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1.

6 12 FOCUS :

2.

- 1) MAKE FINAL SETTING WITH RED NOS. DECREASING
- 2) FOR CENTRE TO VIOLET, CORRECT BY INCREASING RED NOS.
- 3) DECREASING TEMP. CAUSES C. TO VIOLET
- 4)  $\cdot 5 \text{ D.U.} = 21 \text{ MICRONS ON FOCUS PLATE}$   
 $= \text{MOVEMENT OF CAMERA } 6 \times 10^3 \text{ IN.}$

TYPICAL FOCUS : 90R (WINTER)  
51R (SUMMER)



Home Temp. ....  
Focus .....  
Home Temp. ....

Transparency Conditions .....

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

DAVID DUNLAB OBSERVATORY  
74" LOGBOOK  
VOL. 43  
PLATE NOS 34451-35715  
MAY 1971 - JUNE 1972

5

Mang Vicitols till 11<sup>h</sup> 50<sup>m</sup>!  
GH-62 83-75

Date May 8/9 SAT/Sun Observer Dy/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
34451	HD 153720	16 <sup>h</sup> 56.0	+75 34	812	Da-0	13/0.5	52°F	23 <sup>h</sup> 01	00 <sup>h</sup> 13	A	1 <sup>h</sup> 35
34452	HD 154528	17 00.9	+77 48	"	"	"		00 <sup>h</sup> 20 <sup>m</sup>	01 02	B	1 <sup>h</sup> 25
<del>34453</del>	<del>AC Her</del>	<del>18 26.0</del>	<del>+21 47.9</del>	<del>"</del>	<del>"</del>	<del>13/3</del>		<del>01<sup>h</sup> 21</del>		<del>A</del>	
34452	IC Sct	18 42.1	-05 48.8	"	"	13/3	52°F	01 36	02 06	B	1 <sup>h</sup> 25
34454	HD 127459	19 45.0	+33 11	"	"	13/5		02 13	02 53	A	02 06 E
34455	HD 192276	20 09.0	+47 26	"	"	13/5		02 56	03 38	B	01 04 E
34456	HD 191610	20 05.7	+36 33	"	"	13/5		03 42	03 52	A	01 27 E
34457	HD 186791	19 41.5	+10 22	"	"	"	50°F	03 57	04 07	B	00 49 E

Dome Temp

Focus 40

Dome Temp

Hour Angle  
End

Dome Temp.  $48^{\circ}\text{F}$   $H=77\%$ Focus  $40R$   ~~$5R$~~ Dome Temp.  $46^{\circ}\text{F}$   $H=78\%$ Transparency Conditions *Excellent**Cirrus in SW.*

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ng Time S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
13	1 <sup>h</sup> 23 E	+25 30	2 <sup>3</sup> "	6.84	F0	6-6-6	B2/SP Bi	400/260		sl. wk
02	1 <sup>h</sup> 02 E	+47 45	"	6.66	A0	6-6-6	"	400/200		(GUIDING) WK
		<del>+21 55</del>		<del>7.4- 9.6</del>	<del>F2- K4</del>	<del>6-</del>	<del>RV Tau</del>	<del>800/</del>	<i>too faint</i>	
06	1 <sup>h</sup> 50 E	-5° 40'	2 <sup>3</sup> "	<del>6.3- 8.6</del>	<del>G0- K0</del>	6-6-6	RV Tau	400/180		v. sl. wk
53	02 06 E	+33 27	2"	6.46	B0.5	6-6-6	Bln: SP Bi	200/100		(GUIDING) FINE
30	01 44 E	+47 43	"	6.6	B2V	6-6-6	G2: Sp-Bin	200/100		(GUIDING) FINE
52	01 27 E	+36 50	"	4.82	B3Ve	6-6-6	SpBin-Bln	200/100		
07	00 49 E	+10 37	2 <sup>3</sup> "	4.15	K3II	6-6-6	std Vel	40/30		FINE

7.

Date 10/11 May '71 Mon/Tue 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
34458	HD 77309	08 <sup>h</sup> 56 <sup>m</sup> .7	+54° 41'	G-12	IIa-0	13/5	64°F	20:14	20:26	A	02:18 W
34459	HD 93702	10 44.0	+11 04	"	"	"		20:28	20:40	B	00 46 W
34460	HD 104451	11 56.6	+30 06	"	"	13/3	63°F	20:43	23:13	A	02 02 W
34461	HD 103483	11 49.9	+42 02	"	"	13/5		23:18	23:56	B	02 59 W
34462	HD 107325	12 15.3	+27 11	"	"	13/3	61°F	00:01	00:23	A	03 00 W
34463	HD 130841	14 45.4	-15 38	"	"	13/5	"	00:28	00:30	B	00 37 W
34464	HD 134646	15 05.9	+63 30	"	"	"		00:36	01:22	A	01 20 W
34465	HD 124675	14 09.9	+52 15	"	"	"		01:25	01:38	B	02 13 W
34466	HD 124897	14 11.1	+19 42	"	"	"		01:36	01:37	A	02 19 W
34467	HD 130109	14 41.2	+2 19	"	"	"		01:43	01:47	B	02 00 W
34468	HD 141458	15 44.1	+13 01	"	"	"	60°F	01:51	02:25	A	01 27 W
34469	32 Ser	15 44.4	-3 07	"	"	"		02:29	02:32	B	01 41 W
34470	HD 152614	16 49.3	+10 20	"	"	"		02:35	02:39	A	00 44 W
34471	HD 161868	17 42.9	+2 45	"	"	"		02:42	02:46	B	00 05 E
34472	HD 164577	17 56.7	+1 18	"	"	"		02:47	02:53	A	00 11 E
34473	HD 159026	17 27.3	+38 57	"	"	"		02:56	03:28	B	00 55 W



Dome Temp.  $53^{\circ} 50'$ Transparency Conditions Excellent - some grad. haze

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Focus .....

Dome Temp. ....

Time T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
6	A	02 18 W	54 28	1-2"	5.64	A2m	6-6-6	Sp. Bin-Blu	200/100		FINE
0	B	00 46 W	+10 48	2	5.29	A2V	6-6-6	"	200/100		FINE
3	A	02 08 W	+29 48	1-3"	$\sqrt{V=}$ 8.4	9F3	6-6-6	"	400/160		SC WK
6	B	02 59 W	+46 44	2-3"	6.46	AD	6-6-6	"	400/200		(GUIDING) SC WK.
23	A	03 00 W	+26 52	2-3	$\sqrt{V=}$ 5.47	gK2	6-6-6	"	400/200		FINE
30	B	00 37 W	-15 49	2"	2.79	Am	10-10	"	40/19		(GUIDING) FINE
2	A	01 10 W	+63 15	1-2	$\sqrt{V=}$ 6.75	F2	6-6-6	"	400/260		(GUIDING) SC WK
8	B	02 13 W	+52 00	2	4.74	A7III	10-10	"	40/18		FINE
2	A	02 19 W	+19 25	2	1.30	K2III <sub>p</sub>	10-10	RV STD	40/29		SC STR
7	B	02 00 W	—	2	3.74	A0V	10-10	Sp Bin-Blu	40/18		FINE
5	A	01 34 W	+12 55	1-2"	6.80	A0	6-6-6	"	400/200		(GUIDING) FINE
32	B	01 41 W	-3° 16'	"	3.50	A0V	10-10	"	40/18		FINE
4	A	00 44 W	+12 17	"	4.30	B8V	6-6-6	"	40/19		FINE
6	B	00 05 E	+2 47	"	3.79	A0V	10-6-3	"	40/18		FINE
3	A	00 11 E	+1 23	"	4.46	A1V	10-10	"	40/18		(GUIDING) FINE
8	B	00 55 W	+38 59	"	$\sqrt{V=}$ 6.35	F2m	6-6-	"	400/260		FINE

a.

Date May 11/71 cont Observer Bln-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.
34474	HD 187459	19 45.0	+33 11	G12	IIoO	13/15		03:32	03:56	A
34475	HD 191616	20 05.7	+36 33	"	"	"		03:58	04:02	B
34476	59 Cyg	20 43.5	+36 07	"	"	"	59°F	04:05	04:09	A
34476F	Focus			"	"	13	"			B
34476T1	Calibratn step wedge for plates 34458-34466							May 11/71		
34476T2	"	"	"	"	"	34467-34476		"		

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

0055E  
0109E  
0140E  
0140E

MW

Dome Temp. ....

Transparency Conditions .....

Focus .....

Dome Temp. 50°F H=52%

Time T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
56	A	00 55 E	+33 25	2"	6.66	B05I6	6-6-6	Sp Bin-Bln	400/200		FINE
02	B	01 09 E	+36 51	"	4.82	B5IIc	10-10	"	40/18		FINE
07	A	<del>01 40 E</del> 02 20 E	+36 28	"	9.42	B5V	10-10	"	40/18		(GUIDING) FINE
	B						3/3	no filter			GOOD
		MWP-2 @ 68°F for 9 min									
		"	"	"	"						





Date THUR/FRI 13/14 MAY '71 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.	How Angle End
34478	HD 93702	10 44.0	+11 04	G-12	II <sub>4</sub> -0	13/5		20:19	20:35	A	0055W
34479	HD 110411	12 36.8	+10 47	"	"	"	52°F	20:39	20:55	B	0037E
34480	HD 77309	08 56.7	+54 41	"	"	"		21:03	21:25	A	0330W
34481	HD 103483	11 49.9	+47 02	"	"	"		21:28	22:04	B	0117W
34482	HD 104451	11 56.6	+30 06	"	"	20/3	51°F	22:09	23:57	A	0305W
34483	HD 107325	12 15.3	+27 11	"	"	13/3		00:01	00:21	B	0310W
34484	HD 130841	14 45.3	-15 38	"	"	13/5		00:24	00:26	A	0045W
34485	HD 130109	14 41.2	+2 19	"	"	"		00:29	00:32	B	0056W
34486	HD 124897	14 11.1	+19 42	"	"	"		00:36	00:37	A	0132W
34487	HD 124675	14 09.9	+52 15	"	"	"		00:42	00:48	B	0144W
34488	HD 134646	15 05.9	+63 30	"	"	"		00:53	02:29	A	0228W
34489	HD 141458	15 44.1	+13 01	"	"	"		02:34	03:28	B	0250W
34490	HD 152614	16 49.3	+10 20	"	"	"		03:31	03:37	A	0159W
34491	HD 167965	18 12.5	+42 08	"	"	"		03:40	03:52	B	0042W
34492	HD 191610	20 05.7	+36 33	"	"	"		03:54	04:00	A	0100E
34493	HD 198183	20 43.5	+36 07	"	"	"	45°F	04:02	04:06	B	0130E

Dome Temp.

Focus

Dome Temp.

How Angle  
End

Dome Temp. 49° H=59%

Transparency Conditions Fair-Poor/Excellent after 22:00

Focus .....

Dome Temp. 39°F H=69%

Funny satellite - 2:30 - 2:40  
big dipper → 2800

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Time T.	P.H.	Hour Angle End	Declination	-Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
35	A	00 55W	+10 46	3	5.29	A2V	6-6-6	Sp. Bin-Blu	200/100		FINE
55	B	00 37E	+10 27	"	4.97	A1V	6-6-6	"	80/38	some cloud	(GUIDING) FINE
25	A	03 30W	+54 26	"	5.64	A2V	6-6-6	"	200/100	"	FINE
04	B	01 17W	+46 41	2"	6.46	A0	6-6-6	"	400/200		FINE
57	A	03 05W	+29 44	3	8.7	gF3	6-6-6	"	800/300	new plate box	U.S.C. WK
21	B	03 10W	+26 51	3	<sup>v=</sup> 5.47	gK2	6-6-6	"	400/200		V.S.C. WK
6	A	00 45W	-15 54	2-3"	2.89	Am	10-10	"	40/19		FINE
2	B	00 56W	+ 2 05	2	3.74	A0V	10-10	"	40/18		FINE
7	A	01 32W	+19 24	2	1.30	K2III <sub>p</sub>	10-10	RV STD.	40/25		FINE
8	B	01 44W	+52 00	3	4.74	A1V	10-10	Sp. Bin-Blu	40/18		FINE
A		02 28W	+63 15	3-5"	<sup>v=</sup> 6.75	F2	6-6-6	"	400/260		FINE
8	B	02 50W	+12 52	3-8	6.80	A0	6-6-6	"	400/200		FINE
7	A	01 54W	+10 16	4	4.30	B5V	6-6-6	"	40/18		(L. PCB) FINE
E		00 42W	+42 12	3"-4"	5.51	B6V <sub>1</sub>	6-6-6	"	200/100		FINE
0	A	01 00E	+36 48	2"-4"	4.82	B5V <sub>c</sub>	10-10	"	40/18		FINE
6	B	01 30E	+36 26	4	4.42	B5V	10-10	"	40/18		FINE

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#1

(\* D<sub>10</sub> - Old 16hr baked)Date Fri-Sat 14/15 May 71 Observer G.I.-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
34494	HD 78316 (K Cnc)	9 <sup>h</sup> 02 <sup>m</sup> 3	+11° 04'	G12	II-a-0	9/5		20:19	20:35	A	2 <sup>h</sup> 0W
34495	HD 77350 (V Cnc)	9 <sup>h</sup> 56 <sup>m</sup> 9	+24° 05'	"	"	"	53°F	20:40	21:00	B	2 <sup>h</sup> 09W
34496	HD 87737 (γ Leo)	10 <sup>h</sup> 01 <sup>m</sup> 9	+17° 15'	"	"	"		21:02	21:06	A	02 11W
34497	HD 114330 (θ Vir)	13 <sup>h</sup> 04 <sup>m</sup> 8	-5° 00'	"	"	"		21:10	21:20	B	00 <sup>h</sup> 7E
34498	HD 118022 (78 Vir)	13 <sup>h</sup> 29 <sup>m</sup> 9	+4° 10'	"	"	"		21:25	21:39	A	00 42E
34499	HD 118216	13 30.3	+37 42'	"	"	"		21:43	22:01	B	00 21E
34500	HD 137909	15 23.7	+29 27	"	"	"	53°F	22:05	22:09	A	00 <sup>h</sup> 06E
34501	HD 145389	16 05.6	+45 12	"	"	"		22:14	22:20	B	02 36E
34502	HD 144287	16 00.0	+25 30	"	*	13/3		22:26	23:16	A	01 35E
34503	HD 145457	16 06.0	+27 01	"	*	"		23:18	23:46	B	01 <sup>h</sup> 11E
34504	HD 154510	17 00.8	+28 04	"	*	13/3		23:55	00:51	A	0 <sup>h</sup> 01E
34505 <	HD 169169	18 18.3	+14 57	"	*	13/5	49°F	00:57	01:57	B	01 <sup>h</sup> 02E
34506	HD 196502	20 32.8	+74 37	"	D <sub>10</sub> cut	9/5		02:09	02:23	B	02 51E
34507	HD 207260	21 42.5	+60 40	"	II-0	"		02:30	02:38	A	03 59E
34508	HD 202850	21 13.5	+38 59	"	"	"	48°F	02:46	02:52	B	03 11E
34509	HD 201601	21 05.5	+9 44	"	"cut	"		02:59	03:15	A	02 41E

Dome Temp.

Focus .....

Dome Temp.

Hour Angle  
End



Dome Temp. 47°F H=5290

Transparency Conditions Excellent

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Focus .....

Dome Temp. ....

Time T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
35	A	02 <sup>h</sup> 40W	+10 53	2"	5.24	B8p	6-6-6	G1 Apem	200/100		FINE
00	B	03 <sup>h</sup> 09W	+24° 39'	"	5.46	B9p	6-6-6	"	200/100		FINE
06	A	02 11 W	+16° 59'	"	3.48	A0I	10-10	"	40/18		FINE
20	A	00 <sup>h</sup> 37E	-5° 18'	"	4.37	A1V	6-6-6	"	200/97		FINE
39	A	00 42 E	+3° 52'	"	4.94	A2p	6-6-6	"	200/100		FINE
01	B	00 21 E	+37 23	1"-2"	4.95	F2IV	10-10	"	200/130		FINE
09	A	02 <sup>h</sup> 06 E	+29 15	"	3.66	F0p	10-10	"	40/24		FINE
20	B	02 36 E	+45° 04'	2"	7.24	B9p	10-10	"	40/18		FINE
16	A	01 35 E	+25° 23'	"	8.24	G8V	3-3-3 3-3-3	5.5 V	800/350	very fast	FINE
00	B	01 <sup>h</sup> 11 <sup>m</sup> E	+26 52	1"-2"	8.14	K0III	3-3-3 3-3-3	"	800/350	"	FINE
01	A	01 <sup>h</sup> 01 <sup>m</sup> E	+28 11	1"-2"	8.59	K1III	3-3-3 3-3-3	"	800/350	"	V.S.L. WK
02	B	01 <sup>h</sup> 12 <sup>m</sup> E	+15° 03'	"	7.40	A2p	6-6-6	G1 Apem	400/200		MISSING
23	B	02 56 E	+74 55	2"-3"	5.19	A0p	6-6-6	"	200/100		FINE
38	A	03 53 E	+61° 02'	1"	4.28	A2I	10-10	"	40/18	maybe double	V.S.L. WK
52	B	03 11 E	+39° 17'	"	4.24	B9J	10-10	"	40/18		FINE
15	A	02 41 E	+10° 04'	"	4.64	F0p	10-	"	40/24		FINE





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\* baked plates

Public night Ans-Gl

74 - 59

Date May 15/16 1971

Observer MEU-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.
34511	HD 154528	17 00.9	+77 48	G12	II'd*	131.5	57°F	22:45	01:19	A

Dome Tem  
Focus  
Dome Temp  
Hour Angle  
End  
0022





Dome Temp.  $54^{\circ}\text{F}$   $H=51\%$

Transparency Conditions *Excellent*

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Focus .....

*Good Aurora*

Dome Temp.  $47^{\circ}\text{F}$   $H=50\%$

Time	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
2	A	02 21W	$+28^{\circ} 27'$	1"	8.14	G8 III	$\begin{matrix} 3-3-3 \\ 3-3-3 \end{matrix}$	55V	800/300		FINE
6	B	02 13W	$+24^{\circ} 15'$	1.2"	8.24	G2 V	$\begin{matrix} 3-3-3 \\ 3-3-3 \end{matrix}$	"	800/300		FINE
11	A	01 01E	$+25^{\circ} 23'$	2"	8.24	G8 V	$\begin{matrix} 3-3-3 \\ 3-3-3 \end{matrix}$	"	800/300		FINE
18	B	00 47E	$+75^{\circ} 30'$	2-3"	6.84	F0	6-6-6	G7 SPEC. BIN.	400/200		FINE
7	A	02 09E	$+33^{\circ} 17'$	"	5.7	B6-7	6-6-6	"	400/280		STR
37	B	00 13E	$+25^{\circ} 36'$	"	8.14	K1 III	$\begin{matrix} 3-3-3 \\ 3-3-3 \end{matrix}$	55V	800/300		FINE
0	A	00 36W	$+29 47$	"	8.00	K0 III	$\begin{matrix} 3-3-3 \\ 3-3-3 \end{matrix}$	"	800/340		FINE
7	E	01 36W	$+04 39$	3"	3.93	K2 III	10-10	std vel	40/25		FINE
	Y						3/3	no filter			GOOD
										HIGH BACKGROUND	
										FOG ON ALL THESE	
										PLATES	





Dome Temp.  $56^{\circ}$  53%  
 Focus .....  $5-R$   $40-R$   
 Dome Temp.  $53^{\circ}$  55%

Transparency Conditions  $Fair - lots\ of\ Cirrus\ and\ 22$   
 $Cirrocumulus\ around$

Time T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
2	B	$01^h 03^m W$	$+10^{\circ} 48'$	2	5.29	A2V	6-6-6	Sp. Bin-Blu	200/100		FINE
6	A	$03 07 W$	$+54 29$	2	5.64	A2u	6-6-6	"	200/100		FINE
9	B	$01 00 W$	$+46 41$	$2^+ 3^+$	6.46	A0	6-6-6	"	400/200	Clouds moving in at 21:10	(GUIDING) FINE
2		$00 25 W$	$+10 27$	2	4.97	A1V	6-6-6	"	80/36		FINE
5	L	$01 07 E$	$+2 03$	"	3.74	A0V	6-6-6	"	80/40	cloud	FINE
10	A	$01 44 W$	$+26 54$	1-2	$v=$ 5.47	gK2	6-6-6	"	400/200		FINE
4'	S	$00 07 F$	$+19 25$	2	1.30	K2III <sub>p</sub>	10-10	R V. Std	40/25		STRONG
51	A	$00 35 E$	—	2	2.89	Am	10-10	Sp. Bin-Blu	40/20		(GUIDING) FINE
03	B	$00 12 W$	$+52 00$	1-2	4.74	A7IV	6-6-6	"	40/19		FINE
2	A	$00 50 W$	$+63 17$	"	$v=$ 6.75	F2	6-6-6	"	400/170	Cloud at 23:30 Cut short - overdevelop phase	(GUIDING) SL. WT +
	R						3/3	no filter		Closed 02 <sup>h</sup>	VERY SLIGHT CENTRE TO R.
	C			"			"	"			VERY SLIGHT CENTRE TO WILET IN THE HD.
		$20 WP$	$2/9.0 mi @$		$68^{\circ} F$						

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 Date Tues-Wed 18/19 May 71 Observer Ih 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>34530</del>	<del>89 Her</del>	<del>17 51.4</del>	<del>126 09</del>	<del>G12</del>	<del>D90</del>	<del>13/5</del>		<del>00:42</del>		<del>A</del>

Dome Temp

Focus .....

Dome Temp

Hour Angle  
End

Dome Temp. 70°F

H = 65%

Transparency Conditions Very Hazy

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Focus .....

Dome Temp. ....

Time T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
	A			2'4"	5.48	F5p	6-	G1001	400f	Forget it Will this sky ever make up its' mind?	
										JIM: IT'S PROBABLY OK TO GO BACK TO USING P.H.C.; ALSO, THE SHORT UNEXP. PLATES ARE OK	
										FOCUS CHANGED TO 20-R	

Date Wed/Thur 19/20 May 71 Observer GJ-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 End
34530	HD 93702	10 <sup>h</sup> 44 <sup>m</sup> .0	+11° 04'	G12	Ilod	13/5	75°F	20:38	21:20	A	2415W
34530F1	fouled out at 19/20					9	73°F			B	

Dome Temp  
Focus ...  
Dome Temp

Hour Angle  
End



27

Date Thurs/Fri 20/21 May '71 Observer B. L. - P. I. 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.
34531	HD 130841	14 45.4	-15 38	G-12	IIa-D	13/5	64°F	00:19	00:25	A
34532	HD 130109	14 41.2	+2 19	"	"	"		00:27	00:35	B
34533	HD 103493	11 49.9	+47 02	"	"	"		00:40	02:00	C
34534	HD 124675	14 09.9	+52 15	"	"	"		02:05	02:15	A
34535	HD 141458	15 44.1	+13 01	"	"	"		02:18	03:16	B
34536	HD 152614	16 49.3	+10 20	"	"	"		03:18	03:24	C
<del>34537</del>	<del>HD 170073</del>	<del>18 22.5</del>	<del>+58 45</del>	<del>"</del>	<del>"</del>	<del>"</del>		<del>03:29</del>	<del>03:41</del>	<del>A</del>
34538/37	HD 191610	20 05.7	+36 33	"	"	"		03:44	03:54	B
34538 37F	founder	out of focus		"	"	9	58°F			B
34537 T1	calibration	step used for plates			34530 -	34537			21 May/71	

Dome Temp.  $56^{\circ}$  H=52%

Focus .....

Dome Temp.  $50^{\circ}$  H=59%

Transparency Conditions *Clouds at start - but clearing*  
*Excellent at end* 98

Time	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
5	A	01 <sup>h</sup> 12 <sup>m</sup> W	-15° 51'	2-3	2.89	Am	6-6-6	Sp. Bin - Bin	40/18		FINE
	B	01 27 W	+ 2 06	3	3.74	A0V	6-6-6	"	40/18	Cloud	FINE
	C	05 43 W	+ 46 44	5-10	6.46	A0	6-6-6	"	400/175		FINE SL. MK
	A	03 37 W	+ 52 00	3-4	4.74	A7IV	6-6-6	"	40/19		FINE
	C	03 05 W	+ 12 53	2-3	6.80	A0	6-6-6	"	400/200		FINE
	C	02 07 W	+ 10 17	"	4.30	B8V	6-6-6	"	40/18		FINE
	A	00 53 W	+ 58 47	3	4.98	A1V	6-6-6	<del>"</del>	40/18	Broken discarded New Plate Box	
	B	00 38 E <del>01 38 E</del>	+ 36 49	"	4.82	B3Ve	6-6-6	"	40/18	turn heater to clock drive off	FINE
	B						3-3	no filter		* Remaining plates in Box # May be fogged. Test plate (unexp.) placed w/ exp. plates	GOOD
		2 W.P. - 2/9.0 min @ 68° F / 240C									
											TEST PLATE # 4

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Date Fri Sat May 21-22 1971 Observer Rm - 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.
34538	$\gamma$ Oph <sup>HD</sup> 162714	17 <sup>h</sup> 47.3	-06° 07.2	G-12	IIaO	13/3	54°F	00:18	2 <sup>h</sup> 22	B
34539	U Vul = HD 185059	19 <sup>h</sup> 32.2	+20° 06.6	G-12	IIaO	13/3		02:28	3 <sup>h</sup> 13	A
34540	RSet	18 42.1	-05° 48.8	G-12	IIaO	13/L	52	03:19	4 <sup>h</sup> 05	B

Dome Temp

Focus .....

Dome Temp

Hour Angle

End

5:11 W

0442 E

3:30 W







Dome Temp. 50°F H=55%

Transparency Conditions Excellent-good

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Focus .....

Dome Temp. 45°F 58%

Time	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
4	A	01 <sup>h</sup> 43 <sup>m</sup> W	+10° 43'	2	5.29	A2V	6-6-6	Sp. Bin-Blu	200/100		FINE
7	B	03 <sup>h</sup> 41 <sup>m</sup> W	+54° 30'	2-3	5.64	A2N	6-6-6	" "	200/100		FINE SLOW
8	C	01 <sup>h</sup> 28 <sup>m</sup> W	+46° 42'	2	6.46	A0	6-6-6	"	400/200		SL. WK
7	D	03 <sup>h</sup> 47 <sup>m</sup> W	+29° 46'	2	8.7	gF3	6-6-6	"	800/320	Very slow comp: 34460 + 34482. Ed.?	SL. WK
8	E	04 <sup>h</sup> 10 <sup>m</sup> W	+26° 56'	2-3	$\sqrt{5.47}$	gK2	6-6-6	"	400/200	new box II	SL. WK
30	F	<del>01<sup>h</sup>27<sup>m</sup>W</del> 01 <sup>h</sup> 37 <sup>m</sup> W	+12° 54'	2	6.80	A0	6-6-6	"	400/175		VISI. WK
5	G	00 <sup>h</sup> 56 <sup>m</sup> E	+20° 23'	2	$\frac{7.3}{2.0}$	F8- K0	6-3-6	Cepheid/Ed	300/301		SL. WK
8	H	00 <sup>h</sup> 55 <sup>m</sup> W	+01° 20'	2	$\frac{7.29}{4.03}$	F8- K0	6-6	Cepheid/Ed	800/200		VERY WEAK

Date 23/24 May Sun Mon Observer McU - 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.
34549	HD 84441	09 <sup>h</sup> 40 <sup>m</sup> .2	+24° 14'	G-12	IIa06	13/0.5	60°F	20 23	20 26	A
34550	HD 105898	12 06.2	+25 19	G-12	"	13/0.3	59°F	21.30	21 52	B
34550F1	found test out/out/w			G-12	"	9	58°F			B
T1										A
T2										C
T1 & T2 are test plates looking for the conditions which produce										
T1) 10 minutes strong light around 3 doors										
T2) 15 minutes all dome lights on (telescope closed)										
<del>HD 144287</del>		<del>16<sup>h</sup> 00<sup>m</sup>.0</del>	<del>125° 30'</del>	<del>G-12</del>	<del>IIa06</del>	<del>13/0.3</del>		<del>00 24</del>		<del>A</del>
34550 T3	calibration				step wedge for plates	34538 - 34548				25 May 1971

Dome Temp. 53°F / 51% RH

Transparency Conditions clear with clouds in horizon N.W.

Focus .....

Dome Temp. 50°F / 57%

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Time	P.R.	Hour Angle End	Declination	Seeing	Fig. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
6	F	02 28W	+24 00	2	3.76	80II	6-6-6	STD VEL	40/26		FINE
2	E	01 28W	+25 00	2-3	8.9	GEV	3-3-3 3-6	SSV	800/210	clouded out	FINE
	R						3-3	no filter			GOOD
											BOTH PLATES NOW NO FOG
		plate fogging:								Unknown - please develop 34550, T1, & T2 as strongly as possible	
		<del>00 35W</del>	<del>+25 25'</del>	<del>3"</del>	<del>8.24</del>					clouds came in again so give up.	
1971		mwr-2 / 9.0 min @ 68°F / 2400150									
		plate 34549 - 34550 T2 : 15 min @ 68°F									
		Monsieur. New grating installed for G12 (should be same dispersion) Also copper and grating cover synchronized.									





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Date May 28-29 Fri-Sat Observer Durr/Tn Rm 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
34551	HD 153720	16 <sup>h</sup> 56 <sup>m</sup> .0	+75° 34'	G12	DA0	13/5	61°F	20 <sup>h</sup> 50	21:38	A	03:10
34552	HD 154528	17 00.9	+77 48	"	"	"		21:54	22:18	B	02:35
34553	HD 144287	16 00.0	25 30	"	"	13/3	59°F	22:45	23:50	C	00:05
34554	<sup>Y. Op =</sup> HD 162714	17 <sup>h</sup> 47.3	-06° 07.2	"	Ba0	13/3		00 <sup>h</sup> 03	00:47	A	00:55
34555	<sup>U. Vol =</sup> HD 185059	19 32.3	+20 07	"	"	"	57°F	00 <sup>h</sup> 53	02:25	B	01:08
34556	R Sct =	18 42.1	-5 49	"	"	13/5		02:37	03:07	A	00:30
34557	S Sgc = <sup>HD 12872</sup>	19 52.0	+16 22	"	"	13/5	55°F	03:13	03:43	C	00:02
34557 T1	Calibratn	step	wedge	for	plates	34551-57		May 29 / 70			min



Dome Temp. 52°F H=52%

Transparency Conditions Good - Excellent

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Focus .....  
Dome Temp. 50°F H 52%

Time	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
8	A	0310 E	+75° 28'	1.2"	6.84	F0	4-4-4	Sp-Lin-G2	400/200		Fine guiding
8	B	0235 E	+77° 44'	"	6.66	A0	4-4-4	"	400/140		Fine
	C	0005 E	+25° 23'	"	8.24	G8V	4-4-4	S 5 V	800/300		Fine
7	A	0055 E	-6° 03'	2.3"	7.01- 7.83	F85b- G31b	4-4-4	Cepheid/ Evans	800/300		Fine
5	B	0103 E	+20° 22'	2"	7.8- 9.0	F8- K0	4-4-4	"	800/300		vs weak
7	A	0030 W	-5° 40'	3"	6.3 -5.6	G0- K0	4-4-4	RV Tau	400/220		Fine
3	C	0003 E	+16 39	"	5.87 -7.02	F616 -G516	4-4-4	Cepheid-Evans	400/210		Fine <sup>fog*</sup>
		MWP-2 / 9.0 min @ 68°F									





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Date May 30/31 Sun-Mon Observer McCl-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
34563	HD 88476	10 07.1	+23 44	G-12	IIa06	13/0.3	68°F	20 41	22:11	A	04 14
34564	HD 145001	16 03.6	+17 19	"	"	13/0.5	66°F	22 21	22:45	B	01 06
34565	HD 144287	16 00.0	+25 30	"	"	13/1.3	65°F	22 49	23:57	C	00 08
34566	HD 145457	16 06.0	+27 01	"	"	"	64°F	00 00	00 46	A	0 53
34567	HD 154510	17 00.8	+28 14	"	"	"	64°F	00 51	03 19	E	02 30
34568	HD 191610	20 05.7	+36 33	"	"	13/1.5		03 23	03 29	C	00 23
34569	HD 152614	16 49.3	+10 20	"	"	"		03 33	03 41	A.	03 03
34569 F	Focus			"	"	13				B	

31 May 19 71

Dome Temp. 60°F H=56%

Transparency Conditions scattered cloud

Focus

- but very good

Dome Temp. 52°F H=70%

Time T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
1	A	04 14 W	28 27	2-3"	8.14	G3II	2-2-2 2-2-2	SSV	800/240	Cloud by 22h	FINE
15	E	01 06 E	+17 12	2"	6.1	G4	4-4-4	std vel	400/180	Cloud	FINE
7	C	00 08 W	+25 25	2"	8.24	G8I	2-2-2 2-2-2	S.S.V	800/300		FINE
4	L	00 53 W	+26 55	2-3"	8.14	K0II	2-2-2 2-2-2	"	800/300		FINE
9	E	02 30 W	+28 13	2-4"	8.59	K1II	2-2-2 2-2-2	"	800/300	Windy	* FINE
9	C	00 23 E	+36 50	~8"	4.82	B3Vc	6-6	Sp Bin-Bln	40/14		sc. 57R
1	A	03 03 W	+10 18	3-8"	4.30	B8I	6-6	"	40/14		FINE
	P	in in / out out					2/2	no filter			GOOD
										* FINGERPRINTS, ABRASION MARKS	
47		nw p. 2 / 9.0 min @ 65°F									
								Note: I find the Comp. spectra a little weak. I would like to see it about 50% stronger so that $\lambda 4602$ can be seen, H.H.			



Dome Temp.  $53^{\circ}\text{F}$  H=47%Transparency Conditions Bolton Spectroscopic

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Focus .....

Dome Temp.  $50^{\circ}\text{F}$  H=48%

Time	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
5	A	00 31 E	$-15^{\circ} 52'$	2-5	2.89	Au	9-5	Sp. Bin-Blu	200/76		V.S. WK
4	E	00 09 E	$+2^{\circ} 05'$	2-3	3.74	A0V	7-7	"	200/75		FINE
2	C	02 07 E	$+10^{\circ} 18'$	1-2	4.30	B0V	7-7	"	200/76		* FINE
2	A	01 34 E	$+2^{\circ} 07'$	"	3.86	A1V	7-7	"	200/75		* FINE
2	B	02 37 E	$+4^{\circ} 40'$	2"	3.93	K2 III	7-7	RV Std Slit Test	200/100		FINE
1	C	02 31 E	"	"	3.93	K2 III	6-6	"	200/100		FINE
3	A	02 27 E	$+4^{\circ} 40'$	"	3.93	K2 III	6-6	"	200/103		FINE
6	B	00 30 W	$+12^{\circ} 54'$	2-3	6.80	A0	7-7	Sp. Bin-Blu	400/170	Both Blu + Tu thought that 14145% was fr than 6.75 mag comp. at 300 + but later seemed normal. Feb 2	V.S. WK
	L	n i.	1 out out				3/3	100 filter			GOOD
										* WEAK comp.	

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Date 3/4 JUNE '71 Thu/Fri Observer B/n-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.
34578	HD 93702	10 <sup>h</sup> 44. <sup>m</sup> 0	+11° 04'	G-12	IIa-0	13/5	63°F	20:37	20:51	A
34579	HD 104451	11 56.6	+30 06	"	"	20/13		20:58	22:32	B
34580	HD 103483	11 49.9	+47 02	"	"	13/5		22:35	23:01	C
34581	HD 124675	14 09.9	+52° 15'	"	"	11		23:05	23:09	A
34582	HD 120841	14 45.3	-15 38	"	"	11		23:12	23:14	B
34583	HD 107325	12 15.3	+27 11	"	"	13/5	61°F	23:20	23:56	C
34584	HD 124897	14 11.1	+19 42	"	"	11		00:00	00:01	A
34585	HD 130109	14 41.2	+2 19	"	"	11		00:05	00:07	B
34586	HD 141458	15 44.1	+13 01	"	"	11		00:11	00:43	C
34587	HD 152614	16 49.3	+10 20	"	"	11		00:49	00:51	A
34588	HD 159026	17 27.3	+38 57	"	"	11		00:59	01:27	B
34589	HD 164577	17 58.7	+1 18	"	"	11	61°F	01:30	01:34	C
34590	HD 177178	18 58.5	+1 40	"	"	11		01:37	01:55	A
34591	HD 167965	18 12.5	+42 07	"	"	11		01:56	02:02	B
34592	HD 170073	18 22.5	+58 45	"	"	11		02:05	02:09	C
34593	HD 195965	20 29.3	+47 53	"	"	11		02:15	02:33	A



Dome Temp.  $59^{\circ}$  H = 86%

Transparency Conditions

Lots of Grd. haze - fair

46

Focus .....

Dome Temp. ....

Time	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
1	A	02 34W	+10° 46'	2-3	5.29	A2V	8-8	Sp. Bin-Plu	200/85		V.S.G. WK
2	F	03 02W	+29 47	2	8.7	F3	5-6-6	"	800/300		SL. WK
1	C	03 38W	+46 45	"	6.46	A0	6-6-6	"	400/180		SL. WK
2	A	01 26W	+52° 00'	2	4.54	A7IV	9-9	"	40/15		(GUIDING) FINE
14	X	00 55W	-15 50	2-3	2.89	Am	9-9	"	40/15		FINE
6	C	04 09W	+26 53	"	$\sqrt{2}$ 5.47	K2	8-5-5	"	200/130		SL. WK
1	A	02 18W	+19 24	2"	1.30	K2II	9-9	RV St.	40/19		FINE
7	C	01 54W	+2 06	2-3"	3.74	A0V	9-9	Sp. Bin-Plu	40/15		FINE
2	C	01 26W	+12 55	2	6.80	A0V	8-6-6	"	400/180		(GUIDING) SL. WK
1	A	00 30W	+10 17	1-2	4.30	B8V	9-9	"	40/15		FINE
2	C	00 28W	+38 58	1-2	$\sqrt{2}$ 6.35	F2u	6-6-6	"	400/230		(GUIDING) FINE
4	C	00 04W	+1 23	"	4.36	A1V	6-6-6	"	240/15		FINE
5	A	00 36E	+1 53	"	5.68	A2	6-6-6	"	200/85		V.S.L. WK
2	C	00 18W	+42 15	1	5.51	A2V	6-6-6	"	210/85		FINE
4	C	00 16W	+56 50	1	4.93	A1V	9-9	"	40/17		(GUIDING) FINE
3	A	01 27E	+48 09	1	6.72	B2	6-6-6	"	400/180		SL. WK



Dome Temp. ....

Transparency Conditions ..... *Excellent*

48

Focus .....

Dome Temp. *57°F H=9270*

Time	P.R.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
2	B	00 25E	+33 25	1"2'	6.66	B0576	6-66	Sp B12-B14	400/180	very fast!!	SL.WK
	A	01 31E	+30 10	2	5.6	AD	6-66	"	200/85		FINE
8	C	01 30E	+12 05	2"3'	5.97	B12	6-6	"	200/85		V.SL.WK
	B	00 09E	+36 50	"	4.82	B37e	9-9	"	40/15		(GUIDING) FINE
	B	00 36E	+36 28	1"2'	4.42	B52	9-9	"	40/15		FINE
	B	<i>min / out of</i>					2/2	<i>no filter</i>			GOOD







Dome Temp. 64°F 83% = H

Transparency Conditions

Very good - some cloud  
very hazy by 5:00

52

Focus

Dome Temp. 60°F H=8970

Time I.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
25	A	02 47E	+75 30	1"-2"	6.84	FD	6-6-6	spBin-GZ	400/230		SL. WEAK
28	C	02 17E	+77 45	"	6.66	AD	6-6-6	"	400/180		FINE
27		03 17E	+38 10	2'-3'	5.7	B67	6-6-6	"	400/280	some cloud	FINE
2	C	00 22W	+25 24	2"	8.24	G8V	3-3-3 3-3-3	S S V	800/310		SL. WEAK
5	A	00 48W	+26 54	"	8.14	K0III	3-3-3 3-3-3	SSV	800/330	very fast	SL. WEAK
7	A	01 01E	+29 47	"	8.00	K0III	3-3-3 3-3-3	"	800/270	some cloud	V. SL. WEAK
1	C	01 04E	+29 27	2'-3'	8.09	K2III	6-6-6	"	800/340	"	SL. WEAK
50	A	01 24W	+25 38	1"-4"	8.14	K1III	6-6-6	"	400/250	cloud	SL. WEAK
1	C	01 17W	+38 19	2"	5.7	B67	6-6-6	spBin-GZ	400/240	"	FINE
	A				3.93	K2III		std vel	40/		
	A						3/3	no filter			VERY SLIGHT CENTRE TO RED





Dome Temp. 59°F H=6270

Transparency Conditions EXCELLENT  
(SEEING POOR)

54

Focus .....

Dome Temp. 50°F H=6370

Time T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
6	A	04 46W	+27° 38'	2"-6"	6.59	A0	6-6-6	SPEC. BIN.	400/200		(GUIDING) SL. STRONG
5	B	01 03E	+36° 50'	3"-5"	5.1	B7II	6-6-6	"	400/280		STRONG
8	C	03 50E	+37 19	"	5.7	B6-7	6-6-6	"	400/280		SL. STRONG
6	A	00 37E	+75 30	"	6.84	F0	6-6-6	"	400/260		SL. STRONG
0	B	00 11W	+77 45	"	6.66	A0	6-6-6	"	400/200		SL. STRONG
56	C	00 49E	+43 16	2"-4"	6.26	A5	6-6-6	"	400/200		SL. STRONG
38	A	00 44E	+28 00	"	6.69	B5	6-6-6	"	400/200		SL. STRONG
07	B	00 44E	+13 17	"	6.1	B8II	6-6-6	"	400/200		SL. STRONG
46	C	00 35E	+47 42	"	6.6	B2II	6-6-6	"	400/200		(GUIDING) SL. STRONG
06	A	01 00E	+41 52	"	6.0	B7II	6-6-6	"	400/200		SL. STRONG
6	C	01 20W	+38 17	"	5.7	B6-7	6-6-6	"	400/280		STRONG
44	A	01 30E	+28 54	"	5.58	A0	6-6-6	"	200/100		SL. STRONG
	B	in in port out					3/3	no filter			GOOD

TELESCOPE APPEARS TO BE AT LEAST TWICE AS FAST.

55

Date JUNE 9/10 1971 WED/THU Observer Gz - 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.
34622	HD 82191	09 25.4	+27 50	G12	Ilax*	13/0.5	62°F	20 47	21 18	A
34623	HD 139892	15 35.6	+36 58	"	"	13/0.7	"	21 25	21 35	B
34624	HD 176318	18 54.6	+38 07	"	"	13/0.7	"	21 41 <sup>(26)</sup>	22 01	C
34625	HD 153720	16 56.0	+75 34	"	"	13/0.5	60°F	22 08	23:04	A
34626	HD 154528	17 00.9	+77 48	"	"	13/0.5	"	23 08	23 45	B
34627	HD 176318	18 54.6	+38 07	"	"	13/0.7	58°F	23 52 <sup>(27)</sup>	00 19	C
34628	HD 180316	19 11.0	+27 46	"	"	13/0.5	"	00 23	01 05	A
34629	HD 186547	19 39.9	+13 04	"	"	13/0.5	"	01 09	01 37	B
34630	HD 192276	20 09.0	+47 26	"	"	13/0.5	56°F	01 42	02 15	C
34631	HD 176318	18 54.6	+38 07	"	"	13/0.5	"	02 19 <sup>(11)</sup>	02 30	A
34632	HD 199892	20 54.8	+41 33	"	"	13/0.5	"	02 34	02 50	B
34633	HD 201433	21 04.4	+29 48	"	"	13/0.5	"	02 53	03 02	C
34634	HD 214946	22 36.7	+44 29	"	"	13/0.5	54°F	03 06	03:39	A
34635	HD 176318	18 54.6	+38 07	"	"	13/0.5	"	03 42 <sup>(12)</sup>	03 54	B
34635F1	focus test	cont adj	win	G12	Ilax O	9	54°F			B
					* PLATES	BAKED	16 HRS.			

Dome Temp. 54°F H=56%

Transparency Conditions EXCELLENT

Focus .....

(SEEING POOR, THEN BETTER)

Dome Temp. 50°F H=62%

Time	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
8	A	04 43W	+27 38	1-3"	6.59	A0	6-6-6	SPEC. BIN	400/200		SL. STRONG
5	B	01 09 E	+36 50	2"	5.1	BTV	6-6-6	"	400/280		VERY STRONG
4	C	04 02 E	+38 18	~2"	5.7	B6-7	6-6-6	"	400/280		STRONG
4	A	00 58 E	+75 28	2-3"	6.84	F0	6-6-6	"	400/220		SL. STRONG
5	B	00 19 E	+77 45	"	6.66	A0	6-6-6	"	400/200		SL. STRONG
4	C	01 44 E	+38 16	"	5.7	B6-7	6-6-6	"	400/280		STRONG
5	A	01 15 E	+28 00	"	6.69	B5	6-6-6	"	400/200		SL. STRONG
7	B	01 10 E	+13 17	"	6.1	B8V	6-6-6	"	400/200		SL. STRONG
5	C	01 02 E	+47 44	"	6.6	B2V	6-6-6	"	400/200	Broken: 2 per.	SL. STRONG
5	A	00 22 W	+38 18	1-2"	5.7	B6-7	6-6-6	"	400/200		STRONG
5	B	01 13 E	+41 53	"	6.0	BTV	6-6-6	"	400/200		STRONG
2	C	01 10 E	+30 10	~1"	<sup>5.6</sup> 5.79	A0	6-6-6	Si Ap-Blu	400/200		STRONG
9	A	02 05 E	+44 55	"	7.12	A2	6-6-6	SPEC. BIN	400/150		FINE
4	B	01 53 W	+38 19	"	5.7	B6-7	6-6-6	"	400/200		STRONG
	B						3-3	no filter			GOOD

Date JUNE 10/11 1971 THUR/FRID Observer G2-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 End
34636	HD 82191	09 25.4	+27 50	G12	Ilford*	13/0.5	64°F	20 45	21 07	A	04 35.6
34637	HD 139892	15 35.6	+36 58	"	"	13/0.7	"	21 12	21 17	B	01 23.6
34638	HD 176318	18 54.6	+38 07	"	"	13/0.7	"	21 21	21 33	C	04 27.1
34639	HD 153720	16 56.0	+75 34	"	"	13/0.5	62°F	21 40	22 05	A	01 58.6
34640	HD 154528	17 00.9	+77 48	"	"	13/0.5	"	22 10	22 25	B	03 35.6
34641	HD 172187	18 33.7	+43 08	"	"	13/0.5	"	22 31	22:44	C	02 55.6
34642	HD 180316	19 11.0	+27 46	"	"	13/0.5	"	22 49	23 11	A	03 05.6
34643	HD 180398	19 11.3	+12 56	"	"	13/0.3	"	23 16	23 50	B	02 26.6
34644	HD 186547	19 39.9	+13 04	"	"	13/0.5	"	23 56	00 16	C	02 29.6
34645	HD 192276	20 09.0	+47 26	"	"	13/0.5	60°F	00 21	00 53	A	01 30.6
34646	HD 176318	18 54.6	+38 07	"	"	13/0.7	"	00 58	01 10	B	00 19.6
34647	HD 153720	16 56.0	+75 34	"	"	13/0.5	"	01 18	01 52	C	01 56.6
34648	HD 154528	17 00.9	+77 48	"	"	13/0.5	"	01 57	02:21	A	02 28.6
34649	HD 199892	20 54.8	+41 33	"	"	13/0.5	58°F	02 39	03 01	B	02 58.6
34650	HD 209833	22 01.1	+28 28	"	"	13/0.5	"	03 07	03:22	C	01 45.6
34650.F1	focus test	out on D1	in in			9	56°F			T	

Dome Temp. 55°F H=52%

Focus 21 R

Dome Temp. 50°F H=54%

Transparency Conditions EXCELLENT

(SEEING TOO)

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Time	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
7	A	04 35 W	+27 38	~1"	6.59	A0	6-6-6	SPEC. BIN.	400/200		FINE
	B	01 23 E	+36° 50	"	5.1	B7E	6-6-6	"	200/125		STRONG
	C	04 27 E	+38 18	"	5.7	B6-7	9-9	"	200/125		SC. STR.
	A	01 52 E	+75 32	"	6.84	FD	6-6-6	"	400/220		FINE
	B	01 35 E	+77 45	"	6.66	A0	6-6-6	"	400/200		FINE
	C	02 55 E	+43° 14'	"	6.26	A5	6-6-6	"	400/200		FINE
	A	03 05 E	+28 00	"	6.69	B5	6-6-6	"	400/200		SC. STR
	C	02 26 E	+13 07	"	7.7	B3c	6-6-6	"	400/120		FINE
	C	02 29 E	+13 18	1-2"	6.1	B8E	6-6-6	"	400/200		SC. STR
	F	02 32 E	+47 44	"	6.6	B8E	6-6-6	"	400/200	SOME HAZE	STR.
	B	00 49 E	+38 18	~1"	5.7	B6-7	6-6-6	"	200/125		STRONG
52	C	01 56 W	+75 31	1-2"	6.84	FD	6-6-6	"	400/220	" "	FINE
	A	02 28 W	+77 45	"	6.66	A0	6-6-6	"	400/190	SOME HAZE	FINE
	B	00 58 E	+41 52	"	6.0	B7E	6-6-6	"	400/200	HEAVY HAZE	SC. STR
	C	01 45 E	+28 31	"	5.58	A0	6-12	"	400/65	" " CUT SHUT	FINE
							3-3	no filter			GOOD



Dome Temp. 56°F H-55%

Transparency Conditions Some Clear - Much Cloud (000-)<sup>60</sup>

Focus 21R

Dome Temp. 52°F 50%

P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
A	03 33W	+10 49	2-3	5.29	M2II	6-7-7	Sp Bui-Blu	200/95		FINE
B	02 23W	+26 53	1-2	6.72	gk2	7-7-7	"	400/190		FINE
C	00 05W	+15° 50	2	2.9	Am	10-10	"	40/16	clouds	(GUIDING) FINE
A	01 02W	+52 00	2	4.74	A7II	7-7-7	"	200/81	clouds	(GUIDING) FINE
R	04 57W	+46 44	1-2	6.46	A0	7-7-7	"	400/86	clouds	(GUIDING) SL. WK
C	02 00W	+12° 54	2	6.80	A0	7-7-7	"	400/150	" at start to many clouds	SL. WK
B						3-3	no filter			GOOD
14 June 1971 - new p-2 / 9.0 min @ 65°F / 2900-140										





Dome Temp.  $61^{\circ} \text{H} = 62\%$ 

Focus ..... 21.0 R

Dome Temp.  $56^{\circ} \text{F} \dots 70\%$ 

Transparency Conditions

Excellent

after making 5-10 min. clear

62

P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
7	4 <sup>m</sup> 40 W	+29° 48'	2-3	8.7	qF.3	7-7-7	Sp. Bin-Blu.	800/285		SL. WK
8	45 W	+12° 53'		6.80	A0	7-7-7	"	400/195		SL. WK
9	0 <sup>m</sup> 10 W	+20° 32'		1.8- 9.0	F8- K0	7-7-7	Cepheid/Evans	800/320		WEAK
10	24 W	-05° 38'		6.3- 8.6	G0- K0	7-14	RV Tau/ P. 14	800/32	counting too slowly	NOTHING
11	0 <sup>m</sup> 34 W	+01° 02'	2-3	4.08- 5.25	F6- G4	7-7-7	Cepheid/ EVANS	200/130		FINE
12	0 <sup>m</sup> 25 W	+15° 11'		5.04	A2V	7-7-7	Sp Bin-Blu	200/100		SL. STR
13	0 <sup>m</sup> 35 W	+25° 36'		4.59	B3V	7-7-7	"	200/100		STRONG
14						3-3	no filter			GOOD
15	7m W.P. 2	9.0 min @ 68°F						200-1K0		



Dome Temp. 58°F 76%

Focus .....  
 Dome Temp. 50°F 84%

Transparency Conditions *excellent* 64

Time	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
		0° 54W	+52° 00	3	6.61	F0	7-7-7	<i>Walden Polaris Bin</i>	400/260		(6 GUIDING) FINE
		1° 07W	"	3	4.60	A8	7-7-7	"	200/100		(54) STRONG
		1° 56E	+52° 00	3	5.64	A0	7-7-7	"	200/100		FINE
							3-3 G12	<i>no fault</i>		<i>1/2 core missing</i>	BADLY C. TO RED
		21° 22W	+39° 48		nil	Fm	2-2-2		800/200	<i>rather 36</i>	FINE
								<i>6.25, with G-12 filter</i>			?
		<i>MWP-2 / 9.0 min @ 68°F / 1/2 80C/100</i>									



Dome Temp. 60°F H=7170Transparency Conditions very good (some haze) 66  
& sl fog

Focus .....

Dome Temp. ....

Time	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
		00 03 E	—	2"	1.29	K2U <sub>p</sub>	10-10	std vel	40/20		(GUIDING) SL-STR
26	B	01 12 E	+26 54	1-2"	8.14	K0III	7-7-7	SSV	800/400	1/2" broken off & missing	FINE
36	C	01 06 E	+28 12	2"	8.59	K1IV	7-7-7	"	800/350		FINE
2	A	01 25 E	+25 38	2"	8.14	K1III	7-7-7	"	800/350		FINE
05	B	01 06 E	+29 47	"	8.00	K0IV	7-7-7	"	800/350		FINE
49	C	01 15 E	+29 27	2"-3"	8.09	K1IE	7-7-7	"	800/400		FINE
40	A	00 52 E	+28 17	2"	8.36	G5II	7-7-7	"	800/350		FINE
31	B	01 34 E	+25 52	1"	8.44	K2IV	7-7-7	"	800/400		FINE
06	C	01 00 E	+28 31	1-2"	8.14	K2III	7-7-7	"	400/200		FINE
26	B	01 50 W	+38 18	"	5.7	B6-7	7-7-7	sp Bin - GZ	200/125		SL-STR
31	C	00 45 W	+36 48	1"	4.82	B3Ve	10-10	sp Bin - Bln	40/16		SL-STR
		in in / out out					3/3	no f. / f.c			GOOD
										Anson - We need more plates - Thanks, <u>Ta</u>	

Date Thurs. Fri. June 17/18/71 Observer Bln - Jn 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.
34679	HD130841	14 45.3	-15 39	G-12	IIa-06	13/5		20:45	20:47	A
34680	HD107325	12 15.3	+27 11	"	"	13/3		20:52	22:58	B
34681	HD103483	11 49.9	+47 02	"	"	13/5	69°F	23:01	23:45	C
34682	HD124675	14 09.9	+52 15	"	"	"		23:50	23:54	A
34683	HD153751	16 56.2	+82 12	"	"	"		00:02	00:10	B
34684	HD170073	18 22.5	+58 45	"	"	"		00:15	00:21	C
34685	HD124897	14 11.1	+19 42	"	"	"	67°F	00:26	00:27	A
34686	HD130109	14 41.2	+2 19	"	"	"		00:32	00:36	B
34687	HD141458	15 44.1	+13 01	"	"	"	66°F	00:42	01:40	C
34688	HD139892	15 35.6	+36 58	"	"	13/7		01:44	01:58	A
34689	HD152614	16 49.3	+10 20	"	"	13/5		02:01	02:05	B
34690	HD187459	19 45.0	+33 11	"	"	"		02:10	02:32	C
34691	HD195965	20 29.3	+47 53	"	"	"		02:34	03:14	A
34692	HD201433	21 04.4	+29 48	"	"	"		03:18	03:30	C
34693	HD198183	20 45.5	+36 07	"	"	"		03:32	03:34	A
34693 FX	Focus			"	"	13	65°F			B

Dome Temp. 64°F H=64%

Transparency Conditions Good - some v. lt. cirrus

Focus .....

Dome Temp. 59° H=78%

Time	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
	A	00 36E	-15 52	2-3	2.89	A <sub>III</sub>	10-10	Sp. Bin-Blu	40/16		FINE
	C	04 05W	+26 51	1-2	6.72	gK2	7-7-7	"	200/500	This plate is broken in half. Please develop anyway. Exposure for K <sub>2</sub> emission	POOR DARK FOCUS BROKEN FINE
5	C	05 17W	+46 43	2	6.46	A0	7-7-7	"	400/180	broken (2pc)	FINE
7	A	03 06W	+52° 00	1-2	4.74	A <sub>IV</sub>	10-10	"	40/16	(DOUBLE EXP. FOR Fe LINES)	FINE
0	-	00 45W	+82 10	2-3	4.28	G <sub>5III</sub>	10-10	"	40/19		FINE
21	C	00 37E	+58 49	1-2	4.93	A <sub>IV</sub>	10-10	"	40/16		FINE
22	A	03 39W	+19 25	2"	1.30	K2 III <sub>p</sub>	10-10	std vel	40/19		FINE
36	S	03 19W	+ 2 06	3	3.74	A0 <sub>V</sub>	10-10	Sp. Bin-Blu	40/16		FINE
0	-	03 19W	+12 54	2	6.80	A0	7-7-7	"	400/190	Ecl.	FINE
58	A	03 45W	+36 49	1-2	5.1	B7 <sub>V</sub>	7-7-7	Sp. Bin-Gz	200/140		SC. STR
5	C	02 39W	+10 18	1-2	4.30	B8 <sub>V</sub>	10-10	Sp. Bin-Blu	40/16		(GUIDING) SC. STR
32	C	00 11W	+33 26	1-2	6.66	B0.5 <sub>IV</sub>	7-7-7	"	400/180		(SC. STR) FINE
14	A	00 10W	+48 12	"	6.82	B2	7-7-7	"	400/185		SC. STR
0	C	00 10E	+30 07	"	5.6	A0	10-10	"	200/85		SC. STR
34	A	00 15W	+36 28	"	4.42	B5 <sub>V</sub>	10-10	"	40/15		WEAK Fe COMP. SC. STR
							3/3	no filter			GOOD





Dome Temp.  $66^{\circ}$   $H=69\%$ Transparency Conditions  $\text{Hazy-Good-Excellent} = \text{cirrus } 70$ 

Focus .....

Dome Temp.  $60^{\circ}\text{F}$   $H=77\%$ 

Time	P.R.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
5	A	0035E	-15 50	2"	2.89	Am	12-12	Sp. Bin.-Blu	40/16		(GUIDING) SLWK
0	C	0205W	+19 25	2	1.30	K2III <sub>p</sub>	12-12	RV STD.	40/20		FINE
5	C	20 11 W	+19 25	2	1.30	K5III <sub>p</sub>	12-12	'	40/99	For K <sub>2</sub> emission	VERY STRONG
1	A	0450W	+29 48	1-2	8.7	gF3	8-8-8	Sp. Bin.-Blu	800/240	Cut short - <del>overdevelop</del> * (GUIDING)	FINE
0	C	02 04 W	+12 54	"	6.80	A0	8-8-8	"	400/190	Some cloud - more hazy	FINE
45	C	00 <sup>m</sup> 17E	+20 21	2"	7.8- 9.0	F8- K0	8-8-8	Cepheid-Rm	800/350 <sup>+</sup>		FINE
05	A	01 <sup>m</sup> 58W	+01° 21'	1-2'	7.29 -9.08	F8- K0	8-8-8	"	800/180	sky better (cut short) <sup>comes at the</sup> end *	SLWK **
										* <u>overdevelop please</u>	
										** HIGH BACKGROUND	F06







Dome Temp. 75°F H=81%

Transparency Conditions very good - sl haze

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Focus .....

Dome Temp. 75 55.50

Time T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
12	A	0100E	+36 48	1"	5.1	B7I	12-12	GE SPEC. BIN.	200/210		STRONG
	B	<del>0100E</del>	<del>+75 31</del>	<del>1-2"</del>	<del>6.24</del>	<del>FD</del>	<del>3</del>	<del>"</del>	<del>400/</del>	some cloud	
										<u>Closed 22<sup>h</sup></u>	
		MWP 2/9.0 min @ 41°F / 220C/100									









Dome Temp. 64° H=57%

Transparency Conditions ..... Excellent .....

78

Focus .....

Dome Temp. 60° H=64%

MIRROR COVER LEFT OPEN (9:30 am June 23<sup>rd</sup>)

Time	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
3	A	00 17 E	-15 51	2	2.89	Am	12-12	Sp. Bin-Blu	40/16		SL STR
5	B	03 46 W	+26 54	1-5	6.72	gk2	8-8-8	"	200/w550	Ex mtr. Mon not counting	VERY STRONG
9	C	04 05 W	"	1-2	6.72	gk2	8-8-8	"	200/100	Ex mtr. Mon counting	FINE
1	A	01 05 W	+12 54	1	6.80	AO	8-8-8	"	400/w190	" " " not "	SL STR
4	B	00 05 W	+10 19	1-2	4.30	F8V	12-12	"	40/16		(CALCULATING) SL STR
3	G	02 29 E	+33 27	1	6.66	BOSIL	8-8-8	"	400/-		(CALCULATING) SL STR
1	A	02 45 E	+48 10	1	6.92	F2	8-8-8	"	400/-		SL STR
8	-	00 37 W	+01 21	1 1/2"	7.29- 9.08	F8- K0	8-8-8	Cepheid/vars	800/-		FINE
10	C	00 37 E	+35 34	1"	6.5 8.20	F71b- G81b	8-8-8	Cephe. vars	200/-		FINE
9	A	00 51 W	+29 16	1-2"	6.8- 7.66	F0- G1	8-8-8	"	200/-		
4	C	00 10 W	+28 13	1"	5.82- 6.82	F51b- G07b	8-8-	"	200/		
	B		mm / out cut				3/3	no filter			GOOD

2 PLATES  
NUMBERED  
...14.



Dome Temp. 60°F H=55%

Transparency Conditions Excellent - some haze

Focus .....

Dome Temp. 60°F H=62%

Time	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
6	A	<del>01 50W</del>	<del>+28 20</del>	<del>1.2"</del>	<del>6.4</del>	<del>F8T<sub>1</sub></del>	<del>8-8-8</del>	<del>RCrB</del>	<del>200/130</del>	<del>broken spec. *</del>	<del>LOST PLATE</del>
0	C	0 <sup>h</sup> 35E	-05 39	2"	6.3-8.6	G0-K0	8-8-8	RV Tau	400/240	maybe fog?	FINE
7	B	03 00W	+28 19	2"-3"	6.4	F8T <sub>2</sub>	8-8-8	RCrB	200/130		(SLIGHTLY) FINE
8	C	01 50W	+21 54	2"	7.4-9.6	F2-K4	8-8-8	RV Tau	800/400		FINE
4	A	00 52W	+16 38	"	5.87-7.02	F6J <sub>6</sub> G3J <sub>6</sub>	8-8-8	Cepheid-Rm	200/130		FINE
4	B	01 53W	+29 17	"	6.8-7.66	F0-G1	8-8-8	"	400/180		FINE
	A	00 <sup>h</sup> 00	+09 49		3.98	K2I <sub>6</sub>	12-12	std vel	40/21		FINE
	E						3/3	notifier			GOOD
										1st crop on mirror noted at dawn	

PERHAPS IN THE FUTURE, BROKEN PLATES SHOULD USE 1 SLOT PER PIECE, SO THEY CAN'T SLIDE OVER ONE ANOTHER & JAM. → \* JAMMED IN PLATE BOX - IMPOSSIBLE TO REMOVE IN THE DARK

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Date *Mon-Tues June 28/29/31* Observer *Hns - 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.
	IR Photometry		~ 5							
	Time loss									
	of 50 and 71 minutes									
	due to									

Note

upstream gauge reads 111 Volts

downstream gauge reads 104 Volts - see notes



Date Wed June 29/71 Observer T. JHM 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.
347 22	ARCTURUS HD 124897	14 11.1	+19 42	G24	IN l.s	9/6	83	21 30	<del>21 30</del> <sup>1/2</sup>	A
347 23	"	"	"	"	"	"		21 33	21 36	B
347 24	HD 146362	16 10.9	34 07	G12	Ilco	13/5		22:02	22:44	C
347 25	HD 146361	"	"	"	"	"	81°F	22:47	23:07	A
347 26	MH $\alpha$ 328-116	19 55.0	+39 41	G40	"	17/5	78°F	23:32	02:24	A
347 26 T	calibration step wedge for plates									

30 June 1971

Dome Temp. 75°F

H = 71%

Transparency Conditions

Excellent - hazes cloud 84

Focus

at 2:20

Dome Temp. 70°F

H = 76%

g Time S.T.	P.R.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
28	A	01 30 W		2"	1.29	K2Up	NEON 30	IR Test		30 sec exp	
28	B	01 36 W		"	"	"	"	"		2 min exp	
00	C	00 44 W	+34 02	2"	7.31	CIU	8-8-8	Waterloo	400/260		FINE
07	A	01 06 W	"	"	5.20	F8V	8-8-8	"	200/140		FINE
24	A	00 42 W	+39 49	"	=11	Em	2-2-2	"	800/90	set 41 cloud at 2:20	
		34722 -	23 : 4 min				@ 61°F	min	2:19	(INC 1E1)	
		34724 -	26 : 9 min				@ 61°F	min	MCP-2	(2 DOC 1K0)	

Date Wed. June 30 July 1 Observer Hoy - Bl. - C. 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.
34727	ARCTURUS. HD124857	14 11.1	45 42	G24	1N L-5	9/6		21 03	21 03 45	

Dome Te  
Focus...  
Dome Te  
Hour Ang  
End



Dome Temp. *75°F 67%*

Transparency Conditions .....

Focus .....

Dome Temp. ....

g Time S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
<i>2.5</i>					<i>1.29</i>	<i>13<sup>th</sup></i>	<i>2m</i>	<i>with glass</i>		<i>50 sec. developed</i>	
								<i>clock 5 hrs out</i>			



Dome Temp. 67°F 63%

Transparency Conditions High cirrus - guss extinction & poor seeing 88

Focus .....

Dome Temp. 60°F 75% = H

clock 2 min ahead

Time M.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
51	B	00 21 W	-15 50		2.89	Am	12-12	SPEC. BIN-BLN	40/20		FINE
6	A	00 16 W	+28 20	~3	6.4	FBI	8-8-8	RCrB-JDF	400/260	thin cirrus	FINE
20		02 01 W	+36 49	"	5.1	B7I	9-8-8	SPEC. BIN-GZ.	400/280	heavy cloud	FINE
	C	00 20 W	+42 14	2-3	5.51	B6I	8-8-8	SPEC. BIN-BLN	200/100	clearing ~ 00 <sup>n</sup>	FINE
54	A	01 42 W	+29 47	~2"	8.00	K0II	4-4-4	SSV	800/300	intermittent cloud	FINE
52	B	01 45 W	+29 27	~2"	8.09	K1II	4-4-4	SSV	300/300	" "	FINE
34	C	00 17 E	+25 53	~2	8.05	K0II	4-4-4	SSV	300/300	photometric	FINE
40	A	02 15 W	+10 39		4.15	K3II	12-12	STD VEL	40/30		FINE
	B	in - on/out of					3-3	no plate		speed box no 1	SI. CENTRE TO RED

both plates had to be re-processed  
to fix plate



Dome Temp. 60°F 55%

Transparency Conditions Excellent

90

Focus .....

Dome Temp. 53°F 71%

g Time S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
10	L	01 <sup>m</sup> 33W	+280 19	3	8.36	B510	4-4-4 4-7-4	S. S. U	800/300		FINE
13	S	01 <sup>m</sup> 25W	+280 14	3	5.82 6.82	F57b G07b	8-8-	Capitol Expo	200/123	<sup>box</sup> exposed no 1	FINE



Dome Temp. 60°F 60%

Focus .....

Dome Temp. 56°F 72%

Transparency Conditions

..... good then excellent by dawn 92

Time T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
5	A	0 <sup>h</sup> 05E	+28° 20'	~3"	6.4	F8E	8-8-8	RCNP	200/130	thin Sirius,	FINE
46		01 <sup>h</sup> 15E	+21° 58'	"	7.4- 9.6	F2- K4	8-8-8	RV TAN	800/400		FINE
44		01 <sup>h</sup> 05E	-05° 37'	3	6.3- 8.6	K-0 K0	8-8-8	"	400/200		FINE
32	A	00 <sup>h</sup> 21W	+36° 50'	2	5.1	B7V	8-8-8	SPEC. BN	200/210		STRONG
01	B	00 <sup>h</sup> 43W	-06° 04'	2	7.1- 7.3	F2D- G3E	8-8-8	Cepheid	200/200		FINE
		<b>E</b>	+16° 40'		7.2	F2D- G3E	8-8-8	"	200/100		FINE
05		01 <sup>h</sup> 27W	+01° 22'			F2D- G3E	8-8-8	"	800/300	broken in half	WEAK
		01 <sup>h</sup> 40W	+20° 22'			F2D- G3E	8-8-8	"	100/300		SL. WK
		02 <sup>h</sup> 08W	+29° 16'	3	7.4	F2D- G3E	8-8-8	"	100/130		FINE
		02 <sup>h</sup> 35E	+12° 22'		4.1- 5.2	F2D- G3E	8-8-8	"	200/130		FINE
	B						3-3	no filter		shaded Box no 1	GOOD

Date Sun. Mon. July 4/5 1971 Observer Bl. - 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.	
34748	HD120841	14 45.3	-15° 38'	G-12	IIa-O	13/5		20:40	20:45	A	
34749	HD130109	14 49.2	+2° 19'	"	"	"		20:48	20:54	B	
34750	HD107325	12 15.3	+27° 11'	G-10	IIa-O	13/3		21:00	22:00	C	
34751	HD 153751	16 56.3	+82° 12'	"	"	13/5		22:08	22:26	A	
34752	HD 124675	14 09.8	+52° 15'	"	"	"		22:32	22:40	B	
34753	HD 124897	14 11.2	+19° 42'	"	"	"		22:44	22:45	C	
31783 F,	Focus test			G-24	IN (Suns)	13				B	
3473	71	plates 34728 - 34732, 34748 - 34753							5 July 1971		
	72	34733 - 34742									
	73	"							34743 - 34747		







Dome Temp. 68°F 55%

Transparency Conditions *excellent* 96

Focus .....  
 Dome Temp. 62°F 65%

Time T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
54	8	01714W	+02° 00'	2	5.6 I=4.5	<sup>2.4x</sup> C/F6	<sup>norm</sup> 90-90-90	Atk. Vel.	—	Developed, faint print	
53	8	2024W	+28° 20'		6.4 I=5.4	F8IIa	90-90-90				Good
50	8	0021W	+10° 18'		6.75 I=6.2	F8II	60-60-60 90				Good
32	8	01177E	+05° 33'		4.13 I=3.4	F7II	90-90-90				Good.
							4m/4m				
8-w 8 min @ 60°F in D-19 / 7 July 1971											



Dome Temp.  $72^{\circ}\text{F}$   $H=66\%$

Transparency Conditions

Fair at start ... increasing clouds  
Overcast by 2205

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Focus

Dome Temp.  $68^{\circ}\text{F}$   $H=65\%$

Time S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
54	A	0105W	+31 34	2"	4.2	B7	12-12	peculiar? Telegram July 7	40/19	OCrB	(SL. (MID. IN)) FINE
0	B	0211W	"	2"	"	"	12-12	"	40/30	"	SL. STR
31	C	0211E	+6° 16	3"	5.7	B8III	8-8-8	B Bin	200/120	"	FINE
08	A	0224E	+27 32	"	6.3	B5III	8-8-8	"	200/102	Clouds interfering	FINE
	B						3/3	10f. Her			SI. CENTRE TO RED
										Closed O <sup>h</sup> cloud.	
										Dec clamp dicky again	
										new 2/9.0 min @ $68^{\circ}\text{F}$ / 2400C1K0	

Date Thurs-Fri July 8-9, 1971 Observer Hb-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.
34762	HD170200	18 <sup>h</sup> 23 <sup>m</sup> .1	+06° 08'	612	D <sub>60</sub>	13/5	77°F	21 07	22 05	B
34763	HD180553	19 11.9	+27 17	612	D <sub>60</sub>	13/5	"	22 09	22:59	C
34764	HD169578	18 20.2	+05 02	612	D <sub>60</sub>	13/5	"	23 05	23:59	B
34765	HD193964	20 18.0	+61 56	"	"	"	76°F	00:09	00:27	C
34766	HD18 2255'	19 18.7	+26 04	"	"	"		00 35	00:43	A
34767	HD170200	18 23.1	+06 08	"	"	"		00 47	01 19	B
34768	HD180553	19 11.9	+27 17	"	"	"	75°F	01 22	02 00	C
34768	71	calibration step wedge for plates			34762 - 34768			9 July 1971		

Dome Temp. 72°F H = 7270

Transparency Conditions very hazy - scattered cloud

Focus .....

Dome Temp. ....

100

Time T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
05	S	01 24E	+06° 17'	2"-3"	5.7	B8111	8-8-8	B8-9 Bin	200/100	cloud	SL. WK
59	C	01 27E	+27 30	2"	6.3	B5111	8-8-8	"	200/100	hazy	U.SL. WK
59	B	0022W	+05 10	"	6.5	B8V	8-8-8	"	200/100	hazy	U.SL. WK
27	C	0105E	+62 15	"	5.6	B9V	8-8-8	"	200/120		FINE
43	A	0009W	+26 20	3"	4.9	B8	12-12	B Standard	40/20		FINE
16	B	0140W	+6 16	"	5.7	B8	8-8-8	B8-9 Bin	200/110	cloud	FINE
00	C	0132W	+27 31	"	6.3	B5	8-8-8	"	200/105	cloud - brk. "01"	U.SL. WK
										closed 02:15	
71		'NW' 2/9.0 - wind 6 MPK / 2000/110									

(10)

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Date Fri-Sat 9/10 July 1971 Observer R/L-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.	Hour En
34769	HD 130841	14 45.4	-15 38	6-12	Ilford-D	13/5		20:42	20:44	A	02
34770	HD 130109	14 41.2	+2 19	"	"	"	77°F	20:51	20:53	B	01
34771	HD 107325	12 15.3	+27 11	"	"	13/3		20:59	21:33	C	04
34772	HD 103483	11 49.9	+47 02	"	"	13/5	73°F	21:43	22:39	A	05
34773	HD 124675	14 09.9	+52 15	"	"	"		22:44	22:48	B	03
34774	HD 124897	4 11.1	+19 42	"	"	"		22:54	22:55	C	03
34775	HD 141458	15 44.1	+13 01	"	"	"		22:59	23:59	A	03
34776	HD 152614	16 49.3	+10 20	"	"	"		00:03	00:11	B	02
34777	HD 164577	17 56.7	+ 1 18	"	"	"		00:14	00:24	C	01
34778	R Sct	18 42.1	-5 49	"	"	13/3		00:27	01:17	A	01
34779	HD 177178	18 58.5	+1 40	"	"	13/5		01:19	01:57	B	01
34780	HD 201433	21 04.4	+29 48	"	"	"		02:03	02:17	C	00
34781	HD 170073	18 22.5	+58 45	"	"	"		02:22	03:36	A	00
34782	HD 199611	20 53.5	+50 21	"	"	"		02:40	03:08	B	01
34783	HD 172709	20 12.4	+47 24	"	"	"		03:11	03:25	C	02
34784	HD 189178	19 53.8	+40 06	"	"	"		03:28	03:38	A	023



Dome Temp. 69°F H=57%

Focus .....

Dome Temp. 60 H=60%

Transparency Conditions

Lots of cirrus - fair to poor  
Patches clouds - all night

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Time T.	P.R.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
4	A	00 46W	-15 48	3	2.89	Am	12-12	Sp. Bin-Bln	40/18		(GUIDING) FINE
5	I	01 00W	+2 06	"	3.74	A0V	12-12	"	40/20		FINE
3	C	04 06W	+26 56	2-3	6.72	gK2	8-8-8	"	200/100		FINE
9	A	05 36W	+46 38	2-5"	6.46	A0	8-8-8	"	200/100		SL-WK (GUIDING) FINE
7	B	03 28W	+52 02	2	4.74	A7V	12-12	"	40/20		FINE
6	C	03 32W	+19 26	2	1.30	K2III <sub>p</sub>	12-12	RV Std.	40/26		FINE
59	A	03 04W	+12 55	2-3"	6.80	A0	8-8-8	Sp. Bin	400/200		(GUIDING) SL-WK
1	B	02 10W	+10 19	3-5"	4.30	B8V	12-12	"	40/20		FINE
4	C	01 15W	+1 25	2-4"	4.42	A1V	12-12	"	40/20		V.SI-WK
7	A	01 21W	-5 40	2-3	6.3- 8.6	60- K0	8-8-8	RV Tan/Dy	400/200	Cloud	BROKEN SL-WK
7	C	01 47W <del>01 32W</del>	+1 54	"	5.68	A2	8-8-8	Sp. Bin-Bln	200/100	"	FINE
17	-	00 01W	+30 11	2	5.6	A0	8-8-8	"	200/100		FINE
36	A	03 05W	+58 51	2-3"	4.93	A1V	12-12	"	40/20		SI-WK
08	B	01 05W	+50 41	2"	5.72	F0	8-8-8	"	200/130		FINE
25	C	02 02W	+47 41	2	5.42	K0+ A2	8-8-8	Atm. Ec 1.	200/160		SL-WK
38	A	02 35W	+40 42	2	5.35	B8V <sub>p</sub>	12-12	Sp. Bin-Bln	200/100		FINE



Dome Temp. ....

Transparency Conditions .....

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Focus .....

Dome Temp. 60°F H=58% metal

Time T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
6	C	0153W	+36 28	2-3"	4.2	B5V	12-12	Sp.Br-B/h	40/20		FINE

mid/21 mwp. 2 / 9.0 min @ 60°F / 2400 c.ko  
" "







Dome Temp.  $53^{\circ}\text{F}$   $H=57\%$ Transparency Conditions *Excellent*

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Focus .....

Dome Temp.  $58^{\circ}\text{F}$   $H=60\%$ 

Time T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
12	A	00 23W	+36 49		5.1	B7V	12-12	SPEC BIN-63	200/120		SL STR
9	B	00 50W	+28 20	2-3	6.4	F8Iapc	12-12	RCPB-JDF	200/130		FINE
12	C	01 39W	+25 26	2"	8.24	G8V	8-8-8	SSV	800/340		
5	B	02 15W	+26 56	2-3"	8.14	K0III	8-8-8	"	800/330		FINE
6	C	01 05W	+25 38	"	8.14	K1III	8-8-8	"	800/330		FINE
8	A	00 40W	+38 18	"	5.7	B6-7	8-8-8	SPEC BIN-67	400/250	field drawn	FINE
7	B	00 49W	+29 29	1-2"	8.09	K1III	8-8-8	SSV	800/340		FINE
11	A	01 09W	+28 18	2"	8.36	G5V	8-8-8	"	800/300		FINE
47	B	00 20W	+28 35	1-2"	8.14	K2III	8-8-8	"	800/300		FINE
4	A	00 13W	+25 55	3"	8.05	K0III	8-8-8	"	400/150		FINE
5	C	00 35E	+28 37	"	7.52	K0III	8-8-8	"	400/150	cut short by down	FINE
	B						3/3	no filter		clean:	GOOD
										plates in same box	
										as Saturday night	





Dome Temp. 63° H=55%

Transparency Conditions Fair-Poor Lots of Cirrus 110

Focus .....

Dome Temp. 60° H=68%

Time T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
		01 23W	+19 26	3	1.30	K5III <sub>p</sub>	12-12	RV St.	40/24		FINE
		01 05W	-15 48	2-3	2.89	Am	12-12	Sp. Bin-Blu	40/20+	cloud	FINE
05	C	01 23W	+2 06	2"	3.74	AOV	12-12	"	40/20	"	SL. WK
54	A	01 10W	+12 55	2	6.80	AO	8-8-8	"	400/210		SL. WK
7	B	01 43W	+28 21	2'-3'	6.4	F8I <sub>opt</sub>	8-8-8	RCr B-WDF	200/130		FINE
40	C	00 50W	+10 18	2-3	4.30	B8V	12-12	Sp. Bin-Blu	40/20	Cloud	FINE
52	A	00 05E	+1 24	2"	4.46	A1V	8-8-8	"	40/20		FINE
21	B	00 23W	+1 53	2'-3'	5.68	A2	8-8-8	"	200/100	Clouds 23:25-23:35	SL. WK
20	C	01 05E	+30 11	"	5.6	A0	8-8-8	"	200/100		GUIDING FINE
27	F	00 02E	+15 12	1	5.04	A2V	8-16	"	80/40		U.SL. WK
30	C	00 56E	+12 05	1-2	5.93	B9V	8-8-8	"	200/100		U.SL. WK
3	C	00 51W	+40 22	1-2	5.36	B5V <sub>p</sub>	8-8-8	"	200/100		FINE
06	A	01 23W	+33 26	1-2	6.66	B0.5IV	8-8-8	"	400/200	Cloud at 02:15	FINE
	B						8/3	no filter		Closed up P	GOOD

NUMBERS  
HARD TO  
MAKE OUT

Date 13/14 July Tue/Wed Observer Rm/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.
34812	HD 197572 x Cap	20 <sup>h</sup> 34.3	+35° 13.6	G12	IP10-	9/.5	69°F	0 <sup>h</sup> 52	01 48	A
34813	HD 187929	19 47.4	+00 45	"	"	"		1 <sup>h</sup> 54	02:04	B
34814	T Vul	20 47.2	+27 53	"	"	"	68°F	2 <sup>h</sup> 16	02:42	C
34815	.S Sge	19 51.5	+16 22	"	"	"		2 <sup>h</sup> 46	03 <sup>h</sup> 22	A
34816	HD 21326 Cap	22 <sup>h</sup> 25.2	+57° 50	"	"	"		3 <sup>h</sup> 27	03 31	B
34817	HD 206778	21 39.3	+9 25	"	"	"		3 <sup>h</sup> A2	03 <sup>h</sup> 45	C
34829 71		<i>plates</i>			34799 - 34803, 34812 -			34817		
72					34818 - 9, 34804 - 11					
73					34820 - 34829					

Dome  
Focus  
Dome  
Hour  
En

Dome Temp.  $60^{\circ}\text{F}$  H=6670

Transparency Conditions *Excellent after 0:30* <sup>112</sup>

Focus .....

Dome Temp. ....

Time T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
00	A	00 14W	$35^{\circ}34'$	2-3	6.5- 8.2	F7J6- G0J6	8-8-8	Cepheid (Pm)	400/260	<i>lens very close</i>	SL. WK
01	B	01 20W	$+01^{\circ}00'$	2"	+08- 5.25	F6J6 -G4J6	8-8-8	"	40/27		SL. WK
01	C	01 00W	$+28^{\circ}14'$	"	5.82- 6.82	F5J6- G0J6	8-8-8	"	200/130		FINE
02	A	02 30W	$+16^{\circ}38'$	2-3"	5.87- 7.02	F6J6 -G5J6	8-8-8	"	200/130	<i>broken 2" off</i>	J. SL. WK
00	B	00 11W	$+58^{\circ}20'$	2"	4.1- 5.7	F5J6 -G2J6	12-12	"	40/26		FINE
01	C	01 10W	$+9^{\circ}49'$	3"	3.98	K2J6	12-12	std vel	40/27		SL. WK
MWP - 2/9.0 min @ $68^{\circ}\text{F}$ / 2900 150											
				"							
				"							



Dome Temp  $62^{\circ}\text{F}$  / H = 64%

Focus .....

Dome Temp  $59^{\circ}\text{F}$  / 63%

Transparency Conditions *very good - some cloud on horizon* <sup>114</sup>

*Dec clamp sticking - hard to move at some angles*

Time I.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
09	A	02 06 E	+06 18	2-3"	5.7	B8III	8-8-8	B8-9 Binary	200/120		FINE
10	B	02 18 E	+27 30	"	6.3	B5IV	8-8-8	"	200/120		FINE
22	C	00 40 E	+5 10	"	6.5	B8V	8-8-8	"	200/105		SL. WK
13	B	02 38 W	+28 20	"	6.4	F8Iap	8-8-8	RCrB JOF	400/260		SL. WK
39	C	01 30 E	+62 14	2"	5.6	B9V	8-8-8	B8-9 Binary	200/120		FINE
40	A	00 45 E	+10 38	"	3.5	K3II	12-12	Std. Vel.	40/28		SL. WK
27	B	00 48 W	+14 02	"	6.1	B8V	8-8-8	B8-9 Binary	200/120		FINE
20	C	01 06 W	+29 30	"	8.09	K1IV	8-8-8	55V	800/375		SL. WK
58	B	02 43 W	+06 16	2-3"	5.7	B8III	8-8-8	B8-9 Binary	200/120	~ 1" miss mark	
45	B	02 42 W	+27 31	2-4"	6.3	B5IV	8-8-8	"	200/120		FINE
06	C	02 00 W	+62 15	2-3"	5.6	B9V	8-8-8	"	200/120		FINE
39	A	02 25 E	+45 25	2"	6.27	B9p(5i)	8-8-8	"	200/120		FINE
							3/3	no filter		<u>Broken</u>	DISCARDED
										Anson - of course we need	
										fresh plates, T <sub>n</sub>	



Dome Temp.  $64^{\circ}\text{F}$  /  $H=64\%$

Transparency Conditions Fair - scattered clouds

116

Focus .....

clouds at 23:30-

Dome Temp. 60 83

Time T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
6	01 56E	+06 19	1"-2"	5.7	B8III	8-8-8	B8-9 Binary	200/130		FINE
54	02 05E	+27 30	"	6.3	B5II	8-8-8	"	200/120		FINE
21	02 42E	+62° 15'	~1"	5.6	B9V	8-8-8	"	200/120		(SC-GOLDING) FINE
16	00 08W	+5° 10'	"	6.5	B8V	8-8-8	"	200/130	cloud	FINE
26	01 04E	+10 40	"	3.9	K3II	12-12	std vel	200/170	cloud	FINE
00	00 50W	+14 02	1'-2"	6.1	B8V	8-8-8	B8-9 Binary	200/120	cloud	FINE
02	01 47W	+06 17	"	5.7	B8III	8-8-8	"	200/130	( " )	FINE
38	01 40W	+27 31	"	6.3	B5III	8-8-8	"	200/120		FINE
32	03 24W	+05 10	2"	6.5	B2V	8-8-8	"	200/100		SC WK
01	01 58W	+62° 15'	2" 3"	5.6	B9V	8-8-8	"	200/120		FINE
10 July 1971 - 70 W.P. - 2/9.0 min @ $68^{\circ}\text{F}$ / 2200 C.H.K.O										
										only 1 inch showing
										20 S.
										(4 min in 2-18)
										125
										" " "
										O.K.









Dome Temp.  $60^{\circ}$  H=6370

Transparency Conditions *Cloudy*

120

Focus .....

Dome Temp. ....

Time I.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
44	A	02 22W	$-15^{\circ} 48'$	2-3'	2.74	Am	12-12	Sp Bin - B14	200/115	much cloud	SL. WK
		20 July 1971									
		MWC - 2/9.0 min @ $68^{\circ} F$ / 240 L1K0									
		" 25		"		"	"				

# NEWTONIAN

p/21

Mem Tues

MR

Date July 19-20/71 Observer S-CT Th-Hv Julian Day \_\_\_\_\_

Plate No.	Object	R.A. 1900 1971	Declination 1900 1971	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
34846	NGC 5704	15 17.0	+02 12	NEWT	103a0	2441152.617		21 47	21 50	1
47	6366	17.26.2	-5 02	"	"		<del>632</del>	22 06	22 14	2
48	6535	18 02.3	-0° 18'				<del>643</del>	22 20	22 32	1
—	6356	17 21.9	-17 47					—	—	
—	6573	16 15.3	-22° 54'					—	—	
49	KA 61	17 01.6	29.51		1030D		<del>677</del>	23 14 <sup>12</sup>	23 15 <sup>12</sup>	1
50	"	"	"		"		<del>678</del>	23 16 <sup>14</sup>	23 17 <sup>14</sup>	2
51	"	"	"		"		<del>682</del>	23 20 <sup>55</sup>	23 22 <sup>55</sup>	1
52	"	"	"		"		<del>685</del>	23 24 <sup>40</sup>	23 26 <sup>40</sup>	2
53	"	"	"		"		<del>687</del>	23 28 <sup>15</sup>	23 31 <sup>15</sup>	1
54	"	"	"		"		<del>691</del>	23 33 <sup>05</sup>	23 36 <sup>05</sup>	2
55	"	"	"		"		<del>695</del>	23 38	23 43	1
56	"	"	"		"		<del>700</del>	23 45 <sup>10</sup>	23 50 <sup>10</sup>	2
57	"	"	"		"		<del>706</del>	23 52	00 00	1
58	"	"	"		"		<del>713</del>	00 02	00 10	2
59	"	"	"		"		<del>720</del>	00 12 <sup>20</sup>	00 22 <sup>20</sup>	1

Dome Temp.  $56^{\circ}$  # = 86%

Transparency Conditions *Hazy*

122

Focus .....

Dome Temp. ....

g Time S.T.	PR	Hour Angle End	Developer Declination	G41D Seeing	Ptg. Mag.	EX Sp.	Comp.	FILTER Program	Exp. Mtr.	REMARKS	Quality
50	1	0204W	D19	CT	---	3 <sup>m</sup>					
	2	0220W	"	S	---	8 <sup>m</sup>				Very faint guide # H-19 find.	
		0250/W	"	S	---	12 <sup>m</sup>					
			---	(S)						Cluster invisible	
			---	(S)						also invisible	
	1	0146W	D19	CT	---	1 <sup>m</sup>		Vfocus		on S Her	
	2	0148W	MWP2	CT	---	1 <sup>m</sup>		V			
	1	0153W	D19		---	2 <sup>m</sup>		V			
	2	0157W	MWP2		---	2 <sup>m</sup>		V			
	1	0201W	D19		---	3 <sup>m</sup>		V			
		206W	MWP2		---	5 <sup>m</sup>		V			
		213W	D19		---	5 <sup>m</sup>		V			
		220W	MWP2		---	5 <sup>m</sup>		V			
		230W	D19		---	8 <sup>m</sup>		V			
		240W	MWP2		---	8 <sup>m</sup>		V			
		252W	D19		---	10 <sup>m</sup>		V			



Dome Temp. ....

Transparency Conditions ..... *Excellent* .....

124

Focus .....

Dome Temp. ....

Time T.	P.H.	Hour Angle End	Development Declination	Seeing	Ptg. Mag.	EX Sp.	Comp.	FILTER Program	Exp. Mtr.	REMARKS	Quality
		2 55W	MWP 2	CT	---	2		V			
		1 00 47E	D 19	CT	---	5 <sup>m</sup>		B			
8		2 2 47W	"	S	---	12 <sup>m</sup>		NIL			
31		1 02 11W	"	S	---	8		NIL		(very dark background)	
31		2 03 19 W	"	S	---	4 <sup>m</sup>		NIL			
49		1 00 10 W	"	CT	---	8 <sup>m</sup>		B			
30		1 00 40 W	"	"	---	8		"			
12		2 00 42 W	"	"	---	30 <sup>sec</sup>		"		UNGUIDED	
47		1 02 35 W	"	"	---	4		"			
23		2 01 15 W	"	"	---	8		"			

Anson - Develop all but 6 of the plates in D 19. At one end of the box, 6 plates are isolated. They are to be developed in MWP 2 (8 min). If you have any questions, phone me at 488-8049. Also don't forget to put the complete nos. on the plates.

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Date Tues-Wed July 20-21 1971 Observer S Ce Tn M4 Salmon, Shara Julian Day .....

Plate No.	Object	R.A. <del>1900</del> 1971	Declination 1900-71	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour End
34870	NGC 5904	15 17.0	+02 12	Newt	103a0	1153.	<del>614</del>	21:39 <sup>00</sup>	21 42	1	02
34871	" 6366	17 26.2	-5 02	"	"		<del>621</del>	21:49:45	21 57 <sup>45</sup>	2	00
34872	6535	18 02.3	-0° 18	"	"		<del>630</del>	22 02 <sup>10</sup>	22 12 <sup>10</sup>	1	00
34873	6093	16 15.3	-22° 54'	"	"		<del>643</del>	22 22 <sup>20</sup>	22 28 <sup>20</sup>	2	01
34874	5904	15 17.0	+02° 12	"	"		<del>653</del>	22 38 <sup>10</sup>	22 41 <sup>10</sup>	1	03
34875	KA #61	17 01.6	+29 51	"	103aD		<del>670</del>	23 04 <sup>14</sup>	23 05 <sup>14</sup>	2	014
34876	"	"	"	"	"		<del>673</del>	23 08 <sup>30</sup>	23 09 <sup>30</sup>	1	01
34877	"	"	"	"	"		<del>676</del>	23 13 <sup>05</sup>	23 15 <sup>05</sup>	2	01
34878	"	"	"	"	"		<del>680</del>	23 18 <sup>15</sup>	23 20 <sup>15</sup>	1	01
34879	"	"	"	"	"		<del>685</del>	23 24 <sup>27</sup>	23 28 <sup>27</sup>	2	02
34880	"	"	"	"	"		<del>690</del>	23 31 <sup>35</sup>	23 35 <sup>35</sup>	1	02
34881	"	"	"	"	"		<del>697</del>	23 39 <sup>40</sup>	23 47 <sup>40</sup>	2	02
34882	"	"	"	"	"		<del>705</del>	23 51 <sup>31</sup>	23 59 <sup>31</sup>	1	02
34883	"	"	"	"	"		<del>714</del>	00 01 <sup>30</sup>	00 13 <sup>30</sup>	2	02
34884	"	"	"	"	"		<del>721</del>	00 16 <sup>00</sup>	00 28 <sup>00</sup>	1	03
34885	NGC 7078	21 28.6	+12 02	"	103a0		<del>737</del>	00 37 <sup>40</sup>	00 45 <sup>40</sup>	2	010



Dome Temp.  $60^{\circ}\text{F}$  H = 7670Transparency Conditions *Excellent - some cloud*

Focus .....

*Cloud in first half hour*

126

Dome Temp. ....

Time T.	P.H.	Hour Angle End	DEVELOPER Declination	Guide Scale	Ptg. Mag.	EX min	Comp.	Filter Program	Exp. Mtr.	REMARKS	Quality
2	1	0200W	D19	GT	---	3 <sup>min</sup>		Nil		Counts guiding	
7 <sup>25</sup>	2	0007W		S	---	8 <sup>min</sup>		"		S	
2 <sup>10</sup>	1	0015E		S	---	10 <sup>min</sup>		"		S	
23 <sup>20</sup>	2	0149W		S	---	6 <sup>min</sup>		"		Rick Salmon guiding	
4 <sup>10</sup>	1	0300W		CT	---	3 <sup>min</sup>		"			
5 <sup>15</sup>	2	0140W	D19	CT	---	1 <sup>min</sup>		B V		Focus Star SHER	
7 <sup>30</sup>	1	0143W	MWP2	"	---	1 <sup>min</sup>		B V		wrong filter recorded	
5 <sup>05</sup>	2	0149W	D19	"	---	2 <sup>min</sup>		B V		V filter was used	
23 <sup>15</sup>	1	0154W	MWP2	"	---	2 <sup>min</sup>		B V		corrected Nov. 16, 1971	
3 <sup>37</sup>	2	0202W	D19	"	---	4 <sup>min</sup>		B V			Counts
5 <sup>35</sup>	1	0209W	MWP2	"	---	4 <sup>min</sup>		B V			
7 <sup>40</sup>	2	0222W	D19	"	---	8 <sup>min</sup>		B V			
7 <sup>31</sup>	1	0233W	MWP2	"	---	8 <sup>min</sup>		B V			
3 <sup>23</sup>	2	0247W	D19	"	---	12 <sup>min</sup>		B V			
13 <sup>30</sup>	1	0302W	MWP2	"	---	12 <sup>min</sup>		B V			
5 <sup>4</sup>	2	0107E	D19	"	---	8 <sup>min</sup>		B V			



Dome Temp. ....

Transparency Conditions .....

Focus .....

Dome Temp. 56°F 74%

Time T.	P.H.	Hour Angle End	DEVELOPER Declination	GUIDER Seeing	Ptg. Mag.	Ex. Sp.	Comp.	FILTER Program	Exp. Mtr.	REMARKS	Quality
14 <sup>02</sup>		02 47W	D19	S	12 <sup>m</sup>			nil		Focus STAR 8 Ag1 Squidry	
25 <sup>24</sup>	2	02 26W	"	S	8 <sup>m</sup>			"		Rick guiding	
42 <sup>00</sup>	1	02 26W	"	S	8 <sup>m</sup>			"		Squidry	
53 <sup>03</sup>	2	01 35W	"	S	4 <sup>m</sup>			"		Squidry	
14 <sup>05</sup>	1	00 22W	"	CT	8 <sup>m</sup>			"		Focus STAR E Pega	
1 <sup>00</sup>	2	00 25W	"	CT	45 <sup>sec</sup>			"			
33 <sup>04</sup>	1	00 40W	"	CT	8 <sup>m</sup>			"			
43 <sup>03</sup>	2	02 27W	"	CT	4 <sup>m</sup>			"			
4 <sup>30</sup>	1	01 22W	"	CT	8 <sup>m</sup>			"			
										Mars Excellent	
										235mm 304mm 154A at 03h	
										Anson - To night, 5 plates are for MWP2 and all the rest D19. There is a separation between the 2 groups. Apparently the 5 for MWP2 are at the end of the box away from the rubber band. CMC	

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NEWTONIAN

Date 1971 July 21-22

Observer CT-S-McU-Tn-SALMON Julian Day

Plate No.	Object	R.A. <del>1900</del> 1971	Declination <del>1900</del> 1971	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
34895	NGC 5904	15 17.0	+02 12	Newt	103aD	1154.	<del>599</del>	21 21 <sup>25</sup>	21 24 <sup>25</sup>	2
34896	" 6366	17 26.2	-5 02	"	"		<del>609</del>	21 32 <sup>05</sup>	21 42 <sup>05</sup>	1
34897	" 6535	18 02.3	-0 18	"	"		<del>619</del>	21 47 <sup>00</sup>	21 57 <sup>00</sup>	2
34898	" 6426	17 43.5	+03 12	"	"		<del>630</del>	22 02 <sup>15</sup>	22 12 <sup>15</sup>	1
34899	NGC 5904	15 17.0	+02 12	"	"		<del>646</del>	22 29 <sup>18</sup>	22 31 <sup>18</sup>	2
34900	" 6535	18 02.3	-0 18	"	"		<del>657</del>	22 40 <sup>01</sup>	22 52 <sup>01</sup>	1
34901	" 6712	18 51.3	-8 48	"	"		<del>667</del>	22 57 <sup>00</sup>	23 05 <sup>00</sup>	2
34902	6838	19 52.2	+18 40	"	"		<del>676</del>	23 10 <sup>40</sup>	23 19 <sup>40</sup>	1
34903	NGC 6779	19 15.4	+30 07	"	"		<del>692</del>	23 32 <sup>05</sup>	23 41 <sup>05</sup>	2
34904	" "	"	"	"	103aD		<del>700</del>	23 43 <sup>52</sup>	23 52 <sup>52</sup>	1
34905	" 7078	21 28.6	+12 02	"	103aD		<del>711</del>	00 00 <sup>36</sup>	00 08 <sup>36</sup>	2
34906	" "	"	"	"	"		<del>728</del>	00 24 <sup>19</sup>	00 32 <sup>19</sup>	1
34907	"	"	"	"	"		<del>736</del>	00 35 <sup>30</sup>	00 43 <sup>30</sup>	2
34908	"	"	"	"	"		<del>743</del>	00 46 <sup>30</sup>	00 54 <sup>30</sup>	1
34909	"	"	"	"	"		<del>751</del>	00 57 <sup>03</sup>	01 05 <sup>03</sup>	2
34910	NGC 6779	19 15.4	+30 07	"	"		<del>762</del>	01 14 <sup>32</sup>	01 20 <sup>00</sup>	1

Dome Temp. 63°F H=717

Transparency Conditions Hazy - Cirrus cloud

130

Focus .....

Dome Temp. ....

low stratus for a while  
around 1 hrs.

ing Time S.T.	P.H.	Hour Angle End	Developer Destination	Guide Secms	Ptg. Mag.	Ex Exp	FILTER Comp.	Program	Exp. Mtr.	REMARKS	Quality
24 <sup>25</sup>	2	01 46W	D19	CT	---	3 <sup>m</sup>	Nil				
42 <sup>05</sup>	1	00 05E	"	S	---	10 <sup>m</sup>	"				
52 <sup>00</sup>	2	00 26E	"	S	---	"	"				
12 <sup>15</sup>	1	00 08W	"	S	---	"	"				
31 <sup>15</sup>	2	02 53W	"	CT	---	2 <sup>m</sup>	"	UNGUIDED		Focus STAR $\beta$ OPH	
52 <sup>01</sup>	1	00 29W	"	S	---	12 <sup>m</sup>	"			(Dida <sup>4</sup> change much) S gain	
05 <sup>15</sup>	2	00 06E	"	S	---	8 <sup>m</sup>	"			Rick grid	
14 <sup>15</sup>	1	00 59E	"	S	---	4 <sup>m</sup>	"			" "	
41 <sup>35</sup>	2	00 06W	"	CT	---	9 <sup>m</sup>	B			Focus STAR $\xi$ Aql A	
52 <sup>52</sup>	1	00 17W	"	CT	---	9 <sup>m</sup>	V				
08 <sup>26</sup>	2	01 40E	"	CT	---	8 <sup>m</sup>	V				
32 <sup>19</sup>	1	01 17E	"	CT	---	8 <sup>m</sup>	B				
43 <sup>35</sup>	2	01 06E	"	CT	---	8 <sup>m</sup>	B				
54 <sup>20</sup>	1	00 55E	"	CT	---	8 <sup>m</sup>	B				
05 <sup>15</sup>	2	00 43E	"	CT	---	8 <sup>m</sup>	B				
20 <sup>10</sup>	1	01 44W	"	CT	---	9 <sup>m</sup>	B				



Dome Temp.  $60^{\circ}\text{F}$   $H=75\%$

Transparency Conditions *haze increasing toward dawn* 132

Focus .....

Dome Temp. ....

Exp. Time S.T.	P.B.	Hour Angle End	DEVELOPER Declination	Guide Seeing	Ptg. Mag.	Ex. Sp.	FILTER Comp.	Program	Exp. Mtr.	REMARKS	Quality
46 <sup>00</sup>	2	00 02 E	D19	CT		8 $\frac{1}{2}$ "	B				
06 <sup>30</sup>	1	00 18 W	"	CT		8"	B			focus changed significantly Focus Star E Peg A	
17 <sup>45</sup>	2	02 05 W	"	S		4"	B				
24 <sup>50</sup>	1	00 32 W	"	S		1"	B				
23 <sup>45</sup>	2	00 50 W	"	CT		8"	B				
43 <sup>55</sup>	1	01 00 W	"	CT		8"	B				
59 <sup>30</sup>	1	01 11 W	"	CT		5"	B			} BOTH PLATES NUMBERED 17.	
11 <sup>00</sup>	1	01 22 W	"	CT		8"	B				
										rather poor night. haze or clouds mid of time.	
										Back to Cassegrain!	







135

Date Sun/Mon July 25/26 '71 Observer 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.
34920	HD130841	14 45.4	-15 38	G-12	IIa-0b	13/5	74°F	20:27	20:31	A
34921	HD130109	14 41.2	+ 2 19	"	"	"		20:36	20:44	B
34922	HD141458	15 44.1	+ 13 01	"	"	"	72°F	20:48	21:48	C
		# 34920, 34921							26 July/71	
		# 34919, 34922								

Dome T  
Focus  
Dome  
Hour At  
End

Dome Temp. 68° H=78%

Transparency Conditions Fair - Good (Very Hazy)

12

Focus .....

Dome Temp. 64° H=90%

g Time S.T.	P.E.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
31	A	01 36 W	-15 50	2	2.89	Am	12-12	Sp. Bin-Blu	40/18		FINE
44	C	01 54 W	+206	2	3.74	AOV	12-12	"	40/18		FINE
48	C	01 55 W	+12 54	2-3	6.80	AO	8-8	"	400/130	Placed at r.h. end of box Overdevelop please Terminated by heavy fog Closed 22:00 Heavy fog	FINE NUMBERS 3496
		near 2	for 9.0 min @		68°F			2400		baked	
		"	15		"			"			

137

Date Mon/Tues. July 24/27, 1971 Observer Hb 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.	
34923	HD 170200	18 <sup>h</sup> 23 <sup>m</sup> .1	+6° 8'	G12	IIaO	13/.5	70°F	21 03	21 35	A	
34924	HD 180553	19 11.9	+27 25'	"	"	"		21 41	22 23	B	
34925	HD 193964	20 18.0	+61 56	"	"	"		22 32	22 52	C	
34926	HD 169578	18 20.2	+5° 2'	"	"	"		23 01	00 05	A	
34927	HD 186791	19 41.5	+10 22	"	"	"		00 18	00 23	B	
34928	HD 219749	23 13.2	+44 57					00 34	01 18	C	
34929	HD 170200	18 23.1	+6 8	"	"	"		01 24	01 55	A	
34930	HD 180553	19 11.9	+27 25'					02 00	02 56	B	
34931	HD 193964	20 18.0	+61 56	"	"	"		03 07	03 27	C	
34931F	Focus Test			"	"		60°F			B	
34931 T1	calibration step wedge for plates 34923-34931									27 July/71	

Dome Temp.  $74^{\circ}\text{F}$  /  $H = 64\%$

Focus .....

Dome Temp. ....

Transparency Conditions Fair - poor at start

138

Clocks need resetting <sup>DONE</sup> clear by 2230

g Time S.T.	P.E.	Hour Angle End	Declination	-Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
35'	A	00 51E	+60 18'	2-3"	5.7	B8III	8-8-8	B8-9 Binay	200/125'	clouds	FINE
23	B	00 51E	+27 30	"	6.3	B5III	8-8-8	"	200/120	(cloud)	FINE
52	C	01 27E	+62 15'	3-4"	5.6	B9V	8-8-8	"	200/125'		FINE
05'	A	01 42W	+5 10'	"	6.5'	B8V	8-8-8	"	200/120		FINE
23	C	00 39W	+10 39	"	2.6	K3III	12-12	Std. Vel.	40/32		FINE
18	C	01 58E	+45 25'	3-4+	6.37	B9r	8-8-8	B8-9 Binay	200/115'		U.S.C. WK
55'	B	03 29W	+06 16	4	5.7	B8III	8-8-8	"	200/123		FINE
56	B	03 42W	+27 30	4+	6.3	B5III	8-8-8	"	200/120		FINE
27	C	03 11W	+62 12'	4+	5.6	B9V	8-8-8		200/125'		FINE
	B						3-3	no filter			GOOD
		24 WP-2 / 9.0 min @ $68^{\circ}\text{F}$ / <u>290C (G)</u> (new emulsion)									



Dome Temp. 61°F / H ≈ 60%

Focus .....

Dome Temp. ....

Transparency Conditions

140  
Fair but thunders at start - cloud  
in west and north

Time T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
06	A	01 17E	+6° 17'	1"-2"	5.7	B8111	8-8-8	B89 Binary	200/130		FINE
41	B	01 27E	+27 31	" <sub>good</sub>	6.3	B5111	8-8-8	"	200/120		FINE
12	C	02 05E	+62 14	≤1"!!	5.6	B9V	8-8-8	"	200/125	(cloud)	(GUIDING) FINE
21	A	01 00W	+5 10	~2"	6.5	B8V	8-8-8	"	200/100	cloud	FINE
50	C	00 04W	+10 26	2"	5.8	F8	3-3	Std Vel.	200/40		fine
0	F	00 16W		2"	"	"	3-3-3	"	200/40		strong
29	C		+58 36.	3	7.5	K5	3-3-3	Std Vel	200/30	clear	fine
08	A	1 40 W	"	3-4	"	"	3-3-3	"	200/30	light clouds	fine
03	B	03 40W	+6° 15'	3-4	5.7	B8111	8-8-8	B89 Binary	200/120		FINE
02	A	03 50W	+27° 31'	"	6.3	B5111	8-8-8	"	200/120		FINE
29	C	03 13W	+62 16	2-3"	5.6	B9V	8-8-8	"	200/122		FINE
42	-	00 54E	+56 26	"	2.2	K011	12-12	Std. Vel	20/16		FINE









Dome Temp. 61°F H=69%

Transparency Conditions clear by 10:30

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Focus .....

some cloud & haze

Dome Temp. 58°F H=76%

Time T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
17	A	3 <sup>h</sup> 19W	+28 19	2-4"	6.4	F8	8-8-88	R Cr B	200/130		*
09	B	01 43W	-05 40	2	6.3-8.6	G0-K0	1-8-8	RV Tau-Dy	400/250	balance ?	WEAK
			+21 55		7.4-9.6	F2-K1	8-			too faint -	
30	C	00 20W	+25 54	2"	8.44	K2 III	4-4-4 4-4-4	S 5V	800/430		SC. WR
16	B	01 07W	+28 33	2-3"	8.14	K2 III	8-8-8	"	800/350		U.S.C. WR
50	C	01 02W	+25 52	"	8.05	K0 III	8-8-8	"	800/350		U.S.C. WR
2	A	01 27W	+27 54	2"	8.36	G8 III	8-8-8	"	800/350	broken 2pc	FINE
1	B	00 14 E	-14 05		3.06	K1 III	12-12	std vel	40/28		FINE
										FC + *	
										* <del>SS</del> LINES ARE	
										DOUBLE D	

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\* baked July 27

Date Sun/Mon Aug 1/2 '71 Observer Bln-Tin 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.
34953	HD130109	14 41.2	+ 2 19	G-12	IIa-Ob <sup>*</sup>	13/5	70°F	20:37	20:49	A
34954	HD152614	16 49.3	+ 10 20	"	"	"		20:54	21:08	B
34955	HD141458	15 44.1	+ 13 01	"	"	"		21:12	22:08	C
34956	HD164577	17 56.7	+ 1 18	"	"	"		22:11	22:17	A
34957	HD187549	19 45.0	+ 33 22	"	"	"		22:34	23:08	B
34958	HD170073	18 22.5	+ 58 45	"	"	"		23:14	23:24	C
34959	HD189178	19 53.8	+ 40 06	"	"	"	67	23:26	23:40	A
34960	HD177178	18 58.5	+ 1 40	"	"	"		23:44	00:16	B
34961	HD195965	20 29.3	+ 47 53	"	"	"		00:19	00:57	C
34962	HD198183	20 43.5	+ 36 07	"	"	"	66°	01:00	01:04	A
34963	HD199611	20 53.3	+ 50 21	"	"	"		01:09	01:31	B
34964	HD201433	21 04.4	+ 29 48	"	"	"		01:35	01:53	C
34965	TX Pac	23 41.3	+ 2 56	"	"	"		01:57	03:03	A
34966	HD200057	22 15.7	+ 60 36	"	"	"		03:10	03:48	B
34967	HD222368	23 34.8	+ 5 05	"	"	"		03:53	03:59	C
34968	HD210418	22 05.2	+ 5 42	"	"	"	63°	04:02	04:06	A

Dome Temp. 63°F H=71%

Transparency Conditions Fair-Poor (Cirrus Clouds) <sup>14/6</sup>

Focus .....

Dome Temp. 59°F H=88% Drizzly Dome

g Time S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
149	F	02 26W	+2 07	3	3.74	A0V	12-12	Sp. Bin-Blu	80/34	cloud	SL. WK
108	B	00 39W	+10 20	3	4.30	B8V	8-8-8	"	80/36		FINE
108	C	02 42W	+12 55	2	6.80	A0	8-8-8	"	400/180	Capped 21:25 - uncapped 21:31	SL. WK
117	A	00 40W	+01 24	"	4.46	A1V	12-12	"	40/17		FINE
101	B	00 17E	+33 24	2-3'	6.66	B0.5V	8-8-8	"	400/180		FINE
124	C	01 22W	+58 51	2	4.93	A1V	12-12	"	40/16		FINE
140	A	00 07W	+40 21	1-2	5.35	B5V <sub>p</sub>	8-8-8	"	200/90		FINE
116	B	01 37W	+ 1 52	2	5.68	A2	8-8-8	"	200/90		FINE
157	C	00 49W	+48 11	1-2"	6.82	B2	8-8-8	"	400/180		(GUIDING) SL. WK
104	A	00 42W	+36 26	1-2	4.42	B5V	12-12	"	40/17		(GUIDING) FINE
131	-	01 00W	+50 42	1-2	5.72	F0	8-8-8	"	200/105		FINE
153	C	01 07W	+30 09	2	5.6	A0	8-8-8	"	200/90		FINE
103	A	00 19E	+3 25	2-3	6.9-7.7	C6 <sub>2</sub>	8-8-8	Tc Search	400/450	[ Forasp. u.e 34968F - 63°F } 4000	WEAK
148	B	00 52W	+61 03	2	6.82	B5	8-8-8	Sp. Bin.-Blu	400/180		
159	C	00 43W	+5 32	1-2	4.64	F7V	8-8-8	RV Std.	80/45		FINE
100	A	02 19W	+6 10	2	3.61	A2V	12-12	Sp. Bin-Blu	40/16		FINE

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Date Aug 2/3 '71 Observer HE - Th 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.	
34969	E U Mi	16 56.2	82° 02'	G-12	Dobob	6/5	74°F	20:35	21:11	A	
34970	HD 179094	19 06.1	+52 16	"	"	"	73°F	21:22	22:50	B	
34971	HD 269813	22 01	+46° 45'	"	"	6/3	71°F	23:04	01:39	C	
34971 T1	Calibratn	step wedge			Dobob		Aug 3 0 <sup>h</sup> EST				
34971 F	Focus			G12	Dobob	6	71°F	B			
plates 34946 - 34970								4 August 1971			
34971 - 71F1											







Dome Temp.  $59^{\circ}\text{F}$  H=62%Transparency Conditions ..... *Excellent*.....

15

Focus .....

Dome Temp.  $55^{\circ}\text{F}$  H=80%

Time S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
00	A	02:15 E	+10 26	2-3'	5.2	dF7	8-8-8	std vel	200/130		(GUIDING) FINE
37	B	02:23 W	+28 20	"	6.4	F8 Ia	8-8-8	R Cr B	200/130		(SL. GUIDING) FINE
40	C	02 06 E	+10 18	"	7.3	F8	8-8-8	sp Bin - west	800/300	thought gain was 400, ok well	SL. WIK
52	A	00 55 E	"	2-5"	"	"	8-8-8	"	400/270		FINE
08	A	02 56 E	+5 33	2-3'	4.3	F7	8-8-8	std vel	40/25		FINE
13	C	00 28 W	+10 18	"	7.3	F8	8-8-8	sp Bin - west	400/280		FINE
26	A	01:25 W	"	"	"	"	8-8-8	"	400/280		FINE
04	B	02 18 W	"	"	"	"	8-8-8	"	400/270		FINE
13	C	00 10 W	+5 33	"	4.3	F7	8-8-8	std vel	40/26		FINE
44	A	05 43 E	+23 22	5-8"	5	g65	8-16	Sp. Bin - West	20/20		(SL. GUIDING) FINE
13	B	05 24 E	"	4-6'	"	"	8-8-8	"	200/130		(SL. GUIDING) FINE
		in in / out out					3/3	no filter			GOOD
										Saturn looks good	
		max. 2 / 9.0 min @ 65°				1/2	ADC 161				







Dome Temp.  $63^{\circ}\text{F}$   $H=59\frac{1}{2}$

Transparency Conditions

<sup>VSKY</sup>  
CLEAR/HAZY AFTER 154  
~22<sup>h</sup>

Focus .....

Dome Temp.  $60^{\circ}\text{F}$   $H=70\frac{1}{2}$

Time T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
42	A	1:14 E	+05° 19	2-3	7.15	F0IIb	3-3-3	GH Clusters	200/30		FINE
07	B	0:50 E	"	2"	"	"	3-3-3	"	200/40		FINE
26	C	0:27 E	+05 00	1-2"	6.53	(B)	3-3-3	"	800/120		FINE
42	A	0 47 W	+05 19	"	9.43	(K)	3-3-3	"	800/120	hazy	sc. wk
10	B	3:22 W	+05 22	2"	9.34	(B)	3-3-3	"	800/111	hazy	FINE
38	C	2:32 W	+10 27	2-3"	5.8	F8	3-3-3	std vel	200/30		
20	A	3:15 E	+59 57	2"	8.2	G8	3-3-3	GH Cluster	800/120		sc. wk
31	B	1:58 E	+59 53	"	8.8	(B)	3-3-3	"	800/120		FINE
12	C	1:33 E	+55° 55	3-6	7.0	F5II	3-3-3	"	200/30		FINE
07	A	1 25 E	+56° 59	3-4	6.2	B1	3-3-3	std vel	200/30		FINE
1	C	1:08 E	+23° 23	2-3	3.15	K2III	5-4	"	40/.9		
	P	in hand out					10/10	1.25x 4			U-SC. CENTRE TO VIOLET





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\* baked July 29/50

Date Sun - Mon Aug. 8-9, 1971 Observer Blu - 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.
35016	HD124897	14 11.1	+19 42	G-12	IIa-06*	13/5		20:12	20:13	A
35017	HD130109	14 41.2	+ 2 19	"	"	"		20:18	20:20	B
35018	HD141458	15 44.1	+13 01	"	"	"		20:25	21:03	C
35019	HD152614	16 49.3	+10 20	"	"	"		21:08	21:12	A
35020	HD 164577	17 56.7	+ 1 18	"	"	"	79°F	21:16	21:20	B
35021	HD 177178	18 58.5	+1 40	"	"	"		21:22	21:38	C
35022	HD187459	19 45.0	+33 11	"	"	"		21:42	22:02	A
35023	HD170073	18 22.5	+58 45	"	"	"		22:04	22:08	B
35024	HD189178	19 53.8	+40 06	"	"	"		22:12	22:18	C
35025	HD191610	20 05.7	+36 33	"	"	"	77°F	22:22	22:26	A
35026	HD 192909	20 12.4	+ 47 24	"	"	"		22:32	22:38	B
35027	HD195965	20 29.3	+ 47 53	"	"	"		22:42	23:10	C
35028	HD199011	20 53.3	+ 50 21	"	"	"		23:12	23:30	A
35029	HD198183	20 43.5	+ 36 07	"	"	"		23:35	23:39	B
35030	HD 201433	21 07.4	+ 29 48	"	"	"		23:42	23:54	C
35031	UU Psc	60 09.8	+ 8 16	"	"	"		00:21	00:53	B



Dome Temp. 71°F H=55%

Transparency Conditions Fair - Scattered Cirrus

158

Focus .....

Dome Temp. ....

Time T.	P.R.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
13	A	02 48W	+19 25	2"-3"	1.30	K2III <sub>p</sub>	12-12	RV STD.	40/26		(GUIDING) STRONG
20	B	02 26W	+2 07	2"	3.74	A0V	12-12	Sp. Bin. - Blu	40/18		FINE
03	C	02 05W	+12 55	2	6.80	A0	8-8-8	"	400/200	1" broken off	FINE
12	A	01 09W	+10 18	2	4.30	B8V	12-12	"	40/18		FINE
20	B	00 09W	+1 24	2-3	4.46	A1V	12-12	"	40/18		FINE
38	C	00 34E	+1 53	2	5.68	A2	8-8-8	"	200/90		(GUIDING) FINE
02	A	00 57E	+33 27	"	6.66	B0.5I	8-8-8	"	400/200		(GUIDING) FINE
07	B	00 35W	+58 51	1	4.93	A1V	12-12	"	40/19		FINE
11	C	00 49E	+40 20	1	5.35	B5V <sub>p</sub> ?	8-8-8	"	200/90		FINE
26	A	00 52E	+36 49	1	4.82	B3V <sub>c</sub>	12-12	"	40/18		(GUIDING) SL. STR
38	B	00 46E	+47 32	1	5.42	K0+ A2	12-12	Atm Ecl.	40/36		FINE
10	C	00 32E	+48 12	1"-3"	6.82	B2	8-8-8	Sp. Bin. - Blu	400/200		(GUIDING) FINE
30	A	00 35E	+50 42	2-3	5.72	F0	8-8-8	"	200/115		FINE
39	B	00 17E	+36 26	2"	4.42	B5V	8-8-8	"	40/18		FINE
54	C	00 22E	+30 09	2	5.6	A0	8-8-8	"	200/100		FINE
3	B	02 30E	+8 43	2"-3"	6.15	A9 <sub>s</sub>	8-8-8	"	400/200		FINE



Dome Temp. ....

Transparency Conditions ..... *very good* .....

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Focus .....

Dome Temp. ... *64° 70%* .....

Time T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
04	C	00 11 E	-13 55	2-3	4.18	B8V	12-12	Sp. Bin - Blu	40/18		
33	B	00 44 W	+11 12	F2"	5.93	B9V	8-8-8	"	200/100		FINE
01	A	01 23 E	+8 44	2-6	6.15	A9s	9-8-8	"	400/200	New Box of Plates	FINE
47	C	01 54 W	+28 44	2"	6.90	A9	8-8-8	"	400/200		SL. WIK
09	A	00 14 E	+8 45	2	6.15	A9s	8-8-8	"	400/200		FINE
20	C	00 36 E	+62 50	1.2"	4.30	B1Ia	92-12	McU *	80/72		FINE
52	B	01 24 W	+61 02	2"	6.82	B5	8-8-8	Sp. Bin - Blu	400/200		FINE
15	A	00 52 W	+8 43	"	6.15	A9s	8-8-8	"	400/200		FINE
		<i>mcu p. 2 / 9.0 min @ 68°F</i>									
		<i>(51)</i>									

Date Wed/Thurs Aug 11/12 1971 Observer B/n 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 Ang End
35040	HD 124897	14 11.1	+19 42	G-12	Ilford 6*	13/5	68°F	20:02	20:03	A	02 7
35041	HD 130109	14 41.2	+ 2 19	"	"	"		20:09	20:13	B	02 7
35042	HD 158704	17 25.6	-26 11	"	"	13/5	66°F	20:19	21:19	C	00 5
35043	HD 141458	15 44.1	+13 01	"	"	13/5		21:23	22:11	A	03 2
35044	HD 152614	16 49.3	+10 20	"	"	"	64°F	22:14	22:20	B	02 7
35045	HD 164577	17 56.7	+ 1 18	"	"	"		22:24	22:32	C	01 5
35046	HD 170073	18 22.5	+ 58 75	"	"	"		22:36	22:42	A	01 2
35047	HD 189178	19 53.8	+ 40 06	"	"	"		22:48	22:58	B	00 0
35048	HD 187459	19 45.0	+ 33 11	"	"	"	60°F	23:03	23:37	C	00 5
35049	UU Psc	00 09.8	+ 8 16	"	"	13/3		23:43	00:07	A	02 7
35050	HD 195965	20 29.3	+ 47 53	"	"	13/5	58°F	00:13	00:47	B	01 5
35051	UU Psc	00 09.8	+ 8 16	"	"	13/3		00:57	01:15	C	01 5
35052	HD 198183	20 43.5	+ 36 07	"	"	13/5		01:22	01:26	A	01 5
35053	HD 199611	20 53.3	+ 50 21	"	"	"	57°F	01:30	01:58	B	02 7
35054	UU Psc	00 09.8	+ 8 16	"	"	13/3		02:03	02:23	C	00 0
35055	HD 201433	21 04.4	+ 29 48	"	"	13/5	56°F	02:27	02:45	A	02 7

Dome Temp. 63° H=53%

Transparency Conditions Excellent

162

Focus .....

Dome Temp. ....

Time S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
03	A	02 49W	+19 25	5	1.30	K2III <sub>p</sub>	12-12	RV Std.	40/25		FINE
13	B	02 29W	+2 05	4	3.74	A0V	12-12	Sp. Bin-Blu	40/15		FINE
19	C	00 51W	-26 08	4-5	6.01	B9.	8-8-8	GI Ap + m	200/110		FINE
11	A	03 25W	+12 50	3-4	6.80	A0	8-8-8	Sp. Bin-Blu	400/180		FINE
20	B	02 28W	+10 18	3-4	4.30	B8V	12-12	"	40/15		FINE
32	C	01 32W	+1 24	3-4	4.46	A1V	12-12	"	40/15		FINE
42	L	01 20W	+58 52	4	4.93	A1V	12-12	"	40/15		FINE
58	B	00 04W	+40 21	3-4	5.35	B5V <sub>p</sub>	8-8-8	"	80/32		FINE
37	C	00 52W	+33 25	3-4	6.66	B0.5I <sub>b</sub>	8-8-8	"	400/80		FINE
07	A	03 04E	+8 44	3-4	6.15	A9 <sub>s</sub>	8-8-8	"	400/130		FINE
47	B	01 17W	+48 12	3	6.82	B2	8-8-8	-11	400/180		SI. STR
15	C	01 57E	+8 45	3-4	6.15	A9 <sub>s</sub>	8-8-8	"	400/130		FINE
26	A	01 41W	+36 29	3	4.42	B5V	12-12	"	40/15	PIATE IN P.H. UPSIDE DOWN	
58	B	02 05W	+50 42	2-3	5.72	F0	8-8-8	"	200/110	Dec. Clamp on fits	FINE
23	C	00 48E	+8 44	3	6.15	A9 <sub>s</sub>	8-8-8	"	400/130	Dec clamp working	FINE
45	B	02 34W	+30 11	3-4	5.6	A0	8-8-8	"	200/85		FINE













Dome Temp. 68°F H=71%

Focus .....

Dome Temp. 62°F H=82%

Transparency Conditions Fair - very poor

Good after 0<sup>h</sup>  
cloud again at 02<sup>h</sup>

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Time T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
	A	02 58W	+19 25	1-2	1.30	K2III <sub>p</sub>	12-12	RV STD.	40/25	Clouds coming	FINE
52	B	04 14W	+12 55	2-4	6.80	A0	8-8-8	Sp. Bin-Blu	400/180		WEAK
01	C	03 22W	+10 17	2	4.30	B8V	12-12	"	40/15		SC. WK
07	A	02 27W	+1 24	2	4.46	AIV	12-12	"	40/15		SC. WK
4.3		02 57W	-1 56	2-4	6.72	K0III	8-8-8	"	200/140		SC. WK
06	C	03 24W	+58 52	2-4	4.93	AIV	12-12	"	20/12		FINE
06	A	02 38W	+33 26	2	6.66	130.5I <sub>6</sub>	8-8-8	"	400/180		FINE
02	C	02 45W	+40 24	1	5.35	B5V <sub>p</sub>	8-8-8	"	200/80		FINE
01	C	03 16W	+42 13	1-3	6.82	132	8-8-8	"	400/180	Clouds moving in	FINE
04	A	03 06W	+30 10	1-2	5.6	A0	8-8-8	"	200/90		FINE
		03 7W	+36 29	1-2	4.42	B5V	12-12	"	40/15		FINE
	C	00 34W	+8 44	1-2	6.15	A9:	8-8-8	"	400/130		FINE
	A	02 04W	+60 05	2	6.82	B5	8-8-8	"	400/180		FINE
23		01 01W	+62 05	1	4.30	B1I <sub>2</sub>	12-12	McU *	40/25		FINE



Dome Temp. 62°F H=68%

Focus .....

Dome Temp. 55°F 3390 = 4

Transparency Conditions

*excellent transparency*  
*thin cloud from SE at 0020, clearing by 0040*

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Time T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
34	A	02 03W	+28 19	3"-4"	6.4	F8I <sub>2</sub>	8-8-8	RCrB-JDF	400/235		
40	B	00 21W			3.93	K2II	12-12	STDVEL	40/30	β 0ph	
15	C	00 02W	+21 57	2"	7.4- 9.6	F2- K4	4-4-4 4-4-4	dy	800/350	FOGGED	
00	A	01 15W	+28 19	"	8.36	G5II	4-4-4 4-4-4	SSV	900/350		
01	B	01 52W	+25 53	"	8.44	K2III	4-4-4 4-4-4	"	800/350	field drawn	
12	C	00 36W	+27 52	1"-2"	8.36	G3III	4-4-4 4-4-4	"	800/350		
54	B	00 42W	+28 36	2"-3"	7.9	K0II	4-4-4 4-4-4	"	800/350		FINE
24	C	01 20W		1"-2"	4.30	B1Ia	8-8-8	McU*	40/24	die clamp stuck in "on" position!	FINE
26	A	01 39W	+28 29	"	7.50	G9III	4-4-4 4-4-4	SSV	800/350	"	FINE
	B	in / out out					3/3	no filter			BLANK

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\* Balced Aug 13/14

Date Mon./Tue 16/17 Aug '71 Observer 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.
35085	HD124897	14 11.1	+ 19 42	G-12	II <sub>o</sub> -05*	13/5	69°F	20:01	—	A
35086	HD189178	19 53.8	+ 40 06	"	"	"		20:09	20:29	B
35087	HD201433	21 04.4	+ 29 48	"	"	"		20:34	20:56	C
35088	HD164577	17 56.7	+ 1 18	"	"	"		21:01	21:09	A
35089	HD170474	19 24.5	- 2 03	"	"	"	67°F	21:14	22:00	B
35090	HD177178	18 58.5	+ 1 40	"	"	"		22:04	22:34	C
35091	HD170073	18 22.5	+ 58 45	"	"	"		22:40	22:46	A
35092	HD197459	19 45.0	+ 53 11	"	"	"		22:55	23:33	B
35093	HD191610	20 05.7	+ 36 33	"	"	"		23:37	23:43	C
35094	UU Psc	00 09.8	+ 8 16	"	"	13/3	66°F	23:50	00:06	A
35095	HD195965	20 29.3	+ 47 53	"	"	13/5		00:12	00:40	B
35096	UU Psc	00 09.8	+ 8 16	"	"	13/3		00:45	00:57	C
35097	HD200971	21 39.9	+ 28 20	"	"	13/5	65°F	01:02	01:38	A
35098	UU Psc	00 09.8	+ 8 16	"	"	13/3		01:42	02:00	B
35099	HD189178	19 53.8	+ 40 06	"	"	13/5		02:05	02:15	C
35100	HD204862	21 26.3	+ 11 42	"	"	13/5		02:18	02:40	A

Dome Temp. 62°F H=63%

Focus .....

Dome Temp. ....

Transparency Conditions

Very Good - some grad. haze & cirrus low in north

Time T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
	A	03 09W	+19 26	3	1.30	K2III <sub>p</sub>	12-12	RV Std	40/26		FINE
29	B	02 09E	+40 22	1-2	5.35	B5V <sub>p</sub>	7-8-8	Sp. Bin-Blu	200/85		FINE
2	C	02 50E	+30 09	1-2	5.6	A0	8-8-8	"	200/85		FINE
4	A	00 29W	+1 24	2	4.46	A1V	12-12	"	40/15		FINE
00	B	00 53W	-1 55	1-2	6.72	K0III	8-8-8	"	400/280		FINE
24	C	00 54W	+1 53	2	5.68	A2	8-8-8	"	200/80	Very slow	FINE
4	A	01 48W	+58 51	1	4.93	A1V	12-12	"	40/15		FINE
33	C	01 07W	+33 25	1-2	6.66	B05I <sub>b</sub>	8-8-8	"	400/160		SC. STR
3	C	00 52W	+36 52	1	4.82	B3Ve	12-12	"	40/16	Plunger is all the way out	STRONG
60	A	03 01E	+8 44	2	6.15	A9s	8-8-8	"	400/130		FINE
0	B	01 30W	+48 12	1	6.82	B2	8-8-8	"	400/180		FINE
7	C	01 54E	+8 44	1-2	6.15	A9s	8-8-8	"	400/130		FINE
27	A	01 17W	+28 39	1-2	6.90	A9+A9	8-8-8	"	400/180		
00	B	00 52E	+8 45	1-2	6.15	A9s	8-8-8	"	400/130		
15	C	03 40W	+40 24	1-2	5.55	B5V <sub>p</sub>	8-8-8	"	200/80		
2	A	02 32W	+12 05	1-2	5.93	B9V	8-8-8	"	200/115		FINE









Dome Temp. 66°F H=62%

Transparency Conditions *excellent night - seeing fantastic* 17  
*after ~ 22 hr*

Focus .....

Dome Temp. ....

Time Y.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
27	A	02 05W	+28 20	3"	6.4	FSTop	8-8-8	JDF RCrB	200/140		FINE
20	C	00 16W	+21 56	1-2"	8.2	F2- K4	4-4-4 4-4-4	DY	800/350		FINE
32	C	02 54W	+23 14	1"	8.57	K2II	4-4-4 4-4-4	SSV	800/350	field drawn	SC. WK
3	A	00 49E	+25 53	1"	8.44	K2III	4-4-4 4-4-4	"	800/350	extremely fast	SC. WK
51	C	00 12E	—	1"	8.14	K2III	4-4-4 4-4-4	"	800/350	"	
26	C	00 20E	+25 53	1-2"	8.05	K0II	4-4-4 4-4-4	"	400/175	"	SC. WK
37	C	00 11E	+27 57	1-2"	8.36	G8III	4-4-4 4-4-4	"	400/175	"	SC. WK
46	C	00 18E	+28 36	1"	7.9	K0III	4-4-4 4-4-4	"	400/175	"	FINE
25	C	00 15W	+30 37	1"	8.02	G0V	8-8-8	"	400/175	"	FINE
54	C	00 13W	+28 2A	1-2"	7.50	G9	8-8-8	"	400/175	"	SC. WK
19	C	00 05W	—	—	4.30	B1IIa	12-12	mcu*	40/27		(GUIDING) STRONG
3	C	00 43W	+26 15	2"	8.16	K0II	8-8-8	SSV	400/175		SC. WK
37	A	01 13W	+27 27	2"-3"	7.49	K0III	8-8-	"	400/		FINE
		in in / out out					7/7	no filter			BLANK



Dome Temp. 68° H=62%

Focus .....

Dome Temp. 61° H=77%

Transparency Conditions

good but hazy  
thin cloud by 22<sup>h</sup>-0<sup>h</sup>

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g Time S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
54	A	02 36W	+28 20	2"	6.4	FBIa	12-12	RGB	400/260		(GUIDING) SI-STR
52	A	00 57W	+21 56	"	~8.2	F2- K4	4-4-4 4-4-4	Dy	800/350		FINE
53	C	02 10E	+27 54	1'-2'	3.36	G8II	4-4-4 4-4-4	SSV	800/350	(Vis cross hair 1/2 on)	U.S.I. WK
55	A	02 05E	+28 34	2"	7.9	K0III	4-4-4 4-4-4	"	800/380		FINE
03	B	01 03E	+30 35	"	8.02	60V	4-4-4 4-4-4	"	800/350		FINE
07	C	00 27E	+28 28	2'-4'	7.50	69III	8-8-8	"	400/180		FINE
40	A	00 24W	+26 12	2'-3'	8.16	K0III	4-4-4 4-4-4	"	800/370		FINE
29	A	01 07W	+29 24	1'-2'	7.49	K0III	8-8-8	"	400/190		FINE
35	C	00 00	+23 24	2"	3.15	K2III	12-12	std vel	40/20		FINE
8		in in / out out					3/3	no filter			FINE



Dome Temp.  $70^{\circ}$  H: 69%

Transparency Conditions *Very hazy*

180

Focus .....

Dome Temp.  $70$   $70\%$

g Time S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
3.9	A	03 22E	+70 25	1-2"	3.15	BZ III	8-8-8	G1001-SLR	200/100		FINE
	B	<del>---</del>	<del>---</del>	<del>---</del>	<del>---</del>	<del>---</del>	<del>---</del>	<del>---</del>	<del>200/</del>	<del>Cloud</del>	
										Closed 22:30	
		mwp 2/4.0 min @ 65°F 1240 c. G. 1									





Dome Temp. 69°F M=58%

Transparency Conditions Very good

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Focus .....

scat cloud around 23<sup>h</sup>

Dome Temp. ....

ng Time S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
'36	A	00 57E	+52 28	2"	$V=$ 5.8	K1IV	8-8-8	Ca II em - H $\beta$	200/160		U.S. WK
'04	B	02 23E	+47 09	"	$V=$ 6.52	K0II	8-8-8	"	400/360	(Trouble with Dec Clamp)	sl. WK
	C	<del>+49 16</del>		"	$V=$ 6.52	K1	8	"	400/	Leaving unclamped cloud	Too faint
	A										Too slow
	B	<del>-13 55</del>		3	7.18	138V	8-	Sp. Bin - Dln	20.12/		"
	C				3.61	A2V		"		Cloud - Closed	
										0:30	
	A	screws counter clockwise $\times$ 30s									
	B	" clockwise of original tilt									





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Date Sat - Sun Aug 21-22 / 71 Observer LAKE, T<sub>2</sub>, K<sub>m</sub>, SHR. 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.
35132	5d Cep	21 <sup>h</sup> 16 <sup>m</sup> 12 <sup>s</sup>	+62°10'	G12	Ilao	13/5	70°	22:48	—	A
35133	n <sub>1</sub> Cep.	20 <sup>h</sup> 43 <sup>m</sup> 15 <sup>s</sup>	+61°27'	G12	Ilao	13/5	70	23:16	23:18	B
35134	5d Cep.	21 <sup>h</sup> 16 <sup>m</sup> .2	+62°10'	"	"	"	70	23:32	—	C
35135	NGC 7027	21 <sup>h</sup> 04 <sup>m</sup>	+41°50 <sup>m</sup>	G12	Ilao	17/5	70	00:00	01:30	A
35136	X Cyg.	20 <sup>h</sup> 39 <sup>m</sup> .5	+35°14'	G12	Ilao	13/5	66	02:03	03:39	B
35137	S Cep	22 <sup>h</sup> 25 <sup>m</sup> .4	+57°54'	"	"	"	66	03:46	03:52	C
35138	S Cep	22 <sup>h</sup> 25 <sup>m</sup> .4	+57°54'	"	"	"	66	03:55	04:01	A
35139	HD 216538	22 <sup>h</sup> 48 <sup>m</sup> .6	+34°37'	"	"	"	66	04:15	04:35	B
39F	FOCUS TEST					13	66			B
35139 71	calibration strip used for plates				35130 - 35139				23 Aug / 71	



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\* baked Aug 20

Date Mon/Tue 23/24 Aug. '71 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.
35140	HD 124897	14 11.1	+ 19 42	G-12	IIa-06*	13/5		19:52	—	A
35141	HD 164577	17 56.7	+ 1 18	"	"	"		19:57	20:03	B
35142	HD 170474	18 24.5	- 2 03	"	"	"		20:05	20:37	C
35143	HD 177178	18 58.5	+ 1 40	"	"	"		20:42	21:10	A
35144	HD 170073	18 22.5	+ 58 47	"	"	"		21:15	21:23	B
35145	HD 187459	19 45.0	+ 33 11	"	"	"	57°F	21:26	22:00	C
35146	HD 189178	19 53.8	+ 40 06	"	"	"		22:03	22:17	A
35147	HD 191610	20 08.3	+ 36 46	"	"	"		22:20	22:26	B
35148	HD 192909	20 12.4	+ 47 24	"	"	"		22:29	22:41	C
35149	UU Psc	00 09.8	+ 8 16	"	"	13/3	56°F	22:47	23:15	A
35150	HD 195965	20 29.3	+ 47 53	"	"	13/5		23:20	23:56	C
35151	UU Psc	00 09.8	+ 8 16	"	"	13/3		00:03	00:23	B
35152	HD 199611	20 53.3	+ 50 21	"	"	13/5		00:27	00:51	A
35153	HD 209819	22 01.0	- 14 21	"	"	"		00:57	01:03	B
35154	UU Psc	00 09.8	+ 8 16	"	"	13/3	53°F	01:06	01:22	C
35155	HD 206874	21 39.9	+ 28 20	"	"	13/5		01:26	02:08	A

Dome Temp. 55°F H=56%

Transparency Conditions Good - scattered stratus clouds

Focus .....

Dome Temp. ....

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Time T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
	A	03 27W	+19 26	4-5"	1.30	K2III <sub>p</sub>	12-12	RV std	40/27		FINE
03	B	00 10E	+1 24	3-4"	4.46	A1V	12-12	Sp. Bin-Blu	40/16		FINE
37	C	00 02E	-1 54	2-4	6.72	K0III	8-8-8	"	400/280		FINE
10	A	00 05E	+1 54	3-4	5.68	A2	8-8-8	"	200/90		FINE
23	B	00 47W	+58 50	"	4.93	A1V	8-16	"	40/16		FINE
00	C	00 01W	+33 26	"	6.66	B05II	8-8-8	"	400/190		FINE
17	A	00 09W	+40 21	"	5.35	B5V <sub>p</sub>	8-8-8	"	200/90		FINE
26	B	00 07W	+36 49	"	4.82	B3Ve	12-12	"	40/16		SL. STR
41	C	00 15W	+47 42	3	5.72	K0+ A3	8-8-8	Atm. Ecl.	200/150		FINE
15	A	03 10E	+8 44	2-3'	6.15	A9s	8-8-8	Sp. Bin-Blu	200/65		FINE
56	C	01 13W	+48 13	3	6.82	B2	8-8-8	"	400/180		FINE
23	B	02 01E	+8 44	3-4	6.15	A9s	8-8-8	"	400/130		FINE
51	A	01 45W	+50 42	3-4	5.72	F0	8-8-8	"	200/113		FINE
03	B	00 46W	-13 54	3	4.18	B8V	12-12	"	40/16		
22	C	01 01E	+8 46	2	6.15	A9s	8-8-8	"	400/130		FINE
08	A	02 15W	+28 44	3-4"	6.90	A9+ A9	8-8-8	)	400/180		FINE













Dome Temp.  $60^{\circ}$  90%

Transparency Conditions *hazy scattered cloud*

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Focus .....

Dome Temp.  $60^{\circ}$  91%

ig Time S.T.	P.R.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
4	A	4 <sup>h</sup> 23 <sup>m</sup> W	+25° 51'	1.2"	6.67	AQ?	8-8-8	APCM-61	400/200		(GARDING) SL-UK
16		00 05 W	+15° 07'	2"	7.46	B9	8-16	"	400/44	Cloud-complete	USBY WETA
										WHAT HAPPENED TO PLATE # 35163?	

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Many visitors

T<sub>n</sub>

NB\*

Date Sat-Sun 28-29 Observer SHR. Le<sup>K</sup> Julian Day 71

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
35166	$\epsilon$ Reg <sup>H0</sup> <sub>2492</sub>	22 <sup>R</sup> 36.5 <sup>m</sup>	+10°19 <sup>m</sup>	G12	IIaO	13:5	65°	23 33	23 51	A
35167	$\delta$ Cep	22 <sup>R</sup> 25.4 <sup>m</sup>	+57°54'	"	"	"	65°	00 13.	00 44	B
<del>35168</del>	<del><math>\delta</math> Aq</del>	<del>22<sup>R</sup>49.5<sup>m</sup></del>	<del>-15°37<sup>m</sup></del>	<del>"</del>	<del>"</del>	<del>"</del>	<del>"</del>	<del>00</del>	<del></del>	<del>C</del>
<del>35169</del>	<del>Xcyg</del>	<del>20<sup>R</sup>35.9<sup>m</sup></del>	<del>F35°14'</del>	<del>"</del>	<del>"</del>	<del>"</del>	<del>"</del>	<del></del>	<del></del>	<del></del>

Dome Temp. 60°F 9070

Transparency Conditions hazy cloud

196

Focus .....

Dome Temp. 60 90

g Time S.T.	P.E.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
51	A	00 <sup>h</sup> 37 <sup>m</sup> E	+10° 41 <sup>m</sup>	2-3	3.40	B8	8-8-8	G100/	200/93		FINE
44	B	0 <sup>h</sup> 26 <sup>m</sup> W	+58 21	"	5.20	F5-G2	8-8-8	" Km	200/120		FINE
	C			"	3.28	A3		"		cloud	
										Many Unexposed plates fogged - due to Sun too humid - got water on mirror.	
										<p>(*) ONE OF THE ABOVE OBSERVERS HASN'T BEEN INSTRUCTED TO PUT EXPOSED PLATES BACK IN THE BOX WITH EMULSION POINTING LEFT (THE DIRECTION OF THE ARROW); THIS COULD RESULT IN SUCH PLATES NOT BEING PROPERLY FIXED.</p>	

197

Date Aug 29/30 1971 Observer Gl-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.	
35168	HD 135679	15 <sup>h</sup> 11. <sup>m</sup> 3	+26° 01'	G12	Ilao	9/15	73°F	19:46	21:22	A	
35169	HD 191048	20 <sup>h</sup> 05. <sup>m</sup> 8	+15° 47'	"	"	13/15		21:26	22:46	B	
35170	HD 170200	18 23.1	+6 08	"	"	"	71°F	22:50	23:12	C	
35171	HD 211474	22 <sup>h</sup> 12. <sup>m</sup> 2	+29° 35'	"	"	"		23:18	00:00	A	
35172	HD 5342	00 <sup>h</sup> 50. <sup>m</sup> 2	+60° 43'	"	"	13/15		00:11	02:05	B	
35173	HD 17280	02 <sup>h</sup> 47. <sup>m</sup> 4	+43° 47'	"	"	13/15	68°F	02:14	03:30	C	
35174	HD 26571	04 <sup>h</sup> 07. <sup>m</sup> 0	+20° 09'	"	"	9/15		03:40	04:16	A	
35175	MM Psc	00 09.8	+8 16	"	"	13/13		04:23	04:47	C	
35175 F1	Focus			"	"	13	67°F			B	
35175 T1	calibration step envelope for plates	35166 - 35175							30 Aug 71		"







Dome Temp. 60°F H-68%

Transparency Conditions

SOME HAZE &amp; cloud

Focus

many jet trails too

Dome Temp. 52°F

70%

200

g Time S.T.	P.R.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
30	H	01 <sup>30W</sup> 55W	75 32	2-3"	6.84	FO	8-8-8	SPEC. BIN.	400/260		(GUIDING) FINE
02	B	00 <sup>33E</sup> 21E	13 20	"	6.1	BPT	8-8-8	"	400/200		FINE
35	C	00 51 W	15 31	2"	6.56	M2III	8-8-8	"	400/350	thin cloud	(GUIDING) SL. WK
29	B	01 38 W	47 43	2-3"	6.6	B2V	8-8-8	"	400/200	CLOUDS	(GUIDING) FINE
50	H	01 14 W	+41 55	1-2"	6.0	B7III	8-8-8	"	400/200	"	FINE
13	B	00 29 W	+28 55	"	5.58	A0V	8-8-8	"	200/100	"	FINE
24	C	00 53 W	-11 40	2"	5.9	B9V	8-8-8	"	400/200	cloud	FINE
55	A	00 12 W	+61 13	2-3"	5.9	B7III	8-8-8	"	200/100	"	FINE
21	B	00 12 W	+62 50	"	4.30	B1Ia	8-8-8	M.U.*	40/25	cloud	FINE
	B		in in / out out				3/3	no filter			GOOD



Dome Temp. 58°F H=632

Transparency Conditions GOOD - SOME HAZE

202

Focus .....

Dome Temp. 55°F H=9920

Log Time S.T.	RA	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
49	A	02 35W	+36 50'	1-2"	5.1	B7II	8-8-8	SPEC. BIN.	200/140		S.C.S TR
54	B	22 24W	+75 30'	"	6.84	FO	8-8-8	"	400/260		FINE
34	C	00 15 W	+13 19	"	6.1	B8II	8-8-8	"	400/200		FINE
47	A	01 07 W	+15 32	"	6.56	M2II	8-8-8	"	400/320		U.S.L.WK
18	B	01 31 W	+47 45	"	6.6	B2II	8-8-8	"	400/200	HAZY	FINE
10	C	00 05 E	+44 56	"	7.12	A2	8-8-8	"	400/160	"	FINE
50	A	00 23 W	-11 39	"	5.9	B9II	8-8-8	"	400/200	"	FINE
36	B	00 45 W	+61 53	"	6.49	B8	8-8-8	"	400/200	CLOUDS	FINE
56	C	00 16 W	+61 13	"	5.9	B7II	8-8-8	"	400/200	"	FINE (GUIDING)
17	F	00 11 W	+62 50	"	4.15	B1II	12-12	M4*	40/23	"	FINE
52	B	00 21 E	+60 57	"	5.58	B7II	8-8-8	SPEC. BIN.	400/200	"	SLOW-ECL. BIN? FINE
51	C	00 21 W	+47 20	"	7.14	B8	8-8-8	"	400/160	"	(GUIDING) U.S.L.WK
	F	00 45 W	+50 45	"	5.62	B9II	8-8-8	"	400/200	"	FINE



Dome Temp.  $20^{\circ}$  H=72%

Transparency Conditions Excellent

204

Focus .....

Dome Temp.  $69^{\circ}$  H=93%

Time T.	P.R.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
11	A	02 19W	+05°23	2-3	9.43	K(?)	3-3-3	GH Cluster	800/120		SL. WK
					9.04	A	3-	"	800/	Too Faint - Ecl?	
10	S	03 19W	+05 23	3	7.15	F0Ib	3-6	"	800/ -	Exp Mtr not working	SL. WK
	A		+35 15	3-4	9.74	B0Ib	3-	Sp. Bin-Blu	800/	Cont short too weak	
										Exp Meter drying chem replaced. sept 8/71	

205

\*baked Sept 1/2

Date Thurs-Fri Sept 9/10/71 Observer Tm - Blm 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.
35200	HD164577	17 56.7	+7 18	G-12	IIa-06 <sup>*</sup>	13/5	73°F	19:22	19:46	A
35201	HD170474	18 24.5	- 2 03	"	"	"		19:49	21:23	B
35202	HD170073	18 22.5	+58 45	"	"	"		21:28	21:46	C
35203	HD192909	20 12.4	+ 47 24	"	"	9/5		21:49	22:27	A
35204	HD192909	20 12.4	+ 47 24	"	"	"	70°F	22:27	23:27	B
35205	HD201433	21 04.4	+ 29 48	"	"	13/5		23:32	00:04	A
35206	HD213534	22 26.9	+ 29 02	"	"	"		00:08	00:58	C
35207	UU Pec	00 09.8	+ 8 16	"	"	13/3	68°F	01:00	01:42	A
35208	HD1404	00 13.1	+ 36 14	"	"	13/5		01:48	02:04	B
35209	HD2905	00 27.3	+ 62 23	"	"	9/7		02:08	02:24	C
35210	HD21364	03 21.8	+ 9 23	"	"	13/5		02:30	02:38	A
35211	HD28363	04 23.3	+ 16 06	"	"	13/5		02:43	04:17	B
35212	UU Pec	00 09.8	+ 8 16	"	"	13/3		04:21	04:55	C
35213	HD20902	03 17.2	+ 49 30	"	"	13/5	65°F	04:58	05:00	A
35213 F-1	Focus						65			B



Dome Temp. 68°F H=76°

Transparency Conditions *good but hazy*

206

Focus .....  
Dome Temp. 57°F H=76°

Log Time S.T.	PE	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
46	F	00 42 W	+01° 25'	2-4	4.46	A1V	8-8-8	Sp. Bin-Blu	200/90	too long - also fainter it seems	STRONG
23	B	01 52 W	-01 54	"	6.72	Ko III	8-8-8	"	400/320		FINE
46	C	02 18 W	+58 52	1-3	4.93	A1V	8-8-8	"	200/90		SL. STR
27	A	01 08 W	+47 41	2	5.42	Ko <sup>+</sup> A3	9-9-9	Atm, Ecl.	200/160		FINE
27	B	02 08 W	"	"	5.42	Ko <sup>+</sup> A3	9-9-9	"	200/350		SL. STR
24	A	01 54 W	+30 10	"	5.16	A0	8-8-8	Sp. Bin-Blu	200/100		STRONG
58	C	01 24 W	+29 28	"	6.28	A5	8-8-8	"	400/200		SL STR
42	A	02 25 W	+8 45	2-3"	6.15	A9s	8-8-8	"	400/140		SL. STR
04	B	00 44 W	36 44	2	4.58	A2V	8-8-8	"	200/90		SL. STR
24	C	00 50 W	+62 50	1-2	4.30	B1 Ia	8-9-9	McU*	200/150		STRONG
38	A	01 51 E	+9 43	1-2	3.66	B8p	8-16	Sp Bin-Blu	200/-	Exp. mtr. not working. Int. not discharging.	STRONG
17	B	01 12 E	+16 14	2	7.12	F8	8-8-8	"	400/	Exp. mtr Working (sort of)	
5-	C	03 38 W	+08 44	1-2	6.15	A9s	8-16	"	400/132		SL. STR
10	A	00 35 W	+49 50	2	2.27	F5 Ib	12-12	KV Std.	40/21		STRONG
										2 PLATES # 1-13	GOOD

Sept 11 - V. data  
64, 63, Kt ~150.

207

Date Wed. / Thurs. Sept. 15/16/71 Observer Tn-Ht 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.
35214	HD209813	22 01	+46°45'	G-43	IIaO	13/3		19:30	20:12	A
35215	HD 213389	22 25.9	+48° 51'	G-43	IIaO	13/3	65°F	20:19	21:02	B
35216	HD 216489	22 48.2	+16 19	"	"	"		21:10	21:26	C
35217	HDE 226868	19 54.6	+34 56	"	"	13/3	62°F	21:32	00:00	A
35218	HD 222107	23 <sup>h</sup> 32.7	+45°55'	"	"	"		00:06	00:09	B
35219	HD 4502	00 42.0	+24° 06'	"	"	"		00:15	00:21	C
35220	HD 1404	00 13.1	36 14	G12	"	13/5	60°F	01:08	01:16	A
35221	MM Psc	00 09.8	+08 16	"	"	13/3		01:18	01:58	B
35222	HD 2905	00 27.3	+62 23	"	"	9/7		02:04	02:30	C
35223	HD 21364	03 26.8	+9 23	"	"	13/5		02:38	02:44	A
35223F	Focus			"	"	13	59°			B
3522371	calibration	step	wedge	for	plate	35214	-	35223		
<p>Mon. Sept. 13/71 - EX. MTR REPAIRED</p> <p>Replaced - 5800, 644, 2x 6ANBA // 807, 65J7, 1x 0G3/VR105</p> <p>- INPUT CABLE - Changed Dryer - Ht</p>										

Dome Temp.  $60^{\circ}$  6976

Transparency Conditions good but scattered cloud

Focus .....

Dome Temp. 52 67

208

g Time S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
12	A	02:32E	+47° 09'	3-?	7.5	KO III	8-7-0	Cu II emission binaries	800/140	← Calibration plate needed	FINE
02	B	02:07E	+49° 18'	3-4	7.7	K1	3-3-3	"	800/120	Someone saw a fireball!	FINE
26	C	02 05E	+16 47	"	6.7	K0	3-3-3	"	200/30		FINE
00	A	03 24W	+35 14	"	9.74	B0 I b	3-3-3	Sp. Bin - Bl	800/95	clouds at 23:06 1/2" broken off. Overdevelop. Plate at end of box	SL. WK
09	A	00 05W	+46 23	"	5.0	G8 III	3-3-5	Cu II em. bin.	200/32	7 And	FINE
21	C	01 03E	+24 13	3-5	5.6-6.1	K1 II	3-3-3	"	200/33	5 And (some cloud)	FINE
16	A	00 20W	+36 42	2	4.58	A2 V	8-8-8	Sp Bin - Bl	200/90		SL. STR
58	B	01 06W	+8 44	2-3	6.15	A9 S	8-8-8	"	400/150	more cloud	FINE
30	C	01 19W	+62 52	2-3	4.30	B2 I d	8-8-8	McU *	200/150	"	STRONG
44	A	01 20E	+9 42	"	3.66	B8 p	8-8-8	Sp. Bl - Bl	80/37	"	SL. STR
	B						3/3	no filter			
<div style="border: 1px solid black; padding: 10px; width: fit-content; margin: 0 auto;"> <p>74" MIRROR CLEANED ON FRIDAY SEPT 10, 1971</p> </div>											

209

↓ Salmon

Date Fri-Sat Sept 17/18/71 Observer Th - SD - GZ 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 Ang End
35224	HD 199629	20 53.5	+40 47	G12	Ilao	13/1.5	59°F	22:21	22:31	A	01 05
35225	HD 219634	23 12.2	+61 25	"	"	13/0.5	"	22:59	00:39	C	00 5
35226	HD 225289	23 59.9	+60 45	"	"	13/0.5	57°F	01:00	01:24	A	00 5
35227	HD 11188	01 44.9	+46 58	"	"	13/1.4	"	01:32	02:30	B	00 10
35228	HD 11291	01 45.8	+50 18	"	"	13/1.5	56°F	02:41	03:03	C	00 4
35229	HD 2905	00 27.3	+62 23	"	"	9/0.7	"	03:23	03:33	A	02 30
35230	HD 18473 N	02 53.1	+59 17	"	"	13/1.5	55°F	03:43	04:47	B	01 10
35231	HD 29139	04 30.2	+16 18	"	"	"	"	05:02	—	C	00 0
35231 F1	Focus			"	"	13	59°F			B	

Dome Temp. 54°F H=77%

Transparency Conditions *bad - Scattered Cloud* 210  
*bright aurora over 1/2 sky*  
*very good after 1h*

Focus .....  
 Dome Temp. 50°F H=84%

Log Time S.T.	P.R.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
31	A	01 05W	41 07	2-3	3.96	A0V	8-8-8	Sp Bin - Bl <sub>n</sub>	200/96		STRONG
39	C	00 34W	+61 52	3-4	6.99	B8	8-8-8	SPEC. BIN. <sup>(GZ)</sup>	400/200	Aurora SEEING VERY POOR	FINE
24	A	00 52W	+61 13	2-3	5.9	B7III	8-8-8	" "	400/200	" better.	(GUIDING) SL. STIP
30	B	00 10W	+47 19	"	7.14	R8	8-8-8	" "	400/160		FINE
03	C	00 41W	+50 44	2"	5.62	B9III	8-8-8	" "	200/100		FINE
33	A	02 30W	62 50	"	4.3	B1I <sub>q</sub>	8-8-8	McU	200/150		(GUIDING) STRONG
47	B	01 19W	+59 25	2-3'	7.35	A0	8-8-8	Sp Bin - GZ	400/200	North following	FINE
-	C	00 00	—	"	2.39	K5III	12-12	std vel	20/13		FINE
B		in in / out out					3/3	no filter		Looked at Saturn TV system gone?? ↳ SEE NOTE	SL. CENTRE TO VIOLET



Dome Temp.  $54^{\circ}$  H=67%

Transparency Conditions *Excellent*

212

Focus .....

*Intermediate Cloud*

Dome Temp.  $50$  H=75%

g Time S.T.	P.R.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
29	A	04 05 W	35 13	2-3	9.74	B0 Ib	7-7-7	Spl. cl. in	800/230	Anson! Please Calibrate separately. Overdevelop Plate & Calib. slightly	FINE
30	A	01 12 E	60° 00'	2"	8.20	68	3-3-3	6H Cl.	800/	cut short (cloud)	FINE
	B	mm/out-ov					10/10	finder in			SL. CENTER TO VILLET
		mm	2/12 min @ 65° N								
		"	9.2	"	"						





Dome Temp. 54°F H=63%

Transparency Conditions Excellent

214

Focus .....

Dome Temp. 50°F H=75%

g Time S.T.	P.R.	Hour Angle End	Declination	Seeing	Fig. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
15	A	02 03 W	+39 50	1.2"	<sup>mv</sup> 2.10.8	Em	3-3-3	Em object	800/56		FINE
03	B	02 03 W	+34 21	"	6.4	K3III	8-8-8	Late Type	200/160		FINE
17	C	00 <sup>h</sup> 51 W	+58 08	"	3.6	K1I6	12-12	"	40/29.		FINE
24	A	01 55 W	73 14	"	7.1	G8 <sup>U-11</sup>	8-8-8	"	400/262	south* of close pair	FINE
24	B	00 40 W	+78 32	"	3.2	K1I6	12-12	"	40/34		SC. STR
55	C	03 38 W	+8 43	"	9.3	K0p	8-8-8	"	800/260		SL. WK
56	A	02 07 W	+37 15	2"	7.1	K3III	8-8-8	"	400/320		SL. WK FINE-
	C	<del>114 46</del>	<del>23°</del>	<del>5.0</del>	<del>K3I6</del>	<del>8</del>	<del>8</del>	<del>"</del>	<del>200/24</del>	Discarded MISSING →	
	B	in in/out out					3/3	no filter			GOOD
m.w.p. 2/9.0 min @ 68°F - 22 September 1971											

215

\* baked Sept. 7/8

Date Wed/Thurs 22/23 Sept. '71 Observer B/n-Ri/Le km 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 E
35241	HD164577	17 56.7	+1 18	G-12	IIa-d <sup>*</sup>	13/5		18:54	19:01	A	0
35242	HD226868	19 54.6	+34 56	"	"	20/3		19:06	23:00	B	02
35243	UU Psc	00 09.8	+8 16	"	"	13/3		23:05	23:40	C	00
35244	HD2905	00 27.3	+62 23	"	"	9/7		23:46	00:07	A	00
35245	δ Cep.	22 25.4	+57 54	"	"	13/5		00:39	01:10	B	1
35245F1	from test	on old / w / w		G-12	IIc 0	9	60°F			C	
35245 71	calibration	step wedge for			(IIa-d)	plates 35241 - 35245					23 Sept

Dome Temp.  $55^{\circ}$  H=59%

Focus .....

Dome Temp.  $50^{\circ}$  H 82%

Transparency Conditions Very Good - light clouds 2/6  
 by 21:30 heavier cloud at 23:00

g Time S.T.	P.R.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
01	A	04 48W	+01 25'	3	4.46	A1V	8-8-8	Sp1 Bin-Blu	40/18		SC. STR
00	B	02 52W	+35° 14'	2-4	9.74	B0Ib	8-8-8	"	80/277	Cyg X-1 (?)	SC. STR FINE-
40	C	00 45E	+08° 43'	2-3	6.15	A9s	8-8-8	"	400/140	Cloud	SC. STR
07	A	00 35E	+60° 51'	1-2	4.30	B1Ia	9-9-9	Mell *	80/54	"	STRONG
10	B	1 <sup>h</sup> 30W	+50° 16'	1-2	4-5 <sup>th</sup>	G2	12-12	G1001 Ka	80/48	"	FINE
							3-3 no fill			Broken 2 pieces	DISCARDED
										too hazy & cloudy	(BROKE BEFORE TEST)
3 Sept		MCP 2/12 min @ 68° F									

Ansoni Please develop + calibrate like 85232

817

\* Baked plates Sept 7/8/71

Date THURS/FRI 23/24 SEPT 71 Observer Dy - Ri - Sl / Bln - Rj 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.
35246	R Sct	18 42.1	-05 48.8	G-12	Ilc - <del>36</del> 13/3			19:38	20:09	A
35247	R Cr B	15 44.4	+28 28	"	"	13/5		20:18	20:51	B
35248	AC Her	18 26.0	+21 47.9	"	"	13/3	60°F	21:00	23:25	C
35249	HD 192909	20 12.4	+47 24	"	"	9/5		23:24	23:56	A
35250	HD 201433	21 04.4	+29 48	"	"	13/5		00:01	00:21	B
35251	HD 213534	22 26.9	+29 02	"	"	13/5		00:24	01:18	C
35252	HD 220057	23 15.7	+60 36	"	"	13/5		01:22	02:17	A
35253	HD 2905	00 27.3	+62 23	"	"	9/7		02:20	02:28	B
35254	HD 21364	03 21.8	+09 23	"	"	13/5		02:33	02:37	C
35255	HD 28363	04 23.3	+15 57	"	"	"	52°F	02:40	03:58	A
35256	HD 37519	05 34.1	+31 18	"	"	"		04:01	04:25	B
35257	HD 35407	05 19.4	+2 16	"	"	"		04:28	05:06	C
35258	HD 28052	04 20.7	+15 23	"	"	"		05:08	05:16	A
35259	HD 29139	04 30.2	+16 18	"	"	"	50°F	05:18	05:19	B
35259	focus test	out out / on on		"	"	13	50°F			B

Dome Temp. 52°F H=56%

Focus .....  
Dome Temp. 43° H=74%

Transparency Conditions ..... good ..... H/L wind + bad seeing  
wind died down after midnight  
Scattered clouds at 02:00

2/8

g Time S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
09	A	01 15W	-05 40	3	6.3- 8.6	G0- K0	8-8-8	RV Tan	400/175		U.S.L. WK
51	B	04 56W	+28 22	4-5	6.4	F82a	8-8-8	RCR.	400/140		U.S.L. WK
25	C	04 49W	+21 56	5!	7.4- 9.6	F2- K4	8-8-8	RV Tan	800/300		SL. WK
56	A	03 34W	+47 45	4-3	5.42	K0+A3	8-8-8	Atm. Ecl.	200/160		FINE
21	B	03 06W	+30 09	3-4	5.6	A0	8-8-8	Sp. Bin - Blu	200/110 <sup>100</sup>		SL. STR
18	C	02 44W	+29° 28	4	6.28	A5	8-8-8	"	200/100	~1" broken off	FINE
17	A	02 51W	+61 04	4	6.82	B5	8-8-8	"	400/250		SL. STR
28	B	01 58W	+62 51	4	4.30	B1Ia	8-8-8	McU *	40/25		(GUIDING) SL. STR
27	C	00 56 E	+09 42	4	3.66	B8p	12-12	Sp. Bin - Blu	40/18		FINE
58	A	00 36 E	+16° 12'	4	7.12	F8	8-8-8	"	400/260		FINE
25	B	01 20 E	+31 26	4	6.03	B7V	8-8-8	"	400/200		FINE
06	C	00 24 E	+02° 25	3-4	6.16	B5V	8-8-8	"	400/200		FINE
16	A	00 45W	+15° 40'	3-4	4.73	F0V	12-12	"	40/23		FINE
19	A	00 39W	+16 33	5-4	2.39	K5III	12-12	std. Vel.	40/23		FINE
	B						3-3	no filter			GOOD
<p>dev. in WP. 2/9.0 min @ 6 F° F - 24 Sept 8/71</p>											

SUNDOWN → 21<sup>h</sup> R.A.S.C. MEMBERS

\* BAKED SEPT. 23/24

219

Date FRID/SAT SEPT. 24/25 1971 Observer G.P./R./S.L. 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.
35260	HD 214946	22 36.7	+44 39	G12	Ilford <sup>*</sup> B	13/0.3	54°F	21 09	22 09	A
35261	HD 216494	22 48.2	-12 09	"	"	13/0.5	"	22:16	23 29	B
35262	HD 219634	23 12.2	+61 25	"	"	13/0.5	"	23:37	00 22	C
35263	HD 225289	23 59.9	+60 45	"	"	13/0.5	"	00:26	00:44	A
35264	HD 3881	00 36.3	+59 23	"	"	13/0.5	53°F	00:49	02:12	B
35265	HD 10260	01 25.3	+60 32	"	"	13/0.5	"	02:17	02 54	C
35266	HD 11188	01 44.9	+46 58	"	"	13/0.5	"	03 05	04 10	A
35267	HD 11291	01 45.8	+50 18	"	"	13/0.5	50°F	04 13	04 40	B
35268	HD 23324	03 39.2	+24 32	"	"	13/0.5	"	04 50	05:04	C
35269	HD 29365	04 32.4	+20 29	"	"	13/0.5	"	05:07	05:24	A
35269F1	focus test	out	out	"	Ilford	13	50°F			B

Dome Temp. 48°F 63%

Transparency Conditions ..... EXCELLENT AT 22<sup>R</sup>.

Focus .....  
Dome Temp. 42°F 64%

230

Time T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
09	A	20 35 E	+44 56	~3"	7.12	A2	8-8-8	SPEC. BIN.	400/120		FINE
29	B	20 33 W	-11° 49'	1-2"	5.9	B9II	8-8-8	"	400/200		SL. STR
22	C	01 05 W	+61 54	"	6.49	B8	8-8-8	"	400/200		STRONG
44	A	00 36 W	+61 14	"	5.9	B7II	8-8-8	"	400/200		STRONG
12	B	01 29 W	+59° 50'	2-4"	7.35	A6	8-8-8	"	400/200		SL. STR
54	C	01 10 W	+60° 58'	1-2"	5.58	B7II	8-8-8	"	400/200		SL. STR
10	A	22 17 W	+47 20	"	7.14	B8	8-8-8	"	400/200		SL. STR
10	B	02 45 W	+50 44	"	5.62	B9III	8-8-8	"	400/200		STRONG
04	C	01 18 W	+24 48	"	5.64	B8II	8-8-8	"	400/200		SL. STR
24	B	00 45 W	+20 14'	"	5.70	B8II	8-8-8	"	400/200		SL. STR
	B						3-3	no filter			SL. CENTER SUBJECT
		WUP-2 / 9.0 min @ 62°F									





Dome Temp. 60° H=65%

Transparency Conditions Fair - Scattered Cirrus (getting worse)

Focus .....

Dome Temp. 50° H=84%

Excellent for 2nd half

g Time S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
00		01 15W	+1° 26'	2-6	4.46	A1V	12-12	Sp. Bin-Blu	40/220		FINE
40		03 00W	+35 15	3-4	9.74	B0Ib	8-8-8	"	800/300	cloud	FINE
23	C	03 04W	+47 44	3	5.42	K0+A3	8-8-8	Atm. Ecl.	200/160		FINE
29		02 37W	+31 09	3-4	5.6	A	8-8-8	Sp. Bin-Blu	200/100	~ 1/2" broken off	FINE
55	E	00 01E	+8 46	3"	6.15	A9	8-8-8	"	400/140	Broken 2 pcs.	FINE
41	C	2h 30 W	58° 18'	3-4	5.2	F5- G2	12-12	G1001 Km	200/130		FINE
53	A	4h 07W	63° 18'	3-4.5	8.04 -8.50	B3	8-8-8	"	800/241		FINE
12	P	00 17E	24 06	3"	.	B7	12-12	G1001-2e	40/16		SL. STR
40	C	01 36E	-5 19	3"	.	06	12-12	"	40/17	1" broken off - not numbered	FINE
20		02 15W	10° 36'	3"	5.38	B6	8-8-8	Sp. Bin-Blu	200/100		FINE
49	L	00 32E	31 26	2"	6.03	B7V	8-8-8	"	200/100		(GUIDING) FINE
26	C	00 20W	+2 26	"	6.16	B5V	8-8-8	"	200/100	(Sel RA 05 23.1)	FINE
							5/3	no filter			GOOD

222

223

\* baked Sept 29/30

Sept 30/Oct 1/71  
 Date 30/31 Sept 71 T. hrs. Fri Observer GH-TD/PL-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.
35282	IC 4756-1	18 34.6	+15 22	G43	II <sub>00</sub> *	13/3	63°F	19:00	19:19	A
35283	IC 4756-7	"	"	"	"	"	62°	19:29	20:59	B
35284	IC 4756-6	"	"	"	"	"	"	21:07	21:51	C
35285	HD 187691	19 <sup>h</sup> 46.2	+10° 10	"	"	"	61°	21:59	22:03	A
35286	HD F 226868	19 54.6	+34 56	G-12	"	20/3		22:20	01:00	C
	35285 F			G-12			61°F			B
35287	UU Psc	06 09.8	+8 16	G-12	II <sub>00</sub> -0	13/3		01:05	01:29	A
35288	HD 220057	23 15.7	+60 36	"	"	13/5		01:44	02:36	B
35289	HD 2905	30 21.2	+62 23	"	II <sub>00</sub> -0	9/7		02:40	02:50	C
35290	HD 14951	02 19.3	+10 09	"	"	13/5		02:56	03:18	A
35291	HD 21364	03 21.8	+9 23	"	"	"	59°	03:23	03:27	B
35292	HD 28363	04 23.3	+15 57	"	II <sub>00</sub> -0b	13/5	"	03:30	04:28	C
35293	HD 35407	05 19.4	+2 16	"	"	"		04:31	04:59	A
35294	HD 37519	05 34.1	+31 16	"	"	"	58°	05:01	05:23	B
35294F	Focus			"	II <sub>00</sub>	13	"			B

Dome Temp.  $55^{\circ}\text{F}$  H=7570

Transparency Conditions Good - S1 base

224

Focus .....

Lt. Clouds at end

Dome Temp.  $53^{\circ}\text{F}$  H=9370

g Time ST.	P.R.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
19	A	1:00 W	$+5^{\circ} 20'$	2"	7.15	FO16	3-3-3	GH Cluster	800/120		SL. WK FINE -
19	B	2:42 W	$+5^{\circ} 19'$	1"	9.43	<del>K?</del>	3-3-3	"	800/120		WEAK
1	C	3:36 W	$-15^{\circ} 22'$	2"	7.86	A?	3-3-3	"	800/120		(GUIDING) SL. WK
23	A	2:34 W	$+10 27$	"	5.8	F8	3-3-3	Std vel	200/32		FINE
00	C	5:23 W	$+35 12$	2-3	9.74	B016	8-8-8	Sp. Bin - Blu	900/250	Anson: Over-develop slightly. Plate at end of box (dev 12 m) $\uparrow$	SL. WK VIOLET CENTRE D
	E	lens / out out					10/10	filter in			
25	A	01:36 W	$+8 46$	2	6.15	A9s	8-8-8	Sp. Bin - Blu	400/130		FINE
36	B	03:38 W	$+61 06$	1-2	6.82	B35	8-8-8	"	400/190		SCSTR
50	C	02:39 W	$+62 51$	"	4.30	B216	12-1/2	McU *	40/26		STRONG
18	A	01:16 W	$+10 34$	"	5.38	B6	8-8-8	Sp. Bin - Blu	200/90	Cloud	FINE
27	B	00:22 W	$+9 44$	"	5.66	B2p	12/12	"	40/17		(GUIDING) FINE
28	C	00:22 W	$+16 14$	1.3"	7.12	F8	8-8-8	"	400/230		FINE
1	A	00:04 E	$+02 24$	1-2	B5V	6.16	8-8-8	"	400/180		FINE
3	B	00:04 W	$+31 27$	1	B7V	6.03	8-8-8	"	400/190		FINE
	A						3/3	no filter			TO VIOLET SL. CENTRE

225

\* baked Sept 29/30  
\*\* baked Sept 30/Oct 1Date FRID. SAT. OCT. 1/2 1971 Observer G2-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.
35295	HD 214946	22 36.7	+44 29	G12	Ilao*	13/0.5	58°F	18 52	20 16	A
35296	HD 219634	23 12.2	+61 35	"	Ilao**	13/0.5	"	20 22	21 18	B
35297	HD 225093	23 58.3	+72 36	"	"	13/0.3	66°F	21 25	22 41	C
35298	HD 225289	23 59.9	+60 45	"	"	13/0.5	"	22 46	23 06	A
35299	HD 3881	00 36.3	+59 23	"	"	13/0.3	65°F	23 10	23 50	B
35300	HD 10260	01 35.3	+60 32	"	"	9/0.5	"	23 58	00 42	C
35301	HD 11188	01 44.9	+46 58	"	"	13/0.5	64°F	00 47	01 27	A
35302	HD 11291	01 45.8	+50 18	"	"	13/0.5	"	01 30	01 46	B
35303	HD 18473N	02 53.1	+59 17	"	"	13/0.5	"	01 52	02 30	C
35304	HD 23324	03 39.2	+24 32	"	"	13/0.5	"	02 36	02 54	A
35305	HD 23383	03 39.7	+55 37	"	"	13/0.5	63°F	02 59	03 13	B
35306	HD 23838	03 43.1	+44 40	"	"	13/0.5	"	03 18	03 45	C
35307	HD 27742	04 17.7	+20 45	"	"	13/0.5	"	03 52	04 14	A
35308	HD 28475	04 24.2	+10 18	"	"	13/0.5	"	04 21	05 07	B
35309	HD 29365	04 32.4	+20 29	"	"	13/0.5	"	05 13	05 39	C

Dome Temp. 60°F H: 82%

Transparency Conditions SOME HAZE

Focus .....

Excellent seeing

Dome Temp. 58°F H: 99% — but we were careful

log Time S.T.	P.E.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
16	F	00 01 E	+44 55	1-3"	7.12	A2	8-8-8	SPEC. B.I.H.	400/200	~ 1/2" MISSING	(GUIDING) U.S.C.W.K.
18	B	01 33 E	+61 52	1-2"	6.49	B8	8-8-8	"	400/200		(GUIDING) FINE
41	C	00 57 E	+73 05	"	7.52	A3	8-8-8	"	800/275		FINE
06	F	00 35 E	+61 18	"	5.9	B7IV	8-8-8	"	400/200		FINE
50	E	00 25 E	+59 49	"	7.35	A6	8-8-8	"	400/120		FINE
42	C	00 34 E	+60 56	~1"	5.58	B7V	8-8-8	"	400/200		FINE
27	F	00 02 W	+47 20	"	7.14	B8	8-8-8	"	400/200		FINE
46	E	00 20 W	+50 44	<1"	5.62	B9III	8-8-8	"	200/100		FINE
30	C	00 05 E	+59 38	"	7.35	A0	8-8-8	"	400/200		FINE
4	F	00 25 E	+24 50	"	5.64	B8V	8-8-8	"	200/100	PLEASE CHECK THE CLOCKS IN THE DOME	FINE
3	B	00 06 E	+55 56	1"	6.00	B9	8-8-8	"	400/200		FINE
5	C	00 25 W	+44 55	1-2"	5.79	245	8-8-8	"	400/260		FINE
14	F	00 18 W	+21 02	"	5.9	B9V	8-8-8	"	400/200		FINE
07	B	01 03 W	+10 33	"	6.55	B9	8-8-8	"	400/200		FINE
9	C	01 27 W	+20 43	"	5.70	B8V	8-8-8	"	200/100		





\* Baked Sept 30/Oct 1

229

Date Wed-Thurs Oct 6-7/71 Observer Sanyal + J. Thomson <sup>NGH-TV</sup> 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.
35315	$\lambda$ Psc	23 <sup>h</sup> 36.9 <sup>m</sup>	1° 14'	G12	Daob*	18/0.3		20 <sup>L</sup> 49 <sup>m</sup>	21 01	A
35316	N2e 1967	<sup><math>\alpha</math> 1950</sup> 20 <sup>h</sup> 40.1 <sup>m</sup>	<sup><math>\delta</math> 1950</sup> +18° 59'	"	"	"	52°	21 11	00:01	C
35317	Stock 2-7	2 <sup>h</sup> 3.5	+59° 33.4	G43	II00	13/0.3	51°	00:25	00:45	B
35318	Stock 2-43	2 <sup>h</sup> 6.6	+58° 46.4	"	Daob*	"	49°	00:52	01:57	A
35319	Stock 2-11a	2 <sup>h</sup> 4.5	+59° 33	"	Daob*	"	46°	02:03	03:39	B
	<del>HD 13854</del>	<del>2<sup>h</sup> 4.5</del>	<del>+56° 36</del>					<del>03:53</del>		<del>C</del>
35319F							46° F			
35319 T1	calibration				II00					UNBAKED
T2					II00					BAKED OCT 6/7



Dome Temp.  $48^{\circ}\text{F}$  H=706

Focus  $20\text{R}$

Dome Temp. ....

Transparency Conditions  $\dots$  very cloudy (windy) 230

ing Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality	
01	A 01.57E	$+1^{\circ}40'$	5"	4.5	A5	8/8/8	N Del (std)	200/60		FINE	
01	C 04:00W	$+19^{\circ}08'$	5-10"	~10.	mm	8-8-8	N Del/67	4000/240	cloud 21:30, <sup>partially</sup> clear at 22:30		
45	C 00:24E	$+59^{\circ}55'$	4-6"	7.0	F5II	3-3-3	GH-Cluster	400/70		SL WK	
59	A 00:27W	$+59^{\circ}06'$	3-4"	8.82	G5II	3-3-3	"	800/119		(SL) WEAK	
37	A 5:11-1W	$59^{\circ}56'$	"	9.5	GK2	3-3-3	"	800/119		WEAK	
				8.9	(P)	5x			clouds		
			min/out out		felt in			10/10		CENTRE TO SID	
FOCUS (20 to 50) CHANGE							Anson, please get a calibration plate with plate #s 35315 & 35316 4. Same d. - PLATES SAVED SEPT 30/OCT 1 WERE ALL USED UP.				

231

\* baked Oct 6/7

Date Thurs → Fri 7-8 Oct 1971 Observer Chas. Clifford, Tom J. Blau-Ten 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.
35320	BS 8775	22 58.9	+27 32 +24 32	G12	JN(sens)	13/5	49°F	22:49	—	A
35321	"	"	"	"	"	"	"	23:00	23:02	B
35322	"	"	"	"	"	"	"	23:32	—	C
35323	BS 168	00 34.8	55 59	"	"	"	"	23:48	23 53	A
35324	UU Psc	00 09.8	+ 8 16	"	Tri'D6*	13/5		00:14	00:32	B
35325	HD 213534	22 26.9	+ 29 02	"	"	13/5		00:35	01:05	C
35326	UU Psc	00 09.8	+ 8 16	"	"	13/3		01:10	01:30	A
35327	HD 218154	23 00.6	+ 24 07	"	"	13/5	45°F	01:34	02:20	C
35328	UU Psc	00 09.8	+ 8 16	"	"	13/3		02:22	02 40	B
35329	HD 14951	02 19.3	+ 10 09	"	"	13/5		02:44	02:58	A
35330	2 Tau	03 21.8	+ 9 23	"	"	"		03:02	03:04	B
35331	HD 29363	04 23.3	+ 15 57	"	"	"	43°F	03:08	04:00	C
35332	UU Psc	05 52.8	+ 35 19	"	"	13/3		04:03	05:13	B
35333	HD 57319	05 34.1	+ 31 18	"	"	13/5	42°F	05:14	05:30	A
35335F	Focus			"	"	13	"			B

Dome Temp. 45° F / 729.14.

Focus 50 R

Dome Temp. 34° F / 876.

56 95

Transparency Conditions variable cloud, light wind.

232

Log Time S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
01	00 34W	28° 03'	2-3"	2.42 I <sub>s</sub> = -0.41	M20-2	90°/180	A410	40/6	exp 1" } developed.	TO weak
02	00 47W	"	"	"	"	270	"	40/12	"	weak
03	01 18W	"	"	"	"	270	"	40/4	exp 30" } (Anson-Left)	VERY WEAK
53	A 00 00	+56 29	"	J = 0.89	K02-15	90-180	"	40/80	5 min } in freezer	fine
32	01 06 W	+8 45	3	6.15	A95	8-8-8	Sp. Bin-Bln	400/125	@ GWR	FINE
04	03 22W	+29 30	2-3	6.24	A5	8-8-8	"	400/180		FINE
30	02 04W	+8 47	2-3	6.15	A95	8-8-8	"	400/125		FINE
20	C 04 03W	+24 37	2-3	7.01	A0	8-8-8	"	400/180		FINE
0	03 14W	+8 45	2-4	6.15	A95	8-8-8	"	400/125		FINE
58	A 01 24W	+10 36	2-3	5.36	B6	8-8-8	"	200/90		SL. STR
07	B 00 25W	+9 43	"	3.66	B8p	12-12	"	40/18		SL. STR
00	C 00 21W	+16 11	3-4"	7.12	F8	8-8-8	"	400/232		FINE
13	00 02W	+35 24	3	8.6	F5	8-8-8	KV Tau 11	800/300		FINE
0	00 38W	+31 24	"	6.03	17II	8-8-8	Sp. Bin-Bln	40/180		V. SL. STR.
B						3'8"	no filter			VERY SLIGHT CENTRE TO VIOLET



Dome Temp.  $48^{\circ}\text{F}$   $H=7470$

Transparency Conditions *Clear by 20:30*

Focus *D.R.*

*Cloud by 21<sup>h</sup>*

Dome Temp.  $43^{\circ}\text{F}$   $H=8270$

234

ing Time S.T.	P.E.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
042	A	0200E	+1 40	1"-2"	4.5	A5	3/6	Nova Del std	200/60		(SC) STRONG FINE -
01	B	0141E	"	"	"	"	6-6	"	200/60		STRONG
015	A	0019W	+60 39	3"-4"	2.65	B0	12-12	Be-G1	40/16		SL. STR
025	A	0016E	+50 36	2"-3"	4.03	B1	12-12	"	40/19		FINE
042	C	0136E	65 36	"	4.78	B2	8-8-8	"	40/19		FINE
00	A	0012E	22 25	"	6.11	B8	8-8-8	GlAp+m	400/173	Cloud again	(GUIDING) FINE
	B		<i>in in/out out</i>				3/3	<i>no filter</i>			GOOD
										<i>got drips on mirror? (everything seems dry though?)</i>	



Dome Temp.  $46^{\circ}F$  H=645

Transparency Conditions *Very good - some cloud* 236

Focus *SR*

Dome Temp.  $39^{\circ}F$  H=852

ig Time S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
59	A	01 15 W	-5 40	2.3"	6.3-8.6	60-K0	8-8-8	KV Tau	800/400		FINE
39	F	1 55 E	+30 34	2.4"	8.02	60-V	8-8-8	S SV	800/300		FINE
										cloud 21" discarded	
02	A	01 46 W	+27 13	2.4"	8.07	K0 III	8-8-8	S SV	800/300		FINE
12	C	00 40 E	+35 25	1"	7.8-8.6	FS	8-8-8	RV Tau	800/300	(NOTE SLIT!)	FINE
19	B	02 02 E	+28 06	2.4"	7.40	K5 III	8-8-8	SSV	800/364		FINE
							3/3	not filter			GOOD





Dome Temp. 42 H=72%

Transparency Conditions very good - then cloud

238

Focus 50-R

Dome Temp. 40 H=73%

g Time S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
35	A	02:45W	35° 14'	1-2"	9.74	80 Ib	8-16	Sp Bin-B/n	800/3	cloud 20:30	Overdevelop Maximum useful time WEAK
MWP 2/15 min @ 65°F								13 Oct 8/71			



Dome Temp. ...50°F

H = 94%

Transparency Conditions Fair

240

Focus .....

Dome Temp. ....

ing Time S.T.	P.R.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
150	A	03 <sup>h</sup> 18 <sup>m</sup>	-05° 39'	4-5"	6-3 8.6	60- NO	8-8.	Dy	400/40s	closed → star low humidity high	VERY WEAK
										closed up due to high humidity.	
	B	—	+14° 04'	3	8.13	60	8-8-8	SKR	500/65	no trail and purpose	VERY WEAK
	C						3-3	no filter.			GOOD
										dev. 9.0 min @ 68°F in m.c.p. 7 - 15 Oct 1971	



Dome Temp. 53°F H=94%

Transparency Conditions <sup>4.1.ck.</sup> cirrus & haze..... 55.30

Focus .....

SECOND HALF - HEAVY HAZE & INTERMITTENT CIRRUS. VERY SLOW - NOON NIGHT

Dome Temp. 50°F H=94%

242

ing Time I.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
03:33	03 <sup>h</sup> 10 <sup>w</sup>	+38° 50'	3-4	I = 0.07	AO V	4.5 min	A 410	20/60	→ Counter # not sign.	
03:51	0 <sup>h</sup> 57 <sup>e</sup>	+28 00'	"	F = 0.41	M2 III	4.5 min	"	40/32		
03:55	1 <sup>h</sup> 24 <sup>w</sup>	-05° 34'	2-3	I = 1.83	GO Ib	6.5 min 6.5 min to 3 min	"	40/138	taken for 25 min for calib of counter.	
04:13	2 <sup>h</sup> 25 <sup>w</sup>	+45° 55'	"	I = 1.59	K5 Ib	2/2/2.5	"	40/90	for 20 min	
04:38	0 <sup>h</sup> 05 <sup>e</sup>	59 05	"	I = 1.76	F2 IV	2/4	"	40/120		
04:46	0 <sup>h</sup> 37 <sup>e</sup>	35 31	"	I = -0.20	M0 III	3/3	"	20/50		U.SL. WK
04:53	01 25 <sup>w</sup>	+29 25	"	7.49	K0 III	8-8-	SSV	800/350	covered at 00 18 - cloud uncovered at 00 24	SL. WK
05:10	01 <sup>h</sup> 57 <sup>w</sup>	+62° 52'	"	4.3	B1 Ia	11-12	mcu*	40/24		SL STR
05:14	03 33 <sup>w</sup>	+27 11	2-3	8.07	K0 III	4-4-4 4-4-4	SSV	800/300	LEFT DARK SLIDE IN ↓ STAINED AGAIN WEAK	
05:16	03 <sup>h</sup> 22 <sup>w</sup>	+27 55	"	7.6	G5 V	4-4-4 4-4-	"	800/252	SKY VERY POOR - CONTINUOUS CIRRUS	SL. WK
						3/3	no filter.			BLANK





245

\* baked Oct. 13/71

Date Mon-Tue Oct. 18/19/71 Observer Hd-S/Bl-S 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.
35360	RSct.	18 <sup>h</sup> 47.08	-05° 48.8	G-12	11a-0b	13/.5		18 14	19 14	A
<del>35361</del>	<del>HD 22331</del>	<del>23 43.4</del>	<del>+16 46</del>	"	"	13/.3		<del>19 36</del>		<del>B</del>
35361	HD 187691	19 46.2	+10 10	G-12	11a-0b	13/.3		20 00	20:31	C
35362	HD 4550	0 42.4	+25 44	"	"	"	56°F	20 40	21:55	A
35363	HD 8747	1 21.2	+26 43	"	"	"	54°F	22 06	23 08	B
35364	HD 12638	1 58.7	+25 27	"	"	"		23 14	<u>00:38</u>	C
35365	HD 214993	22 37.5	+39 42	"	"	9/.5		00:42	00:56	A
35366	HD 218376	23 02.4	+58 53	"	"	"		01:02	01:13	B
35367	(UU) Psc	00 09.50	+08 16	"	"	13/.3		01:19	01:40	C
35368	HD 13854	02 <sup>h</sup> 09.9	+56° 35	"	"	13/.5	53°F	01:50	02:28	A
35369	HD 24398	02 <sup>h</sup> 47.9	+31 35	"	"	9/.5		02:32	02:35	B
35370	HD 14951	02 <sup>h</sup> 19.3	+10° 09	"	"	13/.5		02:41	02 57	C
35371	2 Tau	03 <sup>h</sup> 21.45	+09 23	"	"	"		03:00	03:03	A
35372	HD 28363	04 23.3	+15 57	"	"	"		03:07	03:13	B
35373	CO Aur	05 53.8	35° 19	"	"	13/.3	52°F	04:18	05:30	C
35374	HD 37128	05 31.1	-1° 16'	"	"	9/.5		05:33	05:36	A



Dome Temp. 51°F H = 90%

Transparency Conditions Hazy w/ Gard. Fog 1/2 mi - 3/4 mi  
excellent

Focus .....

Dome Temp. ....

ing Time EST.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
14 A	W 1 <sup>h</sup> 57	-05° 37'	2-3	6.3-8.6	G0-K0	8-8-8	Dy whole	800/400	Sorry about that	WEAK
B	improvingly slow		"	8.5?	G8	8-8-8	Std Vel	800/	Double star work tonight see drawing field	
131 C	W 2 <sup>h</sup> 12	+10 28	2	5.8	F8	8-8-8	Std Vel.	200/75		FINE
155 -	E 1 <sup>h</sup> 21	+26 14	"	8.16	K0 III	8-8-8	SSV (II)	800/300		
08 -	E 0 <sup>h</sup> 46	+27° 12	2	8.07	K0 III	8-8-8	SSV (II)	800/300	Field drawn.	SL. WK
21 -	00 07 W	+25 50	"	8.26	G-8 III	8-8-8	SSV (I)	800/300	Field checks.	SL. WK
56 F	03 21 W	+40° 08	2-3	5.10	2.5 III	9-9-9	Sp. std.	80/36		SL. STR
12 -	03 35 W	+59° 21	"	4.83	20.5 III	9-9-9	"	80/36		SL. STR
40 -	01 57 W	+09° 45	"	6.15	A95	8-8-8	Sp. Bin-Blu	400/130		FINE
28 F	01 44 W	+57° 00'	1-2	6.77	B1 Tab	8-8-8	Sp. Std	400/200		SL. STR
135 B	00 14 W	+31 50	"	2.96	B1 Tab	12-12	"	40/20		VERY STRONG
57 C	02 <sup>h</sup> 05 W	+10° 33	2	5.38	B6	8-8-8	Sp. Bin. Blu	80/34		U.S.L. STR
03 A	01 <sup>h</sup> 08 W	+09 44	"	3.66	B8p	8-8-8	"	40/16		U.S.L. STR
13 E	00 17 W	+16° 10	2-3	7.12	F8	8-8-8	"	400/230		(GUARDING) FINE
10 -	01 03 W	+35 25	"	7.8/6	F5	8-8-8	Rv Tau - Dy	800/300		FINE
26 -	01 <sup>h</sup> 32 W	-01° 10	"	1.57	B0 Ia	12-12	Sp. Std.	20/8		(GUARDING) SL. STR







Dome Temp.  $49^{\circ}\text{F}$   $H=74\%$

Transparency Conditions Excellent

Focus .....  
Dome Temp.  $46^{\circ}\text{F}$   $H=89\%$

250

g Time S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
10	A	0 02 E	+34° 18	2-3	6.4	K <sup>3</sup> III	8-8-8	Waterloo	800/650		*
03	B	05 <sup>n</sup> 40 W	+39 50	2-3	10.8	E <sub>n</sub>	8-8-8	"	800/60	ANSON - plate was broken → at end of plate bar	*
25	C	3 <sup>n</sup> 4 W	+41 33	"	5.5	B <sup>2</sup> IV	8-8-8	"	200/100	in two pieces	*
28	B	0 <sup>n</sup> 55 W	+57° 29	"	7.0	62 II	8-8-8	"	200/100	trouble with dec clamp	*
1	C	01 <sup>n</sup> 11 W	+37° 16	1-2	7.1	K <sup>3</sup> III	8-8-8	"	200/120		*
25	A	02 <sup>n</sup> 07 W	+51 56	1-2	9.0	K <sub>0p</sub>	8-8-8	"	800/300		*
4	C	00 06 E	+08 26	2-3	2.74	R <sup>7</sup> V	8-8-8	5 <sub>p</sub> B <sub>n</sub> B <sub>n</sub>	40/20		*
							3/3	no filter.			NO CENTRE 15
										* NO COMPARISON.	



Dome Temp. 52°F H=8076

Transparency Conditions Very good but haze 252

Focus

Dome Temp. 48°F H=9470

fog by dawn

Time	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
5	B	03 37W	+35 13	1-3"	9.74	80 Ib	8-7-7	Sp Bin - 8/12	800/300		FINE
11	C	03 42W	+47 44	1-2	5.42	KD+H3	8-8-8	Atm. Ecl.	200/160		V.S.C. WK
19	L	04 52W	+35 40	2"	7.55	30.7 II	8-8-8	Sp. Std.	800/275		(GUIDING) FINE
2	D	03 14W	+62 15	1-2	5.19	09.5 II	8-8-8	"	80/34		FINE
56	C	02 54W	+40 09	"	5.10	13.5 III	8-8-8	"	80/36		FINE
25	F	01 42E	+9 43	1"	3.74	88p	12-12	"	40/16		(GUIDING) FINE
	H	01 29W	+59 56	1-2"	9.01	9K	3-3-3	GH cl.	800/160	broken 1/2" f	SL. WK
	E	03 00W	+59 56	"	7.0	FV	3-3-3	"	400/58		V.S.L. WK
3	L	3 40 W	+58 41	2"	5.9	B'	3-3-3	"	800/120		WEAK
	H	4 27W	-9 58	"	5.2	6E	3-3-3	"	700/120		VERY WEAK
22	B	4 55W	+57 02	"	6.2	B1 <sub>3</sub>	3-3-3	"	200/30		WEAK
							10/10	filter		IS THERE ANOTHER UNEXPOSED BOX SOMEWHERE? GOOD	GOOD
										Anson-plates??	
										- PLATES STARTED BAKING AT 10:00 AM;	
										- REMOVE & USE BOX FROM BAKING JUNK IF YOU NEED THEM	
										I put a box in Lower 1-rig for you.	MANY THANKS

253

Date Wed/Thurs Oct 27/28 '71 Observer Bl-Tn/GH-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.
35395	HD191610	20 05.7	+36 33	G-12	IIa-06*	13/5		17:57	18:07	A
35396	HD 226868	19 54.6	+34 56	"	"	25/3	57°F	18:10	22:10	B
35397	HD 192909	20 12.4	+47 24	"	"	9/5	"	22:13	23:01	C
35398	UU Psc 1	00 09.8	+8 16	"	"	13/3	"	23:10	23:50	A
35399	HD 13854	02 9.5	+56° 36	G43	"	"	"	00:06	00:26	C
35400	Stock 2-160	02 12.5	+59° 34	"	"	"	"	00:58	02:02	C
35401	Stock 2-40	02 6.1	+59° 31	"	"	"	55°F	02:14	03:44	A
35402	HD 44131	06 15.0	-02 54	"	"	"	"	03:50	04:02	C
35403	NGC 2169-3	06 02.8	+12° 58	"	"	"	"	04:08	05:58	A
35403 F1	Focus			"	II40	13	59°F			B
35403 T1	Calibration step wedge for plate							35395, 35397 - 35403	28628	
T2								plate # 35396		





255

\* Sensitized Oct. 27/71  
\* \* baked(A100 Extension)  
7120 →

Date Thurs = Fri Oct. 28/29/71 Observer T.S. / S.T. - Cb 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.
35404	BS 7924	20 38	44° 55'	G-12	1-N*	13/.5	64	18:14	18:20	A
35405	BS 8622	22 34.8	38° 32'	"	"	"	"	18:26	19:18	B
35406	BS 8430	22 02.3	24 57.	"	"	"	"	20:16	20:40	C
35407	BS. 8781	22 59.8	14 40.	"	"	"	"	20:54	21:22	B
35408	BS 0039	00 08.1	14 38	"	"	"	"	21:31	22:15	A
35409	BS 219	00 43.1	15 17	"	"	"	"	22:26	22:58	C
35410	BS 403	01 19.3	+59 43	"	"	"	"	23 06	23:30	A
35411	BS 921	02 58.8	38 27	"	"	"	"	23 43	23 46	B
35412	HD 6675	01 02.4	+69 10	"	Il00*	13/.3	"	00:08	00:52	A
35413	2 Tau	03 21.8	+9 23	"	"	13/.5	"	01:03	01:09	B
35414	28363	04 23.3	+15 57	"	"	9/.3	56°F	01:21	02:45	C
35415	CO Aur	05 53.8	+35 19	"	"	13/.3	"	02:50	05:06	B
35416	HD 28446	04 24.1	+53 42	"	"	13/.5	"	05:18	05:42	C
35417	B Gem	07 39.2	+28 16	"	"	"	"	05:45	05:47	A
	17F/ Focus Test			"	Il00	13	54			B

Dome Temp. 52°F H=76%

200

\* Transparency Conditions Excellent.

25

Focus .....

Dome Temp. 47°F H=84%

Anson - plates 35412-517 are on right side of Unexp baked plate box.

Time T.	P.H.	Hour Angle End	Declination	Seeing	Mag. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS (V-1)	Quality
20		00 <sup>h</sup> 15E	45° 17	2	1.03 I	A2Ia	1.5/3.0 <sup>min</sup>	A 410Y	20/60	6 min +.22	Good
18		01 10E	38° 59	"	5.17 I	09I	1.5/1.5	"	200/874	52 <sup>min</sup> exposure -.29	too weak
14		00 42W	25° 18	"	3.12 I	F5I	1.5/1.5/5	"	40/109	20 <sup>min</sup> exp +.64	WEAK
12	B	00 28W	15° 10	"	2.48 I	B9SI	1.5/1.5	"	40/391	25 <sup>min</sup> exp -.001	SL. WK
5	A	00 12W	15° 08	"	3.17 I	B2II	1.5/1.5/1.5	"	40/680	45 min -.31	(GUIDING) SL. WK
58		00:19W	57 45	"	2.57 I	G08	15/15/15	"	40/270	30 <sup>min</sup> +0.86	FINE
30	A	00:16W	60 10	"	2.45 I	A5I	1.5/1.5/1.5	"	40/470	22 <sup>min</sup> +0.24	FINE
16	B	01 05E	38 46	"	0.00 I	M4Da	2/2	"	40/10	3 min +3.39	SL. WK
52	A	01 54W	69 34	"	7.95 I	B0.2III	8-8-8	Sp. Std.	800/280	R side of UnX box	SL. STR
09		00 07E	—	"	3.66 I	B8p	8-8-8	Sp Bin - Bln	40/19	"	STRONG
45	C	00 28W	+16 11	"	7.12 I	F8	8-8-8	"	800/350		FINE
06		01 18W	135 26	2-3	7.8-86 I	F5	8-8-8	R V Tau	800/300	faint	FINE
42	C	03 22W	+53° 57	"	5.22 I	B0III	8-8-8	Sp. Bin Bln	200/100	visual binary?? [S.E. of pair]	STRONG
47	A	00 13W	+28° 10	"	2/5 I	K0III	12-12	std vel	40/28		STRONG
							3/3	no filter			GOOD



Dome Temp. 50° H=72%

Transparency Conditions Scattered Clouds - Fair - Good

Focus .....

Dome Temp. 47° H=87%

258

g Time S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
57	A	00 00	+36 54	2	4.82	B3Vc	8-8-8	Sp. Bin-Bln	40/16		SL-STR
00	C	04 16W	+35° 12	2	9.74	B0Ib	11-6-8	"	800/220	Broken 2 pcs cloud 20:30	*BAD FOCUS
15	C	05 15W	+47 44	"	5.42	K0 + A3	8-8-8	Atm. Ec.	200/22	cloud 22:30	FINE
43	A	01 43W	+8 44	1-2"	6.15	A9s	8-8-8	Sp. Bin-Bln	400/140		FINE
52	C	01 19E 02 41W	+9 44	2	3.66	B8p	12-12	"	40/17		SL-STR
00	A	01 39E 02 21W	+32 54	1-2"	2.96	B1Ib	12-12	Sp. Std.	40/22		SL-STR
5	B	01 05W	+10 35	2-3'	5.38	B6	8-8-8	Sp Bin-Bln	200/100		FINE
34	C	00 22W	+09 44	"	3.66	B8p	12-12	"	40/20		FINE
57	A	00 13W	+35 50	2-4	4.04	07	8-8-8	"	20/90		SL-STR
							3/3	no filter			GOOD

\*At right hand end of box



Dome Temp. 51°F H=79%

Transparency Conditions Good - Some thin cirrus.  
Gibbous Moon

Focus .....

Dome Temp. 43°F H=20%

260

Mag Time S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
30		0200W	+05 38.	2-3	6.3 -8.6	60-K0	8-8-8	Var-Dy	400/200		SL. WK
34	P	0422W	+21 59	"	7.4 9.6	F2-K4	8-8-8	"	400/190		FINE
12	C	0016 E	+26 15	1-2	8.16	K0 III	8-8-8	SSV(II)	800/350	* Anson - plate broken 2 pieces.	V.SL. WK
27	A	0019W	+27 13	"	8.07	K0 III	8-8-8	"	800/350		FINE
30	E	0051W	+60 39	"	2.65	B0	8-16	G1-Be	40/17		(GUIDING) FINE
45	C	0020W	+50 37	"	4.03	B1	12-12	"	40/16		(GUIDING) FINE
01	A	0100E	+65° 40	3	4.78	B2	12-12	"	40/19		FINE
30	C	0100E	+24 08	5"	5.13	B8	8-8-8	"	200/90		FINE
48	C	0005E	+22 26	2-5"	6.11	B8	8-8-8	G1 Ap + m	400/220		FINE
25	A	0040E	+1 56	4"-10"	4.94	B1	12-12	G1-Be	200/90		FINE
35	C	0042E	+21 14	2-3"	2.99	B2	12-12	"	40/17		V.SL. STR
20	C	0015 E	+42 27	"	6.61	A0p	8-8-8	G1 Ap + m	400/140	cloud 9:15	







203

\* baked Oct 27/71  
\* baked Oct 21/22/71

Date Nov 1/2 / 71 Mon-Tues Observer Hd-Tn-Sl 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.
35448	HD 206778	21 39.3	+ 9 25	G12	Ilab*	13/5	50°F	17:58	18:00	A
35449	12 Lac	22 37.0	+ 39 43	"	"	13/5	"	18:08	18:16	B
35450	"	"	"	"	"	"	"	18:18	18:26	C
35451	"	"	"	"	Ilab*	"	"	18:29	18:35	A
35452	"	"	"	"	<del>Ilab</del>	"	"	18:37	18:43	B
35453	"	"	"	"	<del>Ilab</del>	"	"	18:45	18:50 1/2	C
35454	"	"	"	"	"	"	"	18:53	19:01 1/2	A
35455	"	"	"	"	"	"	"	19:04	19:10 1/2	B
35456	"	"	"	"	"	"	"	19:12	19:21	C
35457	"	"	"	"	"	"	"	19:23 1/2	19:32	A
35458	"	"	"	"	"	"	"	19:33	19:42	B
35459	"	"	"	"	"	"	"	19:43	19:57	C
35460	"	"	"	"	"	"	"	19:59	20:17	B
35461	"	"	"	"	"	"	"	20:18	20:28	C
35462	"	"	"	"	"	"	"	20:29	20:40	B

Dome Temp.  $43^{\circ}\text{F}$   $H=6870$ Transparency Conditions *cloudy*

264

Focus .....

Dome Temp. ....

Log Time S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
00	F	01 17 E	+9 50	2"	3.98	K216	12-12	std vel	40/29	Thick cloud	
16	V	02 00 E	+40 10	"	5.1	B <sub>2</sub> III	8-8-8	1hd *	200/90	" " "	
26	C	01 50 E	"	"	"	"	8-8-8	"	200/70	now clear	
35	H	01 40 E	"	1.2"	V	V	8-8-8	"	200/70	record time exactly	SL STR
43	B	1 32 E	"	"	"	"	8-8-8	"	200/70	Cloudy	SL STR
5	C	1 25 E	"	"	"	"	8-8-8	"	200/70		SL STR
01 1/2	A	01 14 E	"	2"	V	"	8-8-8	"	200/70		SL STR
1 1/2		1 06 E	"	"	"	"	8-8-8	"	200/70		SL STR
21		0 55 E	"	"	"	"	8-8-8	"	200/70		plate wedged in box, 1/2" broken off
32		0 44 E	"	"	"	"	8-8-8	"	200/70	cleaning	SL STR
42		0 34 E	"	"	"	"	8-8-8	"	200/70	cleaning	SL STR
57	C	0 0 17 E	"	"	"	"	8-8-8	"	200/70	1 heavier cloud	SL STR
17	B	00 01 W	"	"	"	"	8-8-8	"	200/70	1/2 time at 20" cloud	SL STR
28	C	0 13 W	"	"	"	"	8-8-8	"	200/70	cleaning	SL STR
40	B	0 25 W	"	1.24	"	"	8-8-8	"	200/70	answer: calibrate <del>to</del> on <del>board</del> + uncalibrated plate	SL STR

Cont #2

265

Date Nov 1-2/71 Control 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.
35463	in line	22 37.0	+39 43	Go2	II <sup>unsharp</sup> a0	B/.5		20 47	20 50	A
35464	"	"	"	"	"	"		20 51	21 03	C
35465	"	"	"	"	"	"		21 05 $\frac{1}{2}$	21 12 $\frac{1}{2}$	B
35466	"	"	"	"	"	"		21 14	21 23	A
35467	"	"	"	"	"	"	50	21 24	21 33	B
35468	"	"	"	"	"	"		21 34 $\frac{1}{2}$	21 47	C
35469	"	"	"	"	"	"		21 49	22 00 $\frac{1}{2}$	A
35470	"	"	"	"	"	"		22 02	22 17	B
35471	"	"	"	"	"	"		22 08	22 44	C
35472	"	"	"	"	"	"	49°F	22 45	22 55	A
35473	"	"	"	"	"	"		22 56	23 11	C
35473	F1 Focus			"	"	13	49°F			B
7371 Calibration for plates 63-73										

Dome Temp. ....

Transparency Conditions *semi clear* .....

246

Focus .....

Dome Temp. *40°F* .....*H=8070**Thick cloud by 22:30*

g Time S.T.	P.R.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
50	B	W0 36	+40 10	2-3	5.1	B211	8-8-8	Nd *	200/70		FINE
03	C	W0 48	"	"	"	"	8-8-8	"	200/70		FINE
2 1/2	F	W0 58	"	"	"	"	8-8-8	"	200/75	} BOTH PLATES NUMBERED '65	FINE
23	A	01 06 W	"	"	"	"	8-8-8	"	200/71		FINE
33	B	1 17 W	"	"	"	"	8-8-8	"	200/70		
47	C	01 32 W	"	"	"	"	8-8-8	"	200/69	Clouds 1/2 time at 21:42	FINE
00 1/2	A	02 45 W	"	"	"	"	8-8-8	"	200/70	"	FINE
15	B	02 01 W	"	"	"	"	8-8-8	"	200/70	clouds. 1/2 counts at 22:12	FINE
44	C	02 29 W	+40 11	"	"	"	8-8-8	"	200/70	1/2 counts at 22:34 clouds.	FINE
55	F	02 41 W	"	"	"	"	8-8-8	"	200/70	clear	FINE
4	C	02 57 W	"	"	"	"	8-8-8	"	200/72	clouds. 1/2 counts at 23:05	
	B	<i>n in/out</i>					3/3	<i>not/for</i>			





269

\* baked Nov. 2/3

Date Wed/Thurs. Nov 3/4 '71 Observer Blu/GH + SHE 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.
35474	HD191610	20 05.7	+36 33	6-12	IIa-06	13/5	50°F	17:46	17:54	A
35475	HDE 226868	19 57.6	+34 56	"	"	25/3		17:58	21:12	B
35476	H192909	20 12.4	+47 24	"	"	9/5		21:16	22:12	C
35477	HD195592	20 27.2	+43 59	"	"	13/5		22:15	00:01	A
35478	HD 13854	02 9.5	+56°36	G43	"	13/3	42°F	00:39	00:57	B
<del>35479</del>	<del>Stock 2 - 56</del>	<del>02 7.5</del>	<del>+58° 57.4</del>	<del>"</del>	<del>"</del>	<del>"</del>	<del>"</del>	<del>01:12</del>	<del>01:20</del>	<del>C</del>
35479	HD 44131	06 15.0	-02°54	"	"	"	40°F	03:22	03:32	A
<del>35480</del>	<del>NGC 2169-3</del>	<del>06 02.8</del>	<del>+13° 58</del>	<del>"</del>	<del>"</del>	<del>"</del>	<del>"</del>	<del>03:44</del>	<del>0</del>	<del>D</del>
35479 F	FOCUS				"	13	40°F			



Dome Temp. 48° H=55%

Focus .....

Dome Temp. ....

Transparency Conditions Scattered Strato cumulus  
Clear by 19:00 270

Time T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
1	F	00 17W	+36 51	2-3	4.82	B352c	8-8-8	Sp. Bin-Blw	40/15		SL. STR
2	B	03 48W	+35 14	3	9.74	130Ib	7-7-7	"	800/300		U.SL. STR
12	C	04 30W	+47 44	3-4	5.42	100+ A3	9-9-9	Atm Ecl.	200/290		FINE
21	F	06 04W	+44 17	3-4	6.91	09.72a	8-8-8	Sp. Std.	400/171	some cloud	FINE
27	B	01 16W	+56 59	3-4	6.2	1615g	3-3-3	RV std	200/30	broken - 2 pieces	STRONG
25	C				8.94	(B) <sup>0</sup>	3-	GH cluster	800/8	clouds stopped	
32	A	00 12E	-2 51	3-4	6.5	M1	3-3-3	RV. std.	400/60	clear	FINE SL STR
				3	9.37	(k)	3-	GH cluster	800/17	CLOUDS!	
				in/	ut	out		10/10		AGAIN!	



Dome Temp.  $34^{\circ}\text{F}$   $H=64\%$

Transparency Conditions OVERCAST - ALTO-STRATUS

Focus .....

/ CIRROS TO CLEAR

Dome Temp. ....

272

Time T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
00		<sup>h</sup> 00 <sup>m</sup> 00	$-26^{\circ} 22'$	-	-	-	10-10 -10		800/Nil.	overcast till $\rightarrow$ 22:30 $\rightarrow$ HIGH CIRROS TILL 22:00 *	*
37		03 <sup>m</sup> 43 <sup>m</sup> E	$+42^{\circ} 26'$	4"	6.6	AOp	8-8-8	G1 Ap + m	400/ <sup>200</sup> 104	cut cloud clouds	FINE
										* FC COMP LOOKS FUNNY - MAY HAVE CUT OFF CENTRE SPECTRUM - Hg FINE SHOULD BE OBVIOUS	







Dome Temp. 28°F H=75%

Transparency Conditions Excellent.

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Focus .....

Dome Temp. 25°F H=70%

ing Time S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
00	04 <sup>h</sup> 18 W	+21° 58'	2-3	7.4 9.6	F2- K4	8-8-8	Var. Dy	400/125		* FINE
07	01 <sup>h</sup> 05 W	+16° 47'	2	6.7	K0	8-8-8	G1001 Sp-Bin. Cp	400/237	clouds 8:55 - 5:00	FINE
06	00 <sup>h</sup> 31 W	+10° 35'	2-3	5.38	B-6	8-8-?	Sp Bin Bln	200/86	first comp on at slit = 13.5 (no star light at slit 13)	broken
						3/3	no filter.			SC CENTRE TO U.I.O. ET
									* Anson, could you overdevelop these two please. in box #2	

277

\*unbaked

Date Mon. Thurs 8-9/76

Observer

ML-SI

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.
35488	12 Lac	22 37.0	+39 45	G12	D40*	13/4		17 49	17 57	A
35489	"	"	"	"	"	"	33F	18 00	18 07	B
35490	"	"	"	"	"	"		18 09	18 16	C
35491	"	"	"	"	"	"		18 17 1/2	18 26 1/2	A
35492	"	"	"	"	"	"		18 28	18 36 1/2	P
35493	"	"	"	"	"	"		18 38	18 45 1/2	C
35494	"	"	"	"	"	"		18 47	18 54 1/2	A
35495	"	"	"	"	"	"	33	18 56	19 05	B
35496	"	"	"	"	"	"		19 06 1/2	19 16	C
35497	"	"	"	"	"	"		19 18	19 25 1/2	A
35498	"	"	"	"	"	"		19 27	19 37	B
35499	"	"	"	"	"	"		19 38	19 47 1/2	C
35500	"	"	"	"	"	"		19 49	19 57 1/2	A
35501	"	"	"	"	"	"		19 59	19 09	B
35502	"	"	"	"	"	"		20 10 1/2	19 19 1/2	C



Dome Temp. 25°F H=63%

Transparency Conditions Excellent

278

Focus .....

Dome Temp. ....

ng Time S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
57 A	01 <sup>h</sup> 50 E	+40 10	2	<del>2.8</del> <sup>5.1</sup>	B <sub>2</sub> II	8-8-8	Hol's *	200/80		
07 B	01 <sup>h</sup> 41 E	"	"	"	"	8-8-8	"	200/80		
16 C	01 32 E	"	"	"	"	8-8-8	"	200/81		
26 1/2 F	01 21 E	"	4	"	"	8-8-8	"	200/81		
36 1/2 D	01 11 E	"	"	"	"	8-8-8	"	200/81		
45 1/2 C	01 02 E	"	3	"	"	8-8-8	"	200/80		
54 2 F	00 53 E	"	"	"	"	8-8-8	"	200/80		
55 E	0 43 E	"	"	"	"	8-8-8	"	200/80		
16 C	00 31 E	"	"	"	"	8-8-8	"	200/82		
52 1/2 F	00 21 E	"	"	"	"	8-8-8	"	200/80		
7 E	00 10 E	"	"	"	"	8-8-8	"	200/80		
20 C	00 00	"	"	"	"	8-8-8	"	200/80		
7 1/2 F	00 10 W	"	"	"	"	8-8-8	"	200/80		
09 E	00 21 W	"	"	"	"	8-8-8	"	200/80		
14 1/2 C	00 32 W	"	"	"	"	8-8-8	"	200/80		

279

\* unbaked

\* ~~9~~ baked Nov. 2/3/71

Date Mon Nov 8-9/71 (cont'd)

Observer HJ-SI/Dy-SI 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.
35503	12 Lac	22 37.0	+39 43	G-12	IIa-O*	13/4		20 21	20 29 $\frac{1}{2}$	A
35504	"	"	"	"	"	"	32°F	20 31	20 40	C
35505	"	"	"	"	"	"		20 41	20 50	B
35506	"	"	"	"	"	"		20 51	21 03	A
35507	"	"	"	"	"	"		21 04	21 15	B
35506 <sup>8</sup>	"	"	"	"	"	"		21 17	21 26 $\frac{1}{2}$	C
35507 <sup>9</sup>	"	"	"	"	"	"		21 27 $\frac{1}{2}$	21 36	A
35508 <sup>10</sup>	"	"	"	"	"	"		21 37	21 45 $\frac{1}{2}$	B
35509 <sup>11</sup>	"	"	"	"	"	"		21 46 $\frac{1}{2}$	21 56	C
35510 <sup>12</sup>	"	"	"	"	"	"		21 57 $\frac{1}{2}$	22 05 $\frac{1}{2}$	A
35511 <sup>13</sup>	"	"	"	"	"	"		22 06 $\frac{1}{2}$	22 15 $\frac{1}{2}$	F
35512 <sup>14</sup>	"	"	"	"	"	"		22 16 $\frac{1}{2}$	22 23 $\frac{1}{2}$	C
35513 <sup>15</sup>	"	"	"	"	"	"		22 25	22 35	A
35514 <sup>16</sup>	"	"	"	"	"	"		22 36	22 45 $\frac{1}{2}$	E
35515 <sup>17</sup>	HD 12638	01 58.7	+25 27	"	IIa-O <sup>17*</sup>	13/3		22 53	00 22	C
35516 <sup>18</sup>	CO AUR.	05 53.8	+35 19	"	"	13/3		00 29	02 00	

Dome Temp. ....

Transparency Conditions .....

Focus .....

Dome Temp. ....

280

ig Time S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
296	00 41W	+40 10	2	5.1	B2III	8-8-8	14.2 X	200/80		
40	0 52W	"	"	"	"	8-8-8	"	200/80		
5	1 02W	"	"	"	"	8-8-8	"	200/81		
03	1 15W	"	"	"	"	8-8-8	"	200/80		
15	1 27W	"	"	"	"	8-8-8	"	200/80		
20	1 38W	"	"	"	"	8-8-8	"	200/80	- 2 PLATES NUMBERED	
2	1 43W	"	"	"	"	8-8-8	"	200/80	35506 & 2 PLATES 35507	
45	1 58W	"	"	"	"	8-8-8	"	200/80	+ ALL OTHER PLATES	
56	2 09W	"	"	"	"	8-8-8	"	200/90	ARE ACCOUNTED FOR ??	
05	2 18W	"	"	"	"	8-8-8	"	200/82		
15	2 28W	"	"	"	"	8-8-8	"	200/81		30 STR
30	2 37W	"	"	"	"	8-8-8	"	200/80		
35	2 48W	"	"	"	"	8-8-8	"	200/81		
45	2 58W	"	"	"	"	8-8-8	"	200/80	AT END of box	
22	1 13 W	25 54	"	8.26	G8III	8-8-8	Se. Sides	800/350		FINE
	1 05 E	35 25	"	7.8- 7.6	FS	8-8-	RU Tan	900/251	CLOUDS. ← (ANSWER) overdevelopment	







Dome Temp. 34°F H=88%

Transparency Conditions Scattered cloud

284

Focus .....

Dome Temp. 29° H=85%

Time T.	P.R.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
48	A	01 47W	+1° 40'	2"	4.5	A5	6-6	Novo Del std	200/37	cloud & searchlight	STRONG
	B	00 42W	+60 38	"	2	80 <sup>IV</sup> pe	5-5	sy	40/7		VERY STRONG
03	C	00 47W	"	"	"	"	10	"	40/7		VERY STRONG
11	B	00 56W	"	"	"	"	10	"	40/7		VERY STRONG
16	A	01 01W	"	"	"	"	10	"	40/6		VERY STRONG
24	C	01 09W	"	"	"	"	10	"	40/7		VERY STRONG
29	A	01 13W	"	"	"	"	10	"	40/7		VERY STRONG
32	B	01 17W	"	"	"	"	10	"	40/8		VERY STRONG
41	C	01 27W	"	"	"	"	10	"	40/6	cloud	VERY STRONG
04	A	02 04W	+29 17	"	7.96	K11 <sup>IV</sup>	8-8-8	SSV	800/350		U.S.I.WK
	B	<del>02 04W</del>	<del>+9 38</del>	<del>2.3"</del>	<del>8.0</del>	<del>NK0</del>	<del>8</del>	<del>Dy</del>	<del>800/</del>	cloud; cancelled	
19	C	01 05W	+28 06	1.3"	7.4	K5 <sup>III</sup>	8-8-8	SSV	400/175		FINE
27	A	00 39E	10 47	2.3"	5.29	A2 <sup>V</sup>	8-8-8	spBin-Mn	200/82		FINE
							10-7	no filter			NO CENTRE COMPARISON

285

\* baked Nov 9/10

Date Nov 22-23 Mon/Tues 1971 Observer Hd-Tn/Gl-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.
35529	12 Lac	22 37.0	+39 43	612	Ilco*	13/5		17:38	17:54	A
35530	"	"	"	"	"	"	29°F	17:55	18:08	B
35531	"	"	"	"	"	13/4		18:10	18:22	C
35532	"	"	"	"	"	"		18:23	18:33	A
<del>35533</del>	"	"	"	"	"	"		18:34	18:42	B
35534	"	"	"	"	Ilco	"		18:43	18:53	C
35535	"	"	"	"	"	"		18:54	19:04	A
35536	HD 12402	01 56.5	+27 56	"	Ilco*	13/3		19:10	20:18	C
35537	HD 12638	01 58.7	+25 27	"	"	"	27°F	20:21	22:07	A
35538	HD 15256	02 22.3	+29 26	"	"	"	26°F	22:10	23:56	B
35539	HD 22192	03 29.4	+47 52	"	Ilco	9/5	25°F	00:01	00:09	C
35540	HD 37202	05 31.7	+21 05	"	"	"	"	00:12	00:16	A
35541	HD 40457	05 53.8	+35° 15'	"	"	13/3	24°F	00:24	02:36	B
35542	HD 41511	06 00.5	-16 29	"	"	9/5		02:40	03:08	C
35543	HD 51418	06 52.2	+42 26	"	"	"		03:13	04:11	A
35544	HD 45910	06 25.2	+5 56'	"	"	"	22°F	04:16	05:32	B



Dome Temp. 23°F M=6270Transparency Conditions Excellent

286

Focus .....

Anson 1 extra unex. baked plate left at far right of exposed box - for cal if you want.

Dome Temp. ....

Time M.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
54		Σ 59 <sup>m</sup>	+40 08	3"	5.1	B2 <sup>III</sup>	8-8-8	1 <sup>nd</sup> *	200/90		STRONG
58		Σ 45	"	"	"	"	8-8-8	"	200/80		STRONG
22		Σ 31	"	"	"	"	8-8-8	"	200/80		STRONG
33		Σ 20	"	"	"	"	8-8-8	"	200/80		STRONG
42		Σ 11	"	"	"	"	8-8-8	"	200/80		STRONG
53		0 00	"	"	"	"	8-8-8	"	200/80		STRONG
04		0 11 W	"	"	"	"	8-8-8	"	200/80		STRONG
18	C	1 54 E	28 23	"	7.60	K <sub>1</sub> <sup>III</sup>	8-8-8	SSV	800/300		FINE
07	A	0 07 E	25 53	"	8.26	G8 <sup>III</sup>	8-8-8	"	800/300		FINE
56	B	01 17 W	29 51	"	8.32	G5 <sup>IV</sup>	8-8-8	"	800/300		FINE
09	C	00 22 W	48 12	2-3	4.1	B5e	8-8-8	G1 Shell	40/18		FINE
16	A	01 31 E	21 12	2"	2.99	B2	12-12	"	40/18		FINE
26	B	00 20 W	35 26	2-3	7.8-8.6	F5	8-8-8	Dy Rv Tau	800/300		FINE
08	C	00 53 W	-16 24	1-3"	5.2	Aeg	8-8-8	G1-Shell	200/100		FINE
11	A	01 03 W	+42 26	2-3"	6.61	A0 <sub>p</sub>	8-8-8	G1-Ap 4m	400/250		FINE
22	B	02 52 W	-6 01	2"	7.1	B2e <sub>p-2</sub>		G1 Shell	400/200		FINE



Dome Temp. ....

Transparency Conditions .....

288

Focus .....

Dome Temp. 17.0

H = 71

g Time S.T.	P.B.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
26	C	03 <sup>h</sup> 24 <sup>m</sup>	10° 45'	2-3"	6.6	B8e	8-8-8	G1 Shell	400/	cut by limit	sl. wk
		2190	mm @	680F			- 23	200 19 71			





291

Sensitized Nov 30 1971  
\* of Bakud Nov 22-23Date Tue Wed - Nov 30 Dec 1 Observer C. C. R. / 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.
35547	HD 210027	22 02.3 <sup>1960</sup>	24 05.1 <sup>1960</sup>	G-12	1-N <sup>+</sup>	131.5		21:45	22:40	A
35548	BS 1017	03 21.5	49 043	G-12	1-N <sup>+</sup>	131.5	26°F	22:50	23:02	B
35549	BS 1122	03 40.1	47 040	"	"	"		23:10	23:50	C
35550	HD 252214	06 05.7 <sup>1960</sup>	13 059	G-12	IIa-OB <sup>+</sup>	17/3	25°F	00:30	02:05	A
35551	"	"	"	"	"	"	23°F	02:07	03:40	B
35552	"	"	"	"	"	"	20°F	03:43	05:21	C
35552 F1	from test	control/w		G-12	IIa-OB	9	20°F			B
35552 T1	calibration				IIa-OB <sup>**</sup>					

Dome Temp. 20°F H72%

Transparency Conditions good after 21.00

292

Focus 50R

Dome Temp. 15°F 78%

ing Time L.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
40	4 57 W 4 43 W	25° 20'	3	3.76 I-312	F5V	near 90-90-90	A410Y	80/205	40 min } 3-19, 5 MIN	WEAK
02	00 4 00	+49° 50'		1.80 I-102	F5Vb	90-90-90		80/175	8 min } exposed Box #2	SL. WK
50	00 4 35 W	+47° 46'		3.03 I-3.10	B5V	90-90-90		80/465	45 min }	WEAK
05	00 4 19 W	+14° 05'	3		B1	8-8-8	G/100/	800/180	} exposed Box #1	FINE
40	01 4 55 W	"			"	8-8-8	"	80/180		FINE
21	02 3 35 W	"			"	8-8-8	"	80/170		FINE
						3-3	in fixte			CENTRE 2 WIRE





Dome Temp. 18°F H=70%

Transparency Conditions Excellent

294

Focus .....

thin cloud 23<sup>h</sup>

Dome Temp. 13° H=78% cold

but Full Moon

ng Time S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
18	02 12W	49° 18'	2"-3"	7.52	K1	8-8-6	G1001-C6	400/380	plunger in in posity for half exp.	FINE
42	03 13W	16 48	2"-3"	6.72	K0	8-8-8	"	400/320	"	FINE
45	00 22E	-1° 31'	"	8.2	B8	8-8-8	He-weak B *s-cb	800/250	some cloud Full Moon problem,	FINE
08	03 57W	+55 54	2"	9.17	AK	3-3-3	GH-cluster	800/170		FINE
10	05 00W	+55 58	"	8.81	A8 II	3-3-3	"	800/110		V.S.L. STR
25	04 33W	+50 14	"	5.1	B3	5-5	std vel	200/30	NW star sep = 8'	STRONG
31	03 49W	+14 07	"	9.37	AK	3-3-3	GH clust	800/150	moon 2 <sup>h</sup> west (some <del>osp</del> broken <del>osp</del> ) 1/2	FINE
21	04 40W	+14 05	2"-4"	8.12	AB	3-3-3	"	800/95		(GUIDING) FINE











Dome Temp. 19°F - H=67%

Transparency Conditions *Very hazy - cloud in west*

300

Focus 50-R

Dome Temp. ....

Time	Hour Angle	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
				7.60	<del>65V</del>	<del>8-</del>	<del>SSV</del>	<del>800/</del>	<del>Fox slow &amp; cloud covering!</del>	
12	00 18W	+09 49	>5"	3.66	B8p	12-12	Bln Sp. Bin	40/20	terrible seeing!	SL. STRONG
05		+53 56	"	5.22	B0III	8-8-8	Bln Sp. Bin	200/100	visual binary - SE of pair (buddy)	STRONG
49	00 42W	+29 16	~3"	7.96	K1II	8-8-8	SSV	800/290	cut off 10 counts early by heavy, fast cloud from S.E.	FINE
				4.73	B5V		Bln Sp Bin		"clouded" over cloud up 0300	

changed a-12  
focus to 50





Dome Temp. 34°F H=6070

Focus 70-R (from 50-R)

Dome Temp. 29°F H=8270

Transparency Conditions Excellent

302

Time	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
12	03 04E	+59 58	2"	8.20	G8	3-3-3	GH-Crust	800/125		U.S.L. WK
16	00 50E	+59 56	2-3"	9.51	gk2	3-3-3	"	800/135		SL. WK
50	00 15E	+59 56	3-4"	7.00	F5 II	3-3-3	"	200/30		FINE
139	02 30W	+59 54	"	8.75	"	3-3-3	"	800/125	very slow - some haze	FINE
02	02 50W	+57 01	3-5"	6.2	B1	3-3-3	std vel	200/28		FINE
		in in/out out				10/10	filter in			CENTRE TO VIOLET
19	03 25W	+25 12	2-3"	8.86	G2V	8-8-8	SSV	800/300		FINE
12	02 00W	+26 51	2"	7.70	G7II	8-8-8	"	400/160		FINE
46	01 25W	+28 05	1-2"	7.4	K5III	8-8-8	"	400/180		FINE
02	00 12E	+19 42	2"	5.3	F5	8-16	std vel	200/80		STRONG
29	02 05E	+26 57	"	8.46	K1 III	8-8-8	SSV	800/340	DEC CLAMP WON'T OPEN!	FINE
47		+10 28	"	4.97	H1V	8-8-8	sp. in - Bln	200/90		FINE
		in in/out out				3/3	no filter			U.S.L. CENTRE TO RED
00	02 41E	+02 04	3"	3.74	A0T	12-12	Bln sp. in	40/16		VERY STRONG







Dome Temp. 30°F 78%

Transparency Conditions .....

306

Focus .....  
Dome Temp. 26° 80%

ng Time S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
16	2h 42m W	50° 07'	3"	558	Asi	8-8-8	G1001 R6	400/200	<div style="border: 1px solid black; padding: 5px; display: inline-block;">           FE COMPARISONS            ARE ALL A BIT            WEAK - MAYBE            30 SEC TOTAL            EXPOSURE -         </div>	FINE
37	3h 44m W	50° 57'		550	B2 III	8-8-8	"	400/200		FINE
54	1h 27m W	+46° 06'	3	653	A3	8-8-8	Spect. Bri	400/200		FINE
03	4h 33m E	+06° 19'		4.06	B9 J	72-12	G1001 C6	80/40		FINE
54	0h 46m W	+27° 37'		6.59	A0	8-16	Spect. Bri	400/400		clouded over.
						3-3	no falls			GOOD
Dec 7	MWP-2 / 9.0 min @ 68°F (2000 1a1)									



Dome Temp. .... 24°F ..... 68%

Transparency Conditions *clear with seeing*

308

Focus .....

*cirrus clouds at 23:00*

Dome Temp. .... 20°F ..... 76%

log Time S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
54	01 <sup>h</sup> 11 <sup>m</sup> W	+060 10	3	4.01	A2 V	10-10-10	Spect Bi 81v	200/100		FINE
17	01 <sup>h</sup> 05 <sup>m</sup> W	+590 50	3	7.35	A6	10-10-10	Spect Bi G2	400/200		FINE
55	00 <sup>h</sup> 20 <sup>m</sup> E	+490 10		4.12	F7 V	10-10-10	G1001 R0	200/180		FINE
23	01 <sup>h</sup> 36 <sup>m</sup> W	+490 57'		5.33	g 81 V	10-10-10	G1001 R0	200/180		FINE
12	01 <sup>h</sup> 31 <sup>m</sup> W	+490 35	3	4.04	g 0 V	10-10-10	G1001 R0	200/186	clouds	FINE
						3-3 no data				GOOD

Date Sat Sun Dec 18-19 1971 Observer Ri-Ro 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.
35589	HD 2905	00 27 <sup>m</sup> 19 <sup>s</sup>	+60° 23	G-12	IIaO	9/0.7	22°F	17:30	17:43	A
35590	HD 12303	01 55.6	+54° 00	G-12	IIaO	9/0.5		17:50	18:21	B
35591	HD 12216	01 54.9	+71° 56	G-12	IIaO	9/0.5	20°F	18:30	18:50	C
35592	HD 14872	02 18 <sup>m</sup> 57 <sup>s</sup>	+49° 50	G-12	IIaO	9/0.5		19:05	20:00	A
35592F	focus test	out on win		G-12	IIaO	9				B
35592 T.	calibration for plates	step wedge 35584 - 35592			IIaO					



Dome Temp. 150°F 67%

Transparency Conditions *check haze coming up from the South*

Focus .....  
 Dome Temp. 140°F 68%

3/0

ing Time L.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
43	01419E	+62° 52'	4	4.15	B I <sub>a</sub>	10-10-10		80/46		FINE
21	02209E	+54° 25'	4-5	4.89	B8 I	10-10-10	SpeX Bi Bln	200/100		FINE
50	01442E	+72° 24'	4-5	4.08	A I V	10-10-10	"	200/100		FINE
00	00455E	+50° 15'		4.72	K4 III	10-20	G1001 Ro	400/70	<i>haze</i>	VERY WEAK
						3-3	<i>night</i>			CENTRE CUTOFF
	NWP-2/9.0 min @ 68°F (2 AD C 1.61)									

311

\* Baked Dec 17-18

Date Tues - Wed Dec 22-23 1971 Observer Cb-Pi-S/ 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.
35593	HD 213 389	22 25.9	+48° 51	G-12	IIa 05 <sup>+</sup>	13/0.5		18:35	19:21	A
<del>35594</del>	<del>HD 57140</del>	<del>05 31.2</del>	<del>-00° 22</del>	<del>G-12</del>	<del>IIa 015</del>	<del>13/0.5</del>	<del>34°F</del>	<del>19:42</del>		<del>B</del>
<del>35594</del>	<del>HD 37321</del>	<del>05 32.6</del>	<del>-00° 50</del>	<del>G-12</del>	<del>IIa 015</del>	<del>13/0.5</del>		<del>20:29</del>		<del>C</del>
35594	X Per	03 49.08	+30 45.1	"	"	13/1.5		00:23	01:05	A
								01:35	03:02	
35595	HD 87504	10 <sup>h</sup> 00.15	-12° 35	"	IIa 20	13/1.5	26°F	03:10	03:37	B
35596	HD 62044	07 34.04	+29° 08	"	IIa 20	13/1.5	25°F	03:45	04:33	C
35597	HD 98664	11 16.0	+6° 35	"	"	13/1.5		04:42	05:00	A
35598	HD 87504	10 <sup>h</sup> 00.15	-12° 35	"	"	"	24°F	05:05	05:32	B
35599	HD 33702	10 <sup>h</sup> 44.0	+11° 04	"	"	13/1.5		05:37	06:17	C
35600	HD 115211	12 <sup>h</sup> 30.8	+10° 47	"	"	13/1.5	22°F	06:21	06:53	A
35600	calibration step wedge for plates 35595 - 35600				IIa 20					
									22 Dec 1971	



313

\* baked Dec 2

Wed - Thurs

Date 1971 Dec 22-23 - Observer TG-GH/mcu-TJ 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.
35601	Stock 2-11g	02 04.2	59 34	G43	IIaO*	13/3	22°F	17:38	20:36	A
35602	HD 884	2 <sup>h</sup> 14.8	+56 57	"	"	"	22°F	20:40	21:04	B
35603	Stock 2-53	02 7	+55°17	"	"	"		21:21	00:01	A
35604	X Per.	03 49.1	+30 45.1	"	"	13/5		00:09	01:15	C
35604 F1	Focus			"	"	13	20°F	C		B
35605	14 Aur	05 08.9	32 34	G12	"	9/5		01:33	03:31	A
35606	HD 93702	10 44.0	+11 04	"	"	13/5		03 38	04 02	B
35607	HD 110411	12 36.8	10 47	"	"	"		04:05	04:59	C
35607 T1	calibration	step wedge for plates 35601 -					35607			
					IIaO6				28 Dec 71	

Dome Temp. 18°F H=68%

Transparency Conditions Excellent at first

Focus .....

Cirrus cloud by 20h

Dome Temp. 12 H=72%

Thick cloud 23h

314

ng Time S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
36	0h 12W	+59 55	1-3"	9.51	gK2	3-3-3	GH-Cluster	800/130	cloud sl.	FINE
04	0h 36W	57 01	2"	6.2	B1sg	3-3-3	std vel	800/125		STRONG
01	3h 36W	58 41	2-3'	8.91	(B)	3-3-3	GH-Cluster	800/120	cloud	SL. STR
15	03 08W	31 03	"	6.6	Op	3-3-3	Std B	800/120	"	SL. STR
		in in / out out				10/10	filter in			CENTRE TO VIOLET
31	04 05W	32 44	2-3"	5.20	A9V	10-10-10	Ey with	400/200	Cloud.	FINE
02	01 00E	+10 48	3"	5.29	A2I	10-10-10	Blr Spec Bin	400/200		SL. STR.
59	01 54E	+10 29	3"	4.97	A1V	10-10-10	"	400/190	Complete cloud	SL. STR.
	NWN 2/9.0 min @ 15°F									





317

\* baked 22/23/71

Sun - Mon

Date Jan 2-3/72 Observer GH-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.
35609	X Per	03 49.1	+30 45	G12	Doo*	13/5	33°F	20:53	21:29	A
35610	NGC 1502-59	03 58	+62 03	G43	"	13/3	31°F	21:56	23:38	B
35611	NGC 1502-B	03 59	+62° 03	"	"	"	"	23:42	00:10	C
35612	NGC 1502-A	"	"	"	"	"	30°F	00:14	00:44	A
35613	HD 29587	04 34.5	+41 57	"	"	"	"	00:50	01:26	B
35613F1	plus			"	"	13	30°F			B
35614	HD 93702	10 44.0	+11 04	G12	"	13/5	"	02:26	02:46	A
35615	HD 110411	12 36.8	+10 47	"	"	"	"	02:52	03:12	B
35616	HD 107325	12 15.3	+27 11	"	"	"	"	03:16	04:16	C
35617	HD 130109	14 41.2	+2 19	"	"	"	"	04:21	04:33	A
35618	9 Lib	14 45.4	-15 38	"	"	"	28°F	04:45	04:57	B
								<del>05:10</del>		
35618 r1	calibration setup	ridge			Ilab					3 Jan 172



Dome Temp. 25°F H=80%

Transparency Conditions ..... Very Windy  
Good by 30h

3/8

Focus .....

Dome Temp. 20° H=86%

changed C/ drive fuses

Time S.T.	P.R.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality	
129	-	00 05W	31 04	2-3"	6-6.6	Op-	10-10-10	S vdB *	400/200	broken 1" off	(GUIDING) FINE	
138		02 04W	+62 22	"	9.12	(F)	3-3-3	GH-Cluster	800/130		FINE	
140		02 34W	+62° 22	"	7.38	(B)	3-3-3	"	400/50		STRONG	
144		03 07W	+62° 21	"	7.41	(A)	3-3-3	"	400/50		STRONG	
146		03 18W	+62 09	3"	7.7	BZ	3-3-3	std vel	400/40	clouds!	FINE	
	B	in in/out out					10/10	folded in			CENTRE TO OBJECT	
146	A	01 31E	+10 48	3-4"	5.29	A2V	10-10-10	sp Bin - B14	400/200	some cloud	SL. STR	
147	B	02 59E	+10 29	4-5"	4.97	A1V	10-10-10	"	200/90	"	SL. STR	
148	C	01 33E	+26 54	1-5"	2.55	JK2	10-10-10	"	200/140	seeing getting better	FINE	
149	-	03 40E	+2 08	4-5"	3.74	A0V	10-9-10	"	200/90	more cloud	FINE	
150	B	03 20E	-15 48	5-8"	2.89	Am	14-14	"	200/90	"	FINE	
										much cloud		
		NWP - 2/90 min @ 600x										closed 05:20

319

\* baked Dec 28/29

Date <sup>Mon</sup> ~~1972~~ Jan 3-9/72 ..... Observer <sup>Hd</sup> ~~Tn~~ <sup>Hav</sup> ..... 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>35619</del>	<del>H D 12402</del>	<del>01 56.5</del>	<del>+27 56</del>	<del>G-12</del>	<del>IIa013</del>	<del>13/3</del>		<del>17 38</del>		<del>B</del>
<del>35619</del>	<del>X Ref</del>	<del>03 49.7</del>	<del>+30 45</del>	<del>G12</del>	<del>IIa013</del>	<del>13/3</del>		<del>19 35</del>		<del>C</del>
35619 T1	Test for plate center									A
35619 T2	" " " "									B
<p>T<sub>1</sub> is close to where the plate center used to be (several months ago) so I returned the tilt to the position corresponding to T<sub>1</sub>.</p> <p style="text-align: center;">Hd.</p>										

↳ original tilt  
counter clockwise

clockwise of  
original tilt.

Dome Temp. ....

Transparency Conditions

cloudy

300

Focus .....

Dome Temp. ....

g Time S.T.	P.E.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
			78 22		210	65 ± 8		SSV	300/		
			31 03	2-3"	60-68	0 p 10		SVW	400/		
							30s				
							30s				

321

\* Baked Dec 28-29

\* sensitized Jan 5-6

Date Wed-Thurs Jan 5-6 1972 Observer Cb-Ri/Cl+Ch-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.I.
35620	HD 3360	0 <sup>h</sup> 31.4	+53° 21'	G-12	IIa-O*	13/5	20°	17:35	17:41	A
35621	HD <sup>XPER</sup> 24534	03 <sup>h</sup> 49.08	+30° 45.1'	G-12	IIa-O*	13/5		17:50	19:18	B
35622	HD 21699	03 <sup>h</sup> 25.0	+47° 41'	"	"	"		19:26	20:00	C
35623	HD 36526	05 <sup>h</sup> 27.2	-1° 40'	"	"	"	16°F	20:12	<del>21:44</del>	A
35623F1	focus test	2029/wm		G-12	IIa-O	9	14°F			B
35624	HD 47105	06 32.0	+16° 29'	G-24	1-N <sup>+</sup>	13/5	1	02:39	03:02	A
35625	HD 61421	07 34.0	+05° 28'	G-24	1-N <sup>+</sup>	13/5	13°F	03:10	03:18	B
35626	HD 76644	08 50.3	+48° 26'	G-24	1-N <sup>+</sup>	13/5		03:25	04:12	C
35627	HD 91797	09 <sup>h</sup> 22.6	-08° 45'	"	"	13/5	13°F	04:23	04:30	A
35628	HD 110379	12 <sup>h</sup> 36.5	-01° 34'	"	"	"		05:12	05:40	B
35628T1	calibration	step wedge	for plates							

Jan 6/72

Dome Temp. 08°F 65%

Transparency Conditions clear clouds at 20:45

Focus .....  
Dome Temp. 08°F 75%

cleared up at 02:00

322

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
0414E	+53° 50	5	3.61	B2V	10-10-10	Pcb Thesis	80/40		FINE
0154E	+31° 03	4	~6.0	Op	10-10-10	Svd B XPer	400/190	exposed Box #1	SL WEAK
00450E	+48° 02	4	5.47	B8V	10-10-10	Cb Thesis	200/100		FINE
0105E	-01° 30		8.2	B8V	10-20	cb Thesis	80/16	clouded over	WEAK
					3-3	neofilt			S.C. TO B1
03407W	+16° 34'	3	V-1.91 I-1.85	A0II	90-90-90	A 460Y	40/107	20 mins	FINE
02416W	+05° 24'		V-0.35 I--0.03	F5II	90-180	"	40/100	3 mins	<del>FINE</del> SL WEAK
0152W	+48° 15	3	V-3.15 I-2.96	A7II	90-90-90	"	80/201	45 mins	WEAK
01445W	-08° 25		V 1.96 I 0.05	B3IIIa	120-120	"	40/4	4 min some noise	Weak STRONG
00420E	-01° 11		V-0.23 I-2.25	F0I	90-90-90	"	80/39	clouds at 04:30 closed up	BLANK
MWP 2 / 9.0 min at 68°F									









Dome Temp. 20°F 73%

Transparency Conditions clean but high winds scattered clouds then clear up

326

Focus .....  
Dome Temp. 06°F 70%

Hour	Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
45	0427E	+28° 22'	2	7.60	K1 III	10-10-10	S.S.U	800/175	clouds	Blank
47	0416E	+31° 04'	2	6.0-6.6 Var.	OP	10-10-10	Svd B - x Pm	200/100		FINE
02	0° 30W	+49° 50'	3	1.79	FSIb	15-15	G1001 R0	20/13		FINE
45	0430W	+50° 21'		4.29	B9 I	10-10-10	" "	200/100	high wind trouble	FINE
55	1° 05E	+27° 48'	2	8.40	t3 III	10-10-10	S.S.U	800/300		FINE
53	0433E	+26° 50'		7.7	07 II	10-10-10	"	800/300		FINE
07	03431W	+09° 45'	2-3	3.74	B8P	10-10-10	Spect Bi Blm	40/15		FINE
01	03414W	+35° 50'	2	4.04	07	10-10-10	"	40/17		FINE
54	04417W	+16° 14'	2-4	7.14	F8	10-10-10	"	400/160		FINE
56	0304W	+04° 05'	4	5.89	B0 III	10-10-10	Sp. Std.	200/100		FINE
40	0458W	+31° 28'	4	6.03	B7 V	10-10-10	Sp. Bin Bin	400/200		FINE
58	04430E	+26° 52'	4	6.72	g K2	10-10-10	"	400/200		FINE
02	0232E	+12° 55'	4	6.80	A0	10-10-10	"	400/142		FINE











Dome Temp. *24°F* *79%*

Transparency Conditions *clear getting hazy towards dawn* *332*

Focus .....

Dome Temp. *22°F* *82%*

Time M.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
10	00 <sup>h</sup> 51 <sup>m</sup> W	+28° 05'	.3	7.40	K5 III	10-10-10	S.S.V.	800/300		Strong
53	01 <sup>h</sup> 36 <sup>m</sup> W	+25° 50'	3	8.33	K2 III	10-10-10	S.S.V.	800/300		"
45	00 <sup>h</sup> 31 <sup>m</sup> W	+26° 48'	3		gk2	10-10-10	Bln Spu/13i	200/1000		"
20	00 <sup>h</sup> 45 <sup>m</sup> W	+10 30	4	4.97	A1 V	10-10-10	"	200/100		"
45	20 <sup>h</sup> 45 <sup>m</sup> E	+02° 07'	4	3.74	A0 V	10-10-10	"	200/100		"
Jan 14/72 MWP-2/9m.m @ 68°F										







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+ baked Jan 9/10/72

Date Jan 14-15/72 Fri-Sat Observer T<sub>n</sub> - P<sub>ok</sub> 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.
35652	X Per	03 49.1	+30 45	G12	Ilco*	13/5	25°F	17 47	18 17	A
35653	HD 218634	23 04.5	+8 08	"	"	"		18 23	19 11	A
35654	HD 38670	05 42.4	+20 50	"	"	"		22 24	23 10	A
35655	HD 45829	06 24.6	+7 59	"	"	"		23 15	01 55	B
35656	HD 74874AB	08 41.5	+6 47	"	"	"	10°F	02 00	02 10	C
35657	HD 103483A	11 49.9	+47 02	"	"	"		02 25	03 35	A
35658	HD 183483B	"	"	"	"	"	5°F	03 30	05 05	
35659	HD 112033	12 48.4	+21 48	"	"	"		05 09	05 39	C
35660	HD 189511	12 30.1	+18 56	"	"	"		05 43	06 21	A
35661	HD 126129	14 18.5	+8 54	"	"	"		06 27	06 41	C
35661 T1	Cal step wedge for plates 35650 → 35661									
Jan 15/16 McU = T <sub>n</sub> Perfectly clear but constant snow & ice crystals (gave up 03 <sup>h</sup> under good skies)										



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\* baked Jan 9/10  
\*\* baked Jan 16/17Date Jan 17/18 1932 Mon Tues Observer J. Harkins Hd/Ob<sup>Tm</sup> 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.
35662	HD 4550	00 42.4	+25 44	612	D <sub>100</sub> *	13/3		17:58	19 24	A
35663	HD 23257	03 38.6	+27 37	"	D <sub>100</sub> **	"		19:33	20:47	B
35664	X Per	03 49.1	+30 45	"	"	13/5	27°F	20:54	21 34	C
35665	HD 37956	05 37.1	+29 10	"	"	13/3	26°F	21 37	23 15	A
<del>35666</del>	<del>HD 51418</del>	<del>06 52.2</del>	<del>+42 26</del>	<del>"</del>	<del>"</del>	<del>9/5</del>	<del>26°F</del>	<del>23 25</del>		<del>B</del>
35666	HD 37478	05 33.8	-2° 39	"	D <sub>100</sub> **	13/5	27°F	00 <sup>h</sup> :08	01:42	A
35667	HD 41753	06 01.9	+14 47	"	"	"		01:46	01:58	B
35668	HD 62044	07 34.04	+28 57.5	"	"	"		02:02	02:20	C
35669	HD 87504	10 00.3	-12 35	"	"	"	28°F	02:26	02:40	B
35670	HD 98664	11 16.0	+6 35	"	"	"		02:45	02:53	A
35671	HD 90009	10 18.2	+26 04	"	"	13/3		03:01	04:59	B
35672	HD 118905	13 34.8	+27 12	"	"	"		05:02	06:56	C
35672	T1	Calibratn deep wedge			for plates		35662 - 35672			

Dome Temp. 17°F H=8276

Transparency Conditions Excellent

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Focus .....

Some cloud by 18<sup>h</sup> & bad seeing  
windy

Dome Temp. 23° H=8876

ing Time L.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
9 24	W 2 <sup>h</sup> 05	26 15	2.5"	8.16	K0 III	10-8-8	SSV	800/220	thin cloud clouds	Fine
47	32W	27 56	2.3"	7.60	G5V	10-9-10	"	800/250	windy	"
3	W 1 09	31 05	"	6-66	Op	10-10-10	"	400/164		too strong
15	0102W	29 18	3-4"	7.96	K1 III	10-10-10	SSV	800/260		Fine.
			"	6.6	A0p	10-	Apern-61	400/		
43	03 34V	-02° 31	4.5"	6.3	B3V	10-9-9	cb thesis	800/258	light cloud	overd. Fine
5	03 20W	44° 53	4-5"	4.15	B3V	15-15	"	40/15		dev. s/strong
20	02 08W	129 03	3-4"	4.3	K1 III	15-15	"	40/24		2min Fine
42	00 06W	-12 47	5-6"	4.51	B8V	10-10-10	"	200/75		strong
53	00 56E	+6 17	"	3.99	B9V	15-15	"	40/16		strong
59	0207W	+25 49	3-4"	8.33	K2 III	10-9-9	SSV	800/270	* nearest star too faint??	Fine
56	0049W	26 55	2-3"	8.46	K1 III	9-8-10	"	800/210	very windy	Fine
	Jan	19/72	12 min		mwp-2	@	68°F			









7/72

Dome Temp.  $14^{\circ}\text{F}$   $H=85\%$

Transparency Conditions Very cloudy?

342

Focus .....

Dome Temp.  $18^{\circ}\text{F}$   $H=95\%$

ing Time EST.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
01:10	01 48W	$+40^{\circ}57'$	3"-10"	2.0	88 L	10-10-9	Radio Flore	200/84	80% between (21" $\rightarrow$ 21:10)	SC. STR
02	02 46W	"	2"4"	"	"	9-9-9	"	200/75	Very cloudy	SC. STR
03	03 18W	"	"	"	"	9-9-9	"	200/90	"	CGUIDING SC. STR
	<del>no in/out out 3/3 no fil/air</del>									NO CENTRE COMP



Dome Temp.  $90^{\circ}\text{F}$  H=62%

Transparency Conditions *some cloud very windy*

Focus .....

Dome Temp. ....

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ng Time S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
56	A 01 21 E	26 53	bad		gk2	9-9-9	Spln-8/a	200/105	too windy, cloud also	FINE
59	B 01 10 E	10 29	3-4	4.97	A12	9-9-9	"	200/90	"	SL-STR
40	C 03 05 E	+2 08	"	3.74	A02	13-74	"	40/16	"	SL-STR
<p>dev 9.0 mm @ <math>68^{\circ}\text{F}</math> - Au WP-2      26 Jan/72</p>										

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\* behind Jan 25/26 1972  
\*\* sensitised 26-01-72Date Wed 9 Jan 26-27 1972 Observer G.M.R. / C.C.F. 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.
35680	Stock 2-56	2 <sup>h</sup> 7.5	+58° 57	G43	Ha $\odot^*$	13/.3	14°F	18:54	20:55	A
35681	HD 13854	2 <sup>h</sup> 9.9	+56 36	"	"	"	14°F	21:02	21:14	B
35682	NGC 1502-59	3 <sup>h</sup> 59	+62 03	"	"	"	12°F	21:29	22:55	C
35683	NGC 1502-B	"	"	"	"	"	12°F	23:04	23:24	A
35684	NGC 1502-A	"	"	"	"	"	12°F	23:26	23:44	B
35685	HD 29587	4 <sup>h</sup> 34.5	+41° 57	"	"	"		23:56	00:23	C
F1				"	"	13/.5	12°F			B
35686	HD 47105	06 32.0	+16 29	G24	I-N $\odot^*$	13/.5		01:01	01:20	A
35687	HD 76644	08 52.3	48 26	"	"	"	"	01:32	02:23	B
35688	HD 81797	09 22.6	-08 45	"	"	"	12°F	02:35	02:45	
35689	<sup>Scrt</sup> BS 4382	<sup>1960</sup> 11 <sup>h</sup> 17 <sup>m</sup> 53	<sup>1950</sup> -14° 34'	"	"	"		02:55	03:36	A
35690	HD 110379/80	12 36.5	-01 34	"	"	"		03:44	04:27	B
35691	HD 123657	14 02.6	43° 46	"	"	"	12°F	04:35	05:18	C
35692	HD 149856	16 25.0	21 27	"	"	"	"	05:26	06:23	A
35685 T1	calibration step wedge				Ilford			plates 35688 - 35685		

1972  
72

Dome Temp. 100°F 64%

Focus .....

Dome Temp. 80°F 75%

Transparency Conditions *excellent*

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Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
02 44 17 W	+59 21	3	5.9	(B)	3-3-3	GH cl.	800/100		FINE
03 40 4 W	+57 03	2	6.2	B1sg	3-3-3	st uel	400/50		SL. STR
02 57 W	+62 21	2	9.1	(F)	3-3-3	GH cl	800/120		(GRADING) FINE
03 23 W	+62 21		7.4	(B)	3-3-3	"	400/50		SL. STR
03 <sup>+3 W</sup> 23 W	+62 21		7.4	(B)	3-3-3	"	400/50	exposed #1	SL. STR
03 49 W	+42 11		7.7	62	3-3-3	std uel	400/50		FINE
10/10	unexp/over								NA CENTRE COM P.
02 45 W	+16 34'	3	V-1:00 I 1.25	A0 IV	90-90-90	A 410Y	40/324	exposed 15m	FINE
	+48 14'		V-1:02 I 2.96	A7 V	90-90 -90	"	40/465	exp. 45m exposed #2	SL. WK
01 15 W	-8 35		V-1:11 I 2.05	K3 IIIa	120-120	"	40/47	exp 5m. plate holder opened	(50 min) (GRADING) FINE
01 25 W	-14 30	2	V-1:13 I 2.13	G8 III-	90-90 90	"	40/78	exp 35m	FINE
01 30 W	-01 10'	2	V-1:04 I 2.25	K0 J	90-90 90	"	40/230	exp 40m	FINE
01 42 E	+44 05	2	V-1:55 I 1.76	M4 = 4.5 III	90-90 90	"	80/66	exp 35m.	STRONG VERY
02 00 E	+21 39	2	V-1:11 I 1.66	G8 III	90-90 90	"	40/414	meter off for 6 min	STRONG
	plate 356 FC		-75692	dev.		2-14/5 min @ 61° F		27 Jan 1972	
	dev. mwp-2					19.0 min @ 68° F		27 Jan 1972	



Dome Temp. 120°F 77%

Transparency Conditions *clear clouds clear clouds clear*

Focus .....

Dome Temp. 80°F 78%

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g Time S.T.	P.E.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
32	A	0 <sup>h</sup> 27E	+40°55'	2	2.2- 3.47	B8 II	15-15	Algol	40/20		(GRADING) FINE
46	S	0 <sup>h</sup> 15W	+27°55'		7.60	G5 I	10-10-10	SSU	800/300		FINE
30	C	2 <sup>h</sup> 30W	+48°05'	3	8.5	G-5	10-20	Witchers	800/114	clouds at 21:00 over darken plane	SL. WK
57	A	01 <sup>h</sup> 06W	+51°40'	3	6.44	A5	10-10-10	Visual Bin	400/200		FINE
50	S	00 <sup>h</sup> 16E	-02°20'	3-4	6.57	F0	10-20	"	400/104	clouds	U.S.L. WK
13	C	00 <sup>h</sup> 20W	+31°50'	"	6.60	F5	10-10-10	"	400/260	cleared off again entry again	FINE
56	A	00 <sup>h</sup> 26E	+45°20'		6.90	G0	10-10-10	"	400/260	exposed Box #1	FINE
23	S	00 <sup>h</sup> 21W	+40°53'		7.36	M1 III	10-10-10	"	400/400		FINE
55	C	2 <sup>h</sup> 02E	+42°30'	3	7.38	K4 III	10-10-10	"	400/320		U.S.L. WK
47	A	00 <sup>h</sup> 35E	+10°10'		5.4	k1 p	10-10-	Lite Type	200/160		FINE





Dome Temp.  $10^{\circ}/7270$ 

Focus .....

Dome Temp.  $7^{\circ}/81\%$ 

Transparency Conditions

*Some cloud general  
hazy after 00:00*

55

g Time S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
06	01 45W	+46° 57'	2"	2.2 23.47	BETA	15-15	ALGO1	40/20		STRONG
									clouds!	
06	02 06W	+26° 50'	3	4.70	G III	10-10-10	S.S.V	800/300	exposed Box #3	V. SL. WK
16	02 25W	+27° 40'		8.17	KO III	10-10-10	SSV	800/300		SL. WK
32	01 27W	+25 47	2	8.33	KL III	10-10-10	SSV	800/300		SL. WK
24		+28 21		8.55	KO III	10-20	SSV	800/86	clouds arrow: please overexpose may still be useful	(SL) WK



Dome Temp. 11°F / 74%

Transparency Conditions *Excellent*

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Focus .....

Dome Temp. 50°F / 85%

log Time S.T.	P.L.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
36		1 <sup>h</sup> 33 <sup>m</sup> W	+59° 49'	2'	8.9	(B)	10-10	GH cl.	800/100	Number 35708 exposed Box #3	<del>(SLOW)</del> FINE
38		3 <sup>h</sup> 50 <sup>m</sup> W	+58° 40'	1'	8.9	(B)	3-3-3	"	800/100	Number 35708 - <i>U.S. 113!</i>	
52		3 <sup>h</sup> 58 <sup>m</sup> W	+57° 02'	3	6.2	B15g	3-3-3	S + d vel	900/41		FINE
			10/10					<i>in on / out</i>			CENTRE TO VIOLET
45		01 <sup>h</sup> 00 <sup>m</sup> W	+27° 40'	2	8.17	K0III	10-10-10	S.S. V	800/300		FINE
50		00 <sup>h</sup> 12 <sup>m</sup> W	+29° 00'	2	8.7	K2III	10-10-10	SSV	500/300		U.S.L. WK
20		00 <sup>h</sup> 10 <sup>m</sup> W	+24° 34'	2	9.02	K4III	10-10-10	SSV	800/300		U.S.L. WK
59		01 <sup>h</sup> 31 <sup>m</sup> W	+28° 20'	3	8.55	K0III	10-10-10	S.S. V	800/300		S.L. WK
05		01 <sup>h</sup> 37 <sup>m</sup> W	+26° 54'	3	8.46	K1III	10-10-10	SS U	800/300		S.L. WK



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ending Time  
E.S.T.

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