

①

ON 12 FOCUS :

- MAKE FINAL SETTING  $\bar{w}$  RED NOS. DECREASING
- FOR CENTRE TO VIOLET, CORRECT BY INCREASE IN RED NOS
- DECREASING TEMP CAUSES CENTRE TO VIOLET
- 50 DIVISIONS = 21 MICRONS (DIFF. BETWEEN CENTRE & OUTSIDE)
- = PHYSICAL MOVEMENT OF CAMERA ~ 150 MICRONS

TYPICAL FOCUS : 90-R (WINTER)  
 5-R (SUMMER)

5

Time Temp. ....

W. Wind

Time Temp. ....

Hour	Angle	Dist.

End

Dist.

ome Temp. ....

ocus .....

ome Temp. ....

Transparency Conditions .....

4

6

Hour Angle End	Declination	Seeing	Pkg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality

David Dunlop Observatory  
 74" logbook  
 vol 45  
 plate no: 36770-37615  
 Nov'72-Oct'73

Quality

\* baked Nov 20-21

Date 28/29 Nov 72 Tues - wed Observer T. J. S. 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.H.
36770	<sup>Per</sup> HD 10516	<sup>1970</sup> 01 41.7	<sup>1970</sup> 50 33	G 16	H <sub>0</sub> F	9/5	33°F	20:24	20:54	A
36771	"	"	"	"	"	13/4	"	20:55	21:09	B
36772	"	"	"	"	"	"	"	21:11	21:25	C
36773	"	"	"	"	"	13/5	33°F	21:30	21:52	A
36774	"	"	"	"	"	"	"	22:06	22:36	B
36775	"	"	"	G 12	Ilao-6	"	"	22:56	22:58	A
36776	"	"	"	"	"	"	"	23:03	23:07	B
36777	"	"	"	"	"	"	"	23:08	23:12	C
36778	"	"	"	"	"	"	"	23:15	23:21	B
36779	"	"	"	"	"	"	"	23:24	23:30	A
3677971	Cal step wedge		180 sec		"					

Dome Temp. \_\_\_\_\_

Focus \_\_\_\_\_

Dome Temp. \_\_\_\_\_

Hour Angle  
End

0 34 E

0 19 E

0 03 E

0 24 W

1 09 W

1 30 W

1 39 W

1 44 W

1 53 W

2 02 W

Dome Temp.  $28^{\circ}\text{F}$  H=80%

Transparency Conditions *Good - some cloud*

6

Focus .....

Dome Temp. ....

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
0 34E	+50 34	2-4"	4.06	80pc	3-2	-5g	40/100		
0 19E	"	"	"	"	3-2	"	40/80		
0 03E	"	"	"	"	3-3	"	40/80	windy	
0 24W	"	2-3"	"	"	3-2	"	40/100		
1 09W	"	"	"	"	2-1	"	40/100	cloud	
1 30W	"	"	"	"	20-20	"	40/16		
1 39W	"	"	"	"	20-20	"	40/14		
1 44W	"	"	"	"	20-20	"	40/13		
1 53W	"	"	"	"	20-20	"	40/18		
2 02W	"	"	"	"	20-20	"	40/14	cloud	



Dome Temp.  $24^{\circ}F$  H = 5870

Transparency Conditions *Excellent*

Focus .....

*500n high cirrus*

Dome Temp.  $20^{\circ}$  H = 6070

Time T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
36	A	2 40W	+39 08	3-5	4.3	B5	15-15-15	std vel	200/65		
47	B	3 08W	+54 21	2-4"	9.21	B2.5 $\bar{V}$	13-13-13	bin search	800/170	cloud	
16	A	1 32W	+55.32	"	8.88	09 $\bar{V}$	13-14-13	"	800/180		
07	B	3 05W	+57.03	"	8.4	B2I $\bar{V}$	13-14-14	"	800/200		
48	C	4 45W	+41 24	"	7.26	08 $\bar{V}$	15-14-14	"	800/210	cloud	
			<i>in in / out out</i>				6/6	<i>no filter</i>			





Dome Temp. ....

Transparency Conditions .....

10

Focus .....

Dome was frozen. It took me 1 hr to get it turning again R.

Dome Temp. 12°F H 72%

Time T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
46	A	03 <sup>h</sup> 53 <sup>m</sup> W	+01° 49'	3"	8.08	08I	15-15-15	Bin Search	800/126	companion (faint) not in slit	weak
							180 sec.				
7	B	01 45W	+29 35'	4.5	6.59	A0	15-15-15	Sp. Bin. Hd.	400/120		fine
56	A	00 53W	09 29'	0	3.6	B <sub>0</sub> 59	20-25	Bstd Vel	40/12		weak
53	B	01 <sup>h</sup> 36 <sup>m</sup> W	-12° 51'	N3	4.51	B8I	25-25	Sp Bin Bin	80/25		weak
							6/6	no filter			

11

Bahad Ruiz

Date Jan 7-8 1972 Thu Fri Observer Gr-Pi/ 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.	How Angle End
36789	HD 193182	20 13.8	+39° 17'	G-12	Ilco B	13/15	23°F	17:29			02° 57'
36790	HD 195467	20 26.0	+36° 39'	G-12	Ilco B	13/15		18:09	19:26	R	02° 46'
36791	HD 220300	23 17.6	+55° 49'	G-12	Ilco B	13/15		19:29	20:42		02° 10'
36792	HD 15963	02 28.9	+57° 35'	G-12	Ilco B	13/15	22°F	20:50	21:14	S	02° 20'
36792T1	col. sky wa										
36792T2	"										
<del>36792T3</del>											

plate 36789-36791

36792



13

+ started Dec 2

Date Dec 10-11/32 Sun-Mon Observer Tm Julian Day.....

Dome Temp. 17

Focus .....

Dome Temp. 15

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
36793	x Per	03 49.1	430° 45	612	Duo- <sup>*</sup> t	1515		00:30	01:40	A
36793 T1	Cal stop	wedge	180sec		"					
36793 F1	Focus Test			"			25°			-B

Hour Angle  
End

2 48W-3



15

Baker Dec 2

Date Dec 11-12 1972 Mon-Tues Observer Hm-Ri / Ri 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.
36794	HD 19381	03 02.5	+20 03	Q12	Ilco B	13/3	24°F	17:30	18:57	A
36795	HD 221377	23 26.6	+51 52	"	"	"		19:08	21:22	B
36796	HD 11291	01 45.8	+50 18	"	"	"		21:27	21:47	A
36797	HD 22912	03 35.7	+71 18	"	"	"		21:52	01:03	B
36797T1	col dup w/d for plates 36794-									
36798	HD 42560	06 06.3	+14° 14'	"	"	13/5		01:15	01:48	A
36799	HD 42545	06 06.3	+16° 09'	"	"	9/5		01:52	03:00	B
36800	HD 45542	06 23.0	+20° 17'	"	"	-		03:15	03:40	A
36800F1	foundered w/d and / w			"		9	18°F			B

Dome Temp.  
Focus  
Dome Temp.  
Hour Angle  
End

Dome Temp. 16°F 70%

Focus .....

Dome Temp. 12°F 77%

Transparency Conditions light haze

very hazy after 2:00  
clouds from S.W. at 3:00

15

Time	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
17	4	0 <sup>h</sup> 57 W	+20° 30'	4"	7.74	K0111	17-17-17	Hd-Lens Bin	800/250		fine
2	5	2 <sup>h</sup> 58 W	+52° 20'	"	7.75	F4111	17-17-17	"	800/200		fine
		1 <sup>h</sup> 03 W	+50° 44'	5"	5.62	B9111	17-17-17	Hd Sp Bin	400/100		fine
		<del>02<sup>h</sup> 35 W</del> 2 <sup>h</sup> 23 W	+71° 35'		7.86	K0111	17-17-17	Hd Vis Bin	800/200	o (?) start	fine
		← caught error - should be (2 23W) 180 sec.									
		00 <sup>h</sup> 45 W	+14° 16'	4	4.18	13311	17-17-17	Bin - Sp Bin	200/60		fine
		01 <sup>h</sup> 58 W	+16° 10'	4	4.23	8511	17-17-17	"	200/63		fine
		02 <sup>h</sup> 07 W	+20° 19'	4	4.04	B3711e	17-17-17	"	200/61		fine
								8-8 no field		clouds	
										closed up at 4:15	



17

+ started Dec 12

Clocks wrong by 10 min - 10:10

Date Dec 16-17 Sat - Sun Observer Tn - West 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.
36801	HD 26065	4 10.7	-7 49	612	D 125	13/5		23:12	23:32	A
36802	HD 45829	6 24.6	+7 59	"	"	"	15°	23:39	02:09	B
36803	HD 49033	6 14.4	14 42	"	"	"		2 14	03:08	C

Dome Temp

Focus

Dome Temp

How wide  
End

0

1.15W

2.15W



Date Dec 28/29, 1923 Observer Sy - Ri 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.
36804	29 U W CMa	<sup>1550</sup> 07 16.68	<sup>1910</sup> - 24 28.0	G-16	420F	13/5		01:37	00:13	A
	<del>A Ori</del>	<del>05 32.38</del>	<del>+ 09 25.4</del>	<del>n</del>	<del>n</del>	<del>9/5</del>		<del>02:25</del>		B
									<del>Faded</del>	

Dome Temp. \_\_\_\_\_  
 Focus \_\_\_\_\_  
 Dome Temp. \_\_\_\_\_  
 Hour Angle \_\_\_\_\_  
 End \_\_\_\_\_  
 00:13



21

Date Jan 23 1973 Observer Pst. Alcorn, R. 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
								19:20	20:45		

Dome Temp  
Focus  
Dome Temp



23

Date Jan 5-6 1973 Observer Pat/Alan/Ta Julian Day

Scan 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
124-129	α Leo							0345		A	
130-131	μ Leo							0500			
132-133	Frombridge 1830							0547			
134-135	α Leo							0658			

Dome Temp.  
Ferm  
Dome Temp.





25

Date Jan 6-7, 1973 Observer P. J. Abt/Ta Julian Day .....

<sup>Scan</sup> Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
136-139	10 Lac							1839		
140-141	ξ <sup>2</sup> Cct							2010		
142-143	10 Lac							2108		
144-145	ξ <sup>2</sup> Cct							2201		
146-147	ξ <sup>1</sup> Cct							2342		
148-149	α Per							2342		
150-153	S Mon = 15 Mon							0114		
154-155	IC 2149							0252		
155-156	S Mon							0327		
157-160	Grainbridge 1830							0415		
161-162	P Com							0604		

Dome Temp.  
Focus  
Dome Temp.

Hour Angle  
Ecl



25

Date Jan 7-8, 1973 Observer PAT/Abn/T<sub>2</sub> Julian Day \_\_\_\_\_

<u>Scan</u> Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
163-164	10 Lac							18 14		
165-166	X Peg							18 57		
167-168	10 Lac							19 50		
169-170	Vesta							20 28		
171-172	10 Lac							20 54		
173-174	18 Tau							21 20		
175-176	M 42							23 20		
177-178	Sky near M 42							00 15		
179-182	S Mon							01 45		
183-184	HR 3952							04 05		
185-188	HD 76396							04 50		
189-190	HR 3952							06 18		

Dome Temp.

Focus

Dome Temp.

Hour Angle  
End



20

\* baked Dec 12

Date Jan 8-9 1973

Observer H. T. / T. P. 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
36805	HD 7864	01 13.2	+39 25	G12	1100-6	13/.3	+9°	19:25	21:08	A	2:47M
36806	HD 29139	09 30.2	+16 18	"	"	13/.5	"	21:14	21:19	B	0:30E
36806F1	Focus	Test		"	"	13	"				
36806T1	Cal step wedge		120sec	"	"	Exposures 36805, 06					
											End

Dome Temp.

Focus

Dome Temp.

Hour Angle  
End



31

baked Dec 12

Date Jan 9/10/73 Tues-Wed Observer Tn 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
36807	HD 82191	09 25.4	+27 50	G12	II 0-6*	131.5	15°	03 42	04 24	A	156W 2
3680711	Cal step wedge		180 sec		"						
Jan 10-11 - Focuser Int. 3 scans Tn/Prt											





27

+ Photad Dec 12

Start Date JAN 11/12 73 THURS - FRI Observer GI-Tn/ 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.
36808	ε Perse	3 55.8 <sup>1970</sup>	+39° 55'	GI 2	Ilford-6*	13/5	25°	17:45	17:46	B
36809	HD 217543	02 <sup>h</sup> 56.3	+38° 10'	"	"	"		17:57	18:22	A
36810	HD 15963	02 <sup>h</sup> 58.9	+57° 38'	"	"	"		18:30	19:13	B
36810 T1	Control	02:58.9	15:41:00		"					

Dome Temp. 22

Focus

Dome Temp. 23

Hour Angle  
East

02<sup>h</sup> 56.3

02<sup>h</sup> 31.0

011E

Dome Temp.  $12^{\circ}F$  H=5870

Transparency Conditions *Excellent*

Focus .....

Dome Temp.  $7^{\circ}F$  H=8770

Time	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
	B	03 <sup>h</sup> 02 <sup>m</sup> E	—	2	3.0	B1	40	Btn	40/14		
	A	02 <sup>h</sup> 31 <sup>m</sup> W	+38 36	2-3	6.5	B	13-13-13	61 shell	400/140		fine
13	B	<u>0 11 E</u>	+57 59	3"	8.1	Apec	13-13-13	"	800/115	overdeveloping plate! Snow - some on lens	fine
										closed 02:30 snow but after clear	

25

Baked Dec 12

Date Jan 13/14 Sat-Sun Observer Ta 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.
36811	HD 218376	23 2.4	+58 53	G12	E00-6*	9/7		18 09	18:23	H
36812	"	"	"	"	"	6/7		18 29	19:05	K
36813	HD 3712	00 34.8	-55 59	"	"	"		19:09	19:20	C
36813 T1	Cal step	wedge	180 sec		"					
36813 F1	Focus Test			G12	"	6				B

Done Temp 26°  
Focus  
Done Temp

Hour Angle  
Ecl  
2 32W 5  
3 15W  
1 50W 5

Dome Temp.  $26^{\circ}\text{F}$  H=568

Transparency Conditions *Small clear patch*

36

Focus .....

Dome Temp. ....

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
2 32W	59 18	2"	4.83	BOS IV	14-13-13		200/100	* Warren - If you	fine
3 15W	"	2-3	"	"	15-15-15		200/100	cloud } knew a way of getting	fine
1 58W	56 24	"	3.34	KOD II	22-	std vel	200/	cloud } maximum resolution	fine
								in development, try it on these.	
	in an	found out			7/7	no filter		Feel free to experiment on	
								above. Tm	

27

+ baked Dec 12

Date Jan 16/17 1973 Observer Hu-Tn/ 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.
36814	HD 223582	23 45.6	+53 39	G12	L <sub>20</sub> -b <sup>+</sup>	13/3	35°	18:10	19:55	A
36814T1	Col step	wedge	180 sec		"					

Done Temp. ?

Focus

Done Temp.

How Angle End

03 33V



39

Box 2-12

Date SA Sun Jan 20-21 1923 Observer Ri-Waterloo 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.
36815	HD 11049	01 43.4	+07° 12'	G-12	II-OB	13/3	26°	18:12	20:16	A
36816	BD-42 781	03 06.4	+42° 43'	"	"	"		20:27	00:21	B
36817	HD 71152	08 10.7	+24° 52'	"	"	13/5		00:35	01:35	A
36816T1	ad. slip under for plates 36815-20				II-OB					
<u>36818</u>	HD 72247	08 56.3	+53° 30'	"	"	13/3		01:40	03:00	B
36819	HD 95658	10 57.4	+36° 14'	"	"	13/3		03:10	05:43	A
36820	HD 126128	14 18.5	+04° 54'	"	"	13/5		05:50	06:45	B

Date Temp.

Focus

Date Temp.

Hour Angle  
Ecl.

22:12

2:50

05:50

0:00

0:40

0:12

0:10





\* bates Jan 16

41

Date January 24-5 Wed-Thurs Observer L.R.-Tm / A.M.-Tm 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.
36821	HD 2905	0 <sup>h</sup> 27 <sup>m</sup> .3	+62° 23'	G-12	IIaOb*	13/.5	33°F	17:56	18:02	C
36822	HDE 2345679	21 <sup>h</sup> .55 <sup>m</sup> <sub>0</sub>	+54° 01'	"	"	18/.4		18:30	20:42	B
36823	HD 44633	02 <sup>h</sup> 16 <sup>m</sup> .7	+41° 02'	"	"	13/.5		21:10	22:02	A
36824	HD 48279	06 <sup>h</sup> 37 <sup>m</sup> .5	01° 49'	"	"	"		22:08	23:59	B
36824T1	Cal step	wedge	180sec		"					End 17

Dome Temp.  $20^{\circ}$  7076

Transparency Conditions *Excellent*

42

Focus .....

Dome Temp.  $20^{\circ}$  9177

*Some cloud 2nd half  
Cloud by 6AM*

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
1 29W	+62° 48'	4-5	4.30	BOI	22-22	bin. search	40/13		fine
6 51W	+54 23'	3-4	9.21	B 2576	12-12-12	"	800/113		fine
3 40W	+41 23	"	7.26	08 V	12-12-14	"	400/130		fine
1 18W	+1 45	"	8.08	08 V	12-12-12	"	800/245	<i>whispy cloud ~ 2345</i>	fine
								<i>Dev. MW22 9min @ 63°F</i>	

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Date 24/25 Jan 73 Observer P. V. Ahn / T. n Julian Day .....

Scan Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
191-194	HD 93521	10 <sup>h</sup> 42.7	+ 3806					00 15	01 20	
195-196	ε Leo							01 50	02 45	
197-202	μ Leo							02 55	04 20	
203-204	β CVn							04 30	05 10	
205-206	31 Com							05 24		

Dome Temp. ....

Focus .....

Dome Temp. ....

Hour Angle  
End





Dome Temp. (29°F / 92% H) inside - out 66°

Transparency Conditions Excellent but ground haze

Focus .....

Dome Temp. ....

Hour	Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
01 <sup>h</sup>	05 <sup>m</sup> W	+60° 35'	1"-2"	2.65	Bone	38 <sup>sec</sup>	G1 Shell	40/13		fine
00 <sup>h</sup>	31 <sup>m</sup> W	+50° 35'	1"-2"	4.08	B1	19-19	"	40/12		fine
01 <sup>h</sup>	13 <sup>m</sup> E	+48° 05'	"	4.1	B5ne	19-19	"	40/14		fine
00 <sup>h</sup>	47 <sup>m</sup> E	+65° 35'	"	4.78	B2	19-19	"	40/13		fine
00 <sup>h</sup>	55 <sup>m</sup> E	+24° 04'	"	5.13	B8	12-12-12	"	200/70		fine
00 <sup>h</sup>	46 <sup>m</sup> E	+30° 32'	"	7.2	A0ep	12-12-12	"	200/70	haze increasing Dev. - MWRD 9min @ 60°	fine
00 <sup>h</sup>	15 <sup>m</sup> W	+29° 48'	1"	7.5	A2	12-12-12	"	400/140		fine
02 <sup>h</sup>	45 <sup>m</sup> W	+41° 01'	"	8.2	B3e	12-12-12	"	800/260		fine
02 <sup>h</sup>	02 <sup>m</sup> W	+37° 15'	"	2.58	B9.5p	18-18	W2 *	40/12		fine
		in an / out of				7-7	no photo			
									* Warren - it may be considered to record information about development as it is considered to get it if people are aware of any changes or procedures	

WY cont  
2nd half

Date Jan 25/26 Thurs/Fri Observer Prt-Aha-Tn Julian Day .....

Scan Plate-No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
207-210	S Mon.							0040	0115	
211-212	HD 93521							0135	0150	
213-214	HR 3664							0155	0240	
215-216	20 LM <sub>i</sub>							0250	0335	
217-218	61 UMa							0340	0420	
219-220	36 Com							0430	0515	
221-222	78 UMa							0524	0605	
223-226	HD 93521							0614		

Dome Temp.  
Focus  
Dome Temp.

Hour Angle  
End







Dome Temp.  $10^{\circ}\text{F}$  @ 6890

Transparency Conditions *scattered cloud*

50

Focus .....

Dome Temp. ....

Hour Angle	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
58	A	2 33 W	71 34	2"-4"	7.86	K012	13-13-12	Hd Vis Bin	800/160	cloud / telescope near	
										Deis MW2 9min @ 68°F	
112	B	1 57 E	27 33	3"-5"	6.59	A0	13-13-13	Hd Sp Bin	400/150		
	C				<del>6.38</del>	<del>B3</del>	<del>13-</del>	<del>Hd Sp Bin</del>	<del>400</del>	cloud	

57

look at box 102

2520 70

Date Jan 30-31 Tue-Wed

Observer Tn - Sy

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
36836	HD 91120	10 26.1	-13 05	G16	D <sub>00</sub> F	131.5		01 05	04:30	A	2 25 W
36837	X oph	16 21.23	- 18 13.8	G16	D <sub>00</sub> F	"		04 39	06:31	C	1 30 E
36837 T1	Cal step wedge		7 min		"						

Dome Temp  
Focus  
Dome Temp

Hour Angle  
End  
1 30 E

Dome Temp.  $0^{\circ}\text{F}$   $H=7570$

Transparency Conditions .....  $52$   
 clearing by 0<sup>h</sup> some cloud

Focus .....

Dome Temp.  $-11^{\circ}\text{F}$   $H=7570$

Ending Time E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp. <i>no filter</i>	Program	Exp. Mtr.	REMARKS	Quality
4:30	A	2 25W		4"-8"	5.5	B	2-2	$2m^2$ line	400/800		
5:31	C	1 30E	-18 19	"	4.8	B	2-2	Program	80/160		

TAP

53

Date Feb 4-5 Sun-Mon Observer Ahn-T<sub>2</sub>-Prt Julian Day.....

<sup>SCN</sup> -Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
227-236	HD 73521							0100	0205	
237-238	NGC 4151							0240	0348	
239-240	M3							0402	0455	
241-242	10 Bo <sub>6</sub> = HR 5255							0458	0530	
243-250	HD 93521							0535	0615	

Dome Temp.  
Focus  
Dome Temp.

Hour Angle  
End  
2.41  
2.42  
2.43  
2.44

Dome Temp. 25° H=75%

Transparency Conditions Excellent by 01 continuous here after 0300

Focus .....

Dome Temp. ....

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
A									
B									
C									
D									
E									
F									
G									
H									
I									
J									
K									
L									
M									
N									
O									
P									
Q									
R									
S									
T									
U									
V									
W									
X									
Y									
Z									

SPPI X 0.77 big signal good

TAP

53 start

Also; 40 Erindale visitors 20<sup>th</sup>-20:30 8<sup>th</sup> class \* baked Jan 29

Date Feb 5-6 Mon-Tues Observer Th-Ham/Pr+Th-Ahn 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.	How Angle End
36838	HD 11092	01 44.0	+64 22	G12	Duo-6 <sup>b</sup>	13/3	29°F	18:22	19:11	A	2 09 W
36839	HD 11291	01 45.8	+50 18	"	"	13/4		19:15	19:26	B	2 21 W
36840	HD 37171	05 31.5	+10 58	"	"	"		19:31	20:08	C	0 42 E
36840T1	Col/step wedge		180sec		"						
36840F1	Focus Plate		initial 2/5	"			28°F			B	
36841	HD 53755	07 01.1	-10 30	"	"	"		20:45	21:16	B	1 02 E
36842	HD 82191	09 25.4	+27 50	"	"	13/5		21:22	22:09	C	2 34 E
36843	HD 63887	07 46.1	+71 57	"	"	13/4		22:17	23:17	B	0 08 W
36844	HD 82191	09 25.4	+27 50	"	"	13/5	25°F	23:21	23:54	C	0 41 E
Second Half	Ahn-Th-Prat										
Scan											
251-252	HD 5418							0012	0056		
253-256	R Leo							0105	0225		
257-260	HD 93521							0230	0255		
secondary alignment Feb 7 1973											

Done Temp. 2  
Focus  
Done Temp.

Dr. Bolton + 40 students

56

Dome Temp.  $20^{\circ}$  H=57% at ~20:00 till 20:45 Transparency Conditions *Excellent* Some haze

Focus .....

Dome Temp.  $16^{\circ}$  H=75%

*5-80* *W 20:00 P-8:00*

Ending Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
9:11	A	2 08 W	+64 45	2"	8.12	K5 <sup>2nd</sup> 25	13-13-13	Hd Vis Bin	800/200		2nd
9:26	B	2 21 W	+50 42	"	5.62	B9D	13-13-13	Hd Sp Bin	400/100		2nd
0:38	C	0 42 E	+11 03	"	5.98	K2D	13-13-13	"	400/140		4th
	B									Dev 9 min MWI #2 @ 68°F	
										no filter	
1:16	B	1 02 E	-10 36	3"	6.38	B3	13-13-13	LH Sp Bin	400/100	fld drawn close companion	4th
1:09	C	2 34 E	+27 33	"	6.59	A0	13-13-13	"	400/150		4th
1:17	B	0 08 W	+71 45	"	7.52	A0	13-13-13	"	400/100		4th
1:54	C	0 41 E	+27 32	"	6.59	A0	13-13-13	"	400/150		4th
										cloud by 3 AM	
										stopped by clouds	

TAP



57

B 3-29

Date Feb 8-9 1973 Thu Fri Observer GA-Ri 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.
36845	H1023962	03443.3	+23051	G-12	IT20B	13/5	240F	20:12	20:40	R
36845 T1	cal slip wedge									S
										C
										C
										C
										C
										C
										C
										C
										C
										C
										C
										C
										C
										C
										C
										C
										C
										C
										C
										C
										C

Dome Temp.  
Focus  
Dome Temp.

Hour Angle  
End

Dome Temp. 45°F 65%

PA-20

Transparency Conditions .....

58

Focus .....

Dome Temp. ....

5-24/19-83

10  
10

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
0 <sup>h</sup> 50 <sup>m</sup> W	+24° 07'	4	5.13	B8	17-17	B1 Bc	200/605	Dev. MW12 9min @ 68°F	fine
							180 sec.	clear but snow flurries	
								clouds @ 22:00 clear again 28:30	

TAP



Dome Temp. 130°F 73%

Transparency Conditions .....

Focus .....

Dome Temp. 100°F 80%

Hour	Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
17	A 0°52W	+24°07'	2"	5.13	R	17-12/17G1	slit	200/60		fine
17	B —					17-		800/171	closed @ 20:11 - CLOUDS	fine
22	03°53W	-0°15'	2-3"	8.6	B9	17-17 He - weak			closed up 21:30	weak
						180 sec.			Dev 9 min MWP#2 @ 68°F	
									* WARREN! PLEASE OVER DEVELOP	
									#36847, (Dev 12 min MWP#2 @ 68°F)	
25	A 02°20E	+32°39'	3"	6.26	K0	17-17-17 Hd-Sp/Bi.		400/200		fine
26	B 01°19E	+75°28'	3"	6.84	F0	17-17-17 "		400/160	clouds at 2:15 with snow flurries	fine
									closed up at 03:15	
									clouds at 06:15	

TAP

b1

1255 308

Date Sat. Feb 10, 1973 Observer B. K. / R. Julian Day 200

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
36850	HD 14951	02 19.3	+10 09'	G12	IT203	13/5	18°F	18:48	19:08	A
36851	HD 21364	03 21.8	+09 23"	-	-	-		19:12	19:18	-
36851I	cal. star w/d									
	IR photometry							19:30	0600	

Done Temp.

Focus

Done Temp.

Hour Angle  
Ead

0150W

0018W

1 10 10

11 10

1 10 10

1 10 10

1 10 10

1 10 10

1 10 10

1 10 10

1 10 10

1 10 10

1 10 10

Dome Temp.  $8^{\circ}\text{F}$  65% Transparency Conditions *good*

62

Focus .....  
 Dome Temp.  $-05^{\circ}\text{F}$  66%

Hour	Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
09	A	01 <sup>h</sup> 50 <sup>m</sup> W	+10°30'	4'	5.38	B6	171717 10h-Sp 10	200/60	had phone with Gil to close to the north	22035
19		00 <sup>h</sup> 59 <sup>m</sup> W	+09°40'		3.66	B8p	171717 "	200/68	Box #3	22036
							1 June		Dev 9mm MWP 2 @ 60°F	22037
										22038
										22039
										22040
										22041
										22042
										22043
										22044
										22045
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										22053
										22054
										22055
										22056
										22057
										22058
										22059
										22060

TAP

65

8<sup>x</sup> Beloid Jan 29  
13<sup>00</sup> 7 Feb 11

Date Sun-Mon Feb 11-12 1973 Observer W.J. Ri Julian Day 312.0

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
36852	HD 23862	03 43.3	+23° 51'	G-16	IIa <sup>o</sup> F	13/5	12°F	18:26	19:04	A
36853	HD 24398	03 47.8		G-12	IIa <sup>o</sup> B <sup>x</sup>	13/5		19:15	19:17	B
<del>20911</del> 36854	HD 20902	03 17.2	49° 30'	G-12	IIa <sup>o</sup> B <sup>x</sup>	13/5	<del>12°F</del>	19:26	19:30	C
36855	HD 21364	03 21.7	09 23	G-12	IIa <sup>o</sup> B <sup>x</sup>	13/5		19:40	19:44	A
36856	HD 28363	04 23.3	15° 57'	G-12	IIa <sup>o</sup> B <sup>x</sup>	9/3		19:55	20:27	B
36856T1	cal. step wedge for plate 36853 - 55				IIa <sup>o</sup> B <sup>x</sup>					
36856T2	cal. step wedge for plate 36856 - 64				IIa <sup>o</sup> B <sup>x</sup>					
36857	51473	06 52.4	-09 14'	G-12	IIa <sup>o</sup> B <sup>x</sup>	13/3		20:39	21:33	A
36858	HD 13729	08 34.7	+28° 33'	G-12	IIa <sup>o</sup> B <sup>x</sup>	13/3		21:40	22:50	B
36859	HD 81976	09 24.0	+33° 45'	G-12	IIa <sup>o</sup> B <sup>x</sup>	13/3		22:56	23:45	A
36860	HD 104451	11 56.6	30° 06'	G-12	IIa <sup>o</sup> B <sup>x</sup>	13/3		23:51	01:45	B
36861	HD 97937	11 16.7	+13° 23'	G-12	IIa <sup>o</sup> B <sup>x</sup>	13/5		01:55	03:05	A
36862	HD 107325	12 15.3	+27 11	G-12	IIa <sup>o</sup> B <sup>x</sup>	13/5		03:11	03:39	B
36863	HD 137569	15 21.2	+15° 03'	G-12	IIa <sup>o</sup> B <sup>x</sup>	13/4		03:55	04:46	D
36864	HD 152224	16 47.0	+32° 44'	G-12	IIa <sup>o</sup> B <sup>x</sup>	13/5		05:05	06:07	B
36864 F1	from last out with					13	06°F			B

Dome Temp. ~~50~~ 50°F 68%

Transparency Conditions Excellent!

64

Focus .....

Dome Temp. -02°F 65%

entered clouds at 02:00  
clear up at 03:30

Obs. Time E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
1:04	A	00° 28W	+24° 05'	2	5.13	Bc	2-2	Gaskell	700/500	right side of Box 3	Plates
1:07	B	09° 35W			2.7	eBc	25-25	R U st	20/7		
1:30	C	09° 23W	18W		2.07	B Eb	25-25	R U st	20/13		
1:44	F	01° 29W			3.75	B8p	25-25	Bk-Sp. Bc	40/12		
1:50	B	01° 15W	+16° 28'		7.14	F8	17-17	Bk-Sp. Bc	4/12/100		
		01° 11W					150 sec			Dev 9 min	
							150 sec			9 min	
1:33	A	00 10E	-01° 17'	2	8.7	A0	17-17	"	800/151		
1:50	B	00 39E	+20° 20'	2	8.18	dA5n	17-17	"	800/150	fid clean	
1:45	A	00 33E	+33° 35'	2	8.1	dA7	17-17	"	800/150		
1:48	B	00 05E	+29° 45'	2	8.7	gF3	17-17	"	800/200		
1:05	A	01 01W	+13° 02'	2	6.49	A6c	17-17	"	800/240		
1:39	B	00 30W	+26° 48'		6.72	A2	17-17	"	400/200	WARREN: PLEASE CUT	
1:46	A	01 29E	+14° 50'		8.10	B III	17-17	"	800/200	SOME MORE PLATES	
1:07	B	01 34E	+32° 37'		6.86	A0 III	17-17	had Sp. Bc	400/200	I ONLY GOT 1/2 BOX LEFT	
							7-2	no field		clouds	

TAP





Dome Temp.  $08.0^{\circ}\text{F}$  71%

Transparency Conditions *excellent*

66

Focus .....

Dome Temp.  $05.0^{\circ}\text{F}$  71%

Hour	Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
32	A 01 <sup>h</sup> 17 <sup>m</sup> W	+40°06'	2"	8.40	K2II	13-17-17	Hd Vis Bin	800/254		
42	B 01 <sup>h</sup> 08 <sup>m</sup> W	+24°07'	2	5.13	Skw	13-13-13	G-1 skwp	200/60		
50	A 00 <sup>h</sup> 02 <sup>m</sup> E	+11°05'	2	5.98	K2II	13-13-13	Hd Sp Bin	400/200		
54	B 03 <sup>h</sup> 33 <sup>m</sup> E	+27°34'	1-2"	6.59	AD	13-13-13	"	400/150		
59	A 00 <sup>h</sup> 32 <sup>m</sup> E	-10°35'	2"	6.38	B3	13-13-13	"	400/100		
58	B 00 <sup>h</sup> 44 <sup>m</sup> E	+71°45'	2"	7.52	AD	13-13-13	"	400/100		
						180 sec,			Des 9mm @ 60°F MW200	
26	A 01 <sup>h</sup> 50 <sup>m</sup> E	+27°32'		6.59	AD	13-13-13	"	400/150		
	B					7-7 m filter				

TAP



Dome Temp. 120°F 80%

Transparency Conditions good first half

68

Focus .....

Dome Temp. 100°F 66%

hazy second half  
11-11-13 10:00-11:00

Ending Time E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
10:36	A	01° 24W	+27° 34'	3	6.59	A0	13-13-13	Hol-5p 13w	400/150		fine
10:45	B	00° 35W	+30° 10'		6.84- 7.09	F0 F2	13-13-13	Bln Prus	400/160		fine
10:55	A	00° 35W	+26° 48'		6.72	SK2	13/3-13		400/200	leazy hazy from S.W	fine
11:09	B	00° 47W	+10° 25'		4.58	A1 II	13 13-13		400/120		fine

TAP

69

B Feb 13

Date Fri-Sat 16-17

Observer W:Ri/Ri

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.
36876	HD 23862	03 <sup>h</sup> 43 <sup>m</sup> 3	23° 51'	G-12	Ilford	13/7	06 <sup>00</sup>	18 <sup>h</sup> 38	18:52	N
36877	HD 26162	04 03.3	+19° 01'	G-12	Ilford	13/5		19:05	19:56	B
36878	HD 37209	05 31.7	-06° 08'	G-12	"	"		20:05	20:27	B
36879	HD 53755	07 <sup>h</sup> 01 <sup>m</sup> .1	-10° 30'	G-12	"	"		20:35	21:24	B
36880	HD 71663	08 23.4	-2° 11'	G-12	"	"		21:30	22:52	H
36880T1	cal. step wedge	for plate 36876 - 36884			Ilford					
36881	HD 109451	11 <sup>h</sup> 56 <sup>m</sup> .6	+30° 06'	G-12		13/3		22:43	01:50	S
36882	HD 119337	13 38.7	+55° 30'	G-12	Ilford	13/5		00:22	03:14	A
36883	HD 137569	15 21.7	+15° 03'	G-12	Ilford	13/3		03:05	04:41	B
36884	HD 141458	15 44.1	+13° 01'	G-12	Ilford	13/5		04:51	05:42	B

Dome Temp.

Focus

Dome Temp.

Hour Angle  
End

Dome Temp.  $-2^{\circ}\text{F}$  639.

Transparency Conditions ... *clean* .....

70

Focus .....

*very hot wind*

Dome Temp.  $-10^{\circ}\text{F}$  63%

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
0 <sup>h</sup> 35W	+24°05'	10	5.13	B8	17-13-13	61 shell	400/	<i>no fHP meter to cold for it so put it in</i>	fine
1 <sup>h</sup> 16W	+19°34'		6.4	K1	13-17-13	std vel	400/200		fine
0 <sup>h</sup> 22W	-06°04'		5.5	B0.5	13-13-13	B-std vel	400/120		fine
0 <sup>h</sup> 10E	-10°36'		6.48	B0.5	13-13-13	8h-Sp Bv	400/120		fine
0 <sup>h</sup> 25E	-02°24'	5	6.38	1FO	13-13-13	"	400/160		fine
					180 sec.			MWP <sup>2</sup> Rev 9m @ 68%	
0 <sup>h</sup> 40E	+29°44'		8.7	gF3	13-13-13	"	500/200		fine
0 <sup>h</sup> 57E	-05°20'		6.47	M12	13-13-13	"	400/120		fine
1 <sup>h</sup> 13E	+14°49'	3	8.10	B512	13-13-13	"	500/150		fine
0 <sup>h</sup> 35E	+10°48'		6.50	M0	13-13-13	"	400/120		fine

TAP

71

B Feb 13

300 15-

SAT - SUN  
 Date Feb 12/12 1923 Observer HS - HAS - WATERLOO 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
36885	HD 23862 Pleiades	3h 43.3 <sup>m</sup>	+23° 51'	G12	Ilford	3/7	0°F	19-13	19-25	1/10	1/10
	IR PHOTOMETER							19-20	21-50		
36886	HD 24034 AR	8h 41.5 <sup>m</sup>	+6° 42'	G12	Ilford	3/7	0°F	23-15	23-47	4	23-47

Dome Temp.

Focus

Dome Temp.

Hour Angle  
End

Dome Temp.  $02^{\circ}F$  68%

Transparency Conditions clear thin clouds

72

Focus .....

Dome Temp. ....

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
$1^h 14^m W$	$+24^{\circ} 06'$	3"	5.13	B8	14-13- <sub>13</sub>	G1 shell	200/mtr	Exposure not yet working time 3.15 Dev 12 min @ 68°F MWP2	fine
$0^h 36^m W$	$+6^{\circ} 31'$	7"	2.98	F8	25-25	Waterloo app	49/24	cloudy very bad	fine

TAP



77

Date 1935-12-19 SUN/MON Observer Wi-McU 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
<del>2007</del>	<del>4D2385Z</del>	03 43.3	+23 51	C-12	Kodak	0.5/13		1827		A	

Dome Temp. ...  
Focus ...  
Dome Temp. ...

Dome Temp. 18°F H. = 65%

Transparency Conditions cloudy

74

Focus .....

Dome Temp. ....

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
			<del>5.0</del>	<del>08</del>	<del>25</del>	<del>61 Shell</del>	<del>500</del>	<del>Phone Clouded out!</del>	

TAP

75

Date.....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.	P.H.

3

e

Dome Temp.....

Focus.....

Dome Temp.....

Hour Angle.....

Ead.....



77

Date.....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.	P.H.
	humidity was 95% at the end so open up shutters and fill.									
	18 P. Winkler							21:30	22:15	

Done Temp  
Faint  
Done Temp  
Hour Angle  
End

Dome Temp. .... 180°F 88%

Focus .....

Dome Temp. .... 180°F 91%

Transparency Conditions .....

78

Setting Time  
E.S.T. P.H.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
down to 88%									
								decided over	
								closed up at 00:30	

TAP



Dome Temp. 180R 79%

Transparency Conditions *hazy with cirrus clouds*

80

Focus .....

Dome Temp. 19°F 82% outside 95%

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
03 <sup>h</sup> 32 <sup>m</sup>	+24° 06'	4	5.13	B8	13-13-13	G1 shell	200/200	plates in box	fine
	Dev 9min 68°F					MWP2	180 sec.	degraded to base	
04 <sup>h</sup> 35 <sup>m</sup>	-17° 01'		6.0		2-2	Sy prog.	200/200	for box	fine
							180 sec	Dev 9min 68°F	
01 <sup>h</sup> 55 <sup>m</sup>	+42° 40'		5.6	B3	2-2	"	200/200		fine
01 <sup>h</sup> 05 <sup>m</sup>	-18° 20'		4.6	B3	2-2	"	200/250		fine

TAP





Dome Temp. 16°F - 76% H

Transparency Conditions .....

Focus .....

Dome Temp. 8°F .....

Hour	Angle	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
01	38 W	+24 07	3"	5.13	B8	17-17-17	G1 Shell	200/84		Low
02	31 W	"	"	"	"	17-17-17	"	200/125		Low
00h	48m N	+37 15	2.4"	2.58	B9Sp	25-25	"	40/12		Low
02h	20m W	+14° 22'	"	8.2	B3pc	17-17-17	"	200/140		Low
						180512	cal.		Dev. 9min 061 MWP2	
									Note - Still some fog - please use plate box #1 until I test the others.	

TAP

B Feb 17

Date Feb 26-27 1973 Mon-Tues Observer Hu-Ri/M.S.R. 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.
36895	HD 23862	3 43.3	+23 51	G12	IlaoB	13/7	20.F	19:09	19:43	A
36896	HD 37171	5 31.5	+10 58	"	"	13/5		22:08	22:10	B
36897	HD 45542	6 23.0	+20 17	"	"	9/5		22:17	22:25	A
36898	HD 82191	09 25.4	-27 50	"	"	3/4		22:41	23:41	B
36899	HD 27504	10 00.3	-16 35	"	"	9/5		23:45	00:00	
	IR photometry							00:30	05:47	

Dome Temp.  $100^{\circ}\text{F}$  68%

Transparency Conditions  $1/24$ .....

84

Focus .....  
Dome Temp.  $-02^{\circ}\text{F}$  65%

Ending Time P.H.  
EST

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
02-05W	+240 07	10"	5.13	B8	13-13-13	G1 Shell	200/90		fin
02-05W	+110 05	10"	5.78	K2II	13-13-13	Hd Sp Bin	400/200		fin
02-07W	+20 17	5"	4.04	B7II	13-13-13	Bl Sp Bin	80/25		fin
00-01W		4"	6.59	A0	13-13-13	Hd Sp Bin	400/50		fin
00-08W	-120 51	4"	4.51	B8II	13-13-13	Bl Sp Bin	20/25		fin
								Dev 9 min @ $68^{\circ}\text{F}$ MW2 #2	

TAP

45

group from Mr. White B Feb 17  
University about 30 looked at Saturn

Date Feb 27-28 1973 Tues/Wed Observer Ha-Ri/Ri 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.
36900	HD 23862	03 43.3	23 51	G12	IIaOB	13/7	16°F	18:42	19:17	A
36901	HD 11291	01 45.8	50 18	"	"	13/3		19:22	19:34	B
36902	HD 35189	05 17.9	+16 36	"	"	11/4		19:59	20:01	A
36903	HD 37171	05 41.5	+10 58	"	"	13/4		20:03	21:05	B
36904	HD 53755	07 01.1	-10 30	"	"	13/4		21:23	22:12	A
36904T1	at stop wedge	for plates 36900-			IIaOB					
36905	HD 63887	07 46.1	+71 57	"	"	13/4		22:20	23:29	A
36906	HD 104451	11 56.6	+30 06	"	"	13/3		23:37	00:07	A
36906F1	focused	out at/w		G-12	IIaO	13	16°F			B
36907	HD 97937	11 10.7	+13° 23	G-12	IIaOB	13/5		01:45	02:33	A
36908	HD 99946	" 24.7	+32 32	G-12	IIaOB	13/5		02:42	03:53	B
36909	HD 137569	15 21.7	+15° 03	G-12	IIaOB	13/3		04:00	05:14	A
36910	HD 141458	15 44.1	+13° 01	G-12	IIaOB	13/5		05:18	05:44	B
								20 End		

Dome Temp  
Focus  
Dome Temp

Hour Angle  
End

0:00

0:30

1:00

1:30

2:00

2:30

3:00

3:30

4:00

4:30

5:00

5:30

6:00

6:30

7:00

7:30

8:00

Dome Temp. 8°F @ 71%

Transparency Conditions hazy

86

Focus .....  
Dome Temp. 8°F @ 75%

Ending Time E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
17	4	01°41W	-24°06	3"	5.13	B8	13-3-13	G1 Shell	200/90		low
14	3	03°56W	+50°44	3"	5.62	B9II	13-13-13	H Sp Bin	400/100		low
01		00°51W	+16°45	3"	6.09	A2I	13-13-13	"	400/100		low
5		01°43W	+11°05'	3"	5.98	K2II	13-13-13	"	400/150		low
		01°20W	-10°35'	4"	6.88	B3	13-13-13	"	400/100		low
		<del>01°20W</del>					180 sec.			Dev 4 min @ 1000 MUP	
		01°47W	+71°49'	3"	7.52	A0	13-13-13	"	400/100		low
		01°40E			8.7	F3	13-26	Blu Sp Bin	800/26	clouds @ 23:50	weak
							7-7 no filter				
		01°32W	+13°03'		6.47	A6	13/13	no filter	400/100	clear up	low
		02°40W	+30°10'		6.84- 7.29	F2	13-13-13	"	400/160		low
		00°03W	+14°50'	3	8.10	B5III	13/13-13	"	800/170	dark evening up	low
		00°15W	+12°50'		6.8	A0	13/13-13	"	400/92	(overdeveloped) coming up	low
										clouded in @ 05:45	
										Waven overdevelop	
										plate # 36910 and 36906	

TAP

87

\* balced Feb 17  
\*\* balced Feb 25

Date 28 Feb / 1 March 1973 Wed/Thurs Observer Bln-R 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.
36911	HD 23862 Pleiades	03 43.3	+23° 51'	G-12	IIa-O5*	13/1.7	23°F	19:23	19:45	A
36912	HD 21364	03 21.8	+9° 23'	"	"	13/1.5		19:48	19:52	B
36913	HD 28363	04 23.3	+15° 57'	"	"	9/1.3		19:55	20:55	A
36914	HD 30869	04 46.2	+12° 29'	"	"	9/1.3		21:00	22:07	B
36914T1	cal slip used for plate 36911				IIa-O5*					
36914T2	cal slip used for plate 36912-				IIa-O5*					

Dome Temp.  
Focus  
Dome Temp.

Hour Angle  
End

Dome Temp. 15°F 85%

Transparency Conditions Fair-Fair

186

Focus .....  
Dome Temp. 15°F 95%

Ending Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
1.55	-	02415W	+24° 07'	3"	5.13	B8	13-13-13	SGI-Shell	200/90		fine
1.2	R	02443W	+09° 43'	2"	3.66	B8p	13-13-13	Sp. Bin-Bln	80/20		fine
1.55		02443W	+16° 10'	"	7.14	F8	13-13-13	" "	400/100		fine
1.07	B	02434W	+13° 40'	3	6.77	F5	13-13-13	" "	400/100		fine
		Dev	9 min @ 60°F	MWD 2			180 sec.				
		"	" "	"			180 sec.			humidity too high rose 5°F in 1/2 hour	

TAP



69

Date 4/5 March Sun-Mon 1973 Observer G. S. Y. 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.
<del>6115</del>	X. 27	<del>15<sup>h</sup> 01<sup>m</sup> 07<sup>s</sup></del>	<del>+20° 05' 45"</del>	G. 16	E. 0 F	13/3		20:44		A

Dome Temp.  
Focus  
Dome Temp.

Hour Angle  
End

Dome Temp.  $71\frac{7}{14}$  25°F

Transparency Conditions

*gradually increasing*

20

Focus .....

Dome Temp. ....

Ending Time  
EST.

P.H.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
<del>12:10</del>	<del>13:11</del>	<del>3-8</del>	<del>4.6</del>	<del>B</del>	<del>2-</del>	<del>S. 100</del>	<del>200f</del>	<del>1.11.12.25</del>	

TAP

a)

\* bated

Date March 8-9 Thurs-Fri Observer To-G/Hu-To 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
36915	HD 23262	3 43.3	23 51	G12	D100-6	13/7	41°F	19:27	20:17	A	
36916	"	"	"	"	"	9/7		20:19	21:30	B	4:11
36917	HD 51418	6 57.0	+42 20 <sup>error</sup>	"	"	9/5		21:36	23:15	C	3:07
36918	HD 22151	09 25.4	+27 50	"	"	10/7		23:21	01:06	B	2:25W
36919	40 Hyg	10 00.3	-12° <del>55</del> <sup>35</sup>	"	"	9/5		01:13	01:57	C	2:44W
36920	HD 104451	11 36.6	+30 06	"	"	18/3		02:05	05:52	A	4:02W
36920T1	Co. Map	edge			"	for	36915-19				
36920T2					"		36920	2 (on far right of box) (with 36920)			

Dome Temp

Focus

Dome Temp

Hour Angle  
End

checked after sunset

92

Dome Temp. 38°F H: 68%

Transparency Conditions Good - some haze

Focus .....

Dome Temp. 30 90%

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
05 2" W	+24 04	4-5"	5.13	B8	17-17-15	G1-Shell	200/95		fin
4 31 W	"	"	"	"	15-17-17	"	200/95		fin
3 <sup>02</sup> 07 W	42 21	3-4"	6.61	H0p	17-17-17	G1- Ap star	400/130	approx start time	fin
2 25 W	+17 31	2-4"	6.59	A0	15-15-15	Hd Sp Bin	400/150	some cloud	fin
2 44 W	-12 53	2-3"	4.51	B2?	15-15-15	Hd Sp Bin	200/55		fin
4 42 W	+29 43	2"	8.7	gF3	13-13-13	"	800/154	cloud	fin
								WARENTI FLARE OVERDEVELOP!	
								Dev MWR2 9min @ 68°F	
								Dev MWR2 12min @ 68°F	
	1 45 W								
	3 14 E								

TAPC

03

Baked Feb 28

Date March 19/20 Mon-Tues Observer Hu-Ta/Ta-Sy 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 Ecl
36921	HD 21364	03 21.8	09 23	G12	HaOR	9/5		19:29	19:39	A	3 45W
36922	HD 23862	03 43.3	23 51	"	"	13/7	30°	19:43	20:35	B	4 20W
36923	40 Hya	10 00.3	-12 35	"	"	9/5		20:48	21:21	A	1 10E
36923T1	Cal step wedge		180 sec		"						
	11 Hya							21:30	24:00		
36924	<sup>1950</sup> 5 crv 7th	12 18.0	-21 56 <sup>50</sup>	G16	DaF	13/3	29°	00:48	02:08	A	1 20W
36925	4x OFA	16 24.1	-18 21	"	"	13/4		02:14	03:16	C	3 5E
36926	"	"	"	"	"	"		03:19	04:08	A	3 44E
36927	"	"	"	"	"	"		04:14	05:25	B	3 20W
36928	"	"	"	G12	DaF <sup>b</sup>	"		05:31	05:43	A	3 51W
36928T1	Cal step wedge		for 36924-27		DaF						DaF
36928T1	Focus			G12	man. filter			no filter		B	
36928T2	Cal step		for 36924-27		DaF	6 min					

Dome Temp.  $20^{\circ}$  80%

Transparency Conditions *scat. cloud*

94

Focus .....

Dome Temp.  $13^{\circ}$  65%

*Very windy*

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
3 45W	+9 41	3"5"	3.66	B8p	13-13-13	Blu-Sp Bin	200/65		fine
4 20W	+24 07	"	5.13	B8	13-13-13	G1 Shell	200/95		fine
1 10E	-12 53	4"10"	4.51	B8V	13-14-13	sp Bin-Blu	200/67	cloud	fine
								Dev MWP2 9min @ 65°F	
								Fourier spectrometer Testing	
1 22W	-22 01	3"5"	5.2	B	2-2	Be prog	200/244		by hand high
1 35E	-18 22	"	4.8	B	2-2	"	200/310	broken 2 spots	by hand high
0 44E	"	2"4"	"	"	2-2	"	200/300		
0 33W	"	2"3"	"	"	2-2	"	200/300		by hand high
0 51W	"	"	"	"	13-13-13	"	200/53		fine
								Dev MWP2 9min @ 68°F	
					7/7	<u>Note</u>		More Iof plates	
						<u>Important</u>		needed for tonight	
								Dev MWP2 9min @ 68°F	

TAPC

ak

Baked Mar 20

Date Mar 20-21 Tues-Wed Observer AK - Tap/Sy. Co. 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.
36929	HD 21364	03 21.8	09 23	G12	Daob	9/5	27°F	19:12	19:14	A
36930	HD 23862	03 43.3	23 51	G16	DaF	13/5		19:24	20:08	C
36931	HD 63887	07 41.6	+71 57	G12	DaOb	13/3		20:43	22:14	B
36932	HD 72202	08 26.5	+10 09	"	"	"		22:20	23:04	C
36932T1	Cal stop	for overdev DaF			DaF	6 min				
36932T2	"				DaOb	3 min				
36933	HD 77504	10 00.3	-12 35	G12	DaOb	9/5		23:11	23:25	B
36934	Zeta Crv	12 12 <sup>50</sup>	-21 56 <sup>50</sup>	G16	DaF	13/4		23:36	0:30	C
<del>36935</del>	<del>x Upt</del>	<del>16 24<sup>50</sup></del>	<del>=18 21<sup>50</sup></del>	<del>"</del>	<del>"</del>	<del>"</del>		<del>2:53</del>	<del>4:35</del>	<del>C</del>
36936	"	"	"	"	"	"		4:36	5:36	B
36936T1	Cal stop	for 36935			DaF	6 min				
								<u>End</u>		

Dome Temp.

Focus

Dome Temp.

Hour Angle  
End

Dome Temp. 19°F 70%

Transparency Conditions excellent - Cloud from East by 21<sup>h</sup> 96

Focus .....

Dome Temp. 13° 2070

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
03 25W	+09° 41'	2-4"	3.66	B8p	40	Blu-Sp Bin	40/14		fine
3 57W	24 09	"	5.13	B8	2-2	G1 Shell	200/200	no filter * high background fig	
1 55W	71 48	2-3"	7.52	A0	13-13-13	Hd Sp Bin	200/200	cloud	fine
2 10W	+10 01	3-5"	6.58	A0	13-13-13	"	200/220		fine
								* Dev 12min MWP#2 @ 60F	
								Dev 9min MWP2 @ 60F	
0 58W	-12 51	3-6"	4.51	B8V	13-26	Blu Sp Bin	200/65		low
0 12E	-21 59	"	5.2	B	2-	Be prog	200/100	cloud	logged
0 13E	-18 19	2-5"	4.8	"	2-2	"	200/300	completely faded - WM	
0 48W	"	"	"	"	2-2	"	200/185	* Overdevelop please - In	log.
								Note: All overdeveloped ItoF plates have very high background by level. Are they usable? WM	Each should have 200/400 comb (These found at right side of box) if you're side of the box

TAPC



G 7

5-27/21 20

Date Thurs Fri Nov 22-23 1973 Observer GA-R./HM-R. 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.
36937	HD 21364	03 21.8	+09°23'	G-12	IIaOB	9/1.5	34°F	19:14	19:20	A
36938	HD 22862	03 43.2	+23°51'	G-16	IIaF	13/1.5		19:30	20:50	B
36938 T1	cal step wedge for plate				IIaF					
36939	HD 51412	06 <sup>h</sup> 51 <sup>m</sup> .2	+47°30'	G12	IIaOB	11/1.5		21:00	21:50	A
36940	HD 40212	05 <sup>h</sup> 52 <sup>m</sup> .9	+57°10'	"	"	"	34°F	21:35	21:55	B
Fovier Spot	HD 9354	11 42.2	+30°5'					21:40	24:00	
36941	HD 104451	11 56.6	+50°06'	G12	IIaOB	12/1.3		02:05	02:35	A
36942	HD 141958	15 44.1	+13°01'	"	"	13/1.5		02:41	03:16	B
36941 T1	cal step wedge for plate				IIaOB					
36943	HD 152237	16 47.0	+32°44'	"	IIaOB	13.3		03:25	03:58	A
36944	HD 152720	16 56.0	+7°34'	"	"	"		04:06	04:46	B
36945	HD 152729	17 00.9	+7°29'	G-12	IIaOB	"		04:50	05:15	A
36946	HD 130841	14 45.4	-15°38'	"	"	13/1.5	31°F	05:20	05:24	B
36946 F1	four test plates			G-12	IIaOB	13	31°			B

Dome Temp. 24°F 74%

Transparency Conditions *excellent*

at

Focus 75 R

Dome Temp. 21°F 90%

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
03 <sup>h</sup> 38 <sup>m</sup> 00 <sup>s</sup>	+09° 44'	4"	3.66	B8p	4p	Bl-Sp Bin	40/14		high level
04 <sup>h</sup> 47 <sup>m</sup> 00 <sup>s</sup>	+24° 10'	2"	5.13	B8	2.2 <sup>m</sup>	G1 shell	200/500	} right hand side of B <sub>1</sub> #1	low
					180 sec.	Dev 9mi MWPS	668°F		
05 <sup>h</sup> 17 <sup>m</sup> 00 <sup>s</sup>	42° 26'	1-2"	0.01	A0p	13-13-13	Bl Sp Bin	400/140		low
05 <sup>h</sup> 25 <sup>m</sup> 00 <sup>s</sup>	+37° 16'	1-2"	2.58	B9.5p	40	N2 hp	40/12		low
02 17W	+29 43	1-2"	8.7	qF3	13-13-13	Bl Sp Bin	200/200		low
00 47E	+12 57	"	6.50	A0	13-13-13	"	400/130		low
					180 sec.			no #1 Dev MWPS 9mi @ 668°F	
01 06E	+32 40		6.26	K0TE	13-13-13	Bl-Sp Bin	400/150		low
00 18E	+75 30	3-4"	6.99	F0	13-13-0	"	400/130		low
00 02W	+77 44		6.66	H0	13-13-13	"	400/100		low
02 20W	-15 50'		2.74	A <sub>m</sub>	20-20	Bl Sp Bin	40/13		low
					7-7	no filter			low

TAP

29

13. Mar 20

Date Fri-Sat Mar 23-24, 1973 Observer W.-R./B.L.-R. 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.
36947	HD 28363	4 <sup>h</sup> 23.3	+15° 57'	G-12	IIa03	9/3	38°F	19:10	19:45	A
36948	HD 30860	04 46.2	+13° 29'	G-12	IIa03	9/3		19:48	20:19	B
36949	<sup>E Per</sup> HD 24760	3 <sup>h</sup> 51 <sup>m</sup> 08 <sup>s</sup>	+39° 43'	G-12	"	9/5		20:25	20:29	A
36950	<sup>E Per</sup> HD 24912	3 <sup>h</sup> 52 <sup>m</sup> 28 <sup>s</sup>	+35° 30'	G-12		13/7		20:34	20:41	B
36951	HD 104451	11 <sup>h</sup> 56 <sup>m</sup> 8	+30° 06'	G-12		13/3		20:49	23:11	A
	Fornix Spectrometer							23:15	00:00	
36952	HD 137569	15 21.7	+15° 03'	G-12	IIa03	13/3		00 18	03:02	A
36952T1	all obj. under in plates 36947 -					IIa03				
36953	<sup>Cygnus</sup> HD 30608	19 54.6	+34° 56'	G-12	IIa03	20/3		03 15	09:27	B
								End 17		

Dome Temp.

Focus

Dome Temp.

Hour Angle  
End

Dome Temp. 28°F 70%

Transparency Conditions Excellent to Fair (Variable)

100

Focus

Dome Temp. 25° 75%

Ending Time EST.	P.R.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
9:45		03 <sup>h</sup> 05 <sup>m</sup> W	+16°12'	2"	7.14	F8	13-13-13	Bln-Sp Bin	400/100		fine
10:19		03 <sup>h</sup> 15 <sup>m</sup> W	+13°42'		6.77	F5	13-13-13	"	400/		fine
2:28		04 <sup>h</sup> 23 <sup>m</sup> W	+40°00'		2.88	B0.5I	20-20	"	400/14		fine
8:41		04 <sup>h</sup> 31 <sup>m</sup> W	+35°48'		4.03	O7	13+13+13	"	400/20		fine
0:11		01 <sup>h</sup> 00 <sup>m</sup> E	+09°45'	4"	8.7	gF3	13-13-13	"	800/175		fine
06:50											fine
07:14		00 27E	+14°53'		8.10	B5III	13-13-13	Bln-Sp Bin	800/170		fine
							180 sec.			Do MW2 9mi 65°	
11:27		02 40E	+135°12'		9.74	B026	13-13-13	"	800/150	<u>Please over-develop</u>	fine

↑ should be 3<sup>h</sup>40E

TAP



Dome Temp. 31°F 69%

Transparency Conditions .....

102

Focus .....

Dome Temp. ....

Ending Time P.H.  
EST.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality

TAPC

105

3 Mar 73

Date Mon. Tues. Mar 26-27 1973 Observer Hu-R./Sy-R. 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 Est
36954	HD 21364	03 <sup>h</sup> 21.8	+09° 23	E-12	IIa0B	9.5	48°F	19:37	19:45	A	00:00
36955	HD 23862	03 43.3	+23° 51'	G-12	IIa0B	13/7		19:50	20:08	B	00:00
36956	HD 37171	05 31.5	+10 58	"	"	13/3		20:12	21:19	A	00:00
36957	HD 53755	07 01.1	-10 30	"	"	13/4		21:23	22:09	B	00:00
36958	HD 72208	08 26.5	+10 09	"	"	13/4		22:46	23:25	A	00:00
36958T1	cal steps wedge for plates 36954-36959				IIa0B	9/5					
36959	HD 87504	10 00.3	-12° 35'	"	"	"		23:30	23:46	B	00:00
36960	Sc 10	<sup>1950</sup> 12 17.9	<sup>1950</sup> -21 50.1	G-16	IIaF	13/3		00:05	01:44	A	00:00
36961	K Ophi	16 24.12	-1820.7	"	"	"		01:51	03:15	B	00:00
36962	"	"	"	"	"	"		03:18	04:10	A	00:00
36962T1	cal steps wedge for plates 36960-				IIaF			04			00:00
36963	K Ophi	<sup>1950</sup> 16 24.2	<sup>1950</sup> -1820.7	G-16	IIaF	13/3		04:13	04:51	B	00:00
36964	"	"	"	"	"	"		04:53	05:33	A	00:00

Dome Temp. 32°F 55%  
 Focus 75-R  
 Dome Temp. 22°F 56%

Transparency Conditions *good*

104

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
04 <sup>h</sup> 19 <sup>m</sup> W	+09°44'	3"-4"	3.66	B8p	20-20	Sh-Sp Bw	40/14		lin
04 <sup>h</sup> 20 <sup>m</sup> W	-24°10'	"	5.13	B8	13-13-13	G1 shell	200/90		lin
03 <sup>h</sup> 45 <sup>m</sup> W	+11°05'	"	5.98	K2II	13-13-13	Hd Sp Bin	400/150		lin
03 <sup>h</sup> 05 <sup>m</sup> W	-10°34'	"	6.78	B3	13-13-13	"	400/90	telescope near platform	lin
02 <sup>h</sup> 55 <sup>m</sup> W	+9°57'	"	6.58	A0	13-13-13	"	400/100	Exposure 10 to 15 sec, could not get it 51d screen	lin
					180 sec			Dev MWP2 9min @ 65°F	
01 <sup>h</sup> 43 <sup>m</sup> W	-12°55'	4"	4.51	B8V	12-13	B1-Sp Bin	40/14		lin
01 <sup>h</sup> 25 <sup>m</sup> W	-22°01'	4"-10"	5.3	B	2-2 <i>no filter</i>	Sy	200/200	↓ exposed Box II /	lin
01 <sup>h</sup> 10 <sup>m</sup> E	-18°19'	10-14"	4.6	B	2-2	"	200/250	Warren, will you please	lin
00 <sup>h</sup> 15 <sup>m</sup> E	"	"	"	"	2	"	200/270	develop the 2x4 plates	lin
					6min			in MWP2 for 6 min at 60°F	lin
00 <sup>h</sup> 28 <sup>m</sup> W	-18°19'	6"	4.6	B	2-2	Sy	200/250	Sonyal	lin
01 <sup>h</sup> 05 <sup>m</sup> W	-18°19'	"	"	"	2-2	"	200/250		lin

TAPC



105

Date Tues Wed Mar 27 + 28 1958 Observer H.R. -21 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.
	LR photometry							20:00	04:30	

Dome Temp

Focus

Dome Temp

Hour Angle  
East

Dome Temp. 28°C

57%

Transparency Conditions

good

106

Focus

Dome Temp. 240 F

64%

Ending Time  
E.S.T. P.H.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality

TAPC

107

Date Thurs. Fri. April 5/6 Observer T. S. Sg. Julian Day           

Numbers Plate No. <i>repeated</i>	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
36965 <sup>55</sup>	HD 23862	03 43.3	+23 51	612	D <sub>0</sub> -6*	13/7	37°	19:36	20:17	A
36965F1	Focus			"	Imm / out of f/7			no filter		B
36966 <sup>66</sup>	HD 83953	9 39.0 <sup>1950</sup>	-23 22 <sup>1950</sup>	612	D <sub>0</sub> -6*	13/3		21:15	21:44	B
36966T1	Cal step wedge	for 36955-	56	56	"	180sec				

Dome Temp.

Focus

Dome Temp.

Hour Angle  
End

05:31

0:43

Dome Temp.  $26^{\circ}$   $N=747$   $62$   
 Focus *Changed From 75  $\rightarrow$  ~~88~~ red*  
 Dome Temp. ....

Transparency Conditions *clear, then cloud soon after* 108

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
05 08W	24 10	3.4	5.1	B8	13-12-13	61-shell	200/125		
0 43W	-23 24	2.3	4.7	B	13-12-13	6c prog	400/125	cloud	
								* Warren - Find out if you haven't yet about Focus Test interpretation & setting of spectrograph camera focus. Anson used to do this after developing focus test. I could take responsibility of this if you & others prefer.	
								Tn	

TAPPE

169

\* baked Mar 23

Date April 6-7 Fri-Sat

Observer Sy-Tn/

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
36967	HD 23862	03 43.3	+23 51	643	Duo-b*	9/7		19:39	19:50	A	4 40
36968	" <sup>50</sup>	05 32.4	+19 54 <sup>50</sup>	616	DuF	13/3		20:03	20:22	B	3 30
36969	"	"	"	"	"	13/4		20:27	20:50	C	4 00
36970	"	"	"	"	"	13/3		20:50	21:12	A	4 20
36971	" <sup>50</sup>	05 01.0	+20 09 <sup>50</sup>	"	"	"		21 19	22:17	B	4 50
36971 T1	Cal step wedge				Duo-b*	180 sec				C	
36971 T2	" "	"	" 36968-		DuF	6 min					
	<del>Retrol L<sub>1</sub> Crs</del>	<del>12 17.97</del>	<del>-21 56.1</del>		"			<del>22 27</del>		<del>C</del>	

Dome Temp.  $37^{\circ}$  H=55%

Transparency Conditions

Clear - thin cloud

1.0

Focus .....

Dome Temp.  $32^{\circ}$  H=66%

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
4 45 W	+24 08	3.4"	5.1	B8	3-3-3	G1-Shell	200/22		fine
3 32 W	+10 00	2.3"	3.2	OF	3-3	Be Prog	200/275		fine
4 00 W	"	"	3.2	"	3-2	"	200/290		fine
4 22 W	"	1.2"	"	"	2-2	"	200/180		fine
4 58 W	+20 14	"	4.6	C8	2-2	"	200/185		fine
						Dev MWP2 9min @ 65°F		Cloud	
						Dev MWP2 6min @ 65°F			

TAPCE

u1

Sun - Mon

Date 1973 April 8-9 Observer Hns-Tn / Sy-Tn 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
36972	Zeta Crv.	<sup>1950</sup> 12 17.21	-21 58.1	G15	Daf	13/3	41°	21:36	23:31	A	
36972	Col step wedge		6 min	"	"						
36973	$\delta$ UMa	<sup>1950</sup> 11 51.21	+53 58.4	"	"	13/5		00:22.0	00:27.0	A	01:24.0
36974	"	"	"	"	"	"		00:28.0	00:32.7	B	01:24.0
36975	"	"	"	"	"	"		00:34.5	00:39.0	C	01:30.0
36976	"	"	"	"	"	"		00:40.3	00:45.5	B	01:30.0
36977	"	"	"	"	"	"		00:49	00:52.5	C	01:30.0
36978	"	"	"	"	"	"		00:54	00:59	A	01:30.0
36979	"	"	"	"	"	"		01:01	01:04.5	B	01:30.0
36980	"	"	"	"	"	"		01:07	01:12.0	C	02:14.0
36981	"	"	"	"	"	"		01:13.5	01:18.5	A	02:20.0
36982	88 Her	<sup>1950</sup> 17 48.75	+48 24.4	"	"	13/3		01:36	04:34	B	00:23.5
36983	66 Oph	<sup>80</sup> 17 57.8	+4 21.5 <sup>50</sup>	"	"	"		04 41	05:11	C	00:23.5

Dome Temp.

Focus

Dome Temp.

Hour Angle  
End

Dome Temp. 29° H=5170

Transparency Conditions

Focus

Dome Temp. 19° H=606

112  
.....

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
00:00	-22 0.0	4-6	5.2	B	2-2	Em line x	200/227	Cloud	Weak
<del>01:26W</del>								Dev MWPJ 6mm @ 68°F	
01 26W	+53 49	3-4	2.4	A	2-2		40/90		Good
32	"	"	"	"	2-2	"	40/80		Good
01 38W	"	"	"	"	2-2	"	40/90		Good
1 44	"	"	"	"	2-2	"	40/88		Good
51	"	"	"	"	2-2	"	40/82		Good
58	"	"	"	"	2-2	"	40/93		Good
02 04W					2-2	"	40/88		Good
02 11W					2-2	"	40/87		Good
02 18W					2-2	"	40/82		Good
00 23E	+48 24				2-2	"	200/270		Good
00 04W	+4 22				2-2	"	200/215	sunrise	Good



117

baked Mar 31

Tues-Wed

Date 1973 APR 10-11 Observer Tm 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.
36984	HD 137569	15 21.7	+15 03	G12	Doo-k	13/3	32°	02:29	03:36	A
36984 T1	Cal step		180 sec							

Dome Temp  
Focus  
Dome Temp  
Hour Angle  
End

Dome Temp. 17 70%

Transparency Conditions *clear by 2<sup>h</sup>*

114

Focus .....

Dome Temp. 15

*very quiet*

ending Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
		01 10W	+14 52	2-4"	8.1	BSTD	13-26	Spln/Min	800/85	overdevelop - sprocket - some	

APCE

115

Date Wed. Thurs. April 11-12 73 Observer Has-R. 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.
		12	photometry					20:00	04:30	

Dome Temp.

Focus

Dome Temp.

Hour Angle  
End

Dome Temp. 22.0 F 68%

Transparency Conditions .....

118

Focus .....

Dome Temp. 20.5 F 85%

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality

TAPCE

117

Date Thurs Fri April 12-13 1973 Observer Sy-R/Hu-Ri 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.
36985	$\lambda_1$ Ori	<sup>1950</sup> 05 32.4	109° 54.1	G-16	IIaF	13/3	35°F	19:47	20:42	A
36986	$\lambda_2$ Ori	06° 0.9	+20 8.5	G-16	IIaF	13/3		20:46	21:48	B
36987	$\lambda_3$ Ori	12 17.9	-21 56	G-16	IIaF	13/3		21:58	00:00	A
36987T1	cal step wedge for plate	36985-87			IIaF					
36988	HD 137569	15 21.7	115 01	G12	IIaO-B	13/3		00:26	01:46	B
36989	HD 141452	15 41.2	113 01	"	IIaO	13/5		01:56	02:59	B
36990	HD 152224	16 43.0	+32 44	"	"	13/3		03:03	04:10	A
36990T1	cal step wedge for plate	36988			IIaO-B					
36990T2	cal step wedge for plate	36989-90			IIaO					
36991	HD 151720	16 56.0	175 34	G	"	"	30°F	04:20	05:01	B
36991 F1	focus test	out out /			IIaO		30°F			B
36991 F2	"	"			"		30°F			B

Dome Temp.

Focus

Dome Temp.

Hour Angle  
End

Dome Temp. 21°F 54%

Focus 61 (Red)

Dome Temp. 18°F 61%

Transparency Conditions

cloudy all over 118

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
04 <sup>15</sup> 5W	+10° 00'		3.4	0	no filter 2-2	Sy Prog.	200/275		fin
04 54W	+20° 12'		4.6	B	2-2	"	200/210	apocid Box #1	fin
00 50W	-22° 00'		5.3	B	2-2	"	200/164		fin
					6 min			Dev 6 min MWPA @ 68°F	
02 28E	+15° 50'	2"	8.10	BSTII	13-13-13	Bl Sp Bin	800/172		fin
	+12° 52'	2"	6.80	AO	13-13-13	"	400/200	apocid Box #3	fin
00 26W	+32° 39'	2"	6.26	KOTD	17-17-17	Hd Sp Bin	400/200		fin
					180 sec			Dev MWPA 9 min @ 68°F	
					180 sec			" " " "	
01 15W	+75° 28'	3"	6.84	FO	17-17-17	Hd Sp Bin	400/150		fin
					7-7	no filter		Center Lored by 6 μ	Cal 2. R
					5-5	no filter		Reset from 20 27 sec	OK

APCE



Dome Temp. 20°F 56%

Focus .....

Dome Temp. 18°F 65%

Transparency Conditions .....

Shiny Aurora - 01:00-02:15  
 Directly ~ 10 min @ 3675 per balloon in  
 coronal stream surface continued 21:45-22:15

120

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
0°03W	+12°50'		6.80	A0	13-13-13	Sp. Bl - Bl	40/120		lin
01°51W	+14°50'		8.10	B5II	13-13-13	"	80/180		lin
					150sec			Dev. MW2 9min @ 68°F	
03°29W	+12°50'		6.80	A0	13-13-13	"	40/120		lin
04°40E	+36°25'		4.42	B5I	13-13-13	"	40/20		lin





Dome Temp. 29°F 70%

Transparency Conditions good some haze

122

Focus .....

Dome Temp. 25°F 66%

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
02 <sup>m</sup> 10E	+12°52'	1-2	6.80	A0	3-13-13	Sp BW - 13/14	400/130	Possible Eclipse!	Pin
03 <sup>m</sup> 15W	+29°45'	2	8.7	gF3	13-13-13	"	800/170		Pin
01 <sup>m</sup> 54E	+18°25'	3-4	6.63	07III	13-13-13	"	400/130		Pin
					180 sec.			Dev. MW12 9mic @ 62°F	
03 <sup>m</sup> 05E	+36°00'	2	6.29	0e	13-13-13	"	400/130		Pin
02 <sup>m</sup> 20E	+35°45'	2	7.60	ww4.5 07.5I <sub>2</sub>	13-13-13	"	800/180	field drawn <span style="border: 1px solid black; padding: 2px;">WRONG STAR</span>	Pin
03 <sup>m</sup> 22W	+12°50'	2	6.80	A0	13-13-13	"	400/90	Overdevelop slightly	Pin



Dome Temp. 34°F 58%

Transparency Conditions Fair - Poor - Awful

124

Focus 61CRd

Dome Temp. 30°F H=66%

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
01 <sup>h</sup> 25W	+28° 10'	5	2.15	K <sup>III</sup>	20-20	8d Vd.	40/16		fine
0 <sup>h</sup> 57E	+29° 45'	2-4	8.7	gF8	13-13-13	Sp. Bin - Bin	800/170		fine
03 <sup>h</sup> 09E	+12° 50'	3-5	6.8	A0	13-13-13	"	400/130	had cirrus clouds <sup>04 after</sup> 0300	fine
01 <sup>h</sup> 40E	+14° 50'	2-3	8.1	B <sup>SVI</sup>	13-13-13	"	800/170		fine
04 <sup>h</sup> 40E	+35° 45'		7.60	W04.5 09.5I	13-13-13	"	800/200		fine
					180 sec.			Das MWP2 9min @ 68°	
	+12° 50'		6.8	A0	13			Clouds, Clouds, Clouds!	

ns

\* Baked April 13  
 ~ April 15

Date Tues-Wed Apr 17-18 1973 Observer Hu-Ri/Hns Bl 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.
37007	HD 104451	11 56.6	+30 06	G12	IIa0B <sup>x</sup>	20/.3	54°F	19:52	21:54	A
37008	HD 107325	12 15.3	+27 11	"	"	13/.3		21:58	20:32 <sup>22</sup>	B
37009	HD 141458	15 44.1	+13° 01	"	IIa0B <sup>x</sup>	13/.5	58°F	22:43	23:38	A
37009T1	cal step wedge in plate 37007-37008				IIa0B <sup>x</sup>					
37009T2	cal step wedge in plate 37009				IIa0B <sup>x</sup>					
	IR photometry							00:00	02:45	
37010	HD 167881	18 11.6	-18° 30'	G12	IIa0B <sup>x</sup>	13/.5		02:59	04:38	A
37011	HD 197183	20 43.5	+22 17	G12	IIa0B <sup>x</sup>	13/.7	47°F	04:44	04:56	B

Dome Temp  
 Focus  
 Dome Temp

Hour Angle  
 End

0:46

0:45

0:42

0:42

0:41

Dome Temp. 40°F @ 57%

Transparency Conditions Very poor then good

Focus .....

occasional cirrus clouds until 21.30

Dome Temp. 35°F @ 78%

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
0 <sup>h</sup> 40 E	+29° 45'	2"	8.7	gF3	13-13-13	Bin Sp Bin	800/255	Plates given 50% extra	fine
0 <sup>h</sup> 15 E	+26° 50'	1 1/2"	6.72	gK2	13-13-13	"	200/150	extra to compensate	fine
2 <sup>h</sup> 43 E	+12° 50'	2"	6.80	AD	13-13-13	"	40/200	for exposure meter	guiding
							180 sec	Dew 9min MWP 2 @ 68°F final + an. ion.	
							180 sec	" " " "	
0 <sup>h</sup> 10 E	-18° 24'	3-4	6.63	07III	13-13-13	Bin Sp Bin	40/220		fine
2 <sup>h</sup> 24 E	+36° 25'		4.42	125V	13-13-13	"	40/35		sl strong

Why are these plates fogged?  
13/14

Use normal exposure meter counts

127

\* baked Apr 15

Date Apr 19-20 Thurs-Fri Observer H. T. 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.
37012	HD104481	11 56.6	+30 06	G12	D <sup>o</sup> 0.6	25/3	57°F	23:05	00:26	A
37013	HD137569	15 21.7	+15 03	"	"	13/3	"	00:32	01:46	B
37013T1	Cal's <sup>log</sup>	wedged	180sec	"	"					
37014	HD190918	20 02.2	+35 31	G12	"	13/3		02:19	03:11	B
37015	HD167771	18 11.6	-18 30	"	"	13/5		03:19	03:59	C
37016	HD129178	19 53.8	+40 06	"	"	13/5		04:04	04:16	A
37017	HD201433	21 04.4	+39 48	"	"	9/7		04:20	04:46	B

Dome Temp \_\_\_\_\_  
Focus \_\_\_\_\_  
Dome Temp \_\_\_\_\_  
Hour Angle \_\_\_\_\_  
End \_\_\_\_\_

Dome Temp.  $48^{\circ}$  H: 5070

Transparency Conditions

hazy & cloudy

128

Focus

good at dawn but with time (condition heavy) almost all night

Dome Temp.  $46^{\circ}$  H: 5870

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
02 00W	+29 46	2"	8.7	3F3	13-13-13	SPB-16	200/180		fine
00 05E	+14 50	"	8.1	B5II	13-13-13	"	200/168	cloud at end	fine
								Dev MWPD 9min @ 65°F	
03.19E	+35 46	2"	7.6	WN4.5 09.57	13-13-13	SPB-16	800/320		fine
00 41E	-18 23	3-5	6.63	07III	13-13-13	"	400/130		fine
02 05E	+40° 20'	"	5.35	B5II	13-13-13	"	200/65		fine
02 45E	+30 09	2-4"	5.6	A0	13-13-13	"	200/90		fine











147

2 bated 7hrs APR 25

Date Wed Apr 25-26/73 Observer Hand / sy Tn 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.
37027	LD 72208	8 26.5	+10 09	G12	Ilford <sup>+</sup>	13/4		19 55	20:32	
37028	HD 81775	9 24.1	+45 12	"	"	"		20 41	21:16	A
37029	HD 120274	13 47.1	+59 02	"	"	"		21 23	21:35	C
37029T1	Cal step wedge		180sec	"	"					
37030	HD 104451	11 56.6	+30 06	G12	"	13/4		21 47	23:40	A
37031	HD 139892	15 35.6	+36 58	"	"	"	49°	23 45	23:51	B
37032	K Drg	12 31.4 <sup>50</sup>	+70 03.8	G16	Ilford	13/3		00 13.5	01:30	A
37033	"	"	"	"	Ilford	"	46°	00:33	00:51	B
37034	HD 153720	16 56.0	+75 34	G12	Ilford <sup>+</sup>	13/4		02:26	03:20	A
37034T2	Cal step wedge		for 37032, 33		Ilford	6min				
37035	HD 154528	17 00.9	+77 48	G12	Ilford <sup>+</sup>	13/4		03:23	04:04	B
37036	HD 198183	20 43.5	+36 07	"	"	13/7		04:14	04:27	C
27036F1	Focus Test			"	"	13	44			B

Dome Temp.  $39^{\circ}$  H=4670

Transparency Conditions *ci clouds*

134

Focus .....

Dome Temp.  $32^{\circ}$  H=7170

Ending Time EST	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
	W 200	+ 9 58	2"	6.58	A0	13-13-13	Hd 813	400/100		guiding
21:16	01 45 W	44 57	1.2"	7.12	A5	13-13-13	"	400/115	fled out - 37020	guiding
21:35	02 16 E	+58 41	1"	6.36	A0	13-20?	"	400/120		guiding
									Des MWP2 9min @ 65°F	
21:49	01 38 W	+29 44	1.2"	8.7	gF3	13-13-13	Sp Bin - Hd	800/230	Fld down	fine
21:50	01 48 E	+36 46	2.4"	5.1	B7V	13-13-13	Sp L - Hd	200/55		fine
21:51	1 55 W	+69 58	"	3.8	"	2-2	Ro. prog 6/6	200/277		fine
21:57	2 16 W	"	"	"	"	2-2	"	200/291	cloud	fine
01:20	0 25 N	+75 29	1.2"	6.84	F0	13-13-13	Sp L - Hd	800/240		fine
									Des MWP2 9min @ 65°F	
01:24	01 05 W	77 43	2"	6.66	A0	13-13-13	Sp L - Hd	800/205		fine
01:27	02 20 E	+36 26	2.4"	4.42	B5V	21-21	Sp Bin - Hd	200/110	cloud	fine
		<i>in in/out out</i>				7/7	<i>no filter</i>			fine







137 *Uranus*

3 May 4

Date *May 5-6 1973 Sat Sun* Observer *Bl - Ri* 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.
37037	HD 130841	14 45.4	-15 38	G-12	IIa0B	9/1.7		22:37	22:41	B
37038	HD 104451	11 56.6	+30 06	G-12	IIa0B	13/1.3		22:45	00:13	B
37039	HD 141458	15 44.1	+13 01	"	"	13/1.5		00:16	00:37	A
37040	HD 167470	18 11.6	-18 30	"	"	"		00:41	01:43	B
37041	HD 130841	14 45.4	-15 38	G-12	IIa0B	9/1.7		01:47	01:52	A
37041T1	cal. obj w/edge of plates 37037-				IIa0B					
37042	HD 228766	20 13.8	+37 00	G-12	IIa0B	25/3		02:00	03:11	B
37043	HD 167470	18 12.5	+42 08	"	"	13/1.5		03:53	04:01	A
37044	HD 198183	20 43.5	+36 07	"	"	13/1.7		04:06	04:11	B
37044F1	from lens w/edge/w				IIa0	13	46°			B

Dome Temp. 40°F 61%

Transparency Conditions .....

138

Focus .....

Dome Temp. 39°F 77%

Ending Time E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
		01 <sup>h</sup> 30 <sup>m</sup> E	-15° 55'	5-6	2.74	Am	20-20	Bl-S <sub>2</sub> Bi	40/22		quiesc
		02 <sup>h</sup> 50 <sup>m</sup> W	+29° 44'	4	8.7	gF3	13-13-13	"	800/170		fine
		00 <sup>h</sup> 35 <sup>m</sup> W	+12° 50'	4	6.70	A0	13-13-13	"	400/90		fine
		01 <sup>h</sup> 54 <sup>m</sup> E	-18° 25'	8-10	6.63	07 III	13-13-13	"	400/130		quiesc
		01 <sup>h</sup> 40 <sup>m</sup> W	-15° 53'		2.74	Am	20-20	"	40/21		fine
							180 sec			Do. HWP 2 9min GCS =	
		01 <sup>h</sup> 10 <sup>m</sup> E	+37° 14'	3-4	9.58	0431A 08 III	13-13-13		800/200		fine
		02 <sup>h</sup> 25 <sup>m</sup> W	+42° 10'		5.51	B6Z	13-13-13	"	80/30	Broken 3 pieces	quiesc
		01 <sup>h</sup> 45 <sup>m</sup> E	+36° 23'		7.42	B5V	20-20		40/20		quiesc
							7.7	10 filter			fine



















147

\* bailed May 4

Date: Fri/Sat May 18/19 1973 Observer Blu-Tu 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
37047	HD130841	14 45.4	-15 38	G-12	IIa-06*	9/7		20:20	20:35	A	2 45E
37048	HD104451	11 56.6	+30 06	"	"	13/3		20:47	23:04	C	2 33W
37048T1	Cal step	wedge	180 sec		"						
37049	16 Boo	14 11.1	+19 42	"	"	9/5		23:18	23:20	A	2 35W
37050	HD228786	20 13.8	+37° 00	"	"	28/3		01:06	03:14	A	1 32E
37051	HD190918	20 02.2	+35 31	"	"	20/3		03:18	03:41	B	0 53E
37052	HD198183	20 43.5	+36 07	"	"	9/7		03:45	03:51	C	1 25E

Dome Temp. 2

Focus

Dome Temp.

Dome Temp. 35° H=59%

Transparency Conditions <sup>Fair</sup> ~~very good~~ then cloud in parts  
reopened at 1 AM partially clear

148

Focus .....  
Dome Temp. 30° H=77%

Ending Time EST	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
20:35	F	2 45 E	-16 54	4-5	2.89	A3V	15-15-15	Sp. Bin-13In	40/30	2 both labelled 4+	sl. w/c
21:04	C	2 33 W	+29 44	2-3	8.7	F3	15-7-7 7-7	"	800/170		
						Dev MWD2	9min	@68°F		After tightening house slating	
21:20	F	0 35 W					20-20	std vel	40/16	cloud labelled 4+	fine
21:14		1 32 E	+37 13	3-4	9.58	092f +0892	7-7-7 7-15	Sp. Bin-13In	800/200		fine
21:41		0 55 E	+35 43	"	7.60	WN4.5 +0915	7-7-7 7-7-	Sp. Bin-13In	800/320	Logged spots	fine
21:51	C	1 25 E	+36 24		4.42	B5V	20-20	"	40/22		fine

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\* baked May 19

Date Sat-Sun May 19/20 1973 Observer TJ - B/12 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
37053	HD 130841	14 45.4	-15 38	G12	Duob <sup>*</sup>	9/7	55°	20:25	20:36	A	2 40E
37054	HD 104451	11 56.6	+30 06	"	"	13/3		20:44	22:01	C	1 33W
37055	HD 137569	15 21.7	+15 03	"	"	13/3		22:06	22:49	B	1 03E
37055T1	Cal step	wedge	180 sec		"						
37056	HD 130841	14 45.4	-15 38	G-12	Duob <sup>*</sup>	9/7		22:53	22:58	C	0 17E
37057	HD 167771	18 11.6	-18 30	"	"	13/3		23:10	00:43	A	2 00E
37058	HD 130841	14 45.4	-15 38	"	"	9/7		00:47	00:55	B	0 13W
37059	HD 223766	20 13.8	+37° 00	"	"	20/3		01:01	02:51	C	0 19E
37060	HD 190429 FA	19 59.8	+35 45	"	"	13/5		02:56	03:40	A	00 45E
37061	HD 190429 BR	19 59.8	+35 45	"	"	13/3		03:42	04:03	B	00 25E

Dome Temp.

Focus

Dome Temp.

Dome Temp.  $51^{\circ}$  H=4970

Transparency Conditions

Excellent - well lit here

158

Focus

Dome Temp.  $39^{\circ}$  H=6620

Ending Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
00:36		2 40E	-15 53	3-4	2.89	A3IV	15-15-15	SpBin-Blu	40/30		fine
02:01	C	1 33W	+29 44	1"	8.7	gF3	15-15-15	"	800/170		fine
02:49		1 03E	+14 49	1-2"	8.10	135III	15-15-15	"	800/180		fine
										Dark field photo 5/2/87	
02:59	C	0 17E	-15 54	2"	2.89	A3IV	15-15-15	"	40/30		fine
03:43		2 00E	-18 23	2-6"	6.63	07II	15-15-15	"	400/130	moonlight? some clouds	streaks
03:58		01 38W	-15 54	2-3"	2.89	A3IV	15-15-15	"	40/30		fine
04:01	C	01 51E	+37 16	1-2"	9.58	04IF +08-9LW	15-15-15	"	800/200		fine
04:40		00 49E	+35 59	"	6.69	0e	15-15-15	"	400/110		quadrant
04:49		00 25E	+35 59	"	6.29	0e	15-15-15	"	400/80		fine



Dome Temp.  $54^{\circ}$   $H=5370$

Transparency Conditions  $\dots$  Good but hazy, then cloud from N.

Focus  $\dots$

Dome Temp.  $41^{\circ}$   $H=7170$

breezy

152

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
2 28 E	-15 53	3-4'	2.89	A3 L	20-20	sp Bin-Bin	40/30		fine
2 47 W	+29 43	2-3'	8.7	gF3	15-15-15	"	800/170	cloud.	fine
								Dev 9 min MWPA @ 600	
00 18 W	+14 48	3-4	8.1	B3 III	15-15	sp Bin-Bin	800/170		fine
02 04 E	+37 14	2-3"	9.58	04 IF +09.9 I	15-15-15	"	800/200	1.8	fine
01 11 E	+35 44	3-4	7.60	WN 4.5 +09.5 I	15-15-15	"	800/320	2.9	fine
00 17 E	+35 58	"	6.29	De	15-15-15	"	400/200		fine
					7/1				





Dome Temp.  $53^{\circ}$  H = 46%

Transparency Conditions Excellent - cloud from SW 154

Focus .....

by 234

Dome Temp.  $46^{\circ}$  H 60%

Ending Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
01:22	A	01 40W	+9 26	2"	3.71	B116	18-36	bin Search	40/20		sl strong
01:00	B	01 44W	+29 42	"	8.7	gF3	15-15-15	Sp bin Blr	800/170	112 +30 2212?	sl strong
										Des MW22 @ 68°F	
04:00	C	04 00E	+32 58'	"	4.0	15I	15-15-15	bin Search	200/65		fine
					5.54	09.5II		"	40/1	light at 11:20, 2:50 clouds scattered	
										Des 9mi MW20 @ 68°F	
03:09	B	03 58 E	+46 58	"	5.54	09.5II	18-18-18	"	200/100	scattered clouds	fine
01:42	C	02 51 E	+37 41'	"	9.17	B07II	15-15-15	"	800/170		fine
01:04	B	01 30 E	+38 40'	"	9.15	09.7Iab	15-15-15	"	800/115	(overexposed plate)	
										Des 12 @ 68°F MW22 (at far right in box)	







Dome Temp.  $45^{\circ}$  H=69%

Transparency Conditions *Hazy, some cloud*

158

Focus .....

Dome Temp.  $42^{\circ}$  H=72%

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
00 <sup>h</sup> 53 <sup>m</sup> E	+46 59	2-4"	5.54	025 III	15-15-15	bin Search	200/65		guiding
02 08 E	+37 42	"	9.17	807 P <sub>2</sub>	15-15-15	"	400/160	Do 9. min MWP2-0 GH F	fine
01 17 E	+46 39	"	5.54	025 III	15-15-15	"	200/65		sl. strong
01 40 E	+33 18'	"	7.52	09 Sp	15-15-15	"	400/111		fine
00 07 W	+35 59	2	6.29	0e	15-15-15	sp Bin-Bla	400/114	ie North of pt "brightest"	guiding
Note - Please take a focus									
p/Get ASAP W.M.									



Dome Temp. 56° 75%

Transparency Conditions Common

160

Focus .....

Dome Temp. ....

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
00 50E	+35° 40'	3	9.74	09.7 Tab	13-13-B	Sp Bin-Blu	800/90	Cyg X-1 <span style="border: 1px solid black; padding: 2px;">Cloud Overdevelopment</span>	
					6/6	no filter		Centre to red 15 micron	













Dome Temp. 69° H=74

Transparency Conditions Hazy, Lazy & Cloudy  
but clearing around 0h

166

Focus .....

Dome Temp. 65° H=806

Ending Time E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
01:53	A	01 30W	+14 47	1-2"	8.1	B5 III	15-15-15	Sp. Bin - Bl	800/170		
										Dev 9 min MWT 2 @ 68°F	
07:50	B	00 07E	+35 06	2-3	9.74	B0 T6	15-15-15	Sp. Bin - Bl	800/258	Cyg X-1	lim
08:29	C	00 34W	+35 41	3-4	7.60	WN 4.5 09.5 Ia	15-15-15	Sp. Bin - Bl	400/180	2pc 3 in off	lim
07:47	A	00 01W	+36 21	1	4.12	B5 V	23-22	Sp. Bin - Bl	40/24		sl. strong
							6/6	no f. filter		Centre to red 20 microns	















173

Date June 14-15 1973 Thu Fri Observer Ahn - Ri 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.
516-521	15 CVn	13 05.1	+38 04					21:13	21:26	
522-523	HR 5361	14 13.8	+35 58					21:33	21:58	
524 to 529	HR 5406	14 22.1	-05 40					22:11	23:06	
530 to 533	$\alpha$ 2 Lib	14 45.3	-15 38					23:12	23:50	
534 to 537	HR 5875	15 43.7	-03 31					23:55	00:32	
538-539	$\alpha$ Ser	15 37.4	+06 44					00:39	01:07	
540 to 545	15 CVn	13 05.1	+38 04					01:14	01:28	
546 to 549	$\beta$ Oph	17 38.5	+04 37					01:37	02:33	
550	$\beta$ Lyr.							02:49		
551	Jupiter							03:09	03:20	
								clouded over		





Dome Temp. 48°F 57%

Focus 47-R

Dome Temp. 43°F 77%

Transparency Conditions

Fair - Good <sup>176</sup> Setd. v. lt clouds  
Cloud at end

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
0h 34E	-15 53		2.89	A m	25-25	B1h-Sp, Bw	40/35		fin
04 40W	+29 44'		8.7	g F3	15-15-15		800/197	Sky ~40% @ start	fin
04 03W	+37 15'		9.58	0424 08-92	15-15-15	B1h-Sp Bw	800/262	Cloud last 15"	fin
					7-7	light			fin
					190 sec.			Dev 9mi MWD2 @ 65°F	





Dome Temp. 50°F 70%

Transparency Conditions .....

178

Focus .....

Dome Temp. 44°F 79%

Ending Time EST.	PH	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
10	A	22°15E	+10°22'		5.2	dF8	15-15-15	Went	20/130		2
10	B	21°20E	+10°20'		6.75	F7II	15-15-15		260/400		2
11	A	23°16E	+25°35'		4.3	F7V	15-15-15		20/130		2
							180 sec.			Dev 9 min MWP2 @ 68°F	
11	A	22°20E	+17°16'		5.5	F2TII	15-15-15		20/130		2

179

Date June 21-22 Thurs - Fri / 73 Observer Aho-Tq 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.
552 - 557	15 CVn	13 05.1	+39 04	Fourier	Interferometry			21:13	21:50	
558 - 561	2 <sup>nd</sup> Lib	14 45.3	-15 38					22:04		
562 - 563	13 Com	12 19.3	+26 39					23:32		
FF	Fire-Fly	2-3	for 5 hr	G12	Ilford	13/15				A

Dome Temp. 6

Focus...

Dome Temp.

Hour Angle  
End

Dome Temp.  $6.8^{\circ} F$  H = 5570

Transparency Conditions

Hazy & some cloud

180

Focus .....

Dome Temp. ....

Ending Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
21:50			cloud							UFO ?? 21:45	
										faint elliptical image moving about $90^{\circ}$ from Zenith to West	
								Just for fun		A $\frac{1}{2}$ moon diameter	
			put in box with plates					37088-T1, F1		Lasted 2-3 sec	nothing struck
										Like searchlight on low cloud but seen in cloud & very clear sky.	up in plate
										- Later noticed bright searchlight from T.O. that could be source in night conditions	



Dome Temp. 60°F H=69%

Transparency Conditions Excellent thin cloud

Focus .....

Dome Temp. 58° H=86%

Ending Time EST.	P.R.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
00:07	A	0 04E	-15 50	2-3	2.39	Am	15-15-15	Bm-Spec Ben	40/35		P
00:19	A	01 30W	+14 52	"	8.1	B5III	15-15-15	"	400/85	cloud monitor Dev 9m MWD2 60°F	P
00:57	C	0 57E	+58 49	3-4	4.93	A1V	15-15-15	"	200/85	cloud	P
01:33	A	0 33E	+42 11	"	5.51	B6V?	15-15-15	"	200/85		P
01:23	C	1 23E	+35 46	"	7.60	<sup>W440</sup> +09m?A	15-15-15	"	400/83	cloud monitor cloud low flip at 3052 in 500'*	Quality
								Dev. MWD2	12 min	60.5°F	
							7/8	no filter		* over develop	
										please	
										look at for right	




Dome Temp.  $58^{\circ}\text{F}$  H=6730

Transparency Conditions  $784$   
 Excellent - but passing cloud

Focus .....

Dome Temp.  $53^{\circ}$  H=8770

Hour Angle End	Declination	Seeing	Ftg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
	std							cloud by 23 hr	
					15-30	for fun	400/40		
01 38E	+24 27	2'-3"	7.54	F5	15-15 15	Accident	200/70	F/d	Wrong file
						Dev MWP 2	9min @ 68°F		
					7/7	no fill/1/17			









Dome Temp. 62°F H=76%

37107  
36229

Transparency Conditions Good but foggy

188

Focus .....

Dome Temp. ....

Ending Time E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
20 44	A	0 43W	—	2-3	1.29	K2III	45	std vel	40/23		fine
20 58	B	0 23W	-15 51	"	2.9	Am	22-22	sp Bin-8h	40/36		fine
21 7	A	1 08W	+14 53	1-2"	8.1	B5III	15-15-15	"	400/85		fine
										Dev 9 min MWP2 @ 68°F	
21 3	B	0 28E	+39 48	2"	~10.8	Em	3-3-3	Waterloo Em Obj	800/52	Fld drawn	very light
21 12	L	07 03E	+50 19	3-5"	4.57	A2	15-15-15	Rln Spec. Bin	800/375	sun fog, scattered cond	sl. weak
21 43	C	06 17E	"	"	"	"	no filter 2-2	"	400/175	* overdevelop	very weak
										Dev 6 min MWP2 @ 68°F	
										6/6 no filter	
										no in/out out	







Dome Temp.  $71^{\circ}$  H=66%

Transparency Conditions *Very good*

192

Focus .....

Dome Temp.  $62^{\circ}$  H=80%

*Ex. not on focus*

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
01 10W		3-5	1.29	K2IIp	45	std vel	40/24		fine
03 54E	$47^{\circ}02'$	"	5.54	09.57	15-15-15	Bin Search	200/58	broken 2 eye pos	fine
02 46E	$+38^{\circ}52'$	2-3	9.15	09.7Tab	13-13-13	"	800/160		fine
01 58E	$+47^{\circ}02'$	"	5.54	09.57	13-13-20	"	200/55		fine
								Dew. 9 min MWD 2 @ 6.3F	
00 27E	$+37^{\circ}44'$	3-4"	9.17	80.75	14-15-13	"	800/155		fine
00 00	$+54^{\circ}24'$	"	9.21	80.516	13-13-13	"	800/160		good day
02 20W	$+47^{\circ}02'$	1-2"	5.54	09.57	15-15	"	200/55		sl. stars
	<i>in in</i>	<i>out</i>	<i>+</i>	<i>7.7</i>	<i>no filter</i>				







1915

\* baked 17 June

\*\* new box - baked more recently?

Date July 5-6

Observer LR

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.
37117	HD 188209	19 <sup>h</sup> 49.0	+46' 46"	6-12	IIaO <sup>*</sup> b	13/5	69°	21:13	21 24	A
37118	HD 194280	20 <sup>h</sup> 19.7	+38° 37'	"	"	18/35		21:49	23 50	C
37118T1	cal step wedge	180 sec	- for plates 117, 118		"					
37118T2	cal step wedge	180 sec	in plates 119 →		IIaO <sup>**</sup> b			- tight w plate box - jammed?		
37119	HD 201345	21 <sup>h</sup> 03.9	+33° 00'	7-12	"	13/5		23 59	01 18	B
37120	HD 218195	23 01.0	+57° 43'	"	"	18/4		01:31	03 01	C
37121	HD 180103	19 10.4	+38° 58'	"	"	13/5		03:19	03:24	B
37122	HD 188209	19 <sup>h</sup> 49.0	+46' 46"	"	"	"		03:29	03:40	A
37122F1	focus test			in in / out out	7-7	no filter				A
							62°			

Dome Temp. 56°F

Transparency Conditions V. good

176

Focus .....

Dome Temp. 49

Ending Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
21 29	A	03 <sup>h</sup> 48 <sup>m</sup> E	+47° 02'	3-4	5.54	09.5 III	15-15-15	Bin Search	200/60		fine
30	C	01 47 E	+38° 54'	"	9.15	09.7 Iab	13-13-13	"	800/170		fine
		<b>01 57 E</b>								Dev MWP2 9mi @ 684P	
										" " " "	fine
	B	01 09 E	+33° 22'	4-6	7.52	09.2 p	15-15-15	"	800/255		fine
	C	01 24 E	+58° 09'	3-5	8.61	09. III	13-5-13	"	800/190		fine
	B	02 50 W	+39 10	"	4.3	08.5 V	22-23	std val	200/60		fine
040	A	02 30 W	+47 03	"	5.54	09.5 III	22-23	Bin Search	200/58		

197

\* baked 4 July

Date 6/7 July 1973 Fri/Sat. Observer Blu-Geffen 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.
37123	HD 130109	14 41.2	+2 19	G-12	IIIa-J	13/5	74°F	20:48	20 52	A
37124	HD 130109	14 41.2	+2 19	"	"	"		20:57	21:07	A
37125	HD 130109	14 41.2	+2 19	"	"	"		21:17	21:37	B
<del>37126</del>	<del>HDE 226868</del>	<del>19 54.6</del>	<del>+34 56</del>	"	<del>IIa-05*</del>	<del>17/5</del>		<del>21:50</del>	<del>23:05</del>	<del>C</del>
	G-40 Focus TEST		<sup>†</sup> 35, 36, 37, 38, 39, 40, 41, 42					T=73°F		
37126	HDE 226868	19 54.6	+34 56	"	IIa-05*	25/3		00:40	03:36	C
37126 T1	Calibration Step Wedge				180 sec	IIa-05*				











Dome Temp. 65° H=73%

Transparency Conditions Strange - Changing very rapidly from opaque to photometric and back

Focus .....

Dome Temp. 55°F H=92%

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
00 58E	+35° 11'	4.5	9.74	09.7 Id	15-15-1	Sp. Bin-Blu	800/100	<del>OVERDEVELOP</del> <sup>Cloud</sup>	
01 29W	+35° 45'	4	7.60	WH4.5 09.5 Id	17-17-17	"	800/310		fine
02 39E	+8° 43'	>6	6.15	A9.5	17-17-12	"	300/32	Dec. slow very slow Dec. clamp sticks	fine
02 03E	+8° 43'	>6	6.15	A9.5	17-17-12	"	400/105		fine
01 28E	+8° 43'	>6	6.5	A9.5	17-	"	400/105		fine
								Dew on lens 9am @ 15°	
66°F [Focus is in the 6th revolution]									

203

\* baked July 10

Date 11/12 July 1973 WED / TH Observer Bln-Tu 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.
G-40	Focus Plates	20 sec	@	632, 634, 636, 638, 640			T=66°F			A
37134	HD 124897	14 <sup>h</sup> 11 <sup>m</sup> .6	+19° 42'	6-12	IIa-Ob*	9/1.5	66°F	20:39	20:40	B
37135	HD 130841	14 45.4	-15 38	"	"	9/1.7		20:44	20:50	C
37136	HDE 226868	19 54.6	+34 56	"	"	17/1.9	58°F	20:59	03:01	A
37136Ti	Cal stop wedge		130 sec		"					
G40	Focus Plates	20 sec	@	630, 632, 634, 636, 638			58°			A







207

\* baked 10 July

Date 15/16 July '73 Sun/Mon Observer Bl - Tm 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.
37139T1-5	G-40 Focus Plates 32, 34, 36, 38, 40				IIa-0	13/.5	71°F			
37140	HD 176502	18 <sup>h</sup> 55 <sup>m</sup> .5	+40° 33'	G-40	IIa-0	13/.5		20:48	21:04	A
37141	HD 167771	18 <sup>h</sup> 11 <sup>m</sup> .6	-18° 30'	"	"	13/.5		21:10	21:44	B
37142	HDE 228766	20 <sup>h</sup> 13 <sup>m</sup> .8	+37° 00'	"	IIa-06	17/.3		22:00	23:40	C
37143	HDE 226868	19 <sup>h</sup> 54 <sup>m</sup> .6	+34° 56'	"	"	17/.5	67°F	23:50	01:58	A
37144	DR Vul	20 <sup>h</sup> 09 <sup>m</sup> .6	+26° 27'	"	"	17/.5	64°F	02:03	02:53	B
37145	HD 190918	20 02.2	+35 31	"	"	13/.5		03:06	03:20	A
37146	BD +35° 39 55	20 02.2	+35 31	"	"	"	63°F	03:20	03:44	B
37146T1	Calibration Step Wedge			"	"				130sec	

Dome Temp. 61°F H=64%

Focus 35

Dome Temp. 55°F H=80%

Transparency Conditions *Good but some haze at moon*  
 25% of primary mirror covered  
all night! Blah!!!

Ending Time E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
01:04	A	02 35E	+70 42	2-8	6.0	B5V	7-2-2	B Std. Vel.	200/25		
01:14	B	01 14E	-18 24	4-5	6.63	07III	7-7-7	Sp Bin-Blu	400/50		
01:40	C	01 18E	+37° 17'	2-3"	9.58	04EF 108.9In	7-7-7	"	800/60		
01:58	A	01 20W	+35 11'	3	9.74	09.Flab	7-7-7	"	800/100	Focus 34	
02:53		01 59W	+26 45	2-3"	8.6- 9.3	B8	6-6-6	"	800/64		
03:20	A	02 34W	+35 48	"	7.60	WN45 109.5In	6-6-6	"	800/60		
03:19		02 58W	+35 49	"		B1	6-6-6	"	800/66		
										unnumbered	





Dome Temp.  $64^{\circ}$  H=55%

Transparency Conditions *same cloud but good*

210

Focus .....

Dome Temp. ....

Ending Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
21 24	A	0 04E	+32 39	1.2"	6.26	K0IV	17-17-17	Hd S13	200/90	Some cloud & haze	fair
22 13	P	0 40W	+75 29	1.1"	6.84	F6	17-17-17	Hd S13	400/160		fair
22 52	C	1 16W	+77 44	1.3"	6.66	A0	17-17-17	"	400/140		fair
22 37	A	0 45E	+13 21	2.3"	6.1	B8II	17-17-17	"	400/160	Error in dec processing corrected. In Fid drawn (5/?) 36700.0 x 1.7 Dev 9mm @ 600 T MURR	fair
23 55	C	1 13W	+15 31	1.2"	6.34	M2III	17-17-17	"	200/150		fair
23 16	A	0 21E	+44 56	2"	7.12	A2	17-17-17	"	400/150		fair
23 12	P	0 04W	-11 38	3-5"	5.9	B9V	17-17-17	"	200/75		fair
23 41	C	1 23W	+9 50	2.3"	3.98	K216	24-24	std vel	40/22		fair
								no filter 6-6			



Dome Temp. 69° H=4790

Transparency Conditions Thin cloud but very good

Focus .....

Dome Temp. 62° H=5170

Ending Time  
EST.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
03 <sup>h</sup> 05 <sup>m</sup> E	+39 09	~1"	4.3	B5V	end.50	std. velocity	40/18	RT 19 <sup>h</sup> 13.3	fine
02 45 E	+47 00	~1"	5.54	095 III	1515-15	bin. search	200/100		fine
02 26 E	" "	"	"	"	20-20-20	"	200/93	weak arc	fine
00 46 E	+37 43	"	9.17	00.7 IV p	20-23-23	"	800/235	"	fine
00 11 W	+33° 23	1.3	7.52	09 I p	23-23-23	"	400/185	"	fine
Dew 9mm @ 68°F MWP2									
01 19 W	+54 25	1"	9.21	B 215/6	23-23-23	bin search	800/243		
					6/6	no filter			



Dome Temp.  $63^{\circ}$  H=7370

Transparency Conditions *Very hazy*

214

Focus .....

Dome Temp.  $62^{\circ}$  H=866

Ending Time EST.	P.R.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
01:02	A	0 41W	+47 00	3"-5"	5.54	09.5 <sub>III</sub>	17-17-17	Bin Search	200/62		Low
03:01	B	1 25W	+33 22	1"-3"	7.52	09.5 <sub>p</sub>	17-17-17	Bin Search	200/250		2
03:13	C	3 31W		"	4.3	B5 <sub>V</sub>	25-25	std. vel.	200/65	weak	Low
03:43	A	03 23W	+47 03	"	5.54	09.5 <sub>IV</sub>	17-17-17	Bin Search	200/61		Low
	P						7/7	no filter			

25

Date 1973 July 19/20 Tule. Observer Bla-Goffman-T 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.
37164 T1	Clear Mercury Luminaire			G-16	IIa-F	6/9				A
T2	HID Mercury Multi Vapor			"	"	"				A
T3	I Line Multi Vapor			"	"	"				A
T4	Clear Mercury			"	"	"				B
T5	HID Mercury Multi-Vapor			"	"	"				B
T6	Lucalox			"	"	"				B
T7	Lucalox			G-12	IIaO	"				B
T8	HID Mercury Multi-Vapor			G-12	"	"				C
T9	I Line Multi-Vapor			"	"	"				A
T10	Clear Mercury			"	"	"	76°			C

Dome Temp

Focus

Dome Temp

Hour Angle  
End





217 Spectrograph Collimator Realuminized 20/7/73  
L.

Date ..... Observer Ty ..... 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.
37165 T1				G12	Duo	6/5				A
T2				"	"	13/5				B
T3				"	"	20/5				C
T4				"	"	13/5				A
T5				"	"	13/9				B
T6				"	"	13/12				C
T7				G12	Duo F	13/5				A
T8				G16	"	13/5				B
T9				"	"	13/5				C
T10				"	"	13/5				A
T11				"	"	13/5				B
T12				"	"	13/5				C
T13				G12	Duo	13/5				A
T14				"	"	13/5				C
37165 F				"	"	13/5	73°			B.

Dome Temp.  
Focus  
Dome Temp.  
Hour Angle  
Ecl.

Dome Temp. ....

Transparency Conditions .....

Focus .....

Dome Temp. ....

Ending Time E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
A							1 min				
B							"				
C							"				
A							2 min				
B							2 min				
C							"				
A							5 sec			no filter	
B							5 sec			"	
C							10 sec			"	
A							20 sec			"	
B							10 sec			Arc centered (rotten)	
C							5 sec			" (no filter)	
							30 sec			" Filter put in	
C							1 min			" "	
B			in as/out out				7/7	no filter		" (5/7 to red)	







Dome Temp.  $63^{\circ}$  H=59%

Transparency Conditions *Cloudy - then very clear* 22

Focus .....

Dome Temp.  $59^{\circ}$  H=59%

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
0 32E	+40 21	2-3	5.35	B5Vp	20-20-20	Sp Rn - PL	400/130	Some cloud	
						7/7 no filter		center to red 24 microns	
3 22W	+35 12	2-3"	9.74	K036	17-11-17	Sp Rn - PL	800/300		fine
								Pos 9mic @ 6000 MW 12	
								" " "	
0 36E	+8 45	3-4	6.15	A9s	17-17-17	Sp Rn - PL	200/55		fine
0 21E	"	2-3	"	"	17-17-17	"	200/55		fine



Dome Temp. 65° H=5050

Transparency Conditions Very Good - some thin cirrus

Focus .....

Dome Temp. 59° H=6970

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
2 14 W	+19 23	2	1-18	K2 IIIp	65	std vel	20/17		fine
1 55 W	-15 52	2-3	2,29	Am	17-17-17	splitting	200/75		fine
2 13 W	+35 11	1-2	9.74	100	17-17-17	"	800/500	Dev 9mi @ 650 = MW 32	fine
1 36 E	+8 46	2-3	6.15	H95	17-17-17	"	200/55		fine
1 08 E	"	2-3	"	"	17-17-17	"	200/55		fine
0 40 E	"	"	"	"	17-17-17	"	200/55		fine
0 18 E	"	"	"	"	17-17-17	"	200/55		fine
	in air / out air				7/7	not used		Center to red - 19 microns	







027

\* baked 25 July  
 \*\* baked 18 July

Date July 29 / 30 1973 Sun/Mon Observer Bin-Goffman 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.
37184	HD 130109	14 <sup>h</sup> 41 <sup>m</sup> .2	+2° 19'	G-12	IIa-06*	13/.7		20:29	20:35	A
37185	HDE 226868	19 <sup>h</sup> 54 <sup>m</sup> .6	+34° 58'	"	"	18/.35		20:42	1:15	B
37186	UU Psc	00 <sup>h</sup> 09 <sup>m</sup> .8	+8° 16'	"	"	13/.3		01:21	01:49	C
37186T1	Calibration	for 37184-87			"			130 sec		
37187	UU Psc	00 <sup>h</sup> 09 <sup>m</sup> .8	+8° 16'	G-12	"	13/.3		01:51	02:13	A
37188	UU Psc	"	"	"	IIa-06**	"	68°F	02:16	02:36	B
37189	UU Psc	"	"	"	"	"		02:39	02:59	C
37190	UU Psc	"	"	"	"	"		03:00	03:28	A
37191	UU Psc	"	"	"	"	"		03:29	03:47	B
37192	HD 21364	03 21.8	+9° 23'	"	IIa-0	13/.7		03:52	03:56	C
	looked at	Mars								

Dome Temp. 69°F H=53%

Focus .....

Dome Temp. 60°F H=76%

Transparency Conditions Excellent - Fair  
 Scattered light to medium clouds  
 after 22:00

228

Ending Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
20:31	A	02 04W	+2° 05'	1-2	3.74	A0V	25-25	Sp. Bin-Blu	40/20		
20:53	B	01 30W	+35° 12'	1-2	9.74	O9.7Iab	15-15-15	"	800/300	Cyg X-2, Intermittent Cloud	
21:49	C	02 10E	+8° 45'	2	6.15	A9s	15-15-15	"	200/50		
22:13	A	01:46E	+8° 45'	1	6.15	A9s	15-15-15	Sp. Bin-Blu	200/50		
22:36	B	01:24E	"	1	"	"	15-15-15	"	200/50		
22:59	C	00:59E	"	1	"	"	15-15-15	"	200/60		
23:28	A	00:31E	"	1	"	"	15-15-15	"	200/60		
23:47	B	00:12E	"	1	"	"	15-15-15	"	200/60		
23:56	C	03:15E	+9° 43'		3.64	B8p	25-25	"	40/23		
										Note: Unfortunately all these plots were lost due to overly warm wash water. WM. Warren you are a f---	



Dome Temp. 68° H=9070

Transparency Conditions Cloudy misty

Focus .....

Dome Temp. 60 H 9670

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
7:16 E	47° 00'	3-5	5.54	09.5	17-17-17	Bin Search	200/85		Good
	in in / out out				5/5	no filter			
0 53E	+54 23	3-4"	9.21	B25IB	16-16-16	Bin Search	200/186		weak
4 23W	+55° 22'	"	10.2	B	15-15-15	"	200/166		weak







233

\* dated Aug 3 (volume)

Date Aug 4-5/73 Sat-Sun Observer To - Gelfken 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
37198	HD 124897	14 11.1	+19 42	G12	100-4	9/7		20:25	20:27	A	2 3/4
37199	HD 130109	14 41.2	+2 19	G12	"	"		20:44	20:47	B	2 4/10
37200	HDE 226852	19 54.6	139 56	G12	"	13/5		21:00	00:54	C	1 33/100
37201	HD 190918	20 02.2	+35° 31'	G12	"	13/5		1:10	01:41	B	2 13/100
37200 T1	Col step wedge		90 sec		"	for 37198,		37199			
37202	HD 201933	21 04.4	+29 48	G12	"	9/7		1:50	2:06	C	1 35/100
37203	HD 213534	22 26.9	+29 02	"	"	13/5		2:11	2:25	A	0 34/100
37204	HD 218154	23 00.6	+24 07	"	"	13/5	69	2:29	2:51	C	0 24/100
37205	4U Psc	0 09.8	+8 16	"	"	13/5		2:57	3:10	A	0 20/100
37206	"	"	"	"	"	13/3		3:18	3:34	B	0 12/100
37207	"	"	"	"	"	"		3:35	3:52	C	1 20/100
37208	b Per	4 10.7	+50 3	"	"	9/7		3:56	4:03	A	0 38/100
37209	1/2 Tau	3 25.6	+9 23	"	"	9/7	69°	4:09	4:14	C	2 35/100
37209 T	Col step wedge		For 37200-09			90 sec					

Dome Temp. 70° H=65%

Transparency Conditions *Excellent - hazy*

234

Focus .....

Dome Temp. 60° H=73%

Hour	Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
2	<sup>47</sup> 36W		2"	1.3	K20p	30	std vel	40/11		slat.
2	40W	+2 06	1-2	3.74	A0V	15-15	sp Bin-Bl	40/15		Fine
1	33W	+35 12	"	9.74	E0.76	10-10-16	"	800/400		Fine
2	13W	+35 37	"	7.60	<sup>W+5+</sup> 09.51	12-12-12	"	400/230	* 100/100 / 100 2" 100/100	9
									Dew MWR 10 59°F 7m	
1	35W	+30 11	2"	5.6	A0	12-12-12	McU *	200/65		Fine
0	31W	+29 28	1.2"	6.28	A5	12-12-12	Sp Bin-Bl	400/105		slat.
0	24W	+24 35	2"	7.01	A0	12-12-12	Sp. Bin. Bl	400/115		slat.
0	20E	+8 44	3-4	6.15	A9s	18-12-6	Sp Bin Bl	200/100		slat.
0	02N	"	"	"	"	18-18	"	200/50		slat.
0	20W	"	1-3	"	"	18-18	"	200/70		slat.
3	37 <sup>5</sup>		"	7.57	A2	18-18	"	40/19		Fine
2	35E	+9 43	"	3.66	B8p	18-18	"	40/18		slat.
									MWR 9m 66.8°F	



Dome Temp.  $68^{\circ}$  H=75%

Transparency Conditions *Very hazy*

23C

Focus .....

Dome Temp.  $67^{\circ}$  H=85%

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
2 00 E	+8 44	3-6"	6.15	A95	10-10-16	Sp. B. n - Blm	400/85		
1 29 E	"	2-3"	"	"	12-12-12	"	400/50	cloud	
					3/3	no filter		center to red 13 micron	
								Dew MWP2 @ 69°F 9 min	















443

\* baked August 12 (16hr)

Date 12/13 August 1973 Sun/Mon Observer Bln - Tn 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.
37219	HD 130109	14 <sup>h</sup> 41 <sup>m</sup> .2	+2° 19'	G-12	IIa-D <sub>b</sub> *	9/1.7	74°F	20:07	20:11	A
37220	HDE 22686Y	19 <sup>h</sup> 54 <sup>m</sup> .6	+34° 56'	"	"	20/15		20:16	00:10	B
37220 T1	Cal strip	wedge	90sec		"					
37221	UU Psc	00 <sup>h</sup> 09 <sup>m</sup> .8	+8° 16'	G-12	IIa-D <sub>b</sub> *	13/1.5		00:14	00:39	C
37222	"	"	"	"	"	13/3		00:40	00:59	A
37223	"	"	"	"	"	"	67°	01:01	01:15	B
37224	"	"	"	"	"	"		01:16	01:30	C
37225	"	"	"	"	"	"		01:31	01:43	A
37226	"	"	"	"	"	"		01:44	01:57	B
37227	"	"	"	"	"	"		01:59	02:13	C
37228	"	"	"	"	"	"		02:14	02:25	B
37229	"	"	"	"	"	13/1.5		02:26	02:49	A
	"	"	"	"	"	13/3		03:00		C
37229 F1	Focus	Test			"	13	66°F			B

Dome Temp

Focus

Dome Temp

Hour Angle  
End

02:33

01:20

02:15

02:15

01:55

01:35

01:15

02:15

02:15

02:15

02:15

02:15

Dome Temp. 66° H=75%

Transparency Conditions V.P. good Full moon

244

Focus .....

cloud coming up @ 01:15

Dome Temp. 60° F H=93%

Ending Time E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
00:39	A	02 33W	+2° 04'	2	3.74	A0 V	30	Sp. Bin-Blu	40/16		good
01:00	B	01 20W	+35 12	2-5	9.74	09.7 Inb	10-10-10	"	800/450		Fine
01:39	C	02 26E	+8 44	3-6"	6.15	A9 <sub>s</sub>	10-10-10	Sp. Bin-Blu	200/65		Fine
01:59	A	02 06E	"	"	"	"	10-10-10	"	200/40	short	Fine
01:15	B	01 50E	"	"	"	"	10-10-10	"	200/40	short	
01:30	C	01 35E	"	3-4"	"	"	10-10-10	"	200/40	short	good
01:43	A	01 23E	"	"	"	"	10-10-10	"	200/40	short (longer exp)	Fine
01:17	B		"	3-6"	"	"	10-10-10	"	200/40		Fine
02:13	C	00:52E	"	"	"	"	10-10-10	"	200/40		Fine
02:25	B	00:39E	"	"	"	"	10-10-10	"	200/40		Fine
02:49	A	00 16E	"	2-4	"	"	10-10-10	"	200/65	Cloud	Fine
			"	"	"	"	10-	"	200/	Clouded out. t3lah!	
							4/4				Fine
										See of 69° for 9-min	
										map-2	







Dome Temp. 60°F 71%

Transparency Conditions *clean good*

248

Focus .....

Dome Temp. 55°F 88%

Ending Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
01:18	A	2414 E	+47°00'	1-3	5.54	09.5 II	17-12	LR Bri. & anal	200/75		good
01:52	B	1455 E	+33°19'	2-3"	7.52	09 II <sub>p</sub>	10-10-10	"	800/300		good
02:54	C	0416 W	+54°25'	"	9.01	B25 II <sub>b</sub>	10-10-10	"	800/250		good
03:47	D	0440 W	+58°07'	"	8.61	09 III	10-10-10	"	800/250		good
04:06	E						90 sec				
04:20	F	0714 E	+55°31'		8.85	09 II	10-10-10	"	800/235		fine













Dome Temp. 60°F 73%

Transparency Conditions .....

254

Focus .....

Dome Temp. 55°F 74%

PH.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
23	01 <sup>h</sup> 52 E	+10° 25'		5.2	dF8	10-10-10	West	200/71		
25	02 <sup>h</sup> 20 E	+10° 17'		6.75	F7V	10-10-10	West	400/150		
23	01 <sup>h</sup> 03 E	+10° 17'		6.75	F7V	10-10-10	"	400/150		
23	03 <sup>h</sup> 15 E	+05° 34'		4.3	F8	15-15	"	200/75		Dark
23	00 <sup>h</sup> 09 W	+10° 17'		6.75	F7V	10-10-10	"	400/151		
23	01 <sup>h</sup> 05 W	+10° 17'		6.75	F7V	10-10-10	"	400/150		
23	00 <sup>h</sup> 58 <sup>E</sup>	+05° 34'		4.3	F8	10-10-10	"	200/75		
23	02 <sup>h</sup> 42 W	+10° 17'		6.75	F7V	10-10-10	"	400/150		
23	03 <sup>h</sup> 40 W	"		"	"	10-20	"	400/150	Overdevelops 12 min fig and dome stripping out	

25-5

B Aug 15 - 20 (24hr)

Date Temp - Wind Aug 21-22 1973 Observer Gelken - Ri 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 Ead
37252	UU Psc	00 09.8	+8 16	G12	IIaOB	13/3	69°F	22:39	23:00	A	9:35E
37253	"	"	"	"	"	"	"	23:01	23:25	B	9:51E
37254	"	"	"	"	"	"	"	23:26	23:48	C	10:07E
37255	"	"	"	"	"	"	"	23:49	00:06	A	10:23E
37256	"	"	"	"	"	"	"	00:08	00:27	B	10:39E
37257	"	"	"	"	"	"	"	00:28	00:44	C	10:55E
37257T1	cal step wedge for plates 37252-37262				IIaOB						
37258	UU Psc	00 09.8	+08 16	G-12	IIcOB	13/3		00:45	01:00	A	11:11E
37259	"	"	"	"	"	"		01:01	01:17	B	11:27E
37260	"	"	"	"	"	"		01:18	01:34	C	11:43E
37261	"	"	"	"	"	"		01:35	01:49	A	11:59E
37262	"	"	"	"	"	"		01:50	02:04	B	12:15E
37263	"	"	"	"	"	"		02:05	02:18	C	12:31E
37264	"	"	"	"	"	"		02:20	02:33	A	12:47E
37265	"	"	"	"	"	"		02:35	02:50	B	13:03E
37266	"	"	"	"	"	"		02:52	03:02	C	13:19E

Dome Temp. 50°F 68%

Transparency Conditions *clear*

258

Focus .....

Dome Temp. ....

Hour	Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
3:00	3 30 E	+08° 45'	3-4	6.15	A95	10-10-10	Sp Bin Blm	400/90		line
3:25	3 05 E	"	"	"	"	10-10-10	"	400/90		line
	2 42 E	"	"	"	"	10-10-10	"	400/80		guiding
	2 23 E	"	"	"	"	10-10-10	"	400/80		line
	02 40 E	"	"	"	"	10-10-10	"	400/80		guiding
	1 45 E	"	"	"	"	10-10-10	"	400/80		guiding
						90 <del>min</del>			Do MWP2 9 min @ 68°F	
	01 30 E	"		6.15	A95	10-10-10	"	400/80		guiding
	1 12 E	"	2-3	"	"	10-10-10	"	400/80		line
	0 56 E	"	"	"	"	10-10-10	"	400/80		line
	0 40 E	"	"	"	"	10-10-10	"	400/80		line
	0 25 E	"	"	"	"	10-10-10	"	400/80		line
	00 11 E	"	"	"	"	10-10-10	"	400/80		line
	00 40 W	"	"	"	"	10-10-10	"	400/80		line
	00 21 W	"	"	"	"	10-10-10	"	400/80		line
	00 32 W	"	"	"	"	10-10-10	"	400/80	BROKEN + " on end	line



254  
Cont 112

exposed Aug 19-20 (24 hr)

Date Wed Aug 22 1973 Cont Observer Guyton - Ri 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.
37267	UU PSC	00 09.8	108° 16'	G-12	IIaOb*	13/3		03:03	03:14	A
37267T1	cal step wedge	in plate	37263-		IIaOB					
37268	UU PSC	00 09.8	+08° 16'	G-12	IIaOB	13/3		03:15	03:25	B
37269	"	"	"	"	"	"		3:26	03:37	C
37270	"	"	"	"	"	"		3:38	3:48	A
37271	"	"	"	"	"	"		3:49	4:00	B
37272T1	cal step wedge	in plate	37272		IIaO					
37272	b Per	4 <sup>h</sup> 10.7	+5° 3'	G-12	IIaO	9/7		4:06	4:18	C
37273	2 Tau	3 <sup>h</sup> 21.8	+9° 23'	G-12	IIaO	13/5		4:22	4:26	A
37273T1	fractured	cal step wedge			IIaO	13	58°F			B

Dome Temp.  
Focus  
Dome Temp.

Hour Angle  
End

Dome Temp. ....

Transparency Conditions clear .....

Focus .....

Dome Temp. 44.0 F 78%

Hour	Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
0	45W	+08°45'	2-3	6.15	A95	10-10-10	Sp Bin Bin	400/80		Fine
						90 sec.			Dev 9m MW2 @ 68%	
0	56W	+08°45'		"	"	10-10-10	"	400/80	BROKEN in two pieces	Logged
1	08W	"		"	"	10-10-10	"	400/80		Fine
1	19W	"		"	"	10-10-10	"	400/80		Fine
1	30W	"		"	"	10-10-10	"	400/80		Fine
						180 sec				
2	15W	+56°15'		4.52	A2	10-10-10	"	70/30	+25.48 exposed Box #	
1	15W	+09°43'		3.66	B8p	15	"	40/32	+28.97 SC	
						4-4 no filter				

259

\*baked Aug 22

Date Wed-Thurs Aug 22-23 / 73 Observer L.R. To 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
37274	HD 188209	19 49.0	+46° 46'	G12	100-6	13/5		19:52	19:59	A	2 05E
37275	HD 201345	21 03.9	+33° 00'	"	"	13/5		20:05	20:46	B	2 22E
37276	HDE 235679	21 55.0	+54° 01'	"	"	13/3		20:54	23:05	A	1 05E
37276 TI	Cal 100	22 50	90 sec	"	"						
37277	HD 218195	23 01.0	+57° 43'	G12	"	13/3	61°	23:12	00:25	B	0 53E
37278	HD 14443	02 <sup>h</sup> 14.9	+57° 42'	"	"	13/3		00:38	01:32	A	2 01E
37279	HD 14633	2 16.7	+41° 02'	"	"	13/5		01:37	01:59	B	2 35E
37280	HD 12323	1 55.8	+55° 08'	"	"	13/4		02:05	03:39	C	0 35E
37281	HD 2905	0 27.3	+62° 23'	"	"	13/5		03:44	03:49	B	1 06W
37282	HD 23862	03 43.3	+23° 51'	"	"	13/7		03:56	04:23	C	1 36E
37283	2 Tau	03 26.8	+9° 23'	"	"	9/7		04:27	04:46	A	1 51E
37283 FI	Focus test			"		9				B	

Dome Temp.

Focus

Dome Temp.

Dome Temp. 57° H=71%

Transparency Conditions *Some high clouds*

260

Focus .....

Dome Temp. 52° H=72%

*cloud by dawn*

Ending Time E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
		2 05E	+46 59	2-3"	5.54	095D	10-10-10	LR-Bin Search	200/72		Fine
		2 33E	+33 20	2-4"	7.52	09.5p	10-10-10	"	800/275	2" broken off	guiding
		1 05E	+54 22	2-3"	9.21	825T6	10-10-10	"	800/250	cloud then clear	Fine
		0 51E	+58 06	2-3"	8.61	095	10-10-10	LR Bin Search	800/210		Fine
		3 01E	+57 02	"	8.4	B2Tbp	10-20	"	800/210		"
		2 35E	+41 23	"	7.26	085	10-10-10	"	400/125		guiding bad
		0 35E	+55 31	2"	8.88	095	10-10-10	"	800/240		guiding
		1 06W	+62 49		4.30	B05	15-15	"	20/12		guiding 8 seconds
		1 36E	+29 06	"	5.1	B8p	10-20	GL Shell	40/28	cloud	Fine
		0 51E	+9 42	"	3.66	B8p	15-	Sp Bin Pbn	40/17	cloud (v. thick!)	"
				in in / out out			1/4	no filter			

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\* baked 23/24 August (24<sup>hrs</sup> Vacuum 25°C)  
\*\* baked Aug 22

Date 24/25 August 1973 Fri/Sat. Observer Bla-Tu 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
37284	HD193432	20 <sup>h</sup> 15 <sup>m</sup> .1	-13° 04'	G-12	IIIa-Jb*	9/7		19:53	20:25	A	2 00E
37285	"	"	"	"	"	"	69°F	20:30	21:04	C	2 10E
37286	HD 201433	21 <sup>h</sup> 04 <sup>m</sup> .4	+29° 48'	"	"	"		21:12	21:47	A	2 25E
37287	"	"	"	"	"	"		21:50	22:36	C	2 37E
3728671	Cut stop	wedge	180 sec		"						
37288	UU Psc	00 09.8	+8 16	"	Da0-b*	13/3		22:39	22:54	A	2 50E
37289	"	"	"	"	"	"		22:55	23:07	B	3 05E
37290	"	"	"	"	"	"		23:08	23:19	A	3 15E
37291	"	"	"	"	"	13/5		23:20	23:36	C	3 25E
37292	"	"	"	"	"	13/5		23:41	23:54	A	3 35E
37293	"	"	"	"	"	"		00:02	00:18	B	3 45E
37294	"	"	"	"	"	"		00:20	00:37	C	3 55E
37295	"	"	"	"	"	"		00:42	01:02	B	4 05E
37296	"	"	"	"	"	"		01:03	01:22	A	4 15E
37297	"	"	"	"	"	"		01:25	01:43	B	4 25E
37298	"	"	"	"	"	"		01:44	02:03	C	4 35E

Dome Temp. 6.5° H=80%

Transparency Conditions Hazy

262

Focus .....

Dome Temp. ....

big night for seeing from W-45  
 (4-10-10) ...

Ending Time EST	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
21:00	C	2 00 E	-12° 46'	2-3"	4.70	B9V	15-15-15	Abund. Std.	80/42		overex
21:04	C	01 19 E	"	"	"	"	20-20-20	"	80/56		"
21:47	A	01 25 E	+30° 10'	1-2"	5.6	A0	20-20-20	Sp. Bin. Blw	200/144		"
21:36	C	0 37 E	"	"	"	"	30-30-30	"	200/210		"
										Dev MWR2 9ma @ 63°F	
21:14	A	3 25 E	+8 44	2-3"	6.15	H9S	10-10-10	"	400/80		Pin
21:07	C	03 12 E	"	"	"	"	10-10-10	"	400/80	major fog	Pin
21:09	A	03 00 E	"	"	"	"	10-10-10	"	400/80		Pin
21:00	C	02 40 E	"	"	"	"	10-10-10	"	400/130		Pin
21:00	A	02 20 E	"	"	"	"	10-10-10	"	400/130		Pin
21:18	C	02 00 E	"	"	"	"	10-10-10	"	400/130	prob fogged	Pin
21:12	C	01 41 E	"	"	"	"	10-10-10	"	400/130		Pin
21:00	B	01 16 E	"	"	"	"	10-10-10	"	400/130		Pin
21:00	A	00 56 E	"	"	"	"	10-10-10	"	400/130		Pin
21:43	B	00 35 E	"	"	"	"	10-10-10	"	400/130		Pin
21:00	C	00 15 E	"	"	"	"	10-10-10	"	400/130		Pin







965

Date Aug. 25/26 Sat-Sun Observer Tn - Geffken 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
37302	HD 201433	21 <sup>m</sup> 04 <sup>m</sup> 24 <sup>s</sup>	+29° 48'	G12	IIaOB*	9/7		22:18	23:02	L	0 57E
3730271			90 sec	"	"						
37303	HD 215534	22 26 56	+29 02	G12	IIaOB*	13/5		23:12	23:42	B	0 41E
37304	UU Esc	0 09 50	+8 16	"	"	13/3		23:44	00:14	C	2 00E
37305	"	"	"	"	"	"	71°	00:15	00:42	A	1 01E
37306	"	"	"	"	"	"		00:43	01:06	C	1 07E
37307	"	"	"	"	"	"		01:08	01:32	A	0 41E
37308	"	"	"	"	"	"		01:33	02:01	G	0 12E
37309	"	"	"	"	"	"		02:02	02:30	A	0 57E
37310	"	"	"	"	"	"		02:31	03:01	C	0 41W
37311	HD 21764	3 21.7	+9 23	"	"	9/5		03:06	03:18	C	2 00E
37312	HD 26961	4 10.7	+50 3	"	"	9/7		03:28	03:42	A	2 35E
<del>37313</del>	<del>HD 23462</del>	<del>3 43.3</del>	<del>+23 51</del>	<del>"</del>	<del>"</del>	<del>"</del>				<del>B</del>	

Dome Temp. 68° H=77%

Transparency Conditions *questionable - highly questionable*

Focus .....

Dome Temp. 63° H=92%

Ending Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
23:42		0 07E	+30 09	1-2	5.6	A0	10-10-10	McU	400/165		fine
										Dev 9min MWP2 @ 63°F	
00:42	B	0 49E	+29 28	1-2"	6.28	A5	10-10-10	Sp Bin Bin	400/100		quiesc
01:14	C	2 00E	+8 44	"	6.15	A9s	10-10-10	Sp Bin Bin	400/80		fine
01:42	A	1 31E	" "	2"	"	"	10-10-10	"	200/50		fine
01:06	C	1 07E	" "	"	"	"	10-10-10	"	400/80		fine
01:42	A	0 42E	" "	"	"	"	10-10-10	"	400/80		fine
02:11	C	0 12E	" "	"	"	"	10-10-10	"	400/80	some cloud	fine
02:14	A	0 15W	" "	2-4"	"	"	10-10-10	"	400/80	cloud	fine
02:11	C	0 48W	" "	2	"	"	10-10-10	"	400/80	fred	fine
02:17		2 06E	+9 42	2"	3.66	B8p	15-15	"	200/50		fine
02:42	A	2 35E	+50 16	"	4.57	A2	10-10-10	"	200/70		quiesc
					51	B8p		GI-shell	200		cloud

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\*\* baked 23/24 August (Vacuum @ 53°C)

Date 28/29 August '73 Tue/Wed Observer Blh-Tur 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
37313	68 Oph	17 <sup>h</sup> 56 <sup>m</sup> .7	+1° 18'	G-12	IIIa-Ob*	13/.7		19:46	19:55	A	0 05W
37314	HDE 226868	19 <sup>h</sup> 54 <sup>m</sup> .6	+34° 56'	"	"	20/.3		19:59	22:14	B	0 27W
37314 T1	Cal stop	wedge	90sec		"						
37315	HD 201433	21 <sup>h</sup> 04 <sup>m</sup> .4	+29° 48'	"	IIIa-Jb**	9/.7		22:17	22:57	C	00 22E
37316	HD 201433	"	"	"	"	"	80°F	22:59	00:05	A	00 30W
37317	HD 219615	23 <sup>h</sup> 12 <sup>m</sup> .0	+2° 44'	B16	IIa-F	"		00:12	00:42	B	00 22E
37318	HD 216489	22 <sup>h</sup> 48 <sup>m</sup> .2	+16° 19'	"	"	9/.5		00:46	03:46	C	50 11W
37318 T1	Cal stop wedge	for 37317, 18			"	5mm. + 10sec					
37318 T2	" " "	for 37315, 16			IIIa-Jb**	180sec					
37318 F1	Focus Test			G12							
37319	HD 21364	03 <sup>h</sup> 21 <sup>m</sup> .8	+9° 23'	"	IIIa-Ob	9/.5	76°	04 00	04:05	B	01 25E
37320	HD 23862	03 <sup>h</sup> 43 <sup>m</sup> .3	+23° 51'	"	"	9/.7		04 09	04:28	C	01 58E
37321	b Per	04 <sup>h</sup> 10 <sup>m</sup> .7	+50° 03'	"	"	"		04 30	04:40	B	02 24E
37322	HD 24760	03 <sup>h</sup> 51 <sup>m</sup> .1	+39° 43'	"	"	"		04 43	04:46	A	02 59E
37323	HD 24912	03 <sup>h</sup> 52 <sup>m</sup> .5	+35° 30'	"	"	"		04 48	04 52	C	02 58E

Dome Temp. 81° H=73%

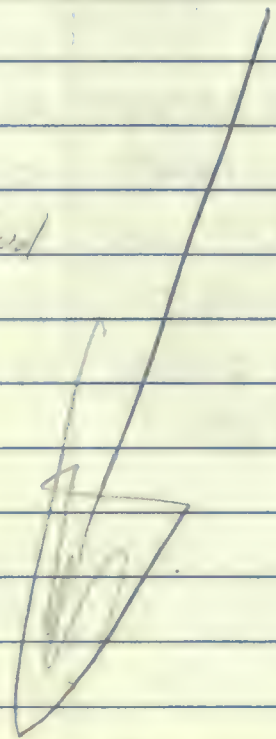
Transparency Conditions Very good - some thin cloud

Focus .....

Fireball seen N→S at 20:15, by someone who phoned  
Another " " at 20:55.

Dome Temp. 73° H=66%

Ending Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
1:55	A	0 05W	+1° 21'	2-3	4.46	A1V	10-10-10	Sp. Bin - Blu	40/14		Fine
2:14	B	0 27W	+35° 11'	2"	9.74	O9.7Ib	10-10-10	"	800/280		Surplus
										Des 9mi @ 68°F	
2:55	C	00 01W	+30° 07'	3-4	5.6	AD	20-20-20	Sp. Bin - Blk	200/143		des log
3:05	A	01 08W	"	"	"	"	30-30-30	"	200/280		des log
3:42	B	00 22E	+3° 13'	"	V= 3.69	G7III	3-3-3	Li Std	40/56		Fine
3:46	C	03 07W	+16 46	3-4'	V= 5.69	K0III	3-6-2	Li Search	200/194	cloud	good
										Des 7mi @ 68°F	
										Des 7mi @ 68°F	
										no filter	
4:05	B	01 09E	+9 42		3.66	B8p	10-20	Sp. Bin - Blu	40/11		Fine
4:37	C	01 08E	+24 07	2-3	5.1	B8p	10-10-10	Gal Shell	200/70		Fine
4:40	B	01 24E	+50° 16'	4-5	4.57	A2	10-10-10	Sp. Bin - Blu	200/70		Fine
4:46	A	00 59E	+39 56	5-3	2.71	B2	10-10-10	"	40/16		ok
5:12	C	00 53E	+35° 44'		4.04	O7	15-15	"	40/14		ok



\* Urgent - more plates needed



Dome Temp. 83° H: 606

Transparency Conditions Very good but getting hazy

Focus .....

Dome Temp. 74° H: 847

Exposure meter - unpaired table

Ending Time EST	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
01:53	A	01 45 E	+47 01	1-2"	5.54	095 II	20-20-20	Pin Search	200/125	NOTICE III a J!	dev log
02:30	B	01 22 E	+33 20	"	7.52	097 p	20-20-40	"	800/600	" "	"
								Dev 7 mi @ 68° F MWPR		" "	"
								" 9 mi @ 68° F MWPR			
02:14	B	01 50 E	+56 03	"	8.4	B2I6p	10-10-10	"	800/210		dev log
02:40	A	00 25 W	+55 31	2"	8.88	09 V	10-10-10	"	800/240		dev log
02:44	B	00 38 W	+41° 25	3-4	7.26	02 I	10-10-10	"	200/240		dev log
02:58	A	00 39 E	+24 06	2"	5.1	IXP	10-10-10	Shell prog	200/70		dev log
	P						5/5				
										Start at 27 min, very slow	
										from Cgg to NE	
										00:05 - 00:35	



Dome Temp. 85°F H: 602

Transparency Conditions 11/27, some cloud

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Focus R-25

Dome Temp. 77°F H: 830

focus changed R-40 to R-25

Ending Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
9:56	A	01 36 E	+47° 01'	1.2	5.54	09.5 III	10-10-10	Bin Search	200/65		sl. ring
10:06	C	01 42 E	+33° 18'	"	7.52	09 IV	10-10-10	"	800/2240	Ex meter on blink Dev 9 min @ 68°F MW 2	guiding
10:11	A	01 35 E	+58° 08'	1.2	8.61	09 III	10-10-40	"	800/—	cloud by 22 <sup>h</sup>	sl. stray
10:23	A	02 38 E	+41° 25'	1.3	7.26	08 V	10-10-10	"	500/100	very hazgy cloud	guiding
							10/10	10% filter			
							14/10	no filter			













Dome Temp. 84°F 11-72%

Transparency Conditions 1070 some thin cloud

Focus .....

Sat in Cyg at 00:15. in NE.

Dome Temp. 75°F H=810

Times corrected

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
0 58W	+35 11	1"	9.74	B07	10-10-10	Sp Bin - Bl	800/450		Good
								Dew 7 1/2 min @ 75°F MWR	
2 45E	+8 49	3	6.15	A9	10-10-10	Sp Bin - Bl	200/65		Fin
02 23E	"	"	"	"	10-10-10	"	200/65		Fin
01 59E	"	2	"	"	10-10-10	"	200/65		Fin
01 37E	"	"	"	"	10-10-10	"	200/65		Fin
01 11E	"	2-3"	"	"	10-10-10	"	200/65		Fin
00 40E	"	"	"	"	10-10-10	"	200/65		Fin
04 32W	+49 15	2-3"	V=6.42	K1 III	3-3-3	Li Search	400/480	some cloud (a lot of cloud)	Fin
								Dew 4 min @ 75°F MWR	
01 52W	+15 18		V=3.52	G8 III	3-3-3	Li Std	40/48		Fin
00 07W	+9 42		3.66	R8 p	10-10-10	sp Bin - Bl	40/10		Good

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pg 1

\* baked Sept 2

Date Mon-Tues Sept 3/4/73 Observer GI-Tn/Tn 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.
37349	HD 179343	19 07.0	+2 27	G12	D <sub>0</sub> -b*	13/5		19:30	20:09	A
37350	HD 183656	19 25.6	+3 14	G12	D <sub>0</sub> -b*	13/5		20:13	20:28	B
3735071	Cal day	wedge	90 sec		"					
37351	HD 192954	20 12.6	+15 34	G12	"	13/5		20:32	21:10	C
37352	HD 193182	20 13.8	+39 17	"	"	"		21:14	21:34	B
37353	HD 195407	20 26.0	+36 39	"	"	"	83°F	21:37	22:22	C
37354	HD 195325	20 25.5	+10 34	"	"	"		22:29	22:50	A
37355	HD 205637	21 <sup>h</sup> 31 <sup>m</sup> 5	-19 54	"	"	"		22:55	23:10	B
37356	HD 218393	23 02.6	+49 40	"	"	"		23:16	23:43	C
37357	UU P <sub>00</sub>	00 09.8	-18 16	"	"	"		23:57	00:15	B
37358	"	"	"	"	"	9/5		00:16	00:41	C
37359	"	"	"	"	"	"		00:42	01:08	A
37360	HD 219615	23 12.0	+2 44	G16	D <sub>0</sub> F	"		01:16	01:37	B
37361	HD 216489	22 48.2	+16 19	"	"	"		01:39	03:16	C
3736171	Cal day	wedge	5 min		"					
37362	HD 222107	23 32.7	+45 59	G16	"	9/5		03:19	03:32	B

Done Temp.

Focus

Done Temp.

Hour Angle  
End

00:37E

00:37E

00:37E

00:37E

00:37E

00:37E

00:37E

00:37E

01:24E

00:37E

00:37E

00:37E

00:37E

00:37E

00:37E

Dome Temp. 85° H=65/0

Transparency Conditions Very Good - some haze

Focus ..... Sat at 00:20

00:29 Sat in Egg at 00:20

Dome Temp. 75° H=85/0

clock was 2.15 min slow - reset

Ending Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
00:19	A	00 27E	+03° 35'	2"	7.1	B9	10-12-10	Shell-G1	400/150		sl. drag
00:18		00 27E	+03 28	"	6.1	A0	10-10-10	AI shell	400/130		sl. drag
										Dev 7 km in 074° F MW P2	
00:10	C	00 32E	+15° 53'	2"	7.3	B9	10-10-10	GI Shell	400/130	1" broken off inc #51	
00:09	B	00 09E	+39 32	2-3"	6.4	A0	10-10-10	"	200/65		sl. drag
00:02	C	00 28W	+36 56	1-2"	8.1	B3	10-10-10	"	400/100+		sl. drag
00:00	A	00 56W	+10 52	2"	5.92	A0	10-10-10	"	400/130		sl. drag
00:00	A	00 09W	-19 30	3-4"	4.6	B3	10-10-10	"	200/65		fine
00:00	C	00 49 E	+50 05	1-2"	6.99	A5p	10-10-10	"	400/130		quiesc
00:00	A	01 24E	+08 45	2"	6.15	A9s	10-20	Sp B <sub>12</sub> -B <sub>16</sub>	200/65		fine
00:00	C	00 58E	"	1-2"	"	"	10-10-10	"	200/65		quiesc
00:00	A	00 31E	"	2-3"	"	"	10-10-10	"	200/65		quiesc
00:00	A	00 56W	+3 13	1-3"	$\bar{v}=3.69$	G7 III	3-3-3	Li std	200/250	$w_{\lambda} = 3.56$	fine
00:00	C	03 00 W	+16 47	"	$\bar{v}=5.69$	H0 III	3-3-3	Li search	200/240		fine
										Dis 4 km in 075° F MW P2	
00:00	A	02 31W	+46 23	1-2"	$\bar{v}=3.75$	G8 D-IV	3-3-3	Li search	40/50	cont.	fine





Dome Temp. ....

Transparency Conditions *Excellent* .....

Focus .....

Dome Temp. ....

Ending Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
02:53	A	01 42W	+24 11'	1.2 <sup>v</sup>	<sup>v</sup> 4.06	K1 II	3-3-3	L; Search	40/48		fine
04:35	C	00 06E	+34 11'	"	<sup>v</sup> 4.81	K2 II	3-3-3	L; std	200/250	w/T = 4.73	fine
04:46	A	00 05E	—	"	3.66	88p	15-15	Sp. Pa. Bla	40/10		slightly
04:55	C	00 27E	135 47	"	4.0	07	15-15	"	40/15		"
05:02	C	00 19E	—	"	2.7	R05I	15-15	"	40/14		slightly
	B						7/9	no filter		center 2 microns to red.	



Dome Temp. 82° - 62%

Focus 25-B

Dome Temp. 71° - 84%

Sat 0.28  
0.28

Transparency Conditions Clearing in 2:40

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Hour	Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
00	44W	+35 13	1"	9.74	09.7ab	10-10-10	Sp. Bin-13h	800/280	Some cloud	guiding
03	46W	+35 14	1.3"	"	"	10-10-10	"	800/270		fine
									Do not MWP @ 3mi @ 72°F	
01	47W	+44 57	2-3	7.12	A2	10-10-10	Hd Sp Bin	400/115		fine
01	26W	+73 05	"	7.52	A2	10-10-10	"	400/115		fine
01	45W	+61 12	"	5.9	B7II	10-10-10	"	400/95	cloud	fine
01	26E	+9 43	2"	3.66	B8p	15-15	Sp Bin-13h	40/10	"	guiding
01	06W	+60 57	2-3	5.58	B7I	10-10-10	Hd Sp Bin	400/51	cloud	guiding
						5/5	no filter			OK



Dome Temp. 55°F 57%

Transparency Conditions .....

Focus S-R

Dome Temp. 45°F 73%

Ending Time E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
01:39	A	04410W	+19°24'	10-20	V= 0.06	K2IIIp	3 6	Li Std	40/50		
01:44	B	0442W	+50°25'	4-5	V= 5.87	K1IV	3-3-3	Li Search	400/550		
01:56	C	02440W	+47°08'		V= 6.75	K0III	3-3-3	Li Search	400/550		
							5mm			Dev 6 min @ 68°F MUR2	
		<del>116°47'</del>			V= 5.69	K0III	3	Li Search	400/	<del>clouds at 02:45</del>	
							5-5 mm filter			Warmer: develop the focus plate	



Dome Temp.  $57^{\circ}H=52\%$

Transparency Conditions .....

288

Focus .....

Dome Temp.  $45^{\circ}F$  66%

Ending Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
			<del>-15°40'</del>			Bpe	10		<del>400</del>		
2:37	A	00 <sup>h</sup> 01 <sup>m</sup> E	+03°27'	3"	6.1	B6pe	10-10-10	G1 shell	200/100		fine
2:35	B	00 <sup>h</sup> 10 <sup>m</sup> W	+15°53'	3"	7.3	A2e	10-10-10	"	200/100		fine
2:30	C	00 <sup>h</sup> 35 <sup>m</sup> W	+39°34'	3"	6.4	A0	10-10-10	"	200/100		fine
	A	01 <sup>h</sup> 40 <sup>m</sup> W	+36°55'	3-4	8.1	B0IIpe	10-10-10	"	400/200		fine
2:29	B	02 32W	+10°52'		5.92	A0	10-10-10	"	200/100	clouds	fine
										cleared up Dec 9 am MWP2 @ 68°F	
2:25	C	02 <sup>h</sup> 10 <sup>m</sup> E	+16°10'	5-6	7.14	F8	15-15-15	Sp. Bin-Bln	400/170	clouds	fine
2:20	A	01 <sup>h</sup> 05 <sup>m</sup> E	+24°02'		5.1	B8p	15-15-15	G1 shell	80/56	"	fine
2:12	B	00 33E	+09°40'	5-6	3.74	B8p	15-15-15	Sp. Bin-Bln	80/36	"	fine





Dome Temp.  $55^{\circ}$  H=69%

Transparency Conditions *Superb! Ch year!!* 290

Focus .....

Dome Temp.  $45^{\circ}$  H=85%

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
00 <sup>h</sup> 08 <sup>m</sup> W	-02° 50'	4	V= 3.26	K0IV	3-3-3	Li Std	80/110	-log W/λ > 6.06	fin
00 <sup>h</sup> 45 <sup>m</sup> W	+52° 25'	2-3	V= 5.87	K1IV	3-3-3	Li Search	400/550		fin
00 <sup>h</sup> 54 <sup>m</sup> E	+16° 45'	5-10	V= 5.69	K0III	3-3-3	Li Search	400/550	exposed Brr #1	fin
03 <sup>h</sup> 58 <sup>m</sup> W	+47° 08'		V= 6.75	K0III	3-3-3	Li Search	400/550		fin
					Smur			Dev 9m @ 8:45 AM 2	
02 <sup>h</sup> 40 <sup>m</sup> W	+46° 24'		V= 3.75	G8 III-IV	3-3-3	Li Search	80/110		fin
01 <sup>h</sup> 50 <sup>m</sup> W	+24° 13'	4	V= 4.06	K1 II	3-3-3	Li Search	80/110		fin
01 <sup>h</sup> 21 <sup>m</sup> W	+15° 15'	3-4	V= 3.62	G8 III	3-3-3	Li Std	80/110	-log W/λ = 5.24	fin
00 <sup>h</sup> 30 <sup>m</sup> W	+34° 10'	3	V= 4.81	K2 III	3-3-3	Li Std	2m/275	-log W/λ = 4.93	fin
03 <sup>h</sup> 29 <sup>m</sup> E	+28° 58'		V= 4.28	K1 III	3-3-3	Li Search	80/110	sky < 10% @ end	fin



Dome Temp. 50°F 50%

Transparency Conditions .....

292

Focus .....

Dome Temp. 50°F 82%

Ending Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
20 20	A	00 <sup>h</sup> 41W	-15°50'		8.3	Bpe	10-20	G1 Shell	800/80	clouds overdevelop please!	Sunday sch week
21 46	B	00 <sup>h</sup> 31W	+39°34'	2	6.4	Ape	10-10-10	G1 Shell	400/130		sl. strong
22 53	C	01 <sup>h</sup> 07W	+36°56'	2-3	8.1	B3e	10-10-10	G1 Shell	800/260	BROKEN 3 pieces	fine
23 01	A	00 <sup>h</sup> 35W	-19°30'		4.60	B3Ie	10-10-10	G1 Shell	200/65		sl. strong
23 15	B	00 <sup>h</sup> 08 <sup>E</sup> W	+50°05'	2-3	6.99	A5D	10-10-10	G1 Shell	400/130		sl. strong
23 52	A	01 <sup>h</sup> 15W	+44°54'		7.12	A2	10-10-10	Hd Sp. Bin	400/130		sl. strong
							180 sec			Dev 9 min MWP2 @ 68°15'	
01 15	B	01 <sup>h</sup> 33E	+50°42'		5.62	B9III	10-10-10	Hd Sp Bin	400/130		sl. strong
					4.50	A2			800/	clouds clouds	
							5-5 no filter			closed up 02:15	ok



Dome Temp. 50°F 56%

Transparency Conditions good & clear

294

Focus .....

Dome Temp. 45°F 65%

Ending Time EST	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
00:39		00 <sup>h</sup> 58 <sup>m</sup> E	+14°20'		6.1	B8IV	10-10-10	Hd Sp Bin	400/130		sl. strong
00:58		00 <sup>h</sup> 00	+15°30'		6.34	M2III	10-10-10	"	400/250		fine
01:08		01 <sup>h</sup> 30 <sup>m</sup> E	+44°55'	4"	7.12	A2	10-10-10	"	400/130		fine
01:26		01 <sup>h</sup> 55 <sup>m</sup> E	+73°04'		7.52	A2	10-10-10	"	400/130		fine
01:35		01 <sup>h</sup> 44 <sup>m</sup> E	+61°10'		5.9	B7III	10-10-10	"	400/130		sl. strong
01:36		03 <sup>h</sup> 13 <sup>m</sup> E	+50°41'		5.62	B9III	10-10-10	"	400/130		sl. strong
01:42		02 <sup>h</sup> 32 <sup>m</sup> E	+60°55'		5.58	B7II	10-10-10	"	400/130		fine
							180 sec.			Dev 9 min @ 60° N140E2	
01:50		01 <sup>h</sup> 53 <sup>m</sup> E	+47°18'		7.14	B8	10-10-10	"	400/130		good
		01 <sup>h</sup> 30 <sup>m</sup> E	+67°68'		7.7	F2II	10-10-10	"	400/98	clouds overdeveloped please cloud up at 03:10	judging
										Warner: Mae II a 0 plates please	

296  
Pg #1

\* baked Sept 12

Date Wed Thurs Sept 12-13 1973 Observer Hu-Tn / Bln-Tn 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.
37411	HD 161096	17 38.5	+4 37	G12	IIaOB*	13/5	63°	19:12	19:14	A
37412	HD 186547	19 39.9	+13 04	"	"	"		19:18	19:31	B
37413	HD 190658	20 00.9	+15 13	"	"	"		19:35	20:35	C
37414	HD 214946	22 36.7	+44 29	"	"	"		20:41	21:13	B
37414TI	cal stop	wedge	90 sec		"					
37415	HD 216494	22 48.2	-12 09	G12	"	13/5		21:17	21:34	C
37416	HD 225093	23 58.3	+72 36	"	"	"	60°	21:40	22:24	B
37417	HD 225289	23 59.9	+60 45	"	"	"		22:28	22:38	C
37418	HD 11291	01 45.8	+50 18	"	"	"		22:52	23:00	B
37419	HD 10260	01 35.3	+60 32	"	"	"		23:03	23:21	C
37420	HD 11188	01 44.9	+46 58	"	"	"		23:26	23:56	A
37421	HD 213389	22 25.9	+48 51	G16	IIaF	9/5		00:08	02:17	A
37422	HD 219615	23 12.0	+2 44	"	"	"		02:21	02:37	B
37423	HD 6805	01 03.6	-10 43	"	"	"		02:41	03:01	C
37424	HD 23371	04 14.1	+15 23	"	"	"		03:04	03:16	A
37425	HD 62044	07 37.1	+29° 08'	"	"	"	55°F	03:21	03:46	B

Dome Temp. 47°F @ 58%

Transparency Conditions Excellent

296

Focus .....

Dome Temp. ....

x 00:33

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
00 <sup>h</sup> 41 <sup>m</sup> W	+4 38	2"	3.93	K2 III	30	Std Vel	40/15		fine
01 03 E	+13 17	2-3"	6.1	B8 II	10-10-10	Hd Sp Bin	400/130		fine
00 20 E	+15 30	2-4"	6.34	M2 III	10-10-10	"	400/275		fine guiding
02 17 E	+44 55	2-3"	7.12	A2	10-10-10	"	400/130		fine
								Dev 9min @ 68°F MWP2	
02 08 E	-11 41	4-8"	5.9	B9 V	10-10-10	Hd Sp Bin	200/65		fine
02 28 E	+73 04	2-3"	7.52	A2	10-10-10	"	400/130		guiding
02 15 E	+61 13	"	5.9	B7 III	10-10-10	"	200/65		fine
03 40 E	+50 41	"	5.62	B9 III	10-10-10	"	200/65	started on wrong star	fine
03 10 E	+60 56	"	5.58	B7 V	10-10-10	"	200/65	clock o.k. Eclipse? Seems too faint??	fine
02 42 E	+45 19	"	7.14	B8	10-10-10	"	200/65	(Moon at 23°46" S 35+4°)	guiding
02 59 W	+49 16	"	$v=$ 6.42	K1 III	3-3-3	Li Search	400/550		fine
02 32 W	+3 13	"	$v=$ 3.69	G7 III	3-3-3	Li Std	80/110	$-\log w/\lambda = 5.56$	fine
01 04 W	-10 16	3"	$v=$ 2.44	K3 II	3-3-3	"	80/110	$-\log w/\lambda = 4.80$ Light cloud	fine
01 52 E	+15° 37'	3"	$v=$ 3.66	K0 II	3-3-3	"	80/110	$-\log w/\lambda = 5.36$	fine
04 45 E	+29 00		$v=$ 4.28	K1 III	3-3-3	Li Search	80/110	cont →	fine





2018

Dome Temp. ....

Transparency Conditions .....

Focus .....

Dome Temp. 45 .....

85%

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
								Dew 6mm @ 69°F WWP2	
00 33E	+16° 10'	2-3"	7.14	F8	10-12-10	Sp. Bin-Bln	400/160		li
02 26W	+50° 14'		5.62	B9 III	10-10-10	Sp. Bin-Hd	200/65		li
								Dew 9mm @ 68°F WWP2	
00 57W	9 42	2	3.66	B8 p	18-18	Sp. Bin-Bln	80/28		sl. star,
								centre to blue 9 microns	

22

Date Mon. Sat. Sept. 14-15, 1973 Observer G.I. Tr. / B.L. Tr. 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.
37429	HD 179343	19 <sup>h</sup> 07 <sup>m</sup> .0	+2° 27'	G12	IIa-0	13/5	64°F	19:26	20:18	C
37430	HD 183656	19 <sup>h</sup> 25 <sup>m</sup> .6	+3° 14'	G12	IIa-0	13/5		20:21	20:48	A
37431	HD 192954	20 <sup>h</sup> 12 <sup>m</sup> .6	+15° 34'	G12	IIa-0	13/5		20:50	21:56	B
37431 T1	Cal strip w/dge		180sec		"					
37432	HD 193182	20 <sup>h</sup> 13 <sup>m</sup> .8	+39 17'	G12	IIa-0	13/5		22:00	22:31	C
37433	HD 195325	20 25.5	+10 34'	G12	IIa-0	13/5		22:33	23:05	B
37434	HD 218393	23 02.6	+49 40	G12	IIa-0	13/5		23:08	23:54	C
37435	HD 206267	21 35.9	+57 02	G12	IIa-0	13/7		23:58	00:25	B
37436	b Per	04 10.7	+50 03	G12	IIa-0	13/7		00:30	00:39	C
37437	HD 213534	22 26.9	+29 02	"	"	13/5		00:45	01:18	B
37438	HD 218154	23 00.6	+29 07	"	"	"		01:21	02:17	C
37439	b Per	04 10.7	+50 03	"	"	13/7	58°F	02:23	02:31	A
37440	HD 28363	04 23.3	+15 57	"	"	9/13		02:40	03:35	C
37441	HD 30869	04 46.2	+13 29	"	"	"		03:38	04:19	B
37442	HD 28052	04 20.7	+15 23	"	"	9/5		04:20	04:36	C
37443	HD 21364	03 21.8	+9 23	"	"	9/5		04:38	04:41	A

Dome Temp. 50°F - 7%

Transparency Conditions Some Haze

300

Focus .....

Dome Temp. ....

Ending Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
00 18	C	00 25W	+2 38	1-3"	7.1	B9	17-17-17	G1 Shell	400/200		Fin
00 49	A	00 36W	+3 28	"	6.1	A0	17-17-17	"	200/100		Fin
00 58	B	00 58W	+15° 53'	"	7.3	B9	17-17-17	"	400/200		Fin
										Dev 9min @ 68% WWP2	
01 31	C	01 31W	+39 34	1-3"	6.4	A0	17-17-17	G1 Shell	400/200		Fin
01 45	F	01 54W	+10 52	"	5.92	A0e	17-17-17	"	200/100		Fin
01 54	C	00 06W	+50 07	2-4"	6.99	A5p	17-17-17	"	400/200		Fin
02 25	L	02 05W	+55 27	"	5.83	06	17-17-17	Sp. Bin - Blk	200/160		sl shog
02 33	L	04 20E	+50 17	3-1	4.57	A2	17-17-17	"	80/57		Fin
02 41	E	02 06W	+29 27	"	6.28	A5	17-17-17	"	400/200		Fin
02 47	C	02 31W	+24 35	"	7.01	A0	17-17-17	"	400/200		Fin
02 53	L	02 27E	<del>1</del>		4.57	A2	25-25	"	80/56		Fin
02 55	L	01 34E	+16 08	2-4"	7.14	F8	17-17-17	Sp Bin - Blk	400/160		Fin
03 19	B	01 12E	+13 39	1-3"	6.70	F5	17-17-17	"	400/160		Fin
03 30	C	00 30E	+15 37	"	4.73	F0	17-17-17	"	40/30		sl shog
03 41	L	00 35W	+9 43	"	3.66	B8p	25-25	"	40/16		Fin





263

\* balced sept 15

Date 1973 Sept 16/17 Sun/Mon Observer Bln-Tu/LR-Ja 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.
37447	HD 206267	21 <sup>h</sup> 35 <sup>m</sup> .9	+57° 02'	G-12	IIa-06*	13/7	57°F	19:04	19:23	A
37448	HD 190658	20 00.9	+15 13	G-12	IIa-06*	13/5		19:29	21:11	C
37448T	Cal step	wedge	90 sec		"					
37449	HD 214946	22 <sup>h</sup> 36 <sup>m</sup> .7	+44° 29'	G-12	IIa-06*	13/5		21:14	22:10	A
37450	HD 225093	23 58.3	+72 36	"	"	"		22:15	23:05	C
37451	HD 206267	21 35.9	+57 02	"	"	13/7		23:10	23:28	A
37452	HD 26961	04 <sup>h</sup> 10 <sup>m</sup> .7	+50° 03'	G-12	IIa-06*	13/7		23:33	23:39	B
37453	2 Tau	03 21.8	+9 23	"	"	13/5		23:44	23:47	C
37454	HD 24912	03 <sup>h</sup> 52 <sup>m</sup> .5	+35° 30'	"	"	13/7		23:50	23:54	A
37455	HD 24760	03 <sup>h</sup> 51 <sup>m</sup> .1	+39° 45'	"	"	"		23:57	23:59	C
37456	HD 14633	02 <sup>h</sup> 16 <sup>m</sup> .7	+41° 02'	"	"	13/5		00:07	00:48	B
37457	HD 12323	01 <sup>h</sup> 55.8	+55 08'	"	"	13/3		00:54	03:23	C
37458	HD 14443	02 14.9	+56° 42'	"	"	13/3		03:27	04:59	B
37459	b Per.	04 10.7	+50° 03'	"	"	13/7		05:03	05:10	C
37459II	Focus Test			"		13	46°			B

Dome Temp. 47° H=78%

Transparency Conditions Very Good

304

Focus .....

Dome Temp. 38° 84

Ending Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
02:12	A	02 50 E	+57° 25'	7	5.83	06	10-10-10	Sp. Bin-Blu	200/85		Fin
00:41	C	00 32 W	+15 31	3"-6"	6.34	M2III	10-10-10	Sp. Bin-Hd	400/230		sl. weak
										Dew 9 mi @ 695 mwp2	
01:10	A	01 05 E	+44° 55'	3"-5"	7.12	A2	10-10-10	Sp. Bin-Hd	400/120		Fin
01:15	C	01 32 E	+73 04	"	7.52	A2	10-10-10	"	400/100		Fin
01:22	A	01 15 W	+57 23	"	5.83	06	10-10-10	Sp. Bin-Blu	200/80		sl strong
01:29	A	05 12 E	+50 16		4.57	A2	10-10-10	Sp. Bin-Blu	40/28		Fin
01:40	C	04 13 E			3.66	B8p	25-25	"	40/10		Fin
01:54	A	04 37 E	+35 46	5"	1.04	J7	10-20	"	40/15		guiding
02:05	-	04 30 E	+39 59	5"	2.71	B0.5V	15-15	Sp. Bin-Blu	40/14		guiding
02:07	B	02 07 E	+41 24	"	7.26	08V	10-10-10	Bin-Search	800/240		sl strong
02:23	C	00 50 W	+55° 33	2-3	2.88	09V	10-10-10	"	800/190		sl strong
02:57	A	02 05 W	+57° 03'	"	2.4	B2Ibp	10-10-10	"	800/200		Fin
03:10	C	00 22 W	+50 16	"	4.57	H2	10-10-10	Sp. Bin-Blu	80/53		Fin
			in air 10/10				5/5	no filter			ok





Dome Temp. 54°

H=64°

Transparency Conditions

Photometric

306  
P Dipper

Focus

Dome Temp. 45

802

0:42

0:07  
Sat

x sat 0:38

Hour	Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
01	52 <sup>m</sup> W	+77 44	1.2"	6.66	A0	10-10-10	Hd Sp Bin	200/50		
02	24W	+75 30	2"	6.84	F0	10-10-10	"	200/65		Low
00	09E	+13 16	2"	6.1	B8IV	10-10-10	"	200/50		Low
00	40W	+15 30	1.2"	6.34	M2III	10-10-10	"	200/140		Low
01	28E	+44 56	2"	7.12	A2	10-10-10	"	400/110		Low
01	22E	-11 40	2.3"	5.9	B7V	10-10-10	"	200/53		Low
04	30W	+37 19	1"	9.58	04I4+ 089In	10-10-10	Bln Sp Bin	800/140	no cond out 1:21:21	Low
									Dev 9 min 58°F 11:02	
									clouds - Closed 2:40	



Dome Temp.  $43^{\circ}$  H=6270

Transparency Conditions *Excellent - Photometric*

308

Focus .....

Dome Temp.  $37^{\circ}$  H=78

54+ x 00:40

Ending Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
19:00		01 05E	+10 39	3"-4"	4.15	K3 II	50	std vel	40/28		fine
19:26	B	00 45E	+47 01	2"-4"	5.54	095E	17-17-17	Bin-Search	200/90		sl. strong
21:09	C	00 17E	+33 20	2"-4"	7.52	095E	17-17-17	"	400/200		sl. strong
21:10	B	02 14W	+54 24	"	9.21	B25Ib	10-10-10	"	800/200		Lim
21:21	C	00 08W	+55 32	"	8.88	095E	10-12-10	"	800/175		sl. strong
21:42	B	01 34W	+57 04	"	8.4	B2 Top	12-12-12	"	800/200		Lim
										Dew 9 min 0637 WWP2	
										" "	
										" "	
21:46	C	02 <sup>h</sup> 10W	+41 26	1"-2"	7.26	085E	12-12-12	"	400/125	possibly double or split - as they are	sl. strong
							5/5	no filter			
										Tried to spot housecat comet	

407

\* listed Sept 20 7.52.5

Date 1973 SEP 21/22 Fri/Sat Observer Blm-Tu 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.
37474	HD 198183	20 <sup>h</sup> 43 <sup>m</sup> .5	+36° 07'	G-12	IIa-Ob*	13/7	53°	18:53	18:57	A
37475	HD 226868	19 54.6	+34 56	"	"	20/3		18:59	21:06	B
37475 T1	Cal step wedge for	37475		36sec	"					
37475 T2	Cal step wedge for	37474		108sec	"					
37476	HD 206267	21 <sup>h</sup> 35 <sup>m</sup> .9	+57° 02'	G-12	IIa-Ob*	13/7		21:08	21:37	C
	<del>VLM Proc</del>	<del>20<sup>h</sup> 09<sup>m</sup>.9</del>	<del>+30 16'</del>	<del>G-12</del>	<del>IIa-Ob*</del>	<del>13/3</del>		<del>21:45</del>		

Dome Temp

Focus

Dome Temp

Hour Angle  
End

02.55E

0.50E

E

11

Dome Temp.  $48^{\circ}$  H=61%

Transparency Conditions Fair and deteriorating.

310

Focus .....

Dome Temp.  $37^{\circ}$  H=70%

Warren Note

Ending Time EST	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
14.17	A	02 05E	+36 27	1-2"	4.42	B5V	15-17	Sp. Bin-Bin	70/17"		good
14.16		00 54E	+35 12	"	9.74	B0.6	12-12-12	"	800/161	cloud } overexposed	low
										Dev 12 min @ 69° MWP2	
										Dev 9 min @ 69° MWP2	
14.22	C	00 15W	+57° 25'	2-0"	5.83	06	12-12-12	Sp. Bin-Bk	200/84		
			+8° 44'			<del>6.15 A95</del>	<del>100</del>	<del>" Sp. Bin-Bk</del>	<del>400/</del>	Cloud	



Dome Temp. 56 °F 83%

Transparency Conditions 50% cloud cover @ 19"

312

Focus .....

Dome Temp. 52° 97%

Ending Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
00:02	A	00 <sup>H</sup> 30 <sup>M</sup> W	+58° 48'	2"-4"	4.93	AIV	12-12-12	Sp. Bin-Bln	80/34		Pin
00:30	B	02 <sup>H</sup> 15 <sup>M</sup> E	+57° 25'	4	5.83	06	12-12-12	Sp. Bin-Bln	200/110		sl. strong
00:30	C	01 <sup>H</sup> 23 <sup>M</sup> E	+28° 40'	4	6.90	A9+ A9	12-12-12	Sp. Bin-Bln	400/150		Pin
00:13	A	01 25 E	+29° 25'	2"-4"	6.28	A5	12-12-12	Sp. Bin-Bln	200/75		Pin
00:00	B	01 48 W	+35 46	"	7.60	WA45 "09.15"	12-12-12	"	400/135		sl. strong
00:00	A	00 28 E	+24 34	"	7.01	A0	12-12-12	"	400/120		guiding
00:00	C	<sup>29</sup> 01 19 W	+57° 25'	"	5.83	06	12-24	Sp. Bin-Bln	200/34	OVERDEVELOP	guiding
										Dev Time @ 60°F MLWP	





















221

13<sup>h</sup> Sept 24

13<sup>h</sup> Sept 28

Date SDS Sun Sept 29 20 1973 Observer Ri - Watson 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.
37492	M42 328-116	19 <sup>h</sup> 55 <sup>m</sup> 0	+39° 41'	G-12	IIa 013 <sup>h</sup>	18/4	58°F	21:34	23:34	A
37493	HD 222399	23 <sup>h</sup> 35 <sup>m</sup> 1	+37° 06'	G-12	IIa 013 <sup>h</sup>	13/5		23:43	00:53	B
37493T1	cal step wedge	108 <sup>mm</sup>			IIc 08 <sup>h</sup>					
37494	HD 1658	00 <sup>h</sup> 15 <sup>m</sup> 8	+66° 27'	G-12	IIa 013 <sup>h</sup>	13/5		00:59	02:06	C
37495	HD 13994	02 <sup>h</sup> 11 <sup>m</sup> 0	+57° 04'	G-12	IIa 013 <sup>h</sup>	13/5		02:10	03:25	A
37496	HD 17506	02 <sup>h</sup> 43 <sup>m</sup> 4	+55° 29'	G-12	IIa 013 <sup>h</sup>	13/5		03:35	03:52	B
37497	HD 26965	04 <sup>h</sup> 10 <sup>m</sup> 7	+70 49'	G-12	IIa 013 <sup>h</sup>	13/5		03:58	04:34	C
37497T1	cal step wedge	108 <sup>mm</sup>			IIa 08 <sup>h</sup>					
37498	HD 116328	06 <sup>h</sup> 27 <sup>m</sup> 6	-23° 21'	G-12	IIa 013 <sup>h</sup>	13/5		04:38	04:55	A
37499	HD 38670	05 <sup>h</sup> 42 <sup>m</sup> 4	+20° 50'	G-12	IIa 013 <sup>h</sup>	13/5		05:00	05:18	C
37499T1	focus test	cut out/cu				13	51°F			B

Dome Temp

Focus

Dome Temp

Hour Angle  
End

Dome Temp. 45°F 68%

Transparency Conditions *excellent*

322

Focus 05 R

Dome Temp. 38°F 63%

Hour	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality	
00:34	4	03457W	+39° 48'	3-4'	3.11	Em	12-12-12	Waterloo Pkg	800/35		Very good
00:53	3	01432W	+37° 33'	5"	6.8	F1 IV	12-12-12	Sp B in Waterloo	400/160		Fin
											Dev 9mm @ 68°F MW 12
01:00	2	00405W	+66° 54'	4-5	7.08	A0	12-12-12	Un Bw - Waterloo	400/120		Fin
01:25	A	01429W	+57° 25'		7.0	B2 III	12-12-12	Sp Bw "	400/160		Fin
01:53	3	01425W	+55° 50'		5.41	K3 Ib	12-12-12	Un Bw "	200/100		Fl. good
01:34	0	00440W	-07° 50'		5.14	K0 V	12-12-12	" "	200/100		Fin
											Dev 9mm @ 68°F MW 12
01:55	A	01417E	-03° 20'	6	4.08	B05 12	12-12-12	" "	200/60		Fin
01:58	0	00409E	+20° 55'		5.02	B9	12-12-12	" "	200/60		Fin
	8						6/6 in field				

423

\*baked 28 sept

Date 30 SEPT / OCT 1 1973 Sun/Mon Observer Blu-Ri-McFadden Julian Day

LR-Ri

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
37500	HD 206267	21 <sup>h</sup> 35 <sup>m</sup> .9	+57° 02'	G-12	IIa-0b*	9/7	58°F	18:53	19:13	A
37501	HDE 226868	19 <sup>h</sup> 54 <sup>m</sup> .6	+34° 56'	G-12	IIa-0b*	18/5		19:23	00:16	B
37502	HD 12323	01 <sup>h</sup> 55 <sup>m</sup> .8	+55° 08'	G-12	IIa-0b	13/3		00:22	01:35	C
37502T1	cal dup wedge	108 sec			IIa-0b					
37503	HD 14633	02 <sup>h</sup> 16 <sup>m</sup> .7	+41° 02'	G-12	IIa-0b	9/5		01:47	02:30	A
37504	HD 14443	02 <sup>h</sup> 14 <sup>m</sup> .9	+56° 42'	G-12	IIa-0b*	13/3		02:36	03:48	B
37505	HD 48279	06 <sup>h</sup> 37 <sup>m</sup> .5	+01° 49'	G-12	IIa-0b*	13/3		03:59	04:54	C
37506	HD 23862	03 <sup>h</sup> 43 <sup>m</sup> .3	+23° 51'	G-12	IIa-0b*	9/7		04:58	05:15	A
37507	HD 21364	03 <sup>h</sup> 21 <sup>m</sup> .8	+09° 23'	G-12	IIa-0b*	9/5		05:18	05:21	B
37508	HD 26961	04 <sup>h</sup> 10 <sup>m</sup> .7	+50° 03'	G-12	IIa-0b*	9/7		05:35	05:32	C
37508F1	focus test out out / L.W.				IIa-0	9	51°F			B

Dome Temp. 44°F H=58%

Transparency Conditions *excellent*

324

Focus .05R

Dome Temp. 40°F 83%

Ending Time EST	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
9:13	A	02404E	+57°25'		5.83	06	12-12-12	Sp. Bin-Bln	200/100		slight
00:16	B	04440W	+35°08'	2	9.74	09.726	12-12-12	" "	800/450		slight
00:35	C	00°02E	+55°32'	1-2"	8.88	09.72	12-12-12	LR Bin Search	800/170	changed focus to 30-R	slight
00:30	A	00°31W	+41°23'	2-3	7.26	08.7	12-12-12	" "	400/125		slight
00:48	B	01450W	+57°05'		8.4	08.726	12-12-12	" "	800/200		slight
00:51	C	01425E	+01°48'	2-5"	8.08	08.7	12-12-12	" "	800/150		slight
00:55	D	<u>02451W</u>	+24°08'	2-3	5.1	08.7	12-12-12	Q1 steel	200/90		slight
01:00	B	02418W	+09°44'	"	3.66	08.7	12-12-12	Sp. Bin - Bln	40/12		slight
01:02	C	01439W	+50°16'	"	4.57	A2	18-18	" "	40/17		slight
							6-6	no filter			ok.

ms  
Pg #1

\* baked Sep 28  
\*\* baked Oct 5

Date Oct 5-6 Fri-Sat 1973 Observer Rak-Tn-Blu/ 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.
37509	HD 206267	21 35.9	+57 02	G12	Duo-b*	13/5		18:30	18:44	A
37510	HD 206874	21 39.9	+28 20	"	"	"	60°	18:59	19:48	C
37512	b Per	4 10.7	+50 03	"	"	9/7		20:01	20:20	B
37511	HD 213534	22 26.9	+29 02	"	"	13/5		20:38	21:05	C
37513	b Per	4 10.7	+50 03	"	Duo	9/7		21:18	21:44	B
37514	HD 218154	23 00.6	+24 07	"	Duo-b*	13/5		21:54	22:35	A
37515	HD 198183	20 43.5	+36 07	"	"	13/7		22:38	22:44	C
37516	HD 206267	21 35.9	+57 02	"	"	9/7		23:00	23:22	A
37517	b Per	04 10.7	+50 03	"	IIIaJ	"		23:28	23:49	B
37518	HD 24760	03 51.1	+39 43	"	Duo-L	"		23:57	23:59	C
37519	x Per	03 49.1	+30 45	"	Duo-b*	13/5		00:10	00:42	A
37520	HD 21364	03 21.8	+9 23	"	"	9/5		00:52	00:59	B
37521	HD 28363	04 23.3	+15 57	"	"	9/3		01:05	02:00	C
37521T	Col step	wedge	90 sec		Duo-b*	for 4 Duo-b* plates				
37522	b Per	04 10.7	+50 03	G12	IIIaJ	9/7		02:08	02:21	B
37522T	Col step	wedge	270 sec		"	for IIIaJ plates				

Dome Temp.  $54^{\circ}$  H=560

Transparency Conditions *Excellent*

322

Focus .....

Dome Temp. ....

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
02 12 E	+57 24	1.2"	5.83	06	10-10-16	Sp Bin - Kln	200/60		Fin
01 15 E	+28 43	2.3"	6.90	A9/A9	12-12-12	"	400/152		Fin
07 <del>08</del> E		3"-8"	4.57	A2	12-24	"	200/110		Fin
00 45 E	+29 27	2-3"	6.28	A5	12-12-12	"	200/60		Fin
05 50 E	+50 16	3-4"	4.57	A2	30-30-30	"	40/45		very weak
00 13 W	+24 32	"	7.01	A0	12-12-12	"	400/130		guiding Fin
02 40 W	+36 27	"	4.42	B5E	18-18	"	40/18		Fin
02 25 W		3-5"	5.83	06	12-12-12	"	200/90		Fin
03 46 E	+50 16	"	4.57	A2	30-30-30	"	40/40		very weak
03 14 E		"	2.71	B0.5V	18-18	"	40/15		sl. sh.
02 30 E	+31 01	"	6.0- 6.6	Op	12-12-12	X-Fog-Bln	200/70		Fin
01 46 E	+9 42	2-3"	3.66	B8p	18-16	Sp Bin - Kln	40/12		Fin
01 46 E	+16 11	3-4"	7.14	F8	12-12-12	"	400/110		Fin
								Dec 9. m. @ 69°F MWP2	
01 12 E	+50 17	1-2"	4.57	A2	30-30-30	"	40/40		very weak
								Dec 0. m. @ 89°F MWP2	

22 pg 22

Date Oct 6/73 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.	P.H.
37523	HD 24912	03 52.5	+35 30	G12	D <sub>10</sub> -6 <sup>*X</sup>	13/7		02 32	02 36	A
37524	"	"	"	"	"	"	53°	02 40	02 41:30	B
37525	HD 28052	04 20.7	+15 23	"	"	"		02 57	03 03	C
37526	HD 30869	04 46.2	+13 29	"	"	9/4		03 14	03 44	A
37527	HD 21364	03 21.8	+9 23	"	"	9/5		03 49	03 51	C
37528	b Per	04 10.7	+50 03	"	M10J	9/7		04 01	04 12	B
37529	"	"	"	"	"	9/7		04:18	04 28	C
37530	HD 41161	05 58.2	+48 15	"	D <sub>10</sub> -6 <sup>44</sup>	13/5		04:33	05:05	A
37530T1	Cal step wedge	90sec			"					

Dome Temp  
Focus  
Dome Temp

Hour Angle  
End

50 36E

50 36E

50 40E

50 23E

51 09W

50 38W

50 56W

50 14E

250  
328

Dome Temp. ....  
Focus .....  
Dome Temp. ....

Transparency Conditions *Excellent* .....

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
00 36E	+35 46	2"	4.04	07	12-24	SP Br-6 1/2	40/19	"prob bad guid"	guiding stray.
00 31E	+35 46	"	"	"	18-18	"	40/15		fine
00 40E	+15 38	"	4.73	FOU	18-18	"	40/25		fine
00 23E	+13 41	2"3'	7.10	F5	12-12-12	"	400/130		fine
01 09W	+9 43	"	3.66	B8p	8-18	"	40/12		fine
00 38W	+50 17	"	4.57	A2	25-25-25	"	40/35	uncertain if uncapped?	
00 56W	"	"	"	"	25-50	"	40/35	Don't think B8p MWDZ	nil
00 14E	+48 17		6.51	B0	12-12-12	"	200/70	approx ending time Looked for comet K "no luck"	fine sundays 7/11 5:30
								Last 2 photos in separate box	







4371

\* baked Oct 5

Date Oct 10-11/73 Observer Tn-Hu, MN, SW 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
37534	A Her	15 52.1	+42 51	G12	Da J	13/15	66°F	18:28	19:09	A	4 15W
37535	HD 186547	19 39.9	+13 04	"	IIaob*	"		19:14	19:28	B	4 46W
37536	HD 190658	20 00.9	+15 13	"	"	"		19:31	21:02	C	1 59W
37536T	Cal step (Peris)	wedge	90sec		"						
37537	HD 10516	01 37.4	50 11	"	IIIa J	13/15		21:23	21:40	A	3 00E+
37538	"	"	"	"	"	"		21:49	22:15	B	2 26E
37538T	Cal step	wedge	6min		"						
37539	HD 216494	22 48.2	-12 09	"	IIaob*	"		22:24	22:40	A	3 50W-
37539F	Focus			"	"		59			B	

Dome Temp

Focus

Dome Temp

Hour Angle  
End

Dome Temp. 56° H=67%

Transparency Conditions Good - Hazy

332

Focus .....

Dome Temp. 50° H 98%

Ending Time EST	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
9:09	A	4 15W	+42 42	2"	5.6	Be	25-45-45	Sp Bin - Hd	200/300		guiding weak
9:28	C	0 46W	+13 18	"	6.1	B8IV	10-10-16	"	200/60		fin
10:02	C	1 59W	+15 30	"	6.34	M2II	12-12-12	"	200/150		ok weak
										Dev 9min @ 68°F MWP2	
11:40	A	3 00E	+50 35		3.95	B0p	50-40-40	"	200/300	Testing exposure times for	fin
12:15	C	2 25E	"	2"	"	"	40-40-40	"	40/80	III a5 plates	fin
										Dev 9min @ 68°F 11w/32	
1:00	A	0 50W	-11 39		5.9	B9II	12-12-12	"	200/60		fin
			main filter				5/5	no filter		& fog	ok







Dome Temp. 45° 12-806

Transparency Conditions Clear by 01<sup>h</sup>

336

Focus .....

Dome Temp. 43 907

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
0131E	+39 58	46	2.31	905E	18-18	SpE-16	40/18		sl strong
0056E	+31 02	"	6.0- 6.6	Op	12-12.12	"	200/30		sl strong
0036E	+15 11	"	7/14	F8	12-12-12	"	400/60	cloud <b>OVERDEVELOP</b>	sl weak
						Dev 9min @ 68°F MW82		Get covered upon -	



937  
pg #1

\* 11 Oct  
\*\* evacuated

Date 1973 OCT 14/15 SUN/MON. Observer Bl. T. Jr. T. 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.
37546	HD 213534	22 <sup>h</sup> 26 <sup>m</sup> .9	+29° 02'	G12	IIIa-06*	13/5	58°F	18:23	18:32	A
37547	HD 190918	20 <sup>h</sup> 02 <sup>m</sup> .2	+35° 31'	"	"	"		18:36	18:46	B
37548	<del>HDE 339766</del> <del>IDR Val</del>	20 <sup>h</sup> 10 <sup>m</sup> .7	+26° 30'	"	"	"		18:53	20:54	C
37549	HD 206267	21 35.9	+57° 02'	"	"	9/9		20:58	21:22	B
37550	6 Per	04 10.7	+50 03	"	IIIa-J**	9/7		21:27	22:03	C
37551	HD 218154	23 00.6	+24 07	"	IIIa-06*	9/5		22:16	22:50	B
37552	HD 29363	04 23.3	+15 57	"	"	9/3		22:57	23:28	A
37553	HD 21364	03 21.8	+9 23	"	IIIa-J**	9/9		23:32	23:51	B
37554	HD 24760	03 51.1	+39 43	"	IIIa-06*	9/7		23:54	23:56	A
37555	HD 24760	03 51.1	+39 43	"	IIIa-J**	9/7		23:59	00:05	B
37556	HD 3651	00 34.2	+20 43	"	IIIa-06*	6/9	58°F	00:21	01:57	A
37556T	Cal step	wedge	forbidden	Duo	"	90:5C				
37557	HD 27371	04 14.1	+15 23	G12	IIIa-J**	6/9		02:06	03:45	B
37557T	Cal step	wedge	forbidden		IIIa-J**	10 min				
37558	HD 27371	"	"	G12	"	13/9		03:46	04:30	C
37559	"	"	"	"	"	18/9		04:31	05:00	B

Dome Temp. 57°F H=58%

Transparency Conditions Excellent - some fast cloud

slight haze from low clouds  
very strong water

338

Focus .....

Dome Temp. ....

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
02 42E	+29 27	2-4"	6.28	A5	12-12-12	Sp. Bin-Bln	200/60	scintillation	fine
00 01E	+35 47	2	7.60	WN 4.5 09.5 Ia	12-12-12	Sp. Bin-Bln	400/130		fine
01 58W	+26 46	2-4"	4.3	65	12-12-12	Sp. Bin-Bln	800/280	scintillation	<b>WRONG STAR, Bl</b> weak arc all weak
01 00W	+57 25	2"	5.83	06	12-12-12	"	200/130	broken 1/2" or less	weak arc fine
04 55E	+50 16	2-4"	4.57	A2	10-20-70	"	40/120	Looked @ R Agr V49.1	weak arc fine
01 03W	+24 35	3-4"	7.01	A0	12-12-12	"	400/120		fine
03 42E	+16 10	4-5"	7.14	F8	12-12-12	"	400/110	close to D	weak arc all weak
02 16E	+9 42	3-4"	3.66	B8p	60-60-60	"	40/144		all weak
02 46E	+40 00	2-3"	2.71	B0.5 V	18-18	"	40/16		scintillation
02 39E	+40 00	"	2.71	B0.5 V	60-60-60	"	40/90+		fine
02 37W	+21 11	"	6.7	K0.5	12-12-12	Grant -Ir	200/180		fine
00 45W	+15 39	"	4.65	K0-120b	90-90	"	40/225	Dev 9 min @ 68°F with 2 very close to D	weak arc weak
01 30W	"	"	"	"	90-90	"	40/225	Dev 9 min @ 68°F with 2	weak arc all weak
02 00W	"	"	"	"	90-90	"	40/225		weak





241

Visitors. Ast 200 class included  
*ring nebula*

\* baked Oct 11/73

Date 1973 Oct 15/16 Mon-Tues Observer H.U. - T.M. 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.
37561	HD 142926	15 52.1	+42 51	G12	IIaob*	13/5	56°F	18:22	18:31	A
37562	HD 190658	20 00.9	+15 13	"	"	"		18:35	19:43	B
37563	HD 214946	22 36.7	+44 29	"	"	13/5		20:16	20:55	B
37564	HD 216494	22 48.2	-12 09	"	"	"		21:00	21:34	C
37564T1	Cal step wedge		90sec		"					
37564R	Focus Test			G12		13	53°			
37564T2	Ex test for Evacuated IIaJ			"	IIaJ					A
37565	HD 225093	23 58.3	+72 36	G12	IIaob*	13/5	52°F	21:46	22:46	A
37566	HD 225229	23 59.9	+60 45	"	"	"		22:48	23:00	B
37567	HD 10260	01 35.3	+60 32	"	IIIaJ	"		23:03	00:21	A
37568	HD 21364	03 21.8	+09 23	"	IIaob*	9/9		00:27	00:31	B
37569	HD 11291	01 45.8	+50 18	"	"	13/5		00:38	00:46	C
37570	HD 16066	02 29.8	+67 38	"	"	"		00:49	02:11	A
37570T	Cal step wedge		11 min		IIIaJ					

Dome Temp. 50° F H=50%

Transparency Conditions Excellent

342

Focus 30-R

cloud by 21h

Dome Temp. 35 H=80

Ending Time EST	P.B.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
18:31	14	00 56W	+42° 42'	4"	5.6	Be	12-12-12	Hd Sp Bin	400/140		line
19:43	P	01 00W	+15 33	"	6.34	M2II	12-12-12	"	400/300		line
20:55	P	00 23E	+44 56	2-4"	7/12	A2	12-12-12	"	400/140		line
21:15		00 04W	-11 38	3-6"	5.9	B9I	12-12-12	"	200/70	clouds	line
										Dev 9min @ 68°F MWK2	
				mm low cut			5/5	no filter			
	A			simple Arc			25 sec	no filter			plate
22:46	S	00 05W	+73 05	3-6"	7.52	A2	12-12-12	Hd Sp Bin	400/130	then clear - some clouds	guiding
23:11		00 17W	+61 12	2-4"	5.9	B7II	12-12-12	"	200/70		line
23:21		00 01W	+60 56	3-4"	5.58	B7I	60-120-120	"	200/400	this was meant to be of Per! An unfortunate mixup	plate by line
23:41	P	01 33E	+09 40		3.66	B8p	12-24	Blu Sp Bin	40/21		guiding
23:51		00 17W	+50 42	3"	5.62	B9III	12-24	Hd Sp Bin	200/70		line
23:51	P	00 56W	+67 58	3-4"	7.7	F2II	12-12-12	"	400/160	clouds	line
										Dev 9min @ 68°F MWK2	plate by



Dome Temp.  $42^{\circ}$  8370

Transparency Conditions excellent, some cloud

544

Focus .....

Dome Temp. ....

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
01 20W	+15 31	2-3	6.34	M2III	12-12-12	Hd Sp Bin	400/300		Weak
00 38E	+44 56	"	7.12	A2	12-12-12	"	400/140		Fin
								Dev 9min @ $68^{\circ}$ FMWP2	
00 30E	-11 41	3-6"	5.9	B9VI	12-12-12	"	200/75		Fin
00 00	+24 35	2-4"	7.01	A0	12-12-12	Blu Sp Bin	400/150		Fin
00 17E	+73 04	2-3"	7.52	A2	12-12-12	Hd Sp Bin	400/140		guiding
00 06E	+61 13	"	5.9	B7III	12-12-12	"	200/70		Fin
01 20E	+60 56	3-4"	5.58	B7V	12-12-12	"	200/34	very cloudy	Fin
	in in 10 out out				5/5	no filter		* overdevelop	both please
								"unsure what is what"	







347

Box 16

Date Thurs Fri Oct 18/19 1973 Observer LR-Ri 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.
37579	HD 188209	19 <sup>h</sup> 49.0	+46° 46'	G-12	IIa0B	9/5	47°F	20:38	21:12	A
37580	HD 23862	03 43.3	+23 51	G-12	IIa0B	9/7		21:20	21:55	B
37581	HD 14633	02 <sup>h</sup> 16.7	+41° 02'	G-12	IIa0B	13/5		22:00	22:41	C
37582	HD 12323	01 <sup>h</sup> 55.8	+55° 29'	G-0	IIa0B	13/3		22:46	00:46	A
3758271	cal slip wedge	a plates 37579 - 37589			IIa0B	108 mic.				
37583	HD 14443	02 <sup>h</sup> 14.9	+56° 42'	G-12	IIa0B	13/5		00:51	02:30	B
37584	HD 48279	06 <sup>h</sup> 37.5	+01° 49'	G-12	IIa0B	13/5		02:40	03:57	C
37585	HD 58978	07 22.8	-22° 53'	"	"	"		04:03	04:27	A
37586	HD 41161	05 <sup>h</sup> 58.2	+48° 15'	"	"	"		04:33	04:50	B
37587	HD 45542	06 <sup>h</sup> 23.0	+20° 17'	"	"	9/5		04:55	05:01	C
37588	HD 91316	10 <sup>h</sup> 27.5	+09° 49'	"	"	13/5		05:07	05:12	A
37589	HD 87504	10 <sup>h</sup> 00.5	+12° 35'	"	"	9/5		05:18	05:31	B
37589 F1	focus test				IIc0	9	40°F			B
	saw diffuse blob (Kohoutek?)					11 7/5	8-4.55			

Dome Temp. 38°F 82%  
 Focus 30 R  
 Dome Temp. 30°F 50%

Transparency Conditions some clouds at first  
 the good with the  
 odd cloud

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Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
02 <sup>h</sup> 54 <sup>m</sup> W	+47° 00'	terrible 6-9	5.54	09.5 II	12-12-12	<sup>LR</sup> Biang Band	200/90		strong
04 <sup>h</sup> 20 <sup>m</sup> E	+24° 00'	"	5.1	B8p	12-12-12	G1-shell	200/90	clouds	line
02 <sup>h</sup> 07 <sup>m</sup> E	+41° 25'	N4"	7.26	08 II	12-12-12	Bi Band	800/258		strong
00 <sup>h</sup> 19 <sup>m</sup> W	+55° 34'	3-4	8.88	09 II	12-12-12	"	800/190		strong
								Dev 90 = @ 68°F MWPB	
01 <sup>h</sup> 43 <sup>m</sup> W	+57° 04'	"	8.4	B22bp	12-12-12	" "	800/350	BROKEN 1/2" MISSING	SD sh.
01 <sup>h</sup> 09 <sup>m</sup> E	+01° 47'	2-3	8.08	08 II	12-12-12	" "	800/250		line
01 <sup>h</sup> 25 <sup>m</sup> E	-22° 56'		5.5	B1c	12-12-12	G1-shell	400/140		line
00 <sup>h</sup> 20 <sup>m</sup> W	+48° 46'		6.51	B0	12-12-12	Sp. Bi Bln	200/70		strong
00 <sup>h</sup> 03 <sup>m</sup> W	+20° 17'		4.04	B37 II	18-18	" "	40/21		strong
03 <sup>h</sup> 45 <sup>m</sup> E	+09° 30'		3.71	B11b	18-18	<sup>LR</sup> star Band	40/23		line
02 <sup>h</sup> 57 <sup>m</sup> E	-12° 51'		4.51	B8 II	18-18	Sp. Bi Bln	40/21	v. colorful! star band not exactly parallel line to star in the direction	
					5/5 no filter				
- looked 8-9 mag in visitors eyepiece									





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13 Oct 19

re-evaluated

Date 21/22 Oct 1973 Sun/Mon Observer Bln-R:JR-R: 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.
37594	4 Her	15 <sup>h</sup> 52.1	+42° 51'	G-12	IIa 0B	13/9	50°F	18:04	18:18	A
37595	HD 206267	21 <sup>h</sup> 35.9	+57° 00'	G-12	IIa 0B	13/9		18:22	18:34	B
37596	HD 213534	22 <sup>h</sup> 26 <sup>m</sup> .9	+29° 02'	G-12	IIa 0B	13/5		18:38	18:46	C
37597	R Ari HD 222800	23 <sup>h</sup> 38.7	-15° 50'	G-43	IIa 0B	13/13		18:58	21:37	A
37598	"	"	"	"	"	"		21:39	00:03	B
3759871	cal step wedge for plates 37594-37598				IIa 0B		108 sec			
37599	AND HD 3627	00 <sup>h</sup> 34.0	+30° 19'	G-12	IIIa J <sup>uv</sup>	36/1.2		00:36	01:00	C
37600	ARI HD 12929	02 <sup>h</sup> 01.5	+22° 59'	G-12	IIIa J <sup>uv</sup>	36/1.2		01:05	01:15	A
37601	"	"	"	"	"	"		01:16	01:52	B
37601T1	cal step wedge for plates 37599-37601				IIIa J <sup>uv</sup>		10 min			
37601T2	"				IIIa J		10 min			

Dome Temp. 49°F H=18%

Transparency Conditions .....

Focus .....

Dome Temp. 40°F 98%

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
04 <sup>h</sup> 28 <sup>m</sup> W	+40° 44'	1	5.6	Be	12-12-12	Hd Lp Bw	200/140		ok
01 <sup>h</sup> 20 <sup>m</sup> E									
01 <sup>h</sup> 20 <sup>m</sup> W	+57° 25'	<1	5.83	06	12-12-12	Sp Lp Blu	200/140		ok
02 <sup>h</sup> 00 <sup>m</sup> E	+29° 25'	1	6.28	A5	12-12-12	Sp. Bin Blu	200/60		ok
00 <sup>h</sup> 20 <sup>m</sup> E	-15° 22'		5.8 11.5	GM7cp	3	Red Ven. Blz	800/150		-
00 <sup>h</sup> 05 <sup>m</sup> W	"		5.8- 11.5	GM7cp	3-3-3	"	800/111		very weak
								200 mi @ 68°F HWP	
00 <sup>h</sup> 06 <sup>m</sup> W	+30° 46'	2	2/52	k3II	none	fant 7R	20/229		ok
00 <sup>h</sup> 54 <sup>m</sup> W	+24° 54'		3.15	k2IIIb	.	.	20/216		ok
01 <sup>h</sup> 36 <sup>m</sup> W	"						20/884		ok
						200 mi @ 68°F HWP		cloud for face	
						"			



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b 0919  
B 0022

Date 1973 Oct 22/23 Mon-Tues Observer Hu-Ri 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.
37602	HD 142926	15 52.1	+42 51	G12	IlaoL*	13/.9	54°F	18:04	18:19	A
37603	"	"	"	"	"	"		18:20	18:34	B
37604	"	"	"	"	"	"		18:35	18:47	C
37605	"	"	"	"	"	"		18:48	19:03	A
37606	HD 190658	20 00.9	+15 13	"	"	13/.5		19:07	20:18	B
37607	HD 216494	22 48.2	-12 09	"	"	"		20:22	20:39	C
37608	HD 214946	22" 36.7	+44° 29	"	"	"		20:45	21:08	A
37609	HD 225093	23 58.3	+72 36	"	"	"		21:13	21:35	B
37610	HD 11291	01 45.8	+50 18	"	"	"		21:39	21:44	C
37611	HD 15472	02 24.4	+70 30	"	IlaoB	"		21:50	22:25	A
37611 T1	cal step wedge for plates 37602 - 37610				IlaoB		108 sec			
37611 T2	cal step wedge for plates 37611 - 37616				IlaoB		108 sec			
37612	HD 160666	22 29.8	+67 38	G12	"	13/.5		22:30	23:34	B
37613	HD 21364	03 21.8	+09 23	"	"	9/.9		23:42	23:53	C
37614	HD 16440	22 33.2	+68 03	"	"	13/.5		00:00	00:54	A
37615	HD 23358	03 43.1	+44 40			"		00:58	01:11	B

Dome Temp. 56°F 63%

Transparency Conditions Excellent, then hazy...

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Focus 30 Red

Dome Temp. ....

Hour	Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
29	24 12W	+42° 41'	1	5.6	Be	12-12-12	Hd Sp Bin	200/140		R
34	4 28W	"		"	"	12-12-12	"	200/140		R
47	4 40W	"		"	"	12-12-12	"	200/140		R
03	24 56W	"		"	"	12-12-12	"	200/140		R
01	22 01W	+15° 30'	3	6.34	M2 III	12-12-12	"	200/150		R
30	20 24E	-11° 40'	2-3	5.9	B9 II	12-12-12	"	200/75		R
05	0 17W	+44 55	2'	7.12	A2	12-12-12	"	400/150		R
35	0 39E	+73° 04'	2-3	7.52	A2	12-12-12	"	400/150		R
41	0 19E	+50° 41'	1-2	5.62	B9 III	12-24	"	200/75		R
20	22 17E	+70° 52'	1-2"	8.0	B4e	12-12-12	"	400/150		R
									12-9-12 06:00-11:00	
									" " " "	
34	21 15E	+67° 59'	1-2	7.7	F2 II	12-12-12	Hd Sp Bin	400/175	haze developing	R
53	4 4E	+09° 13'	1-2	3.66	B8 p	12-12-12	Bin Sp Bin	200/105		R
17	" 02W	+68° 24'	1-2	8.0	B7 III	12-12-12	Hd Sp Bin	400/150		R
	49E	-24 55	1-2	5.79	g65	12-12-12	"	200/90	+ bin at 10:00	R





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