

1881phae, p.01-1042R

KG
11366
v.831

Palmer C. Ricketts

June 25

P.C. Ricketts

has teeth

9.3

2252

c

3

 λ Not clear ^{0.5} 157 not visible10.3 (3129?) $\bar{b}$

a

5

c

147

3

81

0.5

c.a

 $\bar{b}$

a

3

157

 β

(about) 0.5.

10.8

1982

1994 6

1993

0.5.

10.9

1998

1995 3

1987

June 29

9.2 1952 1870 5⁻ a very faint O.B.
 " " 5⁻ b somewhat cloudy

b a 6 c 147 ⁸¹ c³ a, O.B.

July 2

> ~~9.2 2112 a a 5 b faint O.B.~~
 9.3 2252 ^{2314 3.8} ~~μ~~ 8 ^{Supposed to be b re. 2261} 242 cloudy O.B.
 9.4 b a 5 c O.B.
 9.7 2151 ^{4.8} ^{2097 4.13} 5⁻ ^{2179 5.23} m O.B.
 > ~~10.3 2526 a 3 b O.B.~~
 10.5 2484 ^{2536 4.1} c 6 ²⁴⁹⁵ A 4.9 O.B.
 10.6 2494 ^{2536 4.1} c 4 d no number O.B.

July 4 1881

9.0	2176	2182 ^a _{4.7}	7	2202 ^{5.3}	0.5.
9.3	3557	3548 ^{5.0}	8	3549 ^{5.4}	0.5
9.7	3559	3549 ^{5.4}	2	3563 ^{5.4} faint	0.5
9.8	3400	3432 ^a _{4.7}	6	3393 ^c _{5.8}	0.5
10.0	~~2526~~	~~a~~	~~4~~	~~c~~	0.5.
10.1	2484	2495 ^A _{4.9}	2	2498 ^g _{5.5}	0.5
10.2	2494	2463 ^h _{4.8}	5	2	0.5
10.5	3973 ₈	3948 ^{5.5}	3	a no number	0.5
11.1	3611	3616	3	a no number	0.5

July 5-1881

P.C. Ricketts

9.4 3611 3616 3 a faint 0.5

9.9 ³⁴⁸²
5 Cygni ³⁵⁰⁶ τ 3.7 2 ³⁴⁵⁴ γ 3.9 0.510.4 3633 ^{Blue 92}
3 4.2 7 3659 5.1 0.5

July 6 1881

P.C. Ricketts

9.0	2509	$\frac{2478}{3} 3.6$	5	$\frac{2466}{1} 4.3$		0.9
9.2	3482	$\frac{3497}{5} 3.1$	7	3454	3.9	
9.3	3482	$\frac{3298}{0} 3.7$	3	3454	3.9	
9.5	1851	$\frac{1834}{4} 2.8$	6	$\frac{1850}{3} 3.5$		
9.7	2297	$\frac{2324}{8} 2.3$	7	$\frac{2370}{3} 3.3$		
9.7	2297	$\frac{2324}{8} 2.3$	7	$\frac{2395}{5} 3.2$		
9.8	2070	$\frac{134 \text{ Blue}}{2} 2.2$	5	$\frac{1834}{4} 2.8$		
10.0	2504 _a	$\frac{2514}{17} 3.2$	4	$\frac{2548}{1} 4.9$		
10.3	b	a	6	c	147 $\frac{.81}{.6}$ c'a	0.9
10.4	3075	3089	52 3	3064	5.6	faint 0.9
10.7	$\frac{3732}{5}$	$\frac{3676}{5} 3.27$	4	$\frac{3695}{8} 4.0$		Cepheus (var.)
10.8	$\frac{3602}{\mu}$	$\frac{3676}{5} 3.27$	3	$\frac{308 \text{ Blue}}{1} 4.2$		" (var.)

July 8

P C Ricketts →

9.2	1851	1834 2.8 4	¹⁸⁵⁰ ~~5~~ 3.5	Some haze
9.6	3482	³²⁹⁸ 0 3.7 2	3454 3.9	
9.7	2297	²³²⁴ E 2.3 7	²³⁷⁰ β 3.3	
9.7	2297	²³²⁴ E 2.3 7	²³⁹⁸ ~~0~~ 3.2	
9.8	2070	^{134 Blue} J 2.2 2	¹⁹⁶¹ J 3.2	
9.8	2070	^{134 Blue} J 2.2 5	1834 2.8	
10.3	2509	²⁴⁷⁸ β 3.6 6	²⁴⁸⁰ n 4.0	glare of O.B. moonlight O.B.
10.3	2509	²⁴⁷⁸ β 3.6 4	²⁴⁶⁶ L 4.3	
10.4	3732	³⁶⁷⁶ J 3.3 8	³⁶⁹⁵ E 4.0	J Cephei
10.5	3602 n	³⁶⁷⁶ J 3.3 4	³⁶⁹⁵ E 4.0	

July 9

> 9.0	1982	1994 ^{4.5}	3	1987 ^{4.8}	Moonlight 0.5
				"	"
> 9.0	1982	1994 ^{4.5}	4	1993 ^{4.9}	" "
> 9.2	1998	1995 ^{4.8}	2	1987 ^{4.8}	" "
> 9.2	1998	1994 ^{4.5}	6	1999 ^(no. just above 2000)	
> 9.6	Comet	^{Jensen Major} 1961 ^{3.2}	3	^{Jensen Minor} 2298 ^{3.9}	
10.3	"	^{Blue} 47 ^{3.9}	3	1595 ^{4.4}	
10.7	"	^{Zeepheer} 3929	4	2143	
> 9.7	2151	²¹⁶¹ 5 ^{3.3}	7	²¹⁵⁸ h ^{5.4}	faint 0.5
> 9.8	2252	2314 ^{3.8}	5	2270 ^{4.6}	0.5
> 10.0	2708	2669 ^{4.4}	6	2721 ^{6.1}	0.5
> 10.5	2484	2336 ^{4.1}	8	2495 ^{4.9}	rather low 0.5
> 10.6	2070	2223 ^{2.6}	2	2294 ^{3.3}	
> 10.9	J	³⁶⁷⁶ 5 ^{3.3}	8	E 4.0	
> 10.9	h	5 ^{3.3}	4	E 4.0	
11.0	J	5 ^{3.3}	7	E	
11.2	3482	3497 ^{3.1}	5	3454 ^{3.9}	
11.2	3482	3497 ^{3.1}	8	3506 ^{3.7}	

July 13

> 6 $\frac{3125}{a}$ $\frac{3129}{c}$ { 3 Stars in
Trapezium

> 10.6 Comet a 6 3 Pole
No 1222 4.9
star 3
4.4 comet
15.95 a star

> 10.7 J L 9 E cephei

> > μ L 3 E μ
E

> 10.9 2509 β 3.6 8 $\frac{2480}{n}$ 4.0 not very
clear

> " $\frac{2478}{\beta}$ 3.6 4 $\frac{2466}{L}$ 4.3

July 14

- > 9.0 Comet; ^{1595 4.4} 4th and ^{2063 4.8} 5th mag. Camel, ear Cloudy O.B.
 > 9.0 " " " " " " , 2, ^{1727 5.1} 5th under " Chin Cloudy O.B.
 > 9.2 μ ξ 2 ϵ Cephei
 > 9.2 δ ξ 2 ³⁷⁵⁴ 6 mag. nearest δ " O.B.
 > 9.3 δ ξ 3 ^{3682 5.0} O.B.
 > 9.4 Comet ^{4th Draco} 4th and ^{1535 6.0} 6th bet. it + pole
 > 9.6 2252 2261 ^{4.2} 4 2270 ^{4.6} O.B.
 > 9.6 2252 2261 ^{4.2} 2 ^{2290 5.8} 6th mag. nearest O.B.
 9.8 ρ Scorpii ^{sigma} 2574 ^{3.2} 6 2548 ^{4.9} O.B.
 (Sigma wrong on chart)
 Examine 2151 δ Virginis when possible
 > 10.0 2484 2536 ^{4.1} 7 2495 ^{4.9}
 > 10.0 2484 ^{6th 2573 (repeated star)} 6 mag. nearest 6 5 2495 ^{4.9}
 > 10.1 2526 2495 ^{4.9} 3 2539 ^{6.0}
 > 10.1 2526 2548 ^{4.9} 5 2539 ^{6.0}
 > 10.3 2509 ^{4.0} η 4 ^{4.3} Seeing good O.B.
 10.5 ξ Cygni ^{3193, 30} 8 ^{3454 3.9}
 10.5 " " δ 9 ^{3506 3.7} τ (Tau)
 10.6 2070 ^{2.2} γ in maj 8 γ Bootes (not used possible error)
 10.6 2070 ^{2.2} " " " 8 ^{2223 2.6} η "

July 15

> 9.0	2504a	²⁵¹⁴ T 3.26	2548 4.9	
> 9.1	2504a	2574 ^{3.2} 8	2495 ^{4.9}	
> 9.2	Comet	¹⁵⁹⁵ a 4.4 2	¹²²² d 4.9	³¹⁷²⁷ 51713
> 9.2	"	a 4.4 3	¹⁷²⁷ 5.1	a . Pole OS OS
> 9.4	2252	^{4.1} 2097 8	2270 4.6	
> 9.4	2252	^{4.2} 2261 2	2242 ^{5.6}	
> 9.5	2151	²⁰⁹⁷ 4.1 4	2179 ^{5.2}	
> 9.5	2151	8 6	2158 ^{5.4}	
> 9.6	1982	^{4.5} 1994 3	1987 ^{4.8}	
> 9.6	1982	" 8	1993 ^{4.9}	
> 9.7	1998	^{4.8} 1995 3	2006 ^{5.2}	
> 9.7	1998	1995-9	1987 ^{4.8}	
> 9.9	2484	²⁴⁹⁹ 4.3 6	2495 ^{4.9}	
9.9	"	d ^{no number} 8	"	
> 10.0	2526	2495 6	2539	
> 10.0	2526	2548 7	"	
> 10.2	2123	²¹⁶⁶ 4.6 2	2139 ^{5.4}	
> 10.2	"	²⁰¹⁴ 4.1 6	d	
> 10.3	J	³³ 1	E 4.0	
> 10.3	J	²³ 6.7	E 4.0	
> 10.4	M	³³ 3	E 4.0	
> 10.4	M	α 6	E	

July 17

> Comet 1595 3 1727 O.B.

July 18

> 9.0	2252	2314 ^{3.8}	6	2270 ^{4.6}	Somewhat	
> 9.0	2252	2261 ^{4.2}	4	"	Cloudy	0.5
> 9.1	Comet	155 ^{4.2} Blue	3	1727 ^{5.1}		0.5
> 9.1	"	62 ^{3.0}	"	8 2063 ^{4.8}		0.5
> 9.3	J	3676	8	3695-		
> 9.3	μ	"	7	"		
> 9.9	2506	2523 ^{5.0}	7	2492 ^{6.7}	Cloudy	0.5

(p.e.) — this star is incomplete itself
5.0 is mean of best three magnitudes.

July 19					
> 8.8	2252	²³³⁶⁸ ~~Librae~~ ^{3.0} 8	2270 ^{4.6}	0.5.	
> 9.0	2151	2097 ^{4.1} 6	2179 ^{5.2}	low	0.5
> 9.0	"	" 4	2158 ^{5.4}	down	0.5
> 9.3	2123	2166 ^{4.6} 2	2139 ^{5.4}	"	
> 9.3	"	2014 ^{4.1} 3.	2139 "	"	
> 9.5	2380	2327 ^{6.0} 7	2396 ^{5.4} (?)	"	
> 9.5	"	2382 ^{4.8} 4	2388 ^{6.0}	"	
> 9.5	2252	2314 ^{3.8} 7	2270 ^{4.6}	low	0.5
> 9.7	Comet	1507 ^{5.3} 2	1727 ^{5.1}	0.5	
> 9.7	"	^{Blue} 62 8	2063 ^{4.8}	0.5.	
> 9.8	3633	^{Blue} 90 ^{4.2} 4	3659 ^{5.1}	"	
> 9.8	"	^{Blue} 92 ^{4.2} 5	"	"	
> 9.9	μ Cephei	3676 ^{3.3} 3	3695 ^{4.0}	"	
> 9.9	δ "	3695 ^{4.0} 2	3647 ^{5.25}	"	
> 10.0	" "	3695 ^{4.0} 2	3580 ^{5.3}	"	
> 10.0	μ	α 23 8	3695 ^{4.0}	"	
	³⁹⁷⁸ δ 3973?	3967 3	3948		
> 10.4	2176	2182 ^{4.7} 8	2191 ^{5.7}		
> 10.4	"	2225 ^{5.3} 2	" ^{5.8}		
> 10.6	2506	About as faint as 2450 (?) [look up]			
> 10.7	3557	3591 ^{4.69} 5	3549 ^{5.4}		
> 10.7	3559	3549 ^{5.4} 5	3563 ^{5.4}	faint	
	3611	about as faint as ³⁶¹⁶ 5.4 but ~~not~~ little fainter			

July 21

- > 9.0 Comet $a^{4.4} 5 6^{5.1}$ (Sep 15) 0.8
 > 9.0 $a^{4.4} 4 6^{17.3}_{5.4}$ 0.8
 > 9.2 2526 $2573^{5.0} 5 2539^{6.0}$ "
 > 9.2 " $2548^{4.9} 6$ " 6.0 "
 > 9.6 2807 $2815^{5.6} 7 2770^{6.1}$

Seems to be Double each one about same 0.5
brightness as above

- > 9.7 2709(?) $2705^{5.6} 7 2770^{6.1}$ very faint

- > 9.8 δ $\delta^{3.3} 5 \epsilon^{4.0}$ Cephei
 > " " $\alpha^{2.3} 8$ "
 > " μ $\delta 3$ "
 > " " $\alpha 7$ "
 > 9.9 2123 $2166^{4.6} 2 2042^{5.6}$
 > 9.9 " $2014^{4.1} 8 2139^{5.4}$

- > 10.1 2380 $2323^{4.6} 7 2327^{6.0}$
 > 10.1 " $2357^{5.6} 1$ " 6.0

July 26

> 9.2 Comet ¹⁵⁹⁵a^{4.4} ²⁰⁶³⁻⁴f^{4.8} ¹⁹⁵⁵g^{4.9} ^{5th}g ^{F_{5th}} 0.5
 > 9.2 " a⁵ ¹⁹⁵⁵g^{4.9} ^{5th}g ^{F_{5th}} 0.5
 . a ^{Pale star} α

> 9.3 Comet a^{4.4} 2 f^{4.8} naked
 9.3 " ^{21415a} 3.0 8 ^{2507 min.} 4.5 eye
 > ²⁰¹⁶n^{3.6} 4 f^{4.8}

~~9.3 2123 as bright as c~~
 9.4 2123 ²⁰¹⁴c^{4.1} 8 ²¹⁶⁶c^{4.6}

cloudy O.B.

July 27

> 9.4	Comet	~~in situ~~ 3.0 8	f 4.8	08
> 9.4	"	~~in situ~~ 4.2 2	f 4.8	"
> 9.8	♂ Cephei	8 ^{3.3} 2	ε ^{4.0}	

Aug 1

10.0 Comet a^{2258}_{46} $2154^{5.9}$ 0.8 hrs Min
 10.0 " 5th $20634^{4.8}$ ~~2210~~ 6th $2210^{6.1}$ 0.8 . β
 " " " 2 6th nearest it 0.8 3.5
 " " " " " 3.6
 10.1 " $a^{4.2}$ 7 5th 4.8 Cam. ear
 10.1 " $2298^{3.9}$ 8 " 4.8 "

Aug 2

> 9.1	Comet	²²⁵⁸ k 4.6	3	²¹⁵⁴ q 5.9	0.5	(Plate III)
> 9.1	"	¹⁹⁵⁵ s 4.9	2	q 5.9	0.5	
> 9.1	"	²⁰⁶³⁻⁴ p 4.8	4	¹⁹⁴³ t 5.5	0.5	
> 9.2	"	^{4.2} j 4.2	7	k 4.6		naked eye
> 9.2	"	²²⁹⁸ u 3.9	8	k 4.6		
> 9.5	2526	2548	^{4.9} 3	2539	^{6.0}	blare 0.5
> 9.5	"	2495	^{4.9} 3	"		moonlight 0.5
9.5		2484	bright as 2495			blare 0.5
> 10.2	2700	²⁷²⁹ d 4.8	2	²⁷⁰⁶ c 5.3		0.5
> 10.2	"	a 4		²⁷⁴⁶ b 5.1		"
10.4	25947	²⁵⁹⁵ v 4.5	4	l		"
> 10.4	"	v 8		²⁶²² m 5.9		"
> 10.7	3489	³⁴¹⁴ e 3.7	8	³⁴³³ w 4.6		Squar. 0.5
> 10.7	"	³³⁰⁸ d 3.7	8	³³²² y 4.6		Cap. 0.5
> 10.8	3540	³⁵⁰⁹ b 5.7	2	³⁵⁶⁴ c 5.6		0.5
> 10.8	"	b 5		³⁵¹⁷ a 5.7		0.5
> 11.1	Jephei	^{4.3} s 4		^{4.0} e		
> 11.1	μ	s 7		e		

June 25, 1884
 Vesta (4)

11 25

(4) 2 a

11 25

11 25
 (4) 2 a

Aug 3

9.4	X Cyg.	3194 ^{5th}	8	3183	0.8
9.4	"	3152	3	"	0.8
> 9.6	Comet	2258 ^{4.6}	4	2154 ^{5.9}	0.8
> 9.6	"	2063 ^{4.8}	5	2210 ^{6.1}	0.8
> 9.8	3633	^{Blue} 3633 ^{4.2}	6	3659 ^{5.1}	
> 9.8	"	3695 ^{4.0}	5	3682 ^{5.0}	
> 9.9	Ceph.	Bright as	ε		
> 9.9	"	ε 3.3	8	ε 4.0	
> 10.2	3973	3978 ^{4.7}	8	a	very 0.8
> 10.2	~~3978~~	" 4.7	8	~~15~~ 6.4	faint "
> 10.3	2176	2182 ^{4.7}	4	2191 ^{5.7}	0.8
> 10.3		" 4.7	7	2202 ^{5.3}	"
> 10.5	2003	^{Blue} 4.7 3.9	8	1980 ^{5.5}	"
> "	"	^{Blue} 5.1 5.0	4	"	"
> 10.7	3611	3616	2+3	a	faint 0.8
> 10.9	3489	3414 ^{3.7}	8	3433 ^{4.6}	
> "	"	3416 ^{4.6}	4	K 3431 ^{5.5}	

Aug 4

> 9.1	2123	2257 ^{4.2} 6	2245 ^{5.3}	faint moon	0.8
> "	"	2166 ^{4.6} 4 or 5	2202 ^{5.3}	very faint	0.8
> 9.6	μ Cephe.	α 2 ³ 7	ϵ 4 ⁰	"	0.8
> 9.6	μ "	ζ 3 ³ 3	ϵ "	"	0.8
> 9.6	δ "	ζ 8	ϵ "	"	0.8
> 9.8	X Cyg	3194 4	3183	"	0.8
> 9.8	" "	3171 8	3152	"	0.8
> 10.0	Comet	2258 ^{4.6} 5	2154 ^{5.7}	moon. very faint	0.8
> 10.3	3489	3414 ^{3.7} 7	3433 ^{4.0}		

Aug 5-

7 9.5 γ Cephei α^{23} 6 $\epsilon^{4.0}$ 0.5
 $\epsilon^{3.3}$ 4 ϵ'' 0.8

7 9.5 δ " ϵ'' 6 ϵ''

Aug 8

> 10.2 μ Ceph $\alpha^{2,3} 8 \epsilon^{4,0}$
 > 10.2 " " $\epsilon^{3,3} 4 \epsilon^{4,0}$

> 10.2 δ Ceph $\alpha 8 \epsilon$
 > 10.2 " " $\epsilon 4 \epsilon$

Aug 10

> 98 μ Cep $\xi^{3.3}$ 6 $\epsilon^{4.0}$
> " " $\xi^{2.3}$ 9 $\epsilon^{4.0}$

> 98 δ Cep $\xi^{3.3}$ 7 $\epsilon^{4.0}$

Aug 11

> 9.5	μ Ceph.	α	8	Σ
> 9.5	μ "	β	5	Σ
> 9.5	δ "	γ	4	Σ
> 9.5	δ "	α	7 ²⁸	Σ
			never 8	

Aug 12

> 818 δ cep 5 2 ϵ
 > " α 5- ϵ

> " μ 5 9 ϵ

Aug 15-

> 8.6	2526	2548 ^{4.9} 6	2539 ^{6.0}	0.8
8.6		2568 ^{5.2} 102	2511 ^{5.5}	0.8
8.7		2495 ^{4.9} 6	2511 "	0.8

> 8.8 Comet c 1609^{3.0} 8 1558^{4.2} 0.8.

> 9.2 6 a 6 c Sagitta 0.8
 See p. 3

Aug 16

P. C. Ricketts

> 10.2 μ Ceph Σ 7 2> 10.2 δ " Σ 2 Σ > 10.2 " " Σ 6 Σ

Stars proximity of Algol type. 1882

H.P.		<i>h</i>	<i>m</i>	<i>s</i>	<i>i</i>	<i>i</i>	<i>mag</i>		HC
—	1	1	51	28	-2	40.2	6-7	—	
344.	2	2	3	10	+65	50.5		—	319
403.	3	2	27	0	+34	3.0		—	374
—	4	5	28	39	-35	13.4	6.5	—	
1374	5	7	10	44	-23	6.6	5	—	1301
2267	6	13	19	6	+55	44		—	21246
—	7	13	55	23	-1	40.8	0h.9.0	—	—
—	8	14	1	17	-9	38.7	6.9	—	—
—	9	15	18	22	+1	18.7	0h.7.9	— (1000)	—
—	10	16	1	16	-23	21.0	6	—	—
3836	11	21	38	3	+9	18.2	2.41	$\frac{9.176}{94.95}$	$\approx$ Regulus 3594
—	12	23	12	41	+72	53.6		—	—

A.L. 1

6-7 Piazzi ann
could not find.

*
2

⊙

Cetus.

+

+ 2

3⁺ 2⁺

+ 2

⊙

QV. 2

6.7 bl over 8.9

γ ϵ
 δ θ
 π σ
 τ ζ *Callisphaera*
 η δ

2.11

May	6	10.5	2 = a wh
May	7	8.5	same
May	16	11.6	same @ 5.
	23	11.4	same @ 5
	24	10.4	"
	29	10.5	same or el. per
June	6	9.3	" " el per the
"		11.3	"
"	7	10.0 ±	"
"	9	9.0	"
"	"	11.7	"
"	12	9.2	"
"	13	9.1	"
"	20	10.5	"
"	21	9.4	" or el per.
"	21	12.0	"
Aug	15	10.4	" 7.5
	22	8.7	"
Sept	1	7.9	"
April	11 1884	8.6	a 3 (2) b (1) (2) 7.5, 7.5, 7.5

20 3
* β Rec.

δ
+ ρ + π

And.
* γ

5.5 - 6 Br L P. &

$\odot$: .

δ + β many
+ ϵ

2

AV4

Columba

6.2-6.7

lillies says does not exist.
yet he found it.

 γ
 β
* α
 $\odot$ * Σ

QV. 5
 Canis Maj.

5 - 5 $\frac{1}{4}$ Rigel can 8.5



AUG.

Alum.

Meadler suggests like Algal.

AD7
See QV8.

Diags

8 = a

QV8 + 07

*6

K* 06

2*

*2

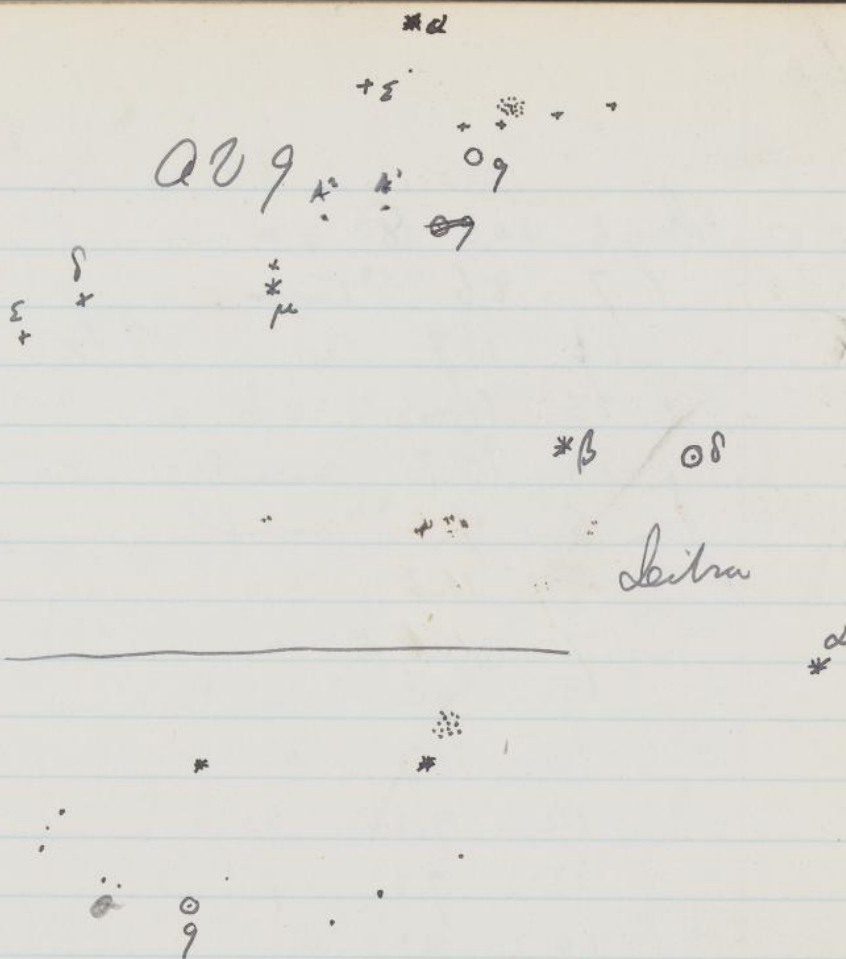
av. 7 0m 9.0

7. Argel thinks like Alge.

8 6-7 comets missed comets 8.9

1882

1882 May 6 10.3 8^h = a
 7 8.6 same
 16 11.7 " 7.5
 23 11.4 8 2 hr. a
 24 10.4 same
 June 6 9.4 same
 " 11.3 "
 7 10.4 ± "
 9 9.0 "
 " 11.7 "
 12 9.2 "
 13 9.1 "
 20 10.5 "
 21 9.4 "
 " 12.0 "



9 Harding could not find but suddenly appeared

¹⁸⁸²
 May 6 10.4 9.2 a
 " 7 9.0 9 = a
 " 16 11.8 9.3 a
 " 23 11.5 9.2 a F.H.
 Jun 6 9.4 none F.H.
 " 17.4 "
 " 7 10.1 "
 " 9 9.0 "
 " " 11.7 "
 " 12 9.2 "
 " 13 9.1 "
 " 20 10.5 "
 " 21 9.5 "
 " 21 12.0 "

Scorpius

α₂ 10

6-6½ can be 10

* β

* δ

⊙ α

1882
 May 6 10.6 10 .1 a
 " 16 11.8 same
 " 23 11.5 10 = a
 " 24 10.4 normal
 " 29 10.5 "
 June 6 9.5 "
 " 11.4 "
 " 7 10.1 ± "
 " 9 9.0 "
 " " 11.7 "
 " 12 9.3 "
 " 13 9.1 "
 " 20 10.5 "
 " 21 9.4 "
 " " 12.0 "
 Sept 1 8.0 ± "

ϵ Regni

AV 11

+ α And+ β Schmidt as fr
as p or I Regni+ γ + α + β + ϵ + γ + δ

QV12

Cepheus.



6 i 12

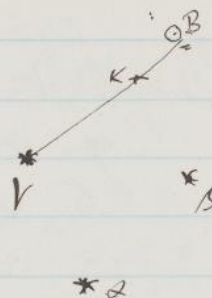
12 Scimitar 6-10 m

¹⁸⁸²
 May 6, 10.8 12 = a = b
 9 8.8 same
 16 11.9 "
 23 11.6 "
 24 10.4 normal
 June 6 9.3 "
 " 11.4 "
 " 7 10.1 ± "
 " 9 9.0 "
 " " 11.7 "
 " 12 9.2 "
 " 13 9.1 "
 " 20 10.5 "
 " 21 9.5 "
 " " 12.0 "
 Aug 15 10.9 "
 22 8.7 "
 Sept 1 7.9 "

44 better
 44
 44
 44

B Cassiopeiae

$\therefore KB = 0.4 \quad K\gamma$



$\therefore K$

K_L

V^*

1882

June 12 9.2 not seen,

" 13 9.1 " "

22 10.6 " "

21 9.5 " "

Aug 6 11.0 ± " "

Aug 15 10.4 not seen.

" 22 8.7 " "

Sept 1 7.9 " "

prob. 20

Supernova Variables in Photo Catalog and
in classes B.C and D.

	In Photo.	Class	RA	Dec.	Mag.	Mag.	Mag.	R
1	23	C	0 ^h 7.1	+14° 31'	γ Ugalis	3.04	.03	8
13	142		48.5	+22 57	36 Androm	5.23	.07	4
27	211		113.7	-1 8	42 Cete	6.25	.19	3 8
35	239		25.1	+14 44	η Pictis	3.66	.07	8
39	246		29.0	+72 26	40 Cass	5.46	.06	1, 2
51	309		53.9	+2 31	112 Pictis	5.84	.04	8 4.0 mag
53	329		57.7	-0 55	61 Cete	6.02	.09	8
55	331		59.1	-29 52	"	4.63	.04	8
69	463		250.6	-4 12	Enid.	6.21	.04	8
75	618		340.4	+23 44	α Canis	3.00	.04	
85	649		49.8	+39 40	ϵ Pictis	3.04	.05	2
89	715		49.0	+15 6	48 Canis	6.29	.08	8 3.9 mag
95	796		~~288~~	-20 0	U' Enid.	4.43	.08	8
103	840		43.3	+6 45	11 th Ori.	3.33	.02	8.9
105	846		44.8	-16 26	60 Enid.	5.29	.03	9
107	855		47.1	+2 19	5 Ori	5.74	.06	9 3.9 mag
109	867	C	49.9	-16 36	"	5.68	.03	9
111	881	C	54.2	+3 26	"	5.95	.03	9
113	883	C	54.4	-12 42	64 Enid.	4.90	.03	9
115	887		55.7	+0 33	"	6.10	.06	9

(295) 2.8 (4078) 2.6
 β Ari β Vir.

63 64

63 64

(291) 4.3 (418) 4.1 (2205) 4.0 (433) 3.6
 γ Ari δ Ceti α Vir γ Ceti

63

63

65

(638) 3.1 (591) 3.2
 γ δ

(295) 2.8 (562) 2.7
 β Ari ν Ari.

64, 65

64

63, 65

64, 65

64, 65

65

65,

H.P. Stars indicating variability.

2609. Dn 0

Feb. 5. 1895

702 ⁽²³⁾ γ Reg. 1 β Ari. β Reg. 2 ⁽²³⁾ γ 2.7 2.8 3.2
 707 142 c2 a = 2b 2d
 714 211 a2 b = 1c d1
 724 γ Ursa, 1 γ Ari, 1.8 Ceti, α Ursa =, γ Ceti 2 4.2 4.0, 4.0, 3.8 ⁵³³¹
 727 296 ^{met.} 2a b2

Feb 8, 1853

6 4623 y Ry.	β Reg. 2	= β Ari.	2 β Cephe.	2 Csh 2
6 503 142	a 2	2b	1 c	2d
	a 1	= b	1 c	2d
9 45 715	a 3	2b	c 1	2d
9 50 2 hmi	13	28	β 3	= 2 c Ari
10 0 840	3 π_4	β Erid 2	= γ Lani	2 γ Lani

+ .b
a .715 c
.. d

[10.1] 846

[102] 867

1 a 3 b

Capt. good does not agree with this
not 5 to exactly the of 4.9

Feb. 9, 1883.

8 50	463	2a	2b	c3	1d	7g
8 53	464	~~2a~~ ³	3f			7g
9 04	796		b1	2c		7g
9 07	849	β 4	31	1e	c2	7g
9 10	840	β Eri ²	3 π ⁴	3 γ Lani	3v	7g
9 20	883	a2	b1	3c	2a	6h
9 25	846	1a	4b	c3	=d	7h
10 5	867	a2	b1	4c	=d	7h
10 13	855	=a	2b	=887		7h

stopped by clouds

Thurs. 4. 1883.

γ Reg. ϵ γ α β Reg. α γ 1 β Ari
 142 (138) 1 (110) 2 (138) 1 (138) 2 (156) etc

Stars March 15, 1884
 foll. ϵ Orionis, Pohn.

a =	2 ^m 1 ^s	7.5	(8.1 Soll.)
b	2 42	7.5	8.6 by est.
c	2 52	4.0	9.3
d	3 6	2.0	~~9.6~~ 9.8
e	3 0	9	10.2
f	2 10	9.5	10.6

Stars foll. γ Geminorum.

a	3 40	5	7.5
b	2 18	3	8.9
c	2 24	9	9.3
d	2 39	1	9.5
e	3 1	6.5	11.3
f	3 50	9.0	10.5

76 Old no 1309 April 12 1884
1383+ not same

April 13, 1884

7.9

1309

sub sun

7.8

7.7

1249

sub sun

7.6

April 30, 1884

Obs 9⁰ 2482 7.4 about 6 mgs according to W. i.
 Miss. Dist.

9 40
 v 1 a }
 v 3 b }
 c 1 v }

c
 b
 c

10 25
 v 2 a Wds.
 v 3.5 b
 v 1 c

+
 b

Stars fall Jan 16 1884
 Adams

a	2	38	55
~~b~~	~~2~~	~~48~~	~~63~~
b	3	15	62
c	4	1	48

June 28, 1884

H.4

④ 2 a

	25	25	22	22	22	23	23	24	24	26	35
	Feb 26	Feb 27	Feb 28	28	30	Aug 14	15	26	27	Sept 13	Nov 9
a	+2	+2	+3	+3	+3	+4	+4				-1
b		-2	+2	+1	+2	+2	+2				-
c		-4	+2	+2	+1	+2	+1				-3
d		-2	+4	+3	+4	+4	+4				-2
e		+2	+5	+6	+5	+5	+5				-1
f			+1	+1	-1	+1	0	-3	-4	-5	
g			+1	+1	+2	+2	-2	-1	-2	-3	
h			-2	-2	-2	+1	+1	-3	-3	-5	
i			+2	+3	+3	+4	-1	+1	+1	+1	
j			-1	+1	-1	+2	+4	-2	-1	-3	
k				+3	-6	-4	+10	-	-3	-	
l				+3	+2	+2	+4	-3	-3	-4	
m					+1	+2	-2	-4	-3	-3	
n					+2	+1	-1	-2	-2	-3	
o					+3	+2	+2	-2	+1	-2	
p										+1	
q										-1	
r											+1
s											-2

June 29, 1884

11.6 ④ 2 a 6.5 6.3 -3

④ 21^h 43.2^m 17° 58'

11.8	b 2 ④	6.4	6.6	0
	c 4 ④	6.3	6.7	+1
	d 2 ④	6.6	6.8	+2
	④ 2 e	7.0	6.8	+2
			6.64	±.16

a	6.5
b	6.4
c	6.3
d	6.6
e	7.0
f	6.0
g	6.2
h	5.7
i	6.0
j	6.8
k	4.7
l	5.8
m	6.71
n	6.2
o	6.6

June 16	.515	2.6
July 6	.471	2.4
26	.447	2.2
Aug 15	.455	2.3
Sept 4	.505	2.5
24	~~.554~~	2.8
Oct 14	.619	3.1
Nov 3	.682	3.4
23	.739	3.7

10.4

④ 2 c

1 f

3 a

2 b

4 d

5 e

1 g

h 2 ④

1 f

2 2 i

10.5

j 1

July 25, 1864

July 28. 1884

⑥

11,2

3a

6.2

1b

6.3

2c

6.1

3d

6.

6xe

1f

1g

h2

1j

3i

K3

11,3

L3

July 20, 1884.

10.5 @ 3 a

2 b

1 c

4 d

5 e

f 1

h 2

2 g

3 i

j 1

k 6

~~l 1~~

10.6

l 2

1 m

2 n

3 o

Seymour's Pole to right

+1 0 -2 -2 -1 -2 +3 -2 -~~1~~ 0 +2

Aug 14. 1884.
Vicinity of H.P. 2938

a plane given by this to that of Argelander.

*
a H.P.
*
a Arg.

Vicinity of H.P.

N. north. str.

+ a Argelander

⊙ dull
2 7

Aug 17. 1884 8.2 N. north str. F.E. Rob?

11.6

Aug 14 1884

4a

2b

2c

4d

5e

1f

2g

1h

4i

2j

R4

L2

m2

1n

2o

May 7 1881
R Crateris Cent. hiker
8 28 R 3 hiker

+ .a
R h

Aug 15, 1884

11 30

4a

2b

1c

4d

5e

-f

g 2

1h

i 1

4j

k 10

l 4

m 2

n 1

20

37

Aug 26 1884

① appears for hours near light class

10 50

f 3

g 1

h 3

i :

j 2

k 7

l 3

m 4

n 2

10 53

o 2

August 27 1884

f 4

g 2

h 3

i 1

j 1

k 3

m 3

n 2

11 05

10

Sept 13. 1884

10 42

f 5

g 3

h 5

i 1

j 3

k 4

m 3

n 3

o 2

 $\begin{matrix} & & i^p \\ \text{Under } g & & \end{matrix}$
 very far.

Nov 9. 1886

Venus.

a 2 ④

L >

c 3 ④

d 2

e 1

f 3

gh k m n o p q

r 2

s 2

Results for Vesta. (4)

	M			U.A.	1.6+2h	Me
a	262	1 1 1 1 1	11	6.5	6.64	+14
b	240	. 1 0 1 0	11	6.4	6.40	.00
c	233	. 2 1 1 0	21	6.3	6.26	-.04
d	257	. 3 0 1 0	11	6.6	6.74	+14
e	274	. 0 0 . 0	11	7.0	7.08	+08
f	220	. . 1 1 1	2 1 1 2 1	6.0	6.00	.00
g	230	. . 0 0 1	2 2 0 1 0	6.2	6.20	.00
h	209	. . 1 1 1	1 1 0 0 0	5.7	5.78	+08
i	256	. . 2 1 1	1 1 1 1 1	6.0	6.72	+72
j	225	. . 1 1 1	3 0 0 1 1	6.8	6.10	-70
k				over 74.7		
l	219	. . . 3 2	3 3 1 1 0	5.8	5.98	+18
m	222	 1	3 1 2 1 1	6.1	6.04	-.06
n	228	 1	1 1 1 1 0	6.2	6.16	-.04
o	243	 1	1 1 2 1 0	6.6	6.46	+14

	Days Vesta.	No Stars	$\delta \pm$	$\frac{\Delta \pm}{n}$	$\frac{\Delta \pm}{n}$
June 26	2.5	1	+1	+10	+10
27	2.5	5	-5	-10	-10
July 25	2.2	11	0	.00	.00
28	2.2	10	0	+07	.00
30	2.2	14	+1	+16	+07
Aug. 14	2.3	14	+23	+04	+16
15	2.3	14	+6	-09	+04
26	2.4	9	-8	.06	-09
27	2.4	9	-5		-06
Sept 13	2.6	9	+3		+03
Nov 9	3.5				

$$\frac{27}{96} = \pm .10$$

a	7 7 5 5 5 7 7	262	1 1 1 1 1 1 1
b	- 3 4 3 4 5 5	240	~~1~~ 0 1 0 1 1
c	- 1 4 4 3 5 4	233	. 2 1 1 0 2 1
d	- 3 6 5 6 7 7	257	. 3 0 1 0 1 1
e	- 7 7 - 7 8 8	274	. 0 0 . 0 1 1
f	- - 3 3 1 4 3 1 0 1	220	. . 1 1 1 2 1 1 2 1
g	- - 3 3 4 5 1 3 2 3	230	. . 0 0 1 2 2 0 1 0
h	- - 0 0 0 2 2 1 1 1	209	. . 1 1 1 1 1 0 0 0
i	- - ~~4 5 5 7 7 5 5 7~~ ~~0 9 9 9 9 3 3 5~~	256	. . 2 1 1 1 1 1 1 1
j	- - 1 3 1 5 2 2 3 3	225	. . 1 1 1 3 0 0 1 1
k	- - - 5 6 9 (33) - - - var?		
l	- - - 5 4 5 9 1 1 2	219	. . . 3 2 3 3 1 1 0
m	- - - - 3 5 1 0 1 3	222	 1 3 1 2 1 1
n	- - - - 4 4 2 2 2 3	228	 1 1 1 1 1 0
o	- - - - 5 5 5 2 5 4	243	 1 1 1 2 1 0

$$\frac{1}{1} \frac{-5}{5} \frac{0}{11} \frac{0}{10} \frac{+1}{14} \frac{+23}{14} \frac{+6}{14} \frac{-8}{9} \frac{-5}{7} \frac{+3}{9}$$

$$.10 - 10.00 + .07 + 16 + 404 - .09 - .06 + 3$$

1001phase.pr0j.1942R