

Harvard College Observatory
Annals
1922-23 - 1923-24

Cluster Obs.
S. I. B.

NGC 372

6362

6752

6686

4833

5139

5286

5986

6093

104

6809

7099

288

362

6584

6652

6681

6397

6541

6101

2298

6723

1851

1904

1912

Oct 19

~~Nova Persei~~~~969⁵~~~~94 21 Gray Pass~~

372 12^h 20^m - 72.1
 4833 12^h 53^m - 70.3
 Same. of M. J. C. 4833.
 faint open cluster. Feb. 60^m ±

May 29, 1922

Comp. of A 11981 reversed plate and 11978 ^{no var} fd

" " " 11981 and 11941. no var. fd.

" " " " 11946. " " " "

" " " " 11942. " " " "

" " " " 11940. " " " "

" " " " 11939. " " " "

" " " " 11938. " " " "

See p 100

Mean of N.T.C. 6362

✓ Comb of 12077 (rev. pl.) with 12000 No. var fd
 " " " " " 12161 " " "
 " " " " " 12130 " " "
 " " " " " 12128 1 var fd N 58'
 " " " " " 12164 no var fd
 " " " " " 12074 " " "
 Comb of stars within 60' of center of cluster

See Comstock p. 2338

~~Oct 21~~~~Gray Mass~~

many 15-20 ft
sub. on these plates
mb. all known

~~94 A1~~~~Gray Mass~~

Specimen of N.E.C. 6752 To 10 ft Center.
Comp. of a 12183 (rev. pl.) with

a 12214 new No var. seen.

12165 " " "

12179 " " "

12144 { 1 var. of wavy plate
and long per. range 3-4 ft
No var. seen.

12129 " " "
12117 " " "
see count 2355 - "

comp. of a 12143

and a 12394. new No var. fd.

Comp. of 12394 + 12793

12332 + 12793

" " "

" " " "

a number of ft. (spiral?) web. in this region.
which is not web. as said

Exam. of U.S.C. 6656. whole plate.
 Conf. of Q 11979 and
 " 12066 (iii) 1 var fd
 " 12064 (iv) 1 " "
 " 12061 No " "

Count of a = 12073 (rev. 13)
+ 11982 (2)

11982

11984

11986

11990

11950

(2) vars $fd + 1$ blijft

(2) $12 + 16$
u

Q(4) 17, 18, 19, 20

(2). $2 \mid 22$

- 18 Sept. 1 pl. U.S. *Shepherd*
- 21 " " " " "
- 22 " " " " "

Comp. of Centre.

12073

and 12086

1A 950

not superior. But a few slow at a time

~ shil too

23.

1000

11 vars. (2 w 3?) dist 8', 9' - 85'. Get more plates.

20. large range long per. v. ft at min

13. " " " " " " " 2 wapiwa

[illegible]

23 Small " short " 2 days or less ?

16 small " off " "

15 1/2 large " " " " , left on 3 plates

22. Small "

2/1 v. large " long " but on sev. subnd indiv. on many.

17. large " "

18. " " "

10

by the sea, either more or less

Span. of region of W Cent
 WIC - 5139
 Compar. of 11958
 with 11970 no new var. seen
 " 11963 " " " "
 " 1196⁵⁻⁹~~60~~ " " " "

No new vars seen
 but over 20 prob.
 the bailed phase
 are surely spirals.
 Gal. Lat. $\omega + 16^\circ$

Exam. of Region of
Wfl 5286. ✓✓

Comp. of A 11995-

with 11953 No var. seen.

" 11957 " " "

" 11974 " " "

" 11993 " " "

3 fl neb - pars. sp.
get lower vol.

Comp. of 11992 & 12403 1 var. 65,
" " 11993 " " No var. seen.

Jan. 65.

A	11953	12.8
	11954	13.0
	11957	12.9
	11974	13.3
	11991	- 8th.
	11992	13.7
	11993	13.7
	11994	13.7
	11995	13.6
	12324	16.5
	12403	17.0

long per. large range.
checked by Mrs. P.

Cite to Dr. S.
Gua to Dr. S.
Feb 8. 1964

Pos. No. 65:

from C.D.D. - $51^{\circ} 63' 64''$ (1875) $13^h 44^m 1.8^s$ - $51^{\circ} 44' 5''$

var. Prec. 0.8 South - 0.9

$$0.8 = 3.2 \div 6.17 = 5.2$$

Pos. Var. $13^h 43^m 57^s$; - $51^{\circ} 45' 4''$

Team of
M.C. 5986

Comb. of rev. pl. A 12174
and

11996	24	1 var	fd	{ hard but short per
12000	26	1	"	
12002	26.27	2	"	min on rev. pl.
12020	28	1	"	3 pl.
12023	-	No	"	
12163	-	"	"	

R-3.
get enough pl. to study
prints. also 1 long exp.

Oct 27

~~75~~ ~~50~~ ~~1.5 (12.10.19)~~
~~60~~ ~~50~~ ~~1.5 (12.10.19)~~
~~Highland Ave 624~~

Re am. of M.H.C. 6093

Comb of 2
with 1

12177

12027

12029

120 3'

12057

4^{nieuw} van. 29-32.

1. 33

○ " 1 neb ft. glob.?

O " best art. trail, also on 56 + 58

29. miles, large range.

#30. in dark obs'd
an. w. p. obs'd
per. v. short aff.
but as my 1/4 l.
long per.

31. but as my 1/4, 12/77.
aff. long per. 31. 12/77.

31. but on my long per.
all 31. 10
32. Same as long per.
large range 12 77. same vis.
33. ft only on 1923 Wl.

set add. 1923
1 vol. 24

~~Oct 28~~

~~79~~ ~~Each. Pl. 2-60~~
 Exam. of W.S.C. 104 (49 Lac)
 Comp of A 12256
 and 12215 No new var fd
 12218 ~~4~~ " " "
 12221 " " "
 12252 " " "
 12260 " " "

Various neb. in these
 plates obblivious only of
 the Sun. Mag. Pld. wh.
 prob. extend to the cluster.

Exam. of W.H.C. 6809

Comb. of a 12249
 $\begin{array}{r} + \\ 12166 \\ - 12247 \\ \hline 12184 \\ 12208 \\ \hline 12229 \end{array}$

1 dbt fl. dy. from 1 pl.
 No New. Jar. 1 sub-
 " " " "
 " " " "
 " " " "

1923 Comb. of a 12249 Good range.
 $\begin{array}{r} + \\ " + 12390 - 4 \text{ Var. } 66, 67, 68, 69. \end{array}$
 " - a 12249 + 12690 2 - 70, 71
 " " " " 12820 " 72, 73 - near edge

alt. fair range - rather long per.
 range range, long per.

69. J. on only 2 or 3 plates, but sure.
 all checked by Mrs. Paras.

70. near edge
 seen only a few pl
 alt. range.

71. long range.

Exam. of M31 7099.

Camb. of A 12250
 + 12167
 12209
 12236
 12248

No new var. Seen.

" " " "

" " " "

" " " "

cluster of 1st neb.
 in the S. deg. No. proc. cluster.
 about 30. Long. Gal. needed.

Require Gal. Lat -48°

The arrangement of stars in the
 field suggests rifts of diffuse
 neb. at this lat. if this could
 be proved. of gr. interest.

1902.

Oct 31

~~D. 39 Thompson H. J.B.G. 22202~~

Specimen of W.L.C. 288

One 2 plates - 1902.

with α 12204
12208

No var. fd 1 dbl gal ??

 α number off neb.
on these plates
Gal. Lat. -89°

Nov 1

22 Therman H. J. Ball 22-202

W.S.C. 362

Arr. 3 plates - 8x10, made up for cl.

Region good looking. Miss Leavitt says

tridually scanned carefully this region in her work on Lowell cl. Her vars. in general too faint to be seen well on these plates of 40th ± exp.

Influence of this cl. in ft neb. - Homb. vars. - felt over whole region.

Probably Lowell cl. plates will give enough material for some discussion of vars in cluster.

Nov. 2

~~See pp 52 + 53~~~~7.6 PCH. R. 21-50~~

W.G.C. 6584

small cl. in rich field

2 good + 2 poor plates

1st var. in cluster aff. but check on work plate. Does not show on 2 poor plate.

No other seen in region

Comb. of 12203and 12521

in region

8 vars fd 50-57.

all checked by Mrs. P.

W.C. 6657, 6652 + 6681

all on same plates

Small ft cluster in rich reg. of W.C.

A 12225 + 12228 comp. i.e. whole reg. of 3 clusters
No var fd out y cl.

Also cluster comp. on above plates + @ 12222

(1.) What appear to be ft var in W.C. 6681 fd lgt
on 12222. check.

Nov. 4

77

7.6

May

Mass.

7.7

Rock

Pa. 21-50

8.0

back

60

W.S.C. 6397

Reg. crd on 2 fl. 1822 - a 12212 + 12185 -
no new var. fld

1923

a 12185⁽¹⁹²²⁾

comp. with

(1923)

12519

1 var fld 34

12351

No " "

12775-

1 " " 35

12585-

2 " " 36 + 37

Dismissed sent to C. all large range long per

Nov. 5

~~74 7.8 Craig Mass.~~

W.I.C. 6541 (Miss W)

2 pl. 1922. 12186 + 12224.

Working new fd.

Ch. in V. rich region
 (40^{mm} rich. has prob. 20,000 sh. but deg. $\neq$
 not counted. only few specimens.)

Plate 12186 had an accid. cop. I. short on no. end. prob-
 ibly draining slide an instant before shutter was closed & plate exposed
 for following. This gives a 2nd image plus 2 deg. $\pm$ bright star at a
 distance (North. left pos.) of 5^{mm}.5.

Comp. of 12186

+

12520

#38

1 var. - see same on this pl.
check in Cambridge

12727

6 var. 39 - 44

12808

4 " 45 - 48

12776

1 " 49

afternoon work
 a v. st. image in same
 pos. as other plates.
 prob. by per. var. Nova??
 Plate made 3 days later
 are in Cambridge.

12 vars. - some of the plates
 in Camb. - Work up after return
 Positions not determined -
 all checked by Mrs. R.

See page 49

~~Nov. 6~~~~76~~~~77~~~~Craig~~~~Mass.~~

W.C. 6101

1923. Aug 2 pl. 12025 + 12026. Same night 1st chart
 muffie color. + fogged. Not red carefully.
 2 or 3 more, some color, for exam.

Nov. 7

Lo Lach. Pa 21-60

W.C. 2298

3 pl. 12287 (not much prod) 12291 + 93

Comp. of 12291 + 93 (two days apart) give no var-
iation in cluster or on plate.

8 small ft. Neb.

glob. or ellipt.

some have indication of
being spiral - but
not sure.Gal. Lat. -16° ±get 2-3 more
neb. 80^m ±

Nov. 2.

See page 54

-75 7.4 Craig Zusp.

Region of M.S.C. 6723.

all plates 1923 July - Nov.

Comb. of a 12523 and a 12821 | 4 var. 58, 59, 60, 61

" 12624 " " " | No new var. fd

" 12669 " " " | 2 var. 62, 63.

" 12769 " " " | 1 var. 64.

short for Sun. range.
in duplicate
observed and

No. comb. of dbl.

var. comb. of
all checked 58-64,
by Mrs. P.63 is further fol. component of close dbl.
It has a fairly large range + long per.

Pos. of N.S.C. 1851

$5^h 12^m - 40.2$

Comb. of region + cluster ^a 12867 + 12306 ^{one fd in field}
 " " " + " 12841 " " " " "

but comb. shows 2 vars in cluster.

74 + 75 — checked by Mr. Paine.

only 5 plates, all in P23, one v. poor.
 More material necessary

No. 74. Fol. center of cl. ^{mm} 4.3 : 0.2 South. a 12801
 " " " ^{mm} 4.4 : 0.1 " " 12867

~~Dist.~~ Coord. $x, +261"$
 par. cl. $y, -9"$

$$\begin{aligned} 4.3 &= 17.2 \div 764 = 22.5 \\ 4.4 &= 17.6 \div " = 23.0 \\ &\quad \underline{23.5} \end{aligned}$$

" 0.5

No. 75. Pos. center of cl. ^{mm} 0.8 : 0.5 North a 12801
 " " " ^{mm} 0.7 : 0.5 " " 12867

" $x - 45"$
 $y + 30"$

$$\begin{aligned} &\text{0.75} \\ 0.75 &= 200 \div 764 = 4.5 \end{aligned}$$

Pos. of N.S.C. 1851 (1860) $5^h 9^m 30.5; -40^\circ 12'.3$

No 74 Pos " $5^h 9^m 53.5; -40^\circ 12'.5$

" 75 " " $5^h 9^m 26; -40^\circ 11'.8$

Copy
 given to Dr. Shapley
 Feb. 8, 1924

Nov. 10

73

78

77

L.F.

May

F.C.R.

Bee

Miss.

Pa. 20-50

Pa. 27-60

Team of U.S.C. 1904. 5' 21 - 24.6

All pl. 1923 but 1 in ¹²³¹⁶ Apr. other (28) Oct - Dec.

Comp. of ^{on} 12316 + 12871 No new stars fd
 " " " " 12820 " " " "

Nov. 11

94

P.3

Cym.

Mos.

72

79

Ciaig.

"

Nov. 12

74

7.8
A.1Eoy
Rach.Wss.
Pa ²¹~~50~~-60

Nov. 14

95

80

Craig.

Russ.

Nov. 15-

Lo FGH-100 21-~~100~~

Nov 16.

P.P.

See, Pa 21-60

38

Nov.
17

76 HFC Leonard Pl 21-100

17 or 18

96

94

7.9

7.8

Cym

Craig

Mas.

"

Nov. 19

95 15 17

777

Thomson H. - JBA 22-202

Nov 20.

11 201

20 Rach. PA 21-60
- 50 50 50 50 50 50 50

Nov
22

7.7 Leonard Mg. 21-100

44

Nov. 23

af Ba Pa 21-60

65.7.11

VW.25

7.8

Lach.

P.A. 21-60

12 vars
H.V. 3710-3721Stars are
marked on
A -

W.C. 6541

1900 hrs
in red.

Nov. 27

Pos.

H.V.
3720No 38. Prie. -42° 8329 0.5. No 48 8329 - (1875) 18^h 2^m 45.9 - 42° 39.7

$$0.5 = 2.0 \div 7.35 =$$

Pos of var. 38 =

$$\begin{array}{r} 18^h 4^m 2.7 \\ 18^h 2^m 43.1 - 42^{\circ} 34.9 \quad (1875) \end{array}$$

No. 39. Prie. -42° 8217 0.7. No 1.0. 8217 = 17^h 54^m 26.5 - 42° 38.7

$$0.7 = 2.8 \div 7.35 = 3.8$$

Pos. of var 39 =

$$\begin{array}{r} 17^h 54^m 23.5 \\ 17^h 54^m 22.7 - 42^{\circ} 37.1^9 \quad (1875) \\ 17^h 54^m 10.5 \\ 18^h 0^m 35.7 - 43^{\circ} 15.1 \end{array}$$

No. 40 Sol. -43° 8466 0.8. No. 16.7. 8466 = 18^h 0^m 35.7 - 43° 15.1

$$0.8 = 3.2 \div 7.28$$

Pos. of var. 40 =

$$\begin{array}{r} 18^h 0^m 40.5 - 42^{\circ} 58.4 \quad (1875) \\ 18^h 0^m 2.8 \\ 18^h 0^m 35.7 - 43^{\circ} 15.1 \end{array}$$

No. 46 Sol. -43° 8466 0.6. No 12.6 8466 = 18^h 0^m 35.7 - 43° 15.1

$$0.6 = 2.4 \div 7.28 = 3.3$$

Var. 46 =

$$\begin{array}{r} 18^h 0^m 28.5 \\ 18^h 0^m 39.0 - 43^{\circ} 2.5 \end{array}$$

No. 42 Prie. -43° 8388 2.0. No. 10.0 8388 = 17^h 52^m 39.6 - 43° 50.1

$$2.0 = 8.0 \div 7.22 =$$

Var. 42 =

$$\begin{array}{r} 17^h 52^m 28.5 \\ 17^h 52^m 39.6 - 43^{\circ} 40.1 \\ 17^h 52^m 11.1 \\ 17^h 52^m 26.6 - 43^{\circ} 20.1 \end{array}$$

No. 43 Prie. -43° 8386 17.8 : So 5.9. 8386 = 17^h 52^m 26.6 - 43° 20.1

$$17.8 = 71.2 \div 7.28 =$$

Var.

$$\begin{array}{r} 17^h 50^m 49 \\ 17^h 50^m 49 : - 43^{\circ} 26.3 \\ 17^h 52^m 37 \\ 17^h 52^m 37.8 \\ 17^h 52^m 5.9 \end{array}$$

No. 44 Prie. -43° 8388 8.6 So. 6.0 8388 = 17^h 52^m 39.6 - 43° 50.1

$$8.6 = 34.4 \div 7.22 =$$

Var.

$$\begin{array}{r} 17^h 51^m 52.5 \\ 17^h 51^m 52.5 - 43^{\circ} 56.1 \\ 17^h 52^m 40 \\ 17^h 52^m 47.6 \\ 17^h 52^m 6.0 \end{array}$$

No. 45 Sol. -43° 8507 1.3; So 5.3

$$1.3 = 5.2 \div 7.29 = 7.1$$

Var. =

$$\begin{array}{r} 18^h 5^m 27.5 \\ 18^h 5^m 27.5 - 43^{\circ} 16.2 \\ 18^h 5^m 15 \\ 18^h 5^m 16.0 \end{array}$$

No. 46 Sol. -43° 8386 1.6 : So. 2.9 8386 = 17^h 52^m 26.6 - 43° 20.1

$$1.6 = 6.4 \div 7.28 =$$

Var 41 =

$$\begin{array}{r} 17^h 52^m 18.5 - 43^{\circ} 23.0 \\ 17^h 52^m 54 \\ 17^h 52^m 6 \\ 17^h 52^m 23.3 \end{array}$$

(Cont. page 50.)

Nov. 28

NGC 6541

see 26.

72 P.O. Gray Mass.

Var.

Plate .

Plate	Date	SD.	Var 38	39	40	41	42	43	44	45	46	47	48	49
X 4925	July 16, 1893	2412661.	-	-	13.0	12.6	12.3	-	-	-	-	-	14.8	13.7
" 12124	Aug. 3, 1908	2418157	-	-	13.5	-	-	-	-	-	13.7	14.5	15.3	-
" 12169	Sept 2, 1908	2418187	<16.5	-	13.3	-	-	-	-	15.7	14.0	15.8	14.0	-
1922 A 12186	Sept 13, 1922	2423311.	16.7	16.0	15.9	13.5	15.7	14.1	<17.1	14.7	14.3	14.4	16.8	14.0
" 12224	Oct. 8, 1922	2423336.	16.8	16.7	14.0	14.2	17.0	15.5	<17.1	15.3	13.7	15.8	17.0	15.7
" 12387	May 25, 1923	2423565.	16.5	16.2	13.2	17.0	17.0	16.0	<17.1	15.9	13.7	15.8	17.0	<16.5
" 12520	July 17, 1923	3618.	13.0	16.3	13.8	13.7	15.8	17.0	<17.1	15.7	16.5	15.8	17.0	15.2
" 12531	" 20, 1923	3621.	13.0	16.0	13.9	13.6	15.5	-	<17.1	15.0	16.7	15.8	17.0	14.9
" 12533	" " 18:26	" 16.8	12.9	16.0	14.0	13.5	15.3	-	<17.1	15.5	16.8	16.2	17.0	14.9
" 12535	" " 20:46	" 16.5	12.9	16.2	14.0	13.5	15.5	-	17.1	15.8	17.0	16.0	17.0	14.8
" 12543	" 21, 1923	3622.	13.0	15.8	14.0	13.5	15.3	16.0	17.0	15.8	16.6	16.0	17.0	14.8
" 12630	Sept. 1, 1923	3664.	14.0	13.8	13.6	13.6	13.0	17.0	15.5	15.8	17.0	14.6	16.5	11.8
" 12681	" 14, 1923	3677.	14.7	13.0	14.0	14.2	13.1	17.0	14.8	15.6	17.1	16.0	15.5	12.0
" 12686	" 15, 1923	3678.	15.2	13.0	14.0	14.2	13.2	16.8	14.8	15.8	17.0	15.5	15.7	11.8
" 12727	Oct. 4, 1923	3697.	16.7	13.2	13.9	15.7	13.3	15.0	14.6	14.5	17.0	15.0	14.6	12.2
" 12735	" 6, 1923	3699.	-	13.3	13.7	-	-	-	-	-	-	-	-	12.0
" 12743	" 7, 1923	3700.	16.7	13.3	13.3	16.0	13.4	15.2	14.7	14.5	17.1	15.1	14.3	12.0
" 12751	" 9, 1923	3702.	16.6	13.5	14.0	17.0	13.5	15.0	14.7	15.8	17.1	15.0	14.0	12.5
" 12768	" 11, 1923	3704.	16.7	13.2	13.9	16.5	13.4	15.0	14.7	14.8	17.1	15.0	14.0	12.6
" 12776	" 12, 1923	3705.	16.7	13.3	13.8	16.5	13.5	14.8	14.7	15.7	17.1	14.5	14.0	12.6
" 12786	" 13, 1923	3706.	17.0	13.2	13.9	16.9	13.5	14.7	14.6	15.8	17.1	14.5	13.5	12.5
" 12792	" 15, 1923	3708.	17.0	13.5	14.0	16.5	13.7	15.1	14.8	15.5	17.1	14.7	13.2	12.5
" 12808	" 26, 1923	3719.	17.0	14.0	13.6	16.7	14.2	14.2	14.8	15.8	15.5	16.0	12.8	13.0

50

Nov. 29

WSE 6541

Cont'd

Sar. No. ³⁷¹⁶ 47

$$\text{Preceder} - 43^\circ 8457 \quad 1.3 \quad ; \quad \text{So. } 1.6 \quad 8457 = 17^h 59^m 34.9 - 43^\circ 5.0$$

$$1.3 \quad 5.2 \div 0.730$$

$$\text{Var } 47 = \frac{18^h 59^m 28.5 - 43^\circ 6.6}{1.6}$$

No. ³⁷¹⁷ 48

$$\text{Preceder} - 43^\circ 8466 \quad 0.3 \quad , \quad \text{So } 2.7 \quad 8466 \quad 18^h 0^m 35.7 - 43^\circ 15.1$$

$$0.3 = 1.2 \div 7.28 =$$

$$\text{Var. } 48 = \frac{18^h 0^m 34.5 - 43^\circ 17.4}{2.7}$$

No. ³⁷¹⁴ 49

$$\text{Preceder} - 43^\circ 8388 \quad 1.0 \quad ; \quad \text{No. } 7.2$$

$$1.0 = 4.0 \div 7.2 =$$

$$\text{Var } 49 = \frac{17^h 52^m 34.5 - 43^\circ 42.9}{7.2}$$

$$54 \quad 22 \quad 43.2$$

Vars Mr. 6541.

Brune 14x17 ray pl. obs'd Maxima

when +
max

A	Date	S.D.	38	39	40	41	42	43	44	45	46	47	48	49
1915 Aug. 4, '96	2413776	-	Max	-	-	-	st	st	st	-	14.5?	-	-	Max 12.0
5209 May 24, '01	5529	-	-	-	max 14.0	st	st	max 14.0±	-	-	-	-	-	st
5626 Sept. 4, '01	5632	Max	Max	-	-	max 13.3	st	max 14.0	-	-	14.8±	-	14.5	m. Max 12.7
5634 Sept. 6, '01	5634	1/2	Max	-	-	Max 13.2	st	-	-	-	15.0±	-	14.3	m. Max 12.8
5709 Oct. 9, '01	5667	-	-	-	-	-	-	-	-	-	13.9	-	12.8	Max 12.0
6313 Mar. 10, '03	6184	Max	-	-	-	st	max 13.5	max 14.7	-	-	-	-	13.0	st
6340 Apr. 20, '03	6225	-	-	Max	13.6	Max 13.0	max 14.0	st	-	-	st	-	15.3	st
6375 May 15, '03	6250	-	-	-	Max 13.4	13.0	st	st	-	-	-	-	-	-

30

J. I. C. M. Pa. 21-60

Feb 25 1899

Stars are
marked on
A 12203

No. 6584. Positions.

3724 No. 50. 3723
 $\text{Sol. } 11018 \quad 11.0 : \text{No } 0.3 \quad 11018 = 18^h 0^m 29.9; -52^\circ 29.1$
 $11.0 = 44.0 \div .609 =$
 $\text{Pos. (1875) No 50} =$
 $18^h 1^m 42^s; -52^\circ 28.8$
 $18 \quad 3 \quad 42 \quad -52 \quad 28.7$

3723 No. 51. 3722
 $\text{Pre. } 11018 \quad 6.8 : \text{No. } 3.6 : 11018 = 18^h 0^m 29.9; -52^\circ 29.1$
 $6.8 = 27.2 \div .609 =$
 $\text{Pos. No. 51 (1875)} =$
 $18^h 59^m 45^s; -52^\circ 25.5$
 $18 \quad 1 \quad 45 \quad -52 \quad 25.5$

3730 No. 52. 3729
 $\text{Sol. } 11067 \quad 4.9 : \text{No. } 1.6 \quad 11067 = 18^h 10^m 30.4; -52^\circ 34.0$
 $4.9 \times 4 = 19.6 \div .607 =$
 $(1875) \text{ Pos. 52} =$
 $18^h 11^m 35^s; -52^\circ 32.4$
 $18 \quad 13 \quad 35 \quad -52 \quad 32.0$

3728 No. 53. 3727
 $\text{Sol. } 11067 \quad 2.3 : \text{No. } 1.8$
 $2.3 = 9.2 \div .607 =$
 $\text{Pos (1875) No. 53} =$
 $18^h 10^m 46^s; -52^\circ 35.8$
 $18 \quad 12 \quad 46 \quad -52 \quad 35.4$

3726 No. 54. 3725
 $\text{Pre. } 11067 \quad 3.3 : \text{No } 2.5 \quad 11067 = 18^h 10^m 30.4; -52^\circ 34.0$
 $3.3 \times 4 = 13.2 \div .607 =$
 $\text{Pos. No 54 (1875)} =$
 $18^h 10^m 9^s; -52^\circ 36.5$
 $18 \quad 12 \quad 9 \quad -52 \quad 36.1$

3727 No. 55. 3726
 $\text{Pre. } 11067 \quad 0.5 : \text{No. } 1.4 \quad 11067 = 18^h 10^m 30.4; -52^\circ 34.0$
 $0.5 = 2.0 \div .607 =$
 $\text{Pos. No 55 (1875)} =$
 $18^h 10^m 27^s; -52^\circ 41.4$
 $18 \quad 12 \quad 27 \quad -52 \quad 41.0$

3731 No. 56. 3730
 $\text{Pre. } 11078 \quad 2.5 : \text{No } 3.2 : 11078 \quad 18^h 12^m 6.9; -52^\circ 48.3$
 $2.5 = 10.0 \div .605 =$
 $\text{Pos. (1875) No 56.}$
 $18^h 13^m 50^s; -52^\circ 51.5$
 $18 \quad 13 \quad 51 \quad -52 \quad 51.1$

3729 No. 57. 3728
 $\text{Sol. } 11067 \quad 3.3 : \text{No } 2.8 \quad 11067 = 18^h 10^m 30.4; -52^\circ 34.0$
 $3.3 = 13.2 \div .607 =$
 Pos. No. 57.
 $18^h 10^m 52^s; -52^\circ 36.8$
 $18 \quad 12 \quad 52 \quad -52 \quad 36.4$

3725 No. 59. 3724
 $\text{Pre. } 9035 \quad 0.2 : \text{No. } 2.4 \quad 9035 = 18^h 6^m 56.3; -53^\circ 38.1$
 $0.2 = 0.8 \div .593$
 Pos. 59
 $18^h 6^m 55^s; -53^\circ 35.7$
 $18 \quad 8 \quad 57 \quad -53^\circ 35.4$

~~Fez~~

W.C. 6584

18^h 10.6^m - 52.2~~At May. 6. 2.60~~

Plate	Date	ST	J.D.	50	51	52	53	54	55	56	57	X
A 3169	July 11, 1898	18 ^h 18 ^m	241 4482.	14.8	12.3	16.1	13.9	14.2 [±]	16.5 [±]	16.2 [±]	14.0	16.5 [±]
3904 ^{10^m}	Aug 23 1899	20 ^h 9 ^m	241 4890.	-	-	-	-	-	-	-	-	-
3932	Sept. 1, 1899	20 ^h 30 ^m	241 4899.	14.5	16.1	14.2 [±]	-	15.0 [±]	15.8	16.2 [±]	14.5 [±]	-
6851 ^(4th)	Aug 9, 1904	18 ^h 25 ^m	241 6702.	14.5	12.2	16.0	13.8 [±]	14.5 [±]	12.3	12.0	14.3	-
X 11804	Aug 29, 1904	19 ^h 6 ^m	241 7817.	-	-	<14.	12.8	14.3 [±]	<15.	10.5 [±]	-	-
12134	Aug. 5, 1908	19 ^h 53 ^m	241 8159.	-	-	14.0	13.9	15.0	12.7	11.5 [±]	-	15.7
12173	Sept. 12	20 ^h 16 ^m	241 8197.	-	-	15.7	12.8	14.3 [±]	15.0	12.0	-	14.8
12181	" 14.	20 ^h 31 ^m	241 8199.	-	-	<15.	13.5 [±]	14.2 [±]	15.1 [±]	11.8 [±]	-	-
12186	" 15.	20 ^h 23 ^m	241 8200.	-	-	<14.	<13.7	15.2 [±]	<15.	12.0	-	-
A 12187	Sept 13, 1922	21 ^h 3 ^m	242 3311	14.0	16.0	14.5 [±]	12.7	13.7	16.3	15.2	14.7 [±]	16.3
12203	" 24	20 ^h 48 ^m	242 3322	12.5 [±]	16.0 [±]	15.0	13.0	15.0	15.8	15.3	15.3	16.0
12213	" 28	20 ^h 52 ^m	242 3326	14.5 [±]	16.8	16.0 [±]	13.7	16.0 [±]	15.7	16.4	13.3 [±]	15.5 [±]
12205	" 25	20 ^h 38 ^m	242 3323	13.0	15.5 [±]	15.3	13.3	16.0 [±]	15.8	15.3	14.7 [±]	15.7 [±]
12521	July 17, 1923	19 ^h 29 ^m	242 3618	14.5 [±]	12.0	13.0	14.0	13.8	12.2	11.3	13.3 [±]	14.5 [±]

54

~~Dec 3~~

See page 29

Vars. J₂
marked on a 12821

W.C. 6723

Var. Slain in region (not incl)

~~6.58 7.8 Olcott. 2.1 4.9 (1.2)~~
~~7.6 Raechan. 2.1-1.05~~

No. 58

Pre. -35 8322, 0.8; No. 2.9 8322 = 18^h 51^m 35.3^s - 35° 40.1
0.75 = 3.0 ÷ .612 (1875) 18 51 32 - 35° 37.1
(1900) 18 53 12 - 35° 35.3

✓✓

No. 59 @

Sol. -36 8558 4.9, No. 2.8 8558 = 18^h 44^m 42.0^s - 36° 19.1
4.9 = 19.6 ÷ .406 = 24.3 18 45 6 - 36° 16.3James
130

✓✓

No. 60

Pre. -37 8441, 2.5, No. 3.7 8441 = 18^h 51^m 52.6^s - 37° 8.5
2.5 = 10.0 ÷ .798 = 12.5 18 51 40^s - 37° 4.8James
130

✓✓

No. 61

Sol. 8418 5.4, So. 5.3 8418 = 18^h 48^m 35.1^s - 37° 52.3
5.4 = 21.6 ÷ .789 27.4 18 49 2^s - 37° 57.6

✓✓

HV 3737

No. 62

Sol. 8320, 7.3, So. 1.3 8320 = 18^h 51^m 19.8^s - 35° 55.0
7.3 = 29.2 ÷ .410 + 36.0 18 51 56^s - 35° 56.3

✓✓

HV 3739

No. 63

Pre. -36° 8572 6.9, No. 0.5 8572 = 18^h 46^m 35.3^s - 36° 40.1
6.9 = 27.6 ÷ .402 = 34.4 - 34.4 + 0.4

✓✓

HV 3736

No. 64 (a)

Pre. -37° 8374 2.1; No. 0.3 8374 = 18^h 44^m 2.1^s - 37° 29.6
2.1 = 8.4 ÷ .793 - 10.6 - 0.3James
159

✓✓

James has vars.
at (1900)18^h 44.2^m - 35° 33' (= 64) 11.3 - 15
45.5^m - 37 28 (= 59) 9.6 - 16
46.7^m - 36 14 (= 59) 9.6 - 16

See James Nos. 15.5, 69, 159.11

Dec 4

No 59b
"X"

80 Gray. R. 21-105

77 Round " " 100

Pre-No. 59 0.3 No. 2.7

$$0.3 = 1.2 \div 4.07 = \text{No } 59 (1900) = 18^h 46^m 47^s; -36^\circ 14.7'$$

$$- 1.5 - + 2.7$$

$$1700 \quad 18^h 46^m 45^s; -36^\circ 12.0'$$

✓✓

HV 3735

Tot. $-36^\circ 85.58$ 4.6, No 5.4

$$4.6 = 18.4 \div 806 =$$

$$85.58 = (1925) 18^h 44^m 42.0^s; -36^\circ 19.1'$$

$$+ 3.4$$

$$22.8 \quad -36^\circ 13.7'$$

$$1875 \quad 18^h 45^m 4.8^s$$

$$(1900) 18^h 46^m 46^s; -36^\circ 12.1'$$

No 64b

Pre-64a

1.7

No. 1.4

No. 64a. 1900

$$18^h 45^m 34^s; -37^\circ 27.7'$$

$$1.7 = 6.8 \div 79$$

$$(1900) \text{ Pos } 64b(y) = 18^h 45^m 25^s; -37^\circ 26.3'$$

✓✓

74
130
161

Dec 6

7.8 Cyg. Crig. PA 21-105
 8.1 " " " " " "
 7.9 " " " " " "

No. 72 Sol. $-31^{\circ} 6066$, 0.9. So. 8.9: $6066 = 19^h 24^m 6.2^s, -31^{\circ} 39.6'$
 0.9 = $3.6 \div 4.2$ 8.9

HV 3869

(1875) $19^h 24^m 10.4^s, -31^{\circ} 48.5'$
 $19^h 25^m 46^s, -31^{\circ} 45.5'$

No. 75
 69 Sol. $-32^{\circ} 5999$ 6.3 So. 7.6 | $5999 = 19^h 32^m 13.3^s, -32^{\circ} 45.6'$
 $6.3 = 25.2 \div 4.1$ 30.0 6.3

HV 3876?

(published as $-32^{\circ} 48.6'$)

(1875) $19^h 32^m 43.5^s, -32^{\circ} 51.9'$
 $19^h 34^m 19^s, -32^{\circ} 48.6'$

58

1822

Dec 7

11

55

7.8

Alcott

Miss

7.8

Rachari

P.O. 21-105-

7.77

Thomson

J.B.A. 22-202

Dec
A

76. Received 11.2.100

Dec 9.

40	Gray	Pa 21-	\$105
75	McAttear	"	"
78	Lacchari	"	"
78	Leonard	"	100

Dec 10

77 Craig RA 21-105

Dec. 11

7.8	Pachani.	Pa 21-105
7.9	Bouard	" " 100

Dec 12

78 Olcott PA 21-105

Dec 13

7.8 ~~Vroman~~ ~~Vroman~~ PA. 21-105
7.9 Leonard PA. 21-100

Dec 4

L

7.9 Leonard Pl. 21-100

Dec. 15

Dec

7. Bos ~~Latani~~ ~~Lat~~ 1057

Dec. 16

8.39 Thomson

Mar. 22, 202

Dec. 17

77 May Pa. 21-105

Dec 19.

79 Gray RA. 21-105—

Dec-21

H. Leonard PG 21-100

Dec 22

50 Ray Pt. 26-105

Dec 23

P. L. Leonard Pt. 21-100

Dec. 25

f. 2 May RA. 21-105
H. Leonard " " 100

Dec 26

78 Clott PA 21-105

Dec 27

3

D. J. Young Pa. 21-105
~~for the~~ ~~with~~ ~~the~~

Dec 28

ge Leonard R. 21-100
H. Thomson H. J. B. 22-202

Dec 29

875 Thomson. H JBA 22-202.

Dec 30 .

12

H. 100 - 1000 ft. 10. 24. 10. 5 - 10. 7

Dec 31

f.2 May RA 21-105
A1 Bonard " " 106
f75 Thomson. J. 20. 202.

1913

Jans

83

8.2 May Pa 21-105

... 0.5 ... 100 ...

Jan 2

L. 3

A1

May PA 21-105 -
Craig " " 174

Jan 3,

A. S. 2 Gray. RA. 21-174.

Jan. 4

.54⁰

D. L. ... *[Signature]* Pa. 21-105
F.H. ... *[Signature]* Pa. 21-174

Jan 5.

904 Thomson H. J. Bal. 22-202.

471-15.15

471

471

Jan 6.

f. 2	Leonard	PA 21-174
f. 1	Erroy.	" " "

D. ...

251-15 D

" " "

D. ...

D. ...

5.1

1.8

Jan 8

Al Leonard No 21-100
A. I. Ginnou. " " 17X

Jan 9.

50 23 Scott Cr. 21-105-

Jan. 10.

A. 1 Gray P.A. 21-174

Jan. 11

85 - ^{Craig} ~~Howard~~ P. 9. 21-174

Jan. 12.

A.1	Leonard.	P.A. 21-174
A.6	Voorhees.	" "

Jan 13

4th

S. 1

Clott. P. 21-1721

Jan. 14.

50

f.2

Olcott.

Pa. 21-174

f.7

Joung.

"

"

"

Jan. 15

J.O. Gray. P.A. 21-174

0.

Jan. 18.

19th~~24~~ ~~Br~~ ~~PA-21-174~~

Var. Slai Near

58' N. Wll 6362

merger - bat. ft. + half way

Plate.	Date.	Hour	
A-12074	July 12	15 ^h 53 ^m	ft +
✓ 12077	July 13	14 47	ft +
✓ 12164	Aug 28	18 52	ft
✓ 12128	Aug 9	16 30	bat
✓ 12060	July 1	16 55	bat
✓ 12161	Aug 27	18 37	1/2
✓ 12130	Aug 10	17 8	bat.
✓ 12143	Aug 14	19 52	ft
✓ 12138	Aug 12	20 50	bat
✓ 12136	Aug 12	18 50	ft +
✓ 12134	Aug 12	16 50	ft.
✓ 12133	Aug 11	18 45	bat
✓ 12131	Aug 11	16 50	ft.
✓ 12120	Aug 3	16 18	ft
✓ 12119	Aug 2	19 58	ft =
✓ 12116	Aug 2	16 11	ft =
✓ 12115	Aug 1	20 16	1/2 =
✓ 12114	Aug 1	18 52	bat -
✓ 12113	Aug 1	17 25	bat =
✓ 12112	Aug 1	16 10	bat
✓ 12111	July 31	19 47	ft +
✓ 12110	July 31	18 14	1/2 =
✓ 12109	July 31	16 53	bat -
✓ 12079	July 13	17 4	ft +
✓ 12076	July 12	18 10	ft =
✓ 12059	July 1	15 37	ft +
✓ 12075	July 12	16 44	ft +

Panel appears for
about 0.534

*Handwritten signature**1922-1923*

102

b 9
a 123 a
ba, b, c
2 d
d 0
b 10
c 20
a 30Nodes. glr
Larger not

Variables near M.C. 6144

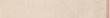
on plates of M.C. 6121

Sid time 1922

Plate	Var 2	Var 3	Date	Sid time	Var. 4
12141	25	2	Aug. 14	17 ^{h.726m} 26 ✓	2
12078	23	7	July 13	15 ^{h.665m} 57 ✓	2
12181	24	3	Sept. 10	18 ^{h.768m} 26 ✓	5
12139	29	2	Aug 13	17 ^{h.708m} 1 ✓	10
12142	29	3	Aug 14	18 ^{h.787m} 54 ✓	2
12178	22	3	Sept 9	19 ^{h.825m} 48 ✓	-2
12189	18	5	Sept 16	19 ^{h.824m} 46 ✓	10
12080	21	10	July 13	18 ^{h.766m} 23 ✓	4
12032	0	11	June 15	12 ^{h.526m} 37 ✓	9
12033	0	11	" "	13 ^{h.569m} 40 ✓	9
12034	0	10	" "	14 ^{h.612m} 42 ✓	8
12035	0	10	" "	15 ^{h.660m} 50 ✓	8
12036	0	10	" "	16 ^{h.705m} 55 ✓	9
12140	29	3	Aug 13	18 ^{h.783m} 48 ✓	10
Long exp (12043	10	8)	June 25	16 ^{h.669m} 3 ✓	0
12008	-5	45 plate	May 31	13 ^{h.639m} 20 ✓	8
12038	3	11	June 20	15 ^{h.642m} 24 ✓	8
12037	-3	12	June 16	15 ^{h.640m} 22 ✓	11
12227	-3	10	Oct 9	20 33	0

Var 4

$a = 10$
 $b = 0$



~~A6 Lead Pt 27 16A~~

Jan 22.

H6 Young, P.A. Vol. 1. 7. 4.

Jan 23

PK Leonard PG 21-168

Jan 24

7.9	Gray	P.A. 213174	7.1
A.2	Leonard	" 168	7.1
231	"	Leonard 24	

Jan 25-

48	P.1	Craig	PA. 21-174
48	P.2	Albert	" "
	P.5	Albert & Korman	" "
	P.6	Leonard	" 168

Jan 26.

f.v Bu. PA.21-174

Jan 27.

7.9 Gray. Pp. 21-174

Jan 28.

R. M.

..50

7.8
7.7Clcott PA 21-174
Redfield 21-168

Jan 29

7.7 Leonard P. 2. 162 5

Feb. 1

54

7.8

7.9

7.7

Olcott

Gray

Leonard

PA. 21-1944

" "

" 168

Hef. 2.

1-1-1974

Hef. 2. J. S. Olcott Pg. 21-174

8.11

K. S. S. S.

7.5

Feb 3

78 Leonard P. 29-160

5

Feb. 4.

50

7.7

Oct. 1st 1874

Feb. 5

49	7.8	Wright	PA 21-1.7.4
	8.1	Wideman	" "
	7.7	Leonard	" 16A

Feb 6

J. P. Leonard M 21-168

74

Feb. 7.

S 121
7.7

... .. 11.7
7.7 Leonard Pl 21-168
... ..
... .. 7.7

1913

Feb. 8.

48

f. 11 Thomas H. J. Ball 22-202

79 Albert H. J. Ball 21-178 <<

80

McLean

"

"

77

Leonard

"

168

Feb. 9

A.6 Thomas H. JBO 22-202.
A.3 Leonard R. 21-168

202-55 0000 14-11-11
202-55 0000 14-11-11

Feb. 11.

A. 3 Leonard 19.21-168

Feb. 12

50

A.1

Oleott Mrs.

Magnitude work

Q 12069 8x10 H. Speed dev 6^m
 Region Std. $19^h + 15^0$. Plate little fogged by Moon
 wags not just at center. about 30^m away.
 Sep. 15^s 10.04 seen. faint. 10.49 n.s.
 " 35^s 10.73 plainly seen. 11.01 sure seen. 11.17 dbl. ful.
 " $13^m 20^s$ 15.8 " " 16.1 prob. seen faint. 16.2 not seen probably.

Q 12070 8x10 H. Speed dev 7^m (2nd mag dev)
 Same as 12069 less fogged. images somewhat elongated.
 (Sep. 4^s 11.01 dbl. ful. - ? better orient. ? included for 3 + 1
 " 10^s 11.52 seen v. ft. 11.90 seen ?, prob. put together
 " 30^s 12.74 " dist. but ft. 12.57 seen v. ft.
 " 29^s 13.88 " " 13.99 seen ft. 14.23 not sure seen.
 " $4^m 26^s$ 15.30 seen dist. 15.8 not seen. say 15.5

8 (8.50) is pretty dbl. dir comp. ~~from~~ follows north. dist $6'' \pm$ comp. nearly = in bgt.

12	10^m mag #
3.3	11
10	12
30	13
90	14
$4^m 29^s$	15
13 20	16
40	17
2 ^h	18
6	19

} $\pm$

Al 12041, 14×17 seed, 6^{th} dec. Ingoen central plate. No more ^{for}
 Slant. Reg. $13^{\text{h}} + 15^{\circ}$

10^s 12.01 seen dist. but ft. 12.26 not seen seen.
 30 (13.40 " " " ?) 13.24 seen sure. 13.90 N.S.
 1^m 30 14.31 dist. seen - r. ft. 14.62 seen v. ft.
 14 30 15.48 " " " " 15.82 N.S.
 13 20 15.9 " " rather ft. 16.5⁺ seen but v. ft.
 40 - 16.8 plainly seen. 17.3. ft. seen.

Al 12044, $13^{\text{h}} + 15^{\circ}$, 14×17 Seed, 6^{th} dec. Exp. stopped by light going out.
 1^h 32^m 18.0 dist. seen rather ft. 18.6 N.S.

Al 12040, $13^{\text{h}} + 15^{\circ}$, 14×17 Seed reg. dec.

40^m 2 - 16.8 slant dist. seen. 17.6 seen? v. faint. { sky fairly clear but
 (13.3 too many elds to use, perhaps light elds near
 4.5 " " " " " close of crb.
 1.5 " " " " " }
 sky 10 elds at close

A 12083 14×17 $13^h + 15^m$ Feb 2^h.

18.0 dist seen, 18.6 seen? v. faint.
Assume 18.3 as limit.

A 12081. 14×17 $13^h + 15^m$ Feb 2^h
N.H. - long - waves -

A 12082 14×17 $19^h + 15^m$ Feb 2^h.
images somewhat elongated. rather poor.
18.2 seen. 19.0? assume working limit 18.2
but for round wave " 18.4

$19^h + 15^m$
A 12168 8×10 High. dev. std 10^m $13^m 20^s$
waves somewhat elong. H. rather fogged by Moon.
16.1 seen. Limit 16.1 but allow for elong. + fog
probably working limit shd be 16.3 $\neq$

$19^h + 15^m$
A 12169 8×10 High. dev. 10^m $4^m 27^s$
Limit seen 15.3 Call limit 15.3

geoid
 lined
 10. A 12172 8x10 Hrs. Dev. 10^m 22^h 40^m - 45^o ^{Std. Reg.}
 11.3 " 1.5 shows 9.96 family
 12.3 " 3.3 " 10.94 distally 11.75 6th seen
 " 10. " 12.18 " 12.63 12.34 seen 12th?
A 12173 8x10 Hrs. Dev. 10. 22^h 40^m - 45^o
 13.8⁷ " 30^s " 13.65 14.04 seen but not well
 15.0 " 89^s " 14.82 15.19 4th. ^{ml not be. not well prob.}

16.1 A 12176 Same as above.
 " 4^m 27^s shows 15.94 + 16.14 4th but small

17.1? A 12180 Same as above
 " 13^m 20^s. Shows skin flr than 16.14, last of stds
 Call prob. lined. 17.1

16.4 A 12206 8x10 Hrs Dev. 10^m 19^h + 15^o, Sld Reg.
 " 13^m 20^s - Devs. somewhat along. 16.2 seen
 though lined defect we it. ~~16.9~~ 16.9 N.S. Call lined 16.4.
 " 16.3

10.1 A 12207 8x10 Hrs ^{2nd lined} Dev. 11. 19^h + 15^o.
 " 15^s 10.04 ml seen. 10.49 N.S. Lined 10.1
 11.2 3.3 11.01 " " 11.17 4th, 11.52 not noticeable ^{lined 11.2}
 12.4 10. average skin. Shows 12.35 seen + 12.50 seen v. flr ^{lined 12.4}
 13.4 30 " " 13.09 seen flr! 13.48 seen! 13.88 ml.
 14.6 89 ^{unavg. skin} 14.48 + 14.92 seen ab. = ml. both ft.
 15.3 4^m 27 15.30 seen flr 15.8 N.S.

Standard Lunt

acellid	A 12223	8x10	Hel: 19 ^h +15 ^o : 10m Dec.
Lunt	Exp. 15	shows	10.04 v. family.
10.0	" 3.3	"	11.17 faint, well. 11.52 too ft for recog.
11.2	" 10	"	12.35 rather big family
12.3	" 30	"	13.58 seen flg
13.8	" 89	"	14.23 " 14.52 seen v flg
14.8			

Rapid exam. of plates for
 Novae to. Comp. with ear plate
 1922
 date of pl

AM	16056	Nothing seen.	Sept. 12	18	0	0	
"	16057	" "	" 13	20	0	0	
	16058	" "	" "	19	0	-15	
	16059	" "	" "	18	0	-30	
	16068	" "	" 18	18	0	-30	
	16065	" "	" "	20	0	0	
	16060	" "	" "	19	0	-45	
	16074	" "	" 23	19	0	-15	
	16104	" "	Oct 19	19	0	-15	
	16120	" "	" 23	18	0	-30	
	16119	" "	" "	18	0	0	
	16128	" "	" 30	5	0	-15	odd + good image fd on am 12271 17 40 - 18.5 (1872)
	16124	" "	" "	6	0	-30	
	16158	" "	" "	20	0	0	
	16099	" "	" 30	19		-45	8.0 fd on am 14140 Var.?
	16118	" "	" 30	18		-60	
	16134	" "	Nov. 6	7		-45	6 mag. obj. fd on am 12801 v. gl on 16134
	16131	" "	Nov. 7	6		0	V Monoc fd on couch. plate.
	16132	" "	" 7	7		-15	image on couch pl. am 13788 X
	16133	" "	" 8	17		-45	
	16136	" "	" 18	6		-30	
	16137	" "	" 20	7		-45	but image X on X 12801
	16138	" "	Dec. 8	20		-30	image on 7.0 =
	16139	" "	" 9	21		-60	am 12145 20-30
	16140	" "	" "	0		-30	
	16141	" "	" "	13		-45	8 " false" star image on A 14379
	16152	" "	" 17	0		-30	
	16153	" "	" "	5		-15	
	16154	" "	" 19	6		-30	

all	Working Mass	Date Sid	Ra	Dec.	Rem.
16155	" "	Dec. ¹⁹²² 18	7h	-45	
156	" "	" "	2	-30	
157	" "	" "	1	-45	
158	" "	" 19	4	-30	
16159	" "	" 19	5	-45	
160	" "	" 23	2	0	+0 Cete discoid !! superior
161	" "	" "	3	-45	
162	" "	" "	3	-60	
16163	" "	Feb. ¹⁹²³ 15	6	0	
		16			
16165	" "	" "	7	-15	
16169	" "	" 27	8	-30	
16168	" "	" "	7	-45	
16172	" "	Mar. 13	8	-30	
16174	" "	" "	7	-45	
16175	" "	" "	8	0	comp. plate at 80 shows few stars
16176	" "	" 14	9	-45	shows R Car bet.
179	" "	" 16	7	-15	
180	" "	" "	9	-60	
181	" "	" "	10	-75	
182	" "	" 17	6	-30	
186	" "	" 29	11	-45	
187	" "	" 31	6	0	
188	" "	" "	12	-60	
192	" "	Apr. 12	12	-60	
193	" "	" 14	13	-45	
194	" "	" "	9	-60	
195	" "	" "	10	-30	

Rapid Exam of Plate cont.

Ann	Nothing Seen	Date	Pos.	Rem
16196	"	Apr. 16.	8 ^h - 30°	{ a few spurious images on comb. pl. 12901
197	"	" "	10 - 75-	
203	"	" 21	7 - 45-	
204	"	" "	9 - 45-	
205	"	" "	11 - 45-	
199	"	" 25-	7 - 15-	
16200	"	Apr. 26	9 - 15- H	One spurious image on comb. plate.
209	"	Apr. 28	8 - 0 H	
211	"	Apr. 28	14 - 30 H	
214	"	Apr. 28	10 - 30 H	Stel. bright.
215	"	Apr. 28	14 - 79 H	
222	"	Apr. 30	17 - 45- H	{ 33° 12638 = 174933 faint, bright on comb. plate 12126. = AISco.
219	"	May 1	15 - 45- H	
220	"	May 1	15 - 60 H	
225	"	" 2	6 - 30 H	
226	10 ^{12.4} - 47.3 new var?	" 2	10 - 30 H	Stel. bright, 2 Vars. 084145 + 101347
227	Nothing seen	May 7	16 - 30 H	
228	" "	" 7	17 - 15 H	
230	" "	" 7	18 - 30 H	HV3081 = 184324 found
231	" "	" 8	18 - 0 B	~~S.B.~~
232	" "	" 8	19 - 15 H	
236	" "	" 9	13 - 45 B	RCent. seen
234	" "	" 10	9 - 60° H	
235	" "	" 10	12 - 60 H	Scor., RS Cen. bright.
239	" "	" 11	20 0 H	
242	" "	" "	8 - 30 B	
245	" "	" "	6 0 H	
247	~~75² 43~~ new var?	" "	9 - 45 H	075243 rediscovered See

A.M.	Nothing <u>seen</u>	Date	Position	Remarks.
16248	"	May 10	9 ^h -60° H.	
250	"	" 12	10 -30 H	
252	"	" 12	13 -45 H	
265	"	" 30	11 -45 H	-57°44'54" varies a little?
274	co	June 12	11 -45 B	110957
280	"		16 -30 B	
283	"	June 15 th	9 -45 H	
284	"	" 16	12 -60 H	
305	"	" 16	19 -15 H	
296	"	" 16	18 -30 H	AI Sco found independently
290	"	" 17	20 0 H	<u>bright</u> .
288	"	" 17	17 -45 H	
287	"	" 17	15 -45 H	
286	"	" 17	15 -60 H	
278	"	" 18	13 -45 H	
276	"	" 18	9 -45 H	

