

Julian Day Date

Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS
0 45 W		1	0.14 A0	4	leaf not on.
0 57 W		2	5.45 K0	2-2	Plates developed 11 ^m - R 1/32
0 08 E			1.24 K0	2-2	Finder vert. 16.0, horiz. 19.5; Plates developed 10 ^m - R. 1/20
0 04 1/2 E			-	4	
0 02 E			-	4	
					vert. 17.2
					Opened 20 30. Set on Arcturus. Finder horiz. 18.8
					Closed up 21 30. Closed 23 40

7

Date *Sun June 16-17, 1935*

H

Julian Day *2427970.5*

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End
4	<i>HD 124847 α Bootis</i>	14 11.1	+ 19 42	1 - 25	F 40	0.0005		23 48	23 49 30	
	-	-	-	-	-	-		23 52	23 55	
	-	-	-	-	-	-		00 01 15	00 02	X ₁ 2 06 W
5	<i>α Bootis</i>	-	-	-	-	-		00 16	00 19	X ₁ 2 27 W
	-	-	-	-	-	-		00 22	00 23	

Sun June 16-17, 1935

Y

*2427970.5**Flexure tests.*

- A
- 1 *Outside dec set -10° Inside zenith*
 - 5 *Focus test setting 23.4" on camera*
 - 9 *Inside zenith outside dec +15°*
- B
- 1 *Dec. +20° inside outside zenith*
 - 5 *Dec 0° inside outside zenith*
 - 9 *Dec. -20° inside outside zenith*

Julian Day

Date

Hour Angle
End

Declination

Seeing

Ptg. Mag.

Comp.

REMARKS

1.24 K0 no comp.

Thick haze.

- -

X T_n
2 06 W

- -

X T_n
2 27 W

- - 5

- - 4

Set on α Ser. and δ Oph., clouded out each time.

Closed up 1 30

Retrograde R.A. setting mercury switch broke.

C 1 Inside 4^h W outside zenith

5 Outside 2^h E outside zenith

9 Outside 4^h E outside zenith

D Pol. on meridian

Inside dec. - 33°

Outside dec δ : 50° sub pole.

9

Date *Mon June 17, 1935*

Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angl End
	<i>Flexure tests:</i>									
E 1	<i>zenith inside outside</i>									
2	<i>zenith sub pole - apparently error two outside put in.</i>									
	<i>Tues. June 18, 1935</i>									
	<i>Adjustments changed, hunting for cause of lateral displacement.</i>									
F	<i>Tel. at 5^m west</i>									
	<i>outside - zenith</i>									
	<i>Inside +52°</i>									
	<i>Sat. June 22-23, 1935</i>									
	<i>Ho. M</i>									
	<i>2427976.5</i>									
	<i>Set on Arcturus to collimate - clouds.</i>									
	<i>Set on Vega 10 27 - clouds</i>									

Date June 24, 1955 Y Julian Day 242377.2

Hour Angle End	Declination	Seeing	Ptg. Mag.	Remarks	Object	Plate No.
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Opened dome 10 10[±]

clouds Closed up 12 45 - rain

Date *Sun June 23-24, 1935*

Y

Julian Day *2427977.5*

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End
	1. Set on Arcturus, put in prism. tested collimation at camera. Total lens seen flooded									
	2. Found focus set 23.45 tilt 24 05									
	Took focus test - same tilt.									
						Settings:				
					1	23.6	slit .002	F 40 plate	East spectrum	on plate
					2	23.2	west on plate.			
	Only one shows on plate.									
	Scale was 2 and 8.									
	3. Took another focus test.									
					Scale 0	Focus 23.3				
					" 4	" 23.6				
	Correct focus about 23.32±									
6.	δ Herulis	17 10.1	+14 30	1 - 25	E 40	0.002		11 32	11 52	0 25 V
	many clouds decided to put on visitor's eyepiece and watch guiding.									
	What I saw of image was OK as if visitor's eyepiece would be									
	Pendulum clock worked fine.									

Hour Angle End	Declination	Seeing	Ptg. Mag.	REMARKS
flooded with light				if collimation is not right it is so near that full beam gets through.
on plate				
	Exposure	5 ^s through A	10 ^s through B	
O 25 W		1	4.83 Mb 2-2	Thick Brighter *
	Continued	on Hercules with visitor's eyepiece,	but it clouded at 12 30 E.S.T.	
	very satisfactory.			

Date *Mon. June 24-25, 1935* M Julian Day *2427978.5*

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End
	<i>Opened dome 20 30.</i>									
	<i>Set with visitor's eyepiece on Jupiter, Arcturus, M13, M51.</i>									
	<i>Rated clock by comparison with standard. R.A. setting jammed.</i>									
	<i>Set on α Lyrae with clock control. Recorded drift for 2½ hours.</i>									
	<i>Tues. June 25-26, 1935 Y H 2427979.5</i>									
	<i>Very moon night - shifting haze.</i>									
	<i>Mrs Dunlap, Professor and Mrs Hunt and party saw M13 through R.K.'s</i>									

Hour Angle
End

Declination

Seeing

Ptg. Mag.

REMARKS

Cassegrain moves with focusing not whole telescope.

Closed up 3 40.

RKY's visitor's eyepiece

Definition very good.

Date *Thurs. June 27-28, 1935* H. L. H. Julian Day *2427981.5*

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End
	<p><i>Using visitor's eyepiece, set on α Bootis. Finder, for centre of eyepiece.</i></p> <p><i>Re-oriented finder wires to correspond approx. to RA and decl.</i></p>									
	<i>Polar Axis Tests.</i>									
-	<i>ϵ Bootis</i>	<i>15 02.9</i>	<i>+25 16</i>					<i>20 45</i>	<i>21 25</i>	<i>0 20 W</i>
-	<i>μ Hercules</i>	<i>17 42.5</i>	<i>+27 47</i>					<i>23 11</i>		

Hour Angle End	Declination	Seeing	Ptg. Mag.	REMARKS
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17 vertical, 19 horizontal

16.5 vertical, 18.8 horizontal for centre of eyepiece.

0 20 W

5:31 F₀ At meridian, star was about $\frac{1}{10}$ or $\frac{1}{12}$ above centre.

At 20^m W star was about $\frac{1}{3}$ or $\frac{1}{6}$ above centre.



Set on another star in same decl. and at 20^m W. moved North end of the axis about $\frac{9}{16}$ revolutions of set screws to west.

4:26 G₅ μ Herc. is a double companion 9.5, 33", 245°.



The half diameter of the field of the eyepiece is about three and a half times this, i.e. about 2' : field of view = 4' at meridian, star was about $\frac{1}{16}$ to $\frac{1}{18}$ above center

Moved N. end of axis $\frac{1}{6}$ revolutions to West.

Set on star on meridian; raised N. end of axis about $\frac{2}{3}$ of $\frac{1}{6}$ of a revolution of all four levelling screws.

(over)

Hour Angle End	Declination	Seeing	Ptg. Mag.	REMARKS
0 00			10	Followed to meridian.
HA Beginning 0 18 E			9	Raised N end of polar axis again by about $\frac{2}{3} \times \frac{1}{6}$ revolutions of four levelling screws.
HA Beginning 0 25 E			9	Raised N end of polar axis about $\frac{2}{6}$ rev. levelling screw Raised N end about $\frac{3}{6}$ rev. levelling screws.
0 17 W				<u>Azimuth apparently OK. still</u> Raised N end about $\frac{5}{6}$ rev. (about $\frac{2}{5}$ of semi-diam. of field.)
0 05 E				Star lost in dawn N end still too low.
Notes on clock				<ol style="list-style-type: none"> 1. If left wheel locks clock running too slow. 2. Turning top adjustment down speeds clock up (slightly).

19

Date *Sat June 29-30, 1935*

Y

Julian Day *2427983.5*

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End
	HR 5659	15 08.3	+19 40							
7	3 <i>Serpentis</i>	15 10.2	+ 5 19	1 - 25	E 40	0.007	24.2	8 53	9 33	
8	HD 46251 8 <i>Ophiuchi</i>	16 09.1	- 3 26	1 - 25	E 40	0.007	24.0	9 55	10 09	
9	HD 156014 d <i>Herculis</i> B*	17 10.1	+14 30	1 - 25	E 40	0.007		11 27	11 39	
10	HD 156015 d <i>Herculis</i> Ft.*	17 10.1	+14 30	1 - 25	E 40	0.007		11 43	12 23	10 W
11	102 <i>Herculis</i> HD 156191	18 04.4	+20 48	1 - 25	E 40	0.007		12 32	12 42	0 45 W
12	7 <i>Aquilae</i> HD 156192	19 41.5	+10 22	1 - 25	E 40	0.007	24.0	1 07	1 17	
13	61 <i>Cygni</i> ft.*	21 02.4	+38 15	1 - 25	E 40	0.007	24.0	1 47	3 00	0 05 W

Hour Angle End	Declination	Seeing	Ptg. Mag.	REMARKS
				Focus check. Scale reading 5 on plate Comp. 5 ^s outside through base. 10 ^s outside through apex Focus 23.52
				Heat put on at 7 35 E.S.T. Set 22.0 Voltage 109 Dome opened 7 48.
				This star is double app. H.R mag (6.41) seems to be combined as components are faint.
		1 v poor	6.44 Ko	Platicholder 1. Star falling behind i.e. clock too fast. At end of exposure lengthened pendulum.
		1	4.38 Ma	Platicholder 3. Spent some time lengthening pendulum more.
		1 ⁺	4.83 Mb	Platicholder 4
1 10 W		2	6.74 Mb	Platicholder 2 Image keeps drifting N of slit
0 45 W			4.15 B3	Platicholder 1
		1 ⁺	3.87 K2	Platicholder 1 Spoiled in development
0 05 W			7.46 K5	Platicholder 3 This is south star

(over)

Date Sat June 29-30, 1935 (cont'd.) Y

Julian Day 2427983.5

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	
	Spent some time investigating buttons.										
	1 st Concave faced buttons										
	(a) Dec. setting moves image \nearrow towards apex of opening.										
	(b) Dec. guiding works opposite way.										
	(c) R.A. guiding moves telescope East. R.A. setting same way.										
		Sun. June 30 - July 1, 1935									2427984.5
14	HD 24897 α Bootis	14	11.1	+19 42	1-25	E 40	0.008	21 30	21 31	1 30 W	
								21 35	21 36	1 35 W	
								21 40	21 41	1 40 W	
15	HD 144779 Gc. 2305	16	01.5	+39 24	1-25	E 40	0.008	22 05	23 35	45 W	

Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS
					i.e. moves telescope N in declination.
					This is called direct.
1 30 W		poor	1.24	Ko 20	Plateholder 1. plate setting 1
1 35 W				4	plate setting 5 - second neutral glass out.
1 40 W				3	plate setting 9 - second neutral glass out.
1 45 W	39° 25'		7.62	G5 5-5-5-5	Plate holder 2. Dec. reading 39° 25' instead of 39° 16'
					Drive clock worked well from 21 00 to 22 40. From then on left wheel chronically locked and clock dropped <u>many</u> seconds despite facts that generator voltage was not down and that weights were off springs.

Date *from June 30 July 1, 1935 cont'd*

H

Julian Day 2421984.5

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End
16	<i>i Hercules</i>	17 ^h 36. ^m 6	+46° 04'	1 - 25	E 40	0.008		23 41	23 56	0 30 W
17	<i>2 Lyrae</i> HD 173167	18 33.6	+38 41	1 - 25	E 40	0.008		00 09	00 10	0 12 W
								00 13	00 14	0 08 W
<p>Note Re. Clock: - Stopped clock to investigate. Brake disc very hot to touch. When cool again clock drives and regulates.</p>										
<p>Tests for Polar Axis Adjustment.</p>										
		19 30.2	+30					1 00	2 00	0 30 W
<p>Another Polar Axis Test.</p>										
		21 16.5	+0					2 15	3 15	0 00
<p>Note check: Press concave setting button (dec.) to bring star back to wires. the meridian the telescope swings too far north, and to remedy this we must</p>										

Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS
0 30 W	46° 08'		3.62 B3	12.12	Holder 4. S reads 46° 08' instead of 46° 03'
0 12 E			0.14 A0	25	Holder 3. Plate setting 2 Guiding poor because
0 08 E				25	Plate setting 8 of difficulty in setting. R.A. setting motion stuck set by spinning differential by hand.

Fresh accumulation of pulverised brake lining on rim. Drive worm hot.

00	0 30 W				Azimuth evidently is practically correct. At the meridian star still passed $\frac{1}{20}$ - $\frac{1}{25}$ above the wire, indicating the polar axis requires raising. is about 6" at 20 ^h per 30 ^m HA.
15	0 00				Star about $\frac{1}{5}$ or $\frac{1}{6}$ of a semi-diameter above the wire at the meridian is about 20" - 25" at equator for 1 ^h HA.

Pressing concave setting button moves telescope south. ∴ in swinging from East to
west continue to raise the polar axis.

Date

Julian Day

Plate No.

Object

R.A.
1900Declination
1900

Instrument

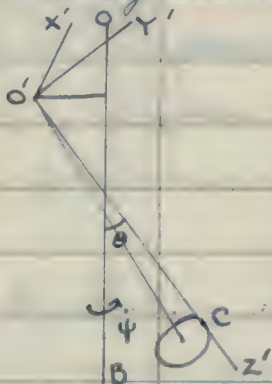
Emulsion

Slit

Temperature

Starting Time
E.S.T.Ending Time
E.S.T.Hour Angle
End

Notes in regard to pendulum of clock.

 OZ' is in the plane of the paper through the c of gravity OY' is in the plane of the paper \perp to OZ' OX' is behind the paper \perp to OY', OZ' OX', OY', OZ' are principal axes Euler's equations

$$\dot{\psi}^2 = \frac{mgn}{\cos \theta (B-C)}$$

 $B =$ moment of inertia about OY' $C =$ " " " " " " OZ'

Hour Angle
End

Declination

Seeing

Ptg. Mag.

REMARKS

apply.

Date *Mon. July 1-2, 1935**H_α*Julian Day *2427985.5*

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End
18	<i>HD 326778</i> <i>ε Pegasi</i>	21 39.3	+ 9 25	1 - 25	E 40		24.0	2 41	2 56	0 26 E
19	<i>HD 315182</i> <i>η Pegasi</i>	22 38.3	+ 29 42	1 - 25	E 40			3 22	3 35	0 47 E

 *Tues. July 2-3, 1935**H H_α*J.D. *2427986.5**Flexure test ①**β Bootis*

14 58.2 + 40 47

*- approx. on the meridian. Collimated the**δ Librae*

14 55.6 - 8 07

*In visitor's eyepiece star is now about**Flexure test ②**Set on region near meridian to see the effect of a $\frac{1}{2}$ hour change in H.A.*

Time	Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS
						9.00 to 9.30 PM. set on α Bootis, adjusted finder, focused. set temp. 24.0. 10.00 till 1.45 clouds. 1.45 set on α Deneb.
56	0 26 E		1	3.54 Ko	12-12	Transparency 1. Holder 1. set on η Psg. and adjusted focus.
52	0 47 E		1	3.66 Go	12-12	Holder 2. clouds. Closed 3.45: clouds. Worm of clock drive was heating considerably, also brake.
						finder cross wires with respect to the visitor's eyepiece wires. 60" or 70" off wires, when on in finder.
						Hardly perceptible change.

(over)

Date *Tues. July 2-3, 1935 contd.* H, H4 Julian Day 2427986.5

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End
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Polar axis test.

Set on star $21^{\text{h}} 27^{\text{m}} 0^{\text{s}}$ H.A. 63^m E. Set star on crosswires of both visitors.

At the meridian star is 0.22 semi-diameters above the wires.

Diameter 15.4×3.85 Shift = $0.11 \times 3.85 = 25.2$ Shift of 25" for 1" at 8.0° Raise axis by a factor of 30 at 1" at 0° $\frac{25 \times 30}{60} = 12\frac{1}{2}$

Polar axis 236"

 $1' = \frac{236}{3437}$ inchesRaise axis $\frac{25}{2} \times \frac{118}{3437}$ inches = $\frac{6}{7}$ inch = 0.86 inchesTurns too hard. Removed ^{two} top bolts to be cleaned. Removed otherThursday. Initial separation of plates $1\frac{15}{16}$ "

Raised end of axis, and made plates parallel. Final separation

Hour Angle End	Declination	Seeing	Ptg. Mag.	REMARKS
<i>eyepiece and finder</i>			<i>Sec. finder setting 15.9 or 16.0.</i>	
<i>two bolts.</i>				
<i>2 $\frac{13}{16}$ " ; up $\frac{7}{8}$ "</i>				

Date *Thurs. July 4-5, 1935*

Y Hd

Julian Day 2427988.5

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.
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Put on extra half weight on dec.

1. Set on α Herculis 15⁰⁰ Bv * N. double sep. drifted N about 5".

2. Set on μ Herculis 17 41 1 hr E. Adjusted index on S and RA.

so gave it $\frac{1}{6}$ turn more.

3. Set on α Vulpecular 19 13 1^h 01^m E. Followed for 2 hrs 1^h E to 1^h W.

star has dec. of + 24 $\frac{1}{2}$ °.

4. Set on faint star dec. + 20 50^m E. Followed this star to meridian.

drop $\frac{3}{4}$ turn

Before doing so worm should be freed again and I think should be

* When 1^{hr} west star was 10" above wire! Shifted azimuth till star was

Hour Angle
End

Declination

Seeing

Ptg. Mag.

REMARKS

Turned bolts up about $1\frac{1}{6}$ turns.

Hour reads 4^m too far E. Guided 25^m . Star still going south $1'' \pm$

At the meridian about $\frac{1}{2}$ to $\frac{1}{3}$ diam. of image below wire - maybe less.

It drifted below the wire all the way to the meridian about $3''$ arc, think you might

adjusted with more backlash than we gave it yesterday.

brought $\frac{1}{2}$ way back. Also dropped axis $\frac{2}{6}$ turn. Then 4.

Hour Angle
End

Declination

Seeing

Ptg. Mag.

REMARKS

site became very sensitive to bob position. Best at 11 on F end. Only 3 weights on clock

1 00 W (by clock)

Opened up 19 35 Set on 2 Boo. Set on 1 Serp - too faint
Star drifted below cross wires by at least 3" at meridian
On again at 1 00 W. Loosed worm, Dropped polar axis $\frac{3}{16}$ turn
Readjusted worm

0 00

Considerable time lost in re-setting as P.A. setting motion
does not engage and telescope is off balance. Removed $\frac{1}{2}$ wt
from end of S axis. Star drifted just perceptibly below
cross wire. I suggest that if axis were engaged another $\frac{1}{16}$
turn it would do without further tests.

(over)

Date *Fri. July 5-6, 1935 contd.* H

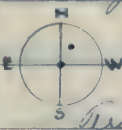
Julian Day 2427989.5

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angl End
20	H.D. 166014	18 03.6	+ 28 45	1 - 25	E 40	0.008	26.5	23 59	0 05	0 37
21	H.D. 166180	18 04.4	+ 30 59	1 - 25	E 40			0 13	1 43	X 1 14
22	H.D. 199055	20 49.5	+ 31 15	1 - 25	E 40			1 53	3 03	0 49
- 23	<i>HD 206778</i> <i>ε Pegasi</i>	21 39.3	+ 09 25	1 - 25	E 40			3 08	3 18	0 14
<i>Over Wed. July 9-10, 1935</i>					Y			J.D. 2427993.5		
24	H.D. 154143	16 58.6	+ 14 14	1 - 25	E 40	0.008	25.5	9 04	10 00	0 05
25	H.D. 154228	16 59.1	+ 13 44	1 - 25	E 40	0.008		10 13	10 47	
26	H.D. 161695	17 41.5	+ 31 33	1 - 25	E 40		25.5	11 04	12 00	1 12
27	H.D. 198626	20 46.5	+ 30 32	1 - 25	E 40			12 20	13 30	0 32
28	H.D. 212186	22 17.3	+ 15 08	1 - 25	E 40			2 41	3 41	0 15

Time	Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS																		
05	0 37 W	+ 28 37		3.83 A ₀	5	Holder 1, setting 5. Second neutral filter out.																		
43	X 1 _m 1 14 W	+ 30 52		7.32 A ₀	3 3	Holder 3																		
03	0 49 W	+ 31 15		6.90 A ₅	3 3	Holder 4																		
10	0 14 W	+ 09 27		2.54 K ₀	7	Holder 2																		
						<table border="1"> <thead> <tr> <th></th> <th>M.T.</th> <th>Δθ M.T.A.</th> <th>Δθ S.T.A.</th> <th>Δθ M.T.O.</th> <th>Δθ S.T.O.</th> </tr> </thead> <tbody> <tr> <td>July 6</td> <td>12</td> <td>+1.8</td> <td>-8.2</td> <td>+1 01.8</td> <td>-23.2</td> </tr> <tr> <td>July 8</td> <td>14</td> <td>+2.5</td> <td>-7.3</td> <td>+1 02.5</td> <td>-22.3</td> </tr> </tbody> </table>		M.T.	Δθ M.T.A.	Δθ S.T.A.	Δθ M.T.O.	Δθ S.T.O.	July 6	12	+1.8	-8.2	+1 01.8	-23.2	July 8	14	+2.5	-7.3	+1 02.5	-22.3
	M.T.	Δθ M.T.A.	Δθ S.T.A.	Δθ M.T.O.	Δθ S.T.O.																			
July 6	12	+1.8	-8.2	+1 01.8	-23.2																			
July 8	14	+2.5	-7.3	+1 02.5	-22.3																			
						Set on α Bootis. tried focus - much better jumps some start in S. seems to jump other way on reversing direction of motion! Note pin is oriented in S. Suspect pin.																		
0	0 05 E		1+	6.45 M ₂	3 3	No other stars in finder. Lost time with R.A. setting motion sticking.																		
47			1+	5.86 A ₀	3-3	Holder 2 March star - clouds.																		
00	1 12 W		1 ⁻ poor	6.23 B ₉	3-3	Holder 3 Dec. circle reads 15' farther south than should.																		
30	0 32 E		1 fuzzy	6.81 A ₂	3-3	Holder 4																		
41	0 15 W			6.69 A ₀	3-3	Holder 1 Last plate not numbered.																		
						Lost time between 27-28 fixing setting motion. Hesperit is now finally fixed.																		

Date *July 10-11 Wed Thurs 1935* Ha. Mc.D. Julian Day 2427994.5

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle
29	H.D. 150030	16 33.3	+46 49	1-25	E 40		26.8	8 42	9 42	
30	H.D. 154160	16 58.7	+14 41	1-25	E 40		26.8	10 13	11 35	
31	H.D. 198726	20 47.2	+27 52	1-25	E 40		26.8	12 42	1 18	0 38
32	H.D. 198946	20 48.7	+28 57	1-25	E 40		26.8	1 29	3 59	2 03

Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS
					M.T. $\Delta\theta$ M.T.A. $\Delta\theta$ S.T.A. $\Delta\theta$ M.T.D. $\Delta\theta$ S.T.D.
				July 10	13 +3.2 -6.6 +1 04.2 +27.4
		1	6.73 G5	4-2	17 +3.5 -6.2
					Holder 1. Painter compassion in finder. Focus found very bad at end of exposure.
		2	7.52 K0	3-3	 Holder 2. Measured finder field. Total width = 150 ³
					Tried setting on H.D. 192697 - too many stars in field to be sure without charts. Noticed sidereal time circle & clock not in agreement. After much fussing checked S.T.D. and found it <u>21 minutes</u> in error!
0 38 E		2 ⁺	5.5 6.4 F8p	3-3	
2 03 W		2 ⁺	8.0 B9	3-3	Faint clouds.
					M.T. $\Delta\theta$ M.T.A. $\Delta\theta$ S.T.A. $\Delta\theta$ M.T.D. $\Delta\theta$ S.T.D.
				July 11	12 +3.8 -5.9 +1 03.8 +34 031

39

Date *Thurs. - Fri. July 11-12, 1935*

H. M. D. Julian Day 2427995.5

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angl End	
33	H.D. 150203	^k 16 ^m 34.4	+43° 46'	1 - 25	E 40	0.008	29.5	20 59	22 19	0 58	
34	H.D. 151388	16 42.0	+43 24	1 - 25	E 40	-	29.5	22 25	23 25	1 37	
35	H. D. 162936	17 48.5	+32 02	1 - 25	E 40	-	29.5	23 30	00 50	1 58	
36	H D 199042	20 49.4	+30 34	1 - 25	E 40	-		00 59	03 39		
		<i>Fri. - Sat. July 12-13, 1935.</i>			H. M. D.		J.D. 2427996.5.				
37	H.D. 149630	16 30.9	+42 39	1 - 25	E 40	0.008	27.0	01 34	08 42	0 42	
38	H.D. 154278	16 59.4	+13 42	1 - 25	E 40	-	27.0	09 20	10 55	1 05	
39	H.D. 166868	18 07.5	+29 39	1 - 25	E 40	-	27.0	11 16	01 17	2 10	
40	H.D. 210130	22 03.1	+12 34	1 - 25	E 40	-	27.0	01 37	03 50	3 46	

Time	Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS												
19	0 38 W		1 ⁺	7.21 A2	2.2.2	Holder 1. Mirror quite a bit out of focus.												
25	1 37 W			7.14 K2	2.2.2	Holder 3. (Numbered 3A & 3B).												
50	1 55 W			7.04 A0	2.2.2	Holder 2. Star lost about 10 ^m at 0 ^h clouds.												
39			1 ⁺ foggy	7.8 B9	2.2	Holder 4. Clouds during last half of exposure. Some difficulty identifying this star.												
						<table border="1"> <thead> <tr> <th></th> <th>MT</th> <th>$\Delta\theta$ M.T.A.</th> <th>$\Delta\theta$ S.T.A.</th> <th>$\Delta\theta$ M.T.D.</th> <th>$\Delta\theta$ watch</th> </tr> </thead> <tbody> <tr> <td>July 12.</td> <td>12</td> <td>+4.0</td> <td>-5.6</td> <td>+105.0</td> <td>-21.1</td> </tr> </tbody> </table>		MT	$\Delta\theta$ M.T.A.	$\Delta\theta$ S.T.A.	$\Delta\theta$ M.T.D.	$\Delta\theta$ watch	July 12.	12	+4.0	-5.6	+105.0	-21.1
	MT	$\Delta\theta$ M.T.A.	$\Delta\theta$ S.T.A.	$\Delta\theta$ M.T.D.	$\Delta\theta$ watch													
July 12.	12	+4.0	-5.6	+105.0	-21.1													
	0 42 E		2	4.25 A0	6	Holder 1. Checked focus.												
35	1 ^{X 7^m} 05 W		2	7.21 K2	2.2.2	Holder 2												
17	2 10 W		2	7.52 A2	2.2.2	Holder 3 Refocused - considerable change.												
2	0 46 W		3	7.70 A0	2.2.2	Holder 4. Circles read correctly; star exposed was the brightest in the field. Check. ✓												
Adjusted index on dec. drum and vernier drum very carefully.																		
Noticed that high wind shakes tube considerably.																		
Noticed that clock worm and brake both were quite warm.																		

Date *Sat. Sun. July 13-14, 1935*

H McQ Julian Day 2427997.5

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour Ang. End
	<i>Jupiter</i>	<i>July</i> 14 45.2	13-14, 1935 -14° 53'							
	<i>Cluster in Hercules</i>	16 39.4	+ 36 35							
41	H.D. 154494	17 00.7	+ 12 53	1-25	E40	0.008	24.5	22 39	23 05	1 06
42	H.D. 162555	17 46.5	+ 29 21	1-25	E40		24.5	23 09	00 14	1 29
43	H.D. 198820	20 47.9	+ 32 28	1-25	E40		24.3	00 22	01 22	0 24
44	H.D. 198976	20 48.9	+ 29 17	1-25	E40		24.3	01 25	03 15	0 29
45	H.D. 199101	20 49.8	+ 33 03	1-25	E40		24.3	03 17	04 05	2 17

Sun. July 14-15, 1935

Y.

JD. 2427998.5

46. *Comparison test for focus was set at 23.30**Temp. 19.5**23.20 Cap. 15+10 (base outside)**E on plate**23.40**W on plate**Holder 2.*

Time	Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS
						M.T. Δθ M.T.A. Δθ S.T.A. Δθ watch July 13 10 +4.3 -5.1 -24.1 RKY showed Arcturus & M13 to ~200 visitors Set on Hercules to recollimate & focus
05	1 06 W		1 fuzzy	4.99	A3	3-3 Holder 1
14	1 29 W		1+	6.61	K0	2-2-2 Holder 2
22	0 24 E		1+	6.23	B5	2-2-2 Holder 3
15	0 ^{X T_n} 29 W		1+	7.47	K2	2-2-2 Holder 4
05	2 17 W		1+	6.7	K5	2 Holder 1
						Clock brakes and warm moderately warm.
						M.T. Δθ M.T.A. Δθ S.T.A. Δθ watch 12 +5.2 -4.6 -22.6

43

Date *Mon. July 15, 1935*

Hd

Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour Ang End
<i>Discarded</i>	<i>Focus Test.</i>		23.4 0	1-25	<i>Il. Pan.</i>	0.005	19.1	9 45 AM		<i>exp.</i>
			23.2 @	1-25		0.005				<i>exp.</i>
47	<i>Focus Test.</i>		23.2	1-25	<i>Il. Pan.</i>	0.005	19.1	10 30 AM		<i>exp.</i>
			23.4	1-25		0.005				<i>exp.</i>
48	<i>Focus Test.</i>	<i>Focus</i>	23.3 1	1-25	<i>Il. Pan.</i>	0.005	20.0	9 00 PM		<i>exp.</i>
			2 2	1-25	<i>Il. Pan.</i>	0.005				<i>exp.</i>
		<i>Mon-Tues July 15-16, 1935</i>		<i>Hd McD</i>		<i>J.D. 2427999.5</i>				
49	H.D. 117829	19 01.2	+43 43	1-25	E40		19.5	11 31	01 45	61 54

Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS
exp 30-25					outside is through the base Holder 1
exp 30-25					apex
exp 35-40		Tilt 23.0			① on plate .. outside through base Holder 1.
exp 35-40					② " " - outside through base
					Focus returned to 23.30.
					C.T. Δθ M.T.A. Δθ S.T.A. Δθ M.T.O. Δθ watch
					12 +5.2 -4.0 +1 05.2 -22.2
exp 35-40		Tilt 23.0			Position 2; outside through base Holder 1.
exp 35-40					Position 2 outside through base Holder 2.
45 01 54W		1	6.76 B9	3.3.3.	Holder 1 Clouds much of time. Large mercury switch of clock starting mechanism broke. Also one side of R.A. setting motion fails.
					C.T. Δθ M.T.A. Δθ S.T.A. Δθ watch
					July 16 13 +5.2 -3.1 -18.3

45

Date *Observed July 16-17, 1935* H.M.D Julian Day 2428000.5

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour Ang End
50	H.D. 152153	^h 16 ^m 46.6	^o +43 ['] 36	1-25	E 40	0.008	23.5	21 30	22 30	01 58
51	H.D. 171654	18 31.0	+46 08	1-25	E 40	0.008	23.5	23 33	01 03	00 16
52	H.D. 199140	20 50.1	+28 08	1-25	E 40	0.008	23.5	01 13	02 13	00 36
53	H.D. 199102	20 49.8	+29 07	1-25	E 40	0.008	23.5	02 16	04 06	02 31
* 14 54	Focus Test	<i>Setting</i> 1	<i>Focus</i> 23.30	1-25	H. Pan.	0.008	Exp.	20 ^s -25 ^s		
		5	23.10							
		8	23.50							

Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS
					Mercury starting switch replaced by hand switch. Clouds and thick haze at start.
01 58 W x 7 _n		1+	7.4 Ko	2-2-2	Holder 2 Haze most of the time.
00 16 W		1+	6.7 Ao	2-2-2	Holder 3 Haze and clouds.
00 36 W		1+	6.27 B3	2-2-2	Holder 4 Haze.
02 31 W			7.5 B9	2-2-2	Holder 2 Haze.
					Holder 1 outside - base of prism; inside apex.
					It runs set back to 23:30.
					Note. Drive clock is beginning to slow down; evidently heavy going (in brake drum?). It did not lose seconds, but the left hand differential had to be on almost continually. The brake drum was only moderately warm; drive weights completely suspended.
					July 17. M.T. Δθ M.T.A. Δθ S.T.A. Δθ M.T.D. Δθ watch
					12 +5.4 -3.5 +1 05.4 -17.0

47

Date *Wed. July 17-18, 1935* H. D. McD. Julian Day *2428001.5*

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End
55	H. D. 171438	18 29.8 +46	01	1-25	E40		24.2	10 25	12 55	01 45 V
56	H. D. 210501	22 05.7 +16	13	1-25	E40		24.2	01 10	3 55	01 05 V
<i>Thurs. July 18-19, 1935</i>					Y.			J.D. 2428002.5		
57	H. D. 162668	17 47.1 +30	01	1-25	E40		27.0	22 25	23 15	00 49 V
58	H. D. 199169	20 50.3 +27	41	1-25	<i>H. Pan.</i>		27.0	00 01	00 21	01 10 F X _{Tu}
59	H. D. 199763	20 54.1 +30	00	1-25	<i>H. Pan.</i>		26.0	00 26	02 00	00 31 F X _{Tu}
60	H. D. 201433	21 04.4 +29	48	1-25	E40		27.0	02 04	02 30	00 48 V

Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS
01 45 W XTu		1	7.78 Ko	3-3-3	Holder 1 Some haze.
01 05 W		2	7.7 Ao	3-3-3	Holder 2 Some haze and clouds.
					M.T. Δθ M.T.A. Δθ S.T.A. Δθ M.T.D. Δθ watch July 18 12 +5.8 -3.3 +1.05.8 -14.0
00 49 W XTu		3-leggy	6.74 A2	3-3-3	Holder 1 Clouded 23 15.
01 10 E XTu		4	6.42 K5	4-4	Holder 3
00 31 E			7.64 Ko	3-3-3	Holder 4
00 48 W			5.57 Ao	4-4	Holder 2 Discovered switch for heat on spectrograph had not been thrown on. This last star is a close double, separation about length of slit.
					<u>Note.</u> If power goes off don't forget to stop clock! and shut off generator.
					M.T. Δθ M.T.A. Δθ S.T.A. Δθ M.T.D. Δθ watch July 19 12 +6.1 -2.9 +1.06.1 -11.7

49

Date *Fri. July 19-20, 1935*

H

Julian Day 2428003.5

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End
61	H.D. 151732	^h 16 ^m 44.1	+42° 26'	1-25	E 40	0.008	28.0	20 33	23 03	01 44 XT
62	H.D. 152107	16 46.3	+46 10	1-25	E 40	-		23 07	23 47	01 21 XT
63	H. D. 172187	18 33.7	+43 08	1-25	E 40	-	28.0	23 50	01 10	01 03 XT
64	H. D. 201078	21 02.3	+30 47	1-25	E 40	-	28.0	01 16	02 36	01 00 XT
		<i>Sat. July 20-21, 1935</i>			<i>Hd MeD</i>			<i>JD. 2428004.5</i>		
65	H.D. 174177	18 44.2	+46 12	1-25	E 40	0.008	27.5	10 30	11 30	00 15 XT
66	H. D. 201194	21 02.9	+30 12	1-25	E 40	-	27.5	11 40	01 23	00 10 XT

Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS
					<i>Seeing hereafter on basis of 10.</i>
01 44 W x Tu		3	7.5 Mb	3-3-3	Holder 2. Haze.
01 27 W x Tu		4	4.9 A2p	3-3-3	Holder 4. Haze.
01 03 W		4	6.40 A5	3-3-3	Holder 3. Haze.
01 00 W			6.3 F5	3-3-3	Holder 1. Haze.
					<i>Note: Clock drove well for several hours. During the last exposure it slowed down, and even dropped a number of seconds. Voltage OK. Brake very hot.</i>
					M.T. Δθ M.T.A. Δθ S.T.A. Δθ watch
					July 20. 10 +6.4 -2.3 -11.1
00 15 W x Tu		2	6.47 A0	3,3,3	Holder 2.
00 10 W		2	7.46 B8	3,3,3	Holder 3. - probably underexposed.
					<i>Had to stop exposure on 66 because brake got so hot and clock ran so slow that guiding was impossible even with setting motion. Stopped clock 1 23 cooled until 1 53, still running too slow for work. Closed 2 00. Must clean out brake.</i>

Date *Mon. July 21-22, 1935*

Y

Julian Day 2428005.5

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End
67	H. D. 165683	18 02.1	+ 32 14	1-25	S 40	0.10	30.0	10 00	11 00	00 28
68	H. D. 176626	18 56.1	+ 43 35	1-25	S 40	-	29.5	11 08	12 28	01 05
		<i>Wed. July 24-25 1935</i>			S. H		J. D. 2428008.5			
-	<i>α Herculis</i>	17 10.1	+ 14 30	Z	-					
-	NGC 6205			Z				22 20		

Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS
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00 28W		2/10	6.92 K0	2-2-2	Holder 1 Cloudy at first.
01 05W			6.96 A2	2-2-2	Holder 2 Sky thick.

	C.T.	$\Delta\theta$ M.T.A.	$\Delta\theta$ S.T.A.	$\Delta\theta$ M.T.D	$\Delta\theta$ watch
July 22.	12	+6.8	-1.9	+1 06.8	-7.7
July 23.	12	+7.0	-1.6		-6.4
July 24	12	+7.3	-1.4	+1 07.3	-6.4

Focused about 40. Mirror figure good. Seeing only fair.
 Guiding lights too bright to find guide star. Clock running
 very badly so impossible to try an unguided plate. Adjusted
 mercury switch OK. Clouds 22 40 Closed 00 30.

July 25	12	+7.8	-0.4	+1 07.8	-3.6
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Date *Thurs July 25-26, 1935*

S. H.

Julian Day 2428009.5

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End
-	<i>δ Ophiuchi</i>	^h 16 ^m 09.1	-3° 26'	N	-					
69	NGC 6402	17 32.4	-3 11	N	E 40			23 05	23 45	02 00 W
70	NGC 6934	20 29.3	+7 04	N	E 40			00 44	01 29	00 50 W
71	NGC 6934	20 29.3	+7 04	N	E 40			01 45	02 15	01 35 W
72	NGC 6779	19 12.7	+30 00	N	E 40			02 40	02 52	

Time	Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS
				4.38 Ma		Focus within 10 mm of that of last evening. Mirror figure excellent. No evidence of zonal aberration. Some turning relay stuck, contacts badly pitted, cleaned by Dr. Young and staff.
45	02 00 W					S. guiding. Guide * bright but not bright enough for field illumination. Lost in haze 23 12. Guide star lost much of time in haze, even with light out. Started in haze but region cleared gradually.
29	00 50 W					H. guiding. Guided by intermittent illumination of wires.
16	01 35 W					S. guiding. Some hazy intervals. All guiding by flashing light on and off.
52						Shutter closed 02 45 - 02 50 to fix clock. missing clouds and haze all over sky now. Before this time a clear sky north of +35 dec, and very thick to south. Closed 3 30
						C.T. Δθ M.T.A. Δθ S.T.A. Δθ M.T.D. Δθ watch July 12 + 8.0 - 1.7 + 1.08.0 - 1.7

Date *H.S. July 26-27 1935*

Ha Julian Day 24280.105

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End
73	H.D. 172976	18 38.0	+44 10	1-25	F 40	0.008	25.2	10 02	11 55	01 12 W
74	H.D. 201912	21 07.5	+29 18	1-25	F 40	-	25.2	12 25	01 29	00 15 W
75	H.D. 212500	22 19.6	+15 48	1-25	F 40	-	25.2	01 58	03 18	00 52 W

Time	Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS
						Changed to Cassegrain. Wts for Cas (upper end) 1 opposite finder 2 adjacent to polar axis. Wts for Newtonian - 3 on triangle 1 on bracket just south of triangle.
55	01 12 W		2	7.46 A5	3-3-3	Holder 1. Clock trouble - adjusted.
29	00 15 W		2	6.65 B9	3-3-3	Holder 2. Clock got right out of control - going too slow even with bobs at fast extremity. Finally set anyway and by that time clock had picked up again. This lasted only few minutes - see below.
18	00 52 W		3 + 4	7.41 F2	3-3-3	Holder 3. Clock ran slower and slower and began stopping when dome turned. Guided 75 with setting motion and stopped exposure when clock was losing 1 sec in 13! Voltage 110, brake not excessively hot. Tried clock again after everything cool. Same thing. Closed at 00.

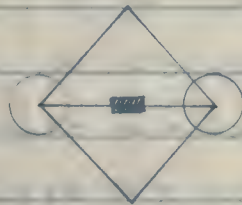
57

Date *Sat. July 27-28, 1935*~~Y~~ ^H ~~Ha~~Julian Day *2428011.5*

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angl End
76.	H.D. 172379	18 34.8	+46° 03'	1-25	E40	0.008	23.5	23 20	01 30	02 52 W
<i>Sun. July 28, 1935.</i>										
<i>Y and Ha worked in clock. Landed down portion of brake ring and put</i>										

Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS
					Y and Hd worked on clock. Cleaned brake drum. Eventually added graphite as lubricant + ran clock w/ weight down on springs.
02 52 W		2/10	7.6 F2	3	Cloudy. Showed visitors Jup. Venus Mars with Cooke telescope. Holder 2. Clock ran OK at first. Then began to lose vast numbers of seconds. Suddenly for no obvious reason it improved considerably. ∴ stopped clock 00 10 - 00 15 and changed governor bobs to 12 (from 10). Clock then controlled OK for 15 min. Then badly again. Thick ... closed. 02 15.

elastic between bobs to keep them more together. Seems satisfactory.



Date *Sun. July 28-29, 1935*

Hd

Julian Day 2428012.5

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End
77	H.D. 161959	17 43.4	+28 58	1-25	E 40	0.008	24.5	08 42	10 25	00 43
78	H.D. 177931	19 01.6	+45 45	1-25	E 40	-	24.5	10 34	11 15	00 15
79	H.D. 205939	21 33.6	+44 14	1-25	E 40	-	24.3	12 38	01 23	00 09
80	H.D. 212442	22 19.2	+14 46	1-25	E 40	-	24.3	01 32	02 38	00 20
81	H.D. 221115	23 24.1	+12 13	1-25	E 40	-	24.4	02 46	03 13	00 09
82	H.D. 2942	00 27.6	+27 44	1-25	E 40	-	24.5	03 20	04 30	00 05
<i>Mon. July 29-30, 1935</i>					H	J.D. 2428013.5				
83	H.D. 161019	17 38.1	+27 40	1-25	E 40	0.008	23.5	20 43	21 18	00 50
84	H.D. 163590	17 51.8	+32 28	1-25	E 40	-	23.4	21 21	23 01	01 14
85	H.D. 161797	17 42.5	+25 47	1-25	E 40	-	23.4	23 05	23 25	0 48
86	H.D. 199837	20 54.6	+31 15	1-25	E 40	-	23.2	23 32	01 12	00 22
87	H.D. 206280	21 36.0	+43 59	1-25	E 40	-	23.4	01 17	02 27	01 07
88	H.D. 218235	23 01.3	+17 59	1-25	E 40	-	23.4	02 32	03 22	00 26
89	H.D. 218792	23 05.7	+17 03	1-25	E 40	-	23.2	03 26	04 26	01 25

Time	Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS
25	00 43 W		3 var.	7.36 A0	3-3-3	Holder 2.
15	00 15 W		1	6.80 B9	3-3-3	Holder 3 Closed. - underexposed. Closed dome 11 30 Cleared opened 12 30.
23	00 09 E		1	6.19 A3	3-3-3	Holder 2
38	00 20 W		2	6.73 A0	3-3-3	Holder 3
13	00 09 E		2	5.67 K0	3-3-3	Holder 2
30	00 05 W		2	7.16 G5	3-3-3	Holder 4 Clock ran perfectly all night.
						C.T. Δθ M.T.A. Δθ S.T.A. Δθ M.T.D. Δθ watch July 29. 12 +9.1 -3.6 +109.1 +7.1
16	X Tu 00 50 E			6.60 A3	3-3-3	Holder 4 - outside zone limits
01	01 14 W		2	7.2 A0	3-3-3	Holder 3
25	01 48 W		2	4.3 G5	3-3-3	Holder 2
16	00 22 W		3	7.2 B9	3-3-3	Holder 1.
27	X Tu 01 07 W		4	6.7 B9	3-3-3	Holder 4
28	00 26 W		3	6.5 F2	3-3-3	Holder 3
26	01 25 W		3	7.1 K5	3-3-3	Holder 1 Clock excellent.

61

Date Tues July 30-31, 1935 Hd Julian Day 2428014.5

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Plate Marker	Hour Ang m	
90	HD 175865	+18 ² 52.3	43 49	1-25	E 40	008	23.5	10.03	10.15	2	225	
		Wednesday July 31 - Aug 1					S, H	10.2428015.5				
-	β Cygn	17 40.2	+4 36	Newtonian	-			20 45	-			
91	N.C.C. 6402	17 32.4	-3 11	-	E 40			21 18	21 43		0.25	
92	N.C.C. 6402	17 32.4	-3 11	-	-			23 01	23 16		1.00	
						Y, Hd, S, H						
93	α Cygn	Harlmann test	Newtonian	Outside focus	39	Film			E 40		Exp 15	
94	"	"	"	Inside	39	"			"		"	
95	"	"	"	Inside	39	"			"		"	
96	"	"	"	Outside	39	"			"		"	
						S, H.						
97	N.C.C. 6779	17 12.7	+36 00	-	E 40			2 56	3 17		4.00	
98	"	"	"	"	"			3 28	3 48			

Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS															
ϵ 25 ^m	43 55	4	4.0 ^{No} 4.7	ϵ	<table border="1"> <thead> <tr> <th></th> <th>C.T.</th> <th>$\Delta\theta$ M.T.A.</th> <th>$\Delta\theta$ S.T.A.</th> <th>$\Delta\theta$ watch</th> </tr> </thead> <tbody> <tr> <td>July 30</td> <td>13</td> <td>+9.4</td> <td>-3.3</td> <td>+9.7</td> </tr> <tr> <td>July 31</td> <td>12</td> <td>+6.5</td> <td>-4.3</td> <td>+17.7</td> </tr> </tbody> </table>		C.T.	$\Delta\theta$ M.T.A.	$\Delta\theta$ S.T.A.	$\Delta\theta$ watch	July 30	13	+9.4	-3.3	+9.7	July 31	12	+6.5	-4.3	+17.7
	C.T.	$\Delta\theta$ M.T.A.	$\Delta\theta$ S.T.A.	$\Delta\theta$ watch																
July 30	13	+9.4	-3.3	+9.7																
July 31	12	+6.5	-4.3	+17.7																
0 ^{2'}			4		Focus 59.8 - 707 mm. fair.															
0 ²⁴ W	-3 08	good	17.0		Beck's star lost in clouds 20% of time. Cloudy; rain. Clouds: 22 ¹⁵ to 22 ⁵⁰															
1 ⁵⁵ W		fair			Cloud - account of rain; region clear.															
Exp 15 ^S																				
" 15 ^S																				
" 2 ["]																				
3 ["]																				
4 ¹² W		from 2nd edge			Refocused as faint star. It stopped because bluffs could not be located (fully restored at a later date)															

63

S, H

Date Thursday, August 1-2, 1935 Julian Day 242801.2

Plate No.	Object	R.A. 1900	Declination 1000	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Plate Holder	Hour Ang End
-	30 Spn.	16 57.5	-4 08	Newtonian				20 30			
99	NGC 6254	16 519	-3 77		E 40	-	-	21 00	21 15		240
100	NGC 6402	17 324	-3 11		-	-	-	21 21	21 46		233
101	NGC 6102	-	-		-			21 48	22 08		232
	NGC 109	17 420	-0 10		-			22 15	22 35		
102	NGC 6402	17 324	-3 11		-			22 52	23 17		230
103	"				-			23 20	23 45		229
104	"				-			23 47	00 12		228
105	"				-			00 16	00 41		227
106	NGC 6934	20 293	+7 04		-			00 56	01 21		226
107	NGC 5779	19 127	+30 03		-			01 36	02 01		225
108	NGC 7039	01 23.5	-01 15		-			02 11	02 21		224
109	NGC 5779	19 127	+30 03		-			02 27	02 52		240
110	NGC 5779	19 127	+30 03		-			03 11	03 26		239
111	"				-			03 31	03 41		238

Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS
			5		M.T. 40 M.T.A. 40 S.T.A. 40 M.T.D. 40 watch Aug. 12 +3.0 -5.9 +1.05.0 +13.3
0 40 W		Fair			Sky bright; v. faint guide star
0 52 W	-3 10				} Sequence Plate N bound film 22 ²⁴ film best considerable haze this exposure.
2 01 W	-3 11	Fair - poor			
2 29 W					Ref. 245122 at 9 ^h 55 ^m at 101300 K & 109. Image
2 52 W					Image in many spots.
3 25 W					Image. Center of 36 abd. not found with obj. etc.
1 23 W					Image. Back
3 25 W	+30 05				Ref. 245123 found at 1/2 1/2 min
1 10 W	-2 00				Image
2 40 W					
4 30 W					
4 54 W					End of run to find for 20 min 5 good all the rest

65

Date Aug 2-3 1d 1935 Julian Day 2428017.5

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Plate Holder	Hour:ang End
112F	<i>Open Plate</i> (1)		23.2	2:23.4	F40					3	
112	HD 146051 S. Ori.	10 ^h 09.1	-03° 26'	1-25	E40	009		8.20	9.30	1	
113	HD 164078	10 ^h 54.4	32° 41'	1-25	E40		23.2	8.41	9.51	2	
114	HD 176797	10 ^h 56.9	43° 07'		"		23.2	9.57	1.37	3	
115	HD 196574	20 ^h 33.2	-01° 27'	"	"		23.2	11.47	12.42	1	
116	HD 202109	21 ^h 08.7	29° 49'	"	"		23.2	12.22	12.32	2	
117	HD 209394	21 ^h 56.9	17° 44'	"	"		23.2	2.50	2.31	4	
118	HD 1439	0 ^h 13.4	30° 54'	"	"		23.2	2.38	3.15	1	
119	HD 8126	1 ^h 15.6	28° 13'	"	"		23.2	3.24	4.15	2	

Saturday Aug 3-2, H.Y.

2428016.5

200± V. *Infra with Cook telescope. Cloud, almost spectrum**Shifting clouds from 11^h-12^h. Set on two stars but each time cloud*

Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS										
					<table border="1"> <thead> <tr> <th>C.T.</th> <th>$\Delta\theta$ M.T.A.</th> <th>$\Delta\theta$ S.T.A.</th> <th>$\Delta\theta$ M.T.O</th> <th>$\Delta\theta$ watch</th> </tr> </thead> <tbody> <tr> <td>Aug 2 12</td> <td>+2.8</td> <td>-6.8</td> <td>+1 02.8</td> <td>+16.4</td> </tr> </tbody> </table>	C.T.	$\Delta\theta$ M.T.A.	$\Delta\theta$ S.T.A.	$\Delta\theta$ M.T.O	$\Delta\theta$ watch	Aug 2 12	+2.8	-6.8	+1 02.8	+16.4
C.T.	$\Delta\theta$ M.T.A.	$\Delta\theta$ S.T.A.	$\Delta\theta$ M.T.O	$\Delta\theta$ watch											
Aug 2 12	+2.8	-6.8	+1 02.8	+16.4											
42 ^m W	-03° 29	2	4.38 M ₂	4-4	2 nd star at 23.35.										
43 ^m W	32° 44	2 → 4	6.96 F ₅	3, 3, 3	H.A. wide reads westerly 4 ^m too far east										
44 ^m W	43° 15	4	7.27 A ₃	3, 3, 3											
	-01° 15	4	5.51 K ₀	3, 3, -											
44 ^m W	30° 02	5	9.40 K ₀	8	71.5 and 100 are faint & blue. 100 is fainter than 71.5. 100 is fainter than 71.5.										
45 ^m W	47° 05	5	7.41 A ₂	3, 3, 3											
47 ^m W	31° 13	4	5.40 A ₁	3, 3, 3											
48 ^m W	38° 28	3	6.100 K ₀	3, 3, 3											

C.T.	$\Delta\theta$ M.T.A.	$\Delta\theta$ S.T.A.	$\Delta\theta$ watch
Aug 3 12	+2.6	-7.7	+18.9

4 legs with 74 inch.

over to be stars. Check for magnitude on cloud 12^m.

67

Date Aug 4-5 Y 1935 Julian Day 2428019.5

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Plate Holder	Hour Ang End
120	HK 156653	17 137	17 26	I-25	E40	8	27.0	8 ^h 57	9 ^h 57	1	11 ^m
121	" 165908	18 03.2	30 33	"	"	"	26.6	10 01	10 41	2	1 ^m
122	" 196426	20 32.2	-0 15	"	"	"	26.6	10 51	11 51	3	19 ^m E
123	" 199169	20 50.3	+27 41	"	"	"	26.6	11 56	12 56	4	30 ^m W
124	" 202314	21 09.9	+29 29	"	"	"	26.8	1 00	2 30	1	13 ^m W
125	" 221114	23 29.1	+15 28	"	"	"	26.5-6	2 37	4 07	2	13 ^m W
		Aug 5-6		Had			J.D	2428020.5			
126	HD 174177	17 ^h 44.2	46 ^m 16	I-25	E40	68	23.2	9.15	10.45	3	2 ^m
127	HD 194753	20 ^h 34.3	+0 ^m 03	"	"	"	23.3	10.57	11.49	1	10 ^m
128	" 173050	20 ^h 42.5	+2 ^m 57	"	"	"	23.4	11.54	1.21	2	1 ^m
129	" 220091	23 ^h 15.9	16 ^m 43	"	"	"	23.1	1.29	3.09	3	10 ^m
130	" 2528	0 ^h 24.3	39 ^m 12	"	"	"	23.4	3.15	3.49	4	10 ^m
131	" 2546	11 ^h 31.8	28 ^m 46	"	"	"	23.2	3.53	4.30	1	10 ^m

Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS
1 ^h 11 ^m W	17° 28'	1 poor.	5.90 A ₀	3-3-3	7 ^m faint on bright stars but some exposures
1 6 ^m W	30 38	2	5.72 F ₀	3-3-3	
1 13 ^m E	-0 03	2	6.11 B ₀	3-3-3	Delayed 5 ^m by Dome relay sticking again!
1 35 ^m W	+27 54	2	6.42 K ₀	3-3-3	
1 50 ^m W	+29 43	2-3	7.25 K ₀	3-3-3	
1 12 ^m W	+15 44	2	7.04 A ₀	3-3-3	Plates in Black Box on N. Pier
1 43 ^m	46° 30	1	6.47 A ₀	3, 3, 3	
E 12 ^m	+0° 21	1	6.39 K ₀	3, 3, 3	
W 1 ^h 11	+3° 10	1	6.35 A ₀	3, 3, 3	
W 26 ^m	18° 00	1	6.23 F ₀	3, 3, 3	
E 4 ^m	27 21	2	5.54 F ₀	3, 3, 3	Time of exposure 1/100 sec
W 30 ^m	27 00	2	5.30 G ₅	3, 3, 3	

C.T.	Δθ M.T.A.	Δθ S.T.A.	Δθ M.T.D.	Δθ watch
Aug. 6.	12	+2.0	-11.5	+104.0
				+26.3

S. M. Murray

70

Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS
					C.T. Δθ M.T.A. Δθ S.T.A. Δθ M.T.D Δθ watch
					Aug. 7. 12 +2.0 - 11.2 +1 02.0 + 29.8
					8 12 +1.9 - 12.1 +1 01.9 + 29.9
					9 12 +1.8 - 13.0 +1 01.8 + 33.2
					10 12 +1.7 - 13.9 + 32.1
					12 12 +1.0 - 16.0 ² +1 01.0 + 27.2 ²
					13 12 +1.0 - 16.9 +1 01.0 + 27.3
					14 12 +0.9 - 17.8 +1 00.9 + 25.8
W 20 ^m	46 ⁰ 12	2	3.62 B3	4-5	clouds just clearing away
W 27 ^m	45 ⁰ 11	2-4 var.	7.12 F0	3, 3, 3	adjusted vernier drum to read correct
W 1 ^h 11	40 ⁰ 17	3	7.42 B3	3, 3, 3	Developed 132 + 133. - 133 = 132
W 35 ^m	17 ⁰ 57	3	6.99 F0	3, 3, 3	
W 45 ^m	32 ⁰ 0	3	6.71 H0p	3, 3, 3	
W 57 ^m	33 ⁰ 22	3	4.27 B3	3, 3, 3	
W 1 ^h 17	30 ⁰ 30	3	9.56 K2	3, 3, 3	
					Aug. 15 12 +0.7 - 19.0 + 1 00.7 + 31.5

Date *Aug 15-16* 1935 M Julian Day *242913*

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Plate Holder	Hour Ang End
139	HD 175249	18 51 45	+3	I-25	E 40	008	27.5	9 27	11 27	1	
140	HD 175312	21 14 32	18	-	-	-	27.3	11 50	2 30	2	
141	HD 175308	21 14 22	18	-	-	-	27.7	2 40	4 20	3	
								JD. 2428031.5			
Friday		August 16-17			1935	H					
142	HD 163993	17 53 29	16	I-25	E 40	008	26.5	20 06	20 36	4	
143	HD 165281	18 20 30	24	-	-	-	26.8	20 41	22 41	3	
144	HD 184277	19 04 31	17	-	-	-	-	-	-	-	-
145	HD 206630	21 36 42	19	-	-	-	26.6	23 41	00 41	2	
146	HD 206963	21 20 10	24	-	-	-	26.6	00 47	02 37	3	
147	HD 1808	00 15 30	33	-	-	-	26.7	02 46	03 26	4	
148	HD 1672	00 15 5	+32	32	-	-	26.6	03 32	04 48	1	

Time	Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS
						Handwritten notes at top of page
1	45	25	2	7.21 A0	3 3 3	
2	32	23	3	7.62 A0	3 2 3	
2	27	21	2	6.95 A0	3 1 0	
						C.T. Δθ M.T.A. Δθ S.T.A. Δθ M.T.D. Δθ watch Aug 16 12 +0.5 -20.3 +1.015 +27.4
0 ⁰²	W	27 15	2-3	4.8 K0	3, 3, 3	{ Repaired Binocular, Baroni + found part with Reoriented finder wires. Stage Clouds twenty minutes, the resulting mercury would fall out and broken. Shook to break vacuum supply removing plate out of back. Stage
X ¹³	W	30 23	3	7.1 F5	-	
				6.5 A0	-	
0 ²⁵	W	32 59	3	6.5 K0	3, 3, 3	
2 ¹⁷	W	34	3	7.0 F5	-	"
0 ³²	W	31 35	3-4	5.8 B3	-	"
1 ⁰³	W	32 34	3	7.2 K5		Clock runs perfectly all night Put on Vint's eyepiece in tent & focused it.

73

17-18

Miss Northcott note by angle index
was adjusted correctly Friday.

Date

Aug 16-17

1935

M

Julian Day

2428032.5

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Plate Holder	Hour Angle End
148	HD 190537	11 00	30 27	T 25	E 92	005	27.3	10 27	1 07	1	2 31
149	212977	10 57	50 25	-	-	-	27.9	1 21	3 41	2	2 31
150	17884	12 57	13 42	-	-	-	28.1	3 59	4 27	1	2 31
			Aug 16-19		Young						
151	Vega 2 Cyg, al	18 336	38 41	T 25	E 33	005	29.0	8 06	8 06	1	3 35
152	102 Hercules HD 186791	18 04	42 48	T 21	"	005	29.7	8 38	9 38	2	3 35
153	2 Aquilae HD 193237	19 415	10 22	"	"	"	29.0	9 44	10 24	3	3 35
154	P Cygni	20 14	43 43	"	"	"	29.0	10 30	11 40	4	3 35

1
 80 miles - showed a large bright cloud the B. appeared to have
 after dark still bright & very low

Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS
2 31 W	31° 4'	1	6.93 A2	5 3 3	Very hazy near horizon. Very very poor visibility
2 10 W	30 45	1	6.52 A0	2 3 3	Lowest cloud at 12.11 a bit thick through the
1 0 E	3 51	1	4.17 MA	3 3 3	Very very thick
53 ^m E	-	2	0.14 A.	40 ^s	Dome opened 7 ⁰⁰ fixed upper curtain.
1 ^h 01 ^m W	20 48	1	4.15 B3	20-20	Lost time with clouds. Thick.
10 ^m W	+10 28	2-3	3.87 - K2	15-15-15	
55 W	+37 50	1-4	4.75 - Bp	15-15-15	clouds - For 2, 3 causing outside to be bit confused till 12 ¹⁰ but time from 11 ⁴⁵ was practically all clouds

Aug.	M.T.A.	S.T.A	M.T.D	Water	
July 19	13	+0.0	-23.3	+ 1 01.0	+ 18.5

Date Monday August 19-20, 1935 Julian Day 2428034.8

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Plate Folder	Hour Angle End
155	HD 175375	17 06.1	+12 35	I-25	E 40	008	26.8	20 10	22 40	1	W
156	189247	19 57.0	+32 57	-	-	-	27.2	22 40	00 46	2	2 1/2 W
157	209149	21 56.1	+32 33	-	-	-	27.3	00 50	02 50	3	2 1/2 W
158	2767	22 26.1	+33 02	-	-	-	27.0	02 53	04 45	1	1 1/2 W
Tuesday Aug. 20-21, 1935 M								2428035.5			
159	HD 187279	19 44.1	+31 15	I-25	E 40	008	27.5	21 00		1	
Wednesday, Aug 21-22								2428036.2			
153 F1	San Fel			I-12	E 40	008				1	
158 F2				I-12	"	"				2	
158 F3				"	"	"				1	
158 F4				"	E 33	"				3	
158 F5				"	"	005				3	
158 F6				"	"	"		7 ³⁰ 40		3	

Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS																																																
W	+12 33	2	6.46 A0	3, 3, 3	Very hazy. Fairly marked. 21.5																																																
2 ²¹ W	+31 03	3	6.66 B8		Imp may be overexposed in 155-156. Noted in 2 nd exp in 156 that spot from 1st exp. It was 15 in second exposure in 155. Shifted slightly in 1st of 155 in part of 155. Lower in first.																																																
2 ²⁵ W	+32 43	3	6.88 F7																																																		
152 W	+33 14	3	7.08 K0																																																		
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	C.T.	$\Delta\theta$ M.T.A.	$\Delta\theta$ S.T.A.	$\Delta\theta$ M.T.D.	$\Delta\theta$ watch																																																
Aug 20	12	-0.2	-24.0	+0.59.8	+21.5																																																
2	6.55 A0	3	23		<p>Reflected beam out focus Closed up. Temp just after started exposure</p>																																																
					<table border="1"> <thead> <tr> <th></th> <th>C.T.</th> <th>$\Delta\theta$ M.T.A.</th> <th>$\Delta\theta$ S.T.A.</th> <th>$\Delta\theta$ M.T.D.</th> <th>$\Delta\theta$ watch</th> </tr> </thead> <tbody> <tr> <td>Aug 21</td> <td>12</td> <td>-0.4</td> <td>-25.2</td> <td>+1.00.6</td> <td>+23.8</td> </tr> </tbody> </table>		C.T.	$\Delta\theta$ M.T.A.	$\Delta\theta$ S.T.A.	$\Delta\theta$ M.T.D.	$\Delta\theta$ watch	Aug 21	12	-0.4	-25.2	+1.00.6	+23.8																																				
	C.T.	$\Delta\theta$ M.T.A.	$\Delta\theta$ S.T.A.	$\Delta\theta$ M.T.D.	$\Delta\theta$ watch																																																
Aug 21	12	-0.4	-25.2	+1.00.6	+23.8																																																
					<table border="1"> <thead> <tr> <th></th> <th>Focus</th> <th>23.0</th> <th>24.0</th> <th>25.0</th> <th>26.0</th> <th>27.0</th> <th>Temp</th> </tr> </thead> <tbody> <tr> <td>10⁵ inch</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>23.15</td> </tr> <tr> <td>"</td> <td></td> <td>25.0</td> <td>25.3</td> <td>25.6</td> <td>25.9</td> <td>26.2</td> <td>" 20.0</td> </tr> <tr> <td>Hartmann Test</td> <td>12⁷, 7⁵</td> <td>25.7</td> <td></td> <td>25.9</td> <td></td> <td>26.1</td> <td>" 21.5</td> </tr> <tr> <td>Hartmann Test</td> <td>15³, 1³</td> <td></td> <td></td> <td>26.15</td> <td></td> <td></td> <td>" 19.5</td> </tr> <tr> <td></td> <td>15, 12</td> <td></td> <td></td> <td>26.25</td> <td></td> <td></td> <td>" 19.5</td> </tr> </tbody> </table>		Focus	23.0	24.0	25.0	26.0	27.0	Temp	10 ⁵ inch							23.15	"		25.0	25.3	25.6	25.9	26.2	" 20.0	Hartmann Test	12 ⁷ , 7 ⁵	25.7		25.9		26.1	" 21.5	Hartmann Test	15 ³ , 1 ³			26.15			" 19.5		15, 12			26.25			" 19.5
	Focus	23.0	24.0	25.0	26.0	27.0	Temp																																														
10 ⁵ inch							23.15																																														
"		25.0	25.3	25.6	25.9	26.2	" 20.0																																														
Hartmann Test	12 ⁷ , 7 ⁵	25.7		25.9		26.1	" 21.5																																														
Hartmann Test	15 ³ , 1 ³			26.15			" 19.5																																														
	15, 12			26.25			" 19.5																																														

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H, Y

Date Wednesday Aug 21-22 1935 Julian Day 2428036.5

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Plate Holder	Hour Angle End
H { 159	H3 164.75	17 547	+32 11	I-12	E 40	010	24.0	19 52	20 12	1	
160	167003	17 533	+32 33	"	"	"	24.0	20 15	21 45	2	
161	187921	19 478	+30 73	"	"	"	23.9	21 49	22 49	3	
162	209469	21 556	+42 20	"	Em 6219	"	24.0	22 56	00 00	1	E
163	210387	22 05.0	+44 22	"	"	"	24.0	00 06	00 46	2	W
164	210405	22 05.1	+44 28	"	Em 6169	"	24.0	00 49	01 29	3	W
165	1826	00 176	+28 55	"	"	"	24.0	01 38	03 00	1	W
166	9224	01 257	+28 54	"	"	"	24.0	03 06	04 40	2	W

Time T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS
	0 ⁰³ E	+32 11	0-1	4.76 F2	3,3,3	Note - Comp. has now only 1 of the filters removed
	1 ²⁶ W	+30 33	1	7.08 F2	4,4,4	
	0 ⁴¹ W	+32 59	1-2	7.08 A5	4,4,4	Double Star. Sp. : 10", 15" Sp. 1.
	0 ¹⁰ E	+42 30	2	7.04 B9	4,6,4.	
	2 ¹⁰ W	+44 31	2	6.72 A0	5,5,5	NW star ? Taken to test speed of two emulsions
	1 ⁰⁰ W	+44 31	2	6.60 B9	5,5,5	SE star. Seeing about same on each.
	1 ²² W	+29 04	1	6.97 A3	5-5-5	
	5 ⁴⁰ W	+29.04	1	7.83 G.	5-5-5	

	C.T.	$\Delta\theta$ M.T.A.	$\Delta\theta$ S.T.A.	$\Delta\theta$ M.T.D.	$\Delta\theta$ unatd
Aug 22	12	-0.9	-26.6	+59.1	+24.4

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Y, S, H.

Date Thursday Aug 22-23, 1935 Julian Day 24280.75

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Plate Holder
Y { 167	Vega	18 34.7 ³³⁶ 18 34.7	+12 43 ^{41.2} +38 43	N	E40	Figure last		made focus		
Y { 168	"	"	"	N	"	"		outside		
—	σ Oph									
169	NGC 6402	17 32.4	-3 11	N	E40			21 11	21 26	
170	"	"	"	"	"			21 32	21 57	
171	{ NGC 6402	"	"	"	"			22 15	22 30	
	{ K.S.A. 109	17 40	+0 10	"	"			22 37	22 52	
172	NGC 6402	17 32.4	-3 11	"	"			22 59	23 24	
173	NGC 6760	19 06.1	+0 52	"	"			23 43	00 08	
174	NGC 6205	16 38.1	+36 39	"	"			00 17	00 22	
175	NGC 5934	20 29.7	+07 04	"	"			00 32	00 52	
176	{ NGC 6779	19 12.7	+30 00	"	"			01 02	01 17	
	{ K.S.A. 64	19 53	19 00	"	"			01 21	01 36	
177	NGC 6934	20 29.7	+07 04	"	"			01 45	02 05	
178	NGC 6779	19 12.7	+30 00	"	"			02 15	02 35	
179	NGC 7189	21 28.9	-01 16	"	"			02 48	02 54	

Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS
38 rev					Poor seeing
38 "					
					Refocused + adjusted on this star. Better seeing, mirror excellent. Same 161.
1 ³⁷ W		Poor			
2 ⁰⁸ W		Improving			Collimation good. Plate is scrapped plate 169. not quite \perp to axis.
2 ⁴¹ W		Poor. 2nd wind			} Sequence Plate
2 ⁵⁵ W	- 0 11				
3 ³⁵ W		Variable			
2 ⁴⁵ W		Bair	2nd part		Refocused on 8 ^m star near field. Change < 0.1
5 ²³ W					
2 ⁰⁶ N					
3 ⁴³ W					} Sequence Plate
3 ²² W					
3 ²² W					Very bright, slightly out of focus
5 ⁰⁶ W					
3 ⁰⁹ W					

S, H 1935

Date Thursday Aug 22-23 (cont'd) Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Plate Holder	Hour Angle End
130	NGC 6374	20 29.7	+07 04	N	E 40			3 05	3 25		4 ^h N
131	NGC 7178	21 25.2	+11 44	-	-			3 36	3 46		4 ^h W
132	Morriv			-	-			4 07			4 ^h E
133	"			-	-				4 10		
		Friday Aug		23-24, 1935		S, H					
-	σ Oph	-	-	N	-						
134	NGC 6274	16 51.7	-07 57	-	E 40			20 13	20 23		4 ^h V
135	NGC 6402	17 32.4	-03 11	-	-			20 29	20 44		4 ^h W
136	{ NGC 6402	-	-	-	-			20 46	21 01		4 ^h V
	{ S.A. 109	17 40.0	-00 10	-	-			21 04	21 19		4 ^h H
137	NGC 6402	17 32.4	-03 11	-	-			21 24	21 39		4 ^h V
138	NGC 6306	17 22.4	-04 59	-	-			21 46	22 11		4 ^h V
139	NGC 6402	17 32.4	-03 11	-	-			22 16	22 31		4 ^h V
190	NGC 6205	16 32.1	+36 39	-	-			22 38	22 43		4 ^h W

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S. H.

Date Friday Aug 23-24 (cont'd) 1935 Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Plate Holder	Hour Ang End
191	NFC 6760	19 06.1	+00 52	N	E 40			22 59	23 24		
192	" 6402							23 35	23 56		
193	" 6205							00 12	00 17		
194	" 6734	20 29.3	+07 04					00 31	00 51		
195	" 6779	19 12.7	+30 00					00 57	01 12		
196	" 6779							01 17	01 32		
"	SA 64	19 58	+30 00					01 36	01 57		
197	NFC 6934							01 57	02 12		
198	" 7078	21 25.2	+11 44					02 17	02 25		
199	" 7039	21 28.3	-01 16					02 31	02 36		
200	" 6934							02 42	03 02		
201	" 6779							03 10	03 30		
202	" 7078							03 35	03 40		
203	α Perseus	3 19.6	+19 52	Nr. disp. sign				04 15	04 15		
204	"							04 15	04 18		
205	"							04 27			
206	"							04 30			

Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS
2 ⁰⁹ W		<i>fine</i>			<i>Developed 187, 190?</i>
4 ⁰⁹ W					<i>H guided</i>
5 ²⁸ W					<i>Developed 192, 193</i>
2 ¹⁰ W					<i>Retocused at 9^m</i>
3 ⁴⁸ W					<i>Deposits</i>
4 ⁴⁸ W					
7 ⁴² W	30 06				
3 ³⁷ W					
2 ⁴² W					
2 ⁵⁹ W					
4 ²¹ W					
6 ⁰⁶ W					<i>Bright (9^m) - water overflow of guiding up film</i>
4 ¹⁴ W					<i>S guided all plates except where noted</i>
1 ¹⁵ E		<i>fine</i>	1400		<i>Inside focus 38 turns - 12^S exposure</i> <i>Read 23</i>
					<i>Outside focus 38 turns - 12^S exposure</i> <i>Read 99</i>
					<i>" " " " " "</i> <i>" "</i>
					<i>Inside focus 38 turns - 12^S exposure</i> <i>Read 23</i>

Date Sat - Aug 24-25 - 1935 M Julian Day 2428039.5

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Plate Folder	Hour Angle End
207	HD 189086	17 53.2	30 30	T-12	E 40	.010	20.0	9 50	11 20	3	1 19
208	209833	22 01.1	28 28	-	-	-	19.6	11 28	11 52	4	7 42
209	218097	23 00.2	32 50	-	-	-	19.6	11 59	1 59	1	6 11
210	201900	19.4	30 49	-	-	-	19.5	2 06	3 08	3	5 41
211	1068101	34.2	27 58	-	-	-	19.7	3 21	4 15 4.01	4	5 17

Monday Aug 26-27 / 35° Y.

Set on HR 154713 at 7³⁰ but never started exposure -

24280415

Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS
					Auroral arc in north.
1	19W 30 33	1-0	6.88 A0	444	Showered visitors in 13.
					Aug 24 10 -1.0 -28.9 +28.1
1	^x 43W +28 30 17E	1	5.58 A0	444	Line setting reads 3' low.
0	51W +32 58	1	7.28 A0	444	very faint, double, parallel, buff colored, 1st one
0	41 W 130 57	2-3	6.78 B9	44	light clouds at 2.00 comparison found to spark fast one missing. Replaced poles.
5	27 W +28 54	3	7.31 A0	48	cloud at 3.30
					Aug 26 12 -0.5 -31.4 +59.5 Watch stopped
					Aug 27 12 -0.8 -33.0 +59.2 -0.3

Date *Jul, Aug - 27-28* 1935 MJulian Day ² 2428044.5

Plate No.	Object	R.A. 1900	Declination 1000	Instrument	Emulsion	Blit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Plate Holder	Hour Angl End
212	HD 164252	17 552	30 03	I-12	E-40	1010	24.1	19 57	21 59	4	
213	208835	21 539	46 23	-	-	-	24.1	22 14	23 14	1	
214	210095	22 057	27 14	-	-	-	23.7	23 22	0 34	2	
215	216716	22 500	30 23	-	-	-	23.0	0 43	1 15	1	
		Wednesday Aug 28-29		H		1935		2428048.5			
215-F.1	<i>Same as 215</i>			I-12	E 33	005	16.5	9 ³⁰ AM			
				S.H							
216	NGC 6294	16 519	-03 57	N	E 40			20 10	20 25		
217	"	17 304	-03 11	-	-			20 30	20 45		
218	"	19 127	+30 05	-	-			20 55	21 20		
219	"	5002		-	-			21 25	21 45		
220	"	6934	20 203 + 07 22	-	-			21 58	22 13		
221	"	7239	21 229 - 01 15	-	-			22 23	22 28		

S. H. 1935

Date Wednesday Feb 28-29 (cont'd) Julian Day 2428043.5

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Plate Holder	Hour Angl End
222	NGC 6402	17 32.4	-03 11	N	E 40						
222	"	6205	16 38.1 + 36 39	-	-			22 41	22 46		
223	"	6402		-	-			22 59	23 24		
224	"	6752	19 06.1 + 20 52	-	-						
								S.H.			
								Thursday Feb 29-30, 1935			
								2428044.5			
	W Oph			N	-						
224	NGC 6402	17 32.4	-03 11	-	E 40			22 02	(22 20)		22 24
225	"	6205	16 38.1 + 36 39	-	-			23 49	23 43		
226	"	5779	19 12.7 + 30 22	-	-			23 57	00 22		
227	"	7089	2 22.7 - 11 16	-	-			00 39	00 19		
228	"	5234	22 27.3 + 27 44	-	-			00 51	01 00		

Time Place	Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS
						Clouded over before exposure was started, clouds on E, S, & SW.
	4 ¹⁵ W					
	7 ⁵⁹ "					Developed 221, 234 Clouded over at 27 ³⁰ . Still under 1 st cloud up.
						Aug. 29. 12 -0.1 -35.6 +59.1 +0.4
						focused on the star. about $\frac{1}{2}$ ⁱⁿ $\frac{11}{11}$ diameter but not clouded over. effective exposure about 2 ^m .
	7 ²¹ W					day 2. about 1 st $\frac{11}{11}$ $\frac{11}{11}$ diameter. 4.5 sec. exposure. star sharp & image about 2 ^m diameter.
	7 ²¹ W					
	1 ⁰⁶ W					
	2 ⁷² W					clouded over.
						A very poor night. Clouds still last part of evening.
						Aug. 30. 12 +0.1 -37.7 +55.1 -0.5

Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS										
1 03W	43 39	2-4	7.58 A0	55											
2 25W	15 48	2	7.70 A2	55	some clouds at 2.40 and thereafter										
3 19W	16 31	3	6.78 A0	55	intermittent clouds thick at 4.00 but then clearer eye plate and focused down 5 min.										
					<table border="0"> <tr> <td></td> <td>$\Delta \theta$ M.T.A.</td> <td>$\Delta \theta$ S.T.A.</td> <td>$\Delta \theta$ M.T.D.</td> <td>$\Delta \theta$ S.T.D.</td> </tr> <tr> <td>Aug. 31.</td> <td>10</td> <td>+0.8</td> <td>-38.7</td> <td>-0.2 -2.5</td> </tr> </table>		$\Delta \theta$ M.T.A.	$\Delta \theta$ S.T.A.	$\Delta \theta$ M.T.D.	$\Delta \theta$ S.T.D.	Aug. 31.	10	+0.8	-38.7	-0.2 -2.5
	$\Delta \theta$ M.T.A.	$\Delta \theta$ S.T.A.	$\Delta \theta$ M.T.D.	$\Delta \theta$ S.T.D.											
Aug. 31.	10	+0.8	-38.7	-0.2 -2.5											
					<p>Visitors - showed Vega, set on M13, clouds 9.30 opened 10.30, set and focussed up 3 min, clouds 11.15, closed 12.05 - one side RA setting not working.</p>										

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Date Sunday Sept 1-2 1935 M Julian Day 2428047.5

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Plate Holder	Hour Ang End
232	HD 175785	18 517	30 11	J-12	E-40	.010	17.5	8 02	9 42	2	1 12
233	176938	18 575	09 23	-	-	-	17.5	9 54	10 56	3	2 10
234	209205	21 562	31 03	-	-	-	17.8	11 10	12 56	4	3 10
235	14647	02 168	53 15	-	-	-	17.7	1 12	4 30	2	0 20
Monday, Sept. 2-3, H 1935								2428048.5			
236	HD 206632	21 335	45 18	I 12	E 40	.010	17.2	22 27	21 27	4	4 10
237	1641	00 170	32 25	-	-	-	17.2	01 33	03 24	3	4 10
238	9016	01 292	32 37	-	-	-	17.1	03 10	04 10	4	4 10
239	16220	02 311	32 27	-	-	-	17.0	04 13	05 01	3	4 10

Time	Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS
1	12 W	20 09	1	7.31 A0	5.55	P.A. setting fixed.
2	21 W	27 32	1	6.64 A0	5.55	P.A. settings returned to work set by hand at least 12 blown out pieces. P.A. setting O.K. 10.15
1	22 W	31 10	-	7.49 A0	5.55	P.A. setting OK again - turned out with a pair of forceps. No visible semicircular streak - streaks in clarity.
0	36 W	33 20	2	7.9 B9	5.5	Set by hand. 12 blown out the
2	15 W		2-3	7.8 M0	5.55	Cloud all evening - clearing. Stage
1	14 W	32 33	2-3	7.4 F5	5.55	Stage
1	08 W	32 45	3	7.1 G0	5.55	Light stage. * Reset Dec Drive & Index
2	56 W	32 30*		6.7 F5	5.55	

Adjusted viewing within for clarity.
Adjusted amplitude of control clock which was running
very poorly. Smoothing now probably all right.

	C.T.	Δθ M.T.A.	Δθ S.T.A.	Δθ M.T.O.	Δθ Watch
Sept 3	12	+1.9	-43.6	+1.9	+12.1

Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS
					C.T. Δθ M.T.A. Δθ S.T.A. Δθ M.T.D. Δθ watch Sept 4. 12 +2.0 - 45.4 +1.0 +15.4
1 40 W	30 25	2	7.5	Ma 4.4.4	cloud early evening; light haze
0 15 W	32 38	3	7.2	G5 4.4.4	haze in evening W, NE.
1 35 W	27 29	3	7.4	K2 4.4.4	Heavy clouds.
0 05 E	17 29	3	7.1	F0 4.4.4	
0 35 W	16 45	2	7.2	F5 4.4.4	
1 25 W	13 10	3	7.7	F0 4.4.4	faint clouds 26.10 26.30 26.20 70.30
					Sept 5. 12 +3.0 - 47.3 0.0 +13.7 Best frame 26.25 (reduced for M.T.A.)

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Date

Friday Sept 5-6 1935 M

Julian Day

272.56715

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Plate Holder
246	HD 188651	19 511	29 56	I-12	E-40	1010	18.6	20 05	20 45	2
247	188170	19 488	28 44	-	-	-	18.5	20 48	21 58	3
248	208716	21 531	08 18	-	-	-	18.0	22 02	00 02	4
249	212767	22 055	31 57	-	-	-	18.0	00 06	00 58	2
250	10407	1 367	29 01	-	-	-	18.0	01 03	02 37	3
251	9100	1 245	17 51	-	-	-	18.0	02 40	03 04	4
252	21379	3 218	12 23	-	-	-	18.0	03 08	03 46	3
253	21590	3 240	16 25	-	-	-	18.0	03 50	04 52	2

Fri

Sept 6-7

1935

HD

254	HD 176031	18 537	06 37	I-12	E-40	010	17.0	19 40	21 10	2
255	HD 197951	22 419	- 2 51	-	-	-	16.8	21 19	22 47	3
256	212332	19 194	14 46	-	-	-	17.3	22 52	00 02	4
257	274	19 010	16 22	-	-	-	17.0	00 28	02 08	2
258	19279	12 134	12 31	-	-	-	17.0	02 14	02 50	3

Saturday Sept 7-8

HD

30 minutes, cloudy

Time	Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS
5	28 E	30 01	2	6.34	B9 555	a few clouds one due setting faintly
7	0 47 W	28 49	2	7.17	A0 555	
2	0 47 W	28 28	2	7.9	A0 555	
0	30 W	32 08	2	6.87	B9 555	
0	21 E	29 10	2	7.44	A2 555	
0	18 W	18 02	2	6.02	A2 555	
0	57 E	12 00	2	6.30	A0 555	
0	07 W	18 32	2	7.02	A0 555	
						Sept. 6 12 +3.1 -48.9 +0.1 +11.3
W	29 ^m	46 42	2	7.14	A ₂ 555	
W	47 ^m	-2 47	2	7.40	K ₂ 5,5,5	
W	25 ^m	14 57	1	6.73	P ₀ 5,5,5	Clouds latter part. Thick at 00.00
W	42 ^m	16 34	3	7.40	G ₅ 5,5,5	1 day
				7.20	G ₅ 5 10	Thick 2.50 closed 4.00

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Date Monday Sept 9-10, 1935 Y Julian Day 2428055.5

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Plate Holder	Hour End
259	HD 176053	18 53.3	+31 52	I 12	S 40	Set 10	17.0	7 ^h 33 ^m	8 43	2	43 ^m
260	HD 191918	20 07.2	+32 00	"	S 40	"	17.0	8 55	10 05 9 50	3	37 ^m
261	HD 13757	00 12.8	+12 13	"	"	"	17.0	00 13	01 30	4	10 ^m
<u>Tuesday, Sept 10-11, 1935</u>								<u>2428056.5</u>			
252	HD 201999	21 07.7	+30 12	I 12	E 40	Set 10	15.0	22 13	23 17	2	
253	209517	21 58.9	+29 33	-	-	-	15.0	23 17	00 47	3	
254	2666	00 25.2	+31 38	-	-	-	15.1	00 51	07 21	4	

Time	Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS
2	43 ^m W	31° 55'	3	7.18	A3 5-5-5	Sept. 9. 12. +4.0 -54.2 0.0 -1.4 ^{Watch}
3	37 ^m W	32 07	3-1	7.07	A0 5-5-5	clouds 9 ⁵⁰ cleared again at about 12 ⁻
4	10 ^m W		2	7.41	B5 5-5	Heat off between 260-261 for about 1 hour dropped in clouds at 1 ⁰⁰⁻¹⁰ raining, 3 ⁰ Put on visors eye piece closed up 2 ¹⁵ Sept 10 12 +4.0 -56.3 -1.0 +2.0
<p>1-2 AFA temperature (3 Cyls) M13; Moon; Saturn.</p>						
	1 ⁰³ W	30 21	3	7.5	G5 4.4.4	Intermittent clouds
	1 ⁴⁰ W	29 47	3	7.4	B9 4.4.4	
	1 ⁵⁰ ✓	31 47	3	8.0	F7 4.0.4	Edge
<p>Sept. 11 12 +4.1 -58.4 +8.8</p>						

Date Wed Sept 11-12, 1935 Hd Julian Day 2428037.5

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour End
265	HD 189689	19 56.2	32 31	I-12	E-40	010	19.6	9.04	10.12	
				Friday Sept 13-14		Young				
No 266	HR 199276	20 51.7	27 12	I-12	M.P.P.	010	13.5	9.55	11.55	2
				Saturday Sept 15-16, 1935 M						
267	HD. 220078	22 15.8	14 31	I-12	E-40	010	10.7	23 47	1 27	3
268	2417	0 23.5	17 21	-	M.P.P.	-	11.0	1 30	1 53	4
269	16245	2 31.3	29 59	-	E-40	-	11.6	2 01	3 21	5

Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS																		
1 ^h 17	32 37	1	7.19 B9	5.55	clouds early, see getting bad, clouds 7.50 closed 00.00																		
					<table border="1"> <thead> <tr> <th></th> <th>C.T.</th> <th>$\Delta\theta$ M.T.A.</th> <th>$\Delta\theta$ S.T.A.</th> <th>$\Delta\theta$ M.T.O.</th> <th>$\Delta\theta$ watch</th> </tr> </thead> <tbody> <tr> <td>Sept. 12.</td> <td>12</td> <td>+ 4.7</td> <td>-58.8</td> <td>+ 1.7</td> <td>+14.8</td> </tr> <tr> <td>Sept. 13</td> <td>14</td> <td>+ 5.1</td> <td>- 1 02.1</td> <td>+ 1.1</td> <td>17.6</td> </tr> </tbody> </table>		C.T.	$\Delta\theta$ M.T.A.	$\Delta\theta$ S.T.A.	$\Delta\theta$ M.T.O.	$\Delta\theta$ watch	Sept. 12.	12	+ 4.7	-58.8	+ 1.7	+14.8	Sept. 13	14	+ 5.1	- 1 02.1	+ 1.1	17.6
	C.T.	$\Delta\theta$ M.T.A.	$\Delta\theta$ S.T.A.	$\Delta\theta$ M.T.O.	$\Delta\theta$ watch																		
Sept. 12.	12	+ 4.7	-58.8	+ 1.7	+14.8																		
Sept. 13	14	+ 5.1	- 1 02.1	+ 1.1	17.6																		
	27 20	1-0	7.76 K0	3-3	very cloudy, all day. cleared gradually 8-9 PM plate in holder in dark room																		
					Sept. 14 10 + 5.8 - 1 03.4 + 1.8 20.2																		
1 ^h 25 W	15 42	1	7.61 A2	5.55	cloudy all day, but clearing 11 PM																		
1 ^h 27 W	17 32	2	6.68 A6	5.5	some trouble with line setting. (1/2) steady																		
1 ^h 28 W	30 48	2	7.41 A0	5.55	fairly nice 3 mercury switches blown - 2 on setting 1 on guiding. Buttons not pressed together. Upper switch blown switches don't fit it. Couldn't get star on which was closed up at 4.01.																		

Date Sept 16-17 Y L 1935 Julian Day 2428062.5

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Plate Holder	Hour End
270	H.R. 187237	19 439	+27 36	I 12	M. Pan	S.7 010	Set 14.5	7 ^h 33	8 53	2	
271	" 200991	20 581	+27 24	"	"	"	15.0	9 02		4	
271											
		Sept 17-18		Hd-L		1935		24280635			
271	HD 187255	19 440	27 26	I-12	E40	9 ^h 010	13.8	7.28	9.43	3	
272	HD 201194	21 02.9	20 12	"	"	010	14.0	8 47	10 02	2	
273	" 210130	22 03.1	12 34	"	"	"	14.0	10 17	00 06	3	
274	" 1662	00 15.8	12 13	"	"	"	13.5	00 11	04 18	2	
275	" 7312	01 06.2	16 25	"	"	"	14.0	01 24	02 05	3	
276	" 17008	02 39.6	27 35	"	E40	"	13.5 01 29	02 29	03 39	2	
277	" 22963	05 26.1	32 38	"	E40	"	14.0	03 33	04 26	3	
278	" 33334	07 19.5	03 35	"	"	"	13.9	04 32	05 28	2	

Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS
3 ^h 41 ^m	27° 42'	3	7.53	G ₅ 3-3-3	Sept. 16 C.T. 12 Δθ M.T.A. +7.0 Δθ S.T.A. -1.077 Δθ M.T.D. +3.0 Δθ <u>total</u> +22.8
		3	7.70	G ₀ 3-3-3	clouded after about 5 ^m , still steady ²⁰ .
					Sept. 17 13 +7.9 -1.098 +3.9 +28.7
4 ^h 23 ^m	27 32	3	7.34	A ₀ 5,5,5	Very hazy, seeing somewhat
4 ^h 25 ^m	30 23	4	7.46	R ₈ 5,5,5	quite hazy
4 ^h 31 ^m	12 45	2	7.70	A ₅ 5,5,5	low-stratus clouds 10.50-11.05
4 ^h 37 ^m	12 29	6	7.51	A ₃ 5,5,5	
4 ^h 25 ^m	16 17	7	7.87	S ₀ 5,5,5	
4 ^h 15 ^m	27 43	4 (low)	8.0	A ₂ 3,3,3	water is back at 10.15 about end of day
4 ^h 10 ^m	30 43	5 (low)	7.87	S ₃ 5,5,5	hazy somewhat, some low, misty at night
3 ^h 11 ^m	13 28	9	7.27	S ₃ 5,5,5	4 ^h 10 ^m - 10.15 about end of day

Date Wed - Sept 18-19, 1935 M-L Julian Day 2428064.5

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Flit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Plate Holder	Hour At End
279	H.D. 188876	19 52.2	32 48	I-12	Astra	.010	22.7	7 36	7 57	3	
280	216400	22 41.5	13 01	—	—	—	22.5	10 49	12 11	1	
281	14-97	2 16.4	15 05	—	—	—	23.1	12 26	2 06	2	
282	15 114	12 21.0	12 27	—	—	—	22.8	2 13	3 35	3	
283	26380	14 52	15 42	—	Max P.	—	22.8	3 39	4 23	1	
284	26171	11 54	13 08	—	—	—	22.6	4 27	4 39	2	
285	35189	05 17.9	16 36	—	—	—	22.9	4 44	4 55	3	
286	35693	15 21.5	15 11	—	—	—	22.7	5 01	5 11	4	
Thursday Sept 19-20, 1935 Y-L											
287	H.D. 219 295	23 02.6	32 18	I 12	Astra	.010	22.5	11 00	11 26	1	
288	H.D. 219 291	23 09.1	29 13	"	"	"	22.5	11 31	12 11	3	
289	H.D. 5909	01 22.7	30 02	"	"	"	23.0	12 31	1 51	4	
290	H.D. 13596	07 07.6	14 48	"	"	"	22.7	1 58	2 20	1	

Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS
0 20 E	32 53	1	7.24 A0	5 7	image very faint found mirror entirely covered by condensation with 100 exposure and cleared mirror with blower very high clouds in west
0 31 E	15 13	2	7.94 A0	5 5 5	clear
0 44 W	12 35	3	7.8 B9	5 5 5	auroral zone in N
0 12 E	15 47	3	7.17 A0	5 5 5	
0 06 W	13 13	3	6.00 B9	5 3 5	
0 50 E	16 38	3	6.15 A2	5 5	body in view
0 40 E	15 12	2	6.19 A2	5 5	4 9 4
					C.T. Δθ M.T.A. Δθ S.T.A. Δθ M.T.D. Δθ watch
					Sept 19 12 +9.0 -1 14.3 +5.0 +31.9
4 ^m W	32 27	1	6.03 A2	3-3-3	specular 4 ²⁰ . had all kind of trouble with mirror also found that it did not clear and long to clear
35 ^m W	29 13	1	6.84 F5	3-3-3	also kept cleaning every few minutes when attempting find star.
2 ^m W	30 13	2	7.29 F5	3-3-3	
	14 58	2	7.17 K5	3-5-2	Exp 5 1/2 2 ⁴⁰ had some trouble with mirror

1935

Date *Sat - Sept 21-22* M-L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Plate Header	
					<i>not used</i>					<i>showed - β Cygni</i>	
										<i>M 57</i>	
291	HD 210190	22 02.8	17 32	Z-12	Astra	010	18.5	10 07	12 15	3	
292	13248	2 01.1	12 42	-	-	-	18.0	12 21	1 51	4	
293	12929	2 01.5	12 07	-	E-33	-	18.5	1 54	2 25	2	
294	17970	2 43.0	32 26	-	Astra	-	18.3	2 10	4 40	3	
295	35693	5 21.5	15 11	-	-	-	18.0	4 45	5 07	4	
			<i>Sunday Sept 22-23/35</i>								<i>Y-L</i>
										<i>ID 2428068.5</i>	
296	HD 179280	19 06.9	+31 28	"	Astra	"	17.0	7 02	8 14	1	
297	HD 195617	20 27.3	+1 47	"	"	"	16.3	8 20	9 50	2	
298	HD 210320	22 04.6	+45 18	"	"	"	16.5	9 55	11 00	3	
299	HD 453	00 04.2	+16 59	"	"	"	16.5	11 06	12 30	4	
300	HD 2426	00 23.0	+15 54	"	"	"	16.5	12 35	2 05	1	
301	HD 16187	02 30.8	+31 10	"	"	"	16.6	2 10	3 10	2	
302	HD 21662	03 18.8	+28 18	"	"	"	16.7	3 14	4 04	3	
303	HD 20314	04 06.5	+17 02	"	"	"	16.0	4 09	5 09	4	

Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	Remarks	REMARKS
					Sept. 20	12 +9.8 - 1 23.7 + 5.8 +25.8
					Sept. 21	10 +10.0 - 1 17.9 + 7.0 +36.1
1 54W	17 41	0	7.78 Ma	5535		new dec. stay in the sky well
0 32E	12 52	1	7.60 B9	555		
0 14E	23 09	1	3.30 K2	555		
1 30 W	32 33	1	7.90 A0	555		lost in SW at 00. heavy clouds 20-300
0 33E	15 11	0	6.19 A2	5-5		light clouds
52 ^m W	31 31	2-1	7.42 F0	4-4-4		
4 ^m W	+1 54	2	7.72 K2	4-4-4		0.5 to 5 to 10' N
4 ^m W	45 25	2	7.30 B5	4-4-4		5 to 10'
11 ^m W	17 10	2-1	7.73 G0	4-4-4		10'
14 27 ^m W	16 04	1	7.53 K2	4-4-4		
25 ^m W	31 17	1	7.16 K0	4-4-4		
7 ^m W	28 23	2	6.90 A0	4-4-4		
48 ^m W	17 06	1	7.08 B5	4-4-4		Finder left in adjustment when star + in the field

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H-L

Date Monday Sept 23-24 1937 Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Plate Holder	Hour End
- 304	{ i Herc (HD 165162)	17 36.6	+45 04	I 12	E 40	010	set 13.3	7.00	7.06	1	11.1
					"			7.07	7.10		11.2
- 305	{ i Herc "	-	-	-	E 40	008	14.0	7.11	7.19	2	11.1
					"			7.20	7.24		11.1
306	HD 173009	19 01.9	+29 46	-	E 40	010	14.0	7.29	9.09	3	11.1
- 307	{ e Peg (HD 206178)	21 39.7	+09 25	-	"	008	14.0	9.16	9.18	4	11.2
					"			9.19	9.24		11.2
308	HD 202478	21 11.0	+16 19	-	Astra	010	14.0	9.25	10.38	1	11.2
309	218050	23 04.7	+29 08	-	"	-	13.5	10.42	11.42	2	11.2
310	2081	10 23.9	+31 05	-	"	-	14.0	11.46	1.46	7	11.2
311	16111	02 30.2	+28 58	-	"	-	14.0	1.49	2.00	1	11.2
								2.02	2.25		11.2

Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS	
W 1.18		1	3.6 B3	15	} Sept 23. 12 +11.8 -1 21.8 +5.8 +41.8 Plates for Miss F. S. Patterson	
W 1.22		1		15		
W 1.31		1		15		
W 1.36		1		15		
W 1.55	+29 43	1	7.8 K5	9.9.5	Brightest Aurora.	
E 2.35	+09 31	2	7.5 M0	15	} for Miss Patterson	
E 2.37		2		15		
W 1.15	+12 27	3	7.9 M0	4.4.4	Large (Aurora?)	} Guide Sept Astron II 6707D L. H. B. 101.
W 1.20	+29 12	3	7.8 K0	4.3.4		
W 1.07	+31 16	3	8.0 F2	4.4.4	Small large 2 ⁰⁰ - 1 ²⁰	} 6707E 7.0.10.10
	+29 05	3	7.0 B3	4.4.4	Large. The last most of the night after 2 ⁰⁰	
					Sept. 24. 12 +12.9 -1 23.7 +40.8	

Date *Tuesday Sept 24-25, 1935* M-L Julian Day 2428070.5

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Plate Folder
312	HD 191879	20 070	14 21	I-12	NEPan	.010	18.6	7 30	9 00	4
313	209189	21 587	29 44	-	E-40	-	18.5	9 03	10 03	1
314	211733	23 141	15 45	-	-	-	18.3	10 06	11 00	2
315	218425	23 029	29 31	-	-	-	18.1	11 06	12 24	3
316	7871	01 133	32 59	-	-	-	17.5	12 45	3 05	4
317	26141	04 031	17 01	-	-	-	17.5	3 10	5 08	1
		Wed.		Sept 25-26	1935	Hd-L		2428091.5		
318	4D 219110	23 083	28 54	I-12	E 40	.010	22.5	10 37	10 55	1

Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS										
0 46 W	14 27	2	7.48 A0	444	finder not, had trouble getting star on slit. misty clouds at 8:00										
0 02 E	29 52	2	6.97 B9	484											
0 39 W	15 55	2	6.71 A0	555	bright several good views, several are very beautiful several brighter at 11:30, seeing from N. bridge to get better focus x 25 A 5:30 P. 10:30										
1 15 W	29 42	3	7.23 B9	555	a dot of trouble in setting on the slit.										
1 45 W	33 10	2	8.0 A5	555	brightest apparent star in N. at 3:20 disappearing, faintest at 3:50 not so bright as before, found to 4h ended at 0:33 at 4:00										
0 59 W	17 07	0	7.60 A0	555	finder left adjusted for last star in meridian.										
					<table border="0"> <tr> <td></td> <td>$\Delta\theta$ M.T.A.</td> <td>$\Delta\theta$ S.T.A.</td> <td>$\Delta\theta$ M.T.O.</td> <td>$\Delta\theta$ merid</td> </tr> <tr> <td>Sept. 25</td> <td>12</td> <td>+13.9</td> <td>-1 25.4</td> <td>+9.9</td> </tr> </table>		$\Delta\theta$ M.T.A.	$\Delta\theta$ S.T.A.	$\Delta\theta$ M.T.O.	$\Delta\theta$ merid	Sept. 25	12	+13.9	-1 25.4	+9.9
	$\Delta\theta$ M.T.A.	$\Delta\theta$ S.T.A.	$\Delta\theta$ M.T.O.	$\Delta\theta$ merid											
Sept. 25	12	+13.9	-1 25.4	+9.9											
	29 05	2	7.34 K05	10	clouds - unclear, clouds 10:55 - closed (12:2)										
					<table border="0"> <tr> <td>Sept. 26</td> <td>13</td> <td>+14.9</td> <td>-1 27.5</td> <td>+9.9</td> </tr> </table>	Sept. 26	13	+14.9	-1 27.5	+9.9					
Sept. 26	13	+14.9	-1 27.5	+9.9											
					<table border="0"> <tr> <td>Sept. 27</td> <td>12</td> <td>+16.1</td> <td>-1 29.6</td> <td>+12.1</td> </tr> </table>	Sept. 27	12	+16.1	-1 29.6	+12.1					
Sept. 27	12	+16.1	-1 29.6	+12.1											

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Date Friday Sept 27-28 1935 M-L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Plate Holder
319	H.D. 208174	21 49.4	27 53	I-12	E-40	010	11.5	9 04	11 04	1
320	7374	1 58.15	36	-	-	-	11.5	11 08	12 07	2
321	16580	2 34.7	29 21	-	-	-	11.3	12 13	3 13	3
322	26395	4 5.4	16 22	-	-	-	11.3	3 18	4 30	1
323	35909	5 22.9	13 37	-	-	-	11.3	4 33	5 19	2
<p>Sat Sept 28-29, 1935 Hd 60 minutes showed a big clouds Sunday Sept 29-30 Y</p>										
324	H.D. 8815	61 21.8	29 16	"	E-40	010	7.5	0 14	0 50	1

g Time S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS
						60 amp fuse blew when turning dome. Replaced. Blew again - found bolt loose in dome motor. Set watch slow about 1 min.
1	20 W	28 01	0-0	6.77 A2	6,66	R.A. quick motor not working very well.
0.56	E	15 48	00	5.80 B8	6,6,6	
0	44 W	29 30	0	7.43 B9	6,6,6	This plate may have faint record impression on it. Loaded into second bin by mistake.
0	37 W	16 28	1	6.97 B8	6,6,6	
0	02 W	13 37	1	6.32 A2	6,66	got wrong plate holder in. Take 4.00 as exposure.
						Sept. 28 10 +17.2 -1 30.4 +13.2 +57.3
		29 26		75.2 F2	6-12	cleared about 11 ³⁰ intermittent clouds
						Sept. 30 13 +19.0 -1 36.0 +15.0 +03.2 ^{Watch advanced 1 min.}
						slit taken off and replaced. Zero setting now .0015 so use .011 in drawing.

Date Tuesday Oct 1-2, 1935 M-L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Plate Holder	
325	H.D. 190897	19 58.0	30 50	I-12	E 40	.010	11.5	6 56	7 38	1	
326	193279	20 14.7	14 04	—	—	—	11.0	7 42	8 50	2	
327	208941	21 54.6	31 59	—	—	—	11.3	8 54	10 54	3	
328	1243	17 41.6	13 22	—	—	—	11.3	11 09	1 46	1	
329	20086	3 8.6	15 12	—	—	—	11.5	1 49	3 09	—	
330	35522	5 26.4	15 23	—	—	—	11.5	3 12	4 16	3	
331	35173	5 17.8	15 58	—	—	—	11.2	4 19	5 19	4	
	New slit put on Oct 2. zero reading .001 (0.010 of smallest division)										
	Oct 2 Hd.										
331 F1				I-12	E 42	.005	8.2			2	
331 F2	Test for arc exposure time			I-12	"	.0105	8.2			1	
331 F1				T12	E 40	.010				2	
331 F1				I12	E 40	.010	8.0			2	
	Measured 331 F at region $\lambda 4300$; but focus 26.29										

Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS
0 00	30 55	1	6.55 B8	777	C.T. Δθ M.T.A. Δθ S.T.A. Δθ M.T.D. Δθ watch Oct. 1 12 +20.0 -1 37.7 +16.0 +06.3
0 56 W	14 08	2	7.0 A0	777	clouds in south west when opened clouds for 10 min during flight 326
1 20 W	32 09	2	7.77 B9	7-7-77	
1 52 W	13 32	2	7.58 A3	777	at way start first flying 11:56 off by that's minutes after that 11:58 left flying 323 at
0 22 W	15 20	3	7.34 A0	777	
0 43 E	15 23	2	7.02 B9	777	
0 23 W	15 58	3	6.89 B8	777	
					Oct. 2 12 +20.8 -1 39.8 +16.8 +11.2
					setting 2 9 focus 26.10 26.30 (out) described 9 9 setting 2 5 9 time 15s 18s 21s
			45.5		7.47 neutral filter out, 3/16" arc
			10 ^s -7		Two filters out
			10 ^s -7 ^s		Two filters out
					1st setting on plate holder 2 focus 26.1 2nd " " " 9 " 26.3 setting 2 9 focus 26.10 26.30
					Left focus at 26.30

Time T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS
			Two filters out	5,4	Oct. 3 ^d 12	+21.3 -1 41.0 +17.3 +14.5
II	:18 ^s , setting 9:21 ³		(one filter out)			331 F ₂ (plate holder 2) indicates lower value of focus than 331 F ₁ . Difference due to plate curvature? also notices differences in plate holders 1 and 2. Left focus at 26.28
					Oct. 4 12	+22.0 -1 44.4 +18.0 +15.8
	43 13	1	7.15	K ₀		Clouds, practically no exposure, ^{7.40}
W	17 ^m	46 25	1	7.31	H ₂ 6,6,6	clouds 8.40. opened 12.15-
W	38 ^m	31 35	1	7.36	K ₀ 6,6,6	Forgot to check slit at beginning of 332. checked it at end and found it reading 001! set to .011
W	16 ^m	15 15	1	7.38	H ₂ 6,6,6	333 broke in holder - no apparent reason - pieces loose in box.
			6.99	F ₀ 6,12		335 got practically nothing in account of clouds had trouble with chips close stopping seconds, got adjustment with two buckets, considerably chipping & make. put on camera. ^{cloud 430}

Date Saturday, Oct 26, 1935, M-L Julian Day.....

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Plate Holder
336	H.D. 218472	23 132	30 55	I-12	E-40	.010"	5.6	10 29	12 25	1
337	21859	3 124	13 29	-	-	-	5.7	12 30	2 12	2
338	22270	3 304	24 40	-	-	-	5.7	2 15	4 15	3
339	43144	5 110	18 29	-	-	-	5.7	4 21	5 25	4
Changed camera to 25"				The 12" camera before changing was						
339 F1	Plate holder setting	3		I 25	E 40	Set 011		Focus 23.2	Light 23.	
	"	7		"	"	"		" 23.4		
				Sunday Oct 6-7 Young - L. 24.20.20						
- 340	HD 176051 Hess 4815 HV 201091	18 533	+32 46	I 25	E 40	011	6.3	6 35	6 55	1
- 341	61 Cass. L. 21 HD 201092	21 024	+38 15	"	"	"		7 02	7 42	2
- 342	61 " 72 HD 230657	21 024	+35 15	"	"	"	6.5	7 47	9 27	3
- 343	2 Pagani	23 204	+22 51	"	"	"	5.5	9 38	9 50	4
344	HD 231114	23 241	+15 28	"	"	"	5.5	9 59	11 29	1

and some visitors. About Saturn pretty cloudy.

Hour Angle	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS
1 59 W	31 36	1-0	734 A2	777	Oct. 5 16 +23.1 - 1 36.4 + 19.1 +33.8
13 E	13 36	1	742 A0	777	dark morning quite like the day before
12 W	27 46	3	776 A0	777	visibility to left all night
17 E	14 36	3	680 89	777	visibility to left all night

Sunday Oct 6th

cut at 7.0t 19.6 focus 26.28

10^s - 6^s

2 screens out

correct focus 23.37

2 screens out

Heaton at 5⁵⁰

40 ^m W	+33° 21'	3	5.73	F9	2-2-2	15 006 +32 48
40 E		3	6.8	A7	2-2-2	21 037 +38 21
1 05 W	+38 23	4	74	F	2-2-2	
50 ^m E	+32 02	4	5.0	F6	6	
46 ^m W	+15 39	4	7.04	A2	2-2-	

Date Sunday Oct 6-7 Conto. Y Julian Day _____

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Plate Holder
	HD 8890									
345	1 Uranus	01 22.6	+88 46	I 25	E 40	011		11 54	11 56	2
346	H.D. 8900	01 29.7	+31 01	"	"	"	5.5	12 21	2 01	3
347	H.D. 26170	07 31.8	+31 41	"	"	"	5.5	2 08	3 20	4
348	H.D. 27483	04 18.2	+13 38	"	"	"	5.7	3 24	4 36	1
349	A 7 Aurigae	06 22.1	+30 32	"	"	"	5.5	4.42	5 08	2
350	1 gemma	05 58.0	+22 16	"	"	"	5.3	5.13	5 27	3
Monday October 7-8, 1935 H₂ 24 18										
75+	HD. 192167									
	HD 266778									
281	{ = Uranus	01 39.3	+ 9 25	I 25	E 40	011	6.8	9 37	9 47	1
								9 47	9 53	1
282	H.D. 266842	21 31.7	+58 42	"	"	"	6.8	10 07	11 47	3
283	H.D. 220102	29 12.2	+59 44	"	"	"		11 53	1 08	3

Hour Angle S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS
56	58 ^m W	88° 57	3	2.6	F9 7	P.A. circle reads 1 ^h 32 ^m
013	1 ^h 20 ^m W	30 11	4	7.3	F5 2-2-2	
20	32 ^m W	31 47	4	6.9	F0 2-2-2	
31	1 ^h 2 ^m W	13 42	3	6.5	F2 2-2-2	clouds at Req for 15 ^m
40	7 ^m E	30 32	4	5.8	F8 2-2-2	
47	10 ^m W	23 16	4	5.0	G4 2-2-2	
						Oct. 17. 12 + 25.2 - 1.49.6 + 21.2 + 35.4
<p>Under late afternoon, cloudy during, after dark, from W. Set on HD 190157. Got to late to get plate before sunrise arrived. 7³⁰ put on initial exposure + processed. Also develop, in 2 days in dark, + for the same Moon + Saturn, some large clouds.</p>						
1	2 53 W	+ 9 34	3	3.5	" 0	} Plate for Saturn Pattern Keep film on end and expose a bit of the
2	2 54 W		3		"	
3	2 55 W	+ 59 20	4.5	7.3	F2 2-2-2	clouds S of Req. some clouds on full side left upper
4	2 31 W	+ 51 51	4.5	7.1	F2 2-2-2	on the right (clouds on right side)

Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS
0 11 W	+ 28 29	4	7.3	G5 2-2-2	telescope W of meridian
0 12 W	+ 30 13	4	6.7	F5 2-2-2	telescope S. p. superior 8 th m, 20", 14.35"
0 4 W	+ 29 16	4	6.7	F5 2-2-2	
1 2 W	+ 28 51	4	6.4	B9 2-2-2	see notes at first list
0 56 W	- 01 16	3	1.8	B0 6	5 22.9 - 01 14 [H ₂] 12 th m
0 58 W			"	" 6	6 23.4 - 01 14 [H ₂] 12 th m
					finder OK at 5 30 th , seeing 2.5"
					Oct. 8 12 + 26.5 - 1 51.4 + 22.5 + 38.8
					filters not neutral but approximate absorption factor = 6
					returned focus = 23.37 but consider better
					focus = 23.4+

with p 2, 5, 7, 9: two filters in, 24^s, 30^s, 36^s, 42^s
 setting 2, focus 23.30; setting 1, focus 23.40

Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS
1.31 W	17 19	1	6.72 B9	3-3-3	left focus at 23.37 (* 7 47 Tm)
1.30 W	14 53	1-3	6.56 A0	3-3-3	
1.49 W	44 51	4-	6.63 A2	3-3-3	very very visible on this plate.
0.51 W	43 23	3	6.82 A0	3-3-3	
1.28 W	44 52	4	6.25 A0	3-3-3	
0.53 W	21 48	4	7.51 A0	3-3-3	
1.11 E	17 48	5	7.27 B9	3-3-3	
0.00	15 52	3	7.16 B7	3-3-3	
0.95 W	-	2	1.57 B0	9	
1.13 E	-	2	2.21 K0	9	
					Oct. 9 12 +27.8 -1 53.3 + 23.8 + 40.7
					Oct. 10 12 +28.7 -1 55.3 + 24.7 + 42.7
					Oct. 11 12 +24.8 -1 57.2 + 25.8 + 46.8

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Date Friday, Oct 11-12, 1935 M-L Julian Day 2435087.5

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Plate No.
369	HD 224165	23 506 75	43 48	I-25	E-40	.010 ⁽¹⁾	7.2	10 22	12 42	1
370	9976	1 32.5	44 54	—	—	—	7.2	12 54	2 46	2
Sat Oct 12-13 1935 M-L										
371	HD 986	20 02.1	14 38	I-25	E-40	.010	7.5	10 38	10 41	3
								10 42	10 42.5	?
372	HD 2453	20 22.2	31 53	"	"	"	7.9	10 51	12 39	4

ing Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS
1	52 W	46 12	0	6.82 B ₇	3-3-3	cleared off about 10. Star in circle, reading 13' too high
2	14 W	45 17	0-0	6.34 A ₀	3-3-3	heavy clouds at 2:25 from NW R.A. clamp in for adjustment. Some saw to turn the spindle clamp on. Cloud off 3:00
						Saturday a.m. R.A. clamp fixed (contact disc has been loosened, and is gradually driven around by off-lying contacts. Permanently, latter should be held from opposite direction to prevent. OK for use. J.E.H.
						clouds before visitors, 100 times of: showed
	x T ₁			2.68 B ₂	6	Saturn, 6.6 mag.
	W 20 m ^x				6	shutters wouldn't open fully.
	W 1.10 x	32 04	2	6.71 A ₂	2, 2, 2	clouds nearly half of time. Thick 12:30 cloud 3:00

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1935

Date Sunday Oct 13-14 Y-L Julian Day 2428089.5

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit Set	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	
<i>On opening of one diaphragm at 5¹⁵ found mirror completely fogged</i>										
- 373	25 Cygni	20 148	46 08	3 20	E 00	011	13.0	6.35	7.15	1
374	H.D. 198151 HD 209750	20 433	46 10	"	"	"	12.7	7.29	8.49	2
- 375	x Cygni HD 222368	22 00.6	05 48	"	"	"	12.5	8.55	9.05	3
- 376	2.5 Cygni	22 348	05 05	"	"	"		9.11	9.31	4
377	H.D. 216608	22 492	44 13	"	"	"	12.5	9.36	10.20	1
378	HE 4335	00 07	44 18	"	"	"	12.5	10.23	11.37	3
379	HE 10874	01 06	45 00	"	"	"	12.2	11.42	1.10	3
380	HE 17656 HD 34411	02 02	01 25	"	"	"	12.3	1.13	2.41	4
- 381	3.5 Cygni	05 121	41 01	"	"	"	12.3	2.46	3.14	1
382	HE 36162	05 247	13 17	"	"	"	12.5	3.20	4.15	5

Hour Angle End	Declination	Seeing	Ptg. Mag.	Filter	Exposure	REMARKS
						Secondary Obj.
9 ^m W	34° 47'	0-1-2	5.7	F5	2-2-2	Plates were developed to 15° exposure time as seeing was very bad a 5 minute dev. effort!
14 ^m W	46° 18'	1	6.3	A2	2-2-2	
17 ^m W	-00° 39'	1	3.7	F2	3-3	
56 ^m E		2	4.7	F4	2-2-2	
34 ^m W	44° 25'	2	5.62	A0	2-2-2	
5 ^m W	44 29	2	5.94	B8	2-2-2	
27 W	45 55	2-1	6.74	F5	2-2-2	
1 ^m 4 ^m W	46 35	1-2	6.75	F5	2-2-2	
50 ^m E	46 02	2	5.4	B1	2-2-2	25.11/4
	15 19	1	5.84	A2	2-2-2	Clouded 40' into 30' zone Found minor fogged on glass Think it happened between last 2 plates
<p>Oct. 14. 13 + 32.9 - 2 @ 310 + 28.9 + 0 56.0 Plate holder & breaking plates. Spring taken out to see how it works.</p>						

Hour Angle End	Declination	Seeing	Ptg. Mag.		REMARKS
1 ^h 56 ^m W	+31 40	0	6.7	A0	① Had to open down by clouds. An field ② setting slat clouds over region 6 ²⁵ -6 ³⁵ . Clouds again 6 ⁵⁵ -7 ³⁰
1 ^h 21 ^m W	+30 14	0	6.5	A5	Setting slat re-observed by Y.H. 2 ³⁰ again
2 05 W	+45 32	1	6.5	B2	check 1 ⁵⁰ -11 ⁰⁵
2 3 W	+15 00	1	4.9	B5	check 1 ²⁷ -1 ⁵⁰ on this pattern. Good check of 1 ⁴⁰ some cloud OK.
<p>Oct. 15 12 +34.0 - 2 05.0 +30.0 +1 01.0</p> <p>16 + 2.5 - + 3.5 +0 01.0</p> <p>Mean time clocks reset; sidereal watch reset, at 16^x.</p> <p>Oct. 15. Changed over to I-12 camera. Setting on I-12 was tilt 23.0 focus 23.37 On I-12 set tilt 19.6 focus 26.28 took focus test and 26.28 seemed all right. P.M.M.</p>					

Hour Angle S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	REMARKS
41	2 02 W	32 15	0-0	7.66 B9 3-3-3	fixed stars by hand. 1st setting nearly out of sight. detected by hand.
17	0 12 W	44 53	0	6.57 A0 3-3-3	
	1 08 W	47 25	0	7.03 A2 3-3-3	annual depression distance of 11.20-11-
	1 24 W	43 48	0-0	7.25 A0 3-3-3	
	1 13 W	16 03	0	7.38 A0 3-3-3	long streak of the star from the star
	5 29 W	28 19	0	5.79 B8 3-3-3	
					Oct. 16 12 -01.5 -2 06.9 -00.5 +02.1
					Oct. 17 12 -00.2 -2 08.6 +00.8 +05.6
					Oct. 18 12 +01.2 -2 09.7 +02.2 +06.9
					Oct. 19 10 +01.6 -2 12.0 +02.6 +10.0

Mount to spectrometer - Standard Solution - H. Picram

Hour Angle End	Declination	Seeing	Ptg. Mag.	REMARKS
1 29 W	46 15	1	7.9 A0 3-3-3	Optical done by hand. Put A.0 by hand.
			9-9	Compare 1 filter out outside of frame with dry filter left out. Put out at 2.55, by hand.
0 14 W	43 52	0	7.05 B7 3-3-3	In standard.
1 31 W	43 53	1	7.30 B7 3-3-3	
0 22 W	15 33	1	6.69 B7 5-5-5	
				Compare 1 filter out & back of frame. The filter left out. Put out at 2.55, by hand.
				11. 26.15
				Put from same plate taken the two weeks ago. Plate in back room. Was set at 26.15.
				Put also at very dry. Compare filter. Try all for a little comparison at dry of the spectrum.

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Date Oct 20-21, 1935 Sunday Y-L Julian Day 242001.5

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Plat No.	Hour E
397	HD 165955	19 36.6	45 43	I 12	E 40	Set 001	14.1	6 12	7 22	2	1 2
398	HD 202314	21 09.9	29 29	"	"	"	13.3	7 33	8 53	3	1 16
399	HD 215664	22 41.7	44 01	"	"	"	22.7!	8 59	9 49	4	1 14
400	HD 3291	00 30.9	44 06	"	"	"	18.4	10 50	12 20	1	1 20
401	HD 17316	02 41.7	43 13	"	"	"	18.0	12 26	2 16	2	1 10
402	HD 30736	04 45.1	45 46	"	"	"	18.3	2 19	3 01	4	
(403)	HD 47912	06 35.8	44 38)				18.0				

Heat on 5^{0s}

g Time (h)	Hour Angle End	Declination	Seeing	Ptg. Mag.	REMARKS																																			
22	1 ^m 21 ^m W		1-	7.12 G5 5-5-5	Set focus at 26.2, one diaphragm out for temp																																			
53	1 18 W	29 37	1	7.25 K ₀ 5-5-5	Aurora.																																			
22	44 ^m W	44 13	1	6.12 F ₀ 5-5-5	Heating Relay operates, stuck. tested batteries gave 1 volt																																			
20	1 ^h 25 ^m W	44 17	0 ^{terrible}	7.28 B ₈ 5-5-0	each no current. Put on 2 new? batteries																																			
14	1 10 W	43 21	0	7.33 B ₉ 5-5-5	tested 1/2 v 20 amps on short																																			
		45 50	1	7.19 F ₈ 5-5-	Put heat on again when temp had fallen to 19.0																																			
					Clouded thick at 5 ^{0s}																																			
					<table border="1"> <thead> <tr> <th></th> <th>ΔM.T.A.</th> <th>ΔS.T.A.</th> <th>ΔM.T.O.</th> <th>ΔO watch</th> </tr> </thead> <tbody> <tr> <td>Oct. 21</td> <td>12 + 5.9</td> <td>-2 16.0</td> <td>+ 4.3</td> <td>+ 8.7</td> </tr> <tr> <td>Oct. 22</td> <td>12 + 4.2</td> <td>-2 18.0</td> <td>+ 5.2</td> <td>+ 21.0</td> </tr> <tr> <td></td> <td>16</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>S. Clock stopped and reset.</td> </tr> <tr> <td>Oct. 23</td> <td>12 + 5.1</td> <td>-2.3</td> <td>+ 6.1</td> <td>+ 25.7</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>Wt added 0.7 gm</td> </tr> </tbody> </table>		ΔM.T.A.	ΔS.T.A.	ΔM.T.O.	ΔO watch	Oct. 21	12 + 5.9	-2 16.0	+ 4.3	+ 8.7	Oct. 22	12 + 4.2	-2 18.0	+ 5.2	+ 21.0		16								S. Clock stopped and reset.	Oct. 23	12 + 5.1	-2.3	+ 6.1	+ 25.7					Wt added 0.7 gm
	ΔM.T.A.	ΔS.T.A.	ΔM.T.O.	ΔO watch																																				
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				S. Clock stopped and reset.																																				
Oct. 23	12 + 5.1	-2.3	+ 6.1	+ 25.7																																				
				Wt added 0.7 gm																																				

Hour Angle End	Declination	Seeing	Ptg. Mag.	Filters	Remarks
W 1 ^h 11	46 51	0	7.85	F ₀ 5,5,5	cloudy all day, clearing at sunset
42 ^m E	16 27	0	2.24	K ₅ 15	Found cross-wire broken in finder - fixed
W 23 ^m	13 28	0	7.07	F ₂ 5,5,5	during 404. Clouds 9.15 closed 11.30.
#		0	1.51	B ₀ 15	Opened 12.30 and set on HD 22317. Clouds unmed.
				15	Brilliant aurora. (407 burned out)
W 26 ^m	46 31	0	6.73	B ₈ 5,5,5	
W 21 ^m	15 15	0	6.47	A ₀ 5,10	clouds much of time; Thick 5.45.

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Date *Thursday, October 24-25, 1935* ^{H.L.} Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour E
410	Vega L. Lyrae	18 33.6	+ 38 41	I-12	E 40	010	Sat 4.5	6 03	6 03	1
	"	"	"	"	"	"		6 05	6 05	2
411	"	"	"	"	"	"	4.3	6 09	6 09	2
	"	"	"	"	"	"		6 11	6 12	2
412	HD 137160	19 42.4	+ 44 25	"	"	"	4.3	6 20	8 00	4
413	HD 204599	21 24.6	+ 59 19	"	"	"	4.3	8 07	10 07	3
414	221237	23 58.2	+ 58 01	"	"	"	4.0	10 09	11 29	1
415	21242	23 22.5	+ 28 ²³ 77	"	"	"	4.2	11 41	1 41	4
416	22125	02 38.4	+ 31 21	"	"	"	4.1	1 45	3 35	3
417	35239	05 18.2	+ 31 03	"	"	"	4.3	3 40	4 40	1

g Time S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	REMARKS
					cloudy most of day; clearing. opened lens by hand
1	22 W	(+ 38 43)	1	0.1 A0	none! Gp. 20 ^s } from Miss S.F. Patterson.
1	24 W		1		Gp. 10 ^s
1	28 W		1	15	10 ^s
1	31 W		1	15	20 ^s
	((1 ²⁷ W))	+ 44 09	1	7.6 G0	5-5-5
2	34 W	+ 59 28	1	7.8 Ma	5-5-5 Telescope E of pier Very faint on pier. 30" Nov 2 of 1905
1	55 W	+ 58 13	0-2	7.1 F0	5-5-5 Telescope E. Stage.
0	11 W	+ 28 29	1-2	7.3 G5	5-5-5 Telescope W. Thick haze. 11 ⁴⁵ - 12 ⁰⁵
1	17 W	+ 31 23	1-2	7.1 F0	5-5-5 Stage - solid time during afternoon.
		+ 31 23	2-3	5.9 B7	5-5 Thick haze. 3 ⁵⁰ - 4 ²⁰ again 4 ³⁵ cloud out.
					Stage was made with parts of obj from 11 ⁴⁵ - 12 ⁰⁵
					Work with RA clock not unhelpful. Trial given
					by orienting & tightening contact disc.
					Oct. 25. 12 +06.0 +02.3 +07.0 +39.1

L44

g Time S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	col. 5	col. 6	col. 7	REMARKS
0	41W	13 40	1	7.37	B8	5-5-5		opened by hand. High wind in eye. Fairly fairly hazy with a few light clouds. double - set on bright and finding component.
0	07W	43 02	2	7.64	A0	5-5-5		
0	05E	43 23	2	7.40	A0	5-5-5		
0	39W	44 21	2	7.40	B9	5-5-5		
0	10E	31 45	2	7.7	A0	5-5-5		
0	09W	29 58	2	7.06	A0	5-5-5		
0	12W	44 55	3	6.24	A5	5-5-5		
0	00	15 13	3	6.07	A0	5-5-5		
0	37E	14 25	2	5.96	A2	5-5-5		
								Oct. 26 10 +06.2 +04.3 +07.2 +4.3

Hour Angle End	Declination	Seeing	Ptg. Mag.	1 drop out	REMARKS
29 ^m W	16 12	5	7.02	F0	5-5-5 ⁻ Did not expect it to clear - got late start. Clear about 6:00
12 ^m E	44 14	6-4	7.51	K0	5-5-5 Temp in dome rising. 62° F on Thermograph at 5 ²⁰
56 ^m W	28 48	4	7.56	A2	5-5-5 Temp reset at 13.2 at 0 ⁵⁵
			7.62	B5	New batteries in Spect relay. clouds.
57 ^m W	43 18	1	7.03	A0	5-5-5
6 ^m E	29 00	1-4	6.77	A5	5-5-5 variable sun
	31 45		7.53	K5	5-5- Put heater on mirror cell. 2 ⁴⁵
					Oct. 28 12 +7.1 + 9.8 + 8.1 + 53.8
					-06.2 Watch advanced 1 ^m Regulator advanced to 5

ing Time
S.T.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Distance	Count	REMARKS
2 00 W	31 07	2-3	7.3	F0	5-5-5	clouds all day. Hazy over region at start Star lost 8 ^h 8 ^m 50 ^s . Hazy throughout to 9 ^h 15 ^m 10 ^s
			7.6	G5	5-5-	solid for 10 ^m 20 ^s closed up 11 ^m 10 ^s
						Monday night - Put on tent in cold around mirror
						Tuesday morning - Put on tent in tent above mirror (mirror not in horizontal position, due to work being done on shelter)
						Oct. 29 12 +7.6 +12.5 + 8.6 -7.0
						30 12 +7.9 +13.0 + 8.9 +1.0

M.T. not changed
from 0.7 to 1.0.
Added 2.0 to S.T.
Clock

Hour Angle End	Declination	Seeing	Ptg. Mag.	Ref. S	Remarks
2 00 W	+ 38 43	0	0.14 A0	15 ^s	Clouds and fog most of the day. clearing in afternoon. E. Wind fog - some haze, but not of dense variety.
				15 ^s	<u>N.B.</u> Start out in photograph. Unable to find
2 05 W				15	trail. started with it. later start. <u>OK</u> from fog
				15	
2 24 W	+ 15 25	1	7.04 F5	5-5-4	From edge of field. Start plate. In 6517D
			7.52 K0	4-5-2	Start in edge 7 ⁰⁵ .
					Cloud ab. completely clear, and larger of fogging.
					Nov. 1 12 + 8.1 + 13.5 + 9.1 + 6.5

ng Time S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	REMARKS
7.23	25 ^m E	46 47	0	7.00 B ₉ 5,5,5	clearing from 9.00
5-	8 ^m W	"	0 → 1	" " 2,3,2	clouds 11.20 - 12.00
4-	6 ^m W	30 55	1	7.43 F ₅ 2,3,2	much cloud and haze. Thick 1/10
3-	5 ^m W	31 11	1	7.37 K ₀ 2,3,2	Is 443 night star?
57-	2 ^m W	16 06	1	7.13 G ₅ 2,3,2	
3-	16 ^m W	15 28	1	7.49 G ₅ 2,3,2	developed 442 and 443 but found it
5-	16 ^m W	31 45	1	7.58 B ₉ 2,3,2	hard to judge subsequent exposures because of
7-	2 ^m W	27 30	1	7.50 G ₅ 2,3,2	varying transparency.
					But R.A. clamp is again "inverted" as is clamped
					when reading $\frac{13}{10}$ on watch. Fixed Y.H.
		Holder reading 4		Tilt unchanged 19.6	
		9			
		4	3	Exp 3 ^s 5 ^s two	Set focus back to 26.2 put 7 plates in
		9		plates out	
		4	4		
		9			

Nov. 2. 13 $\Delta OMT.A.$ + 8.2 $\Delta OSTA.$ + 13.7 $\Delta O.S.T.O$ + 9.2 $\Delta O\text{-watch}$ + 10.9

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Date Saturday Nov 2-3 1935 M- Julian Day 2428109.5

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Plate Holder	Hour En
449	HD 200289	20 57.5	29 14	T-12	Astya	0.010	8.0	5 59	7 29	2	0 9
449	16385	2 32.6	45 46	—	—	—	8.0	10 44	11 54	3	0 1
450	24560	3 49.3	44 38	—	—	—	8.0	11 58	1 08	4	0 1
451	27761	4 17.8	16 23	—	—	—	7.5	1 19	2 11	1	0 20
452	44738	6 18.3	14 10	—	—	—	8.0	3 32	4 18	3	0 2

Sunday

J.D. 2428110.5

Clouded up in morning wind from East - dense cloud at 8 PM some rain.

Mag Time S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag. Sp.	Comp.	REMARKS										
29	0 58W	29 22	2 - 0	7.8	B8 5-2-5	picked wrong holder - empty!!!! large group visitors - showed M 52. (about 300)										
54	0 12E	45 55	2	7.8	A0 3-3-3											
54	0 15E	44 44	2	7.6	B3 3-3-3	clouds came off from west at 12.30 then at 12.40 clouds hit mountain.										
11	0 20W	16 28	2	7.8	A0 3-3	had to wait for clouds before could get call end 1.49 - clouded thick clouded thick -										
19	0 27W	14 08	2	7.3	A0p 3-3-3	thick again -										
put heat on telescope 9 P.M.																
<table border="0"> <tr> <td>C.T.</td> <td>40 M.T.A.</td> <td>40 S.T.A.</td> <td>40 M.T.D.</td> <td>40 watch</td> </tr> <tr> <td>Nov. 4</td> <td>12</td> <td>+8.5</td> <td>+14.4</td> <td>+9.5 +19.6</td> </tr> </table>							C.T.	40 M.T.A.	40 S.T.A.	40 M.T.D.	40 watch	Nov. 4	12	+8.5	+14.4	+9.5 +19.6
C.T.	40 M.T.A.	40 S.T.A.	40 M.T.D.	40 watch												
Nov. 4	12	+8.5	+14.4	+9.5 +19.6												
<p>set focus at 26.24 - P.M. (given by the young girl)</p>																

Hour Angle End	Declination	Seeing	Ptg. Mag. Sp.	Comp.	REMARKS
-------------------	-------------	--------	---------------	-------	---------

9p 3^s, 5^s, 2 filters out

Focus 26.25 Tilt 20.0 Coll. 11.5
 outside comp thru base of prism.
 Center displaced to right.

Nov 5 12 + 8.1 + 15.3 + 9.1 + 17.8

Nov 6 12 + 8.0 + 14.4 + 9.0 + 13.2

20.0 Coll 16.5 outside comp thru base 3.5^s

Plate holder 1. setting 2

" 2 " 4 1/2

" 3 " 7

" 4 " 9 1/2

Same plate put in all holders

Time	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS
1	16 ^m W	16 22	1	7.7	A	3,2,3	
2	6 ^m W	17 56	1-2	6.9	F0	5-5-5	Bobs on clock rattling. Stopped & cleaned brakes.
3	14 ^m E	16 03	6	7.62	G _s	3,2,3	clouds 9.20 - at 1.30 one of the differential gears (east one) connected with control clock jammed. monkey gear seized? Tried to take out monkey gear but hesitated to use too much force. Clouds 3.00 no cloud 3.30, Screws from monkey gear are in centre drawer of desk. Clock bobs chattered once after cleaning brakes. Do not start clock in present condition
Focus	23.1						correct focus about
"	23.6			23.5			tilt OK
"	23.4					23.0	
							Nov. 7. 12 +8.0 +14.6 +9.0 +12.8

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H

Date Thursday, November 7-8, 1935 Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Plate Holder	Hour En
- 456	HD 217906 β Pegasi	22 58.9	+27 32	I 25	a.t. II	Set 011	7.0	10 05	10 20	3	
- 457	"	"	"	"	"	"	7.0	10 21	10 28	2	
- 458	"	"	"	"	E 33	Set 008	7.3	10 30	11 00	1	
459	HD 6120	04 57.4	-66 32	"	a.t. V	011	7.3	11 10	11 50	3	
460	20536	03 13.1	+61 38	"	"	"	7.2	11 55	12 45	2	
461	19536	03 13.5	-61 15	"	"	"	7.3	12 47	02 07	1	
462	31662	04 52.6	+60 56	"	"	"	7.2	02 09	02 39	3	
463	32356	04 57.5	+61 02	"	"	"	7.3	02 42		2	
<p>Monday afternoon "smoking" was removed and fixed by removal of girt particles in being. Reflected OK.</p> <p>Y. rechecked the brake drums of clock, and set in a second spring between gears etc.</p>											

Hour	Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS
2	07 W	+ 27 43	1	3.96	Ma	3-3	Dark all afternoon and early evening. Very thick haze this afternoon.
(2)	15 W	"	1	"	"	6	Clear.
2	45 W		1	"	"	7-7-7	Clouds intermittently.
1	35 W	+ 60 45	3-3-0	5.22	F0	2-2-2	Very improving rapidly - then blue up. Clouds 11 ²⁵
0	17 W	+ 61 48	2	6.60	B5	2-2-2	Haze + clouds.
1	50 W	+ 60 25	3-4	7.26	F0	2-2-2	Haze
0	32 W	+ 61 22	3-2	6.54	F5	2-2-2	Haze
		+ 61 27		7.27	H0	2-2	Cloud, star gone 2 ⁵⁰ - cloud up 3 ³⁰
							① Subscope E of pier for plate 459-
							② Same sub. slatted fast scope times down started using for this on (dist. from 0?) was perfectly.

165

Date

Jan. 20, 1935

Y

Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Plate Holder
467	Sky			I 25	astral	at 0.006		11 10 30	2	
468 F ₂							50			3
469 F ₃										4

Jan. 20, 1935

M

1610

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS
					6	C.T. Δθ M.T.A. Δθ S.T.A. Δθ M.T.D. Δθ watch Apr 8 12 +8.0 +14.4 +9.0 +11.4
					
						changed to I-12 series set filter 19.6 before test
19.5	3	26.20	12
"	"	4	26.30	"	10
19.6	"	4	26.30	"	12	10
"	"	8	26.30	"	12	6
						best focus a clarity at 26.23 but 26.24 set focus at 26.23

Time
T.

Hour Angle
End
Declination
Seeing
Ptg. Mag. Sp. Comp.

REMARKS

18

0 17W 44 38 2 7.8 B93-3

a lot of light closed around when first appeared.
cleared off about 6:00 clouds began at 6:20
thick at 7:00 else 6:54 as end of exp.
remained thick -
closed up 11:00

y Time
T.Hour Angle
End

Declination

Seeing

Ptg. Mag. Sp.

Comp.

REMARKS

220 visitors. Set on moon through
light clouds 8.00. Clouds thickened
steadily. Visitors viewed illumination
through clouds.
+1200 focused up 3 mins.

wind in East side

Nov. 11	12	+8.7	+15.1	+9.7	+01.3
Nov. 12	12	+8.8	+15.6	+9.8	-00.4
Nov. 13	13	+8.9	+15.5	+9.9	-06.0
Nov. 14	12	+9.0	+15.7	+10.0	-08.7
Nov. 15	12	+9.1	+15.7	+10.1	-08.5
Nov. 16	10	+9.2	+15.7	+10.2	-10.3

17 13

Date ~~Nov 11~~ ^{Nov 17} Sunday Y. L. 1935 Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Plate Holder
466	HD 202109 S Cygne	21 087	+29 49	T 25	F 40	Set 117	0.05	6 26	6 46	1
467	HD 219291	23 096	29 13	"	Astra II	"	0.2	7 01	8 25	2
467 F ₁	Focus check	Camera	Setting 23.5	Plate	holder 3	001	0.2			3
468	HD 16187	02 30.8	31 10	"	Astra II	"	0.3	10 29	11 39	1
468	B 1022 HD 27819	04 184	+17 13	"	E 40	"	0.0	11 46	12 06	2
469	HD 29139 α Tauri	04 30.2	+16 18	"	"	007	0.0	12 16	12 18	3
470	α Tauri	"	"	"	E 33	"	0.0	12 28	12 33	1
471	HD 31069	04 43.0	43 54	"	Astra II	011	0.1	12 47	1 31	2
472	HD 36468	05 26.0	43 52	"	"	"	0.2	1 38	3 09	3
473	HD 43914	06 33.0	44 38	"	"	"	0.0	3 12	3 52	1
474	HD 49788	08 13.5	16 26	"	"	"	0.2	4 01	5 21	2
475	HD 68471	08 04	16 29	"	"	"	0.2	5 30	6 30	1

Hour Angle End	Declination	Seeing	Ptg. Mag. Sp.	Comp.	REMARKS
1 ^h 02 ^m W	29 57	0	4.40 K	3-3-3	While sky was thick 8-10, clean brushes
42 ^m W	29 24	0	6.84 F5	3-2-	Thick on clock motor, cleaned wipers on polar axis
				10-15	adjusted R.A. Mercury relay, developed plates
35 ^m W	31 19	2	7.16 K ₀	2-2-2	
45 ^m E	17 19	2	4.84 A5	3-3-3	9.0. Nov. 18
	16 24	2	2.40 K8	12 ^S	
	16 24	2	" "	24 ^S	
9 ^m W	43 55	1	6.0 B9	2-2-2	
1 ^h 07 ^m W	43 53	1	7.16 B9	2-2-2	
42 ^m W	44 34	1-2	6.35 K5	2-2-2	
34 ^m W	16 19	2	6.79 A ₀	2-2-2	
1 ^h 11 ^m W	16 42	2	5.40 G5	2-2-2	
					Nov. 18 12 +9.9 +16.2 +10.9 -21.8
					Nov. 19 12 +10.2 +16.8 +11.2 -26.5 R
					Nov. 20 12 +9.8 +16.2 +10.8 -25.6

ing Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag. Sp.	Comp.	REMARKS
0.00	7 ^m W	46 47	var. 0-2	7.00	B ₉ 2,2,2	
35	34 ^m W	29 12	1	7.34	F ₅ 2-2-2	
29	4 ^m E	15 13	1	6.77	F ₅ 2,2	
0	30 ^m E	31 10	1	7.37	K ₀ 2,2	Power off 1.10 - 2.00 no warning
77	0	15 15	2	6.47	A ₀ 2,2	increasing fog; clouds thick at 3.30 power switch blown in RA setting
						Nov. 21 12 +9.9 +16.3 +10.9 -23.0

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H-L

Date Monday Nov 21-22, 1935 Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour End
471	HD. 6210	00 58.1	+61 04	I-25	Antar II	(210) 010	2 +25	10 36	10 50	1
472	21536	03 13.1	+61 38	"	"	"	+2.6	11 56	12 40	2
473	33418	05 06.4	+59 14	"	"	"	+2.3	1 51	2 11	3
474	47270	26 32.7	+44 06	"	"	"	+2.2	2 16	3 36	1
475	50708	42 57.2	+39 07	"	"	"	+0.5	3 45	5 15	2
476	76311	08 45.7	+58 31	"	"	"	+1.5	5 10	6 05	3
477	77692	08 59.0	+58 45	"	"	"	+2.5	6 17	7 37	1
		Tue Nov 22, 1935		Y						
- 488	sky			I-25	Antar II	006		2 00 PM		3
- 489				"	Process	"		2 04 PM		1

Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS
		0	6.4 FS up 2.4		clouds all day. Rain. short clear intervals with clearing in early evening. High S-W + W winds clearing to about 10 ⁵ closed up 11 ⁰⁰ . Solid clouds, fear of rain.
1 14 W	+61 48	1	6.6 BS	2-2-2	Clearing with W to NW wind.
0 45 W	+53 21	1	7.4 K0	2-2-2	
0 44 N	+44 06	1	7.5 K0	2-2-2	} Temp dropped to :0° during 11:44 } center went = -0.5
1 44 W	+59 50	2	7.5 K0	2-2-2	
1 06 W	+58 30	1-2	7.0 BS	2-2-2	935 08 ^h 58 ^m 4 ✓
1 31 W	+51 38	"	6.2 A0	2-2-2	

Nov. 22. 12 + 11.0 + 17.4 + 12.0 + 18.0

6^s Exp. 10^s to sky + 20^s with uv filter.
 10^s Exp 2^m + 2^m uv filter

ing Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	REMARKS
1	2 22 ^W	29 22	0-0	80 A0	3-2-3 cloudy to light overcast from 6:00 / back at 6:20. Day at sunset at 7:00
57	0 55 ^E	44 29	0	745 B5	2-2 some mist at sunset. Clouds from 9:00 clear from 9:15. Clouds at 9:15
71	1 21 ^W	43 55	1	755 B7	2-2-2 cleared up again 10:15
57	0 57 ^W	13 30	0	7.5 B9	2-2-2
57	0 55 ^W	29 44	0	650 B9	2-2-2 some cloud.
2-1	27 ^W	15 25	0	697 B8	2-2-2
57	2 06 ^W	16 16	0	713 B8	2-2-2

Nov. 23 10 + 11.1 + 17.4 + 12.1 - 10.4

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Date Sat Nov 23-24, 1935 Hd

Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	
497	HD 212075	22 16.6	13 ^o 52	I-25	Datum	010	-4.0	5.40	6.55	1
498	221115	23 24.1	12 13	"	"	"	-4.0	6.59	7.18	2
499	HD 22418	03 31.3	30 48	"	"	"	-4.0	10.37	12.19	3
500 !	355533	05 20.3	15 35	"	"	"	-4.0	12.23	2.04	4
501	50315	02 42.6	43 04	"	"	"	-4.0	2.13	4.10	1
502	82010	09 24.2	31 45	"	"	"	-4.2	4.15	6.02	2
503	97938	11 ^{10.5} 4.0	13 ⁰³ 23	"	"	"	-4.0	6.07	6.48	3

Sunday Nov 24

503 Fi 7.00-7.15 I 25 E 45 011 -0.5 4.10 7.00

Mag Time S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Filter	Remarks
55	W 27 ^m	14 02	var 1-3	7.02	A ₃ 2,2,2	Drift of image very irregular, clock OK
8	E 17 ^m	12 23	3	5.67	K ₀ 2,2,2	300 visitors, showed T. sub. (2.31 ~ 3.00)
10	W 37 ^m	30 54	3	7.43	F ₅ 2,2,2	
04	E 32 ^m	15 36	4	7.48	A ₀ 2,2,2	Developed 497-500; 499 a dud for unknown reason
03	W 1 ^h 12	43 00	5	7.35	A ₃ 2,2,2	clouds for 30 min during 501
02	W 29 ^m	31 36	4	7.55	B ₈ 2,2,2	
01	E 32 ^m	12 57	5	5.73	A ₀ 2,2,2	
3 5-						10-15' change from 23.7

Date Sunday Nov 24 - 25735 Y - L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Flt	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour End
- 504	HD 197345 Cygnus	20 38 0	44 55	I 25	E 33	Set 106	+1.0	5 30	5 31	1
"	"			"	"	"	"	5 32	5 34	
- 505	"			"	I Pan M	"	"	5 41	30 ^S	2
"	"			"	" M	"	"	5 43	1 ^m	
506	HD 209813	22 01 0	46 45	"	" M	011	+1.0	5 57	7 37	3
507	" 224720	23 55.1	46 23	"	Astia II	"	+0.8	7 50	9 10	4
507 F1	Focus test			"	E 40	011				2
508	HD 9709	01 30 0	+46 36	"	Astia II	"	+0.4	9 19	10 59	3
509	HD 23532	23 42 1	+44 40	"	I Pan M	"	"	"	"	"

Cloudy all week cleared around 10 PM

Spent some 10³⁰ leaving camera on timer - Fine snow kept drifting
 make out whether snow was coming from air or blowing off dome. Think
 as sky kept thickening over with occasional snow flurries

Mag Time S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.		REMARKS
31		45 02	2	1.4	A ₂	8 ^S 3 deep out changed focus to 23.7
34		"	"	"	"	
5		"	"	4		2 ^S "
6		"	"	"		2
37	1 29 W	46 55	3	7.52	K0	2-2-2 2 deep out
40	1 08 W	46 35	4	7.31	A ₂	2-2-2
2	Focus 23.7					10-15 developed
42	22 ^m W	46 47	4	7.00	B ₉	2-2-2 sky thick too thick to see star at end Found light frosting over mirror put heat on - and blanket - mirror open
<p>Sunday or partially in. Wind high. could not the former. Decided not to work</p>						
						Nov. 25 12 +12.8 + 20.1 +13.8 +07.1
						Nov. 26 12 +13.0 + 19.3 +14.0 +08.2
						Nov. 27 12 +13.1 + 19.4 +14.1 +11.1
						Nov. 28 12 +13.3 + 20.0 +14.3 +11.4
						Nov. 29 12 +13.2 + 20.1 +14.2 +11.2
						Nov. 30 10 +13.7 + 21.0 +14.7 +22.0

Hour Angle End	Declination	Seeing	Ptg. Mag.	REMARKS
From 23.6	<u>JK</u>		25 ³ -18 ³	Dec. 2 12 + 14.1 + 21.9 + 15.1 + 28.9
1 43 W	+ 46 34	0	7.04 F5 2-2-2	No condensation in immersion image at start ^{Hay}
1.31 W	31 25	0	6.74 F0 2-2-2	Scattered clouds at 7.42 Thick at 8.00 Plan developed
				① P.L. guiding motion + ② RA setting motion dead. ① fixed by (scoring) tightening contacts at magnets ③ lug on clutch had become as welded probably due to very heavy driving. Kerosene applied to free apparently tightening spring around. Provisionally new lug made by he and secured directly, without slip ring, to inside of brass gear. Works but chatter.
				Dec. 2 12 + 14.7 + 23.0 + 15.7 + 31.2

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Date Tuesday Dec 3-4, 1935 M-L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.
511	H.D. 16545	2 341	43 40	I-25	Astra	.011	-3.7	9 37	11 09 3
512	28150	4 222	17 58	-	-	-	-4.3	11 33	12 49 4
513	45757	6 242	17 59	-	Met. Am	-	-4.5	12 59	2 51 1

Monday Y, H, Hd

- ① shutter in block have been placed in parallel instead of series
- ② about a foot of kerosene was put in gap top of shutter mechanism
- ③ 2 or 3 better cells tissues of shutter were subjected
- ④ the sharp part of a kerosene cell. P.S. Saturday it was completely broken.

g Time S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	REMARKS
11	1 04 W	43 48	0-0	7.25 Aop 2-2-2	cloudy early - cleared later with very high " wind from NE some diff. out of focus here in view on obj. considerable snow here near moon at 10:30, also beginnings of moon - obj. 2
11	0 52 W	18 03	0-0	6.74 A0 2-2-2	Dec. clamp stuck, very cold. Had to help clamp me to, along by hand.
11	0 52 W	17 57	0-0	7.33 A0 2-2-2	Dec clamp got worse. - spent 30 min trying to get telescope unclamped after photo 513. Gull find no more stars at this dec. Closed done by hand at 3:45. Temp in house + 5°F Put heat on mirror.
					Dec. 4 12 + 15.0 + 23.0 + 16.0 + 37.4
					Dec. 5 12 + 15.9 + 24.0 + 16.9 + 40.0

Could not see stars by hand.

187

H-L

Date Thursday, December 5-6, 1935 Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour	Min	Sec
514	HD 34762	5 14.7	+27 51	I-25	Astra II	011	^{Set} :-5.5	0 25	1 45	1		
515	38091	5 38.1	+56 05	"	"	"	:-6.0	1 53	3 05	3	20	
516	60885	7 28.9	+42 15	"	"	"	-6.0	3 12	4 12	4		
517	76523	8 42.4	+45 41	"	"	"	-6.2	4 6	5 36	1		
518	13023	10 39.5	+46 25	"	"	"	-6.0	5 37	6 52	3		

g Time S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.		REMARKS
						cloudy all day + evening. clearing at midnight.
						afternoon + evening overhauled dec. clamp. Small was with projecting screws on secant. Replaced. Cleaned out (SEE 20)
5	1 07 W	+ 27 53	0	6.28 B9	2-2-2	reduction gearing + lubricated with a little machine oil ↳ Grease for 1st gear
0	2 03 W	+ 56 06	0	6.12 A2	2-2-2	Telescope End of Pier
1	2 20 W	+ 43 10	0	6.58 F0	2-2-2	" " "
1	2 33 W	+ 45 35	0	7.08 K0	2-2-2	" " " <i>spiral diff. stop</i>
0	5 53 d	+ 45 54	0-1	6.82 B9	2-2-2	" " " <i>temperature +9°F</i>

Dec. 6 12 +16.0 +24.1 +17.0 +40.6

189

M-L

Date

Friday Dec 6-7, 1935

Julian Day

-70° when
start

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour	Ex
519	HD. 2358	0 223	15 29	T-25	Astron	.011	-5.6 -2.3	7 11	8 01	2	
520	7157	1 068	61 10	-	-	-	-2.3	8 07	7 59	3	13
521	20134	3 09.1	59 41	-	-	-	-2.8	9 09	11 09	4	13
522	33296	5 042	62 39	-	-	-	-2.8	11 14	12 38	1	13

Saturday Dec 14

M

56 visitors, demonstrated telescope
and some Sky Hook.

Hour Angle End	Declination	Seeing	Ptg. Mag.
	15 38	2	6.71 A5 2-2-2
0 32 W	61 21	2	6.27 B9 2-2-2
0 41 W	59 47	2	7.34 B3 2-2-2
0 13 W	62 36	2	6.44 A2 2-2-2

REMARKS
Cloudy all afternoon. Began to clear at 6:00. Heavy than, breeze, smooth and stationary. Small clouds partly by hand. Some very heavy. set on upper left of two stars as seen in 74 and with telescope W. Took away of disk from NE at 12:15. Sky thick - closed dome 12:50. left all but on telescope.

Dec. 7	10	+16.8	+25.3	+17.8	+48.5
Dec. 9	12	+17.0	+26.1	+18.0	-24.9 <i>Watch stopped</i>
Dec. 10	12	+17.0	+26.7	+18.0	-25.1
Dec. 11	12	+16.9	+26.9	+17.9	-27.1
Dec. 12	12	+17.8	+28.3	+18.8	-24.5
Dec. 13	12	+17.9	+31.2	+18.9	-19.8
Dec. 14	10	+18.0	+29.2	+19.0	-19.1
Dec. 16	12	+18.2	+30.2	+19.2	-3.2 <i>Watch stopped</i>
Dec. 17	12	+18.3	+30.5	+19.3	-2.5

Showered Saturn with visitors approx
at 4.30. Very poor could hardly
discern planet.

Hour Angle End	Declination	Seeing	Ptg. Mag.
2 ^m W	44 52		6.5 A ₀ 2.2

Hazy at 6.10. thickened up. star faded
at 6.55

Closed up 7.30

Dec. 18	13	+18.7	+29.1	+19.7	-
Dec. 19	12	+18.8	+31.0	+19.8	-
Dec. 20	12	+18.9	+31.2	+19.9	+4.4
Dec. 21	10	+18.9	+31.4	+19.9	

0.2 added to MTA.

Clouds early, no visitors.
Clearing 11.30-12, opened
12.30. Clouds 12.45, closed 1.15
Glitch in Dec quick motion seems
to stick, ie telescope not
movable in Dec by hand.
Shutter fair - opened partly by
hand

194

Hour Angle
End

Declination

Seeing

Ptg. Mag.

Comp

REMARKS

5-7

 $\Delta\theta$

C. Time

M. T. A

S. T. A

M. T. D

watch

Dec. 23

12

+ 19.0

+ 31.0

+ 30.0

+ 12.4

Rate of M. T. A very small.

Mean watch rate +1.0 per day but jumps
considerably especially if used at night

195

1935

Date Tuesday December 23-24 H-4 Julian Day

Plate No.	Object	R.A. 1900	Declination 1000	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour End
524	H.D. 10086	01 33.5	+45 23	I-25	<i>af. Astra</i>	010	^{set} :-10.5	7 43	9 58	3
525	23838	03 43.1	+44 40	"	"	"	-10.7	10 03	10 53	4
526	34762	05 14.7	+27 51	"	"	"	-10.8	10 58	11 58	1
527	44033	05 14.4	+14 41	"	"	"	-11.0	12 03	1 25	2
528	62600	07 40.8	+45 12	"	"	"	-10.8	1 35	2 32	3
529	75523	08 43.4	+45 41	"	"	"	-10.8	2 42	4 04	4
530	90246	11 24.8	+24 32	"	"	"	-11.0	4 11	5 41	1
531	90252	11 22.2	+45 17	"	"	"		5 42	6 56	2
532	102970	11 45.5	+22 20	"	"	"				

196

ng Time S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.			REMARKS
		+45 34	0	7.44 G5	2-2-2		clouds all day; thinning out after darks. Haze. Very thin - not. <i>thin or poor?</i>
0	57 W	+44 46	1-1	6.35 G0	2-2-2		Seeing variable, improving.
0	30 W	+27 52	1-2	6.28 B9	2-2-2		Seeing for <i>total</i>
0	55 W	+14 41	1-2	7.20 K5	2-2-2		
0	35 W	+41 34	3	6.61 A3	2-2-2		Haze in region $15^{\circ} 25'$
1	07 W	+46 33	2	7.08 F0	2-2-2		Haze
0	05 W	+30 17	2-0-2	7.06 F0	2-2-2		Some light rain, some drizzle at end.
1	13 W	+45 02	2	4.56 B1	2-2-		Check haze $6^{\circ} 20'$ (check <i>total</i>) of Virginia

Dec 24

Inspected mirror. Looks pretty fair much better than I feared.

There is some trouble with RA. guiding motor not staying in gear. suspect it is cold only did not do anything with it.

W. Kay.

197

Date Tuesday, Dec 24-25 1915 M-L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour End
532	ND 2358	0 22 3 15	29	I-25	Agfa	0.11	-12.10	5.47	7.07	3
- 533	5394 (8 bars)	0 50 7 60	11	-	-	-	-11.95	7.13	7.14 $\frac{3}{4}$	4
- 534	-	-	-	-	-	-	-	7.15	7.18	7
535	16604	2 34 6 47	08	-	-	-	-11.95	7.26	10.25	2
536	35189	5 17 9 16	36	-	-	-	-12.32	10.44	11.24	3
537	44637	6 17 7 15	09	-	-	-	-12.64	11.35	2.35	4

December 25-26

cloudy.

December 26

Fixed ~~the~~ R.A. setting motion by tightening down the whole base plate of small gears ^(which were very loose). Further eased situation by the omnipresent kerosene. Working O.K. for now at least in gear. F.S.H.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Filter	Exposure	REMARKS
0 36W	15 38	1	6.71	A5	2-2-2	R a setting wouldn't work set by hand.
0 14W	60 17	1	2.25	Pop	3-3	
0 18W	—	1	—	—	3-3	
1 44W	47 16	1	7.7	A0	2-2-2	
0 2 E	16 38	0	6.15	A2	2-2-2	light pollution of dome strong enough seeing blew up out of beam 2:00 to 2:15 clouds and haze coming up rapidly at 2:30
2 10W	15 07	1-0	7.6	B5	2-2-	Closed up at 3:00 put heat on over me and blanket on

200

ng Time S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Combs	REMARKS
					5-7	
35	1.04W	46 47	0	7.00	1592,2.	Patched bags. stuck at 8:30 started to snow at 8:35. closed 12:00

201

Date Fri Dec 27-28 Hd L
1935 Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour
539	HD 1439	00 134	30 58	I-25	Astra	011	-11.5	5.37	6.25	1
540	" 9709	01 30.0	46 26	"	"	"	-11.5	6.31	8.31	2
541	" 22136	03 28.9	46 46	"	"	"	-11.5	8.41	9.42	3
542	" 30796	04 45.6	40 59	"	"	"	-11.3	9.52	11.52	4
543	" 50315	06 47.6	43 04	"	"	"	-11.5	12.07	2.35	1
544	79554									2
544	41737									
544	89993	10 18.1	30 07	"	"	"	-11.4	3.25	5.43	2
545	113897	13 01.4	45 48	"	"	"	-11.6	5.50	7.09	3

ing Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	collected	3 exposures	REMARKS
25	W 14 ^m	31 09	1	5.80 A ₀	2,2,2		Hg switch in RA setting broken.
1	1 03 W	46 47	1	7.00 B ₇	2,2,2		
4	W 16 ^m	46 53	2	6.74 B ₉	2,2,2		
7	W 1 ^h 10	+1 02	1	6.68 A ₂	2,2,2		some haze and clouds.
55	W 1 ^h 50	43 02	1-0	7.35 A ₃	2,2,2		} Seeing intolerable on both these settings - whole field illuminated. Examined mirrors; not frosted.
2							
5	W 1 ^h 28	29 55	0	7.46 K ₀	2,2,2		
09	W 4 ^m	45 36	0	6.72 K ₀	2,2,2		

203

Date *Saturday* *10 Dec 28-29, 1935* M-L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour En
								<i>Opened up about 5.50, fast on</i>		
546	HD 34722	5 14.7	27 51	2-25	Ast-ra	D11	-15.1	7 58	11 44	1
547	" 47255	06 32.6	31 51	"	"	"	-16.3	11 52	1 26	2
548	60180	7 23.2	28 38	-	-	-	-16.8	1 33	3 17	3
549	94118	10 46.7	46 20	"	"	"	-17.5	3 30	4 30	4
550	100808	11 31.0	28 20	-	-	-	-17.0	4 35	5 57	1
551	97989	11 10.5	60 28	-	-	-	-17.9	5 05	5 35	2
552	112501	12 52.1	46 27 ⁰⁶	-	-	-	-15.0	5 57	7 01	3

Hour Angle End	Declination	Seeing	Ptg. Mag.	REMARKS
				found several water young but 1 at 4:15 a low no apparent means of getting it.
				no good with object scope 30 visitors
	B Andromeda			
	M 76			only fair
	NGC 663			fair (30 stars in field)
	M 33			no good
0 37 W	27 53	0	6.28 B9	2-2-2 clock going too fast stop dialing visible
1 01 W	31 49	3	7.31 A0	2-2-2 repeat to 8 right stopped clock and took off me doing weight. Seemed to fix it
1 57 W	28 32	2	7.7 B9	2-2-2
0 05 E	46 57	3	7.13 A2	2-2-2
0 25 E	28 08	3	5.90 A3	2-2-2
0 53 W	60 16	2	6.74 A3	2-2-2
0 18 W	43 52	3	6.45 A0	2-2-2

photograph temperature
regulate same as
put all heat on mirror

206

ng Time S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.		Comp	REMARKS
45	1 ^h 05 E	35 15	2	3.7	M ₀	4 ³	East wind.
09	1 45 W	44 17	1-	7.28	B8	2-2-2	
09	1 31 W	31 19	1-2	7.16	K ₀	2-2-2	
02	59 ^m W	31 49		7.53	K ₅	2-2	Heavy at 10:40 She. at 11:00 Still light at 12: ¹⁵
							Dec. 30 12 + 21.9 + 31.2 + 30.9 + 19.2

201

1935

Date Monday, Dec 30-31 14-6 Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour	Min
557	H.D. 27706 β Pcy	22 58.7	+27 32	I-25	Auto II	(010) 011	-14.0	5 30	5 40	1	
558	H.D. 1606	00 15.2	+30 23	"	"	"	-14.0	5 44	6 19	2	
559	8442	01 18.5	+17 17	"	"	"	-14.1	6 25	7 55	3	
560	21242	03 20.5	+28 23	"	"	"	-14.0	8 01	10 01	4	
561	21042	03 20.5	+28 23	"	"	"	-14.2	10 02	10 42	1	
562	24762	05 14.7	+27 51	"	"	"	-14.2	10 45	11 15	2	
563	44032	06 14.4	+14 41	"	"	"	-14.3	11 37	11 58	3	
564	47270	06 22.7	+12 36	"	"	"	-14.2	10 54	10 54	4	
565	56210	07 11.0	+16 18	"	"	"	-14.3	00 52	1 43	1	
566	60535	07 28.9	+43 15	"	"	"	-14.1	2 00	2 30	2	
567	76272	08 42.2	+41 09	"	"	"	-14.1	2 22	2 42	3	
568	71524	09 07	+12 22	"	"	"	-14.2	2 43	3 23	4	
569	98274	11 12.7	+19 23	"	"	"	-14.3	3 34	5 59	1	
570	10022	12 01.9	+21 11	"	"	"		5 57	6 17	2	

Hour Angle End	Declination	Seeing	Ptg. Mag.		REMARKS
0 56 W	+27 43	1	3.96	M ₂ 3-3	For main pattern
0 18 W	+30 25	1	5.77	B8 2-2-2	Seeing variable.
0 52 W	+17 29	1-2-3	7.09	F0 2-2-2	Improving seeing
0 55 W	+28 29	4-5	7.29	G5 2-2-2	(for emission H+K)
1 30 W	+28 29	5	7.29	G5 2-2-2	and find 558-560
0 15 W	+27 52	5-6	6.28	B7 2-2-2	Running for 2.5-3.0
0 11 E	+17 42	5-6	7.20	K5 2-2-2	
0 31 E	+19 23	6	7.51	K0 2-2-2	
0 54 W	+16 17	6	7.22	F5 2-2-2	
1 16 W	+43 10	6	6.53	F0 2-2-2	
1 13 W	+42 01	7-7	7.20	F3 2-2-2	red that looks very burning, mostly
1 33 W	+15 12	4-3	6.57	K3 2-2-2	eye seen longer
	+15 31	3	7.20	F0 2-2-2	(some of the red and blue)
	+27 53		6.74	F8 2-	blue that looks like a very bright
					blue part of a red
					end of some part of the red part of the
					upper part of the red part of the

g Time S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	REMARKS
65	0 38 W	47 06	3	7.09 88 2-2-2	<p>cloudy at sunset. started later but heavy haze near horizon</p> <p>Dec. 31 12 +22.0 +34.5 +30.0 +30.7</p> <p>hazed up very thick from 7:30 to 8:00</p> <p>closed dome at 8:30</p> <p>put all heat on mirror.</p>
					Jan. 2. 12 +23.0 +33.0 +02.0 +36.5

211

Date Wed Jan 1-2, 1936 Hd-L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour En
571	4D 27561	04 15 9	14 11	I-25	Catena	011	-4.8	9 25	11 09	2
572	60383	07 21	28 51	"	"	"		12 09	12 35	3

Sat Jan 4-5, 1936 Hd-L

Hour Angle End	Declination	Seeing	Ptg. Mag.	REMARKS
W 1 ^h 16	H 15	1	6.99 F ₀ 2,2,2	Hazy increasing - nearly thick at 11.00
E 0 31	R 46	1	7.10 A ₃ 2,2,2	Hazy, thick at 12.30 Closed 1.30 Left all heat on mirror.
<p>Jan. 3. 12 +23.0 +33.3 +01.0 +39.3</p> <p>Cloudy. 70 visitors. Lectured and showed telescope.</p>				
<p>Jan. 6 12 +23.1 +34.0 +22.1 +02.2</p>				
<p>Jan. 7 12 +23.3 +34.7 +23.3 +04.1</p>				
<p>Jan. 8 12 +24.0 +35.8 +22.0 +07.1 <small>Added 0.36</small></p>				
<p>Jan. 9 12 +24.0 +36.1 +22.0 +03.9</p>				
<p>Jan 10 12 +23.9 +36.5 +22.9 +11.2</p>				
<p>Jan 11 10 +23.8 +36.7 +22.8 +12.0</p>				
<p>Jan. 13 12 +23.1 +37.6 +22.1 +11.6 <small>Wet</small></p>				

g Time
S.T.

Hour Angle
End

Declination

Seeing

Ptg. Mag.

REMARKS

cloudy with snow flurries all day; clearing with NW gales at sunset. opened up about
 6²² clouds about 6³⁰ clouds + ~~no~~ much wind. in pretty dark

set from about 23 62

Jan. 14, 12 + 23.0 + 32.1 + 22.0 + 6.7

Hour Angle End	Declination	Seeing	Ptg. Mag.	Com	REMARKS
00.04E	15 00	0	4.5	G5-2-2	
00.12W	"	"	"	2-2	No shot in photograph.
02.21W	30 08	0-0	7.41	A0 2-2-2	Happy at 650-
05.15W	40 02	1	5.4	G42-2	
08.03W	47 53	0	5.98	A0 2-2-2	at 23.62 (Horn 3, K)
12.08W	27 53	1	6.28	B7 2-2-2	Happy at 1130
1.19W	16 16	3	6.66	M 2-1-	Happy and at 1130
1.13W	13 49	3	7.17	A 2-2-2	Happy at 1130

Jan. 15 12 + 230 + 38.8 + 220 + 122

g Time S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp	REMARKS
	W 1 ^m	46 19	0	5.76	B ₀ 2,22	Clearing 12.15 → Speed 1.00-1.15.
	W 25 ^m	1 22	0	6.34	A ₂ 2,22	From N wind.
						Clouds & moon flares, closed 4.00
						Jan. 16 12 +22.9 +39.2 +20.9? +15.2

219

H. S. L. - L

Date Monday, January 16-17, 1936 Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour End
583	HD 1632	21 15 ¹⁵ 2	-32 36 ²¹	I-25	Auto II	010	-6.2	5 50	7 05	1
584	" 34762	05 14.7	27 51	"	"	"	-6.7	8 19	9 19	2
585	34731	14 23.5	+23 09	"	"	"	-6.7	9 55	10 26	3
586	48737	24 25.7	+13 08	"	"	"	-6.9	10 31	10 57	3
587	48737	"	"	"	"	"	-6.9	10 38	10 52	1
588	44231	03 21.8	-15 58	"	"	"	-7.2	10 54	10 24	2
589	34762	05 14.7	+27 51	"	"	"	-6.8	10 27	10 54	2
590	34764	03 15.4	+12 22	"	"	"	-6.7	10 25	10 10	1
591	102 34	11 49.9	+20 01	"	"	"	-7.5!	11 30	11 25	1
592	34762	05 14.7	+27 51	"	"	"				

Hour Angle End	Declination	Seeing	Ptg. Mag.	REMARKS
3. 11 W	32 34	0	7.5 55 2-2-2	Find RA entry - Pinked yellow from dust
0 33 E	27 53	0	6.28 B9 2-2-2	Orange + dark west of, first line quite
1 25 W	30 12	0	4.65 F5 2-3-2	on 2 black lines
2 39 E	12 56	0	3.40 F5 3-3	
1 20 E	12 56	0	4.0 F5 3-3	
1 20 V	135 76	0	1.81 A5 2-2-2	
1 14 V	157 53	0	4.38 B4 2-2-2	
2 23 W	11 42	0	7.02 F5 3-2-2	Light blue-white
1 16 W	1 12	0	1.70 F5 3-2-2	Light blue-white
			1.70 B9	Light blue-white
				Dark of 1 st

Jan. 17 12 + 23.9 + 41.9 + 20.9 + 25.0

221

Date Sat Jan 17-19/20 Hd-(N)^L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	
592	ND 008963	03 11	32 35	Z 25	5F10	circ	-10.0	7.12	9.10	2
593	" 74762	05 10	27 51	"	"	"	-10.0	9.27	10.52	3
594	" 56537	07 13	16 43	"	"	"	-10.0	11.11	11.21	1
595	" 62509	07 39	28 16	"	"	"	-10.0	11.32	11.34 1/2	1
								11.35	11.35	1
596	ND 73593	08 31	46 11	"	"	"	-10.1	11.45	11.45	2

Sunday Jan 19-20

Cloudy. Sunday night till 11³⁰ at least - It was fairly clear at 2³⁰ a.m.
 Sky probably workable from 2³⁰ till day light

0.00

Hour Angle End S.T.	Declination	Seeing	Ptg. Mag.	REMARKS
F 20 32 45		3	7.17 F ₈ 2, 2, 2	Jan. 18 10 +23.0 +40.3 +22.0 +24.8
W 19 27 53		0	6.28 F ₉ 2, 2, 2	Late starting. (a) snow bound. (b) cleaned
E 21 16 38		0	3.71 F ₉ 3, 3	considerable snow from upper end of tube
E 23 25 "		0	2.21 K ₀ 6	(c) opened by hand (d) etc
			6	Y fixed R.B. setting, 4 variations,
W 22 46 03		0	6.52 K ₀ 2, 2, 2	showed telescope in operation
				594 for Mr. Fullwell
				clouds 10.45
				595 for Mrs. Johnson
				Thickening from 12.30
				Cloud 3.30

but 3 did not come up. Road blocked high wind + drifting snow.

(clear in morning)
RRP

224

ing Time
S.T.Hour Angle
End

Declination

Seeing

Ptg. Mag.

REMARKS

Jan	20	12	+ 23.6	+ 41.2	+ 21.6	+ 30.7
Jan	21	12	+ 23.8	+ 41.8	+ 21.8	+ 31.2
Jan	22	12	+ 23.8	+ 42.9	+ 20.8	+ 36.6
Jan	23	12	+ 23.9	+ 42.0	+ 21.9	+ 39.5

P 226

Light wind all day. Good visibility despite some
 snow off the peaks. Had to wait before leaving due
 to uncertainty in snow conditions under the
 trees from wind-blown snow.

ng Time
S.T.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS																								
3 11 E	+37 53	0	6.28 B9	2-2-2	for min. detail stage. Lens at 7.15																								
4 20 W	+27 51	0	1.01 38	3-3-2	Used up 7.15-11.5. Good seeing.																								
5 11 W	+45 04	0	1.51 37	2-2-2	Stage at 3.40																								
					High cloud at 4 ⁰⁰																								
					<table border="1"> <thead> <tr> <th></th> <th></th> <th>M.T.A.</th> <th>S.T.A.</th> <th>M.T.O.</th> <th>Watch</th> </tr> </thead> <tbody> <tr> <td>Jan 24</td> <td>12</td> <td>+24.0</td> <td>+42.0</td> <td>+22.0</td> <td>+49.2</td> </tr> <tr> <td></td> <td>25</td> <td>+24.3</td> <td>+42.0</td> <td>+22.3</td> <td>+52.7</td> </tr> <tr> <td></td> <td>27</td> <td>+25.1</td> <td>+42.3</td> <td>+23.1</td> <td>+12.2</td> </tr> </tbody> </table>			M.T.A.	S.T.A.	M.T.O.	Watch	Jan 24	12	+24.0	+42.0	+22.0	+49.2		25	+24.3	+42.0	+22.3	+52.7		27	+25.1	+42.3	+23.1	+12.2
		M.T.A.	S.T.A.	M.T.O.	Watch																								
Jan 24	12	+24.0	+42.0	+22.0	+49.2																								
	25	+24.3	+42.0	+22.3	+52.7																								
	27	+25.1	+42.3	+23.1	+12.2																								

227

Date *Monday January 27.28/36 11-2*

Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.
400	HD 34362	15 147	-27 51	I-25	422-100	(011) 210	28 :-14.5	6 50	7 50
401	35784	15 234	-29 07				-14.7	8 52	10 52
402	40303	17 252	-25 35				-15.0	10 04	1 25
403	25701	12 08	-09 13				-14.1	1 30	2 14
404	110524	12 529	101 07						

228

Hour Angle End	Declination	Seeing	Ptg. Mag.	Remarks
				Partly cloudy most of day; clearing at sunset, but haze in
0 20 E	+22 53	0	6.25 34	2-2-2 snow from dark till about 6 ³⁰ . Haze
1 34 W	+22 15	0	6.61 55	2-2-2
2 03 W	+22 52	0	7.52 95	2-2-2 light haze 11-12
2 32 W	+22 24	1-2	8.2 93	2-2-2 dark haze 2 ³⁰ -3 ³⁰ to 4 ³⁰ on by 2 ³⁰ and
			8.76 95	etc. small amount of water. Cold
				cloud of 4 ³⁰

229

Date Tuesday - Jan 28-29/36 N-L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.
604	HD 24456	3 483	1 50	7.25	Rita	.011	-14.5	6 25	7 05
605	24762	5 169	27 33	-	-	-	-14.3	8 13	-

Wed Jan 29-30, Clouds and snow all evening
 Cloudy at midnight - Clear but
 haze at 3 AM - May have missed
 a few hours of workable sky in
 early morning Ad.

Hour Angle
End

Declination

Seeing

Ptg. Mag.

REMARKS

3 46W

+1 57

0

671 87.2-22

sidereal watch closed up for 12:00
and for 12:30 at 12:30

27 52

1

625 87.2-22

snow crystalline - clouds dark

clouds 145° - around that

closed up at 12:00

sky cleared shortly after closing but
clouded in heavy again very soon.

	C.T.	$\Delta\theta$ M.T.A.	$\Delta\theta$ S.T.A.	$+\Delta\theta$ M.T.D.	Sidereal watch
Jan. 29	12	+26.3	+42.9	+23.3	not running
	15	+26.3	+42.9		+08.9
30	12	+26.9	+43.3	+23.9	+12.3

233

Date

Friday, June 1 - 2011/36 M-L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Plate Holder
608	HD 5394	0 57 60	11	J-25	E-33	.008	-7.3	5 47 25	5 55 15	1
-	-	-	-	-	-	-	-	5 52 15	5 52 15	-
609	-	-	-	-	-	-	-	5 52 55	5 55 55	2
-	-	-	-	-	-	-	-	5 57 05	6 01 05	-
610	-	-	-	-	-	-	-	6 01 26	6 07 26	3
-	-	-	-	-	-	-	-	6 07 35	6 13 35	-
611	-	-	-	-	Astra	-	-	6 13 54	6 13 27	4
-	-	-	-	-	-	-	-	6 16 04	6 18 04	-
612	HD 17797	4 48 46	19	-	-	.011	-	6 35	-	1
612	HD 13312	7 43 46	03	-	-	-	-10.0	12 18	12 18	2
613	70613	9 15.7	15 48	-	-	-	-10.0	12 40	2 10	3

g Time
S.T.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS										
W 150				10, 10	<p>Feb. 1</p> <table border="1"> <thead> <tr> <th>CT.</th> <th>$\Delta\theta$ M.T.A.</th> <th>$\Delta\theta$ S.T.A.</th> <th>$\Delta\theta$ M.T.O.</th> <th>$\Delta\theta$ watal</th> </tr> </thead> <tbody> <tr> <td>10</td> <td>+27.8</td> <td>+43.9</td> <td>+25.8</td> <td>+20.3</td> </tr> </tbody> </table> <p>Winters coming (report) but on expected set on moon About 75 visitors Clouds and snow - closed 9.30</p>	CT.	$\Delta\theta$ M.T.A.	$\Delta\theta$ S.T.A.	$\Delta\theta$ M.T.O.	$\Delta\theta$ watal	10	+27.8	+43.9	+25.8	+20.3
CT.	$\Delta\theta$ M.T.A.	$\Delta\theta$ S.T.A.	$\Delta\theta$ M.T.O.	$\Delta\theta$ watal											
10	+27.8	+43.9	+25.8	+20.3											

237

Date

July 3 Y-L

1936

Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Shit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Plate Holder
615	2 Cent	04 50.7	40 11	2.35	F33	35 35	Out 150	5 58	6 12	1
616	HD 23138	05 20.8	45 48	"	Astra	"	-9.5	6 20	7 40	4
617	HD 34762	05 14.7	27 51	"	"	"	-10.0	8 14	9 34	3
618	HD 43822	06 23.8	44 25	"	"	"	"	"	"	1

lots of clouds by middle of night
 stopped at 11:30
 stayed

238

Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS																								
1 ⁵⁰ W	60 22	1	2.09	Ref. 4 ^s	3 ⁰ out																								
Q ³⁰ W	45 54	0	623	45 2 1-2	2 ^d out - a faint star in W. of it																								
	27 54	0	628	49 2-2	Pin came out of P. of chip when Head was broken																								
					<table border="1"> <thead> <tr> <th></th> <th>C.T.</th> <th>$\Delta \theta$ M.T.A.</th> <th>$\Delta \theta$ S.T.A.</th> <th>$\Delta \theta$ M.T.O.</th> <th>$\Delta \theta$ M.T.D.</th> </tr> </thead> <tbody> <tr> <td>Feb. 3</td> <td>12</td> <td>+29.0</td> <td>+44.2</td> <td>+27.0</td> <td>+20.2</td> </tr> <tr> <td></td> <td>4</td> <td>+29.1</td> <td>+45.2</td> <td>+27.1</td> <td>+24.8</td> </tr> <tr> <td></td> <td>5</td> <td>+29.3</td> <td>+45.2</td> <td>+27.3</td> <td>+38.0</td> </tr> </tbody> </table>		C.T.	$\Delta \theta$ M.T.A.	$\Delta \theta$ S.T.A.	$\Delta \theta$ M.T.O.	$\Delta \theta$ M.T.D.	Feb. 3	12	+29.0	+44.2	+27.0	+20.2		4	+29.1	+45.2	+27.1	+24.8		5	+29.3	+45.2	+27.3	+38.0
	C.T.	$\Delta \theta$ M.T.A.	$\Delta \theta$ S.T.A.	$\Delta \theta$ M.T.O.	$\Delta \theta$ M.T.D.																								
Feb. 3	12	+29.0	+44.2	+27.0	+20.2																								
	4	+29.1	+45.2	+27.1	+24.8																								
	5	+29.3	+45.2	+27.3	+38.0																								

240

Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS
0.54 ^m W	15 14	0	6.47	A ₀ 2,2,2	at 6:30
W 21 ^m	28 38	0.7	6.41	A ₂ 2,2,2	at 9:00 tried to turn dome - failed
W 10 ^m	17 57	1.7	6.77	A ₀ 2,2,2	slipped left wing - apparently see
E 10 ^m	44 36	3	6.72	A ₀ 2,2,2	more work - finally gave up
W 57 ^m	28 57	2	6.80	A ₀ 2,2,2	Tuned station to C and opened - it dipped by hand. Wind guy down out side wing. Had some tape on it (apparently had been on and turned it off) Note improving seeing reported after 12:0 Very windy again 4:00 →

	C.T.	$\Delta\theta$ M.T.A.	$\Delta\theta$ S.T.A.	$\Delta\theta$ M.T.D.	$\Delta\theta$ watch
Feb. 6	12	+29.1	+44.3	+27.1	+43.8

Clear much of day. Clouded over 5⁰⁰ with entry in
 just after. Cloud white 6³⁰ thick.

P. 242

ing Time
 S.T.

Hour Angle
 End

Declination

Seeing

Ptg. Mag.

Comp.

NO. EXPOSURE

PAUSE TIME

REMARKS

127 37

Cloud up 12¹⁰

	R.T.	Δ M.T.A.	Δ S.T.A.	Δ M.T.D.	Δ total
Feb 7	12	+29.8	+44.6	+27.8	+40.6

243

Date

Sun Feb 7-8, 1936 Ad L

Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour End
- 623	HD 24364	5 11.8	33 39	E-25	astron	010	-9.5	7.28	8.38	3
624	H 234762	5 14.7	37 51	"	"	"	-9.6	8.46	10.00	1
625	RD 58746	7 21.9	29 31	"	"	"	-9.5	10.07	12.26	2
626	" 97918	11 10.8	13 09	"	"	"	-9.5	1.07	2.25	3
627	" 117162	13 24.3	4 26	"	"	"	-9.4	3.22	4.57	4
628	" 130406	17 42.2	4 15.5	"	"	"	-9.5	4.20	6.00	1
629	" 140726	18 52.2	42 51	"	"	"	-9.2	6.07	8.46	2

Sun Feb 11-12 1936 M-L

Started to open a couple of times during
 early evening but each time it clouded up and
 would a bit unsettled but still thick clouds
 at 1:30 a.m. so closed up.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS
1.34 N	27 52	1-2	6.09	B ₂ 2, 2, 2	think I have right star. Set on N.W. star of the pair - somewhat the fainter. checked roughly with B.S. chart
1.51 W	29 33	3	6.23	A ₂ 2, 2, 2	For Mr. Stillwell
1.51 W	29 33	3	7.55	A ₁ 2, 2, 2	clouds 12.20
1.51 W	29 33	3	6.73	A ₀ 2, 2, 2	large red clouds
1.51 W	29 33	4	6.77	A ₂ 2, 2, 2	developed 627
1.51 W	29 33	3	6.49	A ₀ 2, 2, 2	
1.51 W	29 33		6.56	B ₂ 2, 2, 2	

RA nothing beginning to move again
 Temp -4°F

	CT	Δθ M.T.A.	Δθ S.T.A.	Δθ M.T.D.	Δθ ward
Feb. 8	12	+30.1	+44.4	+27.1	+57.6
Feb. 10	12	+31.5	+45.2	+29.3	-06.4
Feb. 11	12	+31.8	+45.3	+26.8	-01.3
Feb. 12	12	+32.1	+45.4	+26.1	+01.4

245

Date Wed. Feb 12-13/36 Hd & L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour & End
630	HD 34762	05 14.7	27 51	I 25	Agfa	0.10	^{set} -10.5	8.03	9.48	1
671	" 60204	07 28.3	28 55	"	"	"	-10.0	10.00	12.05	2
652	" 91626	10 29.5	49 10	"	"	"	-10.5	12.16	1.03	3
683	77938	07 10.8	3 09	"	"	"	-11.5	6.12	2.47	4
685	10124	12 58.1	46 39	"	"	"	"			

Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS
1.4 W	27 54	0	6.25	B ₉ 2,2,2	
1.4 W	28 49	1	7.52	G ₅ 2,2,2	
1.4 W	28 57	1	5.7	A ₀ 2,2,2	Some clouds - 632 for Dr. Sullivan
1.4 W	29 11	1	6.73	A ₀ 2,2,2	Some haze & clouds. Theobaldia Heavy over haze and clouds. Cloud 3-10

Relay for temp. control. Tests
 overall, under temp. all day

ET.	Δθ M.T.A	Δθ S.T.A	Δθ M.T.D.	Δθ watch (reset)
Feb. 13	+33.0	+45.8	+27.0	-28.2 <i>had stop</i>
14	+33.1	+45.7	+27.1	-22.3

248

ing Time
E.S.T.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS
W 1 ^h 23	28° 53'	0	6.23, A ₀	2, 2, 2	Lat. - Tarsus - trouble with contrast clouds
W 1 RR	15° 15'	0	6.47, A ₀	2, 2, 2	2 Heaters 920, showed telescope begin at 11.00. Then at 11.15 to end 12.00.
					Note: Mental on side of pendulum clock read attention
					C.T. Δθ M.T.A. Δθ S.T.A. Δθ M.T.D. Δθ watch
					Feb. 17 12 +34.8 +46.6 +28.8 -04.2
					Feb. 18 12 +34.9 +46.8 +26.9 -01.6

m... ..

249

Date

Sunday - Sept 19/36 M-L

Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.
136	M 31	7 39 15	16	L 25	Astra	1011	-17°	7 29	7 39 1
137	F 1026	10 22 17	10	-	-	-	-14.7 -15.2 - 15.0	10 30	12 50
								John	1 45
								in 3rd of June	

Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.
0 07E	+29.10	-20	2.21 K0	3-3
0 07E	+29.58	-20	5.7 A0	2-2-2

REMARKS
 top in line - 3" F
 faint stars and light - faintly seen
 1st to 11th stars - but where about 1/2
 going across field of view - when
 1st star - higher seeing would improve later
 faintest star - 5.7 -
 very faintly visible - improved at 10:00
 thick fog at 11:45 - 11:55
 light at double from 11:55 to 12:00
 thick at 12:00
 correct about 5 stars in list
 see 1st star to call
 dead at 1:00 a.m.
 top in line - 4" F

	C.T.	Δθ M.T.A.	Δθ S.T.A.	Δθ M.T.D.	Δθ watal
Feb. 19 12		+35.2	+46.3	27.2	+04.3

250

Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS
W 58 ^m	27 54	2	6.28	2,2,2	4m - 5m
W 50 ^m	6 10	1	5.82	2,2,2	4m H ₂
W 23 ^m	+5 03	1	6.92	2,2,2	Developed 677 - not numbered
E 10 ^m	8 57	1 → 2	5.7	A ₀ 2,2,2	7m A ₁
W 50 ^m	12 23	3	6.73	A ₀ 2,2,2	
W 37 ^m	+1 26	3	6.77	A ₂ 2,2,2	Tumble with disc stamp
W 54 ^m	46 23	4	6.18	F ₂ 2,2,2	Becoming larger. Thinks at 600

After 6:33 RA setting slotted eye out.
 Removed, repaired, replaced.

Done Temp +6 → -3° F

	C.T.	ΔOM.T.A.	ΔOS.T.A.	ΔOM.T.D.	ΔO.watel
Feb. 20	12	+36.1	+46.5	+29.1	+16.3

253

Date Thursday, February 21-2/36H-L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour En
645	H.D. 34762	05 14.7	+27 51	I-25	astin	010	-12.0	6 30	8 10	1
646	47129	06 32.0	+26 13	"	"	"	-12.0	8 14	9 04	3
647	58383	07 07.6	+16 20	"	"	"	-12.0	9 10	10 03	2
648	63130	07 44.1	+46 12	"	"	"		10 21	11 11	1
649	71122	08 21.7	+32 34							

ing Time
E.S.T.Hour Angle
End

Declination

Seeing

Ptg. Mag.

Comp.

REMARKS

2 30W

+57 43

1-3-5

6.55 B7

2-2-2

From Mr. L. Schull

Much haze at first

2 15W

+55 11

3

5.92 B1

2-2-2

Hd

Hazy

0 32W

+54 4

4

5.81 M4

2-2-2

From B. Schull

Set for 3. Schull, Table out

2 15W

+53 17

5

5.61 A3

2-2-2

From B. Schull

Hazy; table closed for 15 min.

5.7 B0

Hazy

Closed up 1st

c.T. Δθ M.T.A. Δθ S.T.A. Δθ M.T.D. Δθ water

Feb. 21 12 +37.1 +46.7 +31.1 +22.7

ing Time
E.S.T.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS
N 1 ^h	27 52	1	6.28 B9	2, 2, 2	Mr. Stillwell
N 2 ^h	15 15	2	6.47 A ₀	2, 2, 2	
N 3 ^h	-1 50	2	6.82 K ₀	2, 2, 2	
N 3 ^h 32 ^m	46 15	1 → 2	5.76 G ₀	2, 2, 2	
N 4 ^h	9 57	1 → 2	5.7 A ₀	2, 2, 2	M
N 1 ^h 20 ^m	31 24	2 var	7.24 A ₀	2, 2, 2	Some notes
N 6 ^h	75 25	2 → 5	7.12 F ₀	2, 2, 2	
E 26 ^m	42 43	5 → 2	5.56 B ₈	2, 2, 2	
E 14 ^m	46 43	3 var	6.73 G ₈	2, 2, 2	

Some Temp +22 → C °F

257

Date Feb 22-23/36 M-L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour En
658	HD 34762	5 177	27 51	J-25	Agfa	10U	-4.6	6 36	3 06	1
659 F.	-	-	-	-	-	-	-5.3	-	-	2
659	HD 54441	9 402	24 14	-	-	-	-5.5	9 10	9 32	3
660	91236	10 29.2	9 10	-	-	-	-5.8	9 45	10 42	4
661	90613	9 157	15 48	-	-	-	-5.7	10 50	12 10	1
662	91636	10 29.8	9 10	-	-	-	-5.3	12 17	1 32	3
663	101508	11 31.0	28 20	-	-	-	-5.5	1 07	2 43	4
664	91236	10 29.2	9 10	-	-	-	-5.7	2 50	4 06	1
665	130557	14 434	-0 26	-	-	-	-5.7	4 13	5 10	3
666	142222	15 22	42 51	-	-	-	-6.0	5 14	5 50	4
667	136014	14 434	28 45	-	-	-	-5.9	5 59	6 19	2

258

Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS
0 39W	27 52	1	628 B7	2-2-2	
			10-sec 6 sec		3 <u>V</u> <u>filter</u>
2 20E	24 07	1	3.68 A0	2-2-2	
1 59E	8 59	2	5.7 A0	2-2-2	
44° W	15 35	2	649 A0	2-2-2	
2 21 W	8 57	2	5.7 A0	2-2-2	
1 41 W	29 17	2	5.10 A3	2-2-2	close to the horizon at 1.25, thick at 2.00
3 26 W	8 59	2	5.7 A0	2-2-2	observing a lot of stars since left center of field
	-0 38	2	5.05 A0	2-2-2	
12° E	42 47	2	5.58 B7	2-2-2	
1 24 E	27 34	1	3.83 A0	2-2-2	down at down
take 321 as a reference for plate 654					

259

Date Monday Feb 25-26/36M Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.
668	HD 91636								
668	HD 91636	298 19	10	J-25	Retina	071	+2.2	1	29

ing Time
E.S.T.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS
					<p>Could see stars all evening but too dark to open. Cloud at midnight. Spent at 12:45. Spent over just as the stars were set on star. Cloud over half done even in spite of all but bring on cloud on for not many very well. Cloud again slightly.</p>
7 58		1	57 A.	2-	<p>Range very faint clouded again. Finally gave right up as a bad job Cloud done 2:10 Put all heat on mirror. Mirror practically clear also clear</p>

262

ing Time
S.T.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS
					C.T. Δθ M.T.A Δθ S.T.A. Δθ M.T.D. Δθ watch
					Feb. 27 12 +41.0 +42.0 +35.0 +50.7
					Feb. 28 12 +41.8 +48.4 +35.8 -02.1 <i>Advanced!</i>
27	53	0	5.29	69.20	clouds coming off fast hard to see image. clouded thick 7:00. faint thick clouds down 9:30

263

Date Sat Feb 29 - Mar 1/30/42 - 1 Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour	E
668	45 45721	06 24.0	-8 17	I-25	Antar	010	-3.4	7.40	7.42	3	1
669	" 731573	06 24.1	-8 18	"	"	"	-3.0	9.49	10.44	1	
<u>670</u>	" 91636	10 25.5	+9 10	"	"	"	-3.1	10.56	11.42	2	F
671	" 74150	10 47.1	+1 33	"	"	"	-3.5	11.42	1.12	3	
672	" 110246	12 38.5	-1 21	"	"	"	-3.0	1.16	2.46	4	
673	" 13847	13 21.4	-4 48	"	"	"	-3.5	2.51	4.21	4	
674	" 130925	14 42.8	-4 22	"	"	"	-3.3	4.25	5.25	5	
675	" 142826	14 47.2	-4 51	"	"	"	-3.3	5.27	6.06	5	

264

Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS
W 1.33	28 15	0	6.71	A ₂ 2,2,2	
	46 2	0	6.52	K ₂ 2,2,2	
E 32 ^m	1 57	0	5.7	A ₀ 2,2,2	
W 42	+1 20	1	6.34	A ₂ 2,2,2	hazy
W 44	-1 14	1	6.64	G ₀ 2,2,2	"
W 46	48 35	0	6.72	K ₂ 2,2,2	
W 57	46 23	0	6.18	F ₅ 2,2,2	
W 57	42 24	0	5.70	A ₂ 2,2,2	
					Final temp = 24.5 ± 0.5 °C
					Shutter motor gave out in closing - pulse? Closed by hand.

266

Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS																								
16 ²³				15-10	Focus 23.7 0.4																								
1 24W	27 54	0	628 A ₀	2-2-2	Clouds about 6 ⁰⁰ delayed by dark																								
		1	" "	2-2-2	Spaced about 4 ⁰⁰ burst off 4.1 min																								
1 14W	28 52	1	690 G ₅	2-2-2																									
2 06W	28 57		57 A ₀	2-2-2	clouds cloud 14 ⁰⁰																								
					<table border="1"> <thead> <tr> <th></th> <th>C.T.</th> <th>Δθ M.T.A.</th> <th>Δθ S.T.A.</th> <th>Δθ M.T.D.</th> <th>Δθ watch</th> </tr> </thead> <tbody> <tr> <td>March 2</td> <td>12</td> <td>+43.9</td> <td>+49.0</td> <td>+24.9</td> <td>+18.0</td> </tr> <tr> <td>March 3</td> <td>12</td> <td>+44.1</td> <td>+49.0</td> <td>+25.1</td> <td>+21.8</td> </tr> <tr> <td>March 4</td> <td>12</td> <td>+44.2</td> <td>+49.1</td> <td>+25.2</td> <td>+25.9</td> </tr> </tbody> </table>		C.T.	Δθ M.T.A.	Δθ S.T.A.	Δθ M.T.D.	Δθ watch	March 2	12	+43.9	+49.0	+24.9	+18.0	March 3	12	+44.1	+49.0	+25.1	+21.8	March 4	12	+44.2	+49.1	+25.2	+25.9
	C.T.	Δθ M.T.A.	Δθ S.T.A.	Δθ M.T.D.	Δθ watch																								
March 2	12	+43.9	+49.0	+24.9	+18.0																								
March 3	12	+44.1	+49.0	+25.1	+21.8																								
March 4	12	+44.2	+49.1	+25.2	+25.9																								

267

Date March 4th Wed / 36 14h - L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour End
* 681	6 Gas	10 50.7	60 11	I-25	Kodak	010	*	6.52	7.24	1
				"	"	"		7.25	8.25	
* 682	HD 275593	08 34.1	46 11	"	3Tca	010	cut 5.0	8.42	9.42	2
* 683	HD 91636	14 29.5	+9 10	"	"	"	5.0	9.57	10 48	3
* 683F	From Test				"		5.0	outside	base	4

Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS												
W 5 ^h 04	60 25		2.01	Bop (no filter) ^{2, 3, 2}	Telescope East. Fanning clouds " "												
W 6 ^h 05	"		"	" (no filter) ^{2, 3, 2}													
E 0 21	46 03	0	6.52	K ₀ 2, 2, 2													
E 1 10	8 57	0	5.7	A ₀ 2, 2, 2 15-10	Light clouds at 10:22 after sunset High at 10:45. Closed 12:30												
<p>* Found last last on, Generator has been going in afternoon. Temp. at 6.15 was +7.5. Left last 1/2 21 30.</p>																	
<table border="0"> <tr> <td></td> <td>C.T</td> <td>ΔΘ M.T.A.</td> <td>ΔΘ S.T.A.</td> <td>ΔΘ M.T.D.</td> <td>ΔΘ watch</td> </tr> <tr> <td>March 5</td> <td>12</td> <td>+44.9</td> <td>+49.5</td> <td>+25.9</td> <td>+26.7</td> </tr> </table>							C.T	ΔΘ M.T.A.	ΔΘ S.T.A.	ΔΘ M.T.D.	ΔΘ watch	March 5	12	+44.9	+49.5	+25.9	+26.7
	C.T	ΔΘ M.T.A.	ΔΘ S.T.A.	ΔΘ M.T.D.	ΔΘ watch												
March 5	12	+44.9	+49.5	+25.9	+26.7												

269

H-L

Date

Monday, March 5-6, 1946

Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour End
184	HD 20233	17 44.8	+46 12	2-25	Eastman	310	-3.7 -4.3	9 25		
185	HD 31436	10 27.7	+9 24	"	"	"	-3.7	10 55	6 15	
185	HD 372	11 27.2	+00 17	"	"	"	-3.7	9 19	7 28	2
186	HD 372	11 27.2	+00 17	"	"	"	-4.2!	2 24	3 39	4
187	HD 372 ³³	11 27.2	+00 17	"	"	"	-4.2	3 44	5 14	1
188	HD 372	11 27.2	+00 17	"	"	"	-3.7	5 20	6 10	2

Low clouds in early morning, clearing NW.

Hour S.T.	Angle End	Declination	Seeing	Ptg. Mag.		Comp.	REMARKS
		402 15	0	661	43	2-	cloudy & very strong with 4-5 knots NW.
0 22	1	405 28	0	57	A1	2-2-2	in M. light & good
1 20	1	405 23	0	58	B9	2-2-2	light & good
2 59	W	57 32	1	620	B2	2-2-2	light & good
0 42	22	405 27	1	707	A1	2-2-2	
1 07	E	445 29		670	B1	2-2-2	

	C.T.	Δ GMTA.	Δ GMTA.	Δ GMTD.	Watch
March @	12	+ 45.1	+ 49.5	+ 26.1	+ 24.8

272

Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS
5 47 W	+60 25	1	210	892-22	Clouds
5 56 W	20 25	2	201	892-22	Clouds
3 05 W	27 53	2	628	892-22	Clouds
	15 12	2	739	422	Clouds
					Foot thick clouds at 10:10
					Clouds thick - about 11:30.
					March 7 10 +46.0 +49.9 +24.0 +37.9

274

Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS
0 30 E 55	55	2	5.7	A ₀ 2,2,2	50 minutes, Howard 1191, center
0 30 E 55	55	2-1	2.46	A ₀ 2,2,2	center band
0 30 E 55	55	1	5.7	A ₀ 2,2,2	Edge track 2.15 cloud 3.15

	C.T.	$\Delta\theta$ M.T.A.	$\Delta\theta$ S.T.A.	$\Delta\theta$ M.T.D.	$\Delta\theta$ watch
Max. 9	12	+ 47.1	+ 50.3	+ 26.1	- 14.7

275

Date Monday, March 9-10, 1936 H-L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	
674 F1	Trans test			E-25	Astra II	010	+2.0	outside - base		1
675	115 2106	11 585	+9 10	E-25	Astra II	010	+2.0	2 21	1 31	2
676	116 212	12 407	+21 21				+2.0	1 24	3 14	3
677	120 213	15 461	+13 37				+2.0	3 23	2 25	4
678	129 224	17 320	+21 28				+2.1	4 51	6 00	7

276

Partly cloudy all day; more clouds just before dark.

Hour Angle End	Declination	Seeing	Ptg. Mag.		Comp.	REMARKS
6 ¹⁰ p.m.					15, 10	Setting 5, focus 23.7 ; setting 8, focus 23.5 Best focus about 23.65 [<u>NB, not set back yet</u>]
1.25W	- 9 57	0	57	90	2-2-2	Left lens focus
1.41W	- 13 52	0-1	674	72	2-2-2	
0.27W	- 22 11	0-2	727	80	2-2-2	
1.02E	- 31 31	2-2	620	137	2-2-2	Very good result, but a bit the group = focus on one side of center of field. Some stars out
						Mar 10 12 + 48.0 + 50.9 + 26.0 F09.9

278

ing Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS
	21 53	21 53	1	6.28 B9	2-2-3	lightly hazy
	19 27	19 27	2	7.46 A9	2-2-2	
	17 25	17 25	2	7.46 A5	2-2-2	sun over mountains back masked up trees about 12:00
						Sun down 12:15
						campfire in tent, which appears to be dead up down the river valley of the tent for days
						mu. 11 12 +48.2 +50.9 +26.2 -05.4 12 12 +48.8 +51.7 +26.8 -02.3 13 12 +48.9 +51.8 +26.9 -01.8 14 10 +48.7 +51.9 + +04.4 16 12 +49.6 +52.4 -22 30' 4" -12.6 ^{stopped.}

280

Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS			
					Δ M.T.A.	Δ S.T.A.	Δ M.T.O	Watch
							^m	^s
Max 17			12		+50.0	+52.2	-40	57.0 -10.8
			18		+50.8	+52.6	-64	37.2 -08.4
			19		+51.1	+52.5	-1 ^R 26 ^m 33 ^s 9	-06.1
			20		+51.7	+53.3	-1	51 46.7 -00.2
			21	10	+51.8	+53.1	-2	15 11.9 +02.6
			23	12	+52.5	+53.3	-3	41 12.6 -28.7
			24	12	+52.9	+53.8		-26.6
					Put on 1 ^m		Put	
					16	-07.1		-07.1
						added wt (0.2)		
			25	12	-07.0	+54.1	-22 ^m 13 ^s 0	+11.9

Note: "Sidereal clock" now
replaces standard clock in the dome.

282

ing Time
S.T.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS
				12	Mirror in perfect alignment.
				7	outer station, focus 23.60
				6	inter station at focus 23.57 just bright
				3	
57 W	27 51	1	628 B9	3-2-2	Don't turn W button, stuck in gear, not full off gear, that's all, but gear is in gear, in gear, very close to focus
	30 55	1	729 A2	2-2-2	
12 N	23 17	2	645 A2	2-2-2	trunk, change only, not not much left
17 E	23 52	2	695 A0	2-2-2	slip, very close, but not full, not much
17 W	18 58	2	5.7 A0	2-2-2	
22 W	18 31	2	719 A0	2-2-2	
19 W	23 29	2	5.99 A0	2-2-2	
31 W	27 20	3	697 A2	2-2-2	light down and by way of it dark after it, definitely outer focus - 2.4 slip, not full slip, not full, not full slip, not full, not full
					dark down 5:15
					CT. ΔGM.T.A. ΔOST.A. ΔOM.T.O. ΔOwatch
					Max. 26 12 -06.9 +54.3 -07.9 -18.7

284

cleaned up relay contacts. Clock guiding OK.
clouds from sunset on.

ing Time L.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS
46	4 29 W	+27 51	0	6.28 39	2-2-2	(States left on mirror) Thick haze. Star lost by time 7 ¹⁶ - 8 ¹⁶ ; lost 8 ¹⁶ - 8 ¹⁶ 15
9 2	2 07 W	+15 09		6.57 K0	2-2-2	Thick haze
2 42	2 12 W	+8 57	0	5.7 A0	2-2-2	Thick haze. Strong wind from WF Clouded out.
						CT Δ0 MTA Δ0 STA Δ0 FIT D Δ0 week Mar. 27 12 -06.8 +59.8 -07.8 -100

285

Date *Tuesday Mar 27-28, 1941 Ad-L-Mrk* Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.
713	HD 19119	10 46.7	46 20	I-25	Astra	.011	+8.2	12 21	1 57
714	" 133330	14 58.9	28 40	"	"	"	+8.0	1 58	3 28
715	" 152391	17 11.9	16 47	"	"	"	+7.7	2 33	4 25

*Sat**Sat Mar 28-29 Ad-L*

286

ing Time
S.T.Hour Angle
End

Declination

Seeing

Ptg. Mag.

Comp.

REMARKS

3	06 W	48 06	1	7.13	A2	2-2-2
7	32 W	28 28	1	6.90	A0	2-2-2
9	17 W	16 41	2	7.5	A6	2-2-2

Obs. of stars because of cloudy and hazy
 sky. 1st star is a star but not
 anything else being with the star. The
 star is not a star and is not a star.
 The star is not a star and is not a star.
 The star is not a star and is not a star.

image still somewhat washed away to avoid

See on brown card 4' table

MAN 28 10 -06.9 +54.7 -07.9 -12.3

Clouds at 7.30. Sporadic sightings
 later partly clear 10.00. Clouds again
 closed 11.15

288

ing Time
S.T.

30

Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS
1 ^h 15 ^m W	30 00	0	7.68 K ₀	2-2-2	Thick in early evening
	44 25		6.76 F₅	2	Clouded closed 1 ⁰⁰
					Stopped
					Max 30 12 -06.9 +55.6 -07.9 -22.2 Added 0.2 Advanced 1 ^m
					Max 31 12 -06.3 -03.8 -07.3 +10.6 Stopped

ing Time
S.T.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS
1 43W	8 57	0-0	5.7	40	2-2. Clouds in early evening then few light flashes about 11.55. Some light rain with light breeze. It stopped about 11.55. Wind at full.
					Rain at 11.55 - Set of papers 12.15.
					Stayed with boat at 1.35 am
					Stopped
Apr. 1	13	-06.2	-03.4	-07.2	-08.0
Apr. 2	12	-06.2	-05.1	-07.2	
Apr. 3	12	-06.2	-02.9	-07.2	

291

1936

Date ~~7~~ ^{Friday} ~~March~~ ^{April} 3-4 ~~Julian Day~~

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour En	
718	HD 84737	09 42.1	46 29	I-25	Eastman	010	-3.0	8.10	8.46	2	
719	HD 91636	10 29.8	9 10	"	"	"	-3.0	8.50	9.32	3	
720	HD 99832	11 24.0	30 58	"	"	"	-2.9	9.37	11.07	4	
721	" 113847	13 01.4	45 48	"	"	"	-3.0	11.14	12.02	1	
722	" 116594	13 19.5	12 57	"	"	"	-3.0	12.09	1.49	2	
723	" 140612	14 44.5	116 04	"	"	"	-3.0	1.54	3.08	3	
724	" 142926	15 52.2	42 51	"	"	"	-3.0	3.14	3.44	4	
725	" 154974	17 03.7	16 13	"	"	"	-3.0	3.43	5.02	1	
726	HD 160762 (i.4m)	17 36.6	46 04	"	"	"	-3.0	5.10	5.13	2	
								5.13 1/2	5.14		
Moon Apr 6											
726 F	Trans test and test for comparison from fraction										

292

Mag Time S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS																		
	—	46 18	0	57.76 G ₀	2,2,2																			
32 3	E 29 ^m	8 57	1	57.7 K ₀	2,2,2	for M																		
57 4	O 12 ^m W	30 44	2	7.44 F ₂	2,2,2																			
02 1	E 29 ^m	45 34	4	6.72 K ₀	2,2,2																			
49 2	W 1 ^h	12 43	4	7.50 K ₀	2,2,2	Few clouds																		
09 3	O	45 56	5	7.18 F ₀	2,2,2	" "																		
14 1	W 23 ^m	42 42	5	5.56 B ₈	2,2,2																			
02 1	W 29 ^m	16 05	5	7.17 F ₈	2,2,2																			
3 1	—	—	4	3.02 A ₂	6																			
	W 10 ^m	—	—	—	6	Strong W wind all night some fog 24 ^h																		
	outside base			10.3																				
						<table border="1"> <thead> <tr> <th></th> <th>C.T.</th> <th>Δθ M.T.A.</th> <th>Δθ S.T.A.</th> <th>Δθ M.T.D.</th> <th>Δθ watch</th> </tr> </thead> <tbody> <tr> <td>Apr. 4</td> <td>10</td> <td>-06.3</td> <td>-03.2</td> <td>-07.3</td> <td>+01.8</td> </tr> <tr> <td>Apr. 6</td> <td>12</td> <td>-05.3</td> <td>-03.0</td> <td>-06.3</td> <td></td> </tr> </tbody> </table>		C.T.	Δθ M.T.A.	Δθ S.T.A.	Δθ M.T.D.	Δθ watch	Apr. 4	10	-06.3	-03.2	-07.3	+01.8	Apr. 6	12	-05.3	-03.0	-06.3	
	C.T.	Δθ M.T.A.	Δθ S.T.A.	Δθ M.T.D.	Δθ watch																			
Apr. 4	10	-06.3	-03.2	-07.3	+01.8																			
Apr. 6	12	-05.3	-03.0	-06.3																				

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Date Monday April 6-7, 1936 H-L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour End
727	HD. 58715	07 217	+08 29	I-25	E-40	0.10	(set) +2.7	7 27	7 42	1
728	"	"	"	"	"	"		7 42	7 57	2
729	"	"	"	"	"	"		7 57	8 10	3
730	"	"	"	"	"	"	+3.2	8 10	8 22	4
731	"	"	"	"	"	"		8 22	8 34	1
732	"	"	"	"	"	"	+3.0	8 35	8 47	2
733	"	"	"	"	"	"	+3.0	8 47	8 59	3
734	"	"	"	"	"	"	+3.0	8 59	9 11	4
735	"	"	"	"	"	"	+2.8	9 12	9 27	2
736	"	"	"	"	"	"	+2.9	9 27	9 48	3
737	"	"	"	"	"	"	+3.0	9 44	10 00	4
738	HD. 99946	11 248	+37 32	"	<i>Astral</i>	"	+3.0	10 03	11 33	1
739	110234	12 328	+44 39	"	"	"	+2.8	11 37	0 57	2
740	119213	13 318	+57 42	"	"	"	+2.9	1 04	2 04	3
741	138265	15 259	+61 01	"	"	"	+2.8	2 11	3 41	4
742	132951	16 215	+06 01	"	"	"	+2.9	3 46	5 16	1

294

clouds most of day; clearing with strong NW wind
seeing very bad at start

ng Time S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS
42	1.01 W	+8 23	0	3.09 B8	2-6-2	β Cen 21 min. Possibly Aphelid-like variable of
57	1.16 W	"	0	" "	3-3-3	period 1.8 hours, range 0.02 mag.
10	1.29 W	"	0	" "	3-3-3	Velocity suspected variable. <small>MNRAS</small>
22	1.41 W	"	0	" "	4-4	undephd (727)
34	1.53 W	"	0	" "	4-4	
47	2 06 W	"	0	" "	4-4	
59	2 19 W	"	0-1	" "	4-4	
	2 30 W	"	0-1	" "	4-4	
	2 42 W	"	0	" "	4-4	Steady
	3 12 W	"	0-1	" "	4-4	Unsteady
	3 20 W	"	0-1	" "	4-4	
72	0 49 W	30 17	0-1	7.06 F0	2-2-2	
51	0 59 W	+44 35	1-2	6.76 F5	2-2-2	
51	1 10 W	+57 29	1-2	7.22 A2	2-2-2	
		60 51	2-3	7.86 K5	2-2-2	cloudy; long horizontal streak; variable
	1 12 W	+46 15	3-4	6.77 A2	2-2-2	Unsteady

ng Time
S.T.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS
1 27 W	43 25	1	7.63 K ₀	2-2-2	Apr. 7 12 C.T. Δθ M.T.A. Δθ S.T.A. Δθ M.T.D. Δθ watch -05.1 -02.8 -06.1 —
			5.7 A ₀	2-	Added wt 0.2 Apr. 8 12 -05.1 -02.5 -06.1 -43.5
					Scattered haze 9-9.20 Thick at 10 ²⁰ ... closed up 11 <u>40</u>
					Apr. 13 12 -05.1 -01.2 - +13.6

297


Date Monday, April 13-14, 1936 H-L Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Instrument	Emulsion	Slit	Temperature	Starting Time E.S.T.	Ending Time E.S.T.	Hour End
742	Orion	-	-	I-25	Acta I	010	5.5	7 ⁰⁰ p.m.		3
744	H.D. 58715	07 27	+09 29	"	E40	-		7 ³⁵	745	1
745	"	"	"	"	"	-		745	755	2
"	"	"	"	"	"	-		755	805	2
746	"	"	"	"	"	-	5.6	805	811	3
"	"	"	"	"	"	-		811	821	3
747	"	"	"	"	"	-	5.5	821	827	1
"	"	"	"	"	"	-		827	837	1
748	"	"	"	"	"	-	5.5	838	844	2
"	"	"	"	"	"	-		844	854	-
749	"	"	"	"	"	-	5.4	854	900	3
"	"	"	"	"	"	-		900	910	3
750	"	"	"	"	"	-	5.5	910	920	1
"	"	"	"	"	"	-		920	930	1
751	H.D. 91336	10 28	+09 10	"	Acta I	-	5.5	930	1036	4
752	93846	11 24.8	+22 32	"	"	-	5.5	10 39	12 00	2

298

g Time S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS
					12,7	Focus 53.55+ <i>Blackbirds feeding on spring [?]</i> ^{84 mly}
	1 30 N	+ 08 23	0	304 35	6-6	2 birds, mag. another; smoke from [?]
	1 42 W	"	0	"	6-6	
	1 52 N	"	0	"	6-6	Swallow 743 F1 + 744
	1 58 W	"	0	"	6-6	
	2 08 W	"	0	"	6-6	
	2 18 N	"	0	"	6-6	
	2 28 N	"	0	"	6-6	large [?], but [?]
	2 38 N	"	0	"	6-6	
	2 48 W	"	0	"	6-6	
	2 58 W	"	0	"	6-6	
	3 08 N	"	0	"	6-6	
	3 18 N	"	0	"	12	
	3 28 W	"	0	"	6-6	
	1 15 W + 9 50		0	59 A	2-2-2	
	1 15 W + 10 17		1	70 B	2-2-2	

300

Hour Angle End	Declination	Seeing	Ptg. Mag.	Comp.	REMARKS
2 01 W	46 30*	2-3	7.22 M0	2-2-2	Re-set dead drum to read 46 33
1 55 W	44 44	2-3	7.25 A2	2-2-2	
1 15 E	1-02 13	3	7.0-7.15 B8	2-2-2	Eclipsing binary? 
					RS
					April 14 13 -05.0 -00.9 -06.0 +25.8
					April 15 12 -05.1 -00.8 -06.1 +35.4
					April 16 12 -05.2 -00.6 -06.2 +44.4
					April 17 12 -05.9 -01.3 -06.9 +51.4
					April 18 12 -06.2 -01.3 -07.2 +02.4 Reset
					20 minutes showed Neptune & her clouds 9.45. Focused 3 minutes up

1935

304

June	15	plates	
July	67	"	92
Aug	139	"	231
Sept	193	"	324
Oct	116	"	440
Nov	68	"	508
Dec	62		570
Jan	41		611
Feb	60		671
Mar	46	46	717
Apr			

3

305

PI

Exposures on basis 8.0 mag = 100 m.

8.0	=	100 ^m
7.8	=	83
7.6	=	69
7.4	=	58
7.2	=	48
7.0	=	40
6.8	=	33
6.6	=	28
6.4	=	23
6.2	=	19
6.0	=	16
5.8	=	13
5.6	=	11
5.4	=	9
5.2	=	7½
5.0	=	6