KG
11366
.853

1885hae.proj.1857C

Thursday
~~Wednes~~ Oct 4 1883

Clear

86 a V Ophiuchi 11
✓ Star low down

x 2 V

a not vis.

73 R Bootis 10.5
✓ Star low down

z 1 R

k 3 R

102 V Sagittarii 7.6
✓

b 4 V

f 1 V

Color 0

Oct 4, 1883

127 ✓ S Delphini 10,5

d = S

a 3 S

color 3

color estimate uncertain from faintness; but color is very noticeable

127a V Cygni e 2 V 8,5
✓ V 2 f

Color 4

128 T Delphini 9.5
✓

a = T Color 1

T 2 b

Star on chart marked x is not in place there given; ~~th~~ it should be changed to 1½' farther north, or 12sec to foll; there are 10½ or 11th mag stars in each of those positions. ✓

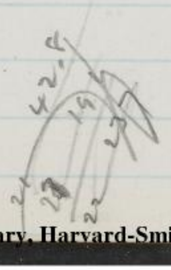
Oct 4 83

1½ R Aquarii 10.0
✓ R = a Color 2½
col est. diff.

5 Z Piscium 10.5
✓
a 2 Z
2 1 Z

8 S Piscium 9.5
✓
a 4 S
S 3 b

9 R Piscium 9.2
✓
R = e



a 6 R

Oct 4 1883

116 S Vulpeculae 9.2
✓
S 3 a
δ 1 d
g 5 S
Color 2½

122 ✓ R Sagittae 9.5
b 4 R
c 2 R
R 1 d
Color —

134 ✓ S Cephei 9.3
b 4 S
S 4 c
δ = d
Color 4½

Friday Oct 5 '83

Clear - Some aurora

87a ✓ W Ophiuchi 9.3

W = e Color 3

there is no star (> 11) at x (which I got from some catalogue but there is one at y about 9.0 mag. possibly an error of the Catalogue (or charting)) of 1^m of α.

Star low down

Oct 5

78 S Coronae 11.0

✓

p 2 S
S 5 x

80 R Serpentis 11.½

✓

x = R
R 2 y
m 1 mag R

88 U Herculis 10.5

✓

b 4 U
a 1 U
c 2 U
U 2 x

Oct 5

91 b R Draco 13.0

✓ z 2 R

x 6 y 1 mag z

91 c W Herculis — 13

✓ not visible

c (12 mag) plainly visible

62 T Urs Maj 12

✓ Star low

x 3 T

Oct 5 83

14 S Urs Maj: 11½ ~~12~~
✓
k 5 S
S 3 y

y 3 x

71 S Bootis 12½
✓
x 4 S

x = 12 mag ±

72 R Camelop 8.6
✓
f 6 R color 2
g 1 R
R 5 e

Oct 5

92 S Herculis 7.8
✓
g 5 S
S 3 f
Color 2 1/2

1 T Cassiop 10 1/2
✓
m = T
T 1 n
Color very noticeable (3 1/2) altho star v. faint

2 R Androm 9.3
✓
a 3 R
R 3 b
Color 3 1/2

x (a D m star) is not > 11 mag and is 1/2 mag < ~~B~~ y which is about 10 1/2 and not in D m.

Oct 8, 83

7 S Cassiop   12½

✓

z 5 S
S 5 y

star called y only
vis. by glimpses;
about 13 m

10 S Arietis   <13

✓

invisible

x (13 mag) visible

12 o Ceti   9

✓   Color 3

o 3/4 mag ~~a~~ c
q ~~c~~ 5 o
o 4 ~~z~~ s

Oct 5

13 S Persei 12
v
S 3 x
K 7 S

8.6
~~8.0~~

15 T Arietis
v
c 1 T
T 2 b
a 4 T

Color 2

27 R Aurigae <13
v
invisible
x visible (13 mg)

Oct 5

27a ✓ S Aurigae 11½ ~~12~~

c 1 S

S = d

S 4 f

Color very noticeable altho star is v. ft

Color 3½

⑳

Sunday Oct 7, 1883

Clear — Moon: 14 days old

53 R Urs Maj. 9.5
✓

b = R
R 3 b₂
R 6 c₂

90 Z Ophiuchi — <10
✓
not vis. in moonlight
< 10.

91 S Ophiuchi — <10
✓
not vis in moonlight
< 10

94 R Ophiuchi — <10
✓
not vis. in moonlight
< 10

Oct 7
~~73a U Bootis~~

73a U Bootis — 1
✓
not vis.
certainly at least ½ mag < a

100 Z Herculis 10.0
✓
h 1 Z
Z 3 x.

101 Z Serpentis 11/12
✓
a star at place of Z or a
which can't be distinguished
calling this Z we have

Note Apr 23.
I ~~think~~ am sure this x & y
are the x and y of one
chart between c and
f.

x 3 Z
Z 1 y

~~[illegible] mag <~~
Is not > 11 mag.

Oct 7 83

114 R Cygni 11.0

✓

x = R

119 S Cygni 9.5

✓

g 1 S

b = S

this star was probably not S but the 8th star "a" close foll

120 R Capric — < 10½

✓

not easily identified -, no star [illegible] place > 10½

121 S Aquilae 10.0

✓

a 2 S

S 2 c

b not vis.; < 12

Oct 7

125 U Cygni 9.0

✓

a 6 U Color 4

g = U

129 U Capric 11.0

✓

b 3 U

U 1 a

131 T Aquarii 11.0

✓

k 2 T

T 1 b

Oct 7

132 R Vulpec 11.5

v

x 1 R
R 1 y
b 5 R

132a T Cephei 8.8

v

T 4 a Color 3
T 1 b
c 5 T

133 T Cancri 10.5

v

T 2 d
e = T

17

Oct 7

136. T Pegasi <12
✓
not vis. ; <12

140 R Pegasi <11
✓
not vis
C × f vis.
hazy

Monday Oct 8 1883

137a R Lacertae 13 ?

✓ There is a 13 m. star ~~vis~~ very near place of R but as it is about 1/2' s.p. ~~the place on chart~~, or a little farther from the star ~~at~~ c than chart shows, I am uncertain whether it is R or a small neighbor; it is = x or y,

138 S Aquarii 9.0

✓ S 4 b Color 2

a 5 S very uncertain est.

141 S Pegasi 10.5

✓ S 4 a

b 1 S

c 4 S

Oct 8

143 R Cassiop 8.5

✓ Color 3 1/2

q = R
d 4 R
R 3 C

3 S Ceti 11.0

✓

S 4 m
(Sus var) 3 S
k 6 S

Sus var near S Ceti (Sus ~~var~~ # 5)

✓ k 3 Sus. var.

11 R Arietis 13 ?

✓ occasionally suspected;
certainly 2 mags < a or b

Oct 8

14 R Ceti 10.0

v

a 5 R — Color not noticeable

b 2 R

R 1 c

18 R Persei 10.5 ~~9.6~~

v

R = 5

l 1 R

k 3 R

20 T Tauri —— <12½

v

not vis. ; <12½

Oct 8 83

21 R Tauri 8.6
color 2½

✓

a 6 R
b 3 R
m 2 R
R 2 n

22 S Tauri 9.4

✓

δ 5 q
δ 3 p
c 4 S

Color not
noticeable
~~Color~~

23 V Tauri 11.0

✓

V = l
f 3 V

Oct 8

24 R Orionis $< 12\frac{1}{2}$

✓ invis. ; $< 12\frac{1}{2}$

35 R Lyncis < 13

✓ invis. ; < 13

Tuesday Oct 9, 1883
Clear — Strong moonlight

77 S Serpentis <11
✓ not visible
a star vis. in place
where I think however was
n..
g just visible

If n is about = g, it is
probable the star I saw
was n and not the var.

Sus var (1855) 15 28 +54 59
✓
see var 4 C
usual brightness

Oct 9

79 R Coronae 7.7
v

R 2 c Color 0

b 5 R

x 2 f

Ins Var #517 8.2

v

517 4 c Color 4

b 5 517

f = 517

517 5 a

Ins var #513 9.0

513 v3 d

513 1 c

513 6 b

A 1½ mag 513

21^h 0^m Sid. T. Oct 9

Sus Var # 555 ✓ 9.7

555 5 ~~a~~ d

f ~~3~~ = 555

Sus Var # 557 ✓ 9.0

Color 2

a 6 557

c 8 557

557 6 b

117 X Cygni ✓ 8.0

Color 3½

~~X~~ 2 h (in 6¼ inch)

X = h
X 7 f] (in 2 inch)

21^h 30^m sid time.

Oct 9, 1883

~~[illegible]~~ an interval of 6 hours after previous observations

Sid time 4h, 15m —

26 R Leporis 8.5

✓

d 1 mag R
c 3/4 mag R
R 3 e
| 6 inch

Color 4½

e 4 R | finder

The above estimates in the two telescopes appear discordant but were verified after numerous ~~con~~ & almost simultaneous comparisons

Oct 9

28 S Orionis 10.0
✓ Color 3½

h 3 S
S 1 g
x = S

Sas Var # 143 ✓ & 143 a ✓

b 1 143
143 = 143 'a'
143 1 a

33 ✓ R Monocerotis — 12

not distinguishable in the nebula;
certainly < c

Oct 9

37½ R Geminor 10.5

h 2 R
R 2 n

~~Ins Var.~~

Ins Var 167 (in field with R Gemini)
just vis as 12½ mag.

note — y is brighter than before
seen I think

y 6 z
y 1 c
y ~~8~~4 e

x inserted: it is reddish. and
fully 9.0 mag. but not in
D M.

Oct 9

Sus Var. 201 ✓ ~~10~~

~~just visible 13 mag~~

invisible
must be 1 mag < a at least
" " ½ " < x " "

38 R Can Min 10.0
✓
c 1 R
R 3 a

~~Color~~ not
Color marked
but Star too
faint to estimate it.

38a V Gemin. 10.5
✓
g 2 V
V 2 f

color not
noticeable

Oct 9

39 ✓ S Can Min 11.0

x 3 S
S 3 y

40 ✓ T Can Min — 11

invisible
~~hazy~~ ~~sky~~ sky foggy

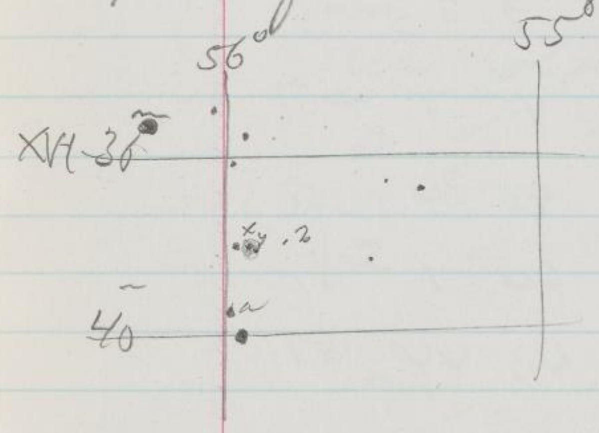
40 a ✓ U Can Min 9.0

q 4 U
U 2 d

color 2
sky foggy
estimate of
color uncertain

Oct 15, 1883

Bright Moonlight $8^h\ 0^m$ S.



Pons Brooks

apparently a double nucleus; one may be a star

☆ nucleus x = 1 < a = 9.3

" y = ~~1~~8 < z = 10.0

by later examination about $11^h\ 0^m$ S.
x had moved past y toward z and
thus ~~it~~ proved to be the comet nucleus

Prof. Rogers missing Dm star

(1855) 0 37 40 +54 55.7

star in place but not > 10.5.

Dm 0 38 33 +54 38.9

7/4 m < than 9.4 star ~~s 16~~ ± ~~f 3′~~ ±

9/4 m < " 9.5 " 0 39 22 ~~s 41 ± f 100~~ ± 54° 45.3

Oct 16

Prof R missing D m star 0 45 14 +51 33.8

in place and about 9.3 mag

6	<	8.8	0	45	8	+51	32
1	>	9.4		45	54	51	21
6	>	9.5		~~44~~	1	51	35
4	>	9.5		43	44	51	35

Prof R missing D. m star 2 41 52 +51 36.8
in place and about 8 or 8½ m
star white.

4	<	7.5	2	40	24	51	40.
6	>	8.9		43	40	51	28
1 mag	>	8.3		41	14	51	49

Oct 15

Prof R. missing Dm 3 37 2 +49 54,
In place and about 7.7 mag
2 < 7½ 3 38 +50 20

2 < 7½ 3 34 50 5

= 8 3 34 40 49 26

Prof R missing Dm × 15 9 51 +54 25
In place ~~8~~ 10.0 mag

Prof R. missing Dm 16 47 45 +51 2
In place 8.0 mag
= ~~Dm~~ 7.9 16 47 21 +51 23

Oct 15

Prof R. missing DM star 16 49 40 +51 22

In place 8 3/4 mag.

4 < 8.3 16 50 43 +51 34

Prof. R missing D m 17 2 46 53 23

In place 9 1/3 mag.

Prof R. missing D. M. 17 33 40 +55 3

In place 9.0 mag.

Oct 15

Prof R. missing D m   18 37 37 +54 11

In place   9.0 mag.

Prof. Rogers missing D m   19 33 36 +50 15

In place   9.0 mag

114 R Cygni

Prof R missing D m   21 0 22 52 22

In place   9.5 mag

Oct 15

Prof R missing Dm 21 3 38 52 0

In place 9.6

Prof R. missing Dm 21 3 58 52 43

In place 10.0
v. ft. in moonlt, but certainly
visible.

Prof R, missing Dm 22 51 30 51 43

In place 10 or 10½ mag.

Prof R Missing Dm 22 52 40 50 31

In place about 9.0 mag.

Oct 16, 1883

Strong Moonlight T

$7^h\ 30^m$ M. S.

☄ Brooks

Nucleus not nearly as sharply defined as last night — total brightness by putting out of focus, is

a 2 ☄

☄ 4 b

~~nebulosity~~ The light of the comet seems to be spread out nucleus being confused and nebulosity about it more apparent than last night

Oct 16 1883

Prof R. missing Dm 4 38 17 +54 47

In place 8.8 mag

Redwich ; 1 > Dm star 10^s north

Prof Rogers missing Dm 4 41 13.5 +51 4.2

In place 9.2 mag.
= star 5^s ± p. and 1' ± n.

Is the foll. and southernmost of a little group of four.

Oct 16/1883

79 R Coronae 7.8
✓
R 2 c Color 1
b 6 R

80 a T Cor Bor 7.7
✓
T 2½ k Color 2½
h 2½ T

91 a R Ursae Minoris 10.0
✓
b 4 R color 1 ::
~~B~~
s 2 R
R 2 q

Oct 16

102 V Sagittarii 8.4
✓
h = V
Color ~~2~~ 1/2
k 2 V
f 5 V

103 U Sagittarii 7.5
✓
f = U
Color 2/2

105 R Scuti 7.0
✓
f 12 R
Color 1
R 5 c

Oct 16

110 R Aquilae 8.3
r

e 3 R

R = d Color 3

R 4 c

f 4 e

g 1 f

m 6 f

h 1 mag f

116 S Vulpec 9.0
r

s 1 b Color 1

S = a

Oct. 16

117 χ Cygni 5.0
✓

h = χ Color 3

χ 1½ m f

121 S Aquilae 9.5
✓

S 1 c Color 0 ::

a 3 S

b not visible

may not ~~be~~ b be an error of
D M, and really the star c
which is 7' souther

122 R Sagittae 8
✓ 8.5
Color 0

g 1 R

R = f

R 3 b

Oct 16

10 : 0
~~9 : 36~~ m T

123 R Delphini 9.3

Color 1 ::

b 5 R
c 4 R
R = d
R 2 e

127 S Delphini 10.0

Color 3 ::

b 6 S
a 3 S
S 2 d

Oct 16

127 a ✓ V Cygni 8.5

V 3/4 mag d Color 4½

e 2 V

V 4 f

(14)

128 ✓ T Delph 9.2

a = T Color 1 ::

T 3 b

d 4 T

129 ✓ U Capric — 10½

invisible

b vis,

a invis

Oct 16

133 Z Capric 10.5
✓

h 6 Z

k 3 Z Color — ::

Z 3 e

138 S Aquarii 9.2
✓

a 6 S Color — ::

S 4 b

S 3 c

Oct 16 83

8 δ Pisc. 10.0
v

a 4 δ Color — ::
δ 3 b

9 R Piscium 8.8
v

R 3 a Color 1
R 5 d
b 6 R

(v)

Oct 16 83

10^{h} 30^{m}

15 ✓ T Arietis 8.6

a 2 T Color 3.

T 2 b.

very near the full moon

field very bright.

21 ✓ R Tauri 8.8

R 2 n Color 3

b 3 R

field very bright from moonlight

Oct 16 83

22 S Tauri 10.0
✓

s 3 q/ Color — !!
c 3 s

Sus var (1855) 21 5 33 +55 7
✓ not in list

Sev 2 a
" 3 c

Oct 17, 1883

Tolerably Clear

7^h 0 m J

☄ Pons-Brooks

Central portion of coma still ~~m~~ less condensed than last night. no well defined nucleus ~~about last~~ a Total light of coma seen out of focus ~~decidedly~~ ~~b~~ a little brighter than last night, and equal to star a (of Oct 15) outside diameter (n & s) about 2½'

Oct 17 83

83 R Herculis 95
v star low Color —

2 = R
R 2 c
x 3 R

92 S Herculis 8.5
v

S 6 d′ Color 3
S 3 e
f 3 S
g 6 S

Oct 17 83

7 30 93 a V Herculis 10,0
✓
c 1 V Color — 〃
V 3 a

1 104 T Aquilae 8.8 ~~9.0~~
✓
T 4 b Color 2
a 4 T
T 1 d
T 3 c

Oct 17

111 T Sagittarii 10.3

v a 2 T Color — ??

T 1 b

c 7 or 8 > a

112 R Sagitt . 11 ?

v b 3 k

k 3 a

a 3 R

most of the stars in neighborhood inserted by estimation.

The configuration (a b R) is not exactly the same as in sky (a & b are Schonfeld's)

Oct 17

114 R Cygni 9.2
✓
R 3 x Color 3½
d ~~2~~ 4 R
R = t

113 S Sagittarii 11
✓
S 2 ~~a~~ x
Stars v. ft in ☾ light
obsn v. diff.

119 S. Cygni — 12
not vis in moonlight
or only occasionally
Suspected as 12½ mg star
close to a

Oct 17

125 U Cygni 8.6

✓ U 1 k Color 4½

a 4 U

U 4 g

131

~~132~~ T Aquarii 11.0

✓ T 2 b Color —;

d 3 T

c 6 T

k 1 mag T

T 4 a

a scarcely vis. in D light

Oct 17

132 R Vulpecu — 12
✓

cirrus
X + y vis easily
c only by glimpses
D bright

132a T Cephei 8.7
✓
g 3 T
T 4 b
Color 3½

134 S Cephei 8.8
✓
a 5 S
b 1 S
S 3 d
S 6 c
Color 4½

Oct 17

9 & 15 142 R Aquarii 9.5

✓

c 6 R Color —1:

a 1 R

R 2 b

2 R Androm 8.7

✓

R 4 b Color 2½

g 6 R

R 1 h

R 4 a

Oct 17 -83

91a R Ursæ Minoris 10.0

Comparison Stars

e 6 h 3 d = f 3 c 1 k

k 3 a 2 g = i 1 b 2 m

m 2 p 1 s 2 q 4 r

R 3 g ~~10~~

R 1 s

p 1 R

b 4 R

Oct 18/83

Moon just rising

~~C~~ Pons Brooks

very extended, no evidence of nucleus. Total light > a out of focus or about = to a star (8½) about 35 south, a little foll.

64 S Urs Maj 11

v b 3 S

S = k

S and k only seen by glimpses ∴ v. uncertain obsn

Oct. 18

8^h 0

Schj. Red Star #230

(See my obs^n of May 12'75

a = #230

a 1 b

c 2 a

remarks of former obs^n of b

d and f confirmed.

1 T Cassiop 9.4

v

T 3 n Color 4

T 2 m

d 5 T

p 6 q 3 b 4 a 3 c 4 e

e 3 d 4 f 6 m = n

Oct 22.

3^h — 4^h

No. of Stars in day time
aperture contracted to 4 inches
Power 75

Atmosphere hazy

		When looked for	
α Urs Maj.	2.0	3 20 m t	seen
β " "	2 3	3 24	Seen
γ " "	2.3	3 26	Seen
α Bootis	1	3 28	seen
β Libræ	2 0	3 30	not seen
α Cor Bor	2.0	3 35	Seen
α Serpentis	2.3	3 40	not seen
α Scorpii	1	3 41	not "
β Herculis	2. 3	3 47	not "
α Ophiuchi	2.0	4 0	not

Oct 22, 1883

Hazy

M T
6:0 79 R Coronae 7½
v b 4 R Color 0
R 4 c

80 R Serpentis 10.0
v
m 3 R
k 3 R
n = R

94 R Ophiuchi —— < 9¾
v Star very low in haze
invisible
must be at least
½ or ¾ mag < c
a + b invisible
c easily visible

Oct 22, 83

77 S Serpentis < 10½
✓ invisible
g easily visible
must be ½ mag < g

88 R Herculis 11
✓ x 5 u
u = z

78 S Coronae 11
✓ p 7 s
s 2 x

Oct 22

80 a V Cor Bor 8.2

v

Color 3

K 6 V

V 3 m

V 6 d

V 3 g

7:30 ~~p~~ Brooks Pons

no nucleus

equiv. to

Strong central condensation = 9½ mag star

~~Coma~~

Coma ~~2½~~ 3′ diam somewhat

~~somewhat elongation~~ elongated ~~n.f~~

~~central condens~~ in s.p & n.f

direction. condensation being

near prec end.

Owen

7h 30 91 c W Herc. < 12

v

invisible

must be ½ m. < h

h easily visible

120 R Cassiop. < 12½

v

invis < 12½

f, r, & b visible

b seen with difficulty

100 T Herculis 11.0

v

T 2 n

q 8 T

T 5 m

Oct 22

101 Z Serpentis — 2

✓ (Z or a) 2 x

b = (Z or a)

b 2 x

129
~~120~~ U Capric 12

✓ b 5 U

a 2 U

c 1 U

91 a R Urs Min. 10.5

✓ b 5 R

s 3 R

q 2 R

R 5 r

Oct 22

91 2 R Draco 12½

✓ R 5 z

~~R 1 x~~

x 1 R

R 2 y

132 R Vulpec 13

✓ only occasionally inspected

~~c ½~~

c 5 R

y 2 c

ÿ ¾ mag R

(3)

Oct 22

140 R Pegasi —— 13
v
invis.
at least ½m < l or m

143 R Cassiop 7.9
v
R 2 ~~8~~ g Color 3½
h 5 R

m not vis.

5 T Piscium 11
v
very hazy
a 4 T

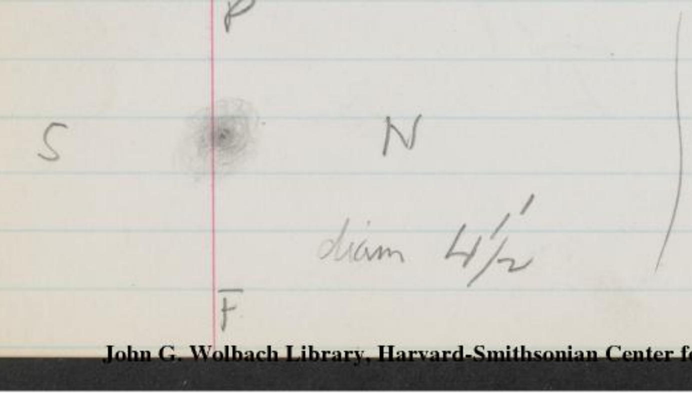
Friday Oct 26 1883

Clear -

7:15 ☄ Pons Brooks

☄ Perhaps somewhat brighter than at last obsn, certainly larger. Extreme diam say 4½'. no decided nucleus, ~~bright th~~ only an aggregation or condensation of light very nearly central a little ~~towards~~ nearer s. p. end of nebulosity, which condensation is not brighter than 10 mag star. Total light of ☄ compared with stars, eye piece placed ~~[illegible]~~ out of focus, was about

equivt to 8½ mag star, estimate v. diff.



no evidence of structure.

Oct 26

7:30

62 T Urs Maj. 11

✓

T = x ~~hazy~~

obs. v. diff. ~~hazy~~.

~~stars at time~~ Stars large and sky hazy

Sus var # 567 12½

c 3 567 ✓

567 2 d

d v. ft. scarcely visible

Sus var # 615 11½

x = 1 615 ✓

615 5 y

Oct 26

7 ✓ δ Cassiop < 13

invis. : at least 1/2 m < y or z

8 δ Piscium 9.5

✓

a 1 mag S Color 0 ::

δ - b

c = 1 S

12 o Ceti 9.0

✓ Color 3

g ~~c~~ 7 0

0 4 ~~a~~ c

0 3 ~~b~~ s

Oct 26

13 δ Persei 11½

✓ $\delta = x$ Color —

δ 4 y

14 R Ceti —<12

✓

R invis.

at least 3/4m < x

~~Somewhat~~ hazy

18 R Persei 12½

✓ p 3 R

R 1 q

Oct 26

8:30

23 V Tauri ~~10.0~~ 9.7

c 5 V
h = V
V 1 g

Color. ——

27a S Aurigae < 13

invis,
at least ½m < f or l

⑨

2 R Androm ~~7.8~~ 8.0

Color 3½

g 3 R
R 4 h
m 7 R

Oct 26

2 R Androm Contd

Compn Stars

c 2 d 2 m 7 g

g 4 e 1 h ~~2~~3 a

a 3 f 1 b 3 k

k 4 y 5 x 2 u 4 z

The x very near R scratched out tonight ~~Oct~~ and letter z substituted it being noticed there was another x

Sunday Oct 28, 1883

☄ Pons Brooks

no sensible change since last obsn.. — no nucleus brighter than ~~10½~~ or 11 mag. .

Tuesday Oct 30

$6^h 0^m$ ~~C~~ Pons Brooks

no sensible change except perceptibly brighter — no nucleus ~~assum~~ central condensation = 9^{mag}

Total light = say 8 mag.

7:30 3 S Ceti 11½

v S = x

m ¾m S

Sas Var # 5 (near S Ceti) 9.0

✓ ~~se~~ f 2 (S, v)

e 2 (S, v)

Sv. 3 K

Oct 30

8 S Piscium 9.5

v b 1 S Color ±0 ::

S 2 c

10 S Arietis —— 13

v not vis

certainly ½ m. < x

15 T Arietis 9.3

v a 1 m. T Color 2

b ~~3~~ 4 T

c 3 T

T 2 e

T 3 f

x (a 3 m star) is invisible: < 12½

Oct 30

8 0 91 a R Urs Min 9.7

✓

b 2 R Color 1

a 5 R

R 2 5

8: 10 20 T Tauri —— 12½

✓ not vis : at best ½ m < a

a not > 12

Oct 30, 1883

15h 0 21 R Tauri 8.7

✓ R 5 e Color 2½

R 2 c

a 3 R

R 4 d

n 8 R

22 S Tauri 9.5

✓ S 4 p Color 2 ::

S 3 q

e 3 S

26 R Leporis 8.3

✓ R 7 e Color 5

d 3 R

R 3 f

c 1 R

Oct 30

28 S Orionis 10.5

✓ x 1 ~~f~~ S Color 3

~~S~~ 6 y

S 3 z

28a T Orionis 10.5

✓

T = f

b 4 T

Sus^{L} var 149 b Orionis

✓

d 4 149 b

149 b 4 c

Oct 30

37 R Gemini 12 ~~11½~~

✓

m $\overset{1}{\cancel{2}}$ R

R $\overset{3}{\cancel{2}}$ n

e 2 x

α 2 z

y 4 x

Sm var 167 ✓ 12

just vis.; abt equal
to the other two of
small triangle

38 R Can min 8,7

✓

R = h

e 2 R Color 3

Oct 30

38a V Gemin. 8.6

✓ V 1 d Color 2

V 4 e

c 5 V

39 S Can min 9.2

✓ s ~~2~~1 k Color 2½:

h 3 S

40 T Can Min. — 13

✓ not certainly vis.

~~occasionally see~~

Oct 30

40 a U Can Min 9.3

✓ e 4 U Color 2 ½

U 3 k

~~U 5 z~~

U 3 g

41 δ Gemini < 13

✓ ~~not vis~~

~~F~~ x and y just vis.

x = y

z (which Secchi thought was the var)

is not visible

Oct 30

42 ω Gemin. 11½

√

q 3 ω
ω 4 e
ω 5 f

16:30 43 ζ Gemin. 9.3

Color 0
~~Col~~

√ near max in c

ζ perfectly colorless

ζ 1 n
m = 1 ζ
q = ζ
ζ 3 r
ζ 6 s
ζ 1¼ m f

Oct 30. 83

15^h 0 43a U Puppis 9.5 ~~10.0~~

✓

d 6 U Color 2 ::

U 3 c

U 1 f

g 3 U

IV Type star (assumed to be n.f. of two

a 1 JIV

b = JIV

Sus var 269✓

a & b vis

269 invis

cd, ef invis,

Oct 30

44 R Cancri 7.2

✓ R 3 g Color 2½

R 2 p

~~R 6~~

45 V Cancri 10.5

✓ k ~~d~~ = V Color —

V 5 ~~d~~ g

48) δ Hydrae ~~8~~ 8

✓ Color 1½

d 1 δ

δ 4 e

Oct 30 83

~~6~~h
18

49 T Cancri 8:5

✓ ~~b~~ Color 4

T = b

h 1 T

T 5 e

Wednesday Oct 31

Clear

15h 0 43 U. Gem 9.7

✓ m 3 U Color 0

n 2 U

~~U 1 2~~

q ~~[illegible]~~ 2 U

U 3 s

U 4 r

46 U Cancri ——— 13

✓ invis.

at least 1¼ m < n

50 T Hydrae ——— 13

✓ invis

at least 1m < i

note the star l ~~and not~~ is evidently the variable T so ~~that~~ R.A of T is 12s ± too great

Oct 31

4′ 0m

51 R Leo min 11

✓ R 1 a Color —

R 2 b

k 1 R

52 R Leo 9.2

✓ h 2 R Color 3

R 2 g

52a V Leonis 9.4

✓ a 3 V Color 1

V = b

V 1 c

Oct 31

52 b U Leonis —— 13
l
invis-
a b & c vis.

53 R Urs. Maj. 7.8
v
R 3 c color 0½
R 2 g
d 3 R

55 R Crateris ~~10~~ 9.0
v
f 6 R
R 2 a
R 6 b

color —
~~color 3~~
Star too
low in haze
to est color

Star low in haze

Oct 31

4:30

56 δ Leonis ~~12~~ 11½

✓ Color —

b 2 δ

δ = h

5 ~~h~~ 2 g

57 R Leonis —— 12½

✓

invis: < 12½

a + b vis.

58 X Virginis 12

✓

hazy

z ~~+ X~~ = a

X just vis. ~~[illegible]~~ south of z

confirm

z ~~+ X~~ z 7 X

Oct 31

59 R Comae Ber ~~10~~ 9.7
✓

d 7 R
c 3 R
R 2 b

Color 2 ::

60 Z¹ Virginis —— 1½ ~~2~~
✓
star low, in haze
varies.
at least 1½m < a
b only suspected.

63 R Virginis 7.7
✓
R 4 b
R 5 a
e 7 R
f 2 R

Color 1

Oct 91

17h 30m

Sns var 201 — 13

✓

invis.

at least 2 < a

" " ½ or 1m < x or z,

Sns Var #205 12½

✓

~~Sns var~~

s.v. ~~6~~7 a

b 2 s.v.

65 U Virginis — ~~12~~ 11½

✓ ~~be~~ in twilight approaching

U invis

~~at least [illegible] <~~

at least 5½m < p

Thursday Nov 1 83

Clear —

Twilight

6 0 80 R Serpentis 9 0

✓

R 3 p

Color 1 ::
twilight
strong

q ~~8~~ 1 R

R 6 m

(z a 9m star v. fl m 6 z)
(p not a 9m star 3/4 m > z
and 3 > m) .

86 a V Ophiuchi ——— < (10½)

✓

invis. or only suspected

d > V

c 1m + > V

Mar 1

Sus Var # 483 ✓ 10.0

483 5 b Color 2
483 6 a
483 2 c
d 4 483

89 R Herculis 9.5
✓
R 1 c Color [illegible]
R = b
x 1 R

92 ✓ S Herculis 8.3
k 3 S Color 3 A
S 2 e

Nov 1

☄ Pons Brooks

Seems sensibly brighter
central condensation a little sharper
and = 8.7 m. ±

~~7^h 30~~ 7^h 30^m 88 u Herculis ✓ 12

α 6 u

u = 2

Nov 1

B & C 1182 Identification of Pallas

× prec(a)	Pallas	× – Pallas	
8 7 57.3	8 7 0		
8 6.0	8 16 2		
8 1.7	8 11.6	– ~~9.9~~	
8 8 55.0	9 5		
9 2.0	9 15		
8 58.5	9 10.	– ~~11.5~~	– 10.1
8 30.5	8 40.6		
8 29 65	8 41.0		– 10.4
10 6.2	10 16.		
10 55	10 35.7		
10 30.6	10 40.7	– ~~9.1~~	– 10.1
12 54.5	13 4.7		
13 43.1	13 54.2		
13 18.8	13 29.45	= ~~10.6~~	– 10.6
8 20 17.2	8 20 26.0		
21 5.4	21 15.6		
20 41.3	20 50.8	– 9.5	– 9.5
8 22 13.0	8 22 23.2		
23 1.2	23 12.3		
22 37.1	22 47.75	– 10.65	– 10.6
			– 10.2

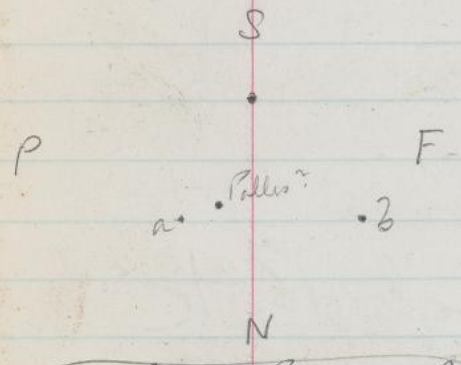
Nov 1

Pallas ? × foll (b) × – Pallas

8 15 15.2 16 2.5
16 4.0 16 52.2
15 39.6 16 27.35 + 47.75

8 17 56.5 18 44.2
18 45.8 19 33.5
18 21.15 19 8.85 + 47.70

at 8! 45 m T.
Sketch



~~9 4 44.1~~
a Palla ?
9 4 44.1 4 54.1
5 33.0 5 41.5
9 5 8.55 5 17.8 – 9.25

Pallas b
9 5 56.6 6 45.5
6 44.2 7 33.7
6 20.4 7 9.60 + 49.2

a Pallas
9 9 8.0 9 18.0
9 58.0 10 5.6
9 9 33.0 9 41.8 – 8.8

Pallas b
9 11 15.5 12 4.5
12 3.0 12 52.7
9 11 39.25 12 28.6 + 49.35

T	a – Pallas	b – Pallas	a – b indirect
8h 8m	– 10.25		
12	– 10.35	+ 47.73	– 57.98
21	– 10.15		
9 5	– 9.25		
6		+ 49.20	– 58.25
10	– 8.80		
12		+ 49.35	– 58.15

Hourly motion Pallas
~~obs~~
– 1.40s

Nov 1

8:30 72 R Camelop . 9.1
✓

R 6 a Color 1 ::
R 8 b
e 3 R
h 5 R
R 5 k

15 T Arietis
✓ Place of Comp^n Star x examined
with 15 inch ; See E. Eq^l Book

Nov 1

10^h 20 43 U Gemin. 9.7

: Color —

U 1m+ < m or n

g 3–4 U

U 2' r

U 3 s

Nov 2, 1883

Somewhat hazy

[new Color Scale
0 — 10]

9 : 30 ☄ Brooks
~~Exactly the same~~
Sensibly unaltered.

* 126 R Cephei 8.0
✓ R 2 c Color 0

+ 114 R Cygni 8.0
✓ g 2 R Color 7
R 5 d A
n 1 R
e 2 R

Comp star n
✓ R 3/4 n n
n 2 g
n = 1 e

Nov 2

+ 116 S Vulpeculae 9-0

Color 4

B

✓ S 4 a

S 1 h

g 2 S

+ 117 χ Cygni 6½

✓

χ 3-4 f

Color 7

B

χ 1 d

h 8 χ

Nov 2 83

119 δ Cygni 12½
✓

δ 3 y
x 1 δ

Star b is red; Color 3

121 δ Aquilae 10½
✓

a 3 δ
δ 5 c
δ 4 d

Color —

b invisible

Star low

Nov 2 83

122 R Sagittae 9.4
v

g 4 R Color 0 ::

f 2 R Star ~~[illegible]~~ low

R 1 b ^

R 3 c in haze

125 U Cygni 8.3
v

a 4 U Color 8

U 4 g A

U = k

Nov 2

~~127 S Delph~~

127 S Delphini 10.0
✓
d 3 S Color —
f = S
g 5 S Star very low

127 a V Cygni 8.5
✓
e 3 V Color ~~8~~
V 2 f B

128 T Delphini 9.5
✓
p = T Color —
T 4 m Star low

Nov 2

+ 132 R Vulpec. —— 11½
✓
not vis ; y faint R
x y easily vis.
. c suspected

+ 132a T Cephei 8.5
✓
g 2 T Color 7
T 3 c

11: ‡ 43 U Gemini 10.0
+ ✓
δ 3 U
U 3 f
U 4 g
U 2 x
U 2 t
r 5 U

Note on Obsns of Star Colors

To Nov 1, 1883 inclusive, the old color scale 0 – 5 was used.

~~Nov~~
Nov 2, 1883 and afterwards the decimal color scale 0 – 10 is used.

0 corresponds to a white or colorless star

10 " " the most intense red which is ever met with. i e.g. say V Cygni would rank as 9 on this scale, 10 being reserved ~~as the most intense~~ for rather rare ~~Cot red color~~ use; in extreme cases that may arise.

Sunday Nov 4 / 1883

Clear — Moon ☽ near setting

6^h 30 Pons Brooks There is no trace tonight of the sharp central condensation which was apparent on Nov 1. ~~has tonight~~ ~~disappeared~~ no nucleus > 11 mag

7^h 0 71 S Bootis 12

x = S

✓

62 T Urs Maji 11.7

✓

T > x

T 4 a

p 4 T

Apr 4 83

64 S Ursae Maj. 11

✓

S 1 k

a 5 S

b 6 S

2 5 S

110 R Aquilae 8.7

✓

R 5 a

R 2 c

b 2 R

Color 5

111 T Sagittarii 11

✓

b 5 T

T 5 + ✱ x

Star low.

Nov 4

129 R Delphini 10.7

✓

f 2 R Color —

R 3 g

Star called R may have been a . only one star visible here. ~~If~~ & the other must be < 13 m

131 T Aquarii 11

✓ b 5 T Color —

T 2 x

133 T ~~Aquarii~~ Capricorni 10.5

✓ T 1 d Color —

k 3 T

h 6 T

Nov 4

134 δ Cephei 10.5

√ d 2 δ Color ~~7~~ 8

δ 3 c

δ 1 f

136 T Pegasi — <13

√

invis. ; <13

137a R Lacertae 10.5

√ R 1 m y Color —

l 5 R

f 4 R

R 3 g

Nov 4 ♄

138 S Aquarii 9.7
√ b 4 S
8 2 d

Sus var #549 (d'Agelet's missing star)
✓
Looked for with 15 inch.
invisible

141 S Pegasi 9.34
√ S 5 b
f 3 S
S 2 d
e 5 S

Color 0.5
C

Nov 4

10h 30 142 R Aquarii 8.8

✓ R 2 c Color 3 ::

R 4 a

d = R

e 5 R

143 R Cassiop 6.5

✓

R 1 m h Color 7

" " f

" " k

R 5 t

~~no bright to~~
no compn stars
bright enough for
obsn with telescope or
finder.

Nov 4

h m
11 0 | 1 Z Cassiop 10.5

√ n 2 Z Clr 7
Z 1 m

43 U Semic 11.5

√ c = U
g 5 U
f 6 U
U = d

17

Monday Nov 5, 1883

Clear D$^{+50}_{25}$

5 30 114 R Cygni ~~7.5~~ 8.0

✓ R 1 n Color 7

k 5 R

R 4 e

g 2 R

116 S Vulpeculae 9.0

✓ S 4 a Color ~~2~~ 3

g 2 S

S 2 m

S 5 d

83, R Herculis 9.3

✓ b 1 R Color 2 ::

x 3 R moonlight

c 1 R color est diff.

R 1 a

Nov 5

101 T Serpentis ✓ 10.0

T = k

f 4 T

T 4 g

a just visible

~~b [illegible]~~

b = 11 mag.

Color 2::

~~[illegible]~~

129 U Capricorni ✓ 10.7

b 7 U

a 3 U

e 1 U

Color —

78 S Coronae ✓ 11.

p 7 S

x 2 S

y = S

Nov 5

6;30 93a V Herculis 9.6

✓ V 5 a Color —::

V = c

b 5 V

102 V Sagitt. 8.0

✓ Color 1

b ~~5~~ 4 V

k 2 V

L = 1 V

103, U Sagitt 7.5

✓

U 2 f color 1

6:45 U = b

Nov 5

8h.0 ☄ Pons Brooks

same appearance as last obsn.

91 a R Ursæ Min. 9.4

✓ R 5 s 9 Color 2

R 2 s

b 3 R

91 b R Draco 9.3

✓ c 4 R Color —!!

R 3 m

R = k

k 7 x

Apr 5

moon set.

2 R Androm		7.5
✓	R 3 g	Color 6
	m 2 R	
	d 1 R	
	c 4 R	
8 S Piscium		9.8 ~~10.7~~
✓	S 1 c	Color 3 ::
	b 1 S	Color *very* uncertain
9 R Piscium		8.6
✓	R 4 a	Color 1
	b 1 R	
	c 5 R	

Nov 5,

8:30 15 T Arietis 9.3

✓ T 1 e Color 4

d 2 T

b 5 T

21 R Tauri 9.0

✓ u 3 R Color 3

R 2 c

R 3 d

22 S Tauri 9.7

✓ S 3 p Color —!!

S 3 q

w 3 S

Nov 5

h m
9 0 — 23 $\overline{V}$ Tauri — 9.3

✓ e = $\overline{V}$ — Color 2

$\overline{V}$ 1 e

b 2 $\overline{V}$

a 5 $\overline{V}$

5 T Piscium — 10.0

~~9.7~~

✓ c 3 T — Color —

a 2 T

T 4 d

e = T

(19)

Nov 5

24 R Orionis ? 13

✓ occasionally
suspected; about 13

b 3+ R
x 5+ R

27 R Aurigae 12½

✓ R 3 z
R 2 x
y 3 R

58 R Urs Maj 8.2

✓ R 2 c color 2
g 2 R
d 5 R

Nov 5

9:30 100 T Herculis 10.5

✓

T = g

T 3 h

a 4 T

Color — ?

133 T Capric. 10.5

✓

T 2 d

T = 1 g

k 3-4 T

Color —

132 R Vulpec — 13.

✓

invis

c 3/4 m + R

y 3/4 m + R

Nov 5

143 R Cassiop 7:0

✓ R 2 t Color 7

R 4 l

11:0 43 N Gemin. 12½

✓ e 3 N

d 5 N

N 1 b

b v. ft; on limit

a invisible.

27

Wednesday Nov 7, 1883

Clear D $+15^{\circ}$ 40

93a V Herculis 9.5

v c 1 V ~~Clr~~

V 4 a Color 1 ::

b 6 e

79 R Coronae 6.5

v R 8 c Color 1

R 2 b

L 2 g 5 d 4 q 2 e 1 n

n^r 10 x 2 y 2 z 2 f

c q m 4 h 2 g 1 p 3 n 3 d

Sus var (f)

x 5 f

v 2 2 f

Nov 7

112 R Sagittarii 9.5

✓ h 4 R

m [illegible] = R Color 2 ::

R 2 ~~g~~ n

R 3 k

Note (the f & g tonight are those near R. — ~~Look~~ or look up ~~the~~ and correct the double notation for f & g. also ~~for~~ a new h and k
the small f & g ~~south of~~
were only very recently put in.

113 S Sagittarii 10.0

✓ x 3 S

Nov 7

8 0 104 T Aquilae 9.3

✓

~~c 1 T~~

c 2 T Color 3::

d 5 T

3

T 4 b

8' 0 117 X Cygni 6

✓

h ~~3/4m~~ 7 X Color 7

X 6 f

~~X~~ ~~3/4~~ 7 .

X 3/4+ c

Nov 7

after midnight — Clear & dark

L~

158 43 U Geminorum 13.0

v a 4 u

u = z

27a S Aurigae ~~12~~ 11½

v S ~~4~~ 3 e Color 7 ::

d ½ S

a 4 b 5 c 4 d 3 e 3 f

f 4 g 7 h 3 k

Apr 7

38 a V Gemini, 8.6

✓ c 2 V Color 1

V 4 d

V 4 e

a 3 b 3 c 6 d 1 e 3 f

f 3 g 4 h 1 k 3 l

l 10 m 3 n 6 q 2 r

40 a U Can Min 9.1

✓ e 5 U Color 5

U 5 k

~~k 4 U~~

U 4 h

U 2 g

g 1 U

U 4 l

44✓ R Canis 7.

R 5 e Color 4
R 2 f
g 1 R
p 5 R

43a U Puppis 10.5

✓ f 4 U Color 3 ::
g 3 U
U $^{3-4}$ ~~4~~ k
U 5-6 h

16
4 : 10

Nov 7

49 T Cancri 8.0
V
e 1 T Color 7
T 5 b
T = c
d 4 T

52 a V Leonis 9.5
V
b 5 V Color 1 ;;
d 4 V
V 1 e
V 3 d
V 6-7 f

Nov 7

56 S Leonis 10.5

Color 0 ::

~~10.5~~

~~Color~~

✓ e 4 S

g 2 S

S 4 f

h 3 S

S 1 mag k

S 1 m

63 R Virginis 7.8

Color 1

✓

p 4 R

R 5 b

R ~~8~~ 7 a

Thursday Nov ~~7~~ 8, 1883

Somewhat hazy D $\frac{0}{40}$

5h 45 Pons Brooks

No sign of ~~con~~ nucleus (>11m) and scarcely ~~not~~ any central condensation, less so than usual - Total brightness = 8 m. ~~Bri~~

110 R Aquilae 8.2

✓ R 4 b

R 2 c

d 4 R

Color 7

80 R Serpentis 8.8

✓ b = R

Color ~~3~~ 1::

R 4 ~~8~~ q ~~(than 2 near var.)~~

q 4 R

~~To correct the notation in the two 2's here on~~ chart

Apr 8

80 a T Cor Bor 8.0

✓ k 2 T Color 8

h 3 T

T 3 g

T 2-3 m

k 1 h 5 g 3 m 2 d 3 c

92 S Herculis 8.8

✓ d' = S Color 7

e 3 S

k 5 S

S 3 p

Nov 8

6:30 91 c W Herculis — 11½

·v

not vis.

~~W ½m+~~

x ½ m + W

137 a R Lacertae 10.2

✓ R 5 k Color — ;;

R = l

d 35 R

g ~~7~~ 3 R

Sunday Nov 11. 1883

Clear — ☽ +6h +10° just setting

15h 20

21 R Tauri — 9.84

✓ R 1–2 e — Colr 3 !!

d 3 R

c 4 R

22 S Tauri — 9.5

✓ s 4 p — ~~Color 4 !!~~

S 2–3 q — Color 4 !!

e 2–3 S

~~4 : 0~~ 23 V Tauri — 8.8

16 : 0 ✓ — Color 2

f 2–3 V

V 3 c

V 3 e

Nov 11

53 R Urs Maj i 7.7

✓ R 3 c Color 0

d_{2-3} R

Monday Nov 12, 1883
Clear — Cold — Very windy
bright ☽

6:0 83 R Herculis 9.
v b 3 R Color — !:
R = x
c 5+ R
Obs very difficult.

101 T Serpentis 9.5
v ~~F~~ k 3 T Color — !
c 1 T
T 3 g

Nov 12 83

6:30 129 U Capricorni ~~< 10.5~~
√ c a & b are < 10.5
U invis
* ~~a ½ m~~
b ½ m + U

6:30 ~~a~~ Pons Brooks
Central condensation more marked than at previous obsn and = 9 1/3 m. star; no nucleus, ~~properly so called~~. > 11 m.

Nov 12, 1883

16^h 0^m ~~[illegible]~~ ☽ low in west

27a R^S Aurigae 11.0

v S 1 e

d 4 S

38a V Geminorum 8.5

v c 3 V Color 2

v V 3 p

V 5 e

Can Min.

40 a U ~~Gemin~~ 9.5

v U 2 k Color 6

U 3 l

h 3 U

Apr 12

8 30

44 R Cancri — 7.5
✓
R 3 f — Color 4
g 3 R
p 5+ R

49 T Cancri — 8.5
✓
f 3/4m T — Color 7
T 2 e
T 3 c
h 4 T

52a V Leonis — 9.6
✓
V 6 f — Color 2 ::
V = e
V 3 d
c 4 V

Nov 12

56 S Leonis ✓ 10.0 ~~10.5~~

S 1 m

Color — ::

Oct 4, 1883

Nov 27, '83

43a U Pegasi ✓ 9.7

g & U

Color 4 ::

U > R

U > h

Mr 12

56 S Leonis 10.0 ~~10.5~~

✓ Color — ::

S 1 m
h 5 S
g 2 S
S 1 f

43a U Puppis 9.7

✓ Color 4 ::

g 4 U
U = 1 k
U 3 h

Nov 12

17h0 ✓ 63 R Virginis 7.5

R 4 p Color 1

e 4 R

k 5 R

R 3/4 wlm a.

69 S Virginis 10.0 ~~9.5~~

✓ S 4 p Color — [illegible]

h 4 S

l 5 S

f 4-5 S

Nov 12

37 ✓ R Ser min 12 12~~½~~

m 3 R

'R = n

Gus Var# 167

✓ 12 mag.
normal brightness

38 R Cam min 8.5

✓ Color 6

R = e

Nov 12

5 : 30 39 5 Can Min. 9.2 ~~9.8~~

√ Color 6

S 3 k

b 1 5

S 2 h

c 5 S

6 : 0 41 S Semin ~~[illegible]~~

√ Strong twilight

g & d in

m invis.

S invis

Wednesday Nov 14, 1883

~~Bright~~ bright moonlight

sh 3
6 : 0

114 R Cygni 7.7
✓ Color 5

p 5 R
l 7 R
R 2 m
R 3 g
R 5 e

116 S Vulpec 8.6
✓ Color 6

g = S
S 5 m
p 5 S
S 3 h
S 4 k

Nov 14 1883

6:30 91b R Draco 9.3

✓ R 2 c Color 3 ??

b 2 R

2 R Andorm 7.5

✓ c 1 R Color 6

R 3 d

R 4 m

91a R Urs Min, 9.5

✓ b 4 R Color 2

R 3 5

Nov 14, 1883

6:40 Pons Brooks
Seems brighter
less central condensation
no nucleus -
trace of a tail (bright moonlight
in n.f. direction P = 50°

11:30 8 S Piscium 10.5
✓ S 2 d Color —!!
b 3-4 S
c 3/4 n S

9 R Piscium 8.3
✓ R 5 a Color 7
R 3 b
c 4 R

Nov 14 83

15 T Arietis 9.0

Color 5

✓ T 4 e

T 1 d

b 2 T

a 5 T

12 ~~[illegible]~~ o Ceti Gr 8.7

✓ q ~~c~~ 6 o

a ~~d~~ 2 o Color 6

o 3-4 ~~a~~ c

o 3-4 ~~b~~ s

26 R Leporis 8.5

✓ d 2 R Color 9

R 5 f

c 4 R

g = R

Nov ~~20~~ 14 '83

28 S Orionis 10.5

✓

S = x

g 3 S

S 4 n

Color — !!

28a T Orionis 11.5

✓

f 5 T

c ¾ n T

T = g

b 1 mag T

Sns arr 149 b 10.

✓

149 b = c

h 2 149 b

Nov 14

12^h 48 S Hydrae 8,3

√ s 5 e Color 2

s 2 d

f 3 s

Sunday Nov 18, 1883

Clear — Dark

6:30

129 U Capric. 12½

✓ c 1½ mag U Color —!!

f 7 U

g 1 U

Pons Brooks ~~☾~~

Strong condensation = 8 mag

no nucleus

Comet decidedly brighter

3 S Ceti 12½

✓ x 1¼ mag S

y 2 S

x = 11.5 ± m ~~11½ 12 mag~~

y = 12.½ m.

Sus var near S Ceti #5

✓ f 2 sus var

e ~~f~~ = 1 " "

Nov 1883

7 S Cassiop — 13
✓ S Ursae ~~[illegible]~~

a star w is vis. near place of S
about 13 m.

w is exactly midway between
x and the 9 mag star just
foll. y.

x is double

w 1/3 m. + S (unless w is S itself)

11 R Arietis 12.7
✓
x 3 R
R 2 y

x = 12.3
y = 12.8

Nov 18

13 S Persei

11
~~10.7~~

✓

x 3 S
S = y

y = 11
x = 10.5

~~Correct place the chart~~
make correction of place of
y in chart

18 R Persei

13

✓

q 1½ m R
x 3 R

q 11.
x = 12.7 m.

Nov 18

20 T Tauri — 13

✓ invis

a 1½ mag T

100 T Herculis 9.4

✓

f 4 T . Color 0

d 3 T

T 4 p

Sm var star foll c

✓ normal brightness

Nov 18

9:0 143 R Cassiop 6.7
✓ Color 6

R ½m l

R ½m t

117 X Cygni 6.5
✓ Color 8

f 4 X

h 1m+ X

e = X

X 3^4 c

Nov 18

137a R Lacertae 9,5
✓ R 3 e Color 3
R 4 g
R 2 f
d 4 R
c 5 R

9:40 27a S Aurigae 11.5
✓ ✓ d 2 S Color 6::
S 4 e

Nov 18
(after midnight
0^{h}_{50}

16^{h}

43 a U Herculis
✓ g 1 mag + U
K 3 U
U 2 h
U 7/4 m a

10.7
Color — [illegible]

63 R Virginis
✓ R 4 p
e 3 R

7.0
Color 0

Mar 18/83

38a V Geminorum 8.0

✓ V 2 c ~~Color 5~~

b 4 c Color 3

V 4 d

V ~~4~~ 6 e

48 S Hydrae 8.0

✓ d 2 S clouds Color 1 ~~2~~ ;;

S 5 e

~~[illegible]~~

61 a T Virginis 9.4

✓ a 1-2 T clouds

T 4 b

Nov 18 '83

5:30 69 S Virginis 9.4

✓ h 2 S

2 4 S

S 3/4 mag p

Clouds

Nov 19, 1883

Tolerably clear

133 T Capric — 100 ~~90~~ ~~Color~~ 3 Color — ; ,

✓ ~~m 2 h~~

T 1-2 c
d 2-3 T

6:40 132 R Vulpec — < 11½.

✓ hasty glance thro' clouds
showed only a, x, b
c & y
R invisible < ~~12~~ 11½

Examine again
to make certain

Nov 19, 1883

Moon rising

11 30

35 R Lyncis 10.5

✓ R 5 a Color — 1½

R 2-3 b

f 3 R

d 4 m 2 e ~~8~~ f 5 b 3 a

a 3 h 5 g 5 k

38 R Can mi 8.0

✓ R 2 e Color 5

d = R

f 5 R

Nov 19, 1883

40 a U Can min. 10.0

✓ U = l
k 4 U
h 5+ U
U 2 n
U 4 m

44 R Cancri 7.5

✓ g 4 R Color 4
R = f
R 3 e

52 a V Leonis 10,5

✓ V 4 f
e 2 V
V 3 d

Nov 19. 83

119 S Cygni 12.

✓ z 2 S

S 2 x

S 3/4 m+ y

10 S Arietis 12.5

✓ just ~~visible~~ suspected

x 3/4 mag S

24 R Orionis 11.7

✓ R = x

b ~~x~~ 5+ R

✓ Nov 19 83

27 R Aurigae 11.5

✓ g 3-4 R [illegible]

R 2-3 h

R 4 y

28a T Orionis 11.0 ~~10.5~~

✓ f 3 T

T = k

Ins Var 149 b

✓ 149 b 2 c

d ~~4~~5 149 b

h 3 149 b

Nov 19

$13^{h}10$ 33 R Monocerotis —— 12

✓

invisible

~~not visible~~

a 2+ R

62 T Urs Maj. 10.5

✓

~~p~~ T 1 p

m 3 T

T 2 n

64 S Urs Maj. 10.

✓

t 2 S

S 2 b

S 3 a

Nov 19

71 S Bootis — 11.5
✓ invisible
a 1mag S

40 T Can min — 11.7
✓
invis
~~a~~ x invis
y z visible easily
~~x~~ y 3/4m T

41 S Gemin — 12½
✓
invis
x 3/4mt S

Nov 19, 1883

14′ 0 42 Z Gemini 12½

✓ Z 2 p

Z 5 o

g 3 Z

45 V Cancri 9.3

✓ Color ✶ 3

V 2 ~~d~~ h

V 3 m

e 4 V

d 6 V

c 7 V

O.K. Look out & change the notation; there are two e's & d's: the e used above is the 8½ mag star & the d the 9 m (south of V)

notation changed 11/20/83

L
14 10

Nov 19

Tuesday Nov 20, 1883

Hazy

$7^h\ 0^m$ 132 R Vulpeculae ~~Ophiuchi~~ — 12½

✓

cirris

w 3 + R

~~R~~

a = m

n 1 a

125 U Cygni 10.7

✓

Z 3 U Color —

U 2 n

U 1 n + b

127a V Cygni 10.5

✓ d 2 V Color 8

V 2 c

Nov 20 83

8^h 0 53 R Urs Maj. 7.5

✓ Color 2

R 2 c

R 3 g

d 3 R

114 R Cygni 7.5

✓ Color 5

p 4-5 R

R 3 g

R ~~2~~ 3 e

t 3 R

~~a~~ n 2 e

n 3 g

p 5 n

3)

Nov 20 83

8:20 Z R Androm 6.5

✓ d = R Color 4

m 1 R

R 3 c

132a T Cephei 8.0

✓ g ~~x~~ 3 T Color 5

T 5 c

h 2 T

Wednesday Nov 21, 1883.

5:30 Moderately clear

80 a V Cor Bor — 9.2
✓ — Color 2!!

g 2 V
V = d
V 5 c

10.0
93 a V Herculis — ~~9.3~~
✓ — Color —— 1/3

c ~~2~~ 1 V
V 4 a
d 3 V

b 4 d 3 c 5 a

6:0 ~~N~~ Pons Brooks
same general appearance
as ~~faint~~ exceedingly faint linear streak
towards P = 70°, suspected

Nov 21

112 R Sagittarii ✓ 9.5
Color —

R 3 k
h 4 R
n = R
m 2 R

113 S Sagittarii ✓ < 11
invis
x ½ m S

110 R Aquilae ✓ 8.7
Color 6

a ~~2~~ = R
c 2 R
~~clouds, others diff & uncertain~~
R 2 b
d . 5 R

Nov 21

6:30 104 T Aquilae 9.0
✓ c = T Color 3
T 2 b
d 3 T

121 S Aquilae 10.0
✓ Color 2
S 3 g
S 2 a
f 2 S

122 R Sagittae 9.0
✓ Color 0
R 1 b
R 3 c
f 4 R

Nov 21

7.0

123 R Delphini ~~12~~ 11.5

✓

~~[illegible]~~

x 1 R

R 3 y

a not vis.

~~7.31~~

Thursday Nov 22, 1883
Partially Cloudy

101 T Serpentis ~~10.5~~ 10.7

✓ $c = T$
$k \overset{3}{\cancel{2}} T$
$T \overset{5}{\cancel{4}} x$ (the x between c & f)

a not visible

See obsn of May 6 '83 when this star was called missing or 3' too far north

The star at 18 22 30 +6 30 is
✓ $4 > k$
$2 < m$

~~z is~~ z is as follows
$x\ 5\ z$
$z = y$ (The x & y between c & f

Note — Look up and correct the double notation of x & y also the stars

Nov 22, 1883

116 S Vulpec 9.5

✓ h = S Clbr $\overset{4}{5}$

S 1 h

g 2 S

S 3 m

S 4 a

100 T Herculis 8.9

✓ f = T Clbr 2

b 4-5 T

Saturday Nov 22/'83

11h 15m Clear

137a R Lacertae 9.4

✓ c 3-4 R Color 2

R 3 f

R 5 g

R 2 e

R 6 k

e 1 f 2 g 4 k

21 R Tauri 9.5

✓ R 1 e Color 2

d 2 R

c 4 R

R 5 g

Nov 24

22 S Tauri 9.6
√
S 1 f Color 2 ::
S = q
p 1 S

23 V Tauri 8.7
√
Color 5
~~b 1~~
V 1 b
V 2 c
a 4-5 V
V 3 e

27, a S Aurigae 12
√
S 2 f
Color 6 ::
S = e
d 3 S

Murray

11 ~~4~~0 38 a V Gemin 9.0

✓ Color 3

c 2-3 V

b 5 V

V 2 ~~V~~ p

V 2-3 e

V 2 d

48 S Hydrae 8.7

✓ ~~Color 2::~~

b 3 S

S 2 a

S 3 c

Nov 24

49 Z Camel — 82

✓

Z 5 b — Color 6

Z 2 e

Z 3 e

~~Z~~

c = Z

h 2-3 Z

43 U Gemin — 13.~~1~~

✓ U just vis. by glimpses

a 4 U

Mar 24

12 0

40 T Can min , 13

✓ x 3 T

46 U Cancri — 13

✓ Leonis

n 1/4 mag, + U

l 1/2 mag + U

51, R Leo min 11.7

✓

R = y

a 1 R

z 3 R

g 2 R

Apr 24

52 R Leonis 9.2
✓
L 1 R Color 6
R 2 g

52 b U Leonis — 13
✓ timis
a 1/3+ U
c 1/3+ U

71 S Bootis 11.5
✓
a 3 S
S 4 f

Nov 24

3 : 0

41 δ Gemini — 6.3

✓ invis

x ¾ m + (S = T)

50 T Hydrae — ~~11~~ 12½

✓

(T = T) invis. or
only suspected

g 2 or 3 on maps > i

i ½ sp (T = T)

hazy

43a U Puppis 10.5

✓ Color 2 : :

U 4 a
h 2 U
n 1 k

y 3 z
x 5 y_3
x 4
k 7 + x

(18)

Nov 24

13:30 35 R Lyncis 9.7

✓ R 2 b ~~Color 4 6~~

R 4 a Color 2 – 4:

f 3-4 R

15 T Arietis 9.2

✓

T 2 e Color 3

d 1 T

f 2 T

143 R Cassiopeia 6.

✓ R 3/4 m t Color 7 ~~6~~

R 1 m l

Comparisons almost impracticable with telescope or finder no stars near

Nov. 24

14! 0 56 δ Leonis 10.7

✓ f 5 = S clr —

S 4 m

K not visible

22

Sunday Nov 25/1883
moderately clear

5:15

133 T Capric 11.0

✓ T 3-4 a Color —

T = c
d 3 T
e 2 T

101 T Serpentis

✓ c 1 T 10.7
T 3 x
k 3-4 T

Star at 18 22 30 +6 30
✓ is out of place should be
2'1/2 farther south.
See obsn of 11/22/83
and 5/6/83

Nov 2~~8~~7 1883

.83 R Herculis 10.0

✓ x 5 R

b 3 R Stars

c 3 R low

R = a

R 4 b

R 4 q

b & q seen with diff.

92 S Herculis 10.0

✓ S = b Color — 15

S 3 t

S 5 a

~~S —~~

p ~~2~~ 4 S

d 3/4 ~~a~~ S

Nov 25, 83

120 R Capric — 12½

✓ R invis

b 3/4m + R

~~[illegible]~~

r +> R

f +> R

r & f just vis.

91 c W Herculis 13.0

✓ x 1¼m + W

z 3 W

z & W scarcely vis

Nov 25 '83

122 R Sagittae 9.4

✓ f 4 R Color 2

~~R~~

b 1 R

R 2 c

R 4 d

~~12~~. 127 S Delphini 11.5

✓ g 2 S

δ 3 m ~~Color [illegible]~~

Color 6 ::

128 T Delphini 10.5

✓

f 3 T

T 3–4 g

T = h

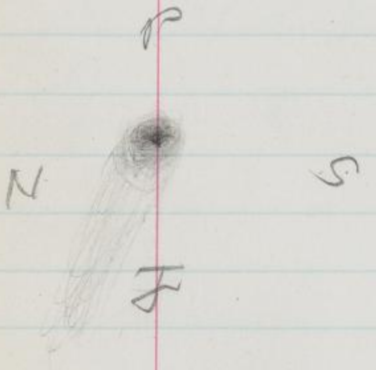
Nov 25 ☉

117 X Cygni 6.5

✓ e 3 X Color 7
c 1 X
X 4 ~~R~~ r

8:30 ~~[illegible]~~ Pons Brooks

Decidedly brighter;
Central condensation ^ & elongated and very bright
2' or 4' diameter
Coma 6' ~~or 7'~~ diameter
~~ta~~ faint tail 20' long
P = 60°



143 R Cassiopeiae 6.5
✓ obsd ~~[illegible]~~ O. G. ~~[illegible]~~

Nov 25

9:0 127a V Cygni 10.5

✓ e 3 V color 9

V 2-3 f

28a T Orionis 10,5

✓ T 4 k

f 2 T

c 4 T

9.20 Sm Nr 1493

✓ d 3 1493

1493 3 c

Nov 25 em

16:0 83 R Virginis 7.0

✓ R 4 p Color 1

e 1 R

k 2-3 R

Schwab's stars

g 5-6 m

✓ a = b (bright b)

i' Schwab's [illegible] [illegible] I think [illegible] 12 33 12 not p 32 12

(no star at [illegible] Better place 7 10

Correct two b' on chart

6/a T Virginis 11 ±

✓ T 1 b

T 4 e

a 4 T

d 5 T

Comparisons of star x (non var)

✓ (ff 3) b 2 x

x 2 e

~~a = b (bright b)~~

Mar 25

69 S Virginis 9.7

✓ S = ~~8~~ l Color 1 ::

S 1 h

f 5 ~~6~~ S

55 R Crateris 8.0

✓ Color ~~7~~ 8

R 4 a

R 3 f

e 3 R

57 T Leonis —12

✓ T invis

a 1m+ T

~~and~~

Apr 25

~~17h0~~

17:0 58 X Virginis 10.5

✓

c 3 X

X = b

X 3 a

59 R Coma Ber 10.5!!

✓

b 1 R

R 4 a

Apr 25

17:20

60 T Virginis — 12

✓ T invisible hazy

b 5 + T

65 U Virginis 10.5

✓ n 3 U

U 2–3 p

a 4-5 U

61 R Corvi ~~11~~ 11.5

✓ d 3 R

R 2 m

Mar 25, 83

17:50 67 V Virginis — ~~12~~ 11.5

✓ invisible

f 5 + > V

66 W Virginis 10.0

✓ b 2 W

W 2 a

Nov 25, 83

17:40

73 R Bootis — 11

✓ invisible

~~Z D[illegible]~~

Z 1 mt R

m not vis. or

only suspected

53 ✓. R Urs Maj. 7.4 ~~7.7~~

Color 0

R 3 c

R 1 d

40 a U Cam Min. 10.5

✓ Color —

Z 3 U

~~Z~~ K 4 U

m 1 U

U 2 t

Tuesday Nov 27, 1883

Clear

7:0 91b R Draconis 9.4
✓ a 4 R Color 3
R 1 b
R 3 c

8 S Piscium 10.0
✓ b 5-6 S Color — ''
d 2 ~~3~~ S
S 4 f
S = e
S 3-4 g

Apr 27 83

7:10 9 R Persei 7.8

✓ c 3 R Color 2

R 2 b

R 5-6 a

132 R Vulpec ~~11.5~~ 12.0

✓ R 3-4 w

z 1-2 k

c 4 R

114 R Cygni 7.5

✓ k = R Color 6

p 5 R

R 4-5 g

R 3 m

t 3 R

Nov 27

8:0 Z R Androm 6.7

v R 2 m Color ~~5~~ 6

R 4-5 c

R 1 d

y 1 x

100 Z Herculi 8.7

v Z 8 f Color 0 !!

b 1 Z

g 5 Z

Nov 27

138 S Aquarii 12

✓

d 3/4 m + S

x 2 S

S 1 y

140 R Pegasi 12½

✓

n 2 R

R scarcely vis.

141 S Pegasi 9.4

✓

f 1 S Color O ::

S 1 e

g 3 S

S 6 d

S 5?-6 c

Nov 27

8:40 142 R Aquarii 7.5

v R 4 h Color 0

k 4 R

R 2 g

f 2 R

1 T Cassiop. 11.7

v y 4 T

T 4 x

T 5 z

Nov 27 '83

9:30 5 T Piscium 11.0

v T 2 l · Color —

T = a

c 1-2 T

f 5 T

(13)

134 S Cephei 8.8

v a 4 S Color 9

b 3 S

S 3 d

S 6 c

72 R Camelop 12

v R = m

b 2 R

a 5 R

Nov 27 83

7 S Cassiop 13

v w 3 S

S 2 t

91 a R Urs Min 9.4

v

R 2 S

b 2 R

14 R Ceti 13½

v

y 5 R

E 2 R

Σ = 13 mag.

Nov 24

10 50 33 R Monocerotis 12

✓ b 5 R

a 3 R

f ~~2~~ 1 R

(18)

39 S Can Min 9.~~3~~2

✓ e 4 S Color 3

S 4 h

~~b~~ S 3 b

n 5 S

Nov 27

11 0 38 R Can min. 8.8

✓ R 2 e . Color 6

f ~~4~~ ~~6~~ 5 R

44 R Cancri . 7.6

✓ Color 4

g 6 R

f 2 R

R [illegible] = l

R 3 d