 -0.01
 +0.04 0.0
 +0.04 ± 0.05

17 42 57

a

 +0.52 ± 0.05
 +0.40 -0.02
 +0.44 +0.02
 +0.42 ± 0.02

IV

a

 -0.15 ± 0.05
 -0.23 -0.04
 -0.15 +0.04

VIII

a

 +0.05 ± 0.02
 +0.05 +0.03
 +0.02 -0.03

XII

a

 +0.47 ± 0.03
 +0.52 -0.02
 +0.57 +0.03

16 7 52

b

 -0.19 ± 0.04
 -0.04 +0.01
 -0.06 -0.01
 -0.05 ± 0.01
 -0.12 ± 0.05

17 00 32

b

 +0.05 ± 0.03
 +0.24 +0.05
 +0.14 -0.05
 +0.19 ± 0.05
 +0.12 ± 0.04

18 00 38

b

 +0.54 ± 0.05
 +0.73 -0.01
 +0.76 +0.02
 +0.74 ± 0.05
 +0.64 ± 0.02

Mr. Ceraskie's New Variable.

Gr. M. Time		Lift	av.	Gr. M. Time		Lift	av.	Gr. M. Time		Lift	av.
		Magn	Rev.			Magn	Rev.			Magn	Rev.
<u>XIII</u> b		+0.57	.00	<u>XVII</u>		+2.19	+0.01				
		+0.57	.00			+2.18	.00				
15	16 54	+0.57	.00	19	53	+2.18	±0.05				
		+0.52	.00			+2.33	+0.01				
		+0.53	+0.01			+2.32	.00				
		+0.52	±0.05			+2.32	±0.05				
		+0.55	±0.02			+2.25	±0.05				
<u>XIV</u> a		+0.99	+0.02								
		+0.95	-.02								
15	35 00	+0.97	±0.02								
		+1.13	+0.01								
		+1.10	-.02								
		+1.12	±0.10								
		+1.04	±0.15								
<u>XV</u> b		+1.45	-.05								
		+1.58	+0.05								
14	49	+1.53	±0.05								
		+1.73	+0.09								
		+1.56	-.05								
		+1.64	±0.05								
		+1.58	±0.05								
<u>XVI</u> a		+1.76	-.05								
		+1.91	+0.07								
19	34 12	+1.84	±0.05								
		+1.99	-.05								
		+1.91	+0.04								
		+1.95	±0.04								
		+1.90	±0.06								

Mme Craskie's Vae.

Inne Clarkis' Val

Imme Cerastis Var.

Mae Crank's Var.

Japetus

1899.

Continued from p. 70.

Date	Tabular Longitude	Diff. Magn.	Lat. M. T.	Residuals	Jul. Day	Vol. Page
1899. 7. 11.		+3.09	15 45.1	.03.03 .02.02	4547	
		+3.03	15 59.7	.05.06 .01.00		
7. 13.		+3.04	15 58.6	.02.02 .03.02	4549	
		+3.06	16 43.2	.01.02 .07.06		
7. 14		+3.10	15 42.1	.04.04 .02.03	4550	
		+2.97	15 56.9	.02.03 .03.02		
7. 15		+3.00	15 40.7	.11.11 .04.04	4551	
		+2.55	15 53.1	.01.01 .06.06		
7. 15		+2.55	14 5.5	.03.03 .01.06	4554	
		+2.56	14 24.6	.01.01 .06.01		
7. 26		+2.30	15 47.6	.05.05 .03.02	4562	
		+2.26	16 4.3	.04.05 .01.01		
7. 27		+2.42	15 23.9	.01.00 .03.03	4563	
		+2.39	15 40.5	.02.02 .01.00		
7. 28		+2.31	16 14	.00.01 .00.00	4564	
		+2.32	16 21.6	.00.00 .09.09		
7. 31		+2.10	14 23.5	.03.03 .08.08	4567	
		+2.16	14 30.3	.06.06 .04.03		
8. 7		+1.92	14 15.9	.02.03 .02.03	4575	
		+1.90	14 25.3	.00.00 .01.01		
8. 14		+1.73	13 55.5	.01.01 .05.07	4581	
		1.65	13 35.7	.02.02 .01.02		
8. 17		1.73	12 56.0	.04.04 .04.04	4584	
		1.70	13 14.4	.02.03 .01.01		
9. 4		2.46	12 30.0	.02.03 .04.05	4902	
		2.45	12 42.5	.01.01 .04.04		
9. 5		2.70	12 59.5	.04.10 .03.03	4903	
		2.65	13 13.0	.03.02 .05.04		

Av Dev.	A-B	Magn. Dafetus	mean.	Comp. Star =
± 0.025	-12			$-21^{\circ}4554(F.7)$
± 0.030	-35			
± 0.022	-32			$-21^{\circ}4554(F.7)$
± 0.040	-32			
± 0.032	-24			$-21^{\circ}4554(F.7)$
± 0.025	-06			
± 0.075	-20			$-21^{\circ}4554(F.7)$
± 0.035	+30			
± 0.015	+06			$-21^{\circ}4554(F.7)$
± 0.005	+01			
± 0.052	+04			$-21^{\circ}4540(F.5)$
± 0.025	+10			
± 0.015	+25			$-21^{\circ}4539(F.7)$
± 0.012	+34			
± 0.002	+15			$-21^{\circ}4539(F.7)$?
± 0.045	+15			
± 0.055	-24			$-21^{\circ}4539(F.7)$?
± 0.045	-15			
± 0.025	-05			$-21^{\circ}4540(F.5)$
± 0.005	-09			
± 0.042	+02			$-21^{\circ}4540(F.5)$
± 0.015	-01			
± 0.040	-32			$-21^{\circ}4540(F.5)$
± 0.015	-27			
± 0.035	-24			$-21^{\circ}4540(F.5)$
± 0.025	+10			
± 0.062	-12			$-21^{\circ}4540(F.5)$
± 0.035	-12			

(over)

J apetus.

1599.

Continued from previous page.

Date	Tabular Quantity.	Diff. Magn.	Gr M. T.	Residuals	Sub. Day	Book Page
1599.	9. 6	+3.05	12 40.5	.03.04	-02.03	490 ~~5~~
	" "	+2.92	13 00.0	.04.04	-01.00	
9	7	+2.96	12 36.0	.05.07	-02.02	490 ~~5~~
"	"	+3.00	13 17.0	.01.02	.01.00	
9	13.	+3.16	12 47.0	.05.04	.12.13	491 ~~1~~

Av. Dev.	A-B.	magn label	mean	Comp. Star =
± 0.030	+22			$-21^{\circ} 4540 (F5)$
± 0.022	+17			
± 0.045	-03			$-21^{\circ} 4540 (F5)$
± 0.010	+04			
± 0.025	-28			$-21^{\circ} 4540 (A5)$

Titan 1599.
Continued from p. 73.

Date	Tabular Secant	Diff. magn	Sh. M. T.	Residuals	Day	Book Page
1599 7. 11.		-0.42	16 16.5	02.02 .13.13	4547	
		-0.35	16 26.5	02.02 .04.04		
7. 13		-0.46	16 21.0	06.05 .01.01	4549	
		-0.42	16 30.1	12.12 .11.12		
7. 14		-0.35	16 16.9	01.01 .07.06	4550	
		-0.41	16 27.6	02.01 .01.02		
7. 15		-0.44	16 5.3	04.04 .05.09	4551	
		-0.35	16 20.4	03.02 .03.03		
7. 15		-0.34	14 46.6	02.02 .01.01	4554	
		-0.40	14 59.0	02.01 .05.05		
7. 26		-0.23	16 15.9	00.01 .00.00	4562	
		-0.22	16 27.3	02.03 .10.10		
7. 27		-0.25	15 59.7	00.01 .01.01	4563	
		-0.24	16 11.1	01.02 .02.02		
7. 28		-0.31	16 35.5	07.06 .01.02	4564	
		-0.25	16 43.4	03.02 .02.01		
7. 31		-0.14	14 40.5	00.00 .01.02	4567	
		-0.25	14 51.9	01.01 .06.07		
7. 5.		-0.21	14 36.3	14.14 .00.00	4573	
		-0.16	14 45.2	04.04 .03.02		
7. 14.		-0.15	13 51.7	04.04 .03.02	4581	
		-0.22	14 35	03.03 .01.01		
7. 17.		-0.16	13 36.0	04.03 .03.02	4584	
		-0.13	13 51.2	03.02 .03.02		
9. 4.		-0.09	13 0.2	01.01 .02.02	4902	
		-0.05	13 12.5	00.01 .04.05		
9. 5.		-0.05	13 26.5	14.14 .02.02	4903	
		-0.03	13 36.0	05.06 .01.01		

dev. Dev.	A-B.	magn. Japetus	mean.	Comp. Star. =
± 0.075	+07			-21° 4554(F7)
± 0.030	+05			
± 0.032	-17			-21° 4554(F7)
± 0.115	-17			
± 0.038	-06			-21° 4554(F7)
± 0.025	-18			
± 0.062	+11			-21° 4534(F7)
± 0.025	-09			
± 0.025	-04			-21° 4554(F7)
± 0.032	.00			
± 0.002	-22			-21° 4540(F5)
± 0.062	+05			
± 0.008	+27			-21° 4539(F7)
± 0.015	+19			
± 0.040	-18			-21° 4539(F7) ?
± 0.020	-10			=
± 0.005	-32			-21° 4539(F7) ?
± 0.038	-35			
± 0.070	-02			-21° 4540(F5)
± 0.032	-24			
± 0.032	+05			-21° 4540(F5)
± 0.020	-05			
± 0.030	-16			-21° 4540(F5)
± 0.025	-14			
± 0.015	-16			-21° 4540(F5)
± 0.025	-12			
± 0.050	+02			-21° 4540(F5)
± 0.032	-14			

Cont. on next page.

Titan 1599.

Continued from prev. Page.

Date	Tabular Secant	Diff. Magn.	P. M. X.	Residuals	J.D.	Book Page.
1599. 9. 6. 1		-0.07	13 19.5	03.03.03.02	4904	
		-0.05	13 29.0	01.01.00.01		
9 7.		-0.05	13 1.5	02.01.04.04	4905	
		-0.04	13 45.0	00.01.02.02		

Av-Dev.	A-B.	magn 1/2.	mean	Comp star =.
± 0.025	-0.6			$-21^{\circ}45'40'' (5.5)$
± 0.005	-1.0			
± 0.025	-1.9			$-21^{\circ}45'40'' (5.5)$
± 0.012	+0.1			

