KG
11365
784

KG11365,784

1904phae.proj..785O

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Harvard College Observatory
Cambridge Mass.

Approximate magnitudes of Variable Stars on May 10. 05

Name	R.A. 1900.		Dec. 1900.		Magn.		Name	R.A. 1900		Dec. 1900		Magn.	
	h	m	°	'				h	m	°	'		
T Androm.	0	17.2	+26	26	13	d	R Leo Min	9	39.6	+34	58	12.5	d
T Cassiop.	0	17.8	+55	14	8.5	d	R Leonis	9	42.2	+11	54	6.0	i
R Androm.	0	18.8	+38	1	6.5		R Urs Maj.	10	37.6	+69	18	7.5	
S Ceti	0	19.0	−9	53		☌	R Comae	11	59.1	+19	20	15	f
S Cassiop.	1	12.3	+72	5	9.2	d	T Virginis	12	9.5	−5	29	12.5	d
R Piscium	1	25.5	+2	22		☌	R Corvi	12	14.4	−18	42	12.1	d
U Persei	1	52.9	+54	20	10.5	i	Y Virginis	12	28.7	−3	52	9.8	i
R Arietis	2	10.4	+24	36		☌	T Urs Maj.	12	31.8	+60	2	9.7	d
o Ceti	2	14.3	−3	26		☌	R Virginis	12	33.4	+7	32	8.5	d
S Persei	2	15.7	+58	8	8.7	i	S Urs Maj.	12	39.6	+61	38	12.5	d
R Ceti	2	20.9	−0	38		☌	U Virginis	12	46.0	+6	6	14	f
U Ceti	2	28.9	−13	35		☌	V Virginis	13	22.6	−2	39	8.5	i
R Trianguli	2	31.0	+33	50	6.5	i	R Hydrae	13	24.2	−22	46	4.4	
R Persei	3	23.7	+35	20		f	S Virginis	13	27.8	−6	41	12.5	d
R Tauri	4	22.8	+9	56		☌	R Can Ven.	13	44.6	+40	2	8.3	i
S Tauri	4	23.7	+9	44		☌	S Bootis	14	19.5	+54	16	9.0	i
R Aurigae	5	9.2	+53	28	9.1	d	R Camelop	14	25.1	+84	17	8.4	
U Orionis	5	49.9	+20	10	5.6	i	R Bootis	14	32.8	+27	10	10.0	i
R Lyncis	6	53.0	+55	28	14	f	S Librae	15	15.6	−20	2		u
R Gemini	7	1.3	+22	52	14	f	S Serpentis	15	17.0	+14	40	11.5	i
S Can Min.	7	27.3	+8	32	11.0	d	S Coronae	15	17.3	+31	44	9.2	d
R Cancri	8	11.0	+12	2	11.0		S Urs Min.	15	33.4	+78	58	11	
V Cancri	8	16.0	+17	36	12.0	d	R Coronae	15	44.6	+28	28	12.5	d
S Hydrae	8	48.4	+3	27	8.0	i	V Coronae	15	45.9	+39	52	9.0	d
T Hydrae	8	50.8	−8	46	13	f	R Serpentis	15	46.1	+15	26	13	d

Harvard College Observatory
Cambridge Mass.

Approximate magnitudes of Variable Stars (cont'd)

Name	R.A. 1900	Dec. 1900	Magn	Name	R.A. 1900	Dec. 1900	Magn
R Herculis	16^h 1.7^m	+18° 38′	15 d	S Cygni	20^h 3.4^m	+57° 42′	11.5
R Scorpii	16 11.7	−22 42	12 i	RS "	20 9.8	+38 28	9.0 d
S "	16 11.7	−22 39	12 d	R Delphini	20 10.1	+8 47	8.5 d
U Herculis	16 21.4	+19 7	8.2 d	U Cygni	20 16.5	+47 35	9.5 i
W "	16 31.7	+38 32	f	V "	20 38.1	+47 47	f
R Draconis	16 32.4	+66 58	11.5 i	T Aquarii	20 44.7	−5 31	u
S Herculis	16 47.4	+15 7	8.5 i	R Vulpec.	20 59.9	+23 26	u
R Ophiuchi	17 2.0	−15 58	f	T Cephei	21 8.2	+68 5	6.3
T Herculis	18 5.3	+31 0	10.0 d	S "	21 36.5	+78 10	9.2 i
R Scuti	18 42.2	−5 49	5.5	S Lacertae	22 24.6	+39 48	u
R Aquilae	19 1.6	+8 5	7.5 d	R "	22 38.8	+41 51	u
R Sagittarii	19 10.8	−19 59	f	S Aquarii	22 51.8	−20 53	s
S "	19 13.6	−19 12	u	R Pegasi	23 1.6	+10 0	s
R Cygni	19 14.1	+49 58	12.3 d	S	23 15.5	+8 22	s
RT "	19 40.8	+48 32	9.5 i	R Aquarii	23 38.6	+15 50	s
χ "	19 46.7	+32 40	10.0 d	R Cassiop.	23 53.3	+50 50	6.8 i

Note:- f denotes that the variable is fainter than the magnitude 13; i, that the light is increasing; d, that the light is decreasing; s that it is near the sun; and u that its magnitude is unknown.

From observations made at the McCormick, Mt. Holyoke College and Harvard Observatories.

Cannon

May

KG 11365.78#

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LIBRARY
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Saturday, Nov. 5, 1904

7 20 141954 S Bootis

k 1 v 11.22
11.22
11.22
v 3-4 l 10.5 th

23 180122 RW Herc.

No trace of the var.
Certainly < 12

35 175654 T Drac.

Var. invis. very clear.
α seen

212814 Y Cap.

40 l 0-1 v 10.5 th
v 4 m

Circ 74-II

45 201008 R Delph.

g 1 v 12.38
12.39
12.38
v 4 s 12.5 th

Nov. 5, 1904.

~~8~~ 7 55 001726 T Andromedae

v = u 12.33
v 4 w 12.18
12.26 12.5 th

8 00 001046 X Andromedae.

v = δ 9.5 th
v 4 ε

8 10 133273 T Urs.-Min.

var. invis.
All the stars in drawing seen
certainly < 12
Region rather hazy.

8 20 185737 RT Lyrae

See drawing on chart from I 25461

~~< 5 v ?~~ 11 th Reject. var. invis.
~~v 3 β~~

Nov. 7, 1904. Not the var. if pos. on chart is right. Star obs. is north of pos. on chart

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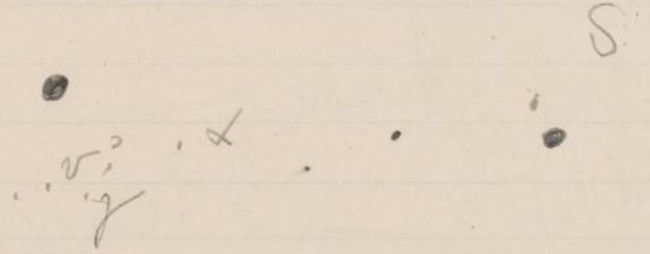
Nov. 5, 1904.

8 3 V 181136 W Lyrae

a 3 v
v 3 b 8th

191350 TT Cygni

8 4 V



I think the var. was obs. See I 18900

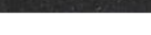
Nov. 7, 1904

N

If star marked be the var., then
β 3 v 10th
v 2 γ
γ within Dm,

5 0 205017 X Delphini.

β 3 v I am not sure of
v 2 α ident. of β.
8.5th.



Nov. 5, 1904.

9 00 203611 T Delphini

var. perh. inv.

This chart does not look much like the sky. If chart is right, var. is inv.

9 03 213843 SS Cygni

e 1 v

v 3-4 f

9.00
9.04
9.02

9th

10 204846 RZ Cygni

var. invis. ?

If not, I can not find it from this chart

Nov. 5, 1904.

930 053531 U Aurigae.

r 2 v $\frac{12.2}{}$ Ci. 74

obs. difficult on account of brighter star near var.

var = 12th

40 061647 V Aurigae

f 3 v $\frac{10.5}{}$ Circ. 74
r 1 h

10th

50 053005 T Ori.

f 2 v $\frac{9.8 \quad 10.0}{9.9}$ 10.5th
r 1-2 g

74-II.

(13) (286) L.P.
(5) (52)

Monday, Nov. 7, 1904

Quite windy & cold.

6 50 R Sag 191019

v = f 7.92 7.58 7.75 7.5 th

v 5 - 6 g

55 191321 Z Sag. 74-II

h 1 v 10.5 10 th ?

v 4 k

Low & very difficult owing to star near var.

58 171401 Z Oph photog.

e 3 v 8 th

v 1 h

Nov. 7, 1904

7 15 183308 X Oph.

7 th

a 3 v
v 6 b

Int. too great a-b, but I can not find a better star for b in or near the field

74-II

20 203905 T Aquarii

C's notation

f 2 v
v 1 g

10 th

40 204215 U ~~[illegible]~~ Capricorni

74-II

h 3-4 v 10.8
v 1 k

11 th

Nov. 7, 1904.

745 194604 X Aq. photog.

No trace of var.

~~No~~ seen

48 221324 X Aquarii photog.

b 1 v

v 3 f'   8th

58 25585$\overset{5}{8}$ Y Cas

b 2 v   photog.

v 1 f   9th

850 200906 Z Aquilae

C's notation

v = g   10.5th

v 2 h

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Nov. 7, 1904

815 215717 U Aquarii

74–II

c 4 v

v 1–1 d   9 th

204102 V Aquarii

20 v = d   8 th   74–II

v 1 = 2 e

27 202817 Z Delphini

δ 3 v   ~~9.5~~ 8.5 th

v 2 ε   or 9. th

35 233815 R Aquarii

n 2 v   10.01
10.04
10.02   est = 10.0

v 10

Nov. 7, 1904

8 40 234716 Z Aquarii

~~b 1 v~~

b 1 v photog. deg 9.th

v 2 c Var. has grown

fainter & the fainter stars

of R Aquar. seq. are too faint

away

43 213678 S Cephei

g 2 v 10.04 / 10.12 / 10.08 9th

v 1 h very red

47 213843 SS Cygni

f 1-2 v 9.54 / 9.42 / 9.48 est = 9.5

v 2 g

57 200938 RS Cygni

c 3 v 7.45 / 7.31 / 7.38 est 7.4

v 2 d

Nov. 7, 1904.

~~213678 S Cephei~~

9 02 59.1903 Cygni.

This var. is near R.S. It was announced by Wolf as a Nova but is a long period. It is the following one of a double star and is quite red now.

L = prec. one of the double.

L is much brighter than the var.

10th

L 6 r.

Make chart of the star

15 230759 V Cass. C's notation

L 2 r 12th

V / m

Nov. 7, 1904.

9 20 643065 T Cam.

b 4 v ~~687 684 686~~ 8th

v 0-1 c

Circ. 74

23 631401 X Ceti

b 2-3 v 8th

v 2 c

photog.

30 011208 S Pisc.

k 2 v 10.5 ~~74 th~~ 9.5

v 1 l

74-II

40 011712 U Piscium

l 2 u <12 74-II

Nov 7, 1904

10 10 045307 R Orionis.

c 1 v 9.2 74-II
v 5 d 8th

quite red.

15 050003 V Or.

v = g 10.0 74-II
v 4 h

(24) (260) L.P.P.
(2) (54)

Tuesday, Nov. 8, 1904

535 143227 R Bootis

v 2 e 7.66 8 7.5 th

40 154615 R Serpentis

e 3 v 9.0 8 th

v 1 f

7.4

43 160118 R Herc.

v = g 8.83
8.86
8.84 8.5 th

v 2 h

555 185512 ST Sag.

e 1 v f h v l g

v 4 g 9.5 th

Nov. 8, 1904.

7 50 184243 RW Lyrae.

$\gamma \overset{3}{4} v$

v = a   a is star already marked on chart, Am not sure whether it is a or x

195308 RS Aquilae

8 00 Invis.

m = $\underline{\underline{n}}$

Always invisible!

200715a S Aquilae

10 h 1 v   10.5 th

v 3 k

Nov. 8, 1904

8 30 004533 R Androm

γ 2 v 11th

v 1 α

See drawing on chart

Var. appears to be a little brighter (from memory)

35 004435 V Androm

Invis.

α, β, and stars much fainter seen

204016 T Delphini

45 k 3 v 10.3 74

v 6-1 l 10.5th

Nov. 8, 1904.

850 235209 v Ceti

l 4 n <11.5 74-II

✓55 ~~40~~ 213843 SS Cygni

g 0-1 v $\frac{9.67}{9.68}$ / 9.68 9,5 th
v 3 h

58 205923 R Vulpec.

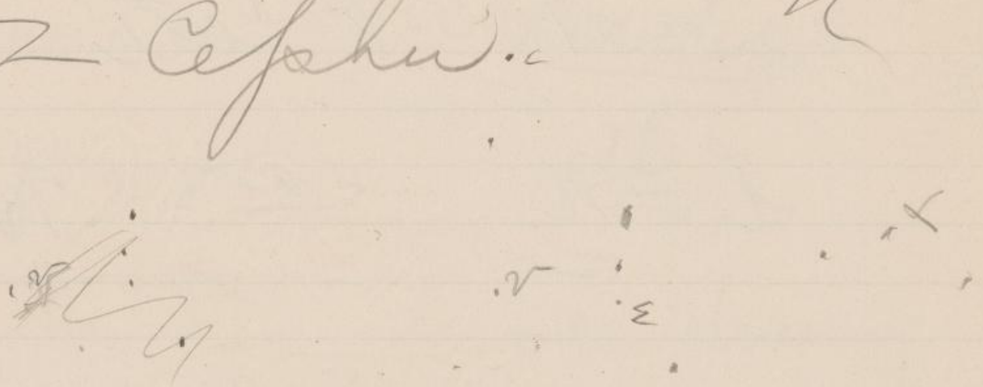
t 3 v $\frac{12.14}{12.27}$ / 12.20 12,5 th
v 2 u

908 012502 R Piscium

v 2 g $\frac{11.12}{11.07}$ / 11.10
v 3-4 r 11,5 th

Nov 8, 1904

9 20 Z Cephei..



v 1 ε S

est = 12th

RR Cephei

Can not identify.
Two or three stars near
position. Look up

052404 S Orionis

9 40 n 3 N

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Nov. 8, 1904.

083350 — Urs. Maj.

9 50 b 4 v

v 0-1 e   8,5 th

55 055353 Z Aurigae

S   γ   n

•v

v = γ

γ = south following comp. of the double star.

10.5 th

14 (274) L.P.
(5) (59)

Wednesday, Nov. 9, 1904

Can not find record book. It must be in B.B.

8 00 T Cass 001754

g 1 v 8.66
v 4 h 8.58
8.62 ~~8th~~ est. 8.7

8 15 004958 W Cass.

8 5 v
v 1 ε 12th or less.

Look up on plate. It was put on chart to-night from Electrotype. It is a little n. of var. as marked.

014958 ~~W~~ X Cass.

30 b 4 v very red,
v 1 c 9th

33 220412 T Pegasi
v = c 8.8 8th 74 – II
v 3 d

Nov 9, 1904.

R. Aquilae
Foc corr.

8 50 204405 T Aquarii

t 5 v ? 12.02

var. thought to be glimpsed
but am not quite sure.
If vis. it is just on the limit

222439 S Lacertae

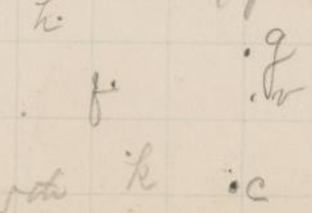
855 s 1 v
v 2 t
12.5th

Identif. certain

213843 SS Cygni

10.18
0.33
10.26

h 2 v
v 1 k



9.5th

Look up comp. stars

Nov. 9, 1904.

905 023033 R Triang.
h 2 v $\underline{9.5}$
v 1 k 10.5th
"74"

06 044617 V Tauri
c 3 v $\underline{8.8}$ 8th 74-II
v 1 d

041619 T Tauri
15 c 3 v $\underline{9.3}$ 8.5th 74-II
v 3-4 d

20 022000 R Ceti

11.50
11.38
11.44 b 3 v 12th
v 1-2 p
very hazy. not very good obs.

30 060450 X Aurigae
f 3 v

LP

Look up Ph. stars (2) (286)/(59)
10th

Friday, Nov. 11, 1904

7 05 201520 V Sagittae

k 2 v . 12th
v 1 l

photog. seq.

12 164715 S Herc.

h 4 v $\frac{8.71 \quad 8.68}{8.70}$ 9th ?
v 1 k

Field very low.

18 203816 S Delph.

f 1 v $\underline{9.5}$ 9.5th
v 3 h

f is rather far away & int. betw. f & h does not seem too large.

Nov. 11, 1904.

25 190108 R Aquilae

t 1v

v 2-3 u . 11.5th

Circ. 74 —

204318 V Delphini

7 35 No trace of var.

α & ft. star α' seen

α' est. abt 12.5

hence var. < 12.5

39 215605 V Pegasi

No trace of var.

e' 3 n

=

190529 V Lyrae

8 00 d 0-1 v See Parkhurst's map ApJ. 18, 34

v 4 g Parkhurst's seq. used

11th

Nov. 17, 1904

8 10 273843 SS Cygni.

n 1 v
v 2 0 11.42 / 11.57 / 11.50 11.5th

15 21086~~1~~8 T Cephei

k 3 v
v 1 l 9.08 / 9.08 / 9.08 est. ~~M~~. 9.0

22 230110 R Pegasi

k 3 v
v 2 l 9.00 / 8.87 / 8.94 9th

3 ✓ 013238 RU Andromedae

No trace of var.

l very clearly seen

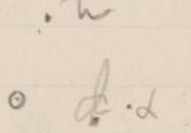
var. certainly < 12 1/5 [illegible]

1904phae.proj..785O

Nov. 11, 1904

8 45 010940 U Androm.

var. very faint much less than h, the faintest star marked on chart



α 3 v   v = 12th

Make chart of f't. stars

48

015912 S Arietis

y 3 n

55 021143 W Androm.
No trace of var.
Stars of 12m certainly seen

1904phae.proj..78S0

Nov. 11, 1904

o Ceti

8 57 ε 2 v 9.39 ~~[illegible]~~ = 9th

58 Hagen's var. near o Ceti

(1) 3 v 10th

v 3 (2)

9 05 233956 Z Cass

η, N

25 035124 T Erid.

v = d photog.

v 4 e

8.5th

low

Nov. 11, 1904

9 30 040725 W Erid.

Var. mes.

Low, both photog.

h. & k are seen clearly,

k 5 h

35 065355 R Lyncis

l 1 v 8.70

v 5 f 8.52

8.61 8.5th

45 042215 W Tauri

k 5 v 11.5th

v 1 α

Impossible to use l L.P.

as the light of the two bright

stars near is blinding.

(14) (300)

(7) (66)

1904phae.proj..785O

Saturday, Nov. 12, 1904

7 25 191019 R Sag.

v 1-2 $f^{\underline{7.77}}$ e off chart

Lost near moon.

Seeing too poor for R & RX Sag.

30 175519. RY Herc.

var. invis.

& not seen, but star marked var. by Parkhurst is seen.

Var. prob. <12.

40 175654. V Drac.

v very ft. seen only after looking a long time.

γ 4 v 12.5th

Nov. 12, 1904.

7 50 195202 RR Cap.

α 3 v 11th
v 1 β hazy.
(β inserted to-night)

RU Cap.
Region too hazy, & low.

8.0 214102 V Aquarii

d 1 v 8th
$v\ 3^2\ e$

210812 R Equ.
10
Var. min.
Σ seen clearly & thus
at least 0.8 fainter.
Var. < 12

Nov. 12, 1904.

8 15 — 211614 X Pegasi.

var. invis

y 3 n <12

W Draconis

25 — γ 2 v 10.5 th

v 1 δ

Put drawing on chart.

180666 X Drac.

30 var. invis.

Star seen near pos. is
assumed to be ~~the Drac. star~~
var <12

35 — 011272 S Cass.

r 1 v $\frac{12.38 \\ 12.31}{12.34}$ 12.~~18~~

v ~~4~~3 s

Great bodies move slowly!

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Nov. 12, 1904.

8 55 032443 Nova Persei

s 3 v t
v = t 12.5th

58 032335 R Persei

c 2-3 v 88 8th.
v 1 d

903 030514 U Arietis

g 2 v 10.5 10th
v 2 h hazy

07 053068 S Camelop.

a 4 v 8.5 7.8th
v 6-1 b

quite red.

Nov. 12, 1904.

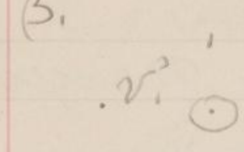
235053. RR Cass. Reject

A star within the Dm. is situated about 3 min. north of the pos. of var. given on chart. See p. 38

This star is quite bright, and may be RR.

For this star, I estimate

α 2 v 9th or 9.0th
v 0-1 β
sky hazy.



α' If the var. is the one marked on (b) then Reject

γ 1 v. 12th

Wrong star See p. 38

L.R.: (11) (4) (31) (70)

Monday, Nov. 14, 1904 M

194348 TU Cygni

7 40 var. invis

δ seen

194048 RT Cygni

var. entirely too bright

8 00 for Circ. 74 – II. sep.

6.8th

a 5 v

v 1 b old vis. eq.

from memory.

142584 R Cam

var. not seen

l 2 n

1904phae.proj..785O

Nov. 14, 1904.

8 10 202817 Z Delph.

v = ε 10.5th

v 3 η

Est. of mag. must have been way off the other nights as the star looks quite faint to-night in the moonlight.

204016 T Delph.

15 k 4 v $\frac{10.5}{}$ 10th

v l

28 225120 S Aquarii

s 4 v ~~11.6~~

< 11.7

Nov. 14, 904

845 213678 S Cephei

g 4 v
v = h

10.24
10.22
10.23

10th

very red

55 022980 RR Cephei

g 1 v
v 2 e

11th

021281 Z Cephei

58 very faint

f 4 v 12th ?

This star is decreasing.

054920 U Orionis

905 e 1 v
v 3 l

10.66
10.75
10.70

11th

1904phae.proj..78S

Nov. 14, 1904.

9 17 045307 R Orionis

b 5 v $\underline{\underline{9.0}}$ 8th

v 0-1 c

c 7 d

25 050003 V Orionis

~~g~~ f 2 v $\underline{\underline{10.0}}$ 10th

v 1 g

30 054615 Z Tauri

var. inv.

054715 — Tauri

35 Star seen, but it is nearer d than pos. on chart gives it. If this is the var, then

f 3 v 9.5th

v 2 g

1904phae.proj..785O

Nov. 14, 1904.

9 47 235053 RR Cass.

Observations on p. 3 $\overset{3}{\&}$ do not
refer to the right object.

γ, v 11.5 th

v 1-2 δ

(11) (322)

(4) (74)

1904phae.proj..78S

Tuesday, Nov. 15, 1904

221321 X Aquarii ?M

7 20 a' 1 v photog. b

v 5 b

7.8 th

Stars in Capricorn & Aquarius too near Moon

35 022150 – Persei +50°557

Var. not seen, and too faint to be identif. with Dm chart.

Probably < 11

Lookup.

50 16.1904 – Persei in Cluster

marked on chart of S Persei

This star is very red. It is slightly brighter than the adj. n. f. star.

v 1 α 8.5 th

Nov. 15, 1904.

001726 T Androm

9 05 s 4 v $\frac{12.17 \quad 12.00}{12.08}$ #
v 0-1 t
est. 12.0

R Tauri 042209

10 f 1 v $\frac{8.26 \quad 8.26}{8.26}$ est. ~~f~~ 8.3
v 3 h

022813 U Ceti

15 e 1 v $\frac{8.00 \quad 8.06}{8.03}$ est. 8.0
v 2 f

052036 W Aurigae

25 γ 2 v ⓔ
v 1 δ
11.5 [illegible]

Nov. 15, 1904

840 061647 V Aurigae

g 4 v $\underline{10.4}$ 74

v = h

8.5th or 9th

hazy, seeing poor.

55 015254 U Persei

7.8th

a 1 v

v 3 b old vis seq.

Seq. of Cir. 74 is not good. b is certainly a mag. fainter than a

Var. red.

032043 Y Persei

9.0 x 4 v, reddish

v 2 x'

8th

Nov. 15, 1904.

9 05 024217 T Arietis

c 2 v 8.8
v 2-3 d 8th
reddish

07 032335 R Persei

v = c 8.2
v 4 d 7.8th

20 235857 Y Cass

v = c
v 3 d red
9th

30 001046 X Androm

L.P. δ 6 v 10th
v 0-12 (13) (335) (1) (25)

1904phae.proj..785O

Friday, Nov. 18, 1904

M

8 05 R Triang. 023033

l, v 9.8 Circ 74-II

v 3 m

10.5 th ?

20 230759 V Cass.

var very ft. in this sky

m 4 v 12.3 11.5 th ?

Several stars tried for but either too near or too faint for this sky, so as all have been obs. recently, will not do more to-night. LP. (2) (3.3 7) 75

Tuesday, Nov. 22, 1904

5 15 R Sag. 191019

f 1 v $\frac{8.0^{2}\;7.8^{3}}{7.9^{2}}$ 8 th

v 3 g

18 RR Sag

f 2 v

v 5 d photog.

8.5 th

Clouds forming

20 S Coronae

f 3 n ∠10.6

8 30 Sky too poor for obs. to be of any use (2) (338) (76) L.P.P.

1904phae.proj..785O

Friday, Nov. 25, 1904

6 35 202817 Z Delphini

η 2 v

v 1 ζ   11th

38 204318 v Delphini

No trace of var.

a seen

a' not seen sky hazy here

R.T. Auc.

Forlorn,

~~7~~ 6 45 ~~45~~ Clouds in west.

7 04 044617 v Tauri   Moon up

c 3 v   8th

v 1 d

Nov. 25, 1904.

7 30 221321 X Cygni

v = a' photog.

v 5 b ~~8~~ 7.6th

~~7th~~

Clouds all around but stars are seen clearly.

.38 043065 T Camelop.

b 3 v ~~8~~ 7.8th

v 2 e

45 210865 T Cephei

g 4-5 v 8.63

8.68

8.56

v 3 k est. 8.6

Nov. 25, 1904.

Between cloud & moon it is impossible to make any observations of value to-night. All the familiar stars are invisible.

(5) (343)
(1) (77) L.P.

Saturday, Nov. 26, 1904

9 05 213843 SS Cygni

03v 12.07 12th
v = p 12.14
12.10

7 10 123961 S Urs. Maj.

9.42 h 2 v
9.49
9.46 v 2-3 h est. 9.4

.20 175458 T Drac

l 3-4 v Circ. 7 at II
v 0-1 k 10.5

l 4 k 10 1/2th

23 190108 R Aquilae
v = t 12.2 Circ. 74
v 8 n
12th
Low

1904phae.proj..785G

Nov. 26, 1904.

193311 RT Aquilae

30 v = d 10.5

v 3 e

Am not sure whether there is star marked d on chart or not.

193509 RV Aquilae

45 Examination of new charts:

Chart marked ⓐ on back is much better than the other one, the fainter stars show more clearly all the stars on chart near var. are seen

α & β are too nearly alike to my eye to be good comp. stars

I have selected a'

α 3 v. 8.7 th

v 2 a'

Nov. 26, 1904.

7 52 201715a S Aquilae

h 5 v 9.8 Circ. 74 II

v = g 10th

h much brighter than g.

Look up.

8 00 200906 Z Aquilae

low.

·g
N · ·b ·c S
' ·v?

Wrong star marked & observed. See I 18577 Nov. 30, 1904.

Am not certain whether star marked or one N. is the var.

If the star marked is var

Reject. v = g 10.5 10th lower than g

h not seen

The star h is fainter

1904phae.proj..785O

Nov. 26, 1904.

8 20 211614 X Pegasi

δ, n

Sky very hazy.

25 210812 R Equulei

f 2 v 8.5 th

v 2-3 g

30 205923 R Vulpec

t 3 n < 12.1

38 213753 RU Cygni

c 5 v 11.6 8 th

v 1 e

e 1 d

e, f, & d are too nearly alike

Nov. 26, 1904.

9 h 220412 TT Pegasi

e 3 v 9.3 8.5th or 9th
v 1 f

85 233956 Z Cass
No trace of var.
71 n

235855 W Cass
Var. still quite bright,
08 appears to have a very flat
curve at max.
e 1 v 9.5 photog.
v 2 f
~~9½~~ 10th

1904phae.proj..785O

Nov. 26, 1904. Moon

9²⁰ Z Tauri

Invis.

∠10.5

R S Tauri

22 b 4 v 8th

v = e

– Tauri

$2\overset{4}{7}$ g 3 v 9th

v = h

Mrs. F's var. near R.S –

Invis. ∠10.5

These four vars come on the same chart

Nov. 26, 1904

S Ceti 001809

9 40

r 3 N ∠12.0

45 00 55 T Cass

v = h 8.98 9.06 est 9.0

v 3 k 9.02

(15) (35-8) LPP

(6) (83)

Monday, Nov. 28, 1904

5 15 191019 R Sag.

f 3 v $\frac{\begin{array}{r}8.22\\7.93\end{array}}{\begin{array}{r}16.15\\8.08\end{array}}$ 8 th

v 2 f

20 RW Sag.

b 4 v $\underline{9.8}$ 9.5 th

v 1 d

Doubtful. Clouds near.

RX Sag.

22 Invis.

Clouds coming.

Z Sag.

30 Too ft. to be seen in this sky

Nov. 28, 1904

5 40 191017 T Sag.

n 1 v 12.0

o not seen.

45 205822 W Cap.

v a p. not seen

h seen

Sky too poor for these southern stars.

47 212814 Y Cap.

m 1 v 11.8 74-II

v 2 n

5 55 204215 U Cap.

10.5 h 2 v 74-II

v 2-3 k

Nov. 28, 1904

8 00 215934 RT Pegasi

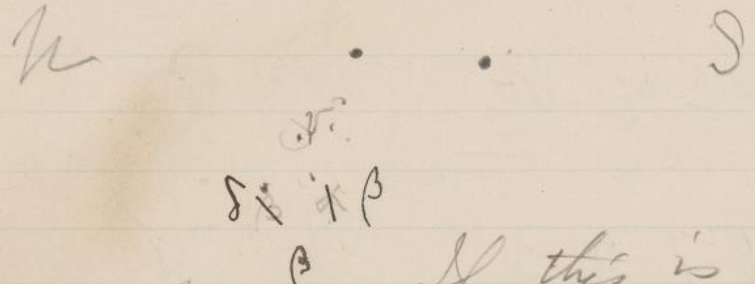
v = η 12th

v 4 ξ

Chart (C) Drawing from photo. Star marked by Mr Campbell on chart is not the var. var. is the foll. comp. of a double star.

RW Lyrae

Can not identify



v = ~~γ~~ β If this is var,

v 3 ~~β~~ δ 11.5th

Nov. 28, 1904

8 20 213678 S Cephei

k 1 v 10.80
v 1 h 10.94
10.87

k certainly seems a little brighter than h. It may be due to position. k is below h in field.

25 222439 S Lacertae

t 3 v
v 1 u 12.5 th

35 223841 R Lacertae

r 4 n

45 221733 T Lacertae

θ 4 v AB 8.5 th
v θ-1 x

Nov. 28, 1904.

9 05 Williams Var. 221929

(1888

k 1 v
v 4 l

photog.
~~12~~
12.8 th

Am not sure of ident. as some ft. stars are given on chart near the var.

9 10 021281 Z Cephei

var. min.
j is seen & stars 0.5 fainter

9 20 022980 RR Cephei

η 3 v 12.5 th

Certainly seen. Star south of var. marked ξ seen & much brighter than var.
η is star s. f. δ.

Nov. 28, 1904

9 30 011208 S Piscium

l 1 v 11.0 74 II
v 3 m

16.5 th

33 012502 R Piscium

r 4 v 11.82
v 1 s 11.73
11.78 12 th

40 012772 S Cass

q 1 v 11.97
v 4 r 11.88
11.92 12.8 th

45 065355 R Lyncis

e 2 v 9.00
8.72
8.86 est 8.9
v 3 f

1904phae.proj..785O

Nov. 28, 1894.

1000 083380 — Urs. Maj.

e 5 v. 20

v = f 9th

(17) (375) L.P.P.

(4) (87)

Wednesday, Nov. 30, 1904

7 20 Z Aquilae
Too cloudy in west to
identify

RR Aquarii
h5 n

215717 U Aquarii
Sky too poor
& badly seen

7 40 042209 R Tauri
f 3 v
v 1 g
8096
8.
8.08
8 ~~the~~
est. 8.1

Nov. 30, 1904

8 00 030514 U Arietis

d 3 v — 95 g the

v 0-1 e

74-II

060450 X Aurigae

Evidently the wrong star
has been obs. of late,
The var. is either quite faint
or invis.
A star is seen near position
which may be the var. or may
be g. Only one star seen
of the var. chart
Cloud formed over region
Star obs. is about 11.5 or 12

Nov. 30, 1904.

8 20 W Tauri 042215

k 2 v 12.0

k too near bright stars

Seeing very poor.

30 041619 T Tauri

c 5 v 9.4 8 th

v 1 d

32 054920 U Orionis

k 4 v 10.96 11.5 th

v 2 t 11.37

11.16

s too faint ff.

35 Clouds in east

45 all cloudy L. P. P.

(5) (3 AG)

(1) (AB)

1904phae.proj..785O

Thursday, Dec. 1, 1904

5 20 T Aquarii

u 3 N

30 154539 V Coronae

k 3 v 10.6

v = l

Sky hazy & perhaps cloudy

Obs. fairly good.

200906 Z Aquilae

40

f 2 v 10.3 Correctly ident.

v 2 g

9 1/2 ?

Hazy.

1904phae.proj..785O

Dec. 1, 1904

6 50 141954 S Bootis

$1\overset{2}{8}.80$

n 3 v

not seen

Difficult

53 142584 R Camelop.

l 5 N 12.7

7.30 194604 X Aquilae

12th

n 5 v

v = 0

Images irregular

seen but var.

thought to be correctly identd

Dec. 1, 1904

745 — 210812 R Equulei

Var. very faint.

γ 2 v   11 th

~~v 01 ε~~

v 0-1 ε

Obs. of ~~Oct.~~ Nov. 26 must have been made before this chart of ft. stars was put on. Probably the brightest star following was obs. for the var.
Reject obs. of Nov. 26.

500 202954 ST Cygni   J.A.P.'s chart

γ 2 v   10.4 10½
v 1 α

Am not sure whether this α, marked on chart of ft. stars is the same star as the one marked α on DM chart

Dec. 1, 1904.

810 201520 V Sagittae

b 3 v

v 1 m 12.3 12th or less

Always a difficult object.

813 215717 U Aquarii

d 4 v Low and

v = e uncertain

v 2 f 10.5

22 221321 X Aquarii

a' 1 v 7.7 8th photog

v ~~4~~ 3 b

30 195849 Z Cygni

t 4 v 12.5th

Dec. 1, 1904.

235209 V Ceti

8 40 Sky too hazy.

I think the var. is not seen, and k is seen, but can not be sure.

50 022000 R Ceti

11.50
11.38
11.44

0 3 v
v 1-2 p 11.5th

235350 R Cass.

Seen with great difficulty

9 0 after long looking

w 3 v 12.11 13th

Dec. 1, 1904.

9 10 004533 RR Androm

var. invis.
Sky very clear.
α, β, γ seen.
Probably < 12.5

Order β, γ, α.

9 20 004958 W Cass.

ε 2 v 12.8

12.5th

30 235053 RR Cass

γ 1 v 11.6 11.5th
v 2 δ

060450 X Aurigae
δ 4 v 12th
v 1 ε If chart is right, it is
var. & not ξ seen

Dec. 1, 1904

9 50 061647 v Aurigae

95v $\frac{10.5}{}$ Circ. 74
v = h

~~9½th~~

10th

(16) (396) L.P.P.
(3) (91)

Friday, Dec. 2, 1904.

5 15 210124 V Cap

k 5 n

Z Cap.

Can not identify.
These low stars are
nearly always in fog.

5 45 205017 X Delphin

9.2

α' 4 v
v 0-1 α 8.5 th

L.P.

(1) (397)
(1) (9.2)

Saturday, Dec. 3, 1904

7 50 Too hazy & cloudy in west

8 15 231508 δ Pegasi

g 0-1 v 8.77
v 4 h 8.56
8.66 . est. 8.7

still hazy but star
seen clearly.

30 214024 R R Pegasi

δ 3 v 10.5
v 1 ε

Sky very hazy.

001046 X Androm

40 ε 2 v 10.0
v 1 ξ 10th or less

Dec. 3, 1904

8 45 230759 V Cass.
Too ft. for this sky.
l seen by fits & starts.
Var. probably ft. than l.

Seeing too poor to continue

(3) (4 08) Z.P.P.
(1) (93)

Tuesday, Dec. 6, 1904

6 45 180122 RW Herculis

No trace of the var.

x seen

Drawing on chart.

This object should be looked up on photos. as there is some doubt of its existence

191637 U Lyrae

55 Ident. still uncertain The object marked on chart b is assumed to be the var.

a 2 v
v 1 b

Seeing very blurry and Hes. not considered good. No especial redness seen. This star is very much fainter than a on 12 or more plates examined

Dec. 6, 1904.

7 00 210504 R S. Aquarii
α 2 v
v 1 β 10th
very hazy.

✓ 195202 R R Aquilae
15 If correctly identified,
α 2 v 10.5 very hazy,
v 3 β stars quite faint.
est. very uncertain
probably 10½th

20 T Cephei
v = k 8.78
8.73
8.76 est. 8.8
v 4-5 l

25 015254 U Persei
b 2 v 8.5 8.5th
v 3 c
circ 74

1904phae.proj...78S

Dec. 6, 1904.

45 143274 X Camelop.

c 3 v, $\frac{8.5}{}$
v 2 a'

Am not sure whether this is a' or c. It is marked on chart C made. I selected star brighter than a' and have called it c

021024 R Arietis

50 e 1 v $\frac{\begin{matrix}8.33\\8.41\end{matrix}}{8.37}$. est. 8.3
v 3 f

047209 R Tauri

~~90~~ 80 f 3 v $\frac{\begin{matrix}7.99\\7.96\end{matrix}}{7.98}$ est. 8.0
v 2 g

Dec. 6, 1904.

8 10 032335 R Persei
v = e 8.3 74
v 3 d
8.5 th

13 043865 T Camelop.
b 1 v 8.7 74
v 3-4 e 8 th

044617 V Tauri
20 f 2 v 9.6 9 th
v 2 g
74-II

25 053068 S Camelop
a 1 v 8.5 74
v 3 f 8th

45 001755 T Cass
9.5 v 9.06
8.93
9.06 est. 9.0
v 0-1 h

1904phae.proj..78S

Dec. 6, 1904.

8 50 230759 V Cass

12.2

m 1 v

v 3 n

Make better chart.

55 001726 T Androm

l 2 v 10.24

10.15 est 10.1

v 1 m 10.20

9 02 222439 S Lacertae

s 2 v 11.8 12th "74"

v 1 t

Not seen very clearly.

X Cephei

The wooden piece for holding weight interferes with the setting for this star. Can not get him

Dec. 6, 1904.

9 10 S Urs. Maj.

g 5 v $\frac{9.33 \quad 9.12}{9.22}$ est. 9.2
v 1 h

12 123160 T Urs. Maj.

m 4 u $\frac{11.2}{}$

hazy,

Stars in Eridanus not seen
Sky too hazy here

30 063558 S Lyncis

Not seen. Sky hazy
and I can not identify fts
stars on chart from Pop Ast.
Var. probably < 11

(17) (417) L.P.P.
(3) (96)

Thursday, Dec. 8, 1904

Snowed a little all day, but cleared at evening twilight.

8 05 203816 S Delphini
k 1 v $\underline{\underline{10.1}}$ 9.5 - th ?
v 3 l
hazy.

T' Drac.
Too hazy. Can not identify.

8 20 235857 Y Cass
f 4 v $\underline{\underline{10.0}}$ photog.
v 1 g Var. fading very slowly.
10½ th

25 X Draconis
Vivis.

Dec. 8, 1904
W Draconis
Lewis.
Not much use to look
for faint stars to night.

8 45 030514 U Arietis
d 1 v 9.4
v 3 e 8th

48 065355 R Lyncis
v = f 9.02
v 4 f 8.96
8.99 8.5th

50 041619 T Tauri
e 3 v 10.7
v = f 9th?
very hazy.

Dec. 8, 1904

083350 - Urs. Maj.

7 00 e 4-5 v $\frac{90}{}$ 8.8 Pa
v = f

RW Lyrae

15 Too hazy to see the var.
It is no use to try for anything
but bright stars to-night, and
as they all seem to be obs.
I will stop -

(6) (423) H. P. R.
(2) (98)

Friday, Dec. 9, 1904

clear & cold

5 10 181136 W Lyrae

d 2 v $\frac{10.0}{}$ 9 1/2 th?
v 2-3 e

e selected & marked on chart

20 163137 W Herc.

g 4 v $\frac{9.55 \\ 9.44}{9.50}$ 8.5 th
v 0-1 h

25 200822 W Cap.

h 3 v

R Aquilae

30 $\frac{11.0}{}$ g 1 v 11 1/2 th
b 3 v

var. brightening

Stars in Capricorn too ft. to be seen in low sky. No use trying for them any more this season

1904phae.proj..785O

Dec. 9, 1904

5 45 215605 V Pegasi

No trace of var.

l & l' seen clearly

48 V Delphini

No trace of var.

x' seen.

50 170627 RT Herc.

x' 3 v 10.2 10th

v 2 x

55 221321 X Aquarii

a' 3 v 7.8 photog. 7.8th

v 2 b

Dec. 9, 1904

6 05 RW Lyrae 184237

β 2 v 11.2
v = δ 10 1/2

Z Delphini 202817

7 30 ζ 5 v 12.5 th

v barely seen
Too hazy to pick out fainter stars...

35 175458 T Drac,
94-II

f 4 v 9.5 ~~8.8 th~~
v = f 9 th

45 200715a, S Aquilae

k 3 v 11.0 11 th
v, l

l selected & marked
variable growing fainter

Dec. 9, 1904

042558 S Persei

7 50 h 32 v / v 2 k 10.22 / 10.48 / 10.35 10½ th

021281 Z Cephei

55 Invis.

022980 RR Cephei

56 ξ 4 n

190529 V Lyrae

β 4 v 10.6
v 1 j

J selected & marked this
the southern one of two near
together s. of var.

Dec. 9, 1904,

8 20 215934 RT' Pegasi

Very difficult to identify, as it is one comp. of a double star. I think ~~the~~ object is the var, as a faint star appears to precede

η 2 v
v 1 ζ 12.5 th.

I do not see Mr. Campbell's α.

25 193050 T' Z Cygni

β 2 v
v 3 γ 11 th

30 220613 Y Pegasi

β 1 v
v 3 δ 9.2 9.5 th

assumed to be var.

1904phae.proj..785O

Dec. 9, 1904.

83 220714 RS Pegasi.
Cannot be sure of star
without a better chart

50 205923 R Vulpec.
u 4 v ? 12.87 13th ?
v thought to be barely
glimpsed at times
Uncertain

90 213678 S Cephei
10.34 g 5 v 10.34 / 10.61
10.17
10.26 v 0-1 h ~~10th~~
est 16.2

05 035124 T Erid.
7.8 b 2 v photog 8th
v 4 c

Dec. 9, 1904.

9 15 047725 W Erid. <11.4

m5 n

013338 Y Androm

9 26 a 1 v 8.8 8.4 th
v 3 b

9 35 054629 R Columbae

g 2 v 11.8 photo.
h not seen

Too low to est. mag. seen with some difficulty, perh. about 10 th

(19) (5) (4.42) (103) L. P. P.

Wednesday, Dec. 14, 1904

5 10 191717 T Sagittae

f 3 v 9.4
v 1 e 9.3
9.4

Twilight rather strong

f 3 e ~~4.5 e~~

74-II

15 191637 W Lyrae

Too hazy for this star

v = a

v assumed to be star
marked on (b)

5 30 180537 T Herc.

p 3 v 11.27
v 2 q 11.45
11.36

doubtful,
too hazy for the star

Dec. 14, 1904

5 40 220714 R S Pegasi M

Was seen, but too faint to compare in this sky.

7 25 R S Pegasi

Looked for again

very faint, and there seems to be a faint star near it

Look up again

S 4 v 10.5th or less

Chart from photo.

γ Pegasi 220613

Not seen

Dec. 14, 1901

192928 TY Cygni

7 35 Seeing very poor, v & ε barely seen

δ 5 v 12.2

v = ε

40 195849 Z Cygni

t 3 n <12

231508 S Peg.

50 g 3 v 9.02
8.86

v 1 h 8.94

~~g th~~

est. 8.9

235350 R Cass.

Very much fainter than r; but impossible to separate in the sky so as to make est.

Dec. 14, 1904,

7 50 213843 SS Cygni

o 2 v 11.96 / 12.04 / 12.00 12th
v 1 p

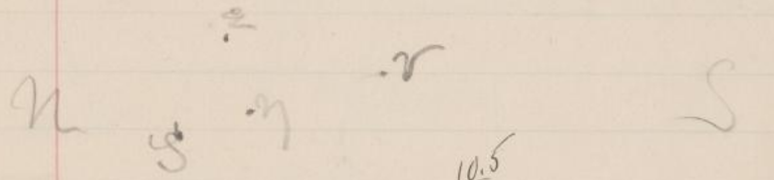
235855 y Cas

15 f 4 v 10.0 photog. seq.
v 1 h

h 1-2 f ?

10th
var. perhaps fainter than
at last obs.

8 10 001046 X Androm



10.5
ζ 4 v 10.5th
v = η make good drawing

Dec. 14, 1904.

8 15 001838 R Andm

w 3 v $\underline{\underline{12.27}}$ 13th

25 011208 S Piscium

v = m ? $\underline{10.7}$

Too near moon

35 004047 U Cass.

p 3 u <11

011272 S Cass

45 p 2 v $\frac{11.68 \quad 11.57}{\underline{\underline{11.62}}}$, 12th

v 3 q

50 053005 T Orionis

f 4 v 10.1 8.5th

f v 1 g

Dec. 14, 1904.

9 N. 052404 S Orionis

n 4 N. <11.4

05 055353 Z Aurigae

B 3 v 10.5 9.5 th
v = f

f selected & marked

10 054920 U Orionis

e 3 v 10.86 11 th
v 1 s 10.95
10.90

12 "q" of ~~R~~ U Orionis Luthusba

e 2 v 11 th
v 2 s

Dec 14, 1904

042215 W Tauri

9 20 k 2 v $\frac{\overset{11.6}{11.6}}{11.6}$

v 0-1 h 74-II

k 2 h very hazy.

40 R Columbae

So low & hazy.

e 4 h

(17) (459) L-P.P.
(7) (110)

Friday, Dec. 16, 1904

M

5 15 x Aquarii 2 $\overset{2}{\times}$ 1321

α' 3 v 7.8 photog.
v 3 b 7.5th

near moon

204102 V Aquarii
20 d 2 v 8.7 red
v 1 e
8th or 8.3th

74-II

S Aquarii
Region too hazy.

30 203905 T Aquarii
h 1 v 12.0
v 3 k
seeing very poor, near moon, & hazy.
obs. doubtful.
h & k selected

Dec. 16, 1904.

U Aquarii
Too poor in region.

5 40 200906 Z Aquilae

v = f 10.0 10th ?
v – 4 g

190933 RS Lyrae

50 Used new photo. enlargement.
This is excellent,
var. seen, quite ft.

δ 4 v 11th or less
v = ε

δ & ε marked on enlargem

Dec 16, 1904

~~8~~ 7 45 T Lacertae 221733

α 1 v 9.0 ~~8.8 th~~

v 3 β 9 th

50 210868 T Cephei

h 2 v 8.32 ✓ 8.08 ✓ 8.20 8 th

v 1 g

h

~~g~~ 3-4 8 ~~h~~

53 001755 T Cas

8.86 8.83 8.84 8 3 v

v 1-2 h est. 8.9

55 001726 T Andm

h 1 v 9.56 9.52 9.54 est 9.6

v 3 k

Dec. 16, 1904.

v
8 30 032043 Y Persei

~~a~~ β 3 v
b v 2 γ 9th

Decreasing.

V plotted & marked
Remarks in morning. Pencil
too dull

25 060450 X Aurigae
Invis. <12.5
ε 4 n

30 061647 V Aurigae
g 3 v 9.3 10th
f v 1 h

45 065530 R S Gem
If correctly ident. Look up again
δ 4 v 11th
v 1 ε

Dec. 16, 1904.

083350 – Urs. Maj.

9 07 for v49 9.5 10.5th mag.

004958 W Cass.

20 γ 3v 12.0, 13th
v = δ
var, appears to be
stationary at min.

Several stars tried for
but too faint or near moon

40 210382 X Cephei
Series
Probably < 10 1/2 (14) (47^3) (11^3) (3)

1904phae.proj..785O

Thursday, Jan, 19, 1905

~~8~~ 7 45 Tried for several plates but clouds are floating all over the sky.

8 25 SS Cygni 213842

var. not seen
Seeing very poor
h & N

8 40 Too many clouds to get any estimates to-night.

Monday, January 23, 1905

Sherman + W

7 10 213842 SS Cygni

0 2 v 11.97
v 1 p 12.04
12.00 12/2

20 222439 S Lacertae

g 4 v 9.38
v 1 h 9.38
9.38 est = 9.4

.30 221733 T' Lacertae

α 2 v 9.1 10/2?

var. always about the same?

45 235053 RR Cas

α 2 v 11.0 α is on chart (a) Dm
v 3 γ γ is on chart (b) drawing

est = 10/2th

Jan. 23, 1905.

865 213678 S Cephei Hazy morn'g.

9.94 g 1 v
9.92 v 3 h est 9.9
9.93

08 T Cephei
v = e 7.12 7th

12 004047 U Cass
g - 1 R

20 015254 U Persei
e 4 v 9.90
v 1 f 9.76
9.83 9.8

023030 R Triang.
35 v = g 11.64
11.54
11.59
v 3 k 11.6

Jan. 23, 1905.

8 40 031401 X Ceti

e 2 v
v 2-3 f 9.6 very very hazy + pho
9.5 th

035124 S Erid

50 v = b 7.6 photog.
v 5 c
7.5 th

054629 R Col.

57 var. min.
(4) e + f seen quite clearly

(10) (483) L. P.
(115)
(2)

Thursday, Jan. 26, 1905

Much snow in dome.

7 08 Y Cass. 235855
k 4 v
v 2-3 l 11.8th

25 012502 R Piscium
u 3 U <12.6 012502

28 230110 R Pegasi
r 4 v $\frac{\substack{11.29\\11.57}}{11.43}$ 12th
v 1 t

AH

A t 1 s

35 S Pegasi 231508
k 2 v $\frac{\substack{9.41\\9.40}}{9.40}$
v 1 l 9.4 Ca

Jan. 26, 1905

R Cass. 235850

840 very difficult

s 3 v 12.08
v = t 12.12
v 3 u 12.10
12.10
12.5 the ?

Wind shakes telescope

SS Cygni 213843

o 2 v 11.97
v 1 p 12.04
12.00
12 the

U Ceti 022813

g 3 v 8.81
v 1 h 8.69
8.75

TT Androm. 001726

8.95
8.93
8.94
e 2 v
v 1-2 f
est 9.8

Jan. 26, 1905

8 20 X Urs. Maj 083350

l 3 v ?

Ident. uncertain

var certainly very faint = 12

or less

25 070122 R Gem.

t a v 12.28
12.21
12.24 12.5 th

v 3 u

30 081112 R Cancri

f 3 v

v 1 q est 10.0

10.23
10.11
10.17

Jan. 26, 1905.

084803 S Hydrae

845

v = 0 11.52 / 11.56 / 11.53

v 3 p 12th

Seeing hazy

45 085108 T Hydrae

h 4 v 9.46 / 9.32 / 9.39 ~~f~~

v 1-1 k 9.37 est 9.4

Ice and snow in frames very
troublesome

(12) (495)
(1) (116)

Saturday Jan. 28, 1905

7 55 011272 S Cass.

v = g/ v 6 k

8.76
8.60
8.68

9th

h not on chart

8 05 011208 $ S Piscium

m 2 u <12.2

08 011712 U Piscium

f 1 v
v 3 g

11.32
11.41
11.36

11th

10 021258 S Persei

9.18
9.07
9.12

h 3 v
v 0-1 f

9.1 est

Jan. 28, 1905.

8 30 041619 T Tauri

d 2 v 9.5th

v 1-2 e

030514 U Arietis

8 40 c 3 v 9.48 9.64 9.56 7.8th

v 1 d

.45 043065 T Camelop.

v 4 b 7.98

another chart

est = 7.8th

9 02 045307 R Orionis

f 1 v 10.79 11.04 10.92 10.5th

v 2 g

Jan. 28, 1905.

25 050003 V Orionis

f 4 v 10th
v 1 g

052404 S Orionis

30 h 3 v h' $\frac{\begin{array}{r}10.84\\11.42\end{array}}{\begin{array}{r}22.26\\11.13\end{array}}$ 11.5th
v = h

Difficult

hazy.

081617 V Cancri

g 2 v $\frac{\begin{array}{r}8.86\\8.65\end{array}}{8.76}$ 8.8 est.
58 v 2 h

1904phae.proj..785O

Jan. 26, 1905

9 40 083019 U Cancri

l 3 v $\frac{\begin{matrix}10.81\\10.50\end{matrix}}{10.66}$

v 2 m 10th

hazy.

053068 S Camelop

45 b 3 v, $\frac{\begin{matrix}8.67\\8.78\end{matrix}}{8.72}$

v 2 c, 7.8th

(12) (507) L. P. P.

(1) (117)

1904phae.proj..785O

Tuesday Jan 31, 1905

233815 R Aquarii

7 50 v 4 e — 7.19

8th — or brighter

d not on chart

too low

01 Z Aquarii

too low

175458 T Draconis

10 very difficult as field is low

k 1 v 10th? 10.5

v 1 l

20 180666 X Draconis

var. near min probably if seen

2 stars of equal brightness

seen a little N. of pos. of X

See chart — Do not think either

1904phae.proj..785O

Jan 31, 1905

7 21 T Draconis
var. inv.
< 11

4 50 231425 W Pegasi
e 2 v 8th
v 5 f 8.5
int in large e - f.

8.00 003179 Y Cephei
var. invis.
< ~~10 1/2~~ 11

05 004533 RR Andromedae
γ 5 ~~4~~ v 12.0 11 1/2 th or less
v = β hazy
Look up sep. γ certain > β

Jan. 31, 1905

8 15 004958 W Cass.

var. very faint, & seen only by long looking.

ε 6 or 7 v

The min. limit is given as 12.1 and the var. is certainly nearer 13 than 12 to-night.

est = 12.8th 12.8

Sky very clear in region

25 014958 X Cass

Var. too ft. for sequence selected.

α 2 v 11.5th
v 1 β

difficult owing to brighter star near

Jan 31, 1905.

8 30 032443 Nova Persei

s 4 v   12.5th
v = t
v 4-5 u

40 045514 R Leporis

c' 3 v   7.5th
v 2 c.

red, but nothing like S Cephei

905 001046 X Androm.
var. probably invis.
a very faint star appears near pos. of var. but may not be the var.

var certainly < 12

Jan. 31, 1905

9 10 T Leporis

cloud or haze

15 032335 R Persei

q, n <12.4

doubtful very hazy.

654920 U Orionis

20 p 4 v 10.06
10.16
10.11

v 4 l

~~12th~~
~~11th~~
10th

Star of Luther's var.

22 e 1 ~~#~~ v 10.66
10.75
10.70

v 3 l

Jan. 31, 1905.

9 30 093934 R Leonis m

Cloud over region

0 3 v   9.89
v 1 p   9.88
         9.88

Cloud seems to have passed but obs. is doubtful.

9 35 ~~9 3.~~ Clouds all over east —
Last obs. probably affected

(11) (518)
(5) (122) L.P.P.

Thursday, Feb. 2, 1905

Thermom +12° & very windy.

o Ceti too bright

035124 T Erid

8 00 c 3 v $\frac{8.7}{}$ photog. 8.9
v 5 d est = 8th

050022 T Leporis

08 k 2 v $\frac{11.0}{}$ photog.
l not seen est 10 1/2 to

15 015912 S Arietis

11.17
10.96
$\frac{}{11.06}$ e 4 v
v 1 f ~~9~~ est 11.0

021024 R Arietis

22 k 1 v 9.45
9.75
$\frac{}{9.80}$ est. 9.8
v 3 l

Feb. 2, 1906

8 25 024217 T Ceti

e 3 v 8.0

v 1 d 8th

e 4 ~~5~~ d

l 3 k

See about this notation

8.40 013338 Y Andr

q 2 v 11.0

v 1 h 11th

h inserted

~~45~~ 49.1903 — Orionis

δ 4 v ~~9.8th~~

v = 2 9.5th

Feb. 27, 1905.

8 50 024356 W Persei

f 4 v   9 th

v 1 g

001754 T Cass.

52 — Set from memory of designation

f 3 v 8.47 / 8.46 / 8.46 8 th ?

v 1 g

55 065355 R Lyncis

k 4 v 10.53 / 10.53 / 10.53 10.5

v 2 m

l too close to other star

9 10 065530 R S Gem.

δ 3 v   9.5 th

v 4.5 ε

Int. too large.

Feb. 2, 1905.

9 15 090425 W Cancri

Seeing too hazy

h 1 N

20 May be flumpised

v Leonis

h 2 N

22 104814 W Leonis

h 3 N

Too hazy to see ft. stars

Febr 2, 1905

9 45 055353 Z Aurigae

ξ 4 v 11.0

10 th

v 0-1 η

ξ & η selected & marked

(12) (5-30)
(3) (125)

L. P. P.

Friday, Feb. 3, 1905

Thermometer +15°

6 58 R Cygni

h 1 v 7.72 7.7

v 2 k

7 00 194348 RT Cygni

e 1 v 9.5th

v 1 7 Circ. 74 II

7 05 TU Cygni

7 2 v 11.0 10.5th

v 4 d

4 selected & marked

Feb. 3, 1905

7 10 Z Cygni

k 1 v
v 3 l 9.74 / 9.93 / 9.84 9.5th

12 200938 RS Cygni

b 5 v
v = c 7.40 / 7.25 / 7.32 ~~7.5th~~

7. 7.4

201647 U Cygni

7 15 o 2 v
v 1 p 10.69 / 10.72 / 10.70 10.7

RZ Cygni

v0 var. barely seen, or a ft. star seen in position or near. Can not be sure without better chart est = 12.5th

Feb. 3, 1905

7 35 213753 RU Cygni

c 4 v
v 1 d 8.5 Cuc, 7 [illegible]

7.8th

38 221733 T Lacertae

α 1 v
v 3 β 9.0 10th

45 222439 S Lacertae

d 2 v A.6.7
v 2 e A.6.2
A.6.4 8.7

55 235053 RR Cass

11.6 α 1 v Chart ⓐ 10.5th
v 1 β

Look up chart (b) seq

Feb. 3, 1905

810 061647 V Aurigae

v = e   10.36

v 4 f   10.21

10.28   10.4

001838 R Andm

20 0 2 v

v 1 p,   9.72

9.59

9.66   9.6

023033. R Trian.

23 p 2 ~~13~~ v   11.56

11.56

v 1 g   11.54   11.5

25. 031401 X Ce~~ti~~

photog.

~~v 0 1 e~~

e 0 - 1 v   10.0   ~~10.5~~ th

v a f   11 th

Feb. 3, 1905

213678 S Cephei

8 30 g 1 v
v 3 h 9.94
9.92
9.93 9.9

Color not noticeable

35 072708 S Can. Min

e 1 v
v 4 f 8.16
8.08
8.12 8.1

40 R Leonis Min

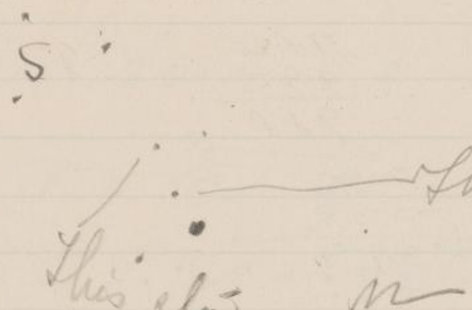
o 3 v 9.89
9.88
v 1 p 9.88

~~S Leonis Min~~

Wrong star Reject. ~~p 3 v~~
~~v 1 q~~ ~~Not sure of star~~

Feb. 3, 1905

45 S Leonis Min



This may be var

This is the var. Feb. 4, 1905.

This star was observed

This configuration is just off the chart of R on prec. side

(17) (547)
(1) (126) L. P. P.

Friday, March 10, 1905

7 50 213678 S Cephei

v = g 9.84
v 3 h 9.92
9.88

sky very hazy..

R Tauri 042209

8 20 11.66
11.64
11.65 v = k est. 11.7
v 4 s

22 S Tauri 042309

q 2 v 11.34
v 2 z 11.46
11.40 est. 11.4

Seeing very poor

8 30 Too many clouds

Mch. 10, 1905

8 45 Sky much clearer.

R Cass 235350.

v = m 8.80 est. 8.8
9.00
v 4 n 8.90

55 235053 AR Cass.

θ 2 v
v 2-3 γ 11.2 est 10.5th

Look up lettering on chart

θ marked on (a)
γ " " (b)

233956 Z Cass.

No trace of var

ξ seen distinctly

var < 11.5

Mch. 10, 1905.

9 20 032335 R Persei

g 3 n <12.6

25 053068 S Camelop.

b' 3 v 8.9 9 th

v 1 c

35 071713 V Gem

12.40
12.28
12.34

m 1 v est 12.4

v 2 n

Difficult

45 082405 RT Hydrae

var. very bright.

a 3 v 7.8 th

v 2 a' 8.0

L P.

(8) (555)
(2) (128)

Saturday, March 11, 1905

cold & windy.

7 30 001726 T Androm

m 2 v est. 10.4 10.45 / 10.40 / 10.42
v 1 m

Field corr, ~~light~~ trembling

33 001838 R Androm

d 4 v est. 7.3 ~~7.64~~ / ~~7.77~~ / ~~7.20~~ 7.34 / 7.25 / 7.30
v 1 e

35 001755 T Cass,

v = f est. 8.2 8.17 / 8.16 / 8.16
v 4 g

40 Star "e" has recently been announced as var,
est. of "e"

d – e int. too large
e 1 f 8.07

Mch. 11, 1905

004047 U Cass.

7 45 8.72 b 1 v
8.91
8.82 v 2 c est. 8.7

5 0 014958 X Cass.
var. very ft.
β 5 v est = 12.5 th

031401 X Ceti

8 10 a 4 v 8.5 photog. seq.
v 1 c 8.5 th
near moon
b 3 a

15 230759 V Cass
b 5 v 8.0 8. th
v 2 c

Mch. 11, 1905

8 30 042215 W Tauri

d 3 v
v 2 e 8.5th

35 041619 T Tauri

c 5 v 980
1000
v 1 d 990 9th ?

Near moon

45 045307 R Orionis

g 2 v 11.44 ~~12th~~ 11.5th

h too ft
Sky ~~too~~ hazy to select stars

50 050003 V Orionis
n 2 n

Mch. 11, 1905

050953 R Aurigae

9 10 f 1 v est 8.9 $\frac{8.92 \quad 8.98}{8.95}$
v 3 g

9 12 141954 S Boötis

g 1 v $\frac{10.28 \quad 10.45}{10.36}$ 10.4
v 1-2 h

.15 070310 R Can. Mini.

e 3 v
v 2 f $\frac{8.8}{}$ 8.8th

094622 T Hydrae

20 α 1 v $\frac{8.0}{}$ 7th
v 4 β

very red & difficult

Mch. 11, 1905

9 25 125705 RT Virg.

b 4 v phot. f. neg.
v 0-1 C 8.6 8.5th

30 140113 Z Boötis.

c 2 v
v 1 d 9.2 9 th

40 083019 U Cancri

f 3 U

Cloud near

(17) (572)
~~(1)~~
(2) (130) L. P. P.

Monday, Mch. 13, 1905

m

7 40 050022 T Leporis

g 2 n

Field very hazy.

45 090425 W Cancri

h 2 n

085120 T Cancri

55 e 1 v 8th
v 3 f

011712 U Piscium

Too low.

015254 U Persei

8 05 11.06 m 3 v 11th
10.68
10.87 v 0-1 n

Mch 13, 1905.

8/12 021024 R Arietis.

63 N <11.4

too near moon

15 023133 R Triang.

f 1 v
v 3 g $\frac{\begin{matrix}8.66 ✓\\8.94 ✓\end{matrix}}{8.80}$ est. 8.7

18 061702 V Monoc.

8.2 th

e 1 V
v 2 f

Near moon but very clear here

20 072708 S Can. Min.

f 3 v
v 1 g $\frac{\begin{matrix}8.78\\8.69\end{matrix}}{8.74}$ 8.8 est.

30 071713 R Can. Min.

f 3 v
v 2 g 8.5 th

Mch. 13, 1905.

8 35 043508 U Can. Min.

f 4 v
v = g
12.06
11.92
11.99 11.9

45 142584 R Camelp.

b 3 v
v 3-4 e
8.75
8.67
8.71 est. 8.7

180666 X Draconis

.50 Probably invis.
2 stars near var. seen

55 W Draconis
var. invis.
< 11

9 18 122532 T Can. Ven.

b 3 v
v 1 c
8.06

1904phae.proj..78S

Mch. 13, 1905

9 20 12420P RU Virg.

e 2 v
v 1 d

photog. eq.
8.5th or less

(10) (0-82) L.P.P.
(5) (135)

Wednesday, Mch. 15, 1905

M

7 45 024217 T Arietis

b 2 v 8.5 th

v 1 d 8.6

S Arietis

Cannot identify too low

8 00 045514 R Leporis

c', 1 v 7.2

v 3 e 8 th

Near moon

W Cass

8 15

c 4 v 9.2 9 th

v 2 x

Clouds rising near horizon

Mch. 15, 1905.

8 30 Clouds all over sky

9 00 All cloudy.

(3) (585) LP.
135

Friday, March 17, 1905

NL

7 50 S Cass 011272

~~g~~ j 5 v est. 8.8 8.88 / 8.66 / 8.77
v 1 g

235855 Y Cass.

8 00 No trace of the var.

k & g seen clearly } photog. seq.
l not seen.

var < 11
k 4 11

05 021258 S Persei

d, v est 8,7 8.78 / 8.58 / 8.68
v 3 e

Mch. 17, 1905

8 20 U Orionis 054920

m 4 v 9.28 / 8.95 / 9.12 est. 9.0

v 0-12

25 q of U Orionis

p 5 v 10.16 / 10.51 / 10.34

v 0-1 2

S Orionis 052404

v = f 9.76 est = 9.8

8 35 v v g

103769 R Ursae Maj.

38 v = n 9.76 / 9.58 / 9.67 est = 9.8

v 30

133273 T Ursae Min

? probably invis.

object seen near position but seems not have

~~[illegible]~~ less R.A. Sky too hazy

Mch. 17, 1905.

9 00 140113 Z Boötis

b 2 v 8 th ?
v 1 c

hazy.

05 094211 R Leonis

very red & difficult to compare

p 1 v
v 2 q est. 8.0 8.12 / 8.01 / 8.06

20 073723 S Gem

c 2 v est. 8.6 8.65 / 8.70 / 8.68
v 3 d

36 074323 T Gem <12!
k 2 n

near moon!

other stars in list too near moon

(9) (594)
(3) (138) L.P.P.

Wednesday, March 22, 1905

7 W 013238 RU Andrm.

d 4 v $^{10.0}$
v 0-1 e 9.5 th or 10 th

e selected & marked on photo. enlargement

021143 - W Andromedae
2 v

δ 4 v
v 1 ξ 9.A 9 th

ξ 3 ε
3 Either ξ or ε is suspected var

024356 W Persei
3 v
g 1 v
v 3 h 4.2 8.8 th
reddish

March 22, 1905

7 45 030514 U Arietis

f 2 v 11.10
v 4 g" 11.14
11.12 est = 11.1

48 043065 T Camelop.

b 3 v 8.68
8.91
v 1 c 8.80 ~~8th~~
7.7th

55 052034 S Aurigae

l 5 v 10.67
10.42 10.5
v 0-1 m 10.60

8 00 055353 Z Aurigae

δ 2 v 9.5 9th ?
v 1 ε

05 061450 X Aurigae

e v 8.5 red
v 3 d 8.5th

March 22, 1905.

820 061647 V Aurigae

b 2 v $\underline{9.24}$ 9.3
v 2 e

30 064707 W Monoc.

Var. invis.

5 ½ n

35 070122a R Gem

t 3 n <12.4

070122b Z Gem

Invis. See drawing from
I 376. Other ft. stars
in region well seen
Certainly <12 ,

March 22, 1905

M

9 w 081112 R Cancri

21 v
v 2 s
10.68
10.58
10.63 10.7

03 081617 V Cancri

0 3 v
v 1 f
10.54
10.74
10.64 10.4

15 085008 T Hydrae

g 8 v 11.75

v not certainly seen
near moon

W 143227 R Bootis

n 3 N <10.4

Too near moon.

(12) (606) L. P. P.
(4) (142)

Thursday, Mch. 23, 1905

7 35 093934 R Leonis Min.

v = k ; est 11.0 10.94
v 4 s ; 11.18
11.06

004047 U Cass
40
a 4 v 8.76 8.4
v 0-1 b 8.62
~~8.70~~
8.69

T Androm.
Lost

50 001838 R Androm
v = d est 7.0 6.94
v 4 e 6.95
6.94

001755 T Cass
53
e 1 v 7.97 8.0
v 2 f 7.97
7.97

e 2-3 f. If e is really var, another
star should be selected, as d is ~~to~~ [illegible]

Mch. 23, 1905.

8 00 235350 R Cass.

k 1 v

v 4 l est. 7.6 7.60 7.76 7.68

8 5 235853 R.R. Cass

v = d 12 chart (b)

v 5 δ

est = 12 th

0 8 230759 V Cass

a 5 v 7.6/ 7.7 th

v 1 b

12 213678 S Cephei

g 2 v 10.04 10.12 10.08 10.0

v 1 h

15 015254 U Persei

b 2 m 10.76 10.43 10.60 10.8

v 3 n

March 23, 1905.

8 31 023033 R Triang.

d 5 v 8.54 / 8.36 / 8.45 est = 8.4
v 0-1 e

X Ceti
Too low

35 042209 R Tauri

s 1 v est. 12.1 12.14 / 12.06 / 12.10
v 4 t

38 042309 S Tauri

g 1 v est. 11.3 11.24 / 11.36 / 11.30
v 3 e

042215 W Tauri
a 5 v
v=d g th 8.2

1904phae.proj..785O

Mch. 23, 1905

9 h 045307 R Orionis

11.92

v 2 h
g too bright. Seeing too
poor in region to select plate
betw g + h

03 050953 R Aurigae

8.66
8.72
8.69

c 5 v
v 1 f est 8.7

07 053068 S Camelopardalis

9.28
9.40
9.34

c 3 v
v 1 d 9.4

12 071713 V Gem

Very difficult owing to
bright star near

o 1 v
v 1 p 12.75 12.71

Mch. 23, 1888

M.

9 20 141954 S Boötis

f 1 v
v 2 g

9.76
9.98
9.87

10.0

143227 R Boötis

30 g 2 R <11.5 very hazy

33 154539 V Coronae

b 2 v
v 3 e

8.66
8.58
8.62

8.7

Perhaps e

142539 V Boötis

40 v 3 a 7.7 8.3 red

& two bright

Sky too hazy for estimations L. P.

(20) (620) (1) (143)

Monday, Mch. 27, 1905

805 Nova Persei

Light clouds forming over sky,

~~Clo~~

825 Nova Persei 0327 ×3

a 1 v est = 12
v 3 w

Stars very faint — sky not the best.

053226 RR Tauri

No trace of var.

<12

W Aurigae

835 Ident. uncertain, star obs seems to be very slightly n. f. pos. of var. given on photo. enlargement. If it is the var. then

var = ζ about 12 1/2

1904phae.proj..785O

Mch. 27, 1905.

8 45 041619 T Tauri

c 4 v
v 1 d $\frac{9.70}{\underline{10.00}}$ 9.85 8 th?

50 065355 R Lyncis

q 3 v 12.42 12.7
a m s.

9 10 022980 RR Cephei
var. invis
ξ seen
Sky poor.

8
9 15 124606 U Virg.
t 1 v 11.85 / 11.97 / 11.86 11.9
v 2 u
Stars all very ft.

18 134440 R Can Ven L.P.
g 3 v 8.9 8.94 / 8.83 / 8.88 (5) (631)
v 1 h (2) (145)

Wednesday, March 29, 1905

7 35 S Cass. 011278

f 5 v 8.88
v = g 8.76 8.8
8.82

40 021558 S Persei

d 2 v 8.88
v l. e 8.78 8.8 hazy.
8.83

7 50 R & T Leporis
Too hazy in region

55 052404 S Orionis

v = g 10.25
10.24 10.2
v 3 fh 10.24

8 10 054920 U Orionis
l. v 8.37
8.48 8.4
v 4 m 8.402

Mch. 29, 1905,

8 20 072708 S Can. Min.

k1, 3l $\frac{9.76 \\ 9.72}{9.74}$ 9.8

072811 T Can. Min.

8 25 k1v, 2l $\frac{10.46 \\ 10.39}{10.42}$ 10.5

28 073508 U Can. Min.

g4v
v2h $\frac{12.32 \\ 12.30}{12.31}$ 12.3

35 072820 b Z Puppis

h 2 n

40 073723 S Gem.

d2, 2e $\frac{9.20 \\ 9.18}{9.19}$ 9.2

Mch. 29, 05.

8 50 084803 S Hydrae

m, 1, 3n $\frac{10.76}{10.74}$ / 10.75 10.7

55 103769 R Urs. Maj.

~~v~~ g5v, 0 h $\frac{8.21}{8.18}$ / 8.20 8.2

R Corvi

9 Region too low & hazy

122532 T Can. Ven.

9 07 b1v r2e 8th?

9 10 124204 RU Virg

d1v r2e 9th — reddish

Mch. 29, 05.

913 142584 R Camelop

b 1 v 8.55 8.5

v 5 c 8.52

8.54

20 144918 U Bootis

very hazy.

d 3 v 10.8

v 2 e

25 140113 Z Bootis

a 2 v 8th

v = b

very hazy

142205 RS Virg

32 var inv.

m perhaps 9th fainter

Too hazy

~~(13)~~ ~~(6+6)~~

~~(2)~~ ~~(14)~~

Mch. 29, '05.

~~10~~ 9 45 132706 S Virg

9' n

(45) (646) L.P.
(13) (148)

Friday, Mch. 31, 1905

7 30 014958 X Cass.
α 5 v   est = 12th
v 1 β'
v quite red

35 010940 U Androm
h 1 n

40 021024 R Arietis
l 5 n <10.5
hazy + low.

44 044617 V Tauri
g 2 v   10.17
v 5 h   10.38
10.28   10.2

55 053531 U Aurigae
p 2 v   11.98
v 2 r   11.76
11.87   12.2

Mch. 31, 1905.

8 00 104814 W Leonis

d 4 v ~~8th~~

v 1 e 7.8th

061702 V Monoc

b 1 a 5 c 3 d 3 e 1 f 3 h

h 3 g 2 k 2 l

α' too bright to compare with α

α = b

8 22

h 3 v $\frac{10.5}{}$ 10th?

v 1 k

Mch 31, 1905

054974 V Camelop.

α' 6 α (α as marked on chart (a))

α 5 β 3 α as marked on photo. enlargement

α 6 ~~β~~ V 3 γ' 2 δ 3 ε 4 ζ 3 η 2 θ

var. wid.

840 θ 4 V

45 084327 X Camelop

α 3 V

V 1 α' 10.0

b 1 d   d – α too large

~~A~~ α 4 α' 5 γ 3 β 4 ε 1 δ 2 ζ

Mch. 31, 1905.

065208 X Monoc.

Photog. seq.

a very much brighter than any other star in seq., probably 1.5 magnitudes brighter than a.

a 7 c 2 b 7 e 2 f 3 g 3 k

k 2 h

9 10 var 5 a $\overset{7.8}{=}$

Has this brighter than a been selected? I had a good one marked on my old chart which I used for observations referred to in Circ. 81.

Mch. 31, 1905

093014 X Hydrae

Cloud over region

063558 S Lyncis

9 20 d 3 v 9.8 8th
v 1 e

a 4 b 1 b' 8 d 3 c 2 e 3 f
f 4 g 3 h 2 k
the assumed to be k is really much nearer var. than position marked on chart.

March clouded in south & west

9 36 Clouds

9.45 All cloudy

(4) (654)
(3) (151)

Saturday, April 1, 1905

7 15 .090425 W Cancri

b 1 a 4 a' 1 d 1 c 5 ~~f~~ e 4 f = g
g 6 h 3 k 1 l 2 m
k, l, & m are very fts.
var. m. sh
m 1 h

05~~58~~4920 U Orionis
7.30 h 3 v
v 1 k

7.94
7.84
7.~~88~~

R Can Min
7 40 a ~~1~~3 b 2 d 1 c 4 e 5 f 3 g
g 2 k 5 h k 3 l
h is double, the southern component is estimated.
Better omit h.

April 1, 1905

R Can Min

8 0 v c 2 v

v 3 e 7.8th

X Hydrae

a 8 b 2 c 4 d 4 e 5 f = g

g 2 h 3 k 2 l

l rather ft.

8 30 v = e

v 5 g

Why not reject f, as it is near another star and f is as bright.

33 094622 Y Hydrae

α 2 v 7th

v 3 β This star appears to be always bright visually

April 1, 1905.

8 40 120206 R W Virg.

var. very bright.

a 3 v   photos say.
v 3 e   est=6th

R X Virg   photos say.

8 45 f 6 v   est=7.8th
v 1 h

These two stars appear to vary irregularly (from study of the photos) and it seems to me it is hardly worth while to follow them visually.
R W is always rather bright for this telescope

April 1, 1905

850 160150 R Herculis

c 1 v
v 2 b   7.8th or 8th

c > b

121418 R Corvi

920 b 2 v   11.44
v 3 g   11.39
11.42   11.5

930 104620 V Hydrae

b 4 v   8 1/2 th
v 2 c

v intensely red, resembling
δ Cephei in color

April 1, 1905

935 175458 T Draconis

h 3 v 10th
v 1 b

090151 V Urs. Maj.

a 6 v
v 1 b

(11) (665) L.P.
(1) (152)

Thursday, April 6, 1905

7 20 235350 R Cas

h 1 v 7.27 ~~8~~

v 2 k 7.30 7.3

7.28

very red

001755 T Cas.

d' ~~3~~ 2 v 7.97

25 v 2 f 8.0

d' selected & marked

d 6 d'

d' 3 f

30 235855 Y Cas

l 3 n

April 6, 1905

7 35 023033 R Trianguli

Int. bet c & b too large

c' selected & marked on

Hagen

c' 2 v $\frac{7.34}{}$

v 4 c

b 4 c' 5 c

053068 S Camelop.

7 40 c 3 v ~~9.28 9.54 9.46~~ 9.4

9 v = d very red

060450 X Aurigae

d 3 v $\frac{9.0}{}$ tw

v 1 e 8 1/2

April 6, 1905

063558 S Lyncis

d 4 v $\underline{20}$ 9th
v = e

180666 W Drac

Invis.

X Draconis

Ident. uncertain. Star seen near pos. which appears as far as memory goes, brighter than at last obs.
This star appears to be the middle one of a line of three instead of the southerly one as marked in enlargement
If this is the var, then

b 2 v
v 1 f   11th

April 6, 1905.

8 20 146113 Z Bootis

a 2 r $\frac{8.5}{..}$ photo. sq.

r 1 b 8½ th

120905 TT Virg.

25 p 3 v $\frac{12.11}{\frac{12.02}{12.06}}$

v 1 q 12.0

122803 T Virg.

29 l 4 r $\frac{10.09}{\frac{10.14}{10.12}}$ 10.2

r 2 m

124204 RU Virg.

32 d 3 r $\frac{8.9}{}$ .9 th

r 1 e verified.

35 132002 V Virg.

l 3 r $\frac{10.14}{\frac{10.15}{10.14}}$ 10.0

r 1 m

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April 6, 1905,

142205 R S Virg

8 45 m 3 v 12 / 12 th
v 1 n

seen with low power

9 00 085120 T Cancri

Est. of sequence

b 3 a
a 4 d — e 3 v — 9.2
d 2 c — v 1 f
c 5 e — v very red
e 2 h
h 2 f
f ~~x~~ 3 g
g 3 ~~l~~
l 5 k

Region quite high, and that stars compared were frequently above & below each other. This may affect the est. The order on the chart does not however seem [illegible]

April 6, 1905

162119 U Herc.

9 20 g 3 v 7.69
v 2 h 7.47
7.58 7.6

23 123307 R Virg.

f 4 v 7.96
v 1 g 7.78
7.87 7.9

35 124606 U Virg.

w 4 v 12.69
v = y 12.83
12.76 12.8

45 ~~14~~ 153378 S Urs. Min.

f 2 v photog. obs.
v 1 g

11h

L.P.

(18) (683)
(2) (154)

Friday, April 7, 1905

7 50 004047 U Cas

b 3 v 8.92
v 1 C 9.01
8.96 9.0

015254 U Persei

55 m 1 v 11.06
v 1 n 10.63
10.84 10.7

8 05 021143 W Androm

ε 4 v 10.5
v = ζ

Either ε or ζ is a susp. var.

ε 4 ζ

024356 W Persei

8 12 v = e ~~9.0~~
v 3 g 9.7 9 ctw L.P.

April 7, 1905.

8 22 042215 W Tauri

d 3 v
v 5 f   8.5

e if correctly ident. seems
no brighter than f.

8 30 042309 S Tauri

g 1 v   11.24
v 2 l   11.46
11.35   uncertain very low,

11.5 th

32 043065 T Camelop

c 3 v   9.31
v 1 d   9.46
9.38   9 th

35 050953 R Aurigae
f 1 v   8.92
f v 4 g   8.9   ~~8.88~~
8.90

April 7, 1905

052034 S Aurigae

8 45 m 3 v 10.82

v 3 n 10.88

10.85 10.8

061647 V Aurigae

50 b' 4 v 8.98

v 1 b 9.th

b' selected. & marked on edge of Hagen.

53 081112 R Cancri

g 2 v 10.41

v 3 r 10.28

10.34 10.3

55 081617 V Cancri

g 3 v 11.47

v 2 r 11.37

11.42 11.5

April 7, 1905.

910 141954 S Bootis

e 5 v 9.62
v 2 f 9.47
9.54 9.5

142539 V Bootis

v 3 a 7.5

12 a too bright. Can not find a suitable star near which is brighter than a

151731 S Cor.

15 h 3 v 8.44
v 2 k 8.27
8.36 8.3

154539 V Coronae

8.76 b 3 v
8.48 v 4 c
8.62

not sure of c Look up

April 7, 1905

9 40 154428 R Coronae

f 1 v 7.28 / 7.13 / 7.20

v 5 g

45 160210 U Serpentis

h 5 v

v 1 k Corr. near east dome

T Cephei

Too bright to compare w. d.

50 213678 S Cephei

f 3 v 9.67 / 9.74 / 9.70 9.7

v 1 g

April 7, 1905

10 10 133273 π¹ Urs. Min.

var. quite bright — I have never seen it before,

α 3 v
v 1 a 9th

a selected & marked

(20) (703) L.P.
(1) (155)

Saturday, April 8, 1905

061702 V Monoc

8 47

b 2 a
a 6 c
c 3 d
d 3 e

Cloud forming over region
Too much cloud here, Above
Obs. had better be rejected

8

X Gem.

a 6 b 4 c 2 d 3 d' ~~6~~ 7 e 1 f ~~2~~ 3 g
~~g 2 g 3 h 3 k~~
g 1 h 2 k = l
Ver. fainter than l
m + n marked in pencil
l. 5 m 3 n
m 2 v
v 1 n

12.5

April 8, 1905

v Monoc.

061702

Clear mm.

~~a~~ b 3 a
a 5 c
c 3 d
d 3 e
e 2 h
h 2 f
f 4 g
~~g 4 d~~
g 4 k
g 3 v
v 2 k 98
//

k selected & marked in pencil

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April 8, 1905

8 55 094023 RR Hydrae

h, r

Too much cloud to estimate sequence

082405 RT Hydrae

a-b too large

I have already used that marked a'

a 5 a'
a' 6 b
b 2 d
d 1 c
c 4 e
~~e 3 f~~
e 2 h
h 2 f

f 3 g

This star never gets very faint, and it seems of little use to complete the seq beyond g

a 2 v v quite red
v 5 b

8.2

April 8, 1905.

930 0651111 ψ Monoc

a 1 a'

a' 5 a^2 (selected & marked)

a^2 ~~3~~ 4 b ~~a^2 3 f'~~

b 3 c 5 α 3 α' 5 β

α is very faint and barely seen with low power.

b' is so far away. I think a^2 is a much better place

a^2 2 v

v 4 b $8.^2$

1904phae.proj..785O

April 8, 1905

9 45 RR Monoc

a 3 b

b 1 b'

b' 5 c'

c' 4 d

~~d 1 e~~

d 3 e

d 2 f

f 1 e

e 4 g

g 3 h

h 3 k

k 3 l

l 2 m

m 2 n

(5) (708)
(1) (156)
— (174)

Friday, April ~~8~~ 14, 1905

7 15 Cloudy,

8 10 065530 R S Gem;

δ 3 m

Sky vapor. L. P.

— (708)
1 (156)
— 176

Saturday, April 22, 1905

7 30 RR Cass 235053
Too low.

065208 X Monoc

33 d^2 2 v est = 8
v 3 a

See my old chart for ident. of d^2.

8 00 014958 X Cass. Region low
about on limit of vis.
v = β′ 120 both barely seen

Mrs. F.'s var fall, n, 10th
f 3 v
v 2 β

Mrs. F's var.? pre. n. 10th
f 1 v
v 4 β

April 22, 1905.

815 ? RR Hydrae 094023

a 3 a'

a ~~5~~ 4 a''

~~a'' 4 b~~

~~b'' 1 b'~~

a'' 3 c

a 3 b

b 1 b'

Don't need all these stars. Why not take the nearest the variable.

b'' 2 d

d 3 e

e ~~5~~ 4 e'

e' 2 f

f 2 h

h 4 g

var. perhaps glimpsed

g 3 v 12,5

April 22, 1905

8 30 Y Cephei 003179

a 4 b
b 3 c
c 3 d
d 4 e
e 1 f
~~f 8 h~~
~~h 3 k~~

f 5 g 3 h 3 k

h 1 v 11.7 est = ~~10~~ 11½
v 2 k

Z ~~RR~~ Cephei 021281

b 3 d 2 c 2 a 3 e 1 α ~~g~~
α 2 f 8 g
var. min.
f seen distinctly

April 22, 1905

~~R R Cephei~~

845 R R Cephei 022980

var. mis.

Z seen

Why not use the same brighter comp. stars as for Z?
Sky too hazy to est. the fainter stars

011272 S Cass

850 g 1 v 8.86
v 2 h 9.00
8.93

021558 S Persei

900 d 2 v 8.78 8.8
v 2 e

032043 Y Persei

905 β 1 v ~~10.5~~ 9.5
v 2 β 10/2 low.

April 22, '05.

915 052036 W Aurigae
no trace of the var.
ξ seen.

053531 U Aurigae

20 o 2 v 11.72 11.8
v 2 p

23 065530 RS Gem.
v = δ 10.5 11 th
v 3 ε

30 070310 R Can. Min.
d 3 v ~~10~~ 8 th
v 4 e

35 072811 T Can. Min
g 1 v 9.96 10.0
v 2 h

April 22, 1905

9 45 093014 X Hydrae

v = e 9.5 9th low
v 5 f

50 094622 Y Hydrae

~~α 8 v~~

α 8 v 8.0 7th
v 2 β

Too bright for photog. reg.

55 104620 V Hydrae

d 4 v 9.2 8½th
v = e

10 00 104814 W Leonis

e 1 v 8.8 9.5th
v 3 f

April 22, 05.

9015 142584 R Camelop.

v = b
v 7 c

8.45
8.32
8.38

8,4

144918 U Boötis

20 d 3 v
v 4 e

1066
10.59
10.62

10.6

160150 RR Herc

30 b 6 v
v 1 ~~c~~ e

c 1 ~~v~~ b
b 7 e
e 4 d

8.0

(20) (728)
(3) (60)
(26) (200)

LP.

Monday, May 1, 1905

7 30 Twilight too strong

7 40 R Trianguli

Too low

7 45 U Orionis 054920

5.90
5.61
5.76

d, iv

v 4 e

var. very red

Stars too bright for this glass.
Can not use finder for this
position for bar on dome
comes right over field

8 00 Z Tauri

Clouds formed over field

8 30 Z Tauri

a very much brighter than b

a 9 b 4 c 6 d 1 e 1 e' 3 f 4 g
g 3 h

May 1, 1905

~~Z Ta~~
RS Tauri
c 3 v
v 3 d

– Tauri 054715
g 2 v 10th
v 1 h 10.8

Z Tauri 054615
inv.
sky very clear now.

RR Tauri 053226
a 6 b 1 a' 5 c' 5 ~~d~~ e 2 d
8 5 V d 1 e' 3 ~~f~~ f 4 g
f 1 v
b 3 g 10.8 10th ?

May 1, 1904.

855 015254 U Persei

b 2 r 10.74
10.66
10.70
v 1 m 10.7

043065 T Camelop

d 3 r 9.86
9.96
905 9.91 9th
v 1 e

043274 X Cam.

10 d 1 r 9.0 8th
v 2 b

wind very cold, from North

15 133273 T Urs. Min

b 2 r 8.0 8th
v 4 c

b & c selected & marked,
b much brighter than a
already marked

May 1, 1905.

9 30 140113 Z Bootis

a 4 ~~b~~ 8.8 8½ th
v = b

33 141954 S Bootis

v = e 9.12 9 th
9.17
v 5 f 9.14

38 154428 R Coronae

s 3 v 11.40 11.4
11.26
v 1 t 11.33

45 154539 V Coronae
b 4 ~~v~~ v 8.86 8.9
8.78
v 1 e 8.82

55 153378 S Urs. Min.
v = f 10.8 11½ th
v 4 g 1

May 1, 1905.

10w 050953 R Aurigae

f 1 v 8.92

8.98

v 3 g 8.95 8.9

(14) (742)

(1) (161)

(16) (216) L.P.

Wednesday, May 3, 1905

8 45 Sky very hazy

082405 RT Hydrae

v = b photog.

50 v 5 c 8 1/2 8.7

Sky hazy,

063558 S Lyncis

55 f 2 v
v 6 g 9 1/2 10.5

Int. f - g too large

RR Cephei
Sky too poor to est. these
fr. stars to-night.

Various other stars tried for
but sky too poor.

May 3, 1905

9 30 S Cephei 213678

e 3 v $\frac{9.34}{9.27}$ 9.3
v 1 f $\underline{9.30}$

35 175458 TT Drac.

g 2 v
v 2 h $\underline{9.5}$ 9 1/2 th

9 50 055353 Z Aurigae

e 4 v 10.0 10 1/2 th
v 1 f

Seeing very poor.

X Aurigae
No stars seen.
Sky too poor to get any stars
for which I have charts.

(5) (74) (–) (16) (–) (21) L.P.

Thursday, May 4, 1905

755 024356 W Persei

g 1 v 9ff 9 th ?
v 4 h

800 054920 U Orionis

v = d 5.80
5.57 Frieden
v 5 e 5.66

15 052034 S Aurigae

l 2 v 10.37
10.22 11 th
v 3 m 10.30

30 060450 X Aurigae

β' 2 v 11 th
v 4 δ

May 4, 1905

RS Gem 065530

8 30 β 2 α 2 α' 3 γ 5 ξ 2 δ 2 ε

ξ 1 v 10.0
v 2 δ 11½th

RR Cephei

40 b very much > a

a 4 e 3 f 2 h 1 g 6 k 2 l

Hamilton stars not seen
clearly enough to est.

l 5 R

8 55 081617 V Cancri

s 1 v $\frac{12.04 \quad 11.93}{11.98}$ 12.0
v 4 t

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May 4, 1905

X Urs. Maj. 083350.

9 15 a 7 b 5 e 2 c 3 d 1 f²

e 2 f¹ 3 f² 6 g 1 h 3 k

c not seen

c & d are too near together

Why not omit?

Is'nt f² photog. f?

k 5 n

25 133273 T Urs. Min

b 2 v 7.8 7.8th

v 3 e

30 160210 U Serpentis

l 2 v 11.0 11th

v 2 m

May 4, 1905.

9 40 RU Herculis
Var. fainter than ∝, Can not be seen of the stars from the chart. Have we no better chart?

161138 W Cor.

45 δ, v ~~[illegible]~~
v 2 ε 8½ th

δ & ε marked

50 163266 R Draconis

0 ~~4~~ 5 v 11.47
v 1 p 11.49
11.48

165631 RV Herc.

10 05 ∝ 5 v 11 th
v 1 β
β marked

May 4, 1905

1063 RT Herc.
var. invis.
<11.5

05 — 171723 RS Herc.
var. ft. & can not be
sure of ident. Probably
<11.

30 175654 V Draconis
no trace of var.

& 3 n

(11) (758)
(6) ~~22~~ (67) L.P.P.
(22) (238)

Friday, May 5, 1905

8 00 Too cloudy.

9 00 Tried for R Coronae but could not see it for clouds.

Monday, May ~~7~~ 8, 1905

7 50 Y Hydrae 094622

α' 5 v 7.5 very red
v 2 α

It is no use to est. the ref. marked on chart, for they are too faint to use visually with other stars.

8 00 164620 V Hydrae

b 3 a 5 d 2 c 3 e f 3 g 3 h
h 2 k 4 l

b 2 v 8.1 very red
v 4 c

8th objective

R W & R X Virg

d 5 a 4 ~~b~~ b 4 e 3 f 7 f' ~~g~~
f 3 h 4 g 2 h 2 l 3 m

R X, Virg 8.7
f' 1 v
v 3 h

8

May 7, 1905

8 20 RW Virg.

Rather bright for this date

a 3 v 7.3

v 2 b

8 30 RU Virg 124204

b 3 c 5 d 3 e 3 f 4 h 2 g 6 k

~~k~~ l not seen clearly

9.1

d 3 v v quite red

v 1 e

40 053068 S Canc

c 5 v 9.44

v 1 d

1904phae.proj..785O

May ~~7~~ 8, 1905

900 R Coronae

w 3 v 12.46 12.5

v 2 y

133276 T Urs. Min.

b 5 c 3 d 4 e 5 a 5 β

910 b 3 v 7.8 8th

v 2 e

825 210382 X Cephei

k 2 v 8½th

v 1 l

k & l selected & marked

40 090151 V Urs. Maj.

d 2 v Graff's not

v 3 e

$\frac{(10)}{(30)}$ (768) (167) (268)

Tuesday, May $\overset{9}{8}$, 1905

7 55 T Can. Ven. 122532

b 3 v pb

v 2 e

Too many clouds around

am afraid to est. self

8 15 Still too cloudy

8 20 011272 S Cas

g 3 v $\frac{\begin{matrix}9.06\\9.28\end{matrix}}{9.17}$ h too faraway

v 5 k

T Can Ven

8 30 a 2 b 3 c 4 d 0 e 6 f 3 g 1 h

h 4 l

k not seen with low power

Field rather high overhead

1904phae.proj..785O

May $\overset{9}{8}$, 1905.

8 40 014958 X Cas

β 3 v

v 1 β'   12th

42 Mrs. Fl's var., ballony near X

e $\overset{2}{\cancel{1}}$ v   10th

v 2 f

43 Mrs. Fl's var.? prec. X

e 4 f   10 1/2 th

v = f

45 S Persei

d 2 v   8.8.8 / 8.78 / 8.83   8.8

v 1 e

9 w ~~50~~ 060030 X Gem

n 2 n

U Aurigae

Clouds

May 9 8 1905

9 15 154428 R Coronae

w 2 v 12.40
12.33

v 3 y 12.36

142584 R Camelop

18 b 2 v 8.65 8.15
8.52

v 5 e 8.58

170627 RT Herc

30 ε 5 R See drawing

var < 12.5

180666 X Draconis

45 Perhaps seen but clouds formed before obs. could be made or ident. certainly made.

1904phae.proj..785O

May ~~8~~ 9, 1905

9 45 W Draconis

β 3 v 11th
v 1 γ

X Draconis

Clear now

9 55 This must be the var. as it is brighter than any star seen here before

β 3 v 11th
v 2 γ

10,00 193449 R Cygni

r 2 v 11.13 11.1
11.02
v 3 s 11.08

15 181136 W Lyrae

a 1 b 8 1/2th
v 3 b

1904phae.proj..785O

May ~~8~~ 9, 1905

1025 184243 RW Lyrae

ξ 5 v
v 1 η 12.8

Just seen

1027 213843 SS Cygni

v = 0 11.77
v 3 f 11.84
11.80 12th

(14) (782) L. P. P.
(~~8~~ 3) (~~170~~ 169)
(8) (276)

1904phae.proj..785O

1904phae.proj..785O

1904phae.proj..785O

9 St.
8 20½ Watch
~~23~~

23 15

8 22

7 13 Sid
7 45 Solar
+32 to Sid.