

THIS PAGE INTENTIONALLY LEFT BLANK

1

If C is $\rightarrow \checkmark$

If Focus Test is centre to violet, shorten the focus, i.e. increase the micrometer setting.

11.57

more like (11.57)

4	12'	
	1	3
4	1	3
5	2	6
6	3	6
7	4	16
8	10	40
9	120	

11.57	
1	60.00
2	22.71
3	8.77
4	4.59
5	3.20
6	1.98
7	1.32
8	1.12
9	6.43
10	3.07
11	1.63

see how (11.57) should be 11.57

2.00

4.00

weak

good

strong

best

11.57

strong

best

weak

good

11.57

T (°C)	F
-9	1.20
-8	1.21
-7	.22
-6	.24
-5	.25
-4	.26
-3	.28
-2	.29
-1	.30
0	.31
1	.33
2	.34
3	
4	
5	
6	
7	
8	
9	
10	.42
11	.43
12	.47
13	.48
14	
15	.51
16	.52
17	
18	
19	.56
20	15.57
21	.59
22	.61
23	
24	.64
25	
26	
27	
28	
29	
30	

4250	measurable	weak
4092	seen (4191 meas)	l. weak
4092	measurable	good
4005	just meas	fine
4005	sharp	strong
4531	gone, K visible	too strong

3

Dome Temp....

Focus.....

Dome Temp..

Hour Angle
End

4

Home Temp.

our Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
						DAVID DUNLAP OBSERVATORY	
						14" LOG BOOK	
						VOL. 29	
						PLATE 25208 - 25746	
						JUNE 1960 - AUG 1961	

5

1960

Date June 29/30 Observer S. L. - 12 Julian Day 2437115.5
Wed. / Thurs

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.E.	How Angle End
25208	NGC 6205	16 40.3	+36 32	NGWT	F103	-0		2147	2149	1	0036 E
25209	" 5904	15 16.6	+2 14	"	"			2211	2213	2	0011 W
25210	" 5897	15 15.2	-20 51	"	"			2218	2228	1	0015 W
25211	" 6218	16 45.1	-1 53	"	"			2231	2233	2	0003 W
25212	" 6254	16 55.0	-4 03	"	"			2237	2239	1	0006 E
25213	" 6366	17 25.6	-5 02	"	"			2243	2251	2	0009 E
25214	" 6535	18 1.8	-0 18	"	"			2301	2311	1	0009 E
25215	" 6356	17 21.3	-17 47	"	"			2316	2324	2	0003 W
25216	" 6093	16 14.7	-22 54	"	"			2329	2335	1	0003 W
25217	" 6356	17 21.3	-17 47	"	"			2340	2346	2	0001 W
25218	" 6235	16 51.0	-22 07	"	"			2351	0011	1	0007 W
25219	" 6356	17 21.3	-17 47	"	"			0024	0022	2	0017 W
25220	" 6649	18 31.2	-10 30	"	"			0026	0046	1	0006 W
25221	" 6356	17 21.3	-17 47	"	"			0050	0058	2	0015 W
25222	" 6535	18 1.8	-0 18	"	"			0102	0112	1	0016 W
25223	" 6656	18 33.9	-23 58	"	"			0123	0127	2	0007 W

Dome Temp. $+75$

Transparency Conditions

6

Focus

Dome Temp.

g Time
S.T.

	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Ex. Comp.	REMARKS	Quality
149	00 36 E					2	Focus on 8. Hch. - Strong aurora	
213	01 11 W					2		
228	01 28 W					10		
233	00 03 W					2	Aurora faint	
239	00 01 E					2		
251	00 19 E					8	Transparency better than other nights, seeing "not"	F
2311	00 39 E					10		
324	00 20 W					8	Focus on 27 H. oph.	
335	01 36 W					6		
346	00 21 W					6		
0011	01 37 W					20		
0022	01 17 W					8		
0046	00 30 W					20		
0058	01 52 W					8		
0112	01 26 W					10		
027	01 09 W					4	Focus on 68 oph.	

7

1960

Date June 29/30 Lond Observer S - L - PE Julian Day 2437115.5

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
25224	NGC 6626	18 22.1	-24 54	NEW	T.E 103a-0			0130	0136	1
25225	" 6838	19 51.7	+18 39		"					
25225	" 6544	18 4.9	-25 01		"			0141	0155	2
25226	" 6835	19 51.7	+18 39					0212	0216	1
25227	" 6717	18 52.7	-22 46					0220	0237	2
25228	" 6712	18 50.8	-8 46					0240	0248	1
25229	" 6838	19 51.7	+18 39					0253	0257	2
25230	" 7089	21 31.4	-01 00					0302	0302	1

Dome Temp.:.....

8

[illegible]

Thursday - Friday : Dominion Day Eve - Dominion Day

Date 30th June / 1st July Observer S. Mr. Sr. Julian Day 2437116.5

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	How Angle Ind.
25231	5904	15 ^h 16 ^m 6	+2° 14'	NEWT	E103a	-0		22 ^h 15 ^m 22 ^s	22 ^h 18 ^m 22 ^s	1	12° W
25232	6218	16 45.1	-1° 53'		"			22 ^h 25 20	22 ^h 27 ^m 20	2	0° 4' W
25233	6254	16 55.0	-4° 03'		"			22 ^h 34 ^m 00 ^s	22 ^h 38 ^m 00 ^s	1	0° 3' W
25234	6366	17 25.6	-5° 02'		"			22 ^h 41 ^m 40 ^s	22 ^h 55 ^m 40 ^s	2	0° 0' E
25235	6535	18 ^h 1.8	-0° 18'		"			23 ^h 06 ^m 20 ^s	23 ^h 26 ^m 00 ^s	1	15° E
25236	6838	19 ^h 51.7	+18° 39'		"			23 ^h 32 ^m 45 ^s	23 ^h 38 ^m 45 ^s	2	13° E

Dome Temp.....

Transparency Conditions

19

Time I.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Ex. Comp.	REMARKS	Quality
2	1 ^h 21 W					3		
3	0 ^h 04 W					4		
5	0 ^h 03 ^m W					4		
4	0 ^h 10 ^m E					14		
5	0 ^h 15 ^m E					20		
5	0 ^h 53 ^m E					6		
							Very poor night - not really workable except in north - clouds from south now coming over school	
							Changed to 25" Camera 12 ^{1/2} " Focus 12.92 12 ^{1/2} " was tilt 20.35	
							25" Focus 15.58 25" is tilt 23.15	

Date Fri-Sat 1960 July 1/2 Observer BK - BK Julian Day 2437117
 $\odot 10^{\circ} 06' 21.5''$ 3432.0

① 10° 06 21.5 3432.0

[illegible]

Dome Temp. 66°F

Focus 15.53

Dome Temp. 60°

Transparency Conditions Cloudy earlier in the evening
Scattered cloud 12

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0 48 E	52 22	0	6.9	A3F2	4-4-4	set 2 Hayek's comp. stars 7899 7915	
0 2 E	37 45	0	6.8	FOA3	4-4-4	8 -11- 7916-7930	
0 32 W	27 04	0	6.6	K0A0	4-4-4	2 -11- (Blew fuse 7932-7946 of RA slow motion)	
0 20 W	23 35	0	6.1	K0A3	4-4-4	8 -11- 7946-7960	
						Considerable cloudiness - closed	
						4 PH +4 in yellow bot (π-a0)	
						Changed to 12 1/2" Camera Focus 15.53 Focus 12.92 25" was f/11 23.15 12 1/2" is f/11 20.35	
						Sat. night visitors record on previous page. 15.11	

Date

July 3-4/60

Observer

Hy - Hv

Julian Day

2437119.5

© 102° 00' 44.4" 3431.1"

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	How Angle Est.
25241	HD5001	16 03.6	+17 19	I-12 $\frac{1}{2}$	Ia 0	.016	24 $\frac{1}{2}$ °	22:10	22:26	2	02:20
25242	"	"	"	"	"	.008		22:40	23:48	3	02:14

↑
HD145001

Gg - Hartmann Focus Test

25242 F	P.H.	Focus
Temp 18.6°C	0	12.92
1030-0	3	12.91
Jul 4/60 / PM #2	6	12.90
Exposure 10/g	10	12.59

Jul 4/60

Gg Development Tests: The following plates were put in spotter & developed in D-19

61120's - spotted for 3 $\frac{1}{2}$ " , Developed for { 3"
3 $\frac{1}{2}$ "
4"
4 $\frac{1}{2}$ "
5"
5 $\frac{1}{2}$ "

Three 1030-0 developed for 4, 4 $\frac{1}{2}$, 5" , spotted for 3 $\frac{1}{2}$ " .

Dome Temp.....

Transparency Conditions

Focus.....

Dome Temp.....

Time I.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
26 2	01 ^h 02 ^m W	17 10	1	6.1	G4	2-2	STD VEL net 6	8021 8025 fine
48 3	02 ^h 14 ^m W	17 12	1	"	"	2-2-2	" "	8026 8020 fine

Tried for more than 1 hour
to stop R.A.Q.M. Cluster from
fringing. No luck.

Gg Exposure Tests

Jul 4/60

one 103a0 in spotter for 45^m
& developed 1/2^m longer than Kodak specific

one 11a0 in spotter for 54^m
(should've been 45^m) and developed 1^m
longer than Kodak specific

Focus Set at 12.91

Date July 4-5 Mon-Tues

Observer DH - lty

Julian Day 2437120.5

☉ 102° 57' 55.5" 3430.7"

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
25243	HD 144 579	16 ^h 01.5	+39° 24'	I-12½	103a-0	008	+18°C	2148	22 10	1
25244	MWC 312 HD 180389	19 11.3	+12 56	I-12½	103a-0	008		2255	23 37	2
25245	HD 183143	19 23.0	18° 05'							

Fig - July 5 - Hartman - Focus Tests 1

25244 F3,4 using P.H. 3+4 resp.

P.H. setting	Focus, 1	Expos	T = 16.6 and 16.0° resp.
0	12.92	10/8	
3	.91	10/8	
6	.90	10/8	
10½	.89	9/9	

Dome Temp. $+60^{\circ}\text{F}$ Focus 12.91

Dome Temp.

Transparency Conditions *Cloud in north* 2340 cloud over

16

0.5

30.7"

g Time
S.T.

10

37

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
$0^{\text{h}} 41^{\text{m}} \text{W}$	$+39^{\circ} 19'$	0	7.2	G8	2-2-2	Std. Vel. 15 (Set 3) Sens 7 8046 - 8050 4 counts	fine
$01 03 \text{E}$	$+13^{\circ} 06'$	0	7.7	B3 ne	2-2-2	Be Set 3 Sens 8 8052 - 8062 10 counts	good
						Clouds rising in North	
						Shut down at 2:45 EDT due to clouds.	
						32 ph. + 2 in box. (1.25)	
						Much difficulty setting RA, apparently a fault of declination DM	
						Flashlight requires ^{new} batteries	

Date Tues. July 5-6/60 Observer L-H Julian Day 2437121.5
 @ 103° 55' 06.2" 3430.7

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Exposure Time
25245	HD 174886	18 47.7	-10 21	I-12 $\frac{1}{2}$	E-103A ₀	Set 008	19.0	21 35	22 39	1	14E
25246	MWC 320	19 41.3	+05 44	"	"	"	19.0	22 59	00 13	2	14E
25247	HD 183143	19 23.0	+18 05	"	"	"	18.0	00 21	01 48	3	14E
25248	" 195592	20 27.2	45 51	"	"	"	18.0	02 14	02 56	4	14E
25249	" 205060	21 27.7	12 16	"	"	"	18.0	03 04	03 31	1	14E
	7 I.		07B			"					

(ig - July 6 - Heilmann Focus Tests
 25249 F1,2 using P.H. 142
 temp. T = 15.0°C.

P.H. setting	Focus	Expos
0	12.92	10/8
3	12.91	10/8
6	12.90	10/8
10/11	12.89	9/7

Dome Temp. 59°F
Focus $12.92 \leftarrow 12.91\text{G}$
Dome Temp. $+53^{\circ}\text{F}$

Transparency Conditions

12

g Time S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality	
230	1 34 E	-10 12	0-1	8.1	B3c	2-2-2	MWC 317 Be prog	Sers 8 072 082 10 cm	fine
3	05 E	05 52	0-1	8.5	B5ne	2-2-2	" "	" 8 085	good
4	16 W	18 10	0	6.9	B9sc	2-4	MWC 317 " " Double Exposure	" 7 8097-8104	good (faded)
5	16 W	44 08	0	7.2	B1sc	2-2-2	" "	" 7 8106 - 09	fine (quitting)
6	16 W	42 28	0	7.1	Bs(n)	2-4	" "	" 7 8112 - 8115	fine
						10/8			ok.
							2 P.H. - 7 mi		

19
Date Wed-Thurs-Jul 6-7 1960 Observer Gg-Hv Julian Day 2437122.5
 $\odot 104^{\circ} 52' 16.9''$ 3430.5

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.E.
25250	HP 164284 Mw C.278	17 55.3	+04 22	1-12	103a0	.008	21.5	21:46 52	21:58 54	2
✓ 25251	HD 183143 (Wilson Popping)	19 23.0	+18 05	1-12	103a0	.008	21.6	22:23	23:27	3
25252	θ Lyrae	19 12.9	+37 57	1-12	103a0	.008	21.6	23:40 43	:43 45	4
25253	HD 195407	20 26.0	+36 39	"	"	"	21.8	0005	0043	1
	Nov 7.1	0.7.B.		"	"	"				

Dome Temp.

64°F

Focus

12.91

Dome Temp.

Transparency Conditions

Clear

gibbous moon in south.

20

ig Time
S.T.Hour Angle
End

Declination

Seeing

Ptg.
Mag.

Sp.

Comp.

REMARKS

Quality

0121E

+04 19

0-1

4.8

B_{me}2-2
3-3
3-3

Setting 3

8

2 counts
3 counts
1 count

Sens 5

Be Pro

35-37
37-40
40-41very badly
fogged

0116E

+18 09

0

6.7

B7 Ia

2-2-2

Setting 5

Sens 7

MK Std

8142-
50

fine

0147E

+38 00??

0-1

4.46

K0 II

2-3
3-2

Setting 3

Sens 5

MK Std

51-57-⑤
57-58-①fine
- good.

102E

36 47

0

7.7

B3e

2-2-2

Set 3

Hd Be #8

8165

Field checks

with 24368

fine

10/8

" 8

OK

2 P. H. in Tray.
Clouds after 0100.Need New Program 5 exp for 1st half.
2nd half also. What about the OB stars??
- even finer half?

24 17 449 - 23 07

(at 22 00 EST 18 25.2 = 18 30
 23 00 " 18 27.9 = 18 30 (-17 30)
 0 00 " 18 30.6 = 18 29

Date July 7/8 Thurs/15m Observer Hd-Pt

Julian Day 2437123.5
 $\odot 105^{\circ} 49' 27.4''$; 3430.6

[illegible]

ome Temp. 68 F

ocus.....

ome Temp.

3.5
3430.6

Transparency Conditions

July 7 changed to I-25. I12 was set I25

focus 12.91 from
tilt 20.35 tilt 23.15

our Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
	-19° 27'					set 0 1 10 counts; Sens. 4	
						" 1 2 15 "	
						" 2 3 20 "	
						" 3 4 25 "	
	-23° 07'					" 4 40 "	
	-23° 07'					set 6 8 counts	
						" 7 12 "	
						" 8 18 "	
						" 9 27 "	
						" 10 5 "	
	-23° 07'					set 0 5 counts	
						" 1 2 8 "	
						" 2 3 12 "	
						" 3 4 18 "	
						" 4 5 27 "	

Date July 7/8 Thurs Observer Hd - Pt - Br Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	F	Hour Angle End
25255	Jupiter	17 ^h 41.9 ^m	-23° 07'	I-25	II a-0	008	24°C	2330		1	
(Corr d)	(N. of N. Tropical Belt).							2332		1	
								2334		1	
								2337	assumed	1	
								2336 (41?)		1	
25256	Saturn	19 ^h 05 ^m	-22° 12'	I-25	II a-0	008	24°C	0000		4	
	(centre of ball).							0004		4	
								0012		4	
								0024		4	
	Rings							0046		4	
	Rings							0054		4	
25257	HD 192044	20 ^h 07.8	+26° 11'	I 25	103a0	008	24°C	0136	0345	2	
	Focus Test			"	"	"	24°C				

Dome Temp. 68°F

Transparency Conditions

24

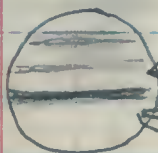
Focus

Dome Temp.

58°F

Large cirrus cloud @ 0200
then cirrus over most of sky
by 0400.ing Time
E.S.T.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
	-23° 07'					set 6. 5 counts (sens. 4)	
						" 7 8 "	
						" 8 12 "	
						" 9 18 "	
						" 10 27 "	
	-27° 14'					set 0 #1 5 counts (sens. 4)	
						" 1 2 17 - 25	
						" 2 3 (12) 25 - 37	
						" 3 4 (18) 37 - 55	a few light clouds now.
						" 5 5 (5) 55 - 60	
						" 6 6 (12) 60 - 72	
12 ^m W	26° 10'	0-	59	Bene	2-2	MCW 331 Bepry Set 5 6 counts 8873 Sens 6.	OK.
						Star lost in cloud & brightening sky at dawn after 4.2 counts	OK.
						1 Pit in frig, 4 in box.	



As seen in finder

Equatorial

N trop. belt

N of N Trop. belt

Date Fri-Sat Jul 8-9/60 Observer Gg-

Julian Day 2437124.5
 © 106 46 38.0 3430.8

[illegible]

Dome Temp.....

Transparency Conditions Scattered Clouds in South
26

ing Time
P.S.T.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
04 18	0-1	4.8	Bina 4	Set 2	58 97 - 89 01	Be Per 0 11	8 1/2
12/10 sat Aug 9 — Closed Up — due to Solid Cloud							
4 P. H. in fine							at 22:00
Saturday July 9-10, 1960 N. L. Sullivan About 175 visitors showed 5 Nov Heavy thunderstorms in city in afternoon; some cloud here at sunset.							

Date Sat-Sun Jul 9-10/60 Observer L - Gg Julian Day 2437125.5
 ☉ 107° 43' 48" 3431.1

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.F.
25259	HD 182807	19 21.3	+24 44	I-25	1:03a0	.008	23.1	00:01	00:55	1
25260	HD 195592 MWC347	20 27.2	+43 59	I-25	"	"	24.0	01:25	2:39.	2
25261	HD 200310 MWC360	20 57.6	+45 46	"	"	"	24.6	2:51	2:59	3
25262	HD 198478 MWC353	20 45.5	+45 45	"	"	"	"	3:16	3:28	4
Focus TEST OTB										

Dome Temp. 70

Focus 15.53

Dome Temp. 69

Transparency Conditions

O. K. - cloud in south west

01:30 cloud streamers all over all night
cloud in south all night

28

ng Time
S.T.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0 ^h 27 W	+24° 51'	0-1	6.7	F6 V	4-4-4	Set 5. <i>See Q.N.V. (15-22)</i> 8907 Same 6. (underdeveloped 1/2 mm Cg)	fine
1 ^h 06 W	+44° 15'	0-1	7.2	B1.5e	4-4-4	Set 5. <i>Hold Be. Same 7</i> 8929 (should be had loss) (20) 5	fine
0 ^h 54 W	+46° 01'	0-1	5.2	B3ne	4-4-	Set 5. <i>Hold Be Same 5</i> { 8956 63 (7)	good
1 ^h 36 W	45° 59'	1	4.9	B2.5e	4-4-4	Set 5. <i>Hold Be Same 5</i> { 8973 80 (7)	fine
			20/16		Set 9		crystal

2 P.H. in fine

July 11 $\frac{MC}{+1^m 42}$ $\frac{SC}{-1^m 41.5}$ ME +2 S +21^m 26.0^s

⊙ instead of 09

Date Mon-Tue July 11-12/60 Observer Cg- Hiv Julian Day 2437127.5
 ① 109 38 11.3 3432.0

① 109 38 11.3 3432.0

[illegible]

Dome Temp.

75° F

Focus

15.53

(should be 15.61)

Dome Temp.

Transparency Conditions

O.K. - considerable extinction
early in evening. 30

Clouds and quack in sky before 22:00

ag Time
S.T.Hour Angle
End

Declination

Seeing

Ptg.
Mag.

Sp.

Comp.

REMARKS

Quality

+04 42

0

7.42

G2V

#

Focus
15.53

Sens. 7

~~16~~~~SA 17~~

Se HV.

too weak.

R: 49W

" "

4-4-4

Focus
15.61
Gg.

"

9006
101.6

give 16-24

Short

Focus perfect

Focus test taken but not recorded

increasing haze + thin clouds forced
closing.plate was started at wrong focus; switched
to setting 9 + did over to 10 crants.

3 ph. in fig.

	MC	SC	ME	S
July 13	+1 ^m 42	-1 ^m 43.2	0.0	+21 ^m 25.5
	MC	SC	ME	S
July 15	-1	-12.6	-0.5	+21 ^m 24.4

Date July 14/15 Thin/Fri Observer Hd - Pt Julian Day 2437130.5
 0 112 29 48.8 3433.7

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Exposure Angle Inch
25264	HD 49 Lib	15 54.7	-16 14	I-25	103 a0	.008	23.0	20 51	21 40	2	5" W
	Focus TEST		OTB		"			21 57			
25265	HD 145001	16 03.6	+17 19	"	"	"	22.8	22 00	22 30	3	5" W
25266	Jupiter	17 41.4	-23 07	"	103 a0 II a0	.008	22.4	22 49	22 52	3.4	
	"							22 53	22 55		
	"							22 56	22 59		
	"						22.8	23 04	23 04		
25268	Saturn	19 03.0	-22 16	"	103 a0	.008	22.6	23 15	23 26	5	
	"							23 26	23 41		
	"							23 43	00 01		
	"							00 04	00 39		
25267											
25267	MWC 331										
	HD 192044	20 07.8	26 11	I-25	103 a0	.008	22.0	00 53	01 25	4	5" W
25268	MWC 361										
	HD 20075	21 00.4	67 47	"		"	21.6	01 38	03 34	1	5" W

Dome Temp. 16 F

Focus 15.53

Dome Temp. 59°F

Transparency Conditions

good

32

10.5

423.7

Mag Time
S.T.

-0

30

7

4

0

5

25

34

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
56 ^m W	-16° 23'	○	6.00	F8 II	4-4-4	set 5 Se HV sens 6 9029 9036 1/2 20/16 set 8. 6 9038	good o.k.
1 ^h 39 ^m W	+17 11	"	6.1	G4	4-4-4	set 5 Std. Vel. sens 6 9038 - 9046	fine
	-23 07					set 1 N. Tropical Belt. (long slit) sens 4 9049 - 9064	
		4 spectra show				set 2 " " 9065 - 9085	fine
		H+K strongly.				set 4 N. of N. Tropical Belt. " 9086 - 9101	
						set 5 " " 9101 - 9121	
	-17 48	2 spectra weak at H+K				set 8 Ball, top of " 9122 - 9137	fine
						set 9 " , top of " 9137 - 9157	
						set 10 Rings " 9157 - 9172	
51 ^m W		<u>Note: out of order →</u>				set 6 1/2 Rings " 9172 - 9192	
						set 5 sens 6 9193	
50 ^m W	+26 24	○	5.9	B8 ne	4-4-4	set 5 Be sens 6 9193 - 9201	fine
1 ^h 48 ^m W	68 02	○	7.2	B5 e	4-4	set 5 Be sens 7 9202 - 9222	fine

1 p.h. in ring.

Date Fri-Sat Jul 15-16/60 Observer Gg - Hr Julian Day 2437131.5
 ☉ 113° 27' 02.5" 3434.3

[illegible]

Dome Temp.

15.6.6
9

15.57

Transparency Conditions

Clear

34

Apex Aurora in zenith and in north 23:00 July.
(RA 23:00)

41.5

3434.3

g Time S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality										
28	2 ^h 18 ^m W	+04. 19.	0-17.82	F9 V	4-4-4	Set 5... Same 8. Set HV. 9227 - (40-60 counts) 9281		good										
43	3 03 56 W	+23 18.	1-0	7.5	B3e	4-4-4	Set 5. Same 8 Be Prog. 9228 (40-45) 9224	good										
						20/16	" 9 Thin Clouds Toward end of Exposure.	ok.										
Plate 25269 has overexposed spots (ground glass not over?) Possibly useful by calibration of # 25270 (Be Prog. 14d) since both were developed together. H.																		
<table><tr><td></td><td>MC</td><td>SC</td><td>ME</td><td>S</td></tr><tr><td>July 18</td><td>-1.5</td><td>-16.9</td><td>+2</td><td>+21^m 23.2</td></tr></table>										MC	SC	ME	S	July 18	-1.5	-16.9	+2	+21 ^m 23.2
	MC	SC	ME	S														
July 18	-1.5	-16.9	+2	+21 ^m 23.2														
Last observer left a plate in spectroscopy. (see that as unpolluted?) 2^h 18^m Out. 10.1!																		

Date Tues July 19.20/66 Observer V. By-L Julian Day 2437135.5
 0117 16 03.9 3437.0

[illegible]

Dome Temp.....

Focus.....

Dome Temp.....

Transparency Conditions *clearing slow midday*

36

Lat. July 16. 210 visitors shown
14d, 14y, KM. 4 and M13 with 74" RAB shown 4, 5

437.0
 45
 14
 45
 04

Hour Angle
End

Declination

Seeing

Ptg.
Mag.

Sp.

Comp.

REMARKS

Quality

no filter

S_{av}no sup. sens. H₂O 3m.

no filter

no filter

July 20

MC

-2

SC

-20.7

ME

+0.5

S+21^m 21.5

Date Wed Thu Jul 20-21/60 Observer W. B. H. & C. G. Julian Day 2437136.5
 © 118.13 20.9 3437.7

Plate No.	Object	R.A. -1900	Declination -1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
25275		18 02.7	-22 28	Newt	Focus	slit	40 L.			
25275	filaments	18 ^h 02.7	-23 ^m 29 ^s	NEWT	I-N			21:51	22:06	1
25276	"	20 ^h 13 ^m	+39 ^s 42	"	"			22:48	23:18	2
25277	"	20 18	+39 17	"	"			23:32	00:02	1
25278	"	20 21	+39 22	"	"			00:31	01:01	
25279	M31	00 40.5	+41 03	"	103a0			2:22	2:32	
25280	"	"	"	"	"			2:35	2:38	

Dome Temp. 62°F

Transparency Conditions

Clear

38

Focus.....

Dome Temp.....

(I-N plates sensitized in H₂O for 3^m pre-exposure)ing Time
S.T.

3437.7

:06

:18

:02

:01

:32

:38

Hour Angle
End

Declination

Seeing

Ptg.
Mag.

Sp.

Comp.

REMARKS

Quality

-23° 39'

FIRST 4 PLATES DEVELOPED

Thurs July 21 L & MCR (David Mac Rae)
changed back to Cars.

July 22 MC SC ME S
 -1 -23.6 +4.5 +21^m 19.9

Hd, L, and MCR tried to measure
the reflectance of the Cass and
Newt mirrors by (a) MacBeth
illuminometer (borrowed from Applied
Physics and (b) by Hd's exposure meter.

The results (not entirely consistent) in blue light:

Cass ~ 40-50% Newt 70 to 80%

All tests indicated Cass much worse than Newt though both were
aluminized in summer of 1957.

Dom: Temp.
Focus ... / S ...
Dom: Temp.

[illegible]

Date Sat/Sun July 23/24 Observer Pt LMC Julian Day 2437139.5
 ☉ 121 05 15.9 3439.6

[illegible]

Home Temp. 68°F

ocus. 15.55

Home Temp. 66°F

Transparency Conditions Clear

42

9.5

9.6

ing Time
E.S.T.

our Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
330W	48° 15'	0	6.9	B9.5eq	4-4-4	set 5 (slit width open / or 3 mm.)	9382-7402
					20/16	set 8	Weak and OK. center * to read *
119 E	48° 05'	1	4.7	B4.9eq	4-4-4	set 5	9405-9413
						1 p.h. in fig.	fine
						* I doubt if the focus was set correctly.	

Date Sun Mon Jul 24-25/62 Observer DH-HR Julian Day 2437140.5
 @ 122 02 35.5 3440.02

[illegible]

Focus.....15.57.....

Home Temp.....

44

0.5
40.02

ading Time
E.S.T.

ading Time E.S.T.	our Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
3 R.	D109E	+32° 17'	0-1	7.0	BOne	4-4-4	Hd Be-star Set 3 Sens ^{20 cents} 7 9426-9446	Good
3 U8	30'41E	+37° 23'	0	5.7	B3nc	4-4-4	Hd Be-star Set 5 Sens ^{8-cents} 6 9448	Fine.
2	2307W	36 53	0	7.7	33c	4-4-4	" " " " " 8 9459 9504	Fine
						29/16	" 9	Trans OK
							2 P.H. in Tring.	
July 25								
	<u>MC</u>	<u>SC</u>	<u>ME</u>	<u>S</u>				
	-1	-28.2	0.0	+21"	19.0		Tra # 25485 - trouble with decl. motion - sl. going	
							I found no star lamp	

46

Dome Temp... 63°.....

Exp. in the out of order.
(all plates a little weak)

[illegible]

Date July 27/28 1960 (Wed/Thurs) Observer Hd. M. R. - H. v Julian Day 2437143.5
 ☉ 124 54 37.9 3441.8

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.E.	How Angle Est
25296	^{HD} 138367	15 26.7	+57 47	T-25	103 a0.	.008	26.3	20 47	21 53		1/2 30
25297	^{HD} 168021	14 12.7	-18 39	T-25	103 a-0	.016	26.6	22 04	23 09		1/2 30
25298	^{MWC 812} HD 180398	19 11.3	+19 56	T-25	103 a-0	.008	26.3	22 13	03 46		1/2 30
	7-27-5	15		"	"	"					

Dome Temp. 74

Focus.....15:59.....

Dome Temp.....

Transparency Conditions GOOD

48

0/100 Thin Clouds, Haze?
Telescope "unstable" to-night.ing Time
E.S.T.

P.

Hour Angle
End

Declination

Seeing

Ptg.
Mag.

Sp.

Comp.

REMARKS

Quality

53

12^h 30 +57 35

1

7.36

F6II

44-4

Se HU Set 3

Sens 7 9551
9576

good

09

W 58^m -18 36

0

6.7

Bo

4-2

Set 8⁸ Rad. OB (too faint)
(bm 008)Sens 7 9578
9580

weak

6

7:36W +13 04

1

7.7

B3mc

44-4

Set 3 Be Prog.

Sens 7 7=16
9604-11

weak

20/16

" 8

Effective # Counts = 28

I.P.H. in Ring.

Date Mon-Fri July 28/29 Observer Hg Julian Day 174.5

[illegible]

Dome Temp.....

Transparency Conditions

50

Focus.....

Dome Temp.....

ing Time
E.S.T.

Hour Angle
End

Declination

Seeing

Ptg.
Mag.

Sp.

Comp.

REMARKS

Quality

July 29

MC

-1.5

SC

-34.3

ME

-2.2

Date July 29/30

Observer.

- Hy

Julian Day 2437145.5

① $126^{\circ}49'22''.2$

3442.9

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.E.
<u>25299</u>	AD 18723 AD 187923	19	47.4 + 11 23	I-25	103a0	1008	26.2°C	01:14	3:30	✓
↑ <u>Observed</u> <u>wrong plate no.</u>										

Dome Temp 73.0

Transparency Conditions

fair

52

Focus 15.68

Dome Temp

5.5
442.9

ing Time
E.S.T.

30

Hour Angle
End

Declination

Seeing

Ptg.
Mag.

Sp.

Comp.

REMARKS

Quality

3 54

11° 33

1

6.31

G2V 4-4-4 Sit 8

Se HV

Sens 6

9638
9647

Weak

2 p.h. in fring.

54

Dome Temp...59.....

ing Time
E.S.T.

ing Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
126	0° 31' W	36° 14'	0-1	7.1	B2	4-4-4	Be SW WWC 332 <u>Sens 7</u> 643 - 663 ✓	fine
151	3° 07' W	02° 52'	0-1	7.86	F9V	4-4-4	Se HV. <u>Sens 5</u> <u>Sens 8</u> 9666-9721 40-60 (field plotted agree with B.D. - Cy -)	l. weak c. sl to v.
20/16 Set 9. 4 P.M. + 1(?) in yellow box wd B, Eng, K.M. Sat. Night 130 GUESTS + 2 Dogs Slaves 1 (Lyne + M13).								

Date Sun. July 31 Aug 1/60 Observer L-Hr Julian Day 2437147.5
 ☉ 128 44 08.7 3444.0

⑤ 128 44 08.7 3444.0

[illegible]

Dome Temp. 68°FFocus. 15.53

Dome Temp.

Transparency Conditions Good

56

0200 a few cloudsing Time
I.S.T.

25

26

Hour Angle
End

Declination

Seeing

Ptg.
Mag.

Sp.

Comp.

REMARKS

Quality

3 42W

04 39

0

7.92 G2V 444

Sun HV

Lens 8

736
796

good

2 404W

05 55

1

8.5 B6ne 44-4

Be prog
Set 9

..

799
839

good

Focus o.k.

3 P. H in Fring.

Haze + Clouds for last hour.

57

Date 17/11 [✓] Aug 1/2
~~Aug 2/2~~ 1960Observer vdB - Hy
Duke McRJulian Day 2437148.5
0 129 41 32.7 3444.7

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp. °C.	Starting Time E.S.T.	Ending Time E.S.T.	P.E.	Star Angle End
<u>25304</u>	29 Cyg	20 ^h 12.7	⁽¹⁹⁵⁰⁾ +36° 39'	I-25"	103a0	.008	24.5	22 ^m 00	22 ^m 05 ^m	1	130
<u>25305</u>	B Aql	19 ^h 50.7	+6° 09'	I-25"	103a0	.008	24.5	22 ^m 25	22 ^m 26 ^m	2	120
25305	180398	19 ^h 11.3	+12° 56'	"	"	"	"	"	"	L	
25306	Star test										
<u>25306</u>	MLX 397 HD 218393	23 02.6	+49 40	I-25"	103a0	.008	23.5	01:27	03 32	1	46W

Dome Temp.....

Transparency Conditions Thin Cloud.....

Closed out 10:40 p.m.

58

[illegible]

Date Fri Aug 5/6 1960 Observer Hd Julian Day 2437152.5
Sat 133 31 15.7 3447.7 (Subtract 0.503)

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.J.
5308	Jupiter ^{N trop} Belt (Dark band)				<u>IIaO</u>	008	25.13	21:05:30	7:10	
	"				<u>2 3mm</u> <u>long</u>	<u>slit</u>	56	07:50	10:30	
	"						26.3	14:30	18:10	
	Bright Area						26.4	21:10	23:00	
	"						26.6	23:30	36:00	
	"						26.2	27:30	33:00	
	Dark Band (i.e. N. trop. belt)						26.2	34:40	36:30	
	Moon (center)						1	46:14	46:00	
							26.4	47:30	17:30	
							"	48:10	48:30	
							"	49:03	49:30	
25309	MOON				<u>IIaO</u>		26.4	53:00		
								53:35	54:15	
								54:00	54:30	
								55:15	56:15	

Dome Temp.....

Focus 15.57 (*)

Dome Temp.....

Found focus set at
Transparency Conditions
about 15.70. Was it
set wrongly last time?

O.K. cloud on horizon

20 05 - 17 17

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	roll no.	REMARKS	Quality
		0					Set 0 1 8 counts. Sens. 4.7 d'inst on slit	
							Set 1 2 12 counts.	
							Set 2 3 18 counts.	
							Set 3 4 8 counts.	
							Set 4 5 12 counts	
							Set 5 6 18 counts	
							Set 6 7 12 counts.	
							Set 7 8 4 counts	
							Set 8 9 6 "	
							Set 9 10 9 "	
							Set 10 11 14 "	
							Set 0 4 "	
							Set 1 6 "	
							Set 2 9 "	
							Set 3 14 "	

In Virgo
region



N trop (dark belt)
bright area

28 W (at end of the exp)

sky was
pretty
hazy
with thin
clouds
but fairly
clear in
the region
and at
these
times

fine

Date Fri/Sat Aug 5/6, 1960 Observer Hld Gg - Hy Julian Day 2437152.5
 0133 31 15.7 3447.9

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.
25309	Saturn (all)			I-25	IIaO	0.008 long	26.3	22:03:15	22:29:10	
	(rings)					"	26.3	22:30:30	22:50:30	
								2.50	0:50.5	
25210	δ Cyri	20 18.6	+39 56	I-25	103a0	.008	26.3	23:35	:35 1/2	
25211	α Cyri	20 38.0	+44 55	"	"	normal	"	23:37	:38 1/2	
						"	"	23:53	:56	
								:57	:59	
25312	α Lyra	18 35.6 (1960)	+38 45	I-25	103a0	.008		00:21	00:22	
		1900 } 18 33.6, +38 41 }						00:24	00:24	
							26.5°C	00:27	00:27	
								00:30		
								00:31		
25313	λ Cyg	20 43.5	+36° 07'	I-25	103a0	.008	26.5°C	01:24	01:37	
25314	55 Cyg	20 45.5	+45° 45'	I-25	103a0	"	26.3°C	01:40	02:05	
25315	σ Cyg	21 13.5	+38° 59'	I-25	103a0	"	26.3°C	02:10	02:14	
25316	69 Cyg	21 21.7	+36 14'	I-25	103a0	"	26.3°C	02:21	02:10	

Home Temp. 68°F

Transparency Conditions

62

ocus

Home Temp. 64°F

Much C cloud in South 22:30

intermittent clouds all night.

ending Time
E.S.T.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0 34 W		0				Set 4. 0140 Sens 4. Through clouds	} fine
		0				Set 5. 152 Sens 4 Very cloudy	
						Declination Slow-Motion did not work in one direction until I clamped the Dec.	
						Refocused	
0 06 E	+40 10	0-1	2.32	F8 Ib	12 ^s	Set. 4 - 2 counts Sens. 4 MK Std	} fine
0 03 E						8 - 3 counts	
0 01 E						8 - 4 counts	
0 07 E	+45 11	1-0	1.33	A2 Ia	12 ^s	Set 4 2 " Sens 4 MK Std	} strong
0 05 E						8 4 "	
0 02 E							
		1-0	1	A IV	—	set 2 about half light cut out by dome	} strong
						(00:24:05 to 00:24:15 at set 4). full light	
					4-4-4	00:27:00 to 00:27:20 set 5	} strong
						few seconds set 8	
						five " set 9	
11 ^h 31 ^m	+36° 23	1	4.47	B5 V	4-4-4	set 5 sens 4 5 counts 0237 MK Std	} fine
11 ^h 58 ^m	46 02	D	4.89	B3 Ia	4-4-4	set 5 sens 5 8 counts 0242 MK Std	
11 ^h 40 ^m	39 16	0	4.28	B9 Ia3	4-4-4	set 5 sens 4 4 counts 0243 MK Std	} fine
11 ^h 27 ^m	36 31	1	5.84	B0 Ib	4-4-4	set 5 sens 6 cloud 1 A. 0251 MK Std	
							0252 MK Std (center gimbals)
							0256 MK Std
							0259 MK Std
							026

Date Fri/Sat Aug 5/6 1960 Observer - Hy Julian Day 24371.52.5
 0 133 31 15.7 3447.9

[illegible]

Dome Temp. 63°

Transparency Conditions Man + Haze

62

'ocus.....

Home Temp.....

1.5
447.9

ding Time
E.S.T.

E.S.T.

ding Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
34	1 ^h 04 ^m	+57° 02	0	5.25	F0Ja	4-4-42	5 lens 5 (MK stars) 8 cm	0270 0278 fine.
51	2 ^h 22 ^m	+55° 46	0	3.93	K3Ib	4-4-42	5 lens 4 (" ") 4 cm	0280 0284 sl. weak guidings
							centre sl. to red.	
							1 ph. in fig.	
							Three plates developed	
							Dev Aug 6 J & L	

Date Sat/Sun 1960 Aug. 6/7

Observer

$$\begin{pmatrix} MR \\ mer \\ SP \end{pmatrix} - mer$$

...Julian Day 2437153.5
 ⊕ 134 28 43.6 3448.8

④ 134 28 43.6 3448.8

[illegible]

Dome Temp. 67.....

Transparency Conditions ⁶⁶ *hazy but mostly clear in eve.*
162 + vision, Shaved M13
+ RASC telescope

ing Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
21	01 59	+02 48	2	7.86	F7V	444	SeHV Sen 8 Set 5	295 (weak in lib) 355 good
45	00 42	+18 15	1	8.33	G5V	444	SeHV Sen 8 Set 2	355 37 sl. weak
							(newly graduated demonstrating)	100 c. sl. toward (cont. spectrum varies slanted?) mean red on
							are hard to strike!	321
							2 P.H. in p.d.	
							<u>MC</u> Aug. 8 -2.5 <u>SC</u> -51.2 <u>ME</u> 0.0 <u>S</u> +21" 10.8	

Date Mon Aug 8-9 / 60 Observer L-McR Julian Day 2437155.5
 ☉ 136 23 42.4 3451.2

[illegible]

Dome Temp. 68°FFocus 15.52Dome Temp. 59°F

Transparency Conditions

Gooding Time
E.S.T.

	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
2 43	01 00W	-01 40	0	7.7	B ₄	2-2-2	Radcliff OB	Sens 8 414 weak
0 45	00 07	42 33	0	7.1	B ₅ ne	4-4-4	Be Prog	" 8 469 good
3 4	00 32	+38 31	0	6.4	B ₃ ne	4-4-4	Be Prog Set 5	Sens 6 527 good
4 8	01 48W	+30 48	0	7.44	G ₂ II	4-4-4	Se HU Prog Set 2	Sens 7 (nearly 100% increased) 528 fine

Focus o.k

Dim light on Exp mtr. non-operation

2 PH. in Ref.

Aug. 10

<u>MC</u>	<u>SC</u>	<u>ME</u>	<u>$\frac{S}{2}$</u>
-2.5	-0.8	-5.5	+21 ~ 11.1

Date Wed-Thurs Aug 10-11/60 Observer - Hy Julian Day 2437157.5
 ☉ 138 18 46.2 34539

© 138 18 46.2 34539

[illegible]

70

Dome Temp.....

ing Time
S.T.

ing Time S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS		Quality
023	10 ^h 31 ^m	+56°28'	0-1	6.01	B8 Ib	4-4-4	set 5 sens 6 (MK std.)	8 counts. 0562	good
								0570	
040	12 ^h 03 ^m	+61°56'	0-1	4.87	B2 Ib	4-4-4	set 5 sens 5 (")	8 counts 0571	good
								0579	
062	12 ^h 00 ^m	+62°07'	0-1	5.17	O9s Ib	4-4-4	" sens 5 (")	8 counts 0581	good
								0583	
085	N 2 ^h 35 ^m	+53°09'	0-1	6.6	A3 Ib	4-4-4	" sens 7 (")	20 " 0590	weak
								0610	
								7 counts only 0593	c. at seed
							clouds rising from west		
							3 ph in frig		

Date Shure Aug 11-12/60 Observer L-McR Julian Day 2437158.5
 ☉ 139 16 20.1 3455.4

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle End
25330	HD 173438 ^{MWC 308}	18 40.2	04 42	IRS	E103A	set .016	20 29	20 29	20 29	4	
	HD 173863	18 52.3	59 53	"	"	.008	24.0	21 40	22 22	4	0 33W
25331	^{MWC 350} HD 186712	20 34.0	-02 46	"	"	"	23.9	22 31	23 15	1	0 18E
25332	^{MWC 383} HD 209292	21 57.2	56 14	"	"	"	23.9	23 23	02 38	2	0 14W
25333	HD 231830	23 30.4	130 27	"	"	"	23.9	02 48	04 34	3	0 36W
	FOCUS TEST		OTB								

Dome Temp. 72°F

Focus 15.53

Dome Temp. 61°F

Transparency Conditions

good
after 2140

15.64
0.9
5.5

72

Lost 3/4 hr because of clouds

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
	-04 38	1	8.1	B0	2-	Radcliff OB	Set 8 595
0 33W	59 59	1	6.9	B4e	4-4-4	Set 9 Be Prog.	" 7 609 fine
0 18E	-02 32	1	6.3	B9e	4-4-4	" "	" 7 629 fine
1 44W	56 33	1	8.1	B5e	4-4-4	" "	" 7 631 fine
2 06W	30 47	1	7.44	G2D	4-4-4	Set 2 Set HV Prog	" 8 653 good
					Set 8	Set 7 729 (lineation like)	Set 7 729 (lineation like) e. to red

3 P.H. in fr.

Aug. 12

MC	SC	ME	S
-2.4	-1.3	-0.5	+21" 09.9

① 140 13 55.5 3456.9

Dome Temp.	
Focus ...	5
Dome Temp.	
Hour Angle	
End	

Dome Temp. 72°

Focus 15.55

Dome Temp.

Transparency Conditions

Haze esp. at start
Much Extinction esp. after 23h

74

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
4 ^h 45 ^m W (to 4 ^h 45 ^m W)	+58° 32'	0	6.80	A3	4-4	Set 5 Lens 7 KA 8x8 16 mts 0736 0747	l. weak
						heavy obscuration	
						Set 0 to 4^h 45^m W (found the P.H. star!) (Disregard to 4^h 45^m W (found the P.H. star!)) (found the P.H. star!)	ex. at 1:00
						Thin Cloud over whole sky Closed Up 1:00	
						<u>3 P.H. in fig.</u>	

Date 1960 Aug 13/14 Sat-Sun Observer MR } - Pt Julian Day 2437160.5
MR }
 @ 141 11 32.4 3458.3

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
25335	HD 198183	20 43.5	+36 07	I-25	103a-0	1008	124.2	2254	2305	1
"	"	"	"	"	"	"	"	2306	2316	1
"	"	"	"	"	"	"	"	2317	2348	1
25336	HD 22292	21 57.2	56 14	I-25	103a-0	1008	24.0	0053	0119	2
25335-F	MNC 383 Focus TEST			OTB						

Dome Temp. 7.0

Focus 15.64 - .09 = 15.55

Dome Temp. 59.3

Echo I culmination
at 10:44 1/2 EDST in SE;
again in zenith at
00:49 EDST;

Transparency Conditions good

168 vesicles — showed M13 (and Echo I)
(MR-JB-Pt-McR-lyg-KM+RASC)

76

ig Time
S.T.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
05. 0029 E	36 21	2	4.5	B6e	6-6	MWC35-2 set 2	7576 764
16 1015 E	"	2	"	"	—	" 5	765 (no comp) good
48 3014 W	"	2	"	"	4.4-4	" 8	764 788 strong
	156 32		9.1	B5e	4-	set 5	790
						set 8 20/16	
						stopped because of approaching clouds — also too slow	Focus o.k.
						1 p.h. in /rig.	
						Dr. MacRae: Echo I reached culmination at 2:56 ± 0.7. (2:56)	

Date Mon. Aug 15-16 / 60 Observer L- Cg Julian Day 2437162.5
 @ 143 06 50.6 +3461.5

⑧ 143 06 50.6 +3461.5

[illegible]

Dome Temp.....

Transparency Conditions

Transparency Conditions *Clear All Over* 22 + 20 + 8
20 11

$$\begin{array}{r} 2 \quad 12 \\ 150000 \quad 500 \end{array}$$

461.5

[illegible]

Dome Temp. 70°F

Focus 15.53

Dome Temp. 62°F

Transparency Conditions *very good*

80

Bright Aurora

	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
05	131 W	77 45	0-1	6-7	A0	4-4-4	<i>Spec. Bin M</i> <i>Sms 7</i> ⁹⁸⁵ 1005	<i>good</i>
41	107 W	56 31	0-1	8.1	B5c	4-4-4	<i>Be Prog.</i> <i>Sms 8</i> ¹⁰⁰⁷ 1067	<i>l. weak</i>
43	203 W	49 58	0-1	6.8	A4c	4-4-4	<i>Be prog. Set 5</i> <i>Sms 7</i> ¹⁰⁸⁹ 1096	<i>fine</i>
3	112 E	55 45	0-1	3.93	K ₂ Ib	12	<i>MK. Std Set 3</i> <i>Sms 4</i> ¹⁰⁹⁹	<i>good</i>
						<i>20/16</i> <i>Set 8.</i>	<i>centre very sl. to red.</i>	

1 P.H. in fr.

Aug 17

$\frac{MC}{-2}$	$\frac{SC}{-2.2}$	$\frac{ME}{-4.5}$	$\frac{S}{+21^m 08.5}$
-----------------	-------------------	-------------------	------------------------

Date Wed-Thurs Aug 17-18/60 Observer (MR) Hy-Cg Julian Day 2437164.5
 0 145 02 15.0 3464.5

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
25344	HD 154528	17 00.9	77° 48'	I-25	103a-0	.00E	25.3c	20:24	21:20	3
1013-114	d Cyg	^{18 33.6 1960} 18 35.6	+38° 45'	new ↔		.020	4/2	21:41		
1014-114	16 Cyg A	¹⁹⁰⁰ 19 39.2	45° 18'	"		✓	6/6	22:08		
1015-114	"	(40.6)	" (25)	"			"	22:29		
1016-114	2 Lyr	¹⁹⁶⁰ 18 35.6	+38° 45'	"			4/2	22:51		
25345	o Cyg	21 13.5	38° 59'	J-25	103a-0	.008	25.4e	23: ²⁹ / ₃₃ 44	23:45.31	4
25346	HD 210221	22 03.8	+52° 49'	"	"	"	25.2	23:53	1:33	1
25347	HD 222960	23 48.9	+60° 18'	"	"	"	25.0	1:44	2:42	2
25348	HD 9407	01 27.3	+68° 26'	"	"	"	25.0	3:01	4:45	3
	f c new	b c	8	O Y/B						

Time Temp. 6:10

bcus.....15.57

Time Temp.

Ech I a) culmination at 21:18 $\frac{1}{2}$ EDT

Transparency Conditions

fair - good.

72 82

b) meridian 23:22 EDT (estimated mag -1, brighter than Vega)

c) meridian 1:27.5 $\pm$.5^m EAST. (27^m 10^s - actual) - OK

d) meridian 3:34.5 EDT, from $\pm$ W, so of zenith to ESE - Done clock.

ing Time
E.S.T.

Hour Angle
End

Declination

Seeing

Ptg.
Mag.

Sp.

Comp.

REMARKS

Quality

2)

1^h 55^m W 77° 45'

0

6.7

A0

4-4-4

N. Spect. Binary

Per 7

1102

~~1105~~

+38° 47'

0.04

A0 V

30"

2"/min, 4A/sec

LST 19:09 = 21:41

+50° 28'

6.6

G2 V

"

5240 - 3400

1^h 53^m W +38° 46'

0.04

A0 V

"

00 00 39 14

0

4.28

B9 Ia b

4-4-4

Set 2
out 5
act 8.

MK Std.

2.6 min
6.2 min
1.3 min

0 55 W +53° 08'

0

6.6

A3 Ib

4-8

MK Std.

expose 39 min

1 W +60 39

0-1

6.7

A0 Ia

4-4-4

MK Std.

(45 min)

0 42 W +68 45

1

7.21

G6 V

4-4-4

Set HAVV

(probable outlong. etc)

(108 min)

SHOULD BE
FINDER FIELD FOR
THIS STAR?

(Finder field drawn)

30/16

4 P.H. in fog

Spectrographic work

Ech

5:37

from N.W. to S. (only brighter than G...)
(5 successive passages!)

ruined because slit at 000!

(Column L+50% = time in min to 4/cy per sec).

slit joined shut.

~~EXPOSED~~

Date Th-Fri 1960 Aug 18/19 Observer MR - M^rR Julian Day 24 37165.5
0145 59 59.5 3466.0

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.	Hour Angle End
25344	HD 154528	17 00.9	77° 48'	I-25	103a 0	^{set} .008	27°C	20:22	21:16	1	SW +
1017-115	16 Cyg A	19 40.6 ¹⁹⁶⁰	+50 25	scan	2x ↔	.020	6/6	21:52			
1018-115	α Cyg	18 35.6	+38 45	"	↔	"	4/2	22:33			
25345	γ Cyg	21 13.5	+38 59	I-25	103a 0	.008	25.6°C	23:25	23:39	2	SE +
1019-115	"	"	"	scan	R → B	.020	6/2	00:01			
1020-115	δ Cyg	21 44.3	+60 57	H8 x 2		"	6/2	00:35			
25346	HD 221830	23 30.4	+30 27	I-25	103a 0	.008	25.9	01:02	02:42		W +
25347	HD 9407	01 27.3	68 26	I-25	"	.008	25.9	03:00	04:09	4	110W +
	POCUS	TEST			OTB						

numbered
correctly?
3 digits
p.p.

Ech I: ① 20:55 EDST Culm.

Transparency Conditions *good; low haze*

② 23:00 " merid transit

③ 1:06 " " "

④ 3:11 " culm.

⑤ didn't see 5th pass - cloud.

ome Temp. *74°F*

ocus. *15.69 - .09 = 15.60*

ome Temp. ** later changed to 15.58*

70°F

165.5
3466

ding Time
E.S.T.

our Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
1:16	1:50 W	+77° 45'	0	6.7	A0	4-4-4 Spec. Bin ^N set 5	87:1153 <i>l. weak</i> 87:1172 <i>(scratched)</i>
				6.6	G2V	30" 2"/min; 4A/sec.	22:16 = 19:48
				0.04	A0V	" " "	{ 87:1177 <i>st2</i> 1193
3:39	0:05 E	+39 15	2-0	4.28	B9Iab	12(ads) MK std.	1193 <i>st5</i> 1225 <i>fine</i>
				"	"	30" 49w-3700 2"/u; 1A/s	1225 <i>st8</i> 1233
				4.66	A2Ia	" 4540-4160 " "	
2:42	0041W	+30 48	1	7.44	G2V	4-4-4 Set 5 Sens 7 Self v prog. <i>100% extr. exp.</i>	1246 <i>good</i> 1278
4:03	0010W	+68 46	1+	7.21	G6V	4-4-4 Set 2 Sens 7 Self v prog. "	1279 <i>good</i> 1211 <i>(l. weak in blue)</i>
					20/16	Set 8.	<i>o.k. but centre shifted laterally.</i>

4 PH in fr.

Date Sat-Sun 1960 Aug 20-21 Observer DM-

..Julian Day..2437167.5..

① 147 55 33.1 3469.0

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.
25348	HD 221830	23 ^h 30 ^m .4	+30° 27'	I-25	103A-D	00B	22°C	22 49	23:49	1
	Focus Test				OTB					
	Focus Test				OTB					

Dome Temp. 67°F

Focus 15.52

Dome Temp.

Transparency Conditions Light cloud and haze 1 start 86
 DH Gg KM showed ~160 visitors M13, Echo I
 23/0 Sky filling in

ing Time
E.S.T.

Hour Angle
End

Declination

Seeing

Ptg.
Mag.

Sp.

Comp.

REMARKS

Quality

25° 01' E

+30° 48'

0

7.44

G2V

4-8

Se HV Set 4

Sen 7

Gr counts
 1393 - 1401
 (comparison is trouble)

too
 weak
 (comparison is trouble)

Plate closed early because / cloud

10/7 Wrong exposure Set 9

20/16 Set 7

iron. spec
 under
 center to violet.

3 PM in fig.

DH, Gg closed up - Thick Haze
 + Fog. - 0:55

Date Mon Tues 22nd-23rd August (1960) Observer MR Julian Day 2437169.5
Sr $\odot$ 149 51 12.5 3471.9

Julian Day 2437169.5
 @ 149 51 12.5 3471.9

[illegible]

Dome Temp. 72 °F

Focus 15.58

Dome Temp.

Transparency Conditions

9:32¹/₂ Eastern Summer Time Echo I 5° S of Vega on meridian

3471.9

ing Time
E.S.T.

	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
56	0 ^h -11 ^m W	—	0	5.04	80.5 III	6-6	(MR Prog) Sen 7	1424 1449 1451 Set 2 good
27	00 ^h 42W	-01°22	1	4.28	85 III	6+6	Too old to continue " 2 P.H. loaded	1479 Set 5 good
							MC SC ME S	
Aug. 23							-2 -4.9 -5.5 +21 ^m 04.3	

Date Tues-Wed, Aug 23-24/60 Observer Hr - Gg Julian Day 243.7170.5
 @ 150 4.9 04.4 3473.3

① 150 4.9 04.4 3473.3

[illegible]

Dome Temp. $+66^{\circ}F$ Focus 15.52

Dome Temp.

Transparency Conditions Good.

90

ECHO I TRANSIT AT $22^h 16^m 20^s$ approx.Echo I - low in SW - $4:31$ am EST.

ing Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
12:41	$3^h 49^m W$	$+08^{\circ} 47'$	0	8.53	G7V	4-4-	Set H _v (decided not going to get it) # 9 1502 94	weak
1:09	$0.55 W$	$+53^{\circ} 08'$	0	6.6	A3 Ib	4-4-4	MK Std. Sers 7 1596 1615	good
1:28 1:35 1:52 1:55	$0 30 E$	$-14^{\circ} 45'$	0	4.62	B9.5 V	$\frac{12}{12}$ $\frac{12}{12}$	Set Q - 3 counts 2 - 6 counts 4 - 12 counts 7 - 7 counts MK Std (6) Sers 5 $1620-23$ $24-30$ $32-44$ $45-52$ guided on blue part of image.	fine
1:58 2:29 2:36 2:46	$0 17 E$	$+15^{\circ} 00'$	0	2.87	B2 IV	$\frac{12}{12}$ $\frac{12}{12}$	Set Q - 2 counts (S) guided on blue (best time) long slit. 2 - 3 counts " on red extreme. normal slit. 5 - 6 counts " couldn't make out colour in MK Std Sers 7 1672 1689	fine
2:46	$2 02 W$	$+60^{\circ} 39'$	0-0	6.7	A0 Ia	4-4-	MK Std Sers 7 1672 1689	weak
						$20/16$		Focus o.k. (e.v.c. to m.k.)
							⊗ Spectra too close together.	
							1 P.H. + 4 in frig.	
							MC SC ME S -2.5 -4.9 -5.0 +21^m 04.8	
							Aug. 24	
							Sid. Chk's correct? - Gp.	

Date Aug 24-25 West-Thumb Observer MR-MCR Julian Day 2437171.5

☉ 151 46 57.7 3474.7

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.B.	Hour Angle End
25355	γ UMa	13 ^h 43.6 ^m	+49° 49'	I-25	103a0	2008	22.0	19:45	19:58	4	4° W
25356	γ Boo	14 28.0	+38 45	"	"	"	"	20:17	20:39	1	4° W
25357	HD 175190	18 49.1	-22 48?	"	"	"	"	20:56	21:32	2	0° 35' W
{ 25358	HD 199478	20 52.4	+47 02	"	"	"	"	21:57	22:38	3	0° 00' E
{ 25359	14 Cep	21 58.7	+57 31	"	"	"	"	22:46	23:21	1	0° 00' E
{ 25360	HD 221170	23 24.6	+29 53	"	"	"	"	23:40	03:08	4	0° 00' W
{ 25361	HD 11592	01 48.7	+10 08	"	"	"	"	03:22	04:44	1	0° 00' W
	FOCUS	TEST			OTB						

Dome Temp. 65°F

Focus 15.52

Dome Temp. 59°F

Transparency Conditions much high cirrus

92

34747

ing Time
E.S.T.

	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
58	f:07 W	+49 32	1	1.66	B3 V	10	MR-EW S7: set 2 {1706 1731} set 5 {1731 1779} set 8 {1779 1792} fine	fine
39	f:04 W	+38 29	1	3.22	A7 III	10	" S7: set 2 {1792 1816} set 5 {1816 1865} set 8 {1865 1877} fine	fine
32	0:35 W	-22 43	1	6.0	Sg K5	4-4	HIV Sp. B. S8: set 5 {1880 1942} l. weak	l. weak
38	0:20 E	+47 18	1	5.76	B8 Ia	4-4-4	MR-EW S7: set 2 {1956 1980} good	good
21	0:45 E	+57 50	2+	5.50	O9 V	4-4-4	" S7: set 6 {1984 2033} set 9 {2034 2058} set 10 {2059 2072} good	good
19	0:38 W	+30 14	2	8.79	G2 IV	4-4-4	Se-HV S9: set 2 {2090 2100} much haze at 0200. clear again at 0215. weak	weak
46	0:50 W	+10 26	2	7.24	F5 II	4-4-4	Se HV S7: set 7 {2304 2336} good	good
						20/16 Set 5.	Focus o.k.	

4 P.H. in fr.

Date Aug 25-26/60Observer H^{rk} - GgJulian Day 2437172.50 152 44 52.4 3475.9

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp. 22.2	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle End
25362	Jupiter (N. of North Trop Belt)			I-25	II-a0	.008		20:16	20:25	3	
	" (S. of South Trop Belt)				(unbated) (long slit)			20:26	20:30		
	Saturn (ball)				(spotted quire)			20:38	21:04		
	(rings)							21:05	21:27		
25363	HD 190658	20 ^h .00.8	+15 13	"	E103a-0	.016	22.0	2204	2306	2	02W
25364	" 199216	20 50.7	39 42 49 09	"	"	.008	21.7	2321	1:51	1	25W
25365	HD 223960	23 48.9	+60 18	"	"	.008	21.9	2:07	4:07	4	5W
25366	6 Cass	01 47.2	+63 11	"	"	"	21.8	4:19	4:29	1	W
	Focals							10713			

37

107

Dome Temp. 67
 Focus 15.52
 Dome Temp.

Transparency Conditions Clear except for thin haze & a little cloud in south. 94

2.5
 3475.9

ing Time
 S.T.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
		0			12	Set 0 16 counts } can make out 3 or 4	fine
		"			12	Set 4 16 counts } reddish bands across 2/4	good
		"			12	Set 7 16 counts } can possibly make out	good
		"			12	Set 10 10 counts } a ring division - markings hazy.	weak
102 W	+15 24	0-1	8.0	gM ₂	2-2-2	11 2 v.d B - Bin. #7 2418	weak
259 W	+49 35!	0-1	6.8	B ₁ II	4-4-4	" 2 MK Std. (34) #7 2442	good
2 15 W		0-1	6.7	A0 Ia	4-4-4	" 5: MK Std. (32) #7 2476	good
0 48 W	+63° 30'	1	3.18	B ₃ IV _p	12	MR-EW #4 Set 0 2517 Set 3 2526 Set 6 2531	fine
					70/16	Set 9	central to red.
						MC SC ME S	
					Aug. 26	-1.7 -5.0 -5.5 +21" 04.3	

Date Aug 26-27 / 60

Observer... H v -

Julian Day 2437173.5

① 153 42 48.3

3477.3

[illegible]

Dome Temp. $+74^{\circ}$

Focus 15.56

Dome Temp.

Transparency Conditions *Poor. Extinction*

96

3.5
8477.3

ing Time
U.S.T.

28

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0125W	3444	1-2	6.4	B ₃ V	4-8	Set 2 MK-STD.	#7 2580
	CLOUDS	!!!				" "	# 2604
					20/16	" 8	# 2608
							<i>weak guiding</i>
							<i>centre sl. to red.</i>
						1 P.H. in Frig.	
						<u>A VERY POOR NIGHT!</u>	

Date Sat Sun 1960 Aug 27/28 Observer MR -

① 154 40 45.6 3428.6

[illegible]

Dome Temp. $+68^{\circ}\text{F}$

Transparency Conditions

good

(cld in N new 98
& in W of Oset)

Focus.....

Dome Temp.....

200 visibl

showed M13 + Echo I (MR + McR + P₂ + RA SCing Time
E.S.T.Hour Angle
End

Declination

Seeing

Ptg.
Mag.

Sp.

Comp.

REMARKS

Quality

0.04 A0 I 30"

2"/min 4 A/sec 5240 to 3400

EST LST

22:42 = 20:50

6.6 G2 V

(900 V)

5.59 G4 V

clouding up fast 0100
closed up.

1 P.H. in fr.

evidence for $\pm 5\%$ var
in trans. frequency
HD 217014

Date Aug 29/30 MonObserver MR - M^cRJulian Day 2437176.5

0156 36 44.1 3481.2

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.E.	Ex. Angle and
1024-117	X hys	18 35.6	+38 45	→		var	var	23:23			
1025-117	16 Cyg A	19 40.6	+50 25	scan 2x		set 020	6/6	00:21			
1026-117	57 Peg	22 55.0	+20 30	"		"	6/5	00:43			
1027-117	5 Peg	22 39.5	+10 37	→		var	var	01:04			
25368	"	"	"	I-25	103a0	008	22.4	01:24	01:49	4	15W
1028-117	BD +61° 412	2 19.6	+61 44	→		250	6/7	02:25			
25369	HD 18757	2 55.7	+61 21	I-25	103a0	008	22.4	03:05	03:22	1	11E
	Focus Test			OTB							

200

Home Temp. 64° F

Time	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
				0.04	A0V	30"	4A/S; 2"/m	
				6.6	G2V	"	1) slit 20 2) slit 7 3) slit 20 4) slit 57 _{4/2 4/6 3/5}	
				5.6	G4V	"	5240 - 3400	
				3.40	B8V	"	optimal re-set slit to 20	
149	:25W	+10 38	1	3.61	B8V	12	1) slit 20 2) slit 7 _{5/4 5/7} Sam 4	
				9.27	B3	30"	MR-EW Prog. Scan star 5240-4500; shy at C4912 on dith side	fine
322	:18E	+61 35	0	7.22	G4V	4-	Set HV Prog Sam 7 Set 5 2767-8	too weak note
							Clouds! 03:20 closed up.	
						20/16	Set 2.	Focus good
							3 P.H. in fr.	
							H/B = 4840 R = 4340 B = 4116	

Date 1960 Aug 30/31 Tues/Wed Observer MR - MCR Julian Day 2437177.5
 ☉ 157 34 45.3 3482.5

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.E.	Exposure Time
1029-118	γ Ophi	17 45.8 ^{h m}	+02° 43'	H8x2		020	5/6	20:37			
1030-118	K Aql	19 34.7	-07 07	H8x4		"	6/3	20:53			
1031-118	L Aql	19 34.6	-01 23	H8x2		"	5/6	21:24			
1032-118	γ Lyr	18 57.4	+32 38	"		"	5/4	21:42			
1033-118	δ Cyg	19 43.7	+45 02	"		"	5/3	22:00			
1034-118	HD 209461	22 04.3	+48 02	"		"	6/5	22:17			
1035-118	HD 214240	22 34.2	+49 52	"		"	6/5	22:34			
1036-118	HD 213420	22 28.8	+42 55	"		"	5/6	22:51			
1037-118	HD 216200	22 48.6	+41 45	"		"	6/5	23:07			
1038-118	HD 216916	22 54.6	+41 23	"		"	6/3	23:23			
1039-118	HD 212978	22 25.7	+39 36	"		"	6/4	23:40			
1040-118	HD 214167	22 34.1	+39 25	"		"	6/5	23:57			
1041-118	HD 214168	22 34.1	+39 25	"		"	6/4	00:11			
1042-118	HD 217101	22 55.8	+39 06	"		"	6/5	00:29			
1043-118	HD 217543	22 59.0	+58 50	"		"	6/5	00:57			
1044-118	HD 212803	22 20.0	+37 14	"		"	6/5	01:22			

Home Temp. 68°

Transparency Conditions clear

102

Focus.....

Home Temp.....

Echo I 21:46:15 Grant EST

ing Time
E.S.T.

Hour Angle
End

Declination

Seeing

Ptg.
Mag.

Sp.

Comp.

make some experiments
in tracing the Moon

REMARKS

900V

hist

Quality

+2°44'

3.76

AD V

30"

2"/min; 1A/sec

W 4200-4500

D

5.04

B0S III

"

"

D

4.28

B5 III

"

D

3.30

B9 III

"

D

2.97

B9½ III

"

D

6.21

B2 V

"

J

6.24

B3 V

"

J

4.42

B2 IV

"

6 Lac

J

5.99

B3 IV

"

14 Lac

J

5.44

B2 IV

"

16 Lac

J

6.00

B2 V

"

J

6.31

B2 V

"

8 Lac

J

5.48

B1 I ne

"

J

6.02

B2 IV-V

"

J

6.43

B3

"

J

6.32

B2 IV

"

J

(cont over)

Date Aug 30/31 cont Tuesday Observer MR MCR Julian Day 2437177.5
 0157 34 45.3 34825

[illegible]

204

77.5 Dome Temp. 64°F

.34825

Timing Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
				6.34	B1II	30"	2"/min 1A/cen 4200-4500 T	list
				6.38	B2II	"		J
				6.5	B3	"		C
4:50	2010W	61 85	1-2	7.22	G4II	4-4-4	Se HV Prog Sam 7 Set 2 2775 2805	2 good
						20/6	Set 5.	
								Focus o.k.
							2 PH in fr.	
Sept. 1		MC -1.5	SC -6.0	ME 0.0	S +21" 02.1		MIRROR HEAT ON.	
							Aug 31-Sept 1/60 { ECHO I Passage Aug 31/60 W → E Slightly N. of Zenith Transit 19 ^h 19 ^m EST (8:19 PM EDT) Slightly deteriorating rapidly after HV.	

195

Date Sept. 1/2 Observer - Pt Julian Day 2437179.5
Thurs / Fri 0 159 30 51.7 3485.4

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp. 27°	Starting Time E.S.T.	Ending Time E.S.T.	P.	Hour Angle End
25371	K Cas	00 27.3	+62 23	F-25	103a-0	.008	24.2°C	0118			
	K Cas	-	-	-	-	-	24.1°C				
	K Cas						24.0°C		0149		0.14 E
25372	HD 6343	00 59.4	+65 26	"	"	"	24.1°C	0208	0426	4	1.50 W
25373	MWC 10										
	δ Cet.	02 34.4	-00 06	"	"	"	23.8°C	0442		1	
	δ Cet	-	-	-	-	-	-		0505		0.56 W
	FOCUS TEST					OTB					

Transparency Conditions: Clear (2nd half) 206

Focus 15-55

Dome Temp..... 61°F

79.5

3485.4

[illegible]

Date Sept 2/3 Fri-Sat Observer Hy - Hs Julian Day 2437180.5
1960 0160 28 57.1 3486.8

① 160 28 57.1 3486.8

[illegible]

Dome Temp.....

Transparency Conditions

Homogeneous Ora
Elevation $6\frac{1}{2}^{\circ}$ in N.
yellow green.
2010 EST

$$\begin{array}{r} 15.69 \\ - 1.09 \\ \hline 14.60 \end{array}$$

108

Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
01:11	1 ^h 30 ^m	36 43	1	5.0		4-4-4	Se-AF set 5 sens 5 2918 2926	guiding
01:08	1 06 W	38 47	1	40.5	AOV		set 5 sens 5 , 11 sec, nothing to observe!! set 2 → 3 sec. 4-4-4 set 5 → 5 sec set 8 → 10 sec	(good strong fine)
01:20	1 ^h 02 ^m	+10° 19'	1	5.8	Fe	4-4-4	set 3 sens 6 STD VEL 2983 2991	good
01:50	1 ^h 32 W	"	1	"	"	error	set 7 sens 6 STD VEL 2992 3000 SOME CLOUD: no aurora	good (no comp)
01:10		42 57	1	4.42	BZV	4-4-4	set 5 sens 4 3002 MRLIST J	weak
01:17	0 ^h 45 ^m	"	1	"	"	4-4-4	set 8 " 1/2 exposure 12	{o.k. but guiding}
02:32	031W	39° 25'	00	6.31	BZV	4-4-4	set 3 sens 6 3014 MR LIST J 3022	l. weak
02:10	0209W	"	00	5.48	B/Z ne	4-4-4	" 5 # 6 3024 3032 MR List J	good (guiding)
03:43	0010W	5 15	0	6.0	A.I.a	4-4-4	" 5 # 6 3037 0344 MK STD	guiding
						20/16	" 9	Focus o.k.

Phone call said red object brighter than echo-T went SE to NW at 21:05 at about 2x echo's speed. | 10 to 12 ED also

Date. Sept 3/4
Sat / Sun

Observer.....Pt-

Julian Day 2437181.5

① 161 27 03.9 3488.5

[illegible]

Dome Temp. 68°F

Focus 15.50

Dome Temp.

Transparency Conditions B. w/ clear interval

1960 Sep. 4-5 Sat. Cloudy. About 165 visitors
Gave 2 illustrated talks and 2 demonstrations
of telescope.

N, Pt, JB.

110

ing Time
E.S.T.

Hour Angle
End

Declination

Seeing

Ptg.
Mag.

Sp.

Comp.

REMARKS

Quality

Echo I disappeared in Earth's shadow @ 10:23 ^(few sec. past transit) ST

Cloudy: waited until 00:00.

2 p.h. in Trig.

Date Sun-Mon./Sept 4-5/60 Observer Hv-Hy Julian Day 243 7182.5
0162 25 12.4 3490.1

① 162 25 12.4 3490.

[illegible]

Dome Temp.....

Transparency Conditions

Clearing after Sunset. 772

21.45 Brilliant Aurora in N. Mostly Greenish? Streamers
Some in Zenith

ECHOI 2159 Centre of Passage. Disappeared into shadow? 2201 EST

ing Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
124	2 ^h 46 ^m	38 08	0	7.12	B1.5 Ib	4-4-4	Set 5 Mk Std. #7 3061 3084	l. weak
118	13 ^h 46 ^m	52° 16	0	7.5	09 Ib	4-4-4	Set 5 Mk Std #8 3086 3012 3012	weak
							(fuse blew)	centre sl. to blue.
							clouded out	23:84 21:32 ----- 2.52 = 3 ^h (4 ^h)
							1 ph in fring	

Date Mon/Tue Sep 5/6 1960 Observer MR-

...Julian Day 2437183.5

① 163 23 22.5 3491.9

[illegible]

Transparency Conditions

Dome Temp.....

3491.9

ling Time
E.S.T.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
+6 ^h 48'		3.08	B6 III	30"	1A/S; 2"/m;	clouded out Let B	

Date Tues/Wed Sept 6-7/60 Observer M^cR-H^v Julian Day 2437184.5
 ☉ 164 21 34.4 3493.8

[illegible]

Dome Temp. 68° Focus 15.56

Dome Temp.

Transparency Conditions clear

116

E-I culmination 9:14 EST

" entered earth's shadow 11:16 EST
alt 30° in west.ing Time
E.S.T.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
05 2 W	+58 31	D	7.5	K55	4-4.4	Stel Vel. Set 5 Sens 7	3118 3142 l. weak
10 S	+36 42	0-1	5.0		4-4.4	Se AF Set 5 Sens 5	3144 3153 good
35 W	+18 13	0-1	8.33	G5 II	4-4.4	Se HU Set 4 Sens 8	3156 3208 weak
					20/16	" 9	centre v. sl. to red
						2 P.H. in frig.	
						Heat. on Mirror.	
						0330 DRIPPING OUTSIDE, GROUND MIST.	
						0410 CLEAR SKY VISIBLE ON S.I.T.	
						0440 FOG!!	
Sept. 7						MC SC ME S	
						-1.3 -8.1 0.0 +21 m 02.1	

117

Ki = Paul Kingston

Date Wed Sept 7-8/60 Observer Had Ki - M^rR Julian Day 2437185.5

⊙ 165 19 48.2 3495.8

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.E.	Hour Angle Est
25386	HD 186182	19 57.8	+15 02	I-25	E103aD	008	27.9	20 02	23 06	2	12 16
25387	HD 212942 MWC 407	22 22.8	+4 12	"	"	"	28.0	23 12	23 44	3	10 00
25388	HD 224559 MWC 13	23 53.8	+45 52	"	"	"	28.0	00 12	01 26	4	10 10
25389	HD 9105	01 24.4	+62 51	"	"	"	27.9	01 36	04 38	1	10 10
FOCUS TEST					OTB						

Dome Temp. 78°
 Focus 15.61
 Dome Temp. 70°

Transparency Conditions

poor - haze
Very poor night

118

ing Time
E.S.T.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
						Set 2	
3 06	N 2 16	15.10	2.	8.0	B5 4-4-4	Radclyffe 8B prog sens 8 3221 *	too weak
3 44	W 10 ^m	+44 30	1	5.9	KD 4-4-4	Std Vel. sens 6 3275 (effective)	(dim. making blue) good
1 26	N 21 ^m	+46 14	1	6.5	B3me 4-4-4	Be Prog Set 5. sens 6 3291	good
4 38	W 2 50	+63 09	0-1	7.5	cB5e 4-4-4	Be Prog Set 5 sens 7 3305 [reset on star] 3315 3316 3335	weak guiding
					20/16 Set 9	centre very sl. to red.	
					2 P.H. in fr.		
						Discovered after exp sens accidentally left at 4	
						* Count was 3271 at 22.40. Then meter went crazy, counting sporadically for no reason (counted to 3287 in 5 min).	
						** Quit counting altogether at 3293 for a while (not clouds, but the light may be too dim. because of haze).	

Date Thu/Fri 1960 Sep 8/9 Observer MDJulian Day 2437186.5

① 166 18 04.0 3497.7

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I.
25390	39 Dra	18 ^h 22.5 ^m	+58 45	I.25	103c0	.008	28.0	20:42	21:12	3
	"	"	"	"	"	"	"	21:12	21:27	"
25391	57 Cyg	20 49.7	+44 01	"	"	"	"	21:41	21:56	"
	"	"	"	"	"	"	"	21:58	22:04	"
25392	59 Cyg	20 56.4	+47 08	"	"	"	"	22:10	22:24	2
	"	"	"	"	"	"	"	22:25	22:36	"
25393	* 25 Cyg	21 13.8	+34 29	"	"	"	"	22:40	22:51	"
	"	"	"	"	"	"	"	22:52	22:58	"
25394	4 Lac	22 20.4	+48 58	"	"	"	"	23:04	23:19	3
	"	"	"	"	"	"	"	23:21	23:49	"
	"	"	"	"	"	"	"	23:58	00:06	"
25395	10 Lac	22 34.8	+38 32	"	"	"	28.0	00:13	00:27	"
	"	"	"	"	"	"	"	00:27	00:36	"

① spectra shows excellent
H α , H δ and H γ emission lines.

Dome Temp. 82°F

Focus 15.61

Dome Temp.

Transparency Conditions very very hazy

120

86.5
3497.7

King Time
E.S.T.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
1:12	44 W +58° 48'	0	4.85	A1V	6-6	Set 0 MR-EW	S7 {3430 30} good
1:27	"	"	"	"	—	Set 3 "	S7 {3460 15} good
1:56	0:00 +44 16	1	4.7	B5	6-6	Set 6 "	S6 {3479 10} good
2:04	"	"	"	"	—	Set 9 "	S6 {3490 5} quivering
2:24	0:21 W +47 24	1	4.9	B1V:e	6-6	Set 1 " CAUTION	S6 {3498 10} good
2:36	"	"	"	"	—	Set 4 " Always quiver	S6 {3509 5} good
2:51	0:31 W +34 46	1	4.4	B3neb	6-6	Set 7 " Central core to	S6 {3516 10} fine
2:58	"	"	"	"	—	Set 10 " Telescope	S6 {3527 5} fine
3:09	0:41 E +49 18	1+	4.64	B9Ic	6-6	Set 1 " ⚡	S6 {3535 11} fine
3:19	"	"	"	"	—	Set 4 "	S6 {3547 20} fine
0:10	"	"	"	"	—	Set 5 "	S6 {3567 5} fine
0:27	+38 52	2	4.67	O9V	—	Set 6 "	S6 {3578 10} good
0:36	0:51 W	"	"	"	6-6	Set 9 1/2 "	S6 {3589 5} good

No Focus Test

Sept. 9 $\frac{MC}{-1.5}$ $\frac{SC}{-8.5}$ $\frac{ME}{+2.4}$ $\frac{S}{+21^m 00.7}$

very very very hazy
went home

3PH in F

Date Fri/Sat 1960 Sep 9/10 Observer Br-H Julian Day 2437187.5
 ☉ 167 16 21.7 3499.8

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle End
25396	1. Krl	19 ^h 11 ^m 9	+21° 13'	I 25	103a 0	008	24.1	21:30	22:23	4	2° 08' W
	"	"	"	"	"	"	"	22:23	22:50	"	2° 35' W
25397	ADS 16472 A	22 ^h 58 ^m 2	+43° 34'	"	"	"	"	22:59	23:50	"	0° 15' E
	Focus Test	OTB									
			31?								

Dome Temp. 67° F
 Focus 15.55
 Dome Temp. 49.8

Transparency Conditions Poor - Hazy and Patchy. Cloud till 21:15 122
 Echo 1 11:10 EDT - into ⊕ shadow
 9:50 - fireworks display due South.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
23 08 ^m W	+21° 19'	0-	4.6	85 _n	—	Set 0. MREW. Sens. 7. { 3607 24 good	
50 35 ^m W	"	0	"	"	4-4-4	Set 3 " { 3631 12 l. weak	
50 13 ^m E	+43° 53'	0	6.4	82 _v	-12-	Set 6 " <u>only 9 counts</u> { 3643 12 weak (guiding)	
				20/16	Set 9		Focus o. k.
Clouded out at 23:50 Solid Bank -							

sat night Sep 10 ≈ 170 visitors.
 Hd. Gg, s.p., demonstrated
 & keeps & showed "Exploring
 the Universe"
 — Cloudy —

New Batteries for Flashlight! They're on 9th life

Date Sat Mar Sept 11/12 1960 Observer vdB-Hv Julian Day 2437189.5

① 169 13 03.4 3504.0

[illegible]

Dome Temp. 68

Transparency Conditions

Fair, Fine & clear 2000

124

ocus 15.49 mm

189.5

35040

ding Time
E.S.T.Hour Angle
End

Declination

Seeing

Ptg.
Mag.

Sp.

Comp.

REMARKS

Quality

030°

30° E

+15° 23'

0-1

8.0

g 172

2+2+2

vdB SB:

656 to 716

weak
(quivering)

221

02° 13' W
218 W

+20° 28'

0-1

8.7

8.5

2+4+4

SZ Psc

8

724 to 1792

weak

318

035E

0-1

7.85

A0

4-8

KAGX6

3795

3805

0310 Clouds from SE

weak

20/16 Set 9

centrifugal to red.

I.P. H. Loaded in Trig.
H on M.

Date Mon. - Tue 1960 Sep 12/13 Observer MR Ki - Julian Day 2437190.5
0 170.11 27.4 3506.2

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit Set.	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.	Error Angle Est.
25401	2 Lyr.	18 ^h 33.5	38° 41'	I 25	II a-O	.008	+20°C	19 ^h 55 ^m	20 ^h 07 ^m	4	-
"	"	"	"	"	"	"	"	20 ^h 07 ^m	20 ^h 23 ^m	4	-
"	"	"	"	"	"	"	"	20 ^h 23 ^m	20 ^h 26 ^m	4	101 W
25402	2 Cyg	20 ^h 38.0	44° 55'	"	"	"	"	20 ^h 41 ^m	21 ^h 02 ^m	4	0° 28' E
"	"	"	"	"	"	"	+19.0	23 ^h 25 ^m	23 ^h 54 ^m	4	-
"	"	"	"	"	"	"	19.0	23 ^h 58 ^m	0 ^h 06 ^m	4	2° 30' W
							(no heat)				

Dome Temp. 65°F

Focus. 15.49

Dome Temp.

Transparency Conditions *mostly though clear*

126

21.

905

3506.2

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
—	38° 47'	→	0.00	ADV	...	MR-EW set 0 { nob: only 1/8 S 6 { 3855 35	<i>l. strong</i>
—	"	"	"	"	...	" set 1 { mirror " { 3890 18	<i>fine</i>
1 ^h 01 ^m W	"	"	"	"	6-6	" set 4 { uncovered " { 3908 9	<i>fine</i>
0 ^h 28 ^m E	45° 11'	"	1.17	A2 Ia	6-6	" set 7 { 1/4 uncovered. S 6 { 3923 22	<i>l. strong</i>
—	"	"	"	"	—	" set 10 { " " S 6 { 3945 35	<i>fine</i>
2 ^h 39 ^m W	"	"	"	"	—	" set 19 { " " S 6 { 3980 8	<i>strong</i>
cloudy still							this plate spotted five times

Note: New Batteries.

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I.
25403	HD 21389 FOCUS	3 21.9	59 32	I-25	103 aa OTB	.009	13.8	4 16	05 02	2

Room Temp. 48°

ocus..... 15.46

Room Temp. 47°

Transparency Conditions clear after 4:15 approx 128

ding Time E.S.T.	our Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
502	05 2W	58 45	0	4.7	A0 Ia	4.94 20/6	MR-EW Set 2 Series Set 6	3991 4000 centre to blue
2 P.H. in fr.								
NEW FLASH. BATT.								
ON <u>10TH</u> LIFE.								

Sept. 16	<u>MC</u>	<u>SC</u>	<u>ME</u>	<u>S</u>
	-1.3	-10.4	+1	+20 ^m 59.8

Date Fri: Sat 16/17/60 Observer ^{Hd} Ki - H_v Julian Day 2437194.5
 © 174 05 24.7 3514.7

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.
25403F	HE 73454	16^h 45^m 16^s	17° 51'	I-25	103a0	0.016	17.6			3
[25404]	19 Cep	22 ^h 02.1 ^m	61 ^h 48'	I-25	103a0	0.008	17.6	20 ^h 54 ^m	29 ^h 29 ^m	4
"	"	"	"	"	"	"	"	29 ^h 29 ^m	29 ^h 59 ^m	2
"	"	"	"	"	"	"	"	29 ^h 59 ^m	22 ^h 06 ^m	4
25405	HID 72	00 00.5	43 55	I-25	103a0	0.016	17.5	22 ^h 40 ^m	04 04	1
	Focus		7B			008				

Room Temp. 59°F

ocus 15.45

Home Temp.

Transparency Conditions

Thin cloud + Haze. after 0100

5
9.
18

uding Time
E.S.T.

Star	R.A.	Dec.	Mag.	Sp.	Comp.	Remarks	Quality
B. Focus Test							
			7.56	A0	2-2-2	blond	c at 12
1 ^h 07 ^m E	+62° 07'	0	5.17	O9.5 Ib	4-4-4	MREN Set 2	S5 { 4003 4011 4021 4030 9.
1 ^h 37 ^m E	" "	"	"	"	"	Set 5	" { 4030 4048 18
1 ^h 31 ^m E	" "	1	"	"	"	Set 8.	" { 4048 4053 5
03 22 W	+44° 16'	1	8.0	A0	2-2-2	KA 6x6 set 2.	{ 4054 4117 63 l weak
					20/16	" 9	
3 P.H. in Frig. H. on M.							
A Poor Night after Midnight.							
			MC	SC	ME	S	
Sept. 19			0.0	-12.1	-1	+20 ^m 59.0	

Date Tu/We 20/21 Sept 1960 Observer vdB Julian Day 2437198.5
0 177 59 55.5 3522.8

Q 177 59 55.5 3522.8

[illegible]

132

Focus.....1549.....

Dome Temp.....

cloudy over 20°20' - 20°40'

22:00 clouded out

8.5

3522.8

ding Time
E.S.T.

Right Time L.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
18	37 W	15° 26'	0+	8.0	g M2	6+6+6	vd BSB. 4119 -81	good
							2 PH in Fringe	

Date *Wed/Thu. 21/22 Sept 1960.* Observer *Ki. - H ✓* Julian Day *2437199.5*
 ☉ 178 58 38.3 3524.6

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle End
25407	{ HD 190658 focus test. OTB	20 ^h 00.8	+15 13	I-25	E103a0	0.008	18.2°C	21 ^h 13 ^m	0015	4	35° 1'
25407 F ₁	Focus Checks			sets	0		Focus	13.10			Exp 10/8
					2½			13.00			
					5			12.90			
					7½			12.80			
					10			12.70			
25407 F ₂	Focus check.			sets.	0			12.70			g/p 10/
					2½			.68			(best)
					5			.66			
					7½			.64			
					10			.62			

Dome Temp. ...
 Temp. 15.4
 Dome Temp. ...

Thinny
 the I-12
 re-con
 Amma
 that the
 due to
 result
 we all
 focus
 the ju

Dome Temp. 63°F
 Focus 15.46
 Dome Temp.

Transparency Conditions Clear after 21 hrs. Fog started at 22^h30
 low in South + West.

134

ing Time
E.S.T.

015

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
359W	+15°24'	0-	8.0	gM2	6-6-	vdB SB. Set 2 S 8 {4232 4264	L. weak
					20/16	" 5	

IP. H. in frig.

This represents the installation of
 the I-12 camera after it had been
 re-cemented by Canadian
 Arsenal. Tests had shown
 that the strains in the lens
 due to cement giving way had
 resulted in a very bad figure.

VERY THICK FOG!!

L Changed to 12½ Camera

Focus -15.46

25" Was Silt 23.15 12½ Focus 12.68
 Silt. 20.35

We attribute the poor quality of earlier
 focus tests to this deterioration. Notice
 the great improvement of definition now. J.H.G.

Sept. 23 MC SC ME S
 +1.2 -13.9 0.0 +20" 56.4

set at 12.68 Sept 23/1960. P.W. Kingston.

Dome Temp. 66°F Sat. Sep 24-25
 About 160 visitors - haze
 Transparency Conditions *very poor - haze*
 Focus 12.68 Showed β Cyg.
 Dome Temp. 66°F L N JB

136

PH 2x4 missing found.

ing Time E.S.T.	our Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	found.	Quality	
54				5.9	K0	2-4	2x2	8ld Vel. lens 6	4273 4277 1/2	shiny
2 4						3-3	" 5	" "	4278	fine
2 9	E 19 ^m	+4 26.	1			3-3	" 9	" "	4281 4283	good.
0 05	0 00	44 17	1	8.0	A0	22-2	" 2	KA 6x6 lens 8	4284 4304	fine
2 12	2 07W	44 34	1-0	7.94	A3	22-2	" 5	KA 6x6 8	4307 4327	fine
							Seeing deteriorating More haze			
							3 PHs loaded + 8 in box			all exposed strong in red weak in blue p/c haze
Sept. 28							Frank fix light on exp. meter			
MC 2C ME S +2.5 -15.3 -1 +20 ^m 53.9							Found (Barney's bulbs by hand?)!			

ome Temp. 65° F

Transparency Conditions

Fair

138

OCUS.....

ome Temp.....

Clouds during last ex.

[illegible]

Date Sat/Sun Oct 1/2 1960 Observer Br? - Julian Day 2437209.5
In} © 188 47 24.1 3542.2

① 188 47 24.1 3542.2

[illegible]

ome Temp. 48°F

Transparency Conditions clear some cloud by midnight
in NW.

ocus.....

140

ome Temp.....

ding Time
E.S.T.

our Angle
End

Declination

Seeing

Ptg.
Mag.

Sp.

Comp.

REMARKS

Quality

2:20.5

ok 21 min W

+04 32

0.

5.9

Ko.

2-2-2

Set 5 Std vel.

Sens 7 - 4487

?
too weak.

3:20

+49 53

0

6.2

B3V

2-2-2

Set 3 MR-EW

Sens 8 - 4499

good.

11/8 2

Set 7

only 16 of 20
obtained

clouded out at 23:20

2 PH in frig + 4 in box.

Date Sun/Mon Oct 2/3 Observer WJ - HV Julian Day 2437210.5

[illegible]

Time Temp. 52°F

Transparency Conditions Passing Clouds.

142

Focus

Time Temp.

4-2

ding Time
E.S.T.

	Sur Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
56	26E	60:28	5	7.9	A ₂	2-2-2	KA686 51 10-1 Sens 8: 4520	good
34	11W	4.6 27	0-1	7.9	F ₂	2-4	" " field checks. #8 4546 4569 Set 2	fine
317	051W	59 27	0	7.85	A ₀	2-2-2	" " " " #8 4572	good (guiding).
						1/8	Clouds	" 5
							2 P.H. Pondered <u>IN DONE</u>	
							Plates Needed.	
				MC	SC	ME	\$	
Oct. 3				+3.8	-18.5	+1	+20"	52.2

143

1968.
Date Mon/Tues 3/4 Oct Observer Ki - H ✓ Julian Day 2437211.5

0190 45 30.5 3546.1

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	13
25423	HD 212943	22 22.8	04 12	12 1/2	E10320	008	14.2°	20 ^h 31 ^m	21 ^h 01 ^m	10° E+0
"	"	"	"	"	"	"	"	21 ^h 02 ^m	21 ^h 43 ^m	1° W
25424	HD 213014	22 23.4	46 45	"	"	008	"	21^h 54^m	"	"
25424	HD 212883	22 22.4	+36 57	"	"	"	"	23 ^h 02 ^m	0 ^h 02	2.3W +3
25425	HD 5344	00 50.2	46 21	"	"	"	14.0	00 14	0 2 12	2W 6
	Flame Test.		0.7.13.							

ome Temp. 54° F

ocus Fixed

ome Temp.

Transparency Conditions

from 21° 30' - light clouds (cirrus?)
700.

744

nding Time E.S.T.	our Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
01 ^m	01° 10' E	+04° 32'	0	5.9	K ₀₇	2-2-2	Std Vol. Set 1	4606 (12) 4620
43 ^m	01° 08' W	"	0	"	"	2-2-2	Set 5	4621 (12) 4630
01^m	01° 10' E	+04° 32'	0	8.5	G₈	2-2-2	Set 1	4606 (12) 4620
01 ^m	02° 13' W	+37° 17'	0	6.2	B ₂	2-	B-type Std Vol. Set 1	4646 (12) 4654
02 ^m	01° 52' W	46 43	0	7.8	A ₀	2-2-2	Set 2 KA. 6X6.	#8 4657 4677
						"/ 8	" 8 Clouds. (cirrus?)	
							2 P.H. + 4? in Dome.	
							Hon. M.	
Tues Oct 4/62 1Kd + L.							Chromium coat removed from Cass, but it is still stained. Aluminized by Vacuum Metallizing. Stains show as milkiness.	

Date Tues/Wed 4/5 Oct 1960 Observer — Ki Julian Day 2437212.5
 @ 191 44 36.6 3548.3

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
25426	HD 9138	01 24.9	+05 38	12 1/2	103.0	508	13.2°	00 ^h 24 ^m	00 ^h 33
25427	HD 8779	01 21.4	+05 55	"	"	"	"	00 ^h 40 ^m	01 26
25428	HD 13854	02 09.9	+56 36	"	"	"	"	01 ^h 40 ^m	1 ^h 54 ^m
25429	HD 13841	02 09.8	+56 34	"	"	"	13.0	02 ^h 20 ^m	02 39
	Focus Test		OTB.						
25430	HD 20873 f	03 16.8	+29 27	"	"	"	13.0	03 00	04 ^h 08.5 ^m
25431	HD 27532	04 15.7	+29 25	"	"	"	13.0	04 17	4 ^h 20
	Focus Test.		OTB.						

Room Temp. 48° F (24°C)

'ocus. FIXED

Room Temp. 46°F

Transparency Conditions *light intermittent clouds* 746
clear by 02^{hrs}.

$$\begin{array}{c}
 S \\
 \begin{array}{cc}
 SP & SP \\
 W & \\
 NA & NF \\
 N
 \end{array}
 \end{array}$$

Reading Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
033	17 E	+05° 58 ^m	0	6.2	K ₄	2-2-2	Std Vel. set 0.0 sens 5 {4688 4692	④ Fine
26	04 ^m W	-00° 34'	0	7.5	K ₅	2-2-2	" " " 2.5 " 7 {4693 4713	② Fine
54	18 W	+56° 55 ^h	0-1	6.2	B ₁	2-4	" " (OB) " 5.0 (NF) " 6 {4716 4720	④ Guiding
39	104 W	+56° 53 ^h	0	7.0	B ₀₅	2-2-2	" " (OB) " 7.5 (SP) " 7 {4730 4738	⑤ Fine
						n/8	" 10.0	OK
08:5	28 W	+29° 42 ^h	0	7.9	A ₂	2-2-2	KA 6x6 set 0.0 sens. 8 {4743 4763	② Fine
26			0	7.7	A ₂		" " " 2.5 " 8 {4764	②
							clouds by 4 ^h 20 ^m	
						n/8		OK
							These plates strong, esp. <u>much</u> stronger in violet than other recent plates.	
							Some new tape needed for the arc-striker	

Date Thurs Oct 6-7 / 60

Observer.....L-

Julian Day 2437214.5

① 193 42 55.2 3552.5

[illegible]

Home Temp. 54°F

Transparency Conditions

148

Focus

Home Temp.

3552.5

ding Time
E.S.T.

Hour Angle
End

Declination

Seeing

Ptg.
Mag.

Sp.

Comp.

REMARKS

Quality

15

0 11E

26:24

10

5.9

Bene

2-2-2

Be Prog., Clouds

Semb ⁷⁸⁶ 790

3 PHs loaded + 8

Date Fri Oct 7-8/60 Observer L-Hv Julian Day 2437215.5

① 194 42 07.7 35547

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
25433	MWC 361 HD 206775	21 00.4	67 47	I-12 $\frac{1}{2}$	E103A ₀	Sub 008	15.0	18 44	18 56
25434	MWC 383 HD 208292	21 57.2	56 14	"	"	"	15.0	19 06	19 38
25435	MWC 376 HD 206773	21 39.3	57 17	"	"	"	15.0	19 44	19 52
25436	HDE 235618 MWC 402	21 43.5	54 53	"	"	"	15.0	20 56	22 48
25437	NO 223501	23 45.0	61 39	"	"	"	14.9	22 57	23 11
25438	BD +61°40	00 15.0	61 50	"	"	"	14.8	23 32	02 10
25439	MWC 29 HD 13661	02 08.1	54 04	"	"	"	14.3	02 28	03 14
25440	MWC 83 HD 26906	04 10.1	45 58	"	"	"	14.1	03 21	03 47
25441	HD 37171	05 31.5	+10 58	"	"	"	14.3	04 01	05 01
	Flare Test.	0	7.B.						

Home Temp. 59°F

Transparency Conditions Magnification!!

150

ocus.....

Home Temp.

a very good night!

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
8:56	1 16E	68 02	1	7.2	B _{5e}	2-2-2 Be Prog.	Sens 7 806 814 strong
9:38	1 33E	56 32	1	8.1	B _{5e}	2-2-2 " " "	Sens 8 817 837 fine
9:52	1 00E	57 33	1	7.0	B _{0ne}	2-2-2 " "	Sens 7 840 848 strong
22:48	1 52W	55 10	1	10.34	B _{1V}	2-2-2 OB prog.	Sens 10 857 927 fine
23:11	0 13W	62 01	1	8.2	B _{3e}	2-2-2 Be Prog.	Sens 8 988 1008 too strong
2:10	2 42W	62 12	1	10.03	B _{2ple}	2-2-2 OB prog.	Sens 10 017 143 fine
3:14	1 52W	54 23	1	8.6	B _{3ne}	2-2-2 HD-B _e	" 8 5148 5169 strong
3:47	0 24W	46 09	2	8.6	B _{3ne}	2-4 " "	" 8 5172 5193 strong
5:00	0 18W	+11 02	1-2	7.59	K _{s III}	3-3-3 vdB-S.B. Set. 3.	7 5196 5232 strong
					" / 8	" 8	OK.

2 PH. Loaded. Plates Needed.

H. on M.

Note that all tend to be too strong except the 10^m stars. Adjust exposures accordingly next night.

Date Saturday Oct 8/9 1960 Observer MSH - H Julian Day 2437216.5
 1954.1 22.4 3557.0

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.
25442	HD 190658 HR 7680	20 00.8	+15 13	I-12	10300	008	+17.3	21 49	22 11	4
25443	SZ Psc	23 08.3	+2 08'	"	"	"	"	22 26	22 42	3
"	" " "	"	"	"	"	"	"	22 42	22 58	3
25444	HD 12302 MWC 23	01 55.6	+59 12	"	"	"	+17.0	23 40	23 58	1
"	"	"	"	"	"	"	"	00 06	00 22	1
"	"	"	"	"	"	"	"	00 33	00 41	1
25445	MWC 63 HD 20017	03 07.9	48 19	"	"	"	"	00 57	01 07	2
25446	MWC 79 HD 24560	03 49.3	44 38	"	"	"	"	01 52	02 02	3
25447	MWC 114 HD 37115	05 31.0	-05 41	"	"	"	"	02 45	02 57	1
25448	BD+49° 967 from 1st 091B	03 26.5	+49 59	"	"	"	16.7	03 16	05 24	1

ome Temp. +5.5

Transparency Conditions

152

ocus

00h05 Thin Cirrus

ome Temp.

ding Time
E.S.T.

our Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
11. 2 ^h 57W	+15° 24'	0	~8.0	M23-3-3	vdb SB	5246 sens. 8 54	break
42	+ 2 29		8-7	G5	3-6 spect. bin. set 5	525 sens. 8 65	weak
58	0:41W	+ 2 29	1	8-7	G5 2-2-2	" " set 9 sens. 8 5265 73	weak
59	1108E	+59 31	0	8-2	B3e 2-2-2	Hd Be " 5 sens. 8 5279 (14) 5283	late
022	1044E		0-1	"	" 6	Exp. Test. " 2 " 8 5299 (10) 5309	fine
41			0-1	"	" 6	" " " 8 " 8 5318 (7) 5325	good
109E	48 32	1-2	7.9	B9ne	6	HD Be " 3 " 8 5334 (12) 5346	fine
1057E	44 49	3	7.8	B3ne	6	" " " 5 " 8 5362 (12) 5374	fine
142E		2	8.2	B5ne	6	" " " 5 " 8 5389 (12) 5401	fine
248W	50 10	1-2	9.2	A2	2-2-2	X Pers. 1050 " 5 " 9 7 5422 (42) 5464	fine

3 P.H. L. M. plate needed.

showed NGC 6720 in 74" to about 200 minutes - HSH & Ms

153

113
ips 10300

Date Sun/Mo Oct 9/10 1960 Observer RB-Ki Julian Day 2437217.5
 @ 196 40 39.4 3559.3

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.
25449	HD 190658	20 ^h 00.8	+15°13'	12"	E10300?	.08	18	18 ^h 40 ^m	19 ^h 14 ^m	2
25450	HD 219113	23 ^h 08.3	+02°08'	12"	"	"	"	19 ^h 46.	20 ^h 24 ^m	
25451	HDE 235618	21 ^h 43.5	+54°53'	12"	"	.16	19	20 ^h 50	22 ^h 15 ^m	4
25452	HD 4902	0 ^h 46.0	+40°43'	12"	"	.08	19	22 ^h 22	22 ^h 35 ^m	1
	4806	0 ^h 45.0	+40°16'	12"	"	"	"	22 ^h 40	22 ^h 57 ^m	
	4727	0 ^h 44.3	+40°32'	12"	"	"	"	23 05	23 05	
25453	3892	0 ^h 36.4	+38°21'	12"	"	"	"	23 ^h 18 ^m	23 ^h 33 ^m	2
	3431	0 ^h 32.1	+39°47'	12"	"	"	"	23 41	23 ^h 50	
25454	HD 3765	0 ^h 35.3	+39 40	12"	"	.008	19°c	00 ^h 55 ^m	01 ^h 42 ^m	
25455	MWC 68 HD 21650	03 24.6	+41°25'	12	"	"	"	01 53	02 ^h 10 ^m	
25456	MWC 82 HD 26420	04 05.7	+41 52	12	"	"	"	02 ^h 26	03 00	
25457	MWC 88 HD 29866	04 37.3	+40 36	"	"	"	"	03 11	03 21	
25458	MWC 93 HD 31293	04 49.4	+30 24	"	"	"	"	03 31	04 12	
25459	MWC 107 HD 34921	05 15.8	+37 35	"	"	"	18.5°	04 17	04 42	
25460	MWC 115 HD 37202	05 31.7	+21 05	"	"	"	"	05 50 05 52	05 52 05 55	
	Focus Test		OTB							

Dome Temp. 65°F

Transparency Conditions Start in North

Focus.....

Dome Temp. 52° F

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0° 07' W	+15° 25'	0	8.0	gM2	3+3+3	vdB SB 465-55	low.
2° 08' E	+02° 30'	0+	8.7	g5	2+2+2	SB Hnd S2 Psc. 432	weak
1° 20' W	+55° 09'	0+	10.34	B1 IV	2+1+1	OB Program (me) 5512 5600	too weak
1° 17' E	+41° 02'	0+	7.22	A0	2+2+2	vdB Andromeda 610-616 pos 2	} overlap
0° 56' E	+40° 36'	0+	7.92	B8	6	" " 617-623 pos 5	
0° 45' E	+40° 50'	0+	4.25	B3	6	" " pos 8	fine
0° 08' E	+38° 41'	0+	7.8	B8	6	" " 625-631 pos 3	fine
0° 15' W	+40° 09'	0+	6.84	A0	6	" " 632-635 pos 8	strong
2° 02' W	+40° 00'	0	8.2	K5	2-2-2	Std Vel. (set 1 in goal) set 5 sens 8 {5647 5662 15	good
1° 39' E	+41° 38'	0	7.2	B5 nc	2-2-2	Be. set 1 sens 8 {5663 5669 15	low weak
0° 49' E	+42° 03'	0	7.6	B3 nc	2-2-2	Be set 1 sens 8 {5676 5691 15	low weak
1° 38' E	+40° 45'	0	6.1	B4 nc	2-2-2	Be set 1 sens 6 {5692 5695 15	fine
0° 17' W	+30° 30'	0-	7.5	A0 cp	2-2-2	Be set 1 sens 8 {5696 5711 15	fine
0° 21' W	+37° 40'	0-	7.4	D0 nc	2-4	Be set 1 sens 7 {5713 5719 6	weak
0° 20' W	+21° 08'	0-	3.0	B3 c	6 6 11/8	Be set 1 set 5 sens 4 {count 2 count	fine

Date Mon Oct 10-11/60 Observer L-H ✓ Julian Day 2437218.5
 ① 197 39 58.7 3561.5

[illegible]

Home Temp. 65°F

ocus 12.68

Home Temp.

Transparency Conditions

Good

156

Intermittent clouds after midnight. (EST)

561.5

ing Time
E.S.T.

ing Time E.S.T.	our Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0 48	12W	-02 32	0	6.3	B9c	3-3	Be Prog. Lens 6 836	fine
0 35	18W	61 43	0	6.6	Bone	3-3	" " 6 839	fine
1 34	25E	38 27	0	6.4	B3ne	3-3	" " 6 844	fine
1 57	007E	49 56	0	6.8	Ave	3-3	" " 6 849	fine
2 09	46E	46 08	0	6.5	B3ne	3-3	" " 6 852	fine
2 30	00	55 17	0-1	7.6	B1e	2-2-2	" " clouds 6 856	fine
2 46	16E	65 42	0	7.1	Bsep	2-2-2	" " 6 859	fine
2 0	133W	63 04	1	7.5	eB5c	2-4	" " 6 861	fine
3 13	025W		1	8.1	B3ne	2-2-2	" " Set 2 Clouds 8 5898	good to fine
						11/8	Set 8 " Windy 8 5926	Comp weak
								cto vi

1 P.H. +12 II AG

H. M.

Oct. 11

MC SC ME S
+6.0 -20.3 -2.0 +20m 55.6

Date Tues-Wed Oct 11/12 1960 Observer MR - Ki Julian Day 2437219.5
 0198 39 26.2 3563.9

[illegible]

Home Temp. $+50^{\circ}\text{F}$ at midnight

Transparency Conditions clear after 01^{hr} clouds have in part.

ocus. 13.68 changed to 12.72 as result of 25469 + 25469 F.

Home Temp. Scattered clouds 03:30^m

ding Time
E.S.T.

our Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
				17/12		OTB set 1.	CT vi.
1:17	18 W +15° 20'	○	8.0	M2	4-5-5	set 2 vdB SB	8 {5962 (25) good
2:09	17 W +62 49	○	7.81	B0 IV	8-8	" 2 OB	8 {5991 (20) fine
3:03	03 W +63 32	○	8.7	B1 III	5-5-5	" 7	9 {6016 (20) fine
4:04	08 W +61 52	○	8.7	B0.5 Ib	5-5-5	set 1 OB (seeing very poor on second half of exposure)	9 {6111 (20) good
5:05	+59 49	○	7.9	A ₀	5-5-5	set 1 KA 6x6 (NP) ? The brighter are	8 {6207 (25) good
							8 {6232 (25) good
04:00 - haze obscuring clouds							Is this the star wanted.
04:30 ^m - no better.							
				17/12		set 5:	Trans ok
II 90 plab. → 3PH 2x1 4 in long							
Oct. 12	MC	SC	ME	S			
	+6.2	-20.4	-2.2	+20 ^m 50			

159

W_r - H_vDate *Wed. Oct. 12 - 13*Observer *IV. AST*Julian Day *2437220.5*

199 38 44.1 3566.2

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I.	Angle and
25475	HD 187691	19 46.2	+10 10	I-12	Special old	.008	16.7c.	18 15	18 19	2	21 +
25475								18 30	18 36		04
25476								18 38	18 41		01
76								18 45	18 48		08
25477								18 54	18 57		17
77								19 02	19 08		28
25478	"	"	"	"	"	"		19 15	19 18	"	32
78	"	"	"	"	"	"		19 19	19 23	"	43
{ 25479	BD 67°2210	23.143	62.57	I-12	103a0	.008	16.2	20:54	21:34		346 63
{ 25480	BD 63°1414	23.13.1	63.34	-	-	-		21:37	22:39		23 65
481	BD 61°2529	23 4.6	61.26	-	IIa0	.008		22:47	23:35		61
25482	HD 15572	2 24.4	70 30.	-	IIa0	.008	16.3	23:43	00 19		E 70
25483	HD 5071	00 47.5	60 08	"	"	"		00 36	01 06		6
25484	" 26141	04 02.1	17 01	"	"	"		01 26	02 46		17
	"							02 54	03 52		SW

ome Temp. 65°

Transparency Conditions clear

160

ocus.

ome Temp. 60°

ing Time
E.S.T.

	our Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
19	00 ^h 21	+10 17	1	5.8	F8	—	Sens 6 W.H. CLARKÉ 2 counts	
36	00 04		1		"	6	" D. LAPINSKIE 2½ "	
41	00 01		1		"	6	" B. PASICOV 3 "	
48	00 08		1		"	—	" much too long exp. J. HOLM. 3½	
59	00 17		1		"	6	" J. Ruch 3½	
08	00 28				"	6	" J. BROOKER 4	
08	00 32	"		"	"	6	" J. DELL 4½	
27	00 43	"	"	"	"	6	" R. HENRY 5	
							"#2" on plate refers to second exposure.	
13	00.34E	63:15		9.1	B ₂ II	2+2	Sens 9 III Ceph OB Pos 9 6292-6334	Plates ok
28	0:23W	63:53		8.7	B ₀ II	2+2+2	" OB Pos 6 6335-6395	
35	4W	61:45		8.4	B ₁ II	3+5	Sens 8 I Cass OB. Pos 2 6396-6421	nothing
019	101E	70:43	0-1	8.0	B ₄ ne	5+10	" 8 Be 6422-6452	fine
106	105W	60 23	1	7.87	A ₂	5-5-5	" 8 6459 6484 Set 3 KA 6X6	strong
24	10E	17 08	0-1	7.6	A ₀	5-5-5	" 8 6492 6519 " KA 6X6	strong
35	1056W					5-5-5	" 8 6513 6566	fine

Date Oct 12-13/60 Cont'd. Observer -Hv Julian Day 174

[illegible]

18^h 22ⁱ 9
17^o 53.4

203 36 42.6 3575.2

[illegible]

Home Temp. 54

Focus.....

Home Temp. 75.2

Transparency Conditions

Good after curins cleaned 764

0500 Few bits of cloud, windy.
Image unsteady.

Ending Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
19 28	V 2 25	17 54	0	6.5	B ₉	5-5-5	Set 1 KA 8x8 ^{Field should be checked} sens 7 6602	Fine
20 19	V 3 09	41 14	0	6.86	A ₀	5-5-5	Set 5 KA 8x8 ^{NP*8 pair} sens 8 6612	Fine
						18/12	ret 8 ^{Focus Center is Red} 6632	
22 31	V 1 41	55 12	0	9.2	B _{III}	2-2-2	ret 1 OB ^{Some uncertainty about field, see sketch} sens 9 6634	Good
23 47	V 2 57	54 14	0	8.8	B _{IIb}	2-2-2	ret 5 OB ^{page 20} sens 9 6677	Fine
01 20	023 E	47 50	0	8.6	F ₀	2-2-2	ret 1 α Per Cl. # 104 sens 9 6723	Good
05 06	31 W	—	00	9.0	A ₇	2-2-2	" 5 " # 220 sens 9 6767	Good
05 05	30 SW	+19 27	00	6.4	K ₁	5-5-5	" 2 STD. VEL. sens 6 6815	Fine
						18/12	" 8 ^{Focus Center is Violet} 6820	
							1 B.H. Loaded II aO + 10 II oO's	
							? 103-0' in N Pier	
							Oct. 17	
							MC SC ME S	
							+7.7 -20.5 -0.8 +20" 56.7	

165

Date *Mon Oct. 17-18/60* Observer *L-Ki* Julian Day *2437225.5*
204 36 17.8 3577.4

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
25493	HDE 235783 <i>Focus Test</i>	22 13.4	54 00	T-12 $\frac{1}{2}$	Baked IIA0	Set .008 0 T13	15.3	19 01	19 27
✓ 25494	BD +54° 2726	22 13.0	54 59	"	"	"	15.3	19 39	20 41
25495	BD +53° 2843	22 15.0	53 46	"	"	"	15.2	20 49	22 39
25496	BD 60° 2615	23 39.9	61 07	"	"	"	15.1	22 43	23 49
25497	BD +61° 2526	23 42.8	61 29	"	"	.008	14.9	00 03	00 54
25498	HID 9138	01 24.9	+05 38	"	un Baked IIA0	"	14.8	01 05	01 25
25499	+ID 22484	03 31.8	+00 05	"	"	"	"	01 34	01 45
25500	+ID 3765	00 35.3	+39 40	"	Baked IIA0	"	"	02 03	03 13
<i>Focus Test.</i>					<i>OTB.</i>				

ome Temp. 56°F

ocus. Fixed.

ome Temp.

(48°F at 24")

Transparency Conditions

very clear (24")

166

02^h34^m Aurora Borealis - North.

Flat arch 90° wide +10° high

at middle by 02^h37^m was 20° high in middle.

light clouds 03:00

6 sporadic meteors about Orion in 15 min. Some left trails for 5-8 sec.

Hour Angle E.S.T.	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
027	21 E	54 13	1	8.8	B ₁ I _b	3-3-3 14/10 OB prog.	Sens. 9. 6825 6865 good colored
041	06 E	55 14	1	9.2	B ₁ II	3-3-3 OB prog.	" 9 6860 6909 L. weak
023 39	40 W	54 00	1	9.5	O ₈	2-2-2 " " "	" 9 6912 6952 L. weak
0349	1 35 W	61 26	1	9.2	B _{0.5} I _b	2-2-2 " prog.	" 9 6957 6997 good
054	2 38 W	61 48	1	8.8	B ₂ I _b	2-2-2 OB prog. set 7.5	Sens 9 { 7003 7043 good
1 20	1 27 W	+05 56	1	6.2	K ₄	5-5-5 St. Vel. set 1	Sens 6 { 7049 7055 fine
0145	020 E	+00 16	1	5.2	F ₉	5-5-5 " " " 5	Sens 4 { 7058 7064 fine
0313	2 04 W	+39 57	0	8.2	K ₅	2-2-2 " " " 1	Sens 8 { 7065 7085 fine
3:30 (EST) CIRCUS clouds. have moved from north.						14/10	L. weak
4 PH (Babel Iao) + 4							
+ 12 (un Babel Iao)							
H. M.							

(Aug 30) 107

Date Thu/Wed 18/19 Oct Observer MR-HV Julian Day 2437226.5
205 35 55.2 3579.6

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
1048-119	1 Vul	19 14.5	+21 19	4.0x	2	020	5/5	18:48	
1049-119	9 Cep	21 37.1	+61 54	4		111	5/6	21:13	
25501	BD61°2526	23 42.8	+61 29	12 1/2	Bakelut IIa-0	ret .008	8.8°C	23:58	02:20
	Don't		07B						

Oct 19/ - Astrom-8

25501 F2	Set 0	-11°
(PH2)	2	+55
cypos 20/16	4	11
fogged 10320	6	-20
for 1177	8	+55
T = 8.2°C	10 1/2	-30
Hartmann Focus Test		

Oct 19.

25501 F1	Set	P.H.
fogged 10320	0	1
T = 9°C	2	2
	4	3
Hartmann Focus Test	6	4

Home Temp.....&.....

Transparency Conditions

168

02/10 Solid Clouds !!

Ending Time E.S.T.	Bur Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	900V	link	Quality
		+21° 18'		4.6	B5n	3d"	2"/min; 1A/S.	w 42W-45W	{ also 9c p. lat	B
		+61 54		5.02	B2Ib	"	" " "	Gry again	{ n.g. afc clds	BD
							clouds			
0220	408W	61 48	0	8.8	B2Ib	2-4	set 2 Orb. 24	9 { 7093		
						8/6	" 8	7120		

<u>Oct 19</u>	<u>Set 0</u>	<u>Form</u>	<u>12.66</u>
<u>10°C</u>	2		12.68
	4		.70
1/2 trans	6		.72
<u>T F</u>	8		.74
H1	9 1/2		.76
5501FB			

$$3 \text{ P.H.} + 4 \text{ Ba(OH)}_2 \rightarrow \text{Ba}_3\text{P}_2\text{O}_7 + 12 \text{ H}_2\text{O}$$

← Best. 12 Unbaked $\Pi a O$ (12 more baked)
?? 103aO ($\Pi a O$ in frig)

H. Om. M.

Oct. 19

MC	SC	ME	S
+8.5	-20.2	+2.3	+20.57.5

	MC	SC	ME	\$
Oct. 21	+10.0	-20.1	0.	+20 ^m 57.6

H. + T.C. = $\frac{\text{off.}}{43} - \frac{\text{qn.}}{3}$ PM. = T.

Oct. 24 $+ \frac{MC}{12.2} - \frac{SC}{20.4} - \frac{ME}{1.0} + \frac{S}{20^m} = 57.3$

Date Oct 25-26/60 Observer MR - Hr Julian Day 2437233.5
212 34 12.3 3592.3

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
1050-120	HD 190603	20 03.1	+32 06	H8 x 2 x 2.		.020	6/3 ⁴⁴	18:35	
1051-120	HD 194839	20 24.9	+41 15	H8 x 2		"	461	20:05	
1052-120	HD 216711	22 52.4	+62 23	H8 x 2		"	465	21:00	
1053-120	Murch 32			"		"	467	21:43	
1054-120	Proskaya 298			"		"	564	22:15	
1055-120	HD 4694	00 47.2	+64 23	"		"	461	23:44	
25502	^{#104} BD +47° 776	03 04.3	47 45	E-12 $\frac{1}{2}$	IIa-O Baked	.008	+3.3	0059	0139
	"	"	"	"	"	"	+3.2	0140	0336
	7101 - 7102								

Exposure Time 1. H 16 in. 11.5 in. 11.5 in.

Whole plate used. This was one baked at 122°F in the cardboard box.

Dome Temp.

Focus 12.72

Dome Temp.

Transparency Conditions

* about 30 asdim 26

0100 Brilliant Aurora
0130 Thin Cirrus

Strand - HBSH

170

ending Time
E.S.T.

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

6.18 B1.5 Ia 30"

2"/min; 1A/S 4200-4550 *

B

8.49 B0.5 Ia "

" "

B

9.67 B1 V "

#22 in Helmer strong aurora

III Cpf

11.23 B9 V "

#28 in Helmer still some aurora

"

OB

12.46 B5-A0? "

#27 " "

"

9.22 B3 Ia "

agg. 20 $\equiv$ III Ca

OB

1032W +4753 1+ 8.6 Fo 3-3-3

Set 2 α Per Cluster #104 #8

7129

(14)

good

1032W

3-6

" 5

7145

19

fine

8/6

" 9

7164

19

fine

from CK (weak)

I.P.H. Loaded. II a O B. knd

4 Boxes Plat

1 - 103a0

1 - II a O

1 - Tan Bar

1 - " "

2nd

Oct. 26 MC SC ME S
+14.3 -20.1 0 +20m 57.7

Date.....Observer.....Julian Day.....

Age Temp.

1

2nd Temp...

[illegible]

Dome Temp 47°FFocus 12.72

Dome Temp.....

Transparency Conditions.....

174

About 60 MRs extension course showed M15, with "74"

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
032	425W	55 29	0-1	10.32	05f	3-3-3 <i>lit 2</i> OB. prog.	<i>Sen 10</i> 7189 (149) <i>15</i>
404	5255W	49 03	0	9.1	A9	3-3-3 " 5 α Pers.	" 9 7343 7403 <i>strong</i>
601	0235W	11 02	0	7.59	K5 III	4-4-4 " 5 vdB	" 7 7406 7420 <i>strong</i>
					10/8	" 9	
						H on M.	
						2 P.H. + 4 Baked IIaO.	<i>Is this really 7.96 as noted?</i>
						Because vdB	
						MC SC ME	
						Oct. 28 +16.2 -20.0 +2.0	

Date Friday Oct 28/29 1960 Observer Ms - H Julian Day 2437236.5
 215 33 54.2 3597.2

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.	Hour Angle h:m
25506	{ HQ 190658	20 00.8	+15 13	I-12	balred. IIa-D	.008	12.0	18.44	19:04	3	13W +
25507				"	"	.008	12.0	20:07	20:43	3	13W
25508	{ VW Cephei			"	"	.016		19:16	19:30	4	13W +
"				"	"	.016		19:31	19:45	4	13W
"				"	"	"		21:05	21:15	4	13W +
"				"	"	"		21:15	21:26	4	13W
"				"	"	"	11.7	21:27	21:59	4	13W
"				"	"	"	11.6	22:33	22:47	4	13W
25509	{ HD 21742	03 20.5	+28° 23'	"	"	.008		23:15	23:25	1	13E
"				"	"	"		23:25	23:35	1	13E
"				"	"	"		23:35	23:45	1	13E
25510	{ BD ⁺ 51° 723	03 15.3	+51 18	"	"	.008	11.6	00:11	01:13	2	13W +
25511				"	"	"		01:21	02:55	1	13W
25512	{ " 47° 808	03 14.3	48 09	"	"	"	11.4	03:08	05:10	3	13W
25513				"	"	"	11.4	05:36	05:39		13W +
	71-00	71-00	57B								

Dome Temp. 52°F

Transparency Conditions good

Clouds at dawn.

Focus.....

176

Dome Temp.....

sidereal clock seems to be 45 sec. slow.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
04 1:13 W	+15 22	1	8.0	gMz	3-3-3	set 4 (wdB) SB sens. 8 7458 + 83	fine
43 3:52 W					3-3-3	set + 6 " " 7542 67	fine
30 1:05 W	+75 27		8.1	K1,96	3-3-3	set - 1 Ms VW sens 8 7487 7512	} fine
45 1:20 W	"				3-3-3	set + 2 " < telescope reversed 7513 38	
5 3:49 W	+75 30				3-3	set 4 " 7573	
26 3:02 W	"				6	set 6 " 7692	
159 3:34 W	"				6	set 8 " 7693	
2:47 4:22 W	"				6	set 10 " < telescope normal (wat) 7615 strong at 7694 K, & hope!	
25 1:45 E		1	7.29	GSe	3-3-3	set 0 SB sens 8 7693 32?	fine
35 1:36 E					4-4	set 3 " 7640	fine
45 1:25 E					4-4	set 5 " 75	fine
13 10:07 W	+51° 28'	1	9.0	A3	3-3-2	set 2 #522 α Persei cluster sens 9 7854 7900	fine
55 2:15 W	48 46	1	9.1	F4	3-3-3	" 8 " #421 " 9 7903 7949	fine
5 4:05 W	48 19	1	9.1	A0	3-3-3	" 2 " #481 " 9 7956 8000	fine
53 00:07 E	+02 27	1	5.5	K3	8	" 5 STO. VEL. " 6 8007 8010 (4)	fine
					1/7	" 7 #4PH load 1 B.K. II 10	

1

Dome Temp. +
 Poros 12.6
 Dome Temp. 4

216 33 51.4 3598.9

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.	Angle Incl
{ 25514 25515	BD +61° 2529	23 43.6	+61 26	I-12	BAKED IIAO	.008	13.8°C	22:42	23 20	2	50
	HDE 23 5813	22 18.4	+54 18	I-12	BAKED IIAO	.008	13.1	23:37 ⁴⁶	01 03	2	50 W
{ 25516 25517	BD 47° 780	03 05.3	+47 32	I-12	103a0	.008	13.0	01 16	02 08	1	16 W
	BD 50° 728	03 ^{09.4} 12.5	+50 58	"	"	"	"	02 17	02 50	1	54 W
Fouls Test 2TB.											

Home Temp. +50°F

Focus 12.69

Home Temp. +46°F

Transparency Conditions

178

200 visitors showed M15 + (C) with 74"
Hd 5 K₂, I and 5"

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
3 20	11 50	+61° 48'	1	8.4 B ₁ I _b	3-3-3	set 2. OB prop p 24. sens 8 8014 ④	fine
03	1500 W	+54° 36'	1	8.9 B ₀ III	³ / ₈ -3-3	set 85 " " p. 20. wrong start at set 8 sens 9 8028 ④ 8034 ④ 8041 ④ 8086	fine
208	1 16 W	+47 40	1	8.8 F ₁	2-2-2	set 1 #151 & Para Cluster. sens, 9 {8087 ④ 8127 ④	fine.
250	1 54 W	+51 17	0	9.1 F ₂	2-	" 5 3/4 " " " " 9 {8132 ④ 8140 ④	
						02:45 - thin cirrus. 3:30 no better.	No Centre exposure.
						10/7 set 9	
						IPH + 7103.0	
						H.M.H.	

Date Sun Oct 30-31/60 Observer L-H Julian Day 2437.2385

217 33

50.3

3600.6

[illegible]

Time Temp. 52°F

Ecus. 12.69

Time Temp. 52°F

Transparency Conditions

180

0530 Combination of position + wind has made

Clouds.

Sur Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0-1	943	B₂ III 2	2	Set 2 1/2	OB Prog.	Sensto 8175	
2-1	120W	4903	00	9.0	A0	2-2-2 Set 6 & Pers #606	#9 ⁸²¹⁴ / ₈₂₅₆ Good.
551	4-1W	4940	000	9.0	A8	2-2-2 " 2 " #635	#9 ⁸²⁶⁵ / ₈₂₇₇ Good.
					8/6	" 8	OK.
						P. H. #4 Faded 103a0 + 5	
					MC	SC ME S	
				Oct. 31	+19.3	-20.6 +2.1	+20 ^m 56.3
				Nov. 2	+20.5	-20.8 -0.5	+20 ^m 56.3

187

Nov. 2-3

Date Wed Nov 2 / 1960 . Observer — Ki . Julian Day 2437240.5

219 33 53.2 3604.0

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	F
25520	B0 49 918	03 17.1	+49 59	12	103.0	008	08°C	00 45	1 45	5
	Fans feet		OTB					02.00		
								03:30 clear again		

Home Temp. 44° F

bcus. Fixed.

Home Temp.

Transparency Conditions scattered clouds 00^h 00 182
clear by 01^h 00

ending Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
45		+50° 10	1	9.1	Fo	2-4	set 2 1/2 x pers. #609. save 9 { 8330 8390 (10)	unk.
						8/6	set 7 1/2	unk.
on against wind for low strong (gusty)								
1 PH loaded E 103.0 + 4								
checked clocks: EST - 17 sec fast. Sideriel - ??? !								
H m M.								
		MC	SC	ME	S			
Nov. 4		+22.3	-20.9	+0.8			+20 ^m 55.7	
Nov. 7		+25.2	-21.0	+3.0			+20 ^m 55.1	

Date Nov 7/8 1960 Mon-Tue Observer Br - Ki Julian Day 2437246.5
225 34 45.6 3615.5

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
25521	HD 8777	01 31.4	2-00 35	12 1/2	10320	508	2.6°C	21:24	22:52
255211	HD 6343	00 59.4	+65 26	12 1/2	10320	508	2.6°C	21:24	22:44 - 22:52
255212	BD 147° 792	03 08.8	+47° 42	"	10320	608	2.6°C	23:24	23:49
255213	BD 47° 809	03 14.9	+47 36	"	IIaO Baked 72h @ 115°F	508	2.6°C	00 11	01 06
255214	48 886	03 12.6	48 17	"	"	"	"	01 14	01 30
255215	48° 865	03 07.1	48 16	"	"	"	2.0°C	01 40	03 15
Point test STD Press PH 25525F. set → 1 — 16.5 T = 5°C all 2.008 all C → ✓									0345
		1	—	14					
		2 1/2	—	13					
		4	—	12					
		5 1/2	—	11					
		7	—	10					
		8 1/2	—	15.9					
		10	—	1.8					

Time Temp. 33°F

Focus FIXED.

Time Temp. 29°F

clouds @ 0015
intermittent all night!

Transparency Conditions clear after 20:00

184

Power Out off 22:20!

Haze by 2300 Clocks Reset. B.

Ending Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
00:25	46W	65° 41'	1-	7.1	B5eβ	2-2-2	Set 5 NANC8 - Be prop 0 - Sub 8 {83737 8393}	20 good.
00:49	28E	47° 51'	1-	8.1	A0	2-2-2	Set 2 N0285, Per. #295 Sub 9 {83712 8434}	40 fine comp. work.
01:06	40W	+47 47	0	8.3	A0	3-3-3	set 2 " #507 sub 8 {8443 8457}	50 fine comp (Link)
01:30	110SW	+48 29	0-	7.6	A0	3-3-3	set 5 " #423 sub 8 {8460 8465}	50 fine
01:55	22 56W	+48 26	0-	9.0	A7	3-3	set 2 " #220 " 9 {8466 8596}	30 good comp. work

clouds.

10/8

ok.

1st P	Focus 7.0 ft	SET	FOCUS	PH # 123 Rodal. with IIa0 Bated.
0525 F2	Talk 20.35	-1/2	12.78	PH # 4 " " E103a0
	slat 19.85	1	12.76	+ 8 IIa0 Bated.
	slat. 00P	2 1/2	.74	
	ph # 2	4	.72	Hm M.
	Coron 11.5	5 1/2	.70	MC SC ME 5
	20/16	7	.68	Nov. 11 +30.0 -20.8 -2.5 +20m 57.3
	focus returned to 12.69	2 1/2	.66	New Batteries Needed Fast Food!
	Wt " " 20.35			

Date Sun Nov. 13-14/60 Observer L-Hv Julian Day 2437252.5
231 36 48.0 3627.2

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
125526	BD +15° 3246	20 39.1	45 32	I-12 $\frac{1}{2}$	E103A ₀	Set 008	6.9	18 39	20 39
25527	HD 3940	00 36.9	63 45	"	"	"	6.9	22 10	22 20
✓ 25528	BD +47° 780	03 05.3	47 32	"	"	"	"	00 05	02 17
25529	" 47° 862	03 30.8	47 51	"	"	"	6.8	02 33	04 51
25530	HD 65583	07 54.3	29 31	"	"	"	"	05 23	06 23
	- " - " - " - "	07.3							

25530 F ₁	Set	Focus	25530 F ₂	Set	Focus	Photo Holder
R. Henry	$-\frac{1}{2}$	12.74	Clark, Holm	$=\frac{1}{2}$	17.0	
Nov. 16	1	12.72	Dell	1	16.7	
ph 3	$2\frac{1}{2}$	12.70	Nov. 16	$2\frac{1}{2}$	16.4	
tilt 19.85	4	12.68	Tilt 20.35	4	16.1	
tilt 20.35	$5\frac{1}{2}$	12.66	II a O X thin	$5\frac{1}{2}$	15.8	
tilt 20.35	7	12.64		7	15.5	←
tilt 20.35	$8\frac{1}{2}$	12.62		$8\frac{1}{2}$	15.2	
				10	14.9	
			and 10	12.60		

Room Temp. 45°F

Excuse.....

ome Temp.....

Transparency Conditions

Transparency Conditions *Mayer & Clouds*

186

Start delayed because of clouds.

Ending Time E.S.T.	our Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0 39	3 13W	45 46	1	9.84	B.V _n	2-2-2	Set 2 1/2 O.B. Prog lens 9 ⁸⁵²⁴ 8564	fine
2 20	0 55W	64 04	0-1	7.5	A.I _a	2-2-2	" 7 1/2 O.B. Prog lens 7 ⁸⁵⁷⁹ 8583	fine.
2 17	3 224W	47 45	1-2	8.8	F ₁	2-2-2	" 2 X Pers. # 151 " 9 ⁸⁵⁹⁰ 8659	l. strong
4 51	0 433W	47 58	1	8.8	F ₇	2-2-2	" 9 " 1225 " 9 ⁸⁶⁶² 8719	l strong
6 23	0 143W	29 19	0-1	7.9	G ₇	2-4	" 2 STD. VEL. " 8 ⁸⁷²³ 8740	strong
						10/8	" 8	c → r

1 P.H. + 7 Backed TI aO.

	MC	SC	ME	S
Nov. 14	+34.0	-20.0	+1.2	+20 ^m 57.2
Nov. 16	+36.0	-20.2	-5.5	+20 ^m 57.1

187

(Timmener, Turtel, C. 9)

Date Nov 16/17 1960

Observer MR-41-Ki Julian Day 2437255.5

234 38 15.0 3632.5

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
1056-121	c And	23 36.1	+43 03	48 x 2		.020	5/5	21:14	
1057-121	e Cas	1 51.5	+63 28	48 x 2		.020	5/3	21:45	
1058-121	d Per	⁽¹⁹⁶⁰⁾ 03 21.5	⁽¹⁹⁶⁰⁾ +49 42	48 x 2		.020	4/7	22:27	
1059-121	T(61) Ari	3:18.9	21:01	48 x 2		.020	6/2	23:25	
1060-121	29 Tau	3:43.6	5:52	48 x 2		.020	6/2	23:44	
25531	BD+18903	03 16.6	48° 16	12 1/2	Ilad Bak 115°F	008	09.0c	00 18	00:29
	Pow Test	OTB							

ome Temp.....29...

and *Cuscuta* too

Transparency Conditions

Clear

788

Thick Black Curious Cloud at 00.30
strong wind: breeze unstable (30 mph?)

ending Time E.S.T.	our Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	hist	Quality
				4.28	B8V	30"	2"/min; 1A/sec 4200-4550	D	
				3.18	B3IV	30"	2"/min; 1A/sec. 4200-4500		
				2.3	F5Ib	30"	2"/min; 1A/sec 3850-4500	Sample (Twile Orig)	
				5-17	B5Vp	30"	2"/min; 1A/sec 4200-4500		
				5:36	B3V	30"	2"/min; 1A/sec 4200-4500	clouds	
						373			
229	036 W	+48 25	0	6.8	B9	3-3-3	at 2 1/2 x Pos # 58/ (first count = 0.2) 207 { 8751 8757	good.	
						10/8			OK.
							1PH Corded with Baked II no		
							+ 6 " " "		
							Han M.		

Date Thurs Nov 17-18/60 Observer L-H ✓ Julian Day 2437256.5
235 38 47.5 3634.1

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	F
25532	BD +49° 938	03 21.0	49 37	I-12 $\frac{1}{2}$	Baked IIA0	lit 008	5.8	22 30	23 10	44E4
25533	" +48° 933	03 22.7	48 53	"	"	"	5.8	23 16	23 32	024E4
25534	" 47° 840	03 22.8	47 39	"	"	"	5.8	23 36	23 58	022W4
25535	" 49° 918	03 17.1	49 59	"	"	"	5.5	00 11	02 33	023W5
25536	HD 37171	05 31.5	+10 58	"	"	"	5.8	03 58	05 31	022W+
25537	" 66141	07 57.1	+02 36	"	"	"	"	05 46	06 00	023W
	Figure 7. d.	07 13								

Home Temp. 38°F

Transparency Conditions

190

Focus.....

0230 - 0400 Intermittent Clouds,

Home Temp. 65°F

0550 More Haze & Clouds,

Ending Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
2310	0 44E	49 47	0	8.0	A0	2-2-2	Set 2.5 @ Per. Set 8 8762	fine
2332	0 24E	49 02	0	7.4	A0	2-2-2	" 7.5 " " 8 8779 14	fine
358	002W	47 48	0	7.8	A0	2-2-2	" 2.5 " " 8 8796 15	fine
233	2 43W	50 11	0	9.1	F0	2-2-2	" 9 " #609 " 9 8813 45	fine
531	1329W	+11 00	0	7.59	K5 III	2-2-2	" 2 VdB Spect. Bin. " 7 8875 11	good
00	133W	—	00	5.5	K3	6	" 5 STO. Vel. " 5 8889 4	good.
						10/8	" 9	OK
							1 P. H. + 3 Baked IIa0	
							H. on. M1	
							Need More Stars for Last Half of Last Half.	
							MC SC ME S	
							Nov. 18 +38.0 -19.9 -2.5 +20" 55.7	

Date Fri/Sat Nov 18/19 1960 Observer vdB-Hv Julian Day 2437257.5
236 39 21.6 3635.6

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	Exposure Angle hr
25538	HD 3827	0 ^h 35.8	+39°03'	12"	^{bayerd} IIaO	.008	+6°	21 ^m 05	21 ^m 27	4
25539	HD 4806	0 ^h 45.0	+40°16'	12"	"	.008	+5°	21 ^m 32	21 ^m 53	1
25540	HD 4902	0 ^h 46.0	+40°43'	12"	"	.008	+5°	22 ^m 01	22 ^m 13	1
25541	HD 3201	0 ^h 30.2	+39°54'	12"	"	.008	+5°	22 ^m 31	23 ^m 40	1
25542	BD +49° 921	03 17.9	49 27	"	103aO	"	+6°	00 06	01 30	1
25543	" 46° 748	03 18.6	46 42	"	"	"	"	01 40	03 02	1
25544	HD 65186	07 52.4	-01 20	"	"	"	"	03 26	03 50	1
	"	"	"	"	"	"	+6	03 51	04 21	1
25545	HD 60298	07 20.7	20 57	"	"	"	+6	04 50	05 21	1
	712-44 918	07 18	07 18	"	"	"	"			

Home Temp. 40°F

Focus. Same

Home Temp. 7.5

Transparency Conditions

Partly cloudy
10/10 cloud 22°15' - 22°30'

192

Hour Angle E.S.T.	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
12 ^h 25 ^m W	+39° 18'	0-1	8.0	B3	3+3+3	Set 2 Set 895-903 vdB And r = BD +38° 91	fine
12 ^h 40 ^m W	+40° 34'	0-1	7.92	B8	3+3+3	Set 8 903-11 vdB And r = BD +40° 172	fine
12 ^h 00 ^m W	+41° 00'	0-1	7.22	A0	3+3+3	Set 2 912-18 vdB And r = BD +40° 177	fine
12 ^h 40 ^m W	40° 14'	0-1	8.6	A0	3+3+3	Set 7 918-32 vdB And r = BD +39° 127	fine
12 ^h 14 ^m 3 W	49 37	1	9.0	A8	2-2-2	" 2 Pers, #635 #9 8943 40	fine
12 ^h 31 ^m 5 W	46 53	1	8.9	A3	2-2-2	" 9 " #665 #9 8988 42	fine
		1	8.1	B5 ne	2-2-2	" 2 Hd Be MWC 189 #8 9034 15	good (gonding)
	-01 32	1	"	"	6	" 7 " " " " # 9051 9	fine
20 10 W	25 03	1	8.01	G2 V	6	" 2 vdB S.B. # 9064 10	fine (gonding)
					8/6	" 8 Cd → r	
						N.B. O PH. + 9 10320's (Small size 11)	
						PH 2 } contains barrel II a O	
						PH 3 } For use by Stephen Munro only!	
						Need new flashlight Battery	

Date Sun. Mon / Nov 20-21 / 60 Observer Hd - H v Julian Day 2437259.5
238 40 34.2 3638.4

[illegible]

ome Temp.....

Clearing at
midnight.

194

Hour Angle EST.	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
22/ 236W	49 44	○	9.1	Fo	2-2-2	Set. 2 X Pers. #958	#9 ⁹⁰⁸⁴ ₉₁₂₉ ⁴⁵ fine
1 57W	47 15	○	8.6	A4	2-2-2	" 8 1/2 " 931	" 9 ¹³¹ ₉₁₅₆ ²⁵ fine.
					8/6	" 5	OK
						1 P.H. + 1 Bahad II x 0	
						+ 9 103a0 2"x3"	
						Sky very poor for last hour	
						MC SC ME	
						Nov. 21 +41.3 -19.7 -3.5	

Date Mon-Tue Nov 21-22/60 Observer Br - Ki Julian Day 2437.2625

239 41 12'6 3637.6

[illegible]

Home Temp. 43°

Focus Fixed

Home Temp.

Transparency Conditions Thin haze some Si & Aca

196

very wobbly image after 01^h
also intermittent clouds

clear after 10 pm but some haze

clouds 02^h 45^m

Starting Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
19:08	435 ^m W	58° 44'	1	9.43	B ₂ III	3-3-3	Set 2 OB prog image makes by Thomas	Sens 9 { 9160 } 50 9210
20:30	55 ^m W	55° 26'	1	10.55	O5	3-6	Set 8 " patchy cloud interfering - clouded out 20:30	Sens 10 { 9213 } 50 53
						12/9	Set 5	
							Reopened at 22:10	
22:39	1 ^h 04 E	48° 37'	0	6.5	B9	3-3-3	Set 2 & Per (V0 965)	Sens 7 { 9257 } 6 9263
23:10	0 26 E	49° 07'	1	8.2	A	3-3?	Set 5 & Per (V0 639)	Sens 8 { 9265 } 5 9270
23:32	0 02 E	49° 10'	0 1	8.4	A4	3-3-3	Set 2 & Per (V0 651)	Sens 7 { 9271 } 5 9276
00:02	00 29 W	49° 15'	0 1	8.6	A0	3-3-3	Set 6 & Per (V0 554)	Sens 7 { 9277 } 5 9282
00:24	00 51 W	48° 27'	0	6.8	B9	3-3-3	Set 2 1/2 & Per (V0 581)	Sens 7 { 9283 } 5 9288
00:36	03 45 W	+59° 30'	0	7.0	A3	3-3-3	set 7 & Per #522	Sens 9 { 9291 } 45 9336
						10/8		
							IPH II a'0 bulcas + 7 II a'0 Dated.	
							MC SC ME S	
							Nov. 23 +43.0 -20.0 -3.0 +20 ^m 54.2 H on M	

197

Wed-Thu Nov 23-24

Date ~~Thurs Nov 19~~ ~~Nov 23-24~~ Observer ~~Wn~~ Julian Day 2437261.5

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
Focus	Test OTB								
35555F ₁	Set	Focus	20/16-						
	-1/2	15.50							
IIaOXthin	1	15.48							
	2 1/2	15.46		plate broken					
L-H-D-C	4	15.44							
	5 1/2	15.42							
	7	15.40							
	8 1/2	15.38							
	10	15.36							
1001-122	λ Cep	22 08.1	+58 55	4500-3700 Å x 1	.020	6/2	18:20	18:33	
1062-122	HR 8752	22 55.9	+56 25	4500-3900 Å x 1	.020	6/4	18:55	19:08	
1163-122	HD 222404	23 36.8	+77 21	4500-3900 Å x 1	.020	5/4	19:27	19:40	
1064-122	ϵ And	01 11.9	+38 08	4260-3900 Å x 1	.020	5/5	20:06	20:19	
1125-122	ϕ Cas	1 ^h 13.8	+59 42	4500-3900 Å x 1	.020	6/3	20:39	20:49	

Eme Temp.....

Transparency Conditions

Fcus.....

Eme Temp.....

ending Time
E.S.T.

Sur Angle
End

Declination

Seeing

Ptg.
Mag.

Sp.

Comp.

REMARKS

Quality

9:08
9:10
9:12
9:14

199

'60

Date Wed - Thur Nov 23-24 Observer Wh Ki, Hy Julian Day 2437262.5
241 42 32.9 3641.8

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
1066-122	η Cas	0 43.0	+57 17	4500- 3900	X1	1020	5/4	21:09	21:21
1067-122	β Cas	0 06.4	+58 56	4500- 3900	X1	1020	5/4	21:36	21:47
1068-122	γ Cas	1 49.1	20 19	4500 3900	X1	1020	5/2	22:17	22:28
1069-122	δ Ari	2 ^h 01.5	22° 59'	4500 3900	X1	1020	5/2	22:42	22:53
1070-122	HD 19926-7	3.07.1	6:18	4500 3900	~	1020	6/5	23:06	23:31
1071-122	HD 21771-2	3:25.5	44.30	4500 3900	X2	1020	8 3/5	23 46	0:15
25556	{ BD 41 842	03 23.6	47 19	12 1/2	IIa0B	008	07.1°C	00 30	02 10
	25557								
	Frost Test								

Time Temp.....

Transparency Conditions *clear. at 0100*

200

exposure meter refuses to count any more ?? clamped out
it will not even count in a bright star! OK Friday at 02:45

[illegible]

Date Fri/Sat Nov 25/26 '80 Observer WBS Julian Day 24372.645
243 43 57.6 3643.8

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
25557	HD 190858	20 ^h 00.8	+15°13'	12"	IIaOb	008	08	18 ^h 15	19 ^h 05 ^m
25558	HD 4336	0 ^h 40.7	+13°53'	12"	IIaOb	008	08	19 ^h 20 ^m	20 ^h 07 ^m
25559	HD 3396	0 ^h 31.8	+42°37'	12"	IIaOb	008	08	20 ^h 14 ^m	20 ^h 45 ^m
25560	HD 3683	0 ^h 34.5	+42°17'	12"	IIaOb	008	08	20 ^h 50 ^m	21 ^h 34 ^m
25561	HD 4273	0 ^h 39.6	+42°55'	12"	IIaOb	008	09	21 ^h 35 ^m	22 ^h 21 ^m
25561	Focus Test								
25561-F1	← Brass plate holder I think so. JPM.								
slit 0.005	Set Focus								
Exposure 12.69	-1/2	15.50							
	1	15.48							
Temp = 8°C	2 1/2	15.46							
	4	15.44							
	5 1/2	15.42							
all C-41	7	15.40							
	8 1/2	15.38							
	10	15.36							

One Temp.....

Transparency Conditions (Given: Clear Thick)
clumped out 22°21'

202

Ending Time E.S.T.	Star Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
9 ⁰⁵ ^m	05 ^m W	+15°20'	0-1	8.0	G172	3+5+3	vdB SB = HR 7680 S/403-430	
10 ⁰⁷ ^m	35 ^m E	+40°11'	1	8.7	A0	3+3+3	vdB And = BD +39°17' S/432-446 Set 2	
10 ⁴⁵ ^m	12 ^m W	+42°56'	1	8.2	A0	3+3+3	vdB And = BD +42°11' S/446-60 Set 8	
11 ³⁴ ^m	55 ^m W	+42°35'	1	9.6	A3	3+3+3	vdB And = BD +42°13' S/61-75 Set 2	
12 ¹¹ ^m	42 ^m W	+43°13'	1	8.5	A3	3+3+	vdB And = BD +42°15' S/75-81 Set 5	

all the

Julian Day 2437272.5
251 50 17.3 3652.3

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
25562	SZ Pmc	23 08.3	+2°08	I-25	Baked IIaD	008	+3.3	19 00	21 46
	Focus test		30/24	OT/B.					
25563A	#65 BD 480943	03 24.8	48 25	I-25	"	"		22 01	22 13
25563B	"	"	"	"	"	"	3.2	22 14	22 22
25564	#639 BD 48 907	03 18.0	48 55	"	"	"	3.2	22 31	23 31
	H.D. 65583	07 54.3	29 31	"	"	"		00 31	
25564-F1									
T=06°C PH #1	set	focus							
30/24 0008	0	15.32							
	2 1/2	.30							
	5	.28							
	7 1/2	.26							
	10	.24							
25564 F2									
T=-3.0	Tab. val.								
	0	15.20							
	2 1/2	15.18							
	5	15.16							
	7 1/2	15.14							
	10	15.12							

me Temp.
 us. 15.27
 me Temp.
 2.3

Changed to I-25.
 I-12 was
 from 12.69
 tilt 20.35

Transparency Conditions very poor
 I-25 ret.
 from 15.27 (+4°C)
 tilt 23.15.

204

Ending Time E.S.T.	Sur Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
14.0	N 3.08	+2.28'	0-1	8.7	G5	4-4-6	Set 1 Hd Bin. alt 9. 9483 200 9685 9487 9687 24 9711 alt 7. 9712 16 9728 sens 8 9734 47 9731 9789	good C to R fine fine fine
2.15			3	6.5	B9	4-8	Set 2	
2.22	E 33m	48 35	3			6-11	" 5	
2.33	W 43m	49 04	3	8.2	A	4-4-4	" 9	
			7.9	G7	4-	" 1	Clouded out	
							Sky thick at 03.00 Closed. 2 P.H.s loaded with baked TLAOs, +12.	
		MC SC ME S						
Dec. 5		+57.0 -18.1	+0.3	+20"		54.1		
" 7		+59.7 -18.2	+0.5	+20"		53.0		
" 9		+62.5 -17.2	+1.5	+20"		53.2		
							Why are burners not draining fields? J. H. A.	
Thurs. Fri Nov 7/8							Opened up, clouded out immediately. 3 P.H. +11 (baked TLAOs) MS.	

295

Date Wed - Sun Dec 10-11 Observer H. - K. Julian Day 2437279.5

258 56 47.8 3660.3

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
25565	S ₂ Pra Focus Test	23.083	+2°08'	I-25	^{baked} Ilva D	0.12	-4.8°C	18 30	21 50
25566	BD 49° 876	03 06.8	+49°15'	I-25	^{baked} IIa O	0.08	-4.4°C	22 16	23 20
25567	BD 49° 953 Fono Test	03 24.0	+49°23'	I-25	^{baked} IIa O	0.08	-4.5°C	23 24	01 03

Dme Temp.....

Fus. 15.09

Dme Temp.....

good weather than haze
Transparency Conditions

206

exceptionally brilliant water at 00^h00^m

mag -2 bright green color.

trail of smoke for 5 min.

Ending Time R.S.T.	Star Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
21 50	W 3 40	+2°29'	0	8.7	G5	4-4-4	Set 5 (has a false trail) Set 9 1/2	weak
						30/24		OK.
20	W 1 10	+49°24'	0	7.2	B9	4-4-4	Set 2 & Pers Cluster	good
01 03	02 45	+48°08'	-1	7.2	A5	4-4-	Set 8 & Pers Cluster	good.
						30/24		Ab Contr.
seeing terrible; haze & clouds								
1 PM loaded + 10: IAD Balcon								
11 AM								
Dec. 12	MC	SC	ME	S				
	+66.0	-16.7	-1.0	+20°49.4				

Home Temp. $+06^{\circ}\text{F}$

ocus. 15-01

Home Temp. -12°F @ 01^h30

Transparency Conditions occasional broken snow -
cloud after 00^h30 208

$+4^{\circ} +1^{\circ}$ at 20:00.

ending Time
E.S.T.

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

+02° 40' -0.8.7 G5. Set 2. Sens 9 } 200

Snow - Blowing & falling - very windy.

PH#1 loaded with IIa-0 baked.

PH#2 loaded with 103a-0.

Still windy with snowflakes at 21:30.

+4150 -1 7.6 B_{me} 4 H_d-Be set 2 1/2 2m 8 } 9983 - we + home.

seeing terrible high wind spray up @ 01^h20^m - telescope & dome
shaking closed up at 01^h40

PH#1 reloaded with IIa-0-B.

PH#2 reloaded with 103a

H_m M.

	MC	SC	ME	Σ
Dec. 14	+69.5	-16.6	-3.0	+20 ^m 53.1
Dec. 16	+72.0	-16.9	+1.0	
Dec. 19	+77.0	-17.1	+5.0	

Date Dec 19/20 1960 Mon/Tue Observer Br - ~~EE~~ Julian Day 2437288.5
268 06 25.3 3667.6

[illegible]

Time Temp. 26°

Hum. 15.13

Time Temp.

Transparency Conditions

Clear, but cloud at horizons. 210

Hazy by 2100 esp. in W.

Thin patchy cirrus by 22:30

Solid by 23:10

Ending Time
E.S.T.

Star Angle
End

Declination

Seeing

Ptg.
Mag.

Sp.

Comp.

REMARKS

Quality

21:18

$13^h 43^m W + 2^{\circ} 26'$

0-0+

8.7

G5

4-4-

Set 2 Hd Binary.

vble refrⁿ → jumpy image

200
Sens 9 { 9990
0190

fine

12/9

Set 8

from OK

23:12

$1^h 24^m W 49^{\circ} 13'$

0-1

8.5

A3

6-

Set 2 after 802

150
Sens 9 { 0192

from weak

18/17

Set 8

Clouded out with 60 counts only.

from OK

3PH loaded with $\Pi a 0 - b$ in N pier.

MC

SC

ME

Dec 21

+80.0

-16.7

+1.5

211

WED-
 Date DEC 21/22 Observer Wn-DH Ki Julian Day 2.437290.5

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
1072-123	Q Andromeda	0:11.9	38:08	4520-3940	X2	0.20	5/6	18:52	19:18
1073-123	H D 9352-3	1:27.0	57:49	4520-3940	X2	0.10	6/5	19:26	19:56
1074 - 123	BD 61-412	02 19.6	+61 49	5100-4800	X4		6/7P	22:15	
1075 - 123	BD 61.412	02 19.6	+61 44	3850-3600	X4			22 49	
1076 - 123	BD 61.412	02 19.6	+61 44	5100-3600	X1			23 35	
25570	H D 35410	05 19.4	-00 59	1-25		008		00 40	

[illegible]

213

Date DEC 22/23 (THURS) Observer McR - H Julian Day 2437291.5
271 09 49.0 3668.2

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	Angle Incl.
25570	MWC 68 HD 21650	03 24.6	+41 25	I-25	II-a0-B	008	-10	21 45	23 31	58 W 4
25571	MWC 115 HD 37207	5 31.7	+21 05	"	"	"	-10.5	22 48	23 49	1 2
25572	MWC 140 HD 45314	06 21.6	14 57	"	"	"	-11°	00 12	02 34	2 59 W 1
	Proena 9 sat.		07 B							

Time Temp. 7
 Focus 1508
 Time Temp.

Transparency Conditions

HAZY CLOUDS IN SOUTH.
 CLEAR OVERHEAD +
 IN NORTH

214

nding Time E.S.T.	Sur Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
331	53 W	41 33	0	7.2	B ₁ NE	6-6-6	Sen 7 Set 3 Be Prog 263 278	
349		21 08	0	3.0	B ₃ 2	18	Sen 4 Set 7 " 3 counts.	
0234	0159 W	14 57	00	7.1	B ₂ ne	6-6-6 20/15	Set 2 " #7 0292 0309	
							" 8	
							1 PH + 2 Boxes II aob	
							1 " 10320	
							0400 Clouds	
							COUNTER COUNTS IRREGULARLY IE. NOT ON EVERY FIRING OF INTEGRATOR	

Time Temp. 80°F
Focus 1502 ✓

Transparency Conditions Fair

216

Time Temp. 20°F

Ending Time E.S.T.	Sur Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
03:55	34° E	28° 33'	0-	7.29	55e	6+6	SB Northcott 315-334 Findo Field?	fine
03:07	45° W	47° 53'	0-	8.1	A0	6+6+6	{ set 2 d Pe Prog - 285 340-380	fine
01:03	3 40 W	48° 28'	0	7.6	A0	3+7+7	{ set 7 d Pe Prog - 423 380-396	fine
02:00	10W.	+5 08	0	6.8	B2e	6+6+6	set 5 Be Sens 7: 397-413	fine
03:17	54W	-12 27	0	6.76	G8V	6+6+6	{ set 2 Se " 414-438 1), 2)	fine
04:48	05 W	+71 57	1	8.00	F9V	6+6+6	{ set 8 Se " 439-463	fine
05:44	102 W	+60 19	1+	7.37	F8	6+6+6	{ set 2 SB,N " 464-488 3)	fine
06:10	33 W	+38 00	2	7.3	G5	6+6+6	{ set 8 Std. Vd. " 489-513	fine
07:2	30W	+60 19	1	7.37	F8	6+6+6	{ set 5 SB,N apt. " 514-526	fine

(2 PH - II 4013e plus 2 II 4013e in black box in spotter
plus box of II 4013e + box of KBAC
Counter O.K.
1) spotter stiff - run nice
2) removed spring from Doc clutch
3) spotter warmed up - run twice

Date Dec 26/27 Mon Observer M.R.-K Julian Day 2437295.5
275.14 22.2 3668.3

[illegible]

Date Dec 27/28 TUES

Observer

{MR
DH
McR - Hv

Julian Day 2437296.5

276 15 30.5 3668.4

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	Angle hd	D
25583	⁴⁴¹ +50° 738	03 13.1	+50 37	I-25	IIao 6	.008	-10°	18 18	19 06		50
1077-124	BD +61 411	02 19.0	+61 32	³⁶⁰⁻⁴⁵⁰ 4750-5130	4-6-7	30					
1078-124	Sky	02 19.0	+61 07	4550-360							
1079-124	Drift	02 18.5-20.5	+61° 40'	A1490	4-6-6	130					
	"	"	"	X2		130					
1080-124	BD +61 416	02 20.6	+61 45	A1466	3-6-2	130					
25584	⁹⁶⁵ +48° 943	03 24.8	48 25	I-25	IIao-l	.008	-10°	22 28	22 46		48
25585*	⁴⁷ 47° 846	3 24.6	47 33					23 01	23 08		47
25586	⁵⁸¹ 47° 843	3 21.0	48 16	"	"	"		23 57	01 07		48
* 25585 is believed to be	BD 47° 843	03 23.5	+47 39	"	"	"		23 00	23 08		47

Die Temp. 10°F

Mois. 15.03

Die Temp.

Transparency Conditions clear

220

End Time EST.	for Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
9 06	04 E	50 49	0	7.0	B9	6-6-6	Set 3: Sens 7: X Per Cluster [15 ⁵⁶³ counts] 2"/min; 1A/sec Set 2.5 N Set 30' Sof 1077-124 2"/min No Scan RA Drift at fixed Sec C.4960 Test on sky, and on BD +61 416	
12 00	45 W	48 35	1+	6.5	B9	6-6-6	Set 3 Sens 7 K Per [15 counts]	
12 01	48 W	47 48	2	6.6	B9	6-6-6	Set 6 Sens 7 ^{wrong} star [15 "]	
12 01	35 W	48 28	0	6.8	B9	6-12	Set 9 Sens 7 < Per #7 0596-0411	
							0145C/0.1	
23 01	48 W	47 48	2	4.8	G	6-6-6	set 6 sens 7 115 ch	

Date Wed Dec 28 29/60 Observer Ad- Julian Day 24372.975

277 16 38.9 3668.3

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
25587	SZ PM	23 08.3	+2 08	I-25	103a0	012	-8.0	18 ⁷ 45	19 21
25588	#575 BD-51 728	3 16.5	51 25	"	"	008	-8.0	20 19	21 07
25589	BD-48 886	3 12.6	48	"	"	"	-8.0	21 16	22 20
	#386	3 11.7	49 26						
25590	BD-49 900	3 11.7	49 26	"	"	"	-8.0	21 16	22 20
25590	#736 BD 47 836	3 20.5	47 57	"	"	"	-7.9	22 28	23 06
	from list.								23 26

Temp. 18 F

15:05

Temp.

Transparency Conditions

Heat in clock gear train had been turned off.

222

Ending Time E.S.T.	Angle Ind	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
19 21	21W	+2 28	2	8.7	G5	3-3.3	Ad. Ed. Bin. ut 2. sens 9	615 781 good
21 57	202E	51 35	2	7.7	A0	4-4-4	α Per Cl ut 2 Stage then clouds star gone	782 796 fine
22 20	16W	49 38	2	7.8	A0	4-4-4	α Per Cl ut 6. " 7	797 812 fine
23 06	158W	48 07	1	7.9	A0	4-8	α Per Cl ut 2 Clouds " 7	814 819 L made
23 26	2 14W				OTB	24/16		822 from ok

Closing at 23 40.

	HC	SC	ME
Dec 30	+96.5	-15.2	-1.7
Jan 3	+1 ^m 44.0	-14.0	+0.8
" 4	+1 ^m 46.0	-13.4	+1.2
" 6	+1 ^m 49.0	-12.0	+1.0

* Counter missed a few counts

Date Sun Mon Jan 8-9 1961

Observer

DH - H_v

..Julian Day 2437308.5

288 30 02.4 3668.8

[illegible]

ne Temp.

224

[illegible]

Date Tue-Wed 1561 Jan 10-11 Observer Tu ^{1111K}

mir

Julian Day 2437310.5

290 32 20.0 3668.7

[illegible]

Air Temp. $+25^{\circ}\text{F}$

Transparency Conditions *hazy - clearing about 8 PM*

Aus. $15.28 - .16 = 15.12$ Found from at 15.28

226

Air Temp.

Ending Time
E.S.T.

Air Angle
End

Declination

Seeing

Ptg.
Mag.

Sp.

Comp.

REMARKS

Quality

12.4

59°

$47^{\circ}41'$

1

6.6

B9

6-6-6

set 2 & Res has Hp in minimum Sun 7: 1055-1073

fine

12.5

35°

$49^{\circ}48'$

1

8.0

A0

6-6-6

set 8 " clouds -

" 1079-1093

Lowest
(finding)

2 PH + 1 brx IIa0 Balad

Jan. 11
MC SC ME
 $+1^{\text{m}}58.0$ -8.8 $+4.6$

Date Thurs Jan 12-13/61 Observer Ad - H ✓ Julian Day 2437312.5
292 34 375 3668.6

292 34 375 3668.6

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
25594	#775 BD 47 832	03 20.9	4.7 25	I-12	EIAO(b)	008	-2.2	22 ²⁵ 08	23 03
25595	#212 BD+49 876	03 06.8	49 15	"	"	"	.9	23 47	01 47
25596	HD 103095	11 47.2	38 26	"	"	"	-2	03 46	04 28
	from 25595 at .		07B						

Temp. 28F

cus. 15.12

ine Temp. +26

Transparency Conditions Cloudy until 20.30 228

Cloud & Haze soon after midnight.
Till 3.30

Ending Time E.S.T.	Sur Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
23 33	12 49	47 37	1	7.1	A0	4-4-4	Set 2 α Per Cluster. num 7 1094. 1109.	fine
							Tried to see Sirius B - couldn't.	
0 12	3 47W	47 49	1-0	7.2	B9	4-4-4	" 2 α Per Cl. As far West as possible num 7 1110 1118	good.
1 20	10E	37 59	1	7.3	G5	4-8	" 2 STD VEL #7 1124 1142	fine
						20/15	" 8 0430 More Cloud.	clear.
							3 P.H +8 IIa0(b)	
							MC SC ME	
						Jan. 13	+2 ^m 01.5 -7.2 +2.5	

229

Date ^{Sat} 14-15 Jan. 1961Observer ^I Hd - Ki

Julian Day 2437314.5

294 36 54.4 3668.1

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
25597	BD ⁶⁹² 47° 821	03 ^h 19.1	48° 03'	I-25	IIaO	.008	+3.5°C	18:09	18:52
25598	⁶³⁹ 48° 507	03 ^h 22.4	+48° 55'	I-25	IIaO	.008	+3°C	20:07	21 ^h 39 ^m
25599	⁸⁶⁸ 48° 933	03 ^h 22.7	48° 53'	I-25	IIaO	.008	+3.1°C	21:47	22:47
25600	⁸⁷⁴ BD 47 840	03 22.8	47 39	"	"	"	"	22:53	01:40
25601	HD 60298	07 28.7	+25° 09'	"	"	"	"	01:49	03:58
	RT.	OTD							

Air Temp. 30 F

Humidity 15.19

Air Temp. 25 F

Transparency Conditions Fair

230

Seeing deteriorated after 0400

Clouds 0400

Ending Time E.S.T.	Star Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0452	1 ^h 12 ^m E	48° 15'	1	7.4	A ₀	4-4-4	Set 5 α Per Cl. sens 7 1146 1161	fine
2-32	1 ^h 36 ^m W	219° 07'	1	7.9	A	4-4-4	Set 5 α Per Cl. sens 7 1165 1180	fine
2-32	1 2 35	49 05	1-0	7.4	A ₀	4-4-4	Set 5 α Per Cl. sens 7 1182 1197	fine
01 40	1 5 25	47 49	0	7.9	A ₀	4-4-4	5 α Per Cl. one turn of pointer sens 8 (1198) (1230)	fine
03 58	1 3 37	+25° 02	0	8.01	G ₂ V	4-4-4	Set 5 (vdB Sp. In.) ? 2 turns of pointer? sens 8 (1232) (1250)	fine
						20/15		fine OK

2 PM B2a0 + —

Plan M.

Jan. 16 MC SC ME
+2^m 06.0 -5.0 +5.0

Date Jan 16/17 1961 Mon/Tue Observer Br - Ki Julian Day 2437316.5
296 39 10.1 3667.1

[illegible]

ie Temp. 31°F

is 12.56 (I-12½)

ie Temp.

Focus test 25601F₁ indicates correct focus should be 12.56.

Transparency Conditions Some cloud

232

Changed to

12½" Camera

25" was

Focus 15.19

Tilt 23.18

F 12.69

12½" was

T 20.35

Ending Time E.S.T.	or Angle E.S.T.	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
-	-	-	-	-	-	10/8	Set 0.	ctv
9.4	38° E	47° 46'	0	8.3	A0	3-3-3	Set 4 x Per. 507. (14) sens 8 { 1252 1266	OK
-	-	-	-	-	-	10/8	Set 10.	fine
2.48	53° W	49° 09'	0+	8.4	A4	3-3-3	Set 2 x Per 651. quite hazy. (14) sens 8 { 1272 1286	ctv
-	-	-	-	-	-	10/8	Set 8.	fine
6.5	14° W	50° 12'	0+	9.0	F5	3-3-3	Set 2 x Per 225 very hazy - some ground fog. (45) sens 9 { 1287 1332	ctv
-	-	-	-	-	-	10/8	Set 8	fine
10.1	-02 06	-	0+	8.69	K2 III	3-3-	Set 2 Se-GHV Roman 210 (45) sens 9 { 1341 1386	fine
			0	9.27	B ₈	Set 2	am 10 { 13	
Jan. 18							MC SC ME 1PM + 1 hour II ₂ U Bet 1.	
			12m 09.0	-3.4	-1.3		fl. M.	

Date.....Observer.....Julian Day.....

Observer.

Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
25605-F1									
	Tues Jan 17/1961								
PH #4	T = -6.5°C	10/8	21.008						
12.63	net -1	LS	BEST						
.62	+ 1/2	SL	} edges missing						
.61	+ 2	LS							
.60	+ 3 1/2	SL							
.59	+ 5	LS							
.58	+ 6 1/2	SL							
.57	+ 8	LS							
.56	+ 10 1/2	SL							

Transparency Conditions

ome Temp.....

ocus.....

ome Temp.....

inding Time
E.S.T.

our Angle
End

Declination

Seeing

Ptg.
Mag.

Sp.

Comp.

REMARKS

Quality

See next page
for Jan 19-20

235

1961
 Date Jan 19-20 Thur-Fri Observer DH - H Julian Day 2437319.5

299 42 29.3 3664.8

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
1081-125	HD47105 δ Gem	1950 06 34.8	+16 27	a) 4900	-4500	5-4	30		2153
"	"	" 1950	"	b) 4500	-3600	5-2		21:58	2215
1082-125	BD+61411	02 19.0	+61 32	a) 3600	-4000	4-6-5	30		
"	"	"	"	b) 3600	-4100	5-6-6			
1083-125	HD47105 δ Gem	06 34.8	+16 27	3600	-4300*	5-2			2346
1084-125	δ Gem	"	"	3600	-4700	4-6-5		00 14	
25606	HD 65583	07 54.3	29 31	I 12 1/2	II (b)	008	-12.0 -12.5	01 15	0507
	From	7.54	07 5						

Time Temp.....+6°F.....

cus.....

me Temp. - 2° F

Transparency Conditions *Partly cloudy, esp. in south*
Aurora? 2030, 2200

236

[illegible]

237

Date Sun.-Mon Jan 22-23 1961 Observer DH - L Julian Day 2437322.5
302 45 40.8 3661.8

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
1085-126	BD +61 411	02 19.0	+61 32	3600 4500 X4	5-6-5	30		19 41	
1086-126	Sky N-1 1085-126	02 19.0	+63 44	4500 3600	5-6-5	30		20 22	
1087-126	Sky S-1 1085-126	02 19.0	+57 32	4500 3600 X2	5-6-5	30		21 01	
1088-126	" "	"	"	4750-5000	"	"		21 50	
1089-126	PD 161 411	02 19.0	+61 32	5100-4750 X2	"	"		22 00	
1090-126	"	"	"	4500 3600	"	"		22 23	
				3600 4000				22 41	
1091-126	HD 17105 86 m	1450 6 34.3	1950 +11 27'	3600-5	0-4-5	"		23 15	
25607	HD 92588	10 36.3	-01 13	5500-4100 1-12-3	Bak. 1 T.A. 0	5000	-14.0	00 45	01 25
25608	" 96950	11 04.7	59 26	"	"	"	-14.1	01 45	05 15
25609	" 130988	14 46.0	45 18	"	"	"	-14.3	05 23	06 49
	Focus Test				OT.B				

ne Temp. 21.1

238

Ending Time E.S.T.	Dr Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
							2"/min 1 A/sec Set 2.5 N of +61 40)	
							" " " " " " Same RA, but at +64° Stopped at 40	
	32W Start						" " " " " " " " -57'48"(K) M.C. 5	
							" " " " " " " "	
							" " " " " " " "	
							" " " " " " " "	
							" " " " " " " "	
							" " " " " " " "	
							" " " " " " " "	
							2"/min 1 A/sec HA Start. 0031 W	
01 25	22 E	-01 33	0	7.4	K ₁	3-3-3	Stan. Vel. Set 8 1555	fine
05 15	58 W	59 03	0	10.08	G ₅	3-3-3	KAFS Prog. " 10 1580	from
06 42	07 E	45 02	0.1	9.17	G ₅	3-3-3	" " " 9 1776	good
						10/8	" " " 9 1856	cast *
			MC		SC	ME	1 PH loaded + 8 Baker II 5 v	
Jan. 23		+2"	7.5		+0.7	0.0		
							CZ or towards the end and . i.e. red end bottom of cloud has brought closer to them, i.e. change till clear up.	

25609-F1 -13.0°C

239

F=12.63 10/8

Camera limited clockwork

PH#3

Date Jan 23/24 Mon/Tue 1961 Observer Br - Ki Julian Day 2437323.5

303 46 42.6 3660.7

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
25610	BD 48° 897	03 ^h 16.0	49° 03'	12 1/2	IIa-Ob	008	-12.0°C	18:25	19:17
25611	BD 47° 808	03 ^h 14.3	48° 09'	"	"	"	-12.0°C	19:24	20:52
25612	BD 48° 905	03 ^h 17.2	48° 53'	"	"	"	-12.0°C	20:58	23:16
25613	HD 29587	04 ^h 34.5	41° 57'	"	"	"	-12.0°C	23:27	23:52
25614	HD 65593	07 54.3	+29 31	h	"	"	"	00 25	01 00
25614	HD 65593	07 54.3	+29 31	h	"	"	"	00 25	01 00
25615	HD 44131	06 15.0	-02 54	h	"	"	"	01 15	01 23
25616	HD 89449	10 14.3	+14 51	h	"	"	"	01 35	01 38
	Tom Tat							01B	

Moist Temp.....

Transparency Conditions some haze & patchy cloud,
very bad by 9.30.
thick haze by 0100
cloud by 0130

240

[illegible]

Date Jan 24/25 Tue-Wed 1961 ^{vol B} Observer DH Julian Day 2437 324.5

304 47 43.3 3659.6

[illegible]

* This number was used on 1961 Jan. 22-23

me Temp. $+2^{\circ}\text{F}$

Transparency Conditions Good at Start

242

cs.

me Temp. -7°F

Ending Time E.S.T.	Angle and	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
1930							2"/min 1 A/sec On star	
							1/2"/min 1 A/sec Through the curves	
2057	50 19W						1/2"/min 1 A/sec	
2356	51 04W						" "	
At 2350 closed up. Unfortunately I was unable to balance the spectrograph heater (temp -15°C) so I called Frank and decided to stop at end of spectrophotometer work DH								
							MC SC ME	
	Jan 25	-9.5	+3.0	+1.3				
	" 27	-5.5	+5.0	0.0				

[illegible]

One Temp.....

Transparency Conditions

Ci Str. Stairs 20' or more

244

327.5

656.3

[illegible]

245

Date Sat. Jan 28/29/61 Observer Id - Ki Julian Day 2437328.5
308 51 35.1 3655.2

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	Angle End
25619	HD 26162	04 ^h 03.3	+19° 21'	I12.5	10300 10300	.008	-11°C	22:52	23:18	13:26
	"	"	"	"	"	"	-10.8	23:21	23:40	13:40
	Focus Test 10/8				OTB					
25620	HD 66141	01 ^h 57.1	+02° 3'	I12.5	1120	.008	-10.8	23:54	00:03.5	10:30
	"	"	"	"	"	"	"	00:04	00:08.5	10:44
25621	HD 92588	10 ^h 36.3	-01° 13'	I12.5	1120	.008	-10.8	00:26	00:54	11:28
25622	HD 89444	10 ^h 41.3	+19° 59'	I12.5	1120	.008	-10.8	01:11	01:15	11:46
	"	"	"	"	"	"	"	01:18	01:21	12:40
25623	HD 103095	11 ^h 47.2	+38° 26'	I12.5	1120	.008	-10.0	01:33	01:48	12:46

ne Temp. 8°F

Transparency Conditions

Very poor

246

US.....

ne Temp.....

show earlier
fairly clear at 21 00 - improving slowly.
Brod 00 00 - 02 00 then clouds

Ending Time E.S.T.	Star Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality	
23:13	N 3 26	19 30	0	6.4	K ₁	4-4-4	set 1 Std Vel	2084 2088 3/4	fine
23:40	N 3 40		"	"	"	4-2-2	set 5 "	2089 2091	good
							set 9 "		fine ok
0:01	N 0:20	+2° 27	0	5.5	K ₃	9-9-9	set 1 Std. Vel	2093 2097	good
0:15	N 0:24	"	"	"	"	9-5	set 5 "	2098 2100	
0:51	N 1 28	-01° 31'	0	7.4	K ₁	3-3-3	set 2 Std. Vel.	2101 2109	good
1:05	E 0:46	+19° 42'		5.3	F ₅	9-9-9	set 2 Std. Vel.	2111 2115	fine
1:11	E 0:40	"	"	"	"	9-9-9	set 5 " "	2116 2118	NO SPECTRUM NO COMP.
43	E 1:46	+33° 02'	1	7.3	G ₅	3-3-3	set 2 Std. Vel.	2120 2128	fine
						MC	SC	ME	
Jan 30						0.0	+7.0	+3.2	

247

Date Tue - Wed Jan 31 Feb 1/41 Observer ^{TG}_{DM} M.R. - H Julian Day 2437330.5
311 54 17.5 3652.0

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
1094-128	IC 2149	05 48.9	+46 06	6-6	5048-4770	30		23:16	23 21
					4770-5050			23:23	23 28
	Sky run 1094			6-6	Sky at 5050			23:30	
					Sky at 4770				
1095-128	IC 2149	05 48.9	+46 06	4-6-6	4770-4770	30		23:38	
				3-6-6	4740-4770			23 45	23 48
1096-129	IC 2149	05 48.9	+46 06	1-6-6	3850-3850	30		23 52	24 01

LS.....

9

248

[illegible]

249

Date Wed. Thur Feb 1-3 1961Observer ^{DH} nk

Kj

Julian Day 2437332.5

312 55 09.5 3651.0

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
1097-129	BD +57 584	02 25.6	+57 31	3-6-6	1) STAR 4835	30		19 55	19 18
1098-129	BD +61 411	02 19.0	+61 32	5-6-6	2) SK 5050 475 X 2	30		19 32	
				4-6-6	SK 5050 475 X 2	30			
1099-129				4-6-6	475 X 2	30		19 59	20 14
				4-6-6	4500-36000	30		20 16	20 34
1100-129	1 Aurigae	5:12.1	41:01	5-6	4500-320	30		21 12	21 38
1101-129	134 Jauri	5-43.9	12 37	5-6				21 53	22 27
1102-129	HD 4724-5	6.01 8	35 18	6-6				22 38	23 12
1103-129	HD 26098-9	8 12.1	4 31	6-5				23 24	23 59
25624	+10 92588	10 36.2	-01 13	12.5"	II.0 b	.008	-12.6°	00 17	00 40
25625	+10 89449	10 14.3	+19 59	"	"	"	"	00 51	00 58
25626	+10 65583	07 54.3	+29 31	"	"	"	"	01 15	03 05
	Focus T. 54							01 15	

Dne Temp. $+2^{\circ}\text{F}$, $-3^{\circ}\text{F} \rightarrow -5.0^{\circ}\text{F} \rightarrow -10^{\circ}\text{F}$

Transparency Conditions *good*

250

Reus.....

Dne Temp.....

*image mostly 0^h
- thin cirrus at 03^h20^m*

Ending Time E.S.T.	Star Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
1918	0119W						2"/min 1A/S	
	0202W							
2014	0221W							
2054	0241W							
				4.7	2 1/2	1A/sec	Gov	
				4.9			B9V	
				7.7			1 1/2 G	
2040	0127 E	-01°33'	0-	7.4	K ₁	3-3-3	Std Vel. Set 2 1/2 sens 7 {2197 2205	good.
2058	0047 E	+17°40'	0-	5.3	F ₅	4-5	" " Set 7 (new f moder) sens 5 {2207, 2211	fine
205	0340 W	+29 21	0	7.9	G ₇	3-3-3 8/10	" " set 2 1/2 sens 8 {2215 2240	fine
							" 7	OK
							Dec slow motion won't move	
							1 grease hard with oil? -11°	
							1P11 Baked II av.	

Date Thurs-Fri Feb 2/3 1961 Observer MS - HV Julian Day 2437333.5
313 56 00.5 3650.0

313 56 00.5 3650.0

[illegible]

Air Temp. 06 F

Transparency Conditions *Easy*

252

OUS.....

233.6 Day Temp.....

[illegible]

Dne Temp. $20^{\circ}\text{F} \rightarrow 18^{\circ}\text{F}$

Bus. FIXED

Dne Temp.

Transparency Conditions fair

254

light winds $01^{\text{h}} - 01^{\text{h}}45$
clouded out at $03^{\text{h}}20^{\text{m}}$ $04^{\text{h}} - \text{no better.}$

Ending Time E.S.T.	Star Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
20:54	2:09	$+45^{\circ}25'$	1	8.1	?	3-3-3	Set 3 ² Puters Choke. Jan 8.	2310 2324 fine
3:20	4:43	$+50^{\circ}08'$	1	9.1	FO	3-3-3	Set 3 " Jan 9	2324 2374 fine (good)
4:08	01:34	$+29^{\circ}19'$	1	7.9	G7	3-3-3	Set 3 Std. Vel. Jan 8	2381 2407 fine
3:15	102 20	$+45^{\circ}12'$	1-0	9.87	BB	3-3-3	Set 3 KAFS Jan 29 Jan 10 only star in beam on B.D.	2409 2529 (2) fine
						10/8	set 7 1/2	OK.
							2 PH loaded B. 61 II w. + 100 D. L. 1.	

Date Sun. Mon. Feb 5-6, 1961 Observer DH - Ki' Julian Day 2437336.5
316 58 27.4 3647.0

316 58 274 3647.0

[illegible]

ae Temp. $+26^{\circ}\text{F}$

us..... FIXED.....

ae Temp..... $+5$

Transparency Conditions Light cloud at start
clearing later - good

256

Ending Time
E.S.T.

r Angle
End

Declination

Seeing

Ptg.
Mag.

Sp.

Comp.

REMARKS

Quality

1943

0200W

2"/min 1A/sec Std. Stars, night sky

2011

0234W

2 $\frac{1}{2}$ 1A $\frac{1}{2}$ $\alpha = +61^{\circ}41'$ $\delta = +61^{\circ}41'$

2021

0253W

" $\alpha = +61^{\circ}41'$ $\delta = \frac{1}{2}[61^{\circ}41' - 61^{\circ}41']$ Clouds 2030

2 P.M. - Bay

clouded out 12⁰⁰ AM

still cloudy at 01³⁰ - went home

Date Mon Tue Feb 6/7 1961 Observer Br - Ki Julian Day 2437337.5

$$317.59 \quad 14.4 \quad 3646.0$$
[illegible]

Moist Temp.

Transparency Conditions..... *Good*

258

extensive ground fog at 01^h - not as high as dome.
all cleared and fogged out at 0210

Ending Time E.S.T.	or Angle Snd	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
20 15	38 ^m W	48° 23'	0-1	8.6	A3	3-3- ⁰ ₃	set 5 α Per 885 *	Sens 9 { 2548 } 45 fine
21 42	07 ^m W	49° 15'	0-1	8.5	A3	3-3-0	set 5 α Per 802 *	Sens 9 { 2599 } 45 fine
00 05	32 W	48° 05'	0- 1	8.4	A3	3-3-3	set 5 α Per 694 *	Sens 9 { 2648 } 45 fine
02 10	19 W	44 35	-1	8.52	G3	3-3-3	set 5 KATS. (clust #29)	Sens 9 { 2697 } 45 fine
						10/8		015

259

v.d.B

Date Tue-Wed Feb 7/8 1961 Observer DH - HV Julian Day 2437338.5
 319 00 00.4 3645.1

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
1106-131	BD+57 584	2 25.6	+57 31	3-6-6	C4900	30		18:48	18 52
1107-131	BD+61 411	2 19.0	+61 32	5-6-6	5050 4700 X2	30		18:57	19:18
	"	"	"	"	"	"		19:22	19 40
	"	"	"	"	"	"		19 55	20 18
1108-131	BD+57 584	2 25.6	+57 31	3-6-6	C4900	30		20 18	20.28
1109-131	BD+61 411	2 19.0	+61 32	5-6-6	C4974	30		20 40	20 53
1110-131	"	"	"	"	"	"		21 00	21 10
1111-131	IC 2149	05 48.9	+46 06	1-6-6	5050 4700 X4	30		21 35	22 08
1112-131	d Leo HD 87901	10 06.2	+12 10	1-4-6	5050 4700	30		22 40	
				1-4-5				22 55	23 04
1113-131	NGC 2841	9 ^h 18 ^m 6	+51° 12'	5-6-6	5050 SK1 4700-2500	30		23 41	
25638	BD+45° 18 59	10 38.3	45 12	I-12 1/2	IIaOb	008	-2	0 129	05 19
	7.9.	0 18							

one Temp.....

260

Ending Time E.S.T.	or Angle 3rd	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
1852	1 16W						4 A/sec 2"/min local std. star	
1915	1 49W						" [$\alpha = +61\ 411$ $\delta = \frac{1}{2}$ of #411, #416	
1942	2 03W						" [$\alpha = +61\ 412$ $\delta = \frac{1}{2}$ of #411, #416	
2018	2 48W						α 1/2 (412, 411) δ 1/2 (411, 416)	
2022	2 53W							
2053	3 21W						From $\alpha +61\ 412$ to 4 ^m e + return (ins)	
2110	3 31W						From δ 61 412 to δ 61 411 and α 61 411	End chart
2208	3 181W						1 A/s 2"/min std. planetary neb.	
							1 A/s 2"/min.	
							133 BT	
231	2 10E						1 A/sec 1/2"/min	fine
0519	334W		2-1-0	9.59	F ₄	3-3-3	Set 2 KAFS	#9 2803 (49)
						10/8	" 8	2857 (49)
							1 P.H. + ? II o b.	fine from obs.
			MC	SC	ME			
			+19.5	+16.2	+0.7			
			Feb. 8					

Date Wed. Thurs Feb 8-9/61 Observer Wm - Ki Julian Day 2437.339

Julian Day.....2437.339

320 00 45.5 3644.0

[illegible]

ore Temp. $+34^{\circ}\text{F}$

Transparency Conditions *Good*

262

CS.....

ore Temp.....

Ending Time
E.S.T.

Angle
nd

Declination

Seeing

Ptg.
Mag.

Sp.

Comp.

REMARKS

Quality

19:50

20:45

21:51

22:00

23:31

14 W

B5 III

1A/sec. $\frac{1}{2}$ 11/min

Reflected light CO

A2G

Trail 14260988.9
but in slowness

RA slow motion
could be broken?

NOW REPAIRED

Feb. 10 MC SC ME
+23.0 +18.4 0.0

263

Date Fri/Sat Feb 10/11 1961 Observer vdB - Hv Julian Day 2437.3415

322 02 12.5 3641.9

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
1118-132	ϵ Tau	4 ^h 26.3	+19° 06'	5-4 622	5240- 3300-5169			19 ^h 45 ^m	
1119-133	η 1 (Crab)	5 ^h 32.0	+22° 01'	6/4/5	5169-3300			20 ^h 20 ^m 40	No b sky
1120-133					5169-3300			20 ^h 40 ^m	
1121-133	δ Gem	6 ^h 34.8	+16° 27'	4/5	5169-34 ⁰⁰ -5169			21 ^h 15 ^m 21 ^h 20 ^m	
1122-133	N4L 2419	7 ^h 34.8	+13° 00'	6/6/5	5169-31 ⁰⁰ -5169			22 ^h 00 ^m	
1123-133	N50 2419	7 ^h 34.8	+13° 00'	6/6/5	5169-33 ⁰⁰ -5169			22 ^h 30	
1124-133	N4L 2683	8 ^h 45.6	+33° 38'	6/6/5	5169-35-5169			23 ^h 10 ^m	
1125-133	δ Gem	6 ^h 34.8	+16° 27'	4/5	5169-3500			23 ^h 40 ^m	
25639	BD+44° 1704	9 41.0	44 42	I-12 1/2	IIaD 6.008	-3.8		0028	0436
	(71.1)	538							
Thurs-Fri Feb 16-17									
Cloudy at first - opened up around 20 ^h - set on									
H.D. 3171 - clouded out - closed up 11:30									
Ms.									
Temp = +24°F									

One Temp.

Transparency Conditions

at beginning Ci in S and W
Late clear

264

0400 Thin Cloud.

0430 Cloudy.

Ending Time E.S.T.	Cr Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
			0	3.54	KOIII		test	
			0	9.0	—			
			0	1.95	A0DE			
				11.51			60" diaphragm	
			0	10.53			60" diaph. Dist. too small, no sky st went al diapr	
0-36	4 20 W	44 25	00	9.39	A5	3-3-3	Set 3 KAFS #10 ²⁹⁰³ 299.1	good.
						10/8	" 8	
							2 PH + 10 JLaOb	
Feb. 13			Feb. 15			Feb. 17		
MC SC			ME			MC + 32.0		
+29.0 +21.6			-2.0			SC + 23.6		
						ME - 0.5		
						MC + 35.5		
						SC + 26.2		
						ME + 1.0		
						MC + 40.3		
						SC + 28.9		
						ME - 0.5		

265

Date Feb 20-21 1961 Mon Tue Observer DH - Ki Julian Day 243.73515
332.08 08.3 3626.2

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
1126-134	IC 351	0341.1	+34° 46'	4-6-6	3800-3700	20		1855	1900
1127-134	BD+61411	0219.0	+61° 32'	5-6-6	5050-4750	20		1906	
1127-134	BD+61411	0219.0	+61° 32'	5-6-6	5050-4750	20		2022	2028
25640*	BD+48.934	3 ^h 23 ^m .2	48° 11'	I-12	IIaOb	.008	28.5F	21:12	22:57

* Although the comp looks OK, the observer (Tu) tells that he removed p.H., then put it back for the additional 6.s. However, he says there is a chance that he forgot to draw the slide for the 6.s comp. — in which case plate is OK.

Air Temp. +29°F

Transparency Conditions

266

Humidity

Air Temp.

Ending Time E.S.T.	Air Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
190	1 ^h 00 W						1 A/s 2"/min Plan neb.	
							Cloud.	
2125							1 A/s 2"/min.	
2257	18 ^m	48° 14'	0	8.6	A3	3-6	Set 3 ² Per Sen 8 only 4 counts 14 counter 3024-3028.	good
							opened 0045 - clouded out right away - not home. 0145	

Date Feb 21-22/61 Tue-Wed Observer DH Julian Day 2437.3525
333 08 34.5 3624.3

[illegible]

Line Temp.....

268

[illegible]

Date Feb 28 Mar 1 Tue Wed 1961

Observer... DH

Julian Day 2437359.5

340 10 44.1 3610.9

[illegible]

Dne Temp.....

Spectrograph set 23.8 at $T_c + 4.2^\circ\text{C}$

270

[illegible]

1961

Date MAR 1-2

Observer.....102

Ki Julian Day 2437360.5

341 10 55.0 3609.1

[illegible]

Air Temp. +33
 Air Temp. 12.63
 Air Temp.

Transparency Conditions

232

after 00^h haze + ground fog cause excessive
 long exposures !!

Ending Time E.S.T.	For Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
21 34	27 W	49:45 -	0	9.1	FJ	3-3-3	through clouds	too white
23 40	03 W	29:21		3			Mark from focus.	fine
00 45	02 25 W	-01°29	0	7.4	K1	3-3-3 10/8	- mark this corner from focus {3164 3172 ③ C very much to vi	
91			MC	SC	ME			
		Mar. 3	+57.0	+39.2	-1.0			
		" 6	+61.5	+42.2	+0.2		Clouds need checking (red spot showing) Temperature control still wire not balanced at 01:00 (had to move cloud 2") Counter somewhat sporadic (maybe stage is wrong look?)	
		BATTERIES POKK!					1 PH loaded + 11 on M	<

Dne Temp. $+31^{\circ}\text{F}$

ous.....

Dne Temp.....

Transparency Conditions *good*

light cloud in spots 2315

Sky deteriorating after midnight.

274

Ending Time E.S.T.	Star Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
2005	4 27W			1A/s	$\frac{1}{2}''/\text{min}$		telescope reversed. $S = \frac{1}{2}(411 + 414) \therefore \alpha = 411 - 2.0$	Initial α -bar = 18.7 First set 22.7
2024	4 45W			1A/s	$2''/\text{min}$		$S = \frac{1}{2}(411 + 414) \quad \alpha = 411 - 1.0$	Second α -bar set 20.7
2045	0 505W			"	"		$S = \frac{1}{2}(411 + 414) \quad \alpha = 411$	Third set 18.7
2100	0 527W			"	"		$S = \frac{1}{2}(411 + 414) \quad \alpha = 411 + 1.0$	4 th set 16.7
2105							} $N_1 = C4974$	
2120	3 305W			"	"	"		
2131	3 322W			"	"	"		
2145	3 340W							
2155	0 354W							
2200	3 49W			1.95	A0 IV		Oke Std. Star 1A/s	$2''/\text{min}$
2210	0 51W			1.33	B7 V		Oke Std Star " "	"
		MC	SK	ME				
Mar. 8		+64.0	+44.0	+1.6				
" 10		+66.0	+45.6	-0.5				
							1 P.H. Packed + 1?	

Date.....Observer.....Julian Day.....

[illegible]

Date Fri/Sat March 10/11 1961 Observer DH, vdB -/ld Julian Day 2437368.5

350 11 14.7 3594.0

[illegible]

ole Temp. +10 F

278

Dreams not work as
Brown not work as

Date Thurs Fri Nov 16-17 1961

Observer

$$M_2 - M_5 - K_1$$

Julian Day 2437375.5

356 10 12.4 35830

[illegible]

Ice Temp.

Start delayed by 10 min.
02h - slight overcast - improved later

35830

59

Date MAR 17-18 Fri-Sat 1961

Observer uclB
(C.W.)

Julian Day 2437376.5

357 09 55.4 3581.0

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
1137-138	γ Gem	6 ^h 34 ^m 8	+16° 27'	415	5150 3500	X2 30		20:19	20:35
	Standard			6/7/4/6					
1138-138	BD +61 411	02 23.5	+61° 46'	5-6-5	5050 4750	12 30		2005	2018
	"	"	"	"	5075 4750	12 11		2024	2037
	"	"	"		"	"		2043	2056
1139-138	γ Gem	6 ^h 34.8	+16 27	415	5150-3500	X		20 ^h 50 ^m	22 10
1140-138	γ Gem Sky			415	5151-3500	1X		22 ^h 10 ^m	22 15
	Standard			6/7/4/6				22 ^h 30 ^m	
1141-138	NGC 2841	9 ^h 18.6	+51 12	6/7/4/4	5155-3500	2X First Sky		23 ^h 05	23 30
1142-138	NGC 3379	10 ^h 45.2 (1950)	+12° 51' (1950)	6/7/4/4	5155 3500	2X Sky Second		24 ^h 00	24 ^h 50 ^m
1143-138	NGC 4472	12 27.3	+08 16	467.4 4.6-7.3	5150-3500				0207
	" + SK, TR		ACES	12 50 ^h					0330
25653	HD 114762	13 07.5	18 02	I12.5	Iaob	008	-8.8	0413	0533
	Fours Test		0713						

Temp. $\pm 22^{\circ}\text{F}$

Transparency Conditions

Perfect PE weather

282

Some smoke below 20° in NW

Temp.

3591.0

Ending Time E.S.T.	Angle Ind	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
20:35	23W					2"/m	6 A/s	not recorded at mid exp
						2"/m		
20:35	2519W					2"/m	1 A/s $1 \times = 411 - \frac{1}{2}^m$	Set 5: $4'' - \frac{1}{4}(4'' + 414)$
20:37	536W					"	"	SN $4'' + \frac{1}{6}(4'' + 414)$
20:36	553W					"	"	S $4'' + \frac{1}{3}(4'' + 414)$
22:10	Star wt					$I \times 7/8$	GA/sec	
22:15						"	"	
						"	"	
2:30	1415m W sky					"	"	
	1410m W Galaxy					"	"	
24:16	0m 55m W Galaxy					"	"	
	1415m W sky					"	"	
03:20								
03:30	232W							
05:33	248W	+1744	0	2.2	F ₇	33-3	Set 2 STDVEL 12/9 " 8 1 A.H. + 5 IIaOb Found 1 minor star	#8 ³³⁴⁷ 3359 J-1. c-r

Date Mar 19/20 Sun/Mon 1961 Observer Br. - H v Julian Day 243737 P.S
359 09 15.2 3576.

[illegible]

215

the Temp.

Transparency Conditions *clear*

284

7 p. 5

15.2 357

[illegible]

285

Date Mon - Tue Mar 20-21 / 1961 Observer MR Tu - Ki Julian Day 2427379.5
 (DH) 0 08 51.7 3574.3

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
1144-139	IC 2149	05 48.9	+46 06	1-6-5	4750 5250 x 2	30		1922	1931
				1-6-6				1935	1940
1145-139	Mars			4-6	5150	20		2215	
1146-139	Mars	06 40.5 ^{h m}	+25° 41'	4-6	5150 3846 x 2	20	32°F	22:41	22 53
1147-139	Uranus	09 37.7	+14° 15'	6-5	5166 3846 x 16	20		23 10	
1148-139	PC Vn	12 31.9	+41° 34'	6-2	5166 2722	20	31°F	23:41	
25659	H10 130988 Twin Test	14 46.0	+45 18	12.5"	II-08	008	+02.6°	0030	0205
						008			

Air Temp. 140°F $\rightarrow$ balanced at 22.7°F
 Locs. 12.61 30°F
 Air Temp. 28°F

Transparency Conditions Good at $0^{\text{h}}00$

286

Clouded Out 02^{h}

Ending Time EST.	Angle and	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
1931	12W						1 A/s 2"/min stel. pl. nebula	
1940	21W							
							2000 - 2200 - jammed S - GFL had to come & fix it.	
							1 A/s 2"/min	
		$+25^{\circ}40'$	$+0.7$	---	30"		4 A/s 2"/min	
		$+14^{\circ}43'$	$+5.7$	---	30"		4 A/s 2"/min	
		$+41^{\circ}22'$	4.29	G01	30"		4 A/s 2"/min	
205	VOSE	$+45^{\circ}02'$	0	9.17	G5	3-3 10/6	set 4 KAFS $\left(\begin{smallmatrix} 11.5 344 \\ 1.2 34 \end{smallmatrix} \right)$ sens 10 $\left\{ \begin{smallmatrix} 3671 \\ 3950 \end{smallmatrix} \right\}$ 77	

Clouded Out $02^{\text{h}}15^{\text{m}}$

	MC	SC	ME
Mw. 22	$+86.0$	$+55.1$	-2.7
" 24	$+89.0$	$+57.0$	-2.4
" 27	$+93.5$	$+59.5$	-7.0

Date Mon - Tues March 28/29 1966 Observer MR JT - Ki Julian Day 173.5

[illegible]

ore Temp.....

Transparency Conditions

288

CS.....

ore Temp.....

Ending Time E.S.T.	Angle Ind	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
23:33					-	30"	4A/sec; 2"/min	
		+41 34	-	4.88	GOV	"	" "	
Clouded out by 00 ^h 30								
closed up 01 ^h 00.								
Dec motor stuck. - not stuck now (Ki)								
				MC	SC	ME		
Mar. 29				+96.0	+61.1	-1.4		
"	30			+97.3	+62.0	-2.5		

Date Th/Fri Nov 30/31 1961 Observer re B + D H Ki Julian Day 2437389.5
 @ 10 02 51.8 3551.8

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
1151-141	8 Gem	06 ^h 35 ^m	+16°27'	5/2 ¹⁰ 8/1	5150 → 3500 2x	20		19 ^h 50 ^m -	20 05
1152-141	8 Gem	"	"	"	"	"		20 ^h 20 ^m -	20 35
1153	Source			6/5/4/3	5150			20 ^h 45 ^m -	20 55
1154	8 Gem	"	"	5/1	5150 → 3500 2x	"		21 ^h 00 ^m -	21 15
1155	Source			6/5/4/3	5150			21 ^h 25 ^m	21 30
1156	8 Gem	"	"	5/1	5150-3500 2x	"		21 ^h 30	21 45
1157	8 Gem	10 ^h 05 ^m 7	+12°13'	4/5	5150-3500 2x	"		22 ^h 05 ^m	22 20 ^m
1158	Source			6/5/4/3				22 ^h 15	22 30
25660	HD 111851	12 47.1	+44 33	I-12 1/2	IIa-Ob.k ₂	0.008	+02.1°C	23 09	01 05
25661	HD 135721	15 ^h 11.5	+60°19	I-12.5	IIaOb.k	0.008	+02.1°C	01 25	04 30
	FT	OTB							

Open?

The ~~thick~~ 6 Ki. Opened up 01^h Set m HD 131861
 closed out - closed up about 02^h.
 Ki

Dme Temp. 37°F → 28° at 00^h

Rcus. 12.61

Dme Temp. 25°

Set heater 22.7 for temp = +2° C

Transparency Conditions Fine Some
thin clouds

290

seeing very good 00^h
 seeing poor after 03^h

Ending Time E.S.T.	Hour Angle End	Declination Mid exp	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
005		1 ^h 40 ^m W		1.95	DOIV		centering OK	
035		2 ^h 05 ^m W		"	"		centering OK	
055								
2115		2 ^h 47 ^m W		"	"		centering OK	
2130								
215		3 ^h 17 ^m W		"	"		centering OK, SoSo on 10th	
2200		0 ^h 20 ^m W		1.33	B7V		centering OK	
2230								
0005	1030 W	+44° 14'	0-1	9.27	F6	3-3-3	Set 3 KAFS 45 needed Sens 9	{3763 3808 (45) Good
0030	134 W	+60 04'	1-2	9.60	A8	3-3-3	set 4 KAFS KA#13 HINS 134 sens 10	{3820 3940 (25) Good
	MC	SC	ME			10/8	set 7	Recess, etc
Apr. 3	+103.0	+63.7	-3.0					
" 5	+106.0	+64.3	-3.2					
" 7	+108.0	+65.1	-3.7					

IPH + 40 more Bated IIaO's

Sat Apr 1-2. 150 visitors cloudy.
 He + I showed films + telescopes

Date April 8-9/61 April '61 Serp. sig Observer W.B. + I-L Julian Day 2437398.5
 © 18 54 28.6 3535.1

[illegible]

Feus.....

Dme Temp.....

292

[illegible]

Date Apr 16/17 1961 Sun/Mon Observer Br. (Hr) Julian Day 2437406.5
 ☉ 26 44 59.3 3520.1

[illegible]

520.1

Transparency Conditions Cloudy early, spend 20.30 294

Apr. 15 Sat. Cloudy ~ 150 visitors. Films + demonstration

[illegible]

Date April 18-19/61 Tue-Wed Observer DH-Hb

Julian Day 2437408.5
0.2842174 = 3515.9

[illegible]

15.9

Set heater 25.2 for temp = $+6.2^{\circ}\text{C}$

Transparency Conditions

Transparency Conditions "Clearing" before midnight, 296
0155 clouds, D

Good! after 10.230

[illegible]

Date Apr 19-20 Wed-Thur Observer Wr - Ki Julian Day 2437409.5
029 40 53.3 3513.7

029 40 53.3 3513.7

[illegible]

air Temp. 39°F

bar 12.61

air Temp.

Transparency Conditions Good.

very poor 01^h

clouded out 03^h

298

Ending Time
E.S.T.

Star Angle
End

Declination

Seeing

Ptg.
Mag.

Sp.

Comp.

REMARKS

Quality

02^h 58^m

3 40 W

+44° 31'

1-0

9.48

F8

3-3-3

KAFS Zone 32

set 2 zero 9

4228

4269

41.7

fine

10/8

set 8

c. sl. to vi

1 PH locked + 10 II.0A

Date Thurs Apr 20-21/61 Observer Ad - KI Julian Day 2437410.5
0303927.0 3511.6

Julian Day 2437 410.5
 @ 30 39 27.0 3511.6

[illegible]

ae Temp. 39°

us 12.61 fixed

ae Temp.

Transparency Conditions

exp meter balances more easily
at 04^hbalance badly out of balance at 4^h west
ie: image will not stay on slit.

Ending Time E.S.T.	or Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality	
12 50	12 50	44 24	0	9.72	G8	1-2-1	set 2. KAFS Taped slit 008 + hopeless! ✓	Balance very unstable at sens 10. sens 10 { 4277 4377	good
02 05	04 12	29 37	0-1	9.78	G5	2-1-1	set 3 KAFS ✓ Field a little uncertain is sp type OK	sens 9 { 4381 40 4420	good
02 46	00 22	+39° 14	-1	7.2	G8	1-2-1	set 2 Std Vel.	sens 7. { 4421 8 4429	
03 25	01 01	"	-1	"	"	1-3-3	set 6 " "	" " { 4430 4438	
04 47	01 04	+58° 31'	-1	7.5	Ks	3-3-3	set 2 " "	sens 8 { 4445 25 44 20	fine
						10/8			focus OK
							2 PM loaded + 5 Ila 0 b.		
							Flan M.		
							L:		
							Dome drive wheels slip very badly when turning slit to West. (Had to go west via North)		

MC SC ME
Apr. 21 +6.0 +11.1 +0.4

Date Sat/Sun 1961 Apr 22/23 Observer MR - L Julian Day 2437412.5
 @ 32 36 28.0 3507.3

[illegible]

ie Temp. $+42^{\circ}\text{F}$

Transparency Conditions *good*

MS

$80 + 60 = 140$ visitors - showed Moon in 74" (not bad)
MR - L - 2 RASC telescopes - Terry Dickinson 3" unlin

ie Temp. 42°F

Ending Time
E.S.T.

Angle
ind

Declination

Seeing

Ptg.
Mag.

Sp.

Comp.

REMARKS

Quality

01 42

55W

H 29 36

0-1

9.78

G5

2-1-2

st 3

KAFS Aug 52'

fine

04 36

24W

29 38

0-1

9.99

F5

2-1-2

" 4

"

fine

5/4

" 8

c. to vi.

1 P.H. Loaded + 4

Apr. 24

MC

SC

ME

+10.0

+11.8

-2.5

" 26

+11.5

+12.1

+1.0

Date Wed. Thurs. Apr 26-27 Observer Wn - Ki Julian Day 2437416.5
 @ 36 30 04.4 3499.0

[illegible]

die Temp. 41°F

Transparency Conditions

304

drifts clouds till 21:00
even haze at 00^h (quite thin by 01^h) (K)

Ending Time E.S.T.	Or Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
01 00	100 W	+59°45	0	9.85	F7	3-3	KAFS #13 set 5 (2i) sun 10 { 5052 5120	fine
02 33	23 W	+59 38	0	9.45	F5	12-1	1 KAFS #15 set 3 sun 9 { 5121 5168 47	fine
04 42	30 W	+59°32	0	9.69	G8	12-1 5/4	" #15 set 6 (false start at set 3) sun 10 { 5172 5262	good OK
							2PM + more in box	
		MC	SC	ME				
Apr. 28		+13.6	+12.5	-6.0				
May 1		+17.3	+13.1	-7.0				

Date May 1-2/61 Observer MR - HV Julian Day 2437421.5
0412120.3 3489.9

© 4121 20.3 3489.9

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
1159-142	Keplene	14 32.5	-13° 03'	3-65-3	52 ^{wo} - 35 ^{wo}	20v		23:40	24:00
2 5 6 7 9	HD 133965	15 02.2	+29° 35'	I-12 ¹	IIa0 b	.008	+5.5	00 35	03 53
	Trone 727		0913.						
May 3-11/61									
				Hy opened.					
				Hr closed.					

01S.....

die Temp. + 34°

Transparency Conditions Clear

306

Clouds at 0345

[illegible]

397

Date May 4/5 1961 Th/Fri

Observer vdB-Gg-Hy

Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T. beg.	Ending Time E.S.T.	P
-1160-143	α Leo	10 05.7 ¹¹	+12°13'	-4-4-10	150-350	28		20 ^h 18 ^m		
-1161-143	Source			-3-6-0	—			20 ^h 35 ^m		
-1162-143	NGC 3607	11:11.7	+18:20	5,6,5,0	2x+sky			21:11 + 21:29		
-1163-143	NGC 4472	12:24.6	+08:33	4,6,5,3	2x+sky			22:00 + 22:18		
-1164-143	α Leo	10 05.7	+12°13'	-4,4,0	2x+sky			22:50		
-1165-143	Source	M53		36,0				23:07		
1166-143	NGC 5024 $\oplus$	13 08.0	+18°42'	4,6,5,3	2x+sky			23:21 + 23:39		
1167-143	NGC 5904 $\oplus$	15:16.5	+02:14	5,6,5,3	2x+sky			00:41 + 1:02		
-1168-143	α Cr Bor	15:32.6 (19:30)	+26:53	4,6,5,1; 4,5,5,2	2x+sky			1:26		
1169-143	6205 $\oplus$ M13	16:25.2	12:13.9	4,6,5,1	2x+sky			2:06 + 2:25		
-1170-143	α Lyr	18 35.3	+38:44	3-6	2x+sky			2:57		
-1171-143	Source			3-6				[2:57]		
-1172-143	α Cr B	15:32.6	+26:53	4:5	2x			3:38		

Time Temp. 50°

Ecus

Time Temp.

Transparency Conditions Fine in South, thin Ci in NW 308

Cloud from N.W. Dup 1 am
Moon shows no clouds.

of middle (ie in between 24 settings)

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0 ^h 50 ^m W		1	1.33	B7V		4 ^A /sec centering ok	
0:34 W + 0:53 W			11.0			centering ?	
0:17 W + 0:34 W		9.33				22:10 added dry ice centering - o.k. & noticed improvement.	
3:25 W +		11.33		B7V		centering ok	
		8.7		A8n			
0 ^h 51 ^m W + 1:10 W		8.7		A8n			
0 ^h 06 ^m W + 0:27 W		7.0		dF7		bright sky - moon 01:15	
(0:35 W) 0:45 W		2.22		A0V			
0:07 W + 0:26 W		6.7		dF2			
0:54 ^m E		0.03		A0V		centering ok	
2 ^h		2.23		A0V			
2:43 W						centering pair	
May 5	MC +22.0	SC +15.1	ME -4.5				

Date May 5/6 1961 Fri/Sat Observer vdB-Hd Julian Day 2437425.5
 @ 4513 50.7 3484.0

[illegible]

bme Temp.....

Transparency Conditions

Partly Cloudy
City West
ALTO ALLOD

310

Ending Time E.S.T.	Bur Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality	
			1?	10.5	57		(possibly NGC 3384)	Test Ampl. with new Time constant	
01 50	W 138	44° 33'	0-1	9.9	F9	1+2+1	KAFS	Transparency poor - Ex. meter very unstable	Good
close							False start of focus test ret 9 10/8 ret 1	PH. was not clamped. slit was set for longest length	C to Violet
01 35			0	6.1	G4	2-4	ret 1	Star vel. Sens 5 5368	
01 40	L record	17 07	0	6.1	G4	3-3	" 5	Took 5 stars of pair. OK?	Fine
01 40	- compare					3-3		rem 8 5373-5377	
								rem 6 5378-5382	
01 40		39 14	1	7.2	G8	2-2-2	set 2 PH 4.5.1	With 103a0 Sens 7 5383	
01 40						2-2-2	ret 5	" 5391	
01 40						2-2-2	" 9	" 5392	
01 40	N 245		0					" 5399	
								" 5407	
							PH 243 loaded with 103a0.		

Date. May 7/8 1961 Su/170

Date May 7/8/36 Sat Observer Hy (vdB) - L Julian Day 2437427.5
047 09 57.3 3481.4

047 09 57.3 3481.4

[illegible]

Dme Temp. 57°

Transparency Conditions Fine

312

Fus.

27.5 Dme Temp.

481.4

Ending Time E.S.T.	Sur Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0 10	3 19 W	+44° 18'	0-1	9.65	F7	1+2+1	KAFS #31 where is p.h. #3?	Good
12 36	2 31 W	45 18	0-1	9.68	F8	1-2-1	" 34 Clouds	Good
1 PH. loaded with 103A.								
Baked Haos in dome								
				MC	SC	ME		
May	8			+26.0	+16.4	-0.8		
"	10			+28.0	+17.0	-1.8		

313

2nd hand - 1961

Date May 10/11 1961

Observer Gg, Hy, vdB Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	set. of Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
1174-145	✓ Leo	10 06.2 (1900)	+12 10		1,54,0	28		21:41	21:56
1175-145	NECK 495	12 29.4	+26 00		5,6,7,4	2x+sky		too faint	
1175-145	NGC 4826	12 51.9	+22 13		5,6,7,3	2x+sky		22:31 22:40 22:47	
1176-145	NGC 5272 ⊕ M3	13 37.6	+28 53		5,6,7,1	"		23:15 +	23:33
1177-145	✓ CrB	15 33.0 (1900)	+26 51		1550	2x"		00:05	—
11	11	11			1540			00:10 +	—
1178-145	Source				1510			[00:35]	
1179-145	NGC 5904 ⊕ M5	15 13.4	+02 27		5,6,50			00:43 +	1:02
1180-145	NGC 6254 ⊕ M10	16 51.9	-03 58		5,6,52			1:33 +	2:00
1181-145	NGC 6341 ⊕ M92	17 14.0	+43 16		4,6,53			2:32 +	2:50
1182-145	✓ Lyr	18:35.6 (1900)	+31 45		1450			3:15	
1183-145	✓ CrB	15 33.0 (")	+26 51		1550			3:35	
11	11	11	11		1540			3:37	
1184-145	Source				1510			3:55	

Dme Temp. 46

Fcus.

Dme Temp.

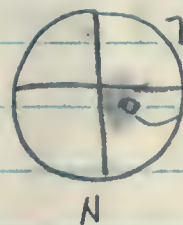
Voltage on Tube changed

Transparency Conditions

some clouds till 21:30 - 21:40 - 71
 Ci in North, probably 3/4
 not photometric in North
 10:30 improving rapidly 12:1 looks photometric
 or " " "
 3:30 perfect!

Voltage on Tube changed to 700

Ending Time E.S.T.	Air Angle End-middle	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
1:56	39 W		0	1.36	B7	Stand	voltage changed 650 → 700 after (omit ::)	
2:47	0:41 + 1:00 W		9.27	10.9	G7		haze + cirrus during day. low cloud in N + N.W. at 22:00 green glow low in N. 22:40: virtually no cloud or glow	
3:33	39 W + 0:57		7.2	7.2	dF2		23:30 dead clear.	
	no good		2.21	2.21	A0V	ST		
	3:19 E							
1:02	0:32 W + 0:51 W		7.0	7.0	dF7		(01:20 clear: slight green glow very low in N.)	
2:00	0:17 E + 0:11 W		7.6	7.6	G0		centring photometer? also ice low.	{ sky - seen during at 1:00 - 1:10
2:50	0:24 W + 0:40 W		7.3	7.3	A5			
	0:14 E		0.0	0.0	A0V			
	no good		2.21	2.21	A0V	ST	twilight beginning { 3:40, clear sky anytime that cloud in N + E	
	3:09 W						NO II-AD-FLATES LOA 200	
							Slow motion in G.M. center for D.C. only - more for S' face.	



74" field
 position for object
 to be
 'centred' in
 spectrophotometer

Date May 11-12/61

Observer

$$H_v - M_s$$

Julian Day 2437431.5

0 51 01 54.8 3476.0

[illegible]

Dne Temp. $+52^{\circ}F$ Transparency Conditions FAIR (Thin Cirrus) 316

Focus.....

23^h02 Brilliant FIREBALL $S \rightarrow N$. 15° above Western Horizon. (Green?)

Dne Temp.....

Ending Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
01:15	1:35W	+44 53	0	9.59	F ₄	3-3-3	Set 2 KAFS #10 ⁵⁴¹⁸ ₅₄₈₁	good
						12/8	set 7	or. sl. to v.
2:55	1:00W	+17 46	0.1	7.56	A ₀	3-3-3	set 5 KA 8x8 (field as) lens. 8 ⁵⁴⁹⁵ ₅₅₁₀	good
3:42	1:47W	" "	"	"	"	3-3	set 9 KA 8x8 given lens 8 ⁵⁵¹¹ ₅₅₁₇	fine
		cut off by thickening haze.						
							2 P.H. + 8 (IIa-c)	
							+1 P.H. with 103a-0	

Date... May 13/14 Sat/Sun

Observer vdB-McR Julian Day 2437433.5

0	52	57	45.4	3473.2
---	----	----	------	--------

[illegible]

one Temp. 63°F

Transparency Conditions Fine, haze at low alt.

318

MS.

33.5 one Temp. 62°F

3473.2

Ending Time EST.	Alt. Angle Ind	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
2.21	39 W	+44°22'	0+	3.88	58	1+1.1	KA 34 # 353 4 hr app	good
0850	54 W	+17°10'	0-1	6.1	64	3-3- 10-4	STD VEL SET 3 SET 6 <i>appears to be wrong for (see remarks and sp. type).</i>	fine or. sl to v
May 15								
			MC	SD	ME			
			+33.5	+19.1	-2.8			
							1 P.H - 103.40 [PH # 4]	
							1 P.H - II-20 [PH # 3]	
							+ 7	
							UNSPOTTED Iao's IN DOME	
							150 VISITORS M3 SHOWN	

319

Tue-Wed

Date

May 16¹⁷/61

Observer

vol B: Cag

Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
-1185-146	Source				1,4,6,1	28"		20:17:20	(middle of)
-1186-146	α Leo				1,5,2,1	Scan 2X+abundance		20:42	
-1187-146	α Leo				1,5,3,1	2x		21:07	
-1188-146	Source				1,4,6,1			21:28	+ 29 1/2 hrs:30
-1189-146	Source				1,4,6,0				
-1190-146	M 5272 M3				5,6,7,1	2X+sky		22:46	+ 2:05
-1191-146	"				"	2X only		23:26	
-1192-146	α Cr B				1,5,4,0	2x		23:52	
-1193-146	Source				1,4,6,0			00:11	
-1194-146	NCG 6405 M13			4001	5,6,7,1	2X+sky		00:33	+ 00:50
-1195-146	NCG 641, M92				5,6,7,0	2X+sky		1:20	+ 1:38
-1196-146	NCG 6402 M14				5,6,7,3	2X+sky		2:08	+ 2:27
-1197-146	α Lyr				1,4,5,0	2x		3:01	
-1198-146	α Cr B				1,5,4,0	2x		3:23	
-1199-146	Source				1,4,0			3:45	

2210:50 E etc?

20h - some small clouds in SW & NE but fine
 Transparency Conditions 21" - clear
 Night perfect! 320

Dew Temp. 51

Focus.....

Dew Temp.....

TRACINGS to 3400 Å / not 3500

Ending Time E.S.T.	Star Angle and	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
			not too good					
	05 ^m W	2 ^h 14 ^m	O ⁻				not well centered, again not too well centered, (or thin clouds??) ← Discard	
	2 ^h 30 ^m						centering not too good.	(check radiation??)
							is variable?	
							having trouble adjusting zero. — called Hr -22:15 — who changed something.	
	0:35 W + 0 ^h 54 ^m			7.2				
	1 ^h 15 ^m W							
	0 ^h 13 ^m E			2.2	A0V	std.	Sky clear — right down to horizon! Seeing poor	
00:50	0:38 E + 0 ^h 21 ^m E			6.8	✓ F2		use 1100 Å as source for this	
1:38	0 ^h 26 ^m E + 0:09 E			7.3	A5m		1'45" — Sky clear all over.	
2:27	0 ^h 00 ^m + 0:23 W			9.4	G0			
	0 ^h 04 ^m E			0.04	A0V			
	3 ^h 21 ^m W		O-1	2.2	A0V			
							MC SC ME May 17 +35.7 +19.2 -2.0 May 19 +38.0 +19.4 -1.0	

321

Date May 19/20 Fri/Sat 1961 Observer VB-L-F Julian Day 2437439.5
 ☉ 58 44 41.4 3463.8

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P
25689	SN NGC4564	12 31.5	+11 59	124	103 ₂₀	.040!	14	22 ^h 10 ^m	01 14	14 13W
25690	HD 184 ⁴ 67	19 29.5	58 24	"	IIA ²⁰⁰ ₀	.008	14.0	01 53	03 07	050E
25691	" 187691	19 46.2	10 16	"	"	"	13.8	03 27	03 37	
	"	"	"	"	"	"		03 37	03 47	
	"	"	"	"	"	"		03 47	03 57	019E
		Focus	First			O.T.B.				

Home Temp. 54°

Transparency Conditions Fine

322

ocus

Home Temp.

19.5

3.8

inding Time
E.S.T.

Hour Angle
End

Declination

Seeing

Ptg.
Mag.

Sp.

Comp.

REMARKS

Quality

01 14	13W	+11° 37'	1	"	Q!!	1+ - 1/2	Supernova in NGC 4564 m=11 (type I)	
03 07	50 E	58 28	0-1	7.5	K5	3-3-3	Standard Velocity F. guiding	strong
03 39		10° 18'	0-1	5.8	F8	4 1/2 - 4 1/2	set 1 " "	strong
03 47				"	"	4 1/2 - 4 1/2	set 3 1/2	strong
03 57	19 E			"	"	4 1/2 4 1/2	set 7	strong
						10/8	" 10	ct m

2 P1+s loaded
4 in Box

May 23 MC SC ME
 +42.6 +18.3 +2.0

Why was eye meter not
used.

Date Two-Week
May 23-24/61 Observer WLB ^{GG} -H5 Julian Day 2437443.5
0 62 35 27.4 3457.6

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
1200-147	α Leo		Standard	1440	28			20 ^h 25	20 ^h 55
1201-147	α Leo		"	1440	"			20 ^h 55	21 15
1202-147	Sunce			1420	"			21 ^h 18	
1203-147	NGC 4564 + [SN]			(15.6.7.3) 426,7,3		x+sky		(21:22) 21.54	+ beginning of 2nd scan of gal
25692	NGC 4564	12 31.5	+11 59	12"	103aD	.100!	14°C	22:30	2335

Time Temp. 54

Focus

Time Temp. 51°F

21^h ok but light in SW

21:30 - better light in SW

22:00 ok light in N+NW+tratus

on in 5160 to 3450

Transparency Conditions

ASTORIA 2300

Sat. Sun May 20-21 1961

cloudy 110 + 75 = 185 visitors

MR + I

324

VOLTage 900 today on 7

Ending Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0551	2 ^h 26W		0-1	12.5	B7V		In twilight	
1115	2 ^h 44W		"	"	"			
	1:06W + 1:24W						{ Moon is close ~ 10° [recovered at 3450!]	
335			0		Q!!	-1-	SN 4564 (Painted on May 19/20) exposure terminated thin cloud no quality possible	
							2 P.H. in fring.	
							Sky WORSE with MILD Haze + T (0050)	
	May 24		MC +44.0	SC +18.3	ME 0.0			

Date _____

West-Thu

Mon 24/25 1961

Observer

CyF-H5

Julian Day

2437444.5

① 63 33 05.0 3486.2

[illegible]

Lme Temp. 65

Fcus.....

Lme Temp.....

44.5
186.2

Transparency Conditions

Had trouble with RA slow motion
21:45-22:40 - called Jerry
replaced fuse.

326

Poor at 21^h. Haze all over + clouds
near horizon 22^h - also bright moon
23^h clouds moving in from west
- could W. 1/2 of sky
23:20 clouds all over.

Ending Time E.S.T.	Sur Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
2:58	1:30E	1:55	0-1	5.6	G0	3-3-3 ^{set 2}	Std. Vel (dilat. exp. in)	strong
3:05	1:21E					3-3-3 ^{set 1}	(from and exp. on for all)	strong
23:26	0:45W	29:54	0-1	4.5		10	See Strip-gap AF — { CLOUDS-STOPPED	strong
Why was exp meter not used? Two from test								
1 PH + 3 in yellow box								
			MC	SC	ME			
May 26			+45.3	+18.4	-1.2			
" 29			+48.4	+18.8	-4.3			

327

Mon-Tues May 29-30

Date 28/29 May '61 Observer Hr - TJulian Day 2437449.5
068 2052.4 3449.9

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P
25695	HD 144579	16 ^h 01.5	+39° 24	I12	IaO	008	11°C	0 ^h 57 ^m	2 ^h 09 ^m	18W
25696	HD 187691	19 ^h 42	+10 10	I12	IaO	008	11°C	2 ^h 28 ^m	2 ^h 49 ^m	13E
25697	HD 212943	22 ^h 22.8	+04 12	I12	IaO	008	11°C	3 ^h 00 ^m	3 ^h 12 ^m	10E
	"							03 16	3 ^h 26	24E
		Focus	Test	OTB						

Time Temp. 45°

Focus

Time Temp. 45°

Transparency Conditions Good at 1:00

328

" " 2:30
Bright Full Moon
Becoming Overcast 3:49 am. (NE local)

Sur Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	(EST)	Quality
2h 18W	39° 14'	0	7.2	G8	3-3-3	Set 5; Std. Vel.	7. 5688 5696	fine
2h 53'E	10° 17'	0	5.8	F8	3-3-3	Set 5 Std Vel	6 5698 5701	fine
3h 01'E	4° 28'	0	5.9	K0	3-	Set 5 Std Vel	6 5703	fine
2h 46'E					9	" 9 " "	" 5711 5715	*
					10/8	Set 1		*
						* Comp spoiled by plate being spotted. frame left being superimposed		
						PH 4 in Yellow box (in Pudge)		

Date Tues May 30-31 297/61 Observer Hd. - L-F Julian Day 2437450.5
 069 18 22.3 3448.8

069 18 22.3 3448.8

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
2569X ⁸	HD 89449	10 14.3	+19 59	I-12	IIaOB	008	15.4	20 50	20 56
								21 00	21 05
								21 08	21 11
2569X ⁹	⁶⁰² HD 114071	13 03.0	+29 59	I-12	IIaOB	008		21 27	
	HD 107328	12 15.3	+03 53	I-12	IIaOB	008	15.0	22 18	22 33
								22 34	22 50
		Focus Test			OTB				
⁷⁰⁰ 25699	HD 114762	13 07.5	+18.02	I-12	IIaOB	008	15.3	23 08	23 45
25700	HD 123782	14 04.6	+49 56	I-12	IIaOB	008	15.0	23 58	00 14
"	"	"	"	"	"	"		00 16	00 28
Focus Check	set	0	12.71						
		2½	12.69						
		5	12.67						
		7½	12.65						
		10½	12.63						
					- Best.		So set.		

Time Temp.....

Transparency Conditions.....

Fcus.....

Time Temp.....

Ending Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality	
20 56			1	5.3	F ₅	3-3-3	Set 2 Std Vel	Sens 5 5724	fine
21 05						9	Set 5	5726	fine
21 11	3 ^h 09 W					9	Set 8	5727	fine
								5729	
								5729	
								5731	
				10.08	F ₈		Set 5 KA clouds	Sens 10 5733	
22 33		+03 32	1	6.1	K ₁	3-3-3	Set 2 Std Vel	Sens 6 5741	good
22 50	47W					3-3-3	Set 8	5745	good
						10/8	Set 5 Focus	5746	
								5750	
23 45	51W	+17 46	1	8.2	F ₇	3-3-3	Set 2 Std Vel	Sens 8 5751	ct to vi
								5765	fine
00 1	22W	49 38	1	6.8	M ₂	3-3-3	Set 2 Std Vel	Sens 7 5768	good
								5776	
00 2	37W	"	1	"	"	3-3-3	Set 8 "	" 5777	good
								5785	
							Clouds		
							1 PH loaded + 8		
			MC	SC	ME				
	May 31		+51.0	+19.5	-6.0				
	June 2		+52.8	+19.9	-0.3				

Date Fri Sat Jun 2-3/61 Observer WBG - H Julian Day 2437453.5
072 1046.1 3446.4

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.
-1204-148	LCB			1550	28	2X		21:27	21:44	129E
-1205-148	"			1570	7!	etc ↓		21:48	22:05	109E
-1206-148	"			1570	7			22:05 + 22:34		152E 03
-1207-148	"			1550	28			22:43		0:14E
1208-148	Source			1450	—			23:01		
-1209-148	8 Boo	15:14.0(1960) +	33:27	1620	50!			23:09		1:32W
-1210-148	TCB	16:07.8(1960) +	36:35	1650	"			23:32		1:01W
-1211-148	8 Her	16:20.2(1960) +	19:14	1620	"			23:56		0:12W
25702	HD 144579	1601.5	39:24	1-12.5	II aOb	.008	+19°	0037	0123	W 3°
25703	" 184467	1929.5	58:24	"	"	"		0203	0247	W
	700-701	.073								

Dme Temp. 64°F

Bus.....

Dme Temp.....

Rain at 20h

Transparency Conditions

Fair - some cloud in south

332

Voltage at 700 (from 900)

(on Direct Current meter. Set to 70)

21:30 - very clear.

22:10 - lots of thin, unballowed - see 1206

22:35 - clear overhead, thin haze in place

23:50 - fluffy cirrus overhead etc.

Decided not good enough for gal or glc.

REMARKS

Quality

ending Time
E.S.T.

Sur Angle

Declination

Seeing

Ptg.
Mag.

Sp.

Comp.

:29E

10"

(max oppy dia) - (recall size of diaphaphia 28 to 30")

:09E

"

3350

to 51.60

:52E, 0321E

"

went for coffee

0:14E

"

0:32W

3.5 G₈^{III}

MK Std. - not well centered

7:01W

4.9 K₀^{III}

"

3450E

51.60

0:12W

3.8 A₉^{III}

"

intermittent clouds,

47W

3914

0-1

7.2 G₈

3-6

Set 2 STD. VEL.

#7 5794

5802

217W

0

7.5 K₅

3-6

" 3

" Very Windy

#7 5807

5811

10/8

" 8

fine

fine

OK

1 RH in rings + 6

0245

Clouds, Wind moving

Date Sat. - Sun June 3-4 Observer Hy. C. Julian Day 174

[illegible]

Dme Temp.....

Focus.....

Dme Temp.....

Transparency Conditions

334

140 visitors

H₂, Cl, KM.

Ending Time
E.S.T.

Air Angle
End

Declination

Seeing

Ptg.
Mag.

Sp.

Comp.

REMARKS

Quality

RA wouldn't work.

— fixed by Jerry

but — clouded up

335

VdR

TWAS NOT HERE

Date Sun-Mon June 4-5

Observer

Hy

F

Julian Day 2437455.5

074 05 38.2 3445.1

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
2570 ^H	H10 123782	14 04.6	49 56	I/2E	II: a 0	.008	32.5C	21:09	21:30
25704	H10 114762	13 07.5	+18 02	I 12	a 0	.008	1		
-1212-149	α Lyr	18 35.6 (1969)	+38°45'		1450	2X	(28)	22:12	
-1213-149	Source				1460			22 30	
-1214-149	α Lyr	"	"		1450	2X		22 36	
1215-149	$\oplus$ M5	15 13.4	+02°27'		5,67,1	2X+sky		23 15-23:32	
1216-149	$\oplus$ M3	13 37.6	+28°53'		5,67,1	2X+sky		00 00-00 18	
1217-149	$\oplus$ M10	16 51.2	-03°58'		5,67,3	2X+sky		00 43-01 02	
-1218-149	α Lyr	18 35.6 (1969)	+38°45'		1450	2X		01:37	
-1219-149	Source				1460			01:45	(b.g.??)
-1220-149	α Lyr	18 35.6 (1969)	+38°45'		1530	2X	(7)	01:52	
-1221-149	α Lyr	18 35.6 (1969)	+38°45'		1450	2X	(28)	02:10	
-1222-149	Source				1460			02:27	
1223-149	$\oplus$ M92	17 14.6	+43°16'		5,67,0	2X		02:41 02:58	

Time Temp.....

Focus.....

Time Temp.....

Transparency Conditions

Started with mostly cirr.

Looks clear at 22:40

ALTOcum Low in N
at 0300 $\frac{1}{2}$ moon up 0°45 sun OK

Ending Time EST.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
1:30	01 ^m W	49° 38'	1	6.8	M ₂	3-3-3	STD VEL : Set 5 2ph+4	fine
				8.2	F7		FRANK:	
	39 ^m E			0.04	A0		5; drain seeing	
	15 E						(3450-5160) se reading	
22	0°40' W	0°43' W		7.04	dF2			
18	3°04' W	3°00' W		7.2	dF2		23:45 - all clear to horizon.	
02	0°33' W	0°32' W		7.6	SO		M10 without moon; its sky with (low) moon.	
	0°22' E			0.04	A0			
	0:00			0.04	A0		02:00 slight cloud low in South.	
	0:18 W			0.04	A0		sun passing affected by Twilight	
58	1 ^h :09 ^m W	02:09 ^m W		7.3	A5n		02:48 { 3 parallel narrow clouds at 15° alt in northern sky.	
							03:00 clouds in N at +10° alt; moon 25° alt; daylight starting	

337

Date *June* *Mon - Tue* 5-6, 1961 Observer *MR* / *HR-I* Julian Day 2437456.5
 07503 03.3 3444.5

Plate No.	Object	R.A. 1900 1960	Declination 1900 1960	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
1224-150	α Vir.	13 ^h 23.1 ^m	-10° 59'	H _y x 11	Set	.020	4/4-4	21 ^h 04 ^m	
1225-150	B 8764	15 32.2	+09° 03'	H _y x 2	"	"	6/6-4	22 ^h 35 ^m	
(25755)	HD 136617	15 ^h 16.6	+59° 53'	I-12	IIa0B	008	23.8	)	
257085	HD 184467	19 ^h 29.5 ^m	+58° 24'	I12	IIa0B	008	23.8	0 ^h 41	1 ^h 30 ^m
257086	HD 187691	19 ^h 46.2 ^m	+10° 10'	I12	IIa0B	008	23.8	1 ^h 51	2 ^h 05 ^m
257087 } <i>MNR</i> 210	HD 177648	19 ^h 00.5	+23° 11'	I12	IIa0B	008	23.8	2 ^h 45	3 ^h 39 ^m
	Focus Test		OTB						

One Temp. 72°

RUS.

Dne Temp.....64°F

Transparency Conditions Scattered high clouds
but seeing good. 338
3am - 4

2am EST - Cloud in SE; 3am - 1/4 moon rising

Rising Time E.S.T.	Sun Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
		-10° 58'		0.6	BIV	30"	2"/min; 1A'/sec 4200-4540 B.	
		-09° 03'		5.2	B7	" "	" " " " 4200-4510 C.	used shutter time const.
							Cl cut his scalp on shutter	
1:30 ^m	N 20° E	+58° 28'	0-1	7.5	K5	3-3-3	Lens 5; Std Vel. Lens 8 5825	fine
2:45 ^m	N 04° E	+10° 17.5'	"	5.8	F8	9	Lens 5; Std Vel. Lens 6 5861	(grounding) fine
3:00 ^m	N 17° W	+23° 4'	0	7.5	B3e	3-3-3	Lens 5; Be Programme Lens 8 5868	fine
						10/8	Lens 9	OK
							2 PH loaded in tray.	
		M.C.		S.D.		H.E.		
		Jun. 6 +56.0		+20.6		+2.3		

339

Turned

Date

June 6-7/61

Observer

Gy - L. F.

Julian Day

2437457.5
0 76 00 27.8 3444.0

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion Sens	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
1226-151	α CrB				1550	28		20:21	
1227-151	Same				1460			22:38	
					1670	"		22:46	
					1670	7		22:57	
1228-151	SB				1640	50		23:20	
25708	MWC 292 HD 168957	18 17.3	+25 01	I 12½	II a OB	008	20.2	00 00	00:30
25709	MWC 310 HD 171648	19 00.5	+23 11	"	"	"	20.3	00:58	01 38
25710	MWC 320 Focus Test	19 41.3	+05 44	"	"	"	20.3	01:57	03 45
						OT13			

Home Temp. 63

Focus

Home Temp.

Transparency Conditions

Clear capt stratus low in N, W & S.
20:30 haze in SW skies - in V.

340

Ending Time
E.S.T.

Hour Angle and Mag.	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0:22 E		8"	4.9	G ₀ V		at Lyr 5h 20m E - cannot reach with helios! 20:50 EST 12125 trouble with photometer	
	hazy poor		6.0	G ₂ V		vol B - night is not photometric. at least too much "invisible" junk. Response is less than .1 instead of .3 on MB must be lots of haze. USELESS	
1:58 W	(on helios)	6"	3.47	G ₈ III		centering good.	
Jun 8						non-photometric	
0:30 :08 E	+25 01	0	6.9	Bse	3-3-3	Set 7 Be prog. MWC 292 " 5888	* L work
0:33 :40 E	+23 15	0	7.5	Bse	3-3-3	Set 5 " MWC 310 Sennelink 8 5896	fine
0:36 1:17 W	+05 53	0	8.5	Bsne	3-3-3	Set 5 " MWC 320 " 8 5916	fine
					10/8	" 9	OK
	MC	SD	ME			3 PHS loaded + 8	
Jun 8	+58.0	+20.8	-0.8				
" 9	+59.0	+20.7	-3.0				
						* This exp. made with plunger half out!!!!	

Date Sat. June 10-11/61 Observer Gg - L Julian Day 2437461.5
 0 7950 00.3 3441.6

[illegible]

ome Temp. 63

ocus

ome Temp. 58°F

Gg, I, K.M. - 160 Visitors
 showed a CV in p M3
 (indistinct)
 Sat - June 10, 1961

Transparency Conditions Clear except for much haze in South + North 5

342

ending Time
E.S.T.

our Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
01 34	04E	-09 12	0	9.28	BqTe3-1-1	Set 5, O-B programs. shows Hg 4354 Lms 9 5936 5996	good
2 38	24W	13 01	0	7.7	Bsne 3-3-3	" Be prog " 7 6002 6007	low
3 09	04E	36 12	0	7.1	Bzhe 3-3-3	" " " " 7 6008 6013	fine
				10/8	" 9 1/2		

2 PHs loaded.

* Changed to 1016
at 0030

val B1

Observer Gg - Hr

Julian Day 2437462.5
080 47.21.9 3441.0

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
1229-152	Messier 3				3400 to 5200	28		mid. pos. 22:18	
25714	HD 145001 Focus Rest	16:03.6	+17:19	I-12 1/2	II a O	.008	21.0°C	23:03	23:13
25715	HD 173987	18:43.2	-06:34	"	"	"		23:42	23:55
"	" ↑ 9	"	"	"	"	*		23:55	02:15

Home Temp. *64°F*
 Focus.....
 Home Temp.....

First hour made test
 on G-Ramply
 1st Stop on G-Ramply

Transparency Conditions *apparently much haze & extinction esp near horizon. - some stratus & cirrus.*

G R acquired

344

Ending Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
			0				÷ through patchy clouds thin.	
2:13	10W	+17:09	<i>(variable)</i> 0-1	6.1	Gx	3-3-3	Set-3. <i>double</i> <i>602.1</i> Set-8 <i>602.50</i> (This is the brighter of optical)	<i>fine</i> <i>ctr.</i>
3:55	NO PLUNGER OUT		0	9.28	B _{0.5} Ia	3-	Set 3 - p.5g. OB Prop. <i>6036</i> <i>81</i> (<i>high low in south</i>)	
2:15	032W	-0632	0	"	"	3-6	" 7 " <i>Hy 4354! #9</i> <i>6043</i> <i>6050</i>	<i>Too faint</i>
<i>1 P. + 1. in fring + 1</i> <i>A VERY POOR NIGHT.</i>								
			MC	SC	ME			
	<i>Jun. 12</i>		+61.2	+20.7	+3.2			

Date Mar 12-13 / 61 Observer Cl. Hr F Julian Day 2437463.5
081 44.42.9 3440.3

Julian Day 2437463.5
08144.42.9 3440.3

[illegible]

ome Temp. 69°F

Transparency Conditions Fair - Poor

346

ocus.....

ome Temp.....

ending Time
E.S.T.

our Angle
End

Declination

Seeing

Ptg.
Mag.

Sp.

Comp.

REMARKS

Quality

32 E

-10 17

8.1 B3e

3-3-3

MWC 307 Be Program SET 3 6068 step 8 6079

good

10/8 SET 8 Clouds obscured exposure - telescope near pier.

cal. tr

1 P.H. +10 in frigi

Jun. 14

MC
+63.0

SC
+20.6

ME
-3.3

Wied
Date June 14-15 1961

Observer ^{VLB} DL

Julian Day 2437465.5
08339 22.8 3438.9

[illegible]

ome Temp.....

Transparency Conditions *partly cloudy*

348

ocus.....

ome Temp.....

ending Time
E.S.T.

our Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
------------------	-------------	--------	--------------	-----	-------	---------	---------

2:05	2207.0	56° 52.5	0	7.3	SV	34343 HK Stand. clouded out	6083 8 fine
------	--------	----------	---	-----	----	-----------------------------	-------------

2 p 4 (IIa06) loaded

349

Thu/Fri

Date June 15/16, 1961

Observer VAB, Hy

Julian Day

Plate No.	Object	R.A. 1900 1960	Declination 1900 1960	Inst.	Emulsion	Slit	Temp. Slit	Starting Time E.S.T.	Ending Time E.S.T.	P.	Hour Angle 1900 1960
1230-153	α Boo	14 13.8	+19 23		4,4,32	2x	50	20:45			0°00'
1231-153	Roman 305	13 08.9	+5 27		7,6,32	2x	50	21:18			0°37'W
1232-153	γ Boo	14 30.5	+38 29		5,4,8	2y	50	21:47			0°43'W
1233-153	α Cr B	15 33.0	+26 51		5,4,8	2x	28	22:10			0°44'W
1234-153	Source	—	—		4,4,8			22:28			—
1235-153	$\oplus$ M53	13 11.0	+18 23		8,5,40	2x+sky		22:28	22:55		1°54'W
1236-153	$\oplus$ M3	13 40.4	+28 33		7,6,40	2x+sky(1)		23:26	23:47		1°13'W
1237-153	$\oplus$ NGC 6356	17 21.3	-17° 46		8,5,40	2x+sky		00:08	00:29		5°W
1238-153	$\oplus$ M22	18 33.9	-23° 58		8,5,40	2x+sky		01:04	01:25		22°E
1239-153	$\oplus$ M13	16 40.3	+36 22		7,6,40	2x+sky(1)		01:50	02:10		37°W
1240-153	α Cr B	15 33.0	+26 51		5,4,8	2x	28	02:23	—		8°W
1241-153	Source	—	—		4,4,8	2x	28	02:52			—
1242-153	$\oplus$ M15	21 28.1	+12° 00		7,5,40	2x+sky		02:55			06°E
1243-153	BW Vul	20 52.2	+28 19		7,3,16	2x	28	03:20			5°E

Jun. 16

ome Temp. 58°

ocus. —

ome Temp. —

Transparency Conditions

Mainly clear, some patches of
Cirrus in W. and in Zenith (21'00)
possibly clear one hour later! 350

700V ✓

ending Time
E.S.T.

our Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
11:55 0°00			0.06	K2 IIIp	←	2" / min, 3450 - 5160 reading on spect.	
12:00 1h 37m W			6.80	SS II		20:54 thin cloud just N. of Arcturus. Also searchlight from Richmond Hill is sweeping zenith	
12:05 2h 43m W			3.05	A7 III			
12:10 0h 04m W			2.21	A0 V		21:20 no obvious clouds but cirri may well be present 2 searchlights.	
12:15 2h 54m W	02h 52m W		8.7	A8 n		(searchlights gone thanks to Dr. Herod. but there is one other (much fainter) searchlight in the south.	
12:20 3h 13m W	3h 12m W	←	7.2	dF2		Sky once only.	
12:25 1h 15m W	0h 15m W		9.7	G5			
12:30 1h 02m E	!		6.5	F6			
12:35 1h 37m W	!!		6.8	dF2			
12:40 1h 18m W	—		2.21	A0 V			
12:45 1h 06m E			7.3	dF0		no sky Twilight	
12:50 1h 05m E			6.2	B		Strong Twilight	
Jun. 16	MO +64.3	SD +20.4	ME 0.0			H8: 3:24 minutes 10 sec.	

THE R.A. CLAMP
WORKS 50% THE
TIME ONLY with
Telescope Saw used

37.3 351
11
26.3

Fri. 16/17

Date Jun 16/17 1961

Observer Hy

Julian Day

Plate No.	Object	R.A. 1900 (1949)	Declination 1900	Inst.	Emulsion Sens	Slit focal	Temp. slit	Starting Time E.S.T.	Ending Time E.S.T.	P.
1244-154	o Boo	14:32.9	+29:55		6-4,32	3X	14	20:57		
1245-154	Roman 305	13 06.9	+5 27		7,3,32	2x	50	21:36		
1246-154	Source				4,4,8		—	21:54		
1247-154	o C B				5,4,8	3X	28	22:01 to 22:11		
1248-154	⊕ NGC 5024, M53				8,5,41	2x+sky	"	22:39 to 23:02		
1249-154	Source				4,4,8	—	—	23:24		
1250-154	⊕ NGC 504 M5				7,6,41	2x+sky	28	23:35	23:55	
1251-154	⊕ NGC 6356				8,5,41	"	"	00:18 to 00:38		
1252-154	Source				4,4,8			00:56 (01:00) e		
1253-154	Source				4,4,8			01:05		
1254-154	⊕ M22	18' 31.3	-24' 00"		8,5,40	2x+sky		01:14 to 1:33		
1255-154	o C B				5,4,8	2X		02:08		
1256-154	⊕ NGC 5113				7,6,40	2x+sky		2:37	2:55	
1257-154	Jupiter				(3,6,8)	2x	10!	3:24 (024500)		
1258-154	Source				4,4,8			3:50		

ome Temp. 67°F

ocus.....

ome Temp.....

Transparency Conditions

OK, except lots of stratus around here.
 Much better 22h, though some haze.
 Good - 0h
 Thin stratus in SW - 1:40.
 3h lots of cloud everywhere except South. 352

ading Time
E.S.T.

our Angle -End-	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0h04m E, 0h08m W (centering)		4.8	F V			MK Std. { Focused at end of 1st declination - centering ok.	
2h00m W		6.8	G5 IV			Search light a.m. (sp. 1.2) Search light a.m. (sp. 1.2) (Have went out 2 h.h.)	
2h01E, 0h09m W.						centering way off	
2h57m W 3h04m W						Search light near Panchala at times -	
1h52m W !						JOHN BOOKER (?) : DON'T LEAVE YOUR COELESTAT DEAL UP AT NIGHT SO DICK HENRE' HITS HIS HEAD ON IT, PLEASE.	
0h20m W. 0h28m W						Dick.	
0:11 W, 0:09 W						(01:45 cloud at 15° in N, then cloud N of zenith overhead, then cloud high S.W. none near M22. cloud delayed start on 2 Cr B. 02:15 cloud in N at 15°; in 2 errish also but 2 Cr B is clear.	
04h07m W						FRANKO - Photo of 2 Cr B in 1954	
13h28m W 03:24 W						cloud at end centering bad.	
0h22m W						missing. was it taken???	
						June 1st 5	

353

6626 46W

82

17.36

4

Sat/Sun

Hy - (Gg)

L

Hy

Date Jun 17/18 1961

Observer KM

Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion Sens.	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P
1259-155	α Cr B	15 33.0	+26 51		5,4,8	set 28	2X	22:25		
1260-155	Source				4,4,8			22:42	21.8	
1261-155	$\oplus$ M10	16 55.0	-04 03		8,5,40	"	2X+sky	22:53	23:12	
1262-155	$\oplus$ M19	17 00.1	-26 12		8,5,40	28	2X+sky	23:35	23:54	
1263-155	$\oplus$ NGC 6356	17 21.3	-17 46		8,5,40	28	2X+sky	00:15	00:32	
1264-155	$\oplus$ M28	18 22.1	-24 54		8,5,40	28	2X+sky	00:58	01:25	
								01:16	some half	
1265-155	α Cr B	15 33.0	+26 51		5,4,8	28	2X	01:50		
1266-155	$\oplus$ M71	19 51.9	+18 41		8,5,40	28	2X+sky	02:15	02 34	
1268-155	α Lys	18 35.6	+38 45		4,4,8	28	2X	03:04		
1267-155	Source				4,4,8	28		02:52	21.5	

ome Temp. 65

ocus.....

ome Temp.....

middle

3rd photometric night in
a row - phenomenal!

Transparency Conditions

22^h - clear - all over -

354

160 visitors
showed π Boo, and
Messier 3

ending Time
E.S.T.

our Angle

Declination

Seeing

Ptg.
Mag.

Sp.

Comp.

REMARKS

Quality

0^h 27^m W

2.21 A0V

19 45

15 33

4 12

3:12 0^h 27^m E 0^h 30^m E

7.6 G0

00:20 no clouds horizon good.

3:54 0^h 09^m W 0^h 07^m W

8.3 F5

0:32 0^h 28^m W 0^h 25^m W

9.7 G5

01:03 button on spectrophotometer pressed,
got a change of 1 this much. Was the

01:25 0^h 11^m W

8.5 F9

button pressed at the start of the evening.

0^h 22^m W

2.21 A0V

0^h 15^m W - sky

3 52 W

0 02 E 00^h 05^m E

8.3 G2

2 04 W

0.04 A.V

2:26: cloud at 10°

in the N. clear
otherwise

a change of $\frac{1}{2}$ division
noted when button got
pulled. 01:30

03:00 clouds
from N.

Bill Greay
please note.

Date Jun 18/19, 1961 Observer Gg - Hr Julian Day 2437469.5
087 28 34.1 3436.0

Julian Day 2437469.5
 ① 87 28 34.1 3436.0

[illegible]

Time Temp. 67°F

Focus.....

Time Temp. 36.0

Transparency Conditions

Thick haze after sunset all over 1-22 - Extinction is still large.

356

Hour Angle E.S.T.	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
000	034W	+17°45'	0	7.56	A0	3-6 KA 8x8	fine
132	44W	25 00	0	6.9	Bse	3-3-3 Set 2 Hd BE	fine
					10/8	" 8	extinction.
						IPH (#3) Panded IIaOb.	
						Clouds after midnight.	
						Fire (barn) at Lungault.	
Jun. 19	MD	SD	ME				
	+67.0	+20.3	-5.0				
				4.5	G5II	twilight beginning	
						The pole-pieces of our telescope together. Would not go until I played around with it for a few minutes with the same line. - G.	

357

Wed / Thu

Gg

Date June 21/22, 1961

Observer Hy

Julian Day

Plate No.	Object	R.A. 1900- 1960	Declination -1900- 1960	Inst.	Emulsion Sens	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P	Angle East
1269-156	HD 114710	13 10.1	+28° 04		6-4-8	14	2X	20:58			137° W
1270-156	HD 140283	15 41.1	-10 49		7-5-24	"	2X	21:21 (start sky 21:42)			28° E
1271-156	α Cr B	15 33.0	+26 51		5,4,8	28	2X	21:56			14° E
1272-156	Source				4,4,8	"		22:13			
1273-156	δ Ser	15:54.6	+15:48		5,6,8	28 _{NE}	2X	22:20:			16° W
1274-156	$\oplus$ M19	17 00.1	-26 12		8,5,40	28	2x+sky	22:45			24° E + C
1275-156	Source				4-4-8			23:26 + 23:31			24° E + C
1276-156	72 Her	17:19.2	+32:32		6,5-16	28	2X	23:42			13° W
1277-156	110 Her	8:44.0	+20:31		5,6,16	"	2X	00:11			41° E
1278-156	α Lyrae	18 35.6	+38 45		4,4,8	"	2X	00:41			03° E
1279-156	HD 182807	19 23.9	+24 51		6,5,8	"	2X	1:17			14° E
1280-156	Source				4,4,8	"		1:35			
1281-156	α Cr B	15 33.0	+26 51		5,4,8	28	"	1:44			13° W
1282-156	HD 152792	16 52.2	+42:54		7,5,22	14	"	2:17			18° W
1283-156	ϵ Peg	22 05.2	+25 09		5,6,16	14	"	2:44			31° E
1284-156	HD 184499	19 32.0	+33 07		6,6 16	14	"	3:06			16° W

SEE back one page

Eme Temp. 60

Fcus

Eme Temp.

Transparency Conditions 21^h → All clear except some haze in east.
 21^h 40^m - Auroras - zenithal rays in N.
 23^h 30^m - Auroras - patchy in N.
 00^h 45^m - green curtain auroras in N. - low.

358

Ending Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
	1 ^h 37 ^m W		6" 0-1	4.9	GoV		centering ok. -negative test for sky	
2 sky	28E	sky one way		7.7	sdF5		Extensive clouds at sunset - they moved into the west + are gone, apparently, at 21:00. Moon is 1/4. D + below 1269	
	14 ^m E			2.21	AoV			
	16 ^m W			4.3	F6V		MK SK	
	24 ^m E + 0 ^h 04 E			8.3	F5		strange emission line - origin unknown. (M19 start → moon at 18°, 4 1/2 ^h away. Auroras stationary at 20°, flashes at 45°. Was over zenith 3/4 ^h ago. None visible in South.)	<u>AURORA</u>
3:2	part part dry ice.							
	13 ^m W	centering could have been better.		6.0	GoV	MK	Telescope was not moved back 20 ^m for sky.)	
	41E			4.7	F6V	MK	23:40 aurora, quiet, at 15° in N. + some fainter, higher	
	0 03E			0.04	AoV			
	0 14E			6.7	F6V		[Looked for NGC 6822, could not see it in field.]	
	4 ^h 03 ^m W		3" (0-1)				centering - very poor as always.	
	3 ^h 18 W			7.5	GoV		02:14 AURORA STILL PLENTIFUL IN N. to 55°+.	
	1 ^h 31 E			4.4	F5V		Merid. Alt. /	
	1 ^h 26 W			7.2	GoV		" " = 4.1 [+ ??]	

Date Mon / Tue
June 26/27 Observer MR
Ch DL
(K) Julian Day 2437477.5
0 95 06 23.9 3431.3

[illegible]

Home Temp.....

Transparency Conditions *Clear (cloud or haze)
Bright Moon*

360

77.5
3431.3

Ending Time
E.S.T.

[illegible]

361

Fri/Sat

Date June 30/July 1 1961

Observer V.B. G.

Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.	Hour Angle
1287-157	2C+B	15 33.0	+26 51		6/2/8	28		21 ^h 06 ^m			001W
1288	Source				4/4/8	28		21 25	3?		
1289-157	2C+B				6/2/8	28		21 ^h 30 ^m			022W
1290-157	⊕ M3	13 38	+29		7/6/40	28		21 51			242W
1291-157	Tiller	17 13.4	+36 50		5/5/8	50		22 42			006E
1292-157	⊕ Opn	17 33.1	+12 35		5/4/16	50		23 18			011W
1293-157	HD 152792	16 52.2 (1900)	+42 54		7/5/40	14 (1)		00 00			137W
1294-157	2 Lyr	18 35 6	+38 45		4/5/8	14		00 35			022W
1295-157	2C+B	15 33 0	+26 51		6/2/8	28		00 58			051W
1296-157	Source				4/4/8	28		01 16			
1297-157	HD 182501	19 23.9	+24 51		6,6,32	14 (1)		1 35			040W
1298-157	"	"	"		6/5/32	50 ↑		1 55			059W
1299-157	HD 184499	19 32 0	+33 07		7,5,32	14	2x+sky	2 31 + 2 49			061W
1300-157	⊕ Lyr	18 35 6	+38 45		4/5/8	14		3 05			056W
1301-157	Source				4/4/8			3 22			

Dome Temp. 70°F

Focus.....

Dome Temp.....

middle

71% - 2h
 Humidity 69% at 23h, 67°F
 22h - some haze - good enough for slit

Transparency Conditions thin clouds in NW. Night probably
 not photometric. Looks OK in Sun Zone.
 23:00 looks photometric now (moonlight)
 01:00 perfect

362

ending Time
 E.S.T.

Hour Angle Hour	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
001 W (E?)	+2651	12"	2.21	A0V		700V on 10m below of CUB!	
022 W	+2651	12"	2.21	A0V		slit from 0.28 → 40 → 28 so if repeats!	
242 W	+2651	12.835	9.44			Also might show if source affects reading Advice in 21.30 <u>slide not in notch!!</u>	
006 E			3.36	K3 II			
011 W	+1235		2.09	A5 III			
137 W	+4254		7.5	G0 V		3400 to 5200 + back Sclump no good, reopened, sky 20	
022 W	+3845	2"	0.0	A0 V			
351 W	+2651		2.21	A0 V		added a little of yucca	
040 W			6.7	F6 V			
059 W			6.7	F6 V			
126 W + 143 W	δ = 6"		7.2	G0 V		← (sky once)	
256 W						Frank: Could you cut down intensity of source by a factor of say 3? Also light on Brown. Put new red paint on scale lamp	

Date Sun/Mon July 2/3 '61 Observer -I Julian Day 2437483.5
 @ 100 49 30.6 3431.5

[illegible]

Dome Temp. 62°F

Transparency Conditions Fine (after 200 EST) 364

00^h15^m just opened up - cumulus cloud
1^h20^m looks like clearing 140 OK
- half moon

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS			Quality
0 ^h 30 ^m W	+32° 12'	0	7.0	B0me	3-3-3	Be Progs.	MMC 336	Long 7: S & S { ⁶²³⁷ ₆₂₄₃	Good
0 ^h 11 ^m E	+42° 29'	0	7.1	B5me	3-3-3	Be "	" 371	Long 7: S & S { ⁶²⁴⁹ ₆₂₅₀	fine
1 ^h 05 ^m E	+38° 26'	0	6.4	B3me	6-3	Be "	" 395	Long 6: S & S { ⁶²⁵¹ ₆₂₅₄	fine

$$\frac{10}{8}$$

Let 8

Something
wrong.

2 PH's loaded

	MC	SD	ME
July 4	+76.1	+16.3	-4.0

Gerry: ① 1 plate cut poorly; won't fit into holder. - lot in spotting.

② - Visitors eyepiece cross-hairs don't illuminate

③ - Sp. temp. control (about 10) very insensitive

④ - Iron are poor

⑤ Spring clamp on hook (age of primary coil) broke

365

Tue Wed

(nd B)

probably 28
vol 3Date Jul 4/5. 1961 Observer Gg Hy Julian Day 196

Plate No.	Object	R.A. 1900 (1960) - 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle
1302-158	α Lyr				4,5,8	14		21:10			3 ^h 19 ^m W
1303-158	"				"	"		21:29			2 ^h 16 ^m W
1304-158	HID 140283	15:41.1	-10:49		7,5,32	14		21:51			0 ^h 52 ^m W
1305-158	Source				4,4,8			22:03			
1306-158	$\oplus$ M13	16 40.3	+36 32		7,6,40	28 (12) sky		22:34 +	22:52		10 ^h 54 ^m W
1307-158	$\oplus$ M13, Star #58	"	"		8,5,40			22:28			1 ^h 26 ^m W
1308-158	α Lyr				4,5,8	14 (1)		22:58			0 ^h 04 ^m W
1309-158	Source				4,4,8			00:15			
1310-158	72 Her	17 19.2	+32 32		6,5,16	14		00:37			1 ^h 09 ^m W
1311-158	110 Her	18 44.0	+20 31		5,6,16	"		1 ^h 02			00 ^h W
1312-158	Source				4,4,8			1:28 + 1:30			
1313-158	Roman 468	19:27.0	+24:35		6,5,32	"		1:48			02 ^h W
1314-158	6 Peg	22 05.2	+25 09		5,6,16	"		2 ^h 19			04 ^h E
1315-158	51 Peg	22 55.6	+20 33		6,6,24	"		2:49 + 3:08 (sky - over)			22 ^h W
1316-158	α Lyr				4,5,8	"		3:28			34 ^h W
1317-158	"				4,4,8			3:47			

Dome Temp. 63

Focus

Dome Temp.

middle

2h H61% T57

Transparency Conditions

fair with scattered stratus in SE
 C. Rainy in N.W. (low), a few high SW

22^h15 → Aurora in N.00^h20 - circled high in W.1^h - quite clear except volume in N+SE.

330 - patchy clouds high in S

340 - low soft junk high in SW skies

366

Seeing excellent from binocular obs
2h

Hour Angle and	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
3 ^h 19 ^m W	24 ^h 1 ^m W	7" per		centering 2/3 towards goal		— some info to 6	
2 ^h 26 ^m W						5160 → 3440.	
0 ^h 52 ^m W						— didn't make sk, trace one-way - saw near 2 pier to 23480	
						trouble with scan.	
+0 ^h 54 ^m W						Refocused! Looked for individual stars. — quite clear.	
1 ^h 26 ^m W							
0 04 W						centering good Aurora + possibly on 1st	
1 59 W		4"	6.0	G ₂ V		could have used higher zone with more ice.	
1 00 W			4.7	F ₆ V		? " centering 2/3 from center.	
1 03 W			4.4	M ₀ III		added dry ice — it needed it.	
1 04 E			4.4	F ₆ V		Special. star looks yellow in Visitors.	
1 22 E			6.2	G ₄ V		centering not good	
3 34 W		6"	0.0	A ₀ V		Saw, can't be called good	

MC SC ME

Jul. 5 +76.5 +16.0 -6.8

367

Date Wed-Thur Jul 5/6 1961 Observer Hy - Hy Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle End
1318-159	α Cr B				6,2,8	28		21:34			00'46"
1319-159	source				4,4,8	"		21:50			
			PAPER		4,5,8	"		21:55			
1320-159	$\oplus$ M92				8,5,40	"		22:08	22:26		00'23" E
1321-159	$\oplus$ M14		NEEDED		8,5,40	"		22:54	23:13		00'03" W
1322-159	$\oplus$ M13		from		7,6,40	(sky 1 way only)		23:40	00:00		01'45" W
1323-159	α Cr B		storeroom		6,2,8	"		00:18			03'29" W
$\uparrow$ note 1323-159	α Lyr				4,5,8			00:26			03'38" W
					4,4,8			00:51			over
					4,4,8			00:56			00'06" W
1324-159	$\oplus$ Stars in M71		see chart on back of		8,5,40			01:25	01:36		00'15" W
1325-159	$\oplus$ M71		index card.		8,5,40			01:46	02:04		00'40" W
1326-159	source				4,4,8	and 4,5,8		02:25			00'07" E
1327-159	$\oplus$ M15				7,6,40	(since poor)		02:35	02:55		00'17" E
			ran out of paper			again (1 way only)		03:12			00'38" W
1328-159	α Lyr				4,4,8			03:27			

Dome Temp.....

Focus.....

Dome Temp. 58°

Transparency Conditions

21:05 changed to 700 volts + put ice in.
sky poor.

368

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
00 ^h 46 ^m W.						Clouds about!	
						13.4, → 12.7 } <u>good</u>	
						38.7 → 38.9 } <u>good</u>	
00 ^h 23 ^m E	0 ^h 26 ^m E					(22:10 cirrus at 10° in SE.	
00 ^h 03 ^m W	0 ^h 02 ^m W					Something in NW? sky itself is	
01 ^h 45 ^m W						clear, galaxy visible, but looks	
03 ^h 29 ^m W						a bit 'light'.)	
03 38 W						(Antares is not bright enough to catch	
						your eye - though it is clearly visible.)	
						(01:09 sky is clear, except in SE,	
						but looks 'punk'. definitely some	
						thing low in SE. Moon rose 15 ^m ago)	
01 ^h 06 ^m W							
00 ^h 15 ^m W	0 ^h 26 ^m W					- on tracing, star is	
00 ^h 40 ^m W	00 ^h 37 ^m W					just there -	
00 ^h 07 ^m E	02 ^h 55 ^m W					very poor.	
00 ^h 07 ^m E	02 ^h 55 ^m W					not much better than the star!	
03 ^h 38 ^m W						(03:15 - moon at 20° alt. 2 nd sky for)	
						M15 is much higher.)	

369

Date Thur-Fri July 6/7
1961Observer Hy Gg -Julian Day 2437487.5
© 104 38 18.3 3432.8

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle End
1329-160	Source				4,4,8	4,5,8		21:10			
1330-160	2 Lyr				4,5,8	14 (T)		21:15			02 ^h 32 ^m E
1331-160	M57 Ring Nebula		Planetary Nebula		8,5,32	14		21:49			7:00 m.m.
25728	HD 123782	14:04.6	+49:56	I-12	IIaO _{low}	.008		22:18	22:48		3 ^h 23 ^m W
	Focus Test		OT B								
	0 Agl							Clouded Out			23 ^h

1 ph in frig but it
was only spotted once.

371

Date Fri/Sat July 7/8 '61

Observer veb

Julian Day 2437488.5

O 105 35 31.1 3433.1

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle End
25729	HD 133965 + Focus Test	15 02.2	+2935	12"	IIaOb	.16	19 ¹⁵	21 ¹⁹ ^m	23 ⁰⁰ ^m	]	2 ¹⁰ ⁰⁰
1332-161	dhys	18 35	+3845		4/4/8	28		23 20			0 ²⁰ ⁵
1333-161	Source				4/5/8	28		23 40			
1334-161	PI3	16 40.2	+3632		8/5/41	28		23 50		)	2 ¹⁰ ⁰⁰ W
1335-161	PI2	17 15 9	+43 11		8/4/41	28		00 30	154 ¹ ⁰⁰ ^m		2 ¹⁰ ⁰⁰ W
1336-161	dhys	18 35	+3845		4/4/41 ¹ ⁵	28		01 18			1 ³⁶ ⁰⁰ W
1337-161	Source				4/5/8			01 40			
	Clouded out		01 55								

Dome Temp. 61°F

Focus

Dome Temp.

NB preceding page loose

Transparency Conditions Fair

Looks fine at 2200

700V I have before
begin of observations

0020

0130

Seeing very fine

0155

few clouds over lake, sky clear
but slightly hazy

perfect

in V.B. Gypsum

Seeing excellent

372

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
2 ^h 00 ^m W	29 21	0-1	9.42	F6	1 1/2 + 1'	KAFS 59 # 625	299 - 322 N.B. Spotted once
0 ^h 20 ^m E		10"	0.04	AOI			low end 700V OK
2 ^h 00 ^m W + 1 ^h 59 ^m W			6.8				
2 ^h 07 ^m W + 2 ^h 07 ^m W			5.1				
1 ^h 36 ^m W			0.04	AOI			

Guest Night 150 v. 100

2 PH Clouds

II-0

273

Date Sun-Mon July 9/10 Observer vd Bztlj Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
1338-162	α Cr B	15 33.0	+26 51		4/6/8	28		20:51	20:55 20:5	0°25" W
1339-162	Source					28		21:15		
1340-162	α Cr B	15 33.0	+26 51		4/6/8	28		21:18		0°47" W
1341-162	α Boo	14 32.9	+29 55		5/6/16	50		21:47		2°15" W
1342-162	$\oplus$ M10	16 55.0	-04 03		8/5/40	28		22:18	22:37	0°25" W
1343-162	$\oplus$ M28	18 22.1	-24 54		8/5/40	28		23:01		0°18" E
1344-162	Sky Π 28 + Π 22		-24°54'		8/5/40	28		23:20		0°05" E
1345-162	$\oplus$ Π 22	18 33.9	-23 58		8/5/40	28		23:43		0°10" W
1346-162	* Π 22				8/5/40	28		00:00		0°25" W
1347-162	α Lyr	18 35.6	+38 45		4/4/8	28		00:17		0°43" W
1348-162	α Cr B	15 33.0	+26 51		4/6/8	28		00:37		4°05" W
1349-162	Source				4/5/8 + 16	28		00:54		
1350-162	$\oplus$ M75	20 03.5	-22 02		8/5/41	28		01:05	01:23	0°04" W
1351-162	$\oplus$ Π 2	21 31.4	-01 00		7/6/41	28		01:48	02:06	0°42" E
1352-162	$\oplus$ M15	21 28.1	+12°00		7/6/40	28		02:19		0°07" E
1353-162	α Lyr	18 35.6	+38 45		4/4/8	28				

Dome Temp. 66

Focus

Dome Temp. 58

Transparency Conditions

2100 Many ci in North probably not 374
photomicro. but improving rapidly

2215 Looks OK except some clouds low over the lake

2330 Looks OK

0130 Fine except for low clouds over lake, St. Anton in N.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0 ^h 25 ^m W		5"	2.21	A ₀ V			
0 ^h 47 ^m W							
2 ^h 15 ^m W			4.48	F ₂ V			
0 ^h 25 ^m W 0 ^h 23 ^m W			7.6	G ₀			
0 ^h 18 ^m E							
0 ^h 05 ^m E							
0 ^h 10 ^m W			6.5	F ₆		Bright stars avoided!!	
0 ^h 25 ^m W						brightest star B ₀ SF clus IV cent W!	
0 ^h 43 ^m W			0.04	A ₀ V			
4 ^h 05 ^m W			2.21	A ₀ V			
			9.5	G ₁			
0 ^h 04 ^m W	!						
0 ^h 42 ^m E 0 ^h 40 ^m E						SKY one way only.	
0 ^h 07 ^m E 0 ^h 05 ^m E			0.04	A ₀ V		02 ^h 39 - second half again (M15) sky ^{twilight} too high - blue? one way on -	
						Dome would not stop - almost hit telescope.	

MC SC ME
Jul. 10 +79.2 +14.6 -0.5

Date Tues/Wed. July 11/12 '61 Observer S Hr Hm I Julian Day 2437492.5

[illegible]

Dome Temp. 73°F

Transparency Conditions

376

Focus.....

GEN. WAS 100V.
" 15 110V.

Dome Temp.....

ing Time
E.S.T.2 07^m4^m5 17^m

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
10 ^m W						focus star ϵ Oph $16^{\text{h}} 16^{\text{m}} 15.3$ $-4^{\circ} 35' 56''$	
17 ^m W						Stayed on 6426 half an hour - invisible for hours	
20 ^m W						12:00 Sky too poor to continue	
						2 mag absorption in zenith 3-4 lower	
						No clusters or program to photograph under	
						these conditions	
						1 NEWT. P.H. LOADED IN FRIG.	
						Exposed Plates 3 rd and 4 th and	
						left in dark.	
		ME	SC	ME			
Jul 12		+80.5	+14.1	-0.2			
" 14		+81.2	+13.0	-2.5			

Date Sun / Mon July 16 / 17 Observer F Julian Day 2437497.5
 ☉ 114 10 39.6 3435.5

① 114 10 39.6 3435.5

[illegible]

ome Temp.....

ocus.....

ome Temp.....

Transparency Conditions *Very Hazy*

*clouds until 12.00 EST
waited til most cleared.*

*(forecast
not)*

FOE & DRIZZLE

now NO SAT: *at 01.00 EST*
103 visitors.

Saw telescope
and film "The
Sun's Family" Hy.F

378

ding Time
E.S.T.

our Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
01.29	10 17	1.0	5.8	Fg	3-3-3	ret 2 Std Vel	6330
01.71	1:09W	"	"	"	3-3	ret 5	6332
01.55	1:28W	"	"	"	3-3-3	ret 8	6333
	17 02	0	8.5	G8	3	ret 2 Std Vel	6335
					8-10	Had low square wave followed on to lens	6337
					02:43	it could not hold, going	6338
					clouding over fast	backing up - going back	6339
					Large fog rising cloud whiter now		6340
					Fog in valley - very low falling	03:00	6341
					2 PM loaded		6342
					Pls in		6343

379

G₂
(V₁R)

Date Tue/Wed July 18/19 Observer Hy - Hy Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	Angle End
1354-163	α Lyr				4/5/8	14		21 38		22 ⁰⁰ E
1355-163	R 373			24 sky	7/6/33	14		22 55	23 ²¹ V 23¹¹	scattered
1356-163	α Lyr				4,5/8	"		23 38		
1357-163	Source				4,4,4			00 01		
1358-163	$\oplus$ M28				8/5/40	14	one way only	00 15		
1359-163	$\oplus$ M28				8/5/40	28		00 27	00 ⁴⁷	1 ⁴² W
1360-163	$\oplus$ M75				8/5/40	28		01 16		0 ⁴⁸ W
	second half again (centering off)							01 36	01 49	
1361-163	$\oplus$ M15			no good	8/4/40	28		02 28		
									clouded out	
	α Lyr					14				

Dome Temp. 70

focus.....

Dome Temp.....

Very poor just after sunset

$\approx 22^h$; $\frac{1}{2}$ of lights went out

Transparency Conditions

Ok except for haze in west

380

Telegraph Renewed. - Gg.

[illegible]

Date Wed/Thurs July 19/20 Observer - I Julian Day 2437.500.5
1961 0 117 02 26.9 3436.2

[illegible]

Dome Temp. 70° F.

Transparency Conditions - *Variable*

- Opened up at 00¹⁵ EST - fizz in east
- improving; 1³⁰ - poor - slow count
- marginal in east;

382

OC,5
436.2

ending Time
E.S.T.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
1 ^h 42 ^m	+18° 11'	+1	6.9	B95ed	3-3-3	Be Prog. mwc 317	Let 5 Lens 7 6352
2 ^h 13 ^m	+57° 31'	1	7.0	B8me	3-3-3	Be Prog. mwc 376	Let 5 Lens 7 6362
3 ^h 17 ^m	+56° 28'	0	8.1	B5e	3-3-3	Be Prog. mwc 383	Let 5 Lens 8 6364
4 ^h 36 ^m	+46° 09'	0	6.5	B3me	3-3-3	Be Prog. mwc 407	Let 5 Lens 7 6369

8/10 Set 1
8/10 Set 9

~~cast~~
HK

2PH's loaded.

	md	sd	ME
Jul. 21	+83.0	+9.2	+1.6

Where is focusing meter?
✓ OK

Sat - Jul 22 / 60
Cg, L, clermont, etc. +
Lunenburg, etc., etc.
from July 100 Visitors

Date _____

Observer

Julian Day

Julian Day 2437 504.5
 @ 120 51 33.3 3437.5

[illegible]

Dome Temp. 78°F

Focus.....

Dome Temp.....

Transparency Conditions Clear at 22^h EST 384

- Clouded over very suddenly
just before began plate # 2540

[illegible]

Dome Temp.....

Hd - visitors 60
Showered MIB

Transparency Conditions

Fairly cloudy just after sunset
Stratus in SE at 21^h

386

21^h25 - O.K.

22^h 50 - patches of cirri overhead -
- decided NON-PHOTOMETRIC

[illegible]

387

Date Jul 26-27/61 Wed-Thur Observer Gg - Gg Julian Day 187

Plate No.	Object	R.A. 1900 (1960)	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.E.	Hour Angle
1363-165	R373	15 41.1	-10 49		7,5,24	14		21 26	+21 47		154°W
1364-165	R373	"	"		7,5,32	14		22 06			2°35W
1365-165	R402	16 52.2	+42:54		7,5,32	"		22 58	+23 34		2°14W
1366-165	α Lyr	18 35.6	+38 45		4,5,8	"		23 59			1°32
	Source							00 17			
1367-165	110 Her	18 44	+20 31		6,5,16	"	3x	1 09			2°34W
1368-165	R551	23 15.2	-14 07		7,6,40	"		2 03	+2 24		1°02E
1369-165	α Lyr					"		3 05			4°39W
	Source							3 26			
1370-165	85 Peg	00 00.1	+26 50		6,6,24	"		3 48			0 02E
	Source							4 24			

Dome Temp. 72

Focus.....

Dome Temp. 68

H 67 T 68 2^h

Transparency Conditions

Clear apt for haze + cloud on S + W horizon
2^h - all clear.

3DP

3^h 30 - Purplish zenithal Aurora in NE + E + stratus.Timing Time
E.S.T.

Hour Angle Right asc.	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	V = 700 at 19 ^h 47	REMARKS	Quality
middle								
1 ^h 54 ^m W + 2 ^h 13		Not good 4 ^h	7.7	sd F ₅			centering ok - both times.	
2 ^h 35 W		poor					No sky. centering not so good. repeated 2nd trace	
2 ^h 14 W + 2 ^h 21		3 ^h -	7.5	G. V			(moved back in RA).	
1 ^h 32		4 ^h poor	0.0	A. V				
(2 ^h 34 W) 2 ^h 45 ^m W		4-5	4.7	F ₆ V			Sky once (-ve) 1 ^h ± - added dry ice. (it needed it)	
1 ^h 02 E + 0 ^h 59 E			8.6	sd F ₈			(moved teles back)	
4 ^h 39 W		5 ^h poor					Image swayed back + forth ∴ Teles out of balance in this posn - had to push it.	
0 02 E		2 ^h	6.4	G ₃ V			sky once. twilight. getting bright.	Aurora overhead

389

Planee

Date Thurs. July 27-28/61 Observer Hd. - I Julian Day 2437508.5
0124 40 46.1 3439.8

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.E.	Error Angle End
25740	HD 161961 Focus test	17 43.4	-2 09	I-12	IIA0B	008	27.3	21.00	22 06	4	124 ^m
25741	Jupiter	20 ^h 17.8	-20 ⁰ 19	I-12	IIA0B	008	27°C	00 ^h 15		1	
	Jupiter's Moon	.0..	!					00 ^h 52	00 ^h 45		

Dome Temp.....

- so decided to observe Jupiter x
all moon Saturn

bright full moon

8.5

398

ding Time
E.S.T.

ing Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
06	W 24 ^m	-2 13	1-2	8.2	B ₀	3-3-3	set 2 Radcliffe OB. suns 8 clouds.	64 11 64 25 Lark c 2 r
				-2.3		X	Set 1 approx (1/5 count) suns 4	Centre of Jup. 10. weak
						9	Set 3 (1 count) "	fine
						9	Set 5 (1/2 count) "	l. weak
						9	Set 7 (1/4 count) "	weak
			set 7			3-3-3	Set 9 suns 7 close to pre 6450 6451 1/2	l. weak
							- I think whole plate spoiled!	ok
							- north still very poor so decided to give up at 1 ^h 45 EST	
							3 PH's loaded.	

Date Sat/Sun 29/30 July 61 Observer Hy - I Julian Day 2437510.5
 0126 35 26.6 3441.6

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.E.
25742	HD 184467	19 ^h 29.5	+58 24	I12	IIaOb	008	27.5°C	23 ^h 25	23 ^h 56 ^m	2
257432	F1 HD 213014	22 ^h 23.4	+16 46	I12	IIaOb	008	27.5°C			3

Focus Test OTB/ITA

Aug 5/6 - Focus Tests OTB & OTA, Set 3 & 7 respectively ^{PHI} Plate No. 25742F2

Tue-Wed no more traces of α Cen B
 It is clear over 21^h 40 - Gg
 All kinds of cirri around after
 sunset

Aug 1-2/61

Thurs Aug 3-4 25 visitors (astronomers) to
 showed α Cen. Then cloudy
 with a clear interval about 00h H.

Dome Temp. 74°F Focus 12.690 Dome Temp. 74°F

Visitors: $\sim 170 \pm 10$
 Showed them
 & Here (double)
 and M13

Transparency Conditions

Fair: fuzz around horizon
at 23:00 ESTGave up
at 00:30h

23.45: heavy cumulus in south-west

24.0: General cloud from west
- on walking cloudsing Time
E.S.T.Hour Angle
End

Declination

Seeing

Ptg.
Mag.

Sp.

Comp.

REMARKS

Quality

0h40m W

+58°30'

~0

7.5

K5

3-3-3

Std. Vol.

Std 5 Lens 8

6462

6472

good

~0

8.5

G8

Std Vol

Std 5 Lens 9

good on

10/8 Set 5

RB: The focus test plate also has
 "25742" on it.

742F2

Gg+F

Focus o.k.

Mc

Sc

ME

Aug. 1

+83.8

+4.9

-2.8

2

+84.0

+4.8

-6.1

4

+84.0

+4.4

-6.7

7

+84.0

+3.8

-1.7

1 X PH's Labeled

Many phone calls about ECHO I and
 a "bright meteor" in the north east

- frantic with visitors so much attention
 to meteor not possible

- integrate requires microscope case -

Date Mon/Tue Aug 7/8 1961 Observer Hy-Hy Julian Day 171.5

[illegible]

Dome Temp.....

Transparency Conditions

Focus.....

Dome Temp.....

[illegible]

Wed.
Date Aug 9-10 1961 Observer - F Julian Day 2437521.5
0 137 07 29.7 3454.8

[illegible]

396

Dome Temp.....

ding Time
E.S.T.

Date. Fri/Sat Aug 11/12

1961

Observer.

Ну

Julian Day

[illegible]

Dome Temp... 66°F

Focus.....

Dome Temp.....

Transparency Conditions

398

early evening cloudy.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
—	3 ^h 28 ^m W 2 ^m 1/2	0.04	A0 V			seeing: star is 1/4 diam of field. / ran out sky completely clear / of paper.	
1 ^h 11 ^m W	1 ^h 31 ^m W	3.32	B8 I			seeing is very poor - trailing noisy.	
0 ^h 36 ^m W		3.32	B8 V			← EXTINCTION STAR.	
5 ^h 03 ^m W	X	0.04	A0 V				
2 ^h 36 ^m W	2 ^h 36 ^m						
5 ^h 10 ^m W	0 ^h 06 ^m W	3.32	B8 V			← affected by twilight! no good.	

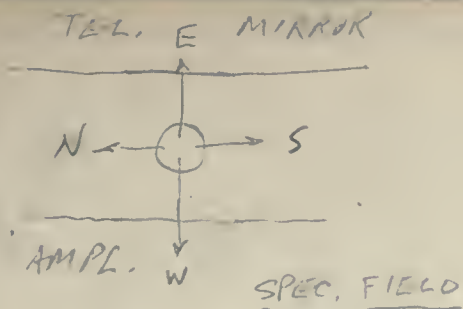
399

Date.....Observer.....Julian Day.....

[illegible]

400

Ending Time
E.S.T.



Hr L W -
E +

Se GHV
Se HV

716 = 8/4

} Seale 402

OB
Wellen
Be
M. ell.

} Head



N. 100
KA 8x8

} N. Hartt.

KAFS

} center of circle
f. 100 ft. diameter

Notes

705 ft. 100 ft. diameter

100 ft. 100 ft. diameter

20 ft. 100 ft. diameter

H1 100 ft. 100 ft. diameter