

1 G-12 FOCUS: MAKE FOCUS SETTING WITH RED NOS. DECREASING
i.e., TURN KNOB C.C.W. AS VIEWED FROM ABOVE

NOTE:- THAT 50 DIVISIONS \equiv RELATIVE SHIFT OF 21 MICRONS
 \equiv PHYSICAL MOVEMENT OF PLATE BY 6×10^{-3} IN.

for centre to violet, correct by turning knob c.w.

G-40 FOCUS: MAKE SETTING WITH NUMBERS INCREASING;
IF CENTRE TO RED, INCREASE THE SETTING.

1854

N.

3

Time Temp.

Focus

Time Temp.

Hour Angle

End

Dome Temp.

Transparency Conditions

Focus

Dome Temp.

Julian Day

u/c

caps

ing Time
S.T.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	PROGRAM	EXP. MTR.	REMARKS	Quality
						1			
						8			
						2			
						Cal			

Date Feb 4th 69 *Tau - Wed* Observer *35* / *Th* Hr. Ri. 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.	Hour Angl End
31807	29139 α Tau	^h 04 ^m 30.2	+16° 18'	G12	IIaO	9	16°F	19 ^h 44 ^m (10)	19 ^h 51 ^m	C	00 00
31808	36 673 α Lib	^h 05 ^m 28.3	-17° 54'	G12	IIaO	9		20 ^h 20 ^m (10)	20 ^h 30 ^m	C	00 16
31809	62509 β Gem	^h 07 ^m 39.2	+28° 16'	G12	IIaO	9		21 ^h 55 ^m	?		
31810 ^{down}	1039201 / BD 67 1055	^h 05 ^m 49.8	+07° 23'	G12	IIaO	9	16°	22 ^h 00 ^m	22 ^h 06 ^m	C	01 10
31811	HD 102494	" 42.7	+27° 53'	G12	IIaO	13	15°F	02:16 (3:07)	05:23	A	23 21W
31812	139195	15 31.7	+10° 21'	"	"	9xL		05:36 (3:07)	06:45	C	00 05E
31812 T1	calibration strip										
31812 T2	"	"	"	"	"	"					

31807 - 31809 mwp-2 / 16°F
31810 - 31812 "

Dome Temp. 15°F

Transparency Conditions *good*

Focus

very windy and dark

Dome Temp. 12°F

there was some snow on the outside tube of the telescope

*EVEN ON
the box that
covers the
slit)*

g Time S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
51 ^m	00 02	16° 30'	4"	2.71	K5 III	5/5/5	Bright standard Vel * cloudy	4x10 / 32 STRONG
50 ^m	00 16	-17° 51'		2.81	FOIB	5/4/6	" " " "	4x10 / 20 FINE
				2.15	K0 III	5/5/5	" " " "	2x10 / 15 (GUIDING) FINE
06	01 00	+07° 24'		0.4	M2 I	5/5/5	BK #23 trouble with exposure meter exposure time 6 minutes h m 22 10 clouds moved in it is now completely covered. we are closing. (2 plate holders loaded in the transparent box some drifting snow.	2x10 / 0 ¹⁵ FOCUS? PLATE SHIRTED?
23	24 21 W	27 33	~3	8.26	G8 II	5-5-5	See 2nd Vol. Box #3	400 / 200 FINE
45	04 05 E	100 06	~3	5.41	K1-B	5/5/5	BK Box #3	200 / 170 FINE
							DAWN	
							(2A01K4) (2A01K5)	

5 Feb 69

Dome Temp. 20° F

Transparency Conditions EXCELLENT

Focus

VERY STRONG N.W. WIND

Dome Temp.

Observer Julian Day Date

Time	PL	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	FILTER	REMARKS	Quality
42 27	A	W 1: 47	50° 33'	4"	3.90	B0 PE	15	G12	Spot Bin (HR)	4x10/18 FINE
01	C	W 1: 55	20° 41'		2.7	A5	15	G12	Hd. Fel. Bin	4x10/20 FINE
02	A	W 0: 45	41° 15.5'	4"	2.5	B5 V	5-5-5	G12	" " " STOPPED BY (3 PIECES) CLOUDS	8x100/114 BROKEN V. SL. WEAK
50	C	W 0: 16	+6° 07'	5"	3.1	K0 II	5-10	G12	B6 #10	4x10/35 FINE
10	A	W 0: 57	-8° 28'		2.4	K4 III	5/5/5	G12	Bright Standard Velocity Star (HR)	4x10/30 FINE
56	C	W 0: 59	+23° 56'		3.76	G0 II	5/5/5	"	"	4x10/22 FINE

close at 3:00 a bit of snow clouds a hole clouds...

Date 6-7 FEB 69 THUR-FRI Observer Hd. Jf. Co. Tn / Bai Tn Hw 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.
31819	HD 32963	05 ^h 01. ^m 8	+26° 12'	G 12	Ia-D	13 slit	23°	18 ^h 32' ⁵⁶	19 ^h 28'	C
31820	HD 42397	06 ^h 06. ^m 4	+ 25° 02'	"	"	"	23°	19 ^h 51' ⁶⁷	21 ^h 10'	A
31821	+ Per	01 ^h 37. ^m 4	+ 50° 11'	"	"	9 extra long	"	21 ^h 21' ⁴	21 ^h 31'	C
31822	AG 4044	07 ^h 26. ^m 2	+ 28° 57'	"	"	13	"	21 ^h 56' ^{3:20}	01 ^h 16'	A
31823	HD 101013	11 ^h 32. ^m 5	+51° 10'	"	"	9	15°	02 24 ⁷¹	03 ^h 35'	C
31824	" 112299	12 50.6	26 16	"	"	13	"	03 51 ^{2:34}	06 25	A
318247	calibration step wedge for plate				31819 - 31823					

Dome Temp. $+26^{\circ}T$ Transparency Conditions $GOOD$

Focus:

Dome Temp.

check finder fields - exposure times

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	2 to 3x too low	Quality
00 ^h 46 ^m E	+26° 19'	~3"	8.36	G2V	5-5-5	Sec. STD. VEL. finder field drawn	8x100/314	** FINE
00 ^h 09 ^m E	+25° 03'	~4"	8.68	G0IV	5-5-5	S.S.V. Whole of finder field drawn	8x100/323	FINE
05 ^h 20 ^m W	+50° 34'		3.95	B0 pa	5-10	Spect. Bin. (HK)	4x10/20	3
02 ^h 34 ^m W	+28° 49'	~5"	9.29	G0IV	5-5-	Secondary STD. VEL. finder field drawn	8x100/349	v.sl. weak
00 ^h 50 ^m W	+50° 48'	~3"	6.0	K1-B03	5/5/5	BK (broken)	200/153	* FINE
7.	+25° 57'	~4"	9.19	F0V	5/5/5	S. STD. VEL	400/200	*** v.sl. weak
* NOT GUIDED FAR ENOUGH TO EDGES OF PLATE								
** FOGGED IN MIDDLE (~45°W)								
*** FINGERPRINTS!								

Date 7-8 Feb/69 *Tri. Sect.* Observer ^{T_n} ^{T_n} *Bü Max/Sc, 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.
31825	BD 57° 258	01 ^h 12 ^m .6	+57° 47'	G-60	IIa-O	18	22°F	19:23	21 ^h 08	A
31826	φ Per	01 ^h 37 ^m .4	+50° 11'	G-13	IIa-O	9	22°F	21:38	21:48	C
31827	28 Tau	02 ^h 02 ^m .2	+23° 50'	"	IIa-O	"		22 ^h 05	22:18	A
31828	27 Tau	02 ^h 02 ^m .7	+23° 03'	"	"	"		22 ^h 25	22 ^h 31	C
31829	ε Ori	05 ^h 20 ^m .5	-5° 59'	"	"	"		22 ^h 46	23 ^h 54	A
31830	γ Ori	4:59.5	41° 6'	"	"	"		00 ^h 07	00 ^h 10	C
31831	α Ori	5:49.8	17° 23'	"	"	"		00 ^h 38	00 ^h 48	A
31832	"	"	"	"	"	"		00 ^h 51	00 ^h 56	C
"	"	"	"	"	"	"		01 ^h 01	01 ^h 08	C
31833	15 γ Com	12 28.0	+26 49	"	"	9		01:41	2:13	A
31834	H012266	14 32.1	+36° 32'	"	"	13		02:28	3:15	C
31834 T1	calibration	step wedge for #		318 25				(2920118)		
T2	"	"	"	318 26 - 24				(2920118)		

Dome Temp. 27

Transparency Conditions *Clear*

Focus

Dome Temp.

Optics

g Time S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
32	09 ^h 45 ^m W	+58° 11'	3"	10.7	B-V 4.15	8-8-8	GH* (forced to stop exposure early because telescope got too close to W pier)	300/58
33	5 ^h 02 ^m W	+50° 34'	6"	3.95	B0 _{pe}	5-5-5	HK* broken (2 pias)	40/17 BROKEN SL. STRONG
34	3:26 W	+24° 05'	3"	5.01	B8 _p	5-5-5	rG*	200/80 FINE
35	3:35 W	+23° 59'	3"	3.54	B8 _{III}	5-10	rG*	40/15 FINE STRONG
36	3:15 W	-05° 53'	3"	~7.3	B9	5-5-5	rG* clouds.	could be 200/100 VERY WEAK
37	4 ^h 02 ^m W	+41° 12'	"	2.97	B3 _V	5-10	rG*	40/15
38	3 ^h 45 ^m W	"	"	"	M2 Iob	"	calcite prin - L.H. side of slit position 2	20/15 OK
39	4 ^h 00 ^m W	"	"	"	"	"	L.H. + R.H. side R.H. = position 1	DOUBLE EXPOSURE
40	1:16 E	+29° 29'	3"	5.6	K1 _{DE} -IV	5-5-5	X150*	40/30 FINE
41	2:26 E	+30° 09'	"	7.0	A0	5-5-5	red line heavy clouds	400/15 (50.6 x 10 ³) FINE

Thu - Fri

Date 13-19 Feb 1969 Observer T. H. J. / ^{ci} ~~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.F.	
31835	DPn	1 374	+50 11	G-12	TM0	9 ^L	"	19 17 ⁽¹⁰⁾	19 27	A	
31836	HD 32963	05 ^h 01 ^m 8 ^s	+26° 12'	"	"	13 ^S	12 ^o F	19 50 ⁽¹⁹⁾	23 07	C	
31836 F	Trans test					9 ^o	"			A	
31837	S. Cr.	08 ^h 38 ^m 2 ^s	+19° 24'			13	"			C	
31837	HD 112299	12 ^h 55 ^m 6 ^s	+26° 16'	"	"	13 ^S	7 ^o F	01 26 ⁽²⁹⁾	01 28	C	
31837 71	calibration step wedge for plates 31835 - 31837							14 Feb 1969 / mwp-2/68 ^o F			

Dome Temp. 14°F Transparency Conditions *Clear*

Focus

Dome Temp. 6°F

had about 1 hr passing with Saps. Teller
 someone had turned off McVittay.

g Time S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Pair seeing REMARKS	Quality
17 A	03 ^h 04 ^m W 50° 34'	3"	3.95	Bape	5-10	1 He bin.	SCIT <u>70</u> <u>CONG</u> 40/18+	(GUIDING) FINE
07 C	03 ^h 19 ^m W +26° 19'	"	8.36	G2V	5-5-5	30/30 Snow in Air, closed	800/314	FINE V. SL. C TO VE; OK ~ 4800
				8.45 +10.1	AD	Ecl. Bin.	TOO FAINT	
	03 ^h 11 ^m W +25° 55'	8"-2"	4.19	F8Z	5-5-5	See Star. 1st.	400/185	FINE

I don't agree with v. sl.
 - it is pretty badly out
 of focus. 8/2/08

A

11

Date 14/15 Feb 1969 Observer G. H. H. / T. H. H. Julian Day 175.5

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End
31838	ϕ Per	1 ^h 37 ^m .4	+50°11'	612	II AO	9L	14°F	18 ^h 32 ^m ⁽¹⁴⁾	18 ^h 36 ^m	C
31839	"	"	"	"	"	"	"	18 ^h 40 ^m ⁽¹³⁾	18 ^h 45 ^m	A
31840	28 Tau.	3 ^h 43 ^m .2	+23°50'	"	"	"	"	19 ^h 06 ^m ⁽¹⁴⁾	19 ^h 12 ^m	C
31841	27 Tau	6 ^h 43 ^m .2	+23°45'	"	"	"	"	19 ^h 26 ^m ⁽¹³⁾	19 ^h 28 ^m	A
31842	HD 21699	3 ^h 25 ^m .4	+47°41'	"	"	"	"	19 ^h 38 ^m ⁽¹³⁾	19 ^h 44 ^m	C
31843	HD 36719	5 ^h 29 ^m .9	-6°04'	"	"	"	"	20 ^h 09 ^m ⁽¹³⁾	22 ^h 20 ^m	A
31844	HD 111013	11 ^h 32 ^m .5	+51°10'	"	"	"	"	23 ^h 55 ^m ⁽¹³⁾	23 ^h 55 ^m	C
31845	HD 112127	12 ^h 45 ^m .1	+27°19'	"	"	9	"	03 ^h 05 ^m ⁽¹³⁾	06 ^h 07 ^m	C

Dome Temp. 17°F

Transparency Conditions

clear

Focus

Dome Temp. 19°F

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS		Quality
2° 17' W	+50° 34'	3"	3.95	B0p	5-5-5	1+k *	approx 10 miles apart count lake	40/14 (GUIDING) STRONG *
02° 24' W	"	"	"	"	5-5-5	"		40/17 (GUIDING) VERY, VERY STRONG
0° 46' W	-24° 04'	3"	5.01	B8p	5-5-5	r G *		200/80 (GUIDING) FINE
1° 03' W	+23° 57'	3"	3.54	B8 II	5-5-5	r G *		40/15 (GUIDING) * FINE
1° 30' W	+47° 56'	"	5.46	B8	5-5-5	r G *		200/80 (GUIDING) FINE *
2° 31' W	-05° 58'	"	8.35	B8	5-5-	r G *		400/150 BROKEN FINE
2° 16' E	+50° 48'	5"	6.0	K1	5-5-5	B+k *		200/150 FINE
2° 38' W	+27° 02'	"	8.2	K2 III	5-5-5	S _c *		400/300 V.S.L. WK

* STRONG AT ENDS OF SLIT

Date 15/16 Feb 1969 ^{SAT.} _{SUN.} Observer Ir Cke Tw/Ri _{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.T.	Hour Angle End
31846	ϕ Pers	1 ^h 37.4	+50° 11'	G12	IIaO	9L	18°F	18:26	18:30	A	2 ^h 15'
31847	ω Ari	2 ^h 1.5	+22° 59'	G12	IIaO	9L	"	19:00	19:02	A	2 ^h 20'
31848	γ Tau	4 ^h 14.1	+15° 23'	"	"	"	"	19:21	19:35	A	2 ^h 25'
31849	δ Tau	4 ^h 17.2	17° 18'	"	"	9L	"	20:26	20:45	A	1 ^h 55'
31850	e Tau	4 ^h 22.8	18° 50'	"	"	9L	"	21:11	21:29	A	2 ^h 22'
31851	HD 72962	8 ^h 38.35	-7° 38'	"	"	9L	"	21:39	22:14	A	0 ^h 52'
31852	AD 71866	8 ^h 34.3	+47° 35'	"	"	"	"	22:26	23:28	A	0 ^h 50'
31853	HD 90240	 	 	 	 	 	 	 	 	 	
31853	HD 112199	10 ^h 50.6	+26° 16'	"	"	13	18°F	00:41	03:17	A	2 ^h 15'
31854	HD 122693	13 ^h 58.3	+25° 03'	"	"	"	16°F	03:24	05:14	C	0 ^h 40'
31855	HD 128661	14 ^h 52.1	+36° 22'	"	"	9	17°F	05:19	06:17	A	0 ^h 30'

Dome Temp. 20°F.

Transparency Conditions

Focus

Dome Temp. 18°F.

22

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
2 ^h 15 ^m W	+50° 34'	2"	3.95	RC _{pe}	5+5+5	H/K *	40/18 (GUIDING) FINE
2 ^h 23 ^m W	+23° 23'	3"	3.3	K2 _{II}	5+5+5	Sc *	40/97 FINE
0 ^h 44 ^m W	+15° 37'	4"	4.9	K0 _{III}	5+5+5	Sc *	200/150 FINE
1 ^h 55 ^m W	+17° 32'	4"-8"	5.0	K1 _{III}	5+5+5	Sc *	200/150 FINE (SL. GUIDING)
2 ^h 22 ^m W	+19° 10'	3'-4"	4.8	K1 _{III}	5+5+5	Sc *	200/150 FINE
0 ^h 52 ^m E	-7° 51'	4'-8"	5.68	A0 _p	5+5+5	Ir *	200/80 FINE
0 ^h 25 ^m W	+40° 20'	2'-3'-8"	6.66	A0 _p	5+5+5	Jv *	200/80 V.S.L. WEAR
0 ^h 10 ^m W	+25° 36'	3"	9.19	F8 _{II}	5-5-5	S. STD TEL. field drawn	800/400 (GUIDING) FINE
0 ^h 41 ^m W	+24° 44'	3"-4"	8.74	F8 _{II}	5-5-5	" "	800/400 FINE
1 ^h 09 ^m W	+36° 05'	3"	7.0	AD	5-5-5	cel fin. Lagg field drawn	400/145 FINE

Date 16/17 Feb. 69 / Sun - Mon. Observer Cs. B. / L. P. R. Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle
31856	HD 21699	03 ^h 25. ^m 1	+47° 41'	G-12	II a 0	9	24°F	18:37	18:46	A	0° 46'
31857	27 Tau	03 ^h 43. ^m 2	+13° 45'	"	"	"	"	19:00	19:02	C	0° 45'
31858	28 Tau	03 ^h 43. ^m 2	+23° 50'	"	"	"	"	19:09	19:15	A	0° 58'
31859	27 Tau	03 ^h 47. ^m 2	+23° 45'	"	"	"	"	19:24	19:27	C	1° 0'
31860	HD 21699	03 ^h 25. ^m 1	+47° 41'	"	"	"	"	19:51	20:05	A	2° 05'
31861	δ Aur	01 ^h 37. ^m 4	+50° 11'	"	"	"	23°F	20:32	20:36	A	0° 0'
31862	ε Ori B	05 ^h 30. ^m 5	-5° 59'	"	"	"	"	20:42	22:47	C	2° 46'
31863	η Aur	4. 59.5	41° 06'	"	"	"	"	22:57	23:09	P	2° 0'
31864	β Gem	07 ^h 39. ^m 2	+28° 16'	"	"	9 ^{long}	"	23:33	23:35	C	1° 57'
31865	ε Gem	06 ^h 37. ^m 8	+25° 14'	"	"	9 ^{long}	21°F	23:40	23:45	"	1° 57'
31866	HD 86801	09 ^h 55. ^m 8	+29° 02'	"	"	135	20°F	01:17	05:00	C	0° 11'
31867	HD 132661	14 33.1	-36° 22'	"	"	9	20°F	05:14	05:49	A	0° 0'
31868	HD 139892	15 35.6	+36 58	"	"	"	20°F	05:59	06:09	B	0° 03'

Dome Temp. 26°F

Transparency Conditions Clear, clouded in S. (22:15)

Focus

Dome Temp. 20°F

Lp: - Mr. is with film so arching will be in. Please take as much of it as you can by yourself, but have him check you on closing of especially.

g Time S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
46	0 ^h 46 ^m W	+47° 57'	2.5"	5.36	B8 III	5-5-5	rG* 2 pieces 1 big; 1 small.	200/80 BROKEN FINE
02	0 ^h 45 ^m W	+24° 00'		3.54	B8 III	5-10	rG* 3 pieces 1 big; 2 small	40/15 BROKEN (GLU DING) FINE
15	0 ^h 58 ^m W	+24° 05'		5.01	B2 _p	5-5-5	rG*	200/80 FINE
21	1 ^h 10 ^m W	+24° 20'	~3"	3.54	B8 III	5-10	rG* 2 pieces 1 big; 1 small	40/15 BROKEN (GLU DING) FINE
05	2 ^h 05 ^m W	+47° 56'	~3.5"	5.36	B8 III	5-5-5	rG*	200/80 FINE
16	4 ^h 13 ^m W	+50° 34'	~3"	3.95	B1 _p	5-10	HK*	40/18 FINE
27	2 ^h 40 ^m W	-5° 53'	~2"	-7.3	B9	5-5-5	rG* sky dirty because of clouds	400/140 FINE
7	3 ^h 26 ^m W	+41° 15'	~3"	2.99	B3 V	5-10	rG*	40/15 FINE
16	1 ^h 23 ^m W	+28° 07'	~3"	1.2	K0 III	5-5-5	BK*	20/22 FINE (GLU DING)
26	2 ^h 40 ^m W	+25° 12'	~3.5"	3.1	G8 Ib	5-5-5	BK*	40/31 FINE (GLU DING) SLOWLY
7	4 ^h 13 ^m W	+28° 46'	~2"	9.48	G0 V	5-5-5	SSV field stars	80/334 FINE
1	0 ^h 45 ^m W	+36° 05'	~2"	7.0	A0	5-5-5	Col. Bin.	400/150 FINE
1	0 ^h 03 ^m W	+36° 45'	~2"	5.1	B8 _n	5-5-5	Optic. Bin.	200/80 FINE

100 MORE UNEXPOSED PLATES

Dome Temp.

Transparency Conditions

Focus

Dome Temp.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality	
					4/4	no filter	focus set from 50R → 100R (C.W. as viewed from above)	
					4/4		focus set to 85R	
							final focus setting by turning knob c.c.w. as viewed from above, i.e. with red numbers <u>decreasing</u> .	

21

Date Jan 17/18, 1969 - Mon/Tues. Observer AK/S/P Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle E.S.T.
31869	HD 42397	6 ^h 05. ^m 4	+25° 02'	G-12	IIaO	13-40RT	28°F	23:41 ⁽¹¹⁷⁾	01:30	A	5 ^h 04 ^m W
31870	HD 132737	14 ^h 55. ^m 6	+27° 33"	"	"	"	"	01:54 ⁷¹	04:45	A	0 ^h 38 ^m E
31871	HD 128631	14 ^h 33. ^m 1	+36° 27"	"	"	9	"	04:54 ⁴²	05:38	A	0 ^h 38 ^m E
31872	HD 36302	15 ^h 16. ^m 2	+02° 09"	"	"	"	"	05:47 ⁽²⁵⁾	06:12	H	0 ^h 38 ^m E
31872 F	frame test		in air / out air	"	"	9	24°F			A	
31872 T1	calibration step wedge: mwp-2 / 68°F, 18 Feb				"						
31872 T2	"	"	"		"						
31872 T3	"	"	"		"						
31872 T4	"	"	"		"						

Dome Temp. 32°F

Transparency Conditions 23:00 - cleared, good

Focus

Dome Temp. 24°F

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
5 ^h 04 ^m W	+25° 02'	2"	8.68	G0 IV	5-5-5	SEC. STD VELOC ^{plate No. 68} = 800/500	FINE
0 ^h 38 ^m E	+27° 17'	~2'	9.03	X00	5-5-5	" " " ^{plate No. 69} field trans	FINE/ SC. STRONG
0 ^h 38 ^m W	+36° 05'	~3	7.0	A0	5-5-5	el. Bin	(GUIDING) SL. WEAK
0 ^h 30 ^m W	+01° 55'	~4	5.6	G0	5-5-5	std. Vel.	FINE
					3-3		FINE

for plate 31839 - 31842, 31844-5, 31869-31872

" 31838, 31858, 31860 - 31862

" 31846 - 31855

" 31843, 31856-7, 31859

Dome Temp. 28Transparency Conditions lazy

Focus

Dome Temp.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
3 ^h 23 ^m W	+17° 09'	3	8.45	A0	5,5,5	Hd Edipsing binary.	500/200 SL WEAK
0.59 W	+36° 05'	5"	7.0	A0	5,5,5	Hd " "	400/150 SL WEAK
					3-3		FINE

Date Feb 20 - 21 / 1969 THUR-FRI Observer Ir. J. J. Mar / ... 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.
31875	ϕ Pers	1 ^h 37 ^m .4	+50° 11'	G12	Ilao	9L	33°F	19:00 ^{6.5}	19:06.5	A
31876	AD8441	1 ^h 18 ^m .4	+42° 37'	G12	Ilao	9L	30°F	19:28 ⁶	20:29	B
31877	HD 9996	1 ^h 12 ^m 30	+44° 54'	G12	Ilao	9L	30°F	20:37 ^{6.5}	21:27	A
31878	HD 92968	8 ^h 38 ^m 35 ^s	-70° 38'	G12	Ilao	9L	28°F	21:47 ^{3.5}	22:22	B
31879	HD 71806	8 ^h 24 ^m .6	+40° 33'	G12	Ilao	9L	28°F	22:46 ^{5.3}	23:39	B
31880	[HD 86801]	9 ^h 55 ^m .8	+29° 02'	"	"	13		00:29 ^{2.7}	01:50	F
31881	HD 86801	9 ^h 55 ^m .8	+29° 02'	"	"	13		01:57 ^{2.48}	04:45	B
31882	" 129651	11 ^h 25 ^m .1	+31° 22'	0	"	"	26°F	05:01 ^{4.2}	05:43	A
31883	" 140573	15 ^h 14 ^m .5	+6° 44'	"	"	9		05:52 ³	05:55	B
31884	95 Hae	17 ^h 53 ^m .6	+16° 46'	"	"	"	26°F	06:10 ^{2.3}	06:33	A
31884	71	calibration step wedge for plates 31875-31884								
31884	71	focus								A
	72									B
	73									C

Dome Temp. 33°F

Focus

Dome Temp. 26°F

We need more pencils !!!

also better powder fields

clear!

Transparency Conditions

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	IRON ARC INTERMITTENT but	Quality
3:10 W	50° 34'	5"	3.95	B ₀ pe	5-5-5	HK #	40/19	BROKEN
4:02 W	48° 02'	5-7"	6.57	A ₀ p	5-5-5	Ir *	200/80	FINE BROKEN
4:35 W	45° 17'	3-8"	6.30	A _p	5-5-5	Ir *	200/80	FINE
5:25 m	-7 49	8"	5.72	A _p	5-5-5	Ir *	200/55	FINE
5:50 W	+40° 20'	5-5"	6.00	A ₀	5-5-5	Ir *	200/30	(SLIGHTLY) FINE
6:13 W	+28° 42'	8"	9.48	G ₀ V	5-5-5	WRONG STAR	4x100/11	BROKEN WEAR
6:32 W	+28° 44'	8"	9.48	G ₀ V	5-5-5		4x100/30	VERY WEAR
6:55 W	+26° 35'	5"	7.0	A ₀	5-5-5		200/20	(GUIDING) FINE
7:07 W	+6° 34'	3.8"	K2D	18"		C _m 5-5-5	200/15	FINE
7:18 E	+10° 43'	5"	5.9	K ₀	5-5-5		40/20	(GUIDING) V-SL. WEAK
1909 21 ECB / m WP-2 / 68 0° F						1 P.H (B?) REPAIRED BY MATHIAS		
						BACKING SCREWS ~ 2 TURNS EACH.		

Date 21-22 Feb 1969

Observer S. L. / C. B. 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.
31885	α Ari.	2 ^h 1.5	+22 59	G-12	IIa-O	9L		18:25 ²⁶	18:55	A
31886	α Ari	"	"	G-24	105a-E	9L		19:00 ²⁶	19:25	C
31887	ζ Tau	5 ^h 31.7	+21 05	G-12	IIa-O	9L		20:08	20:13	C
"	"	"	"	"	"	"		20:15	20:23	"
31888	ζ Ori	5 ^h 35.7	-2 0	"	"	"		20:35	20:37	B
								20:38	20:40	"
31889	β CMa	6 ^h 17.3	-17 54	"	"	"		20:55	20:59	C
								21:00	21:04	"
31890	δ CMa	7 ^h 4.3	-26 14	"	"	"		21:17	21:31	A
								21:35	21:45	"
31891	ϵ Gem	6 ^h 37.8	+25 14	"	"	"		21:55 ²⁶	22:11	B
								22:12	22:30	"
31892	δ Cen	8 ^h 38.2	+19 24	G-12	IIa-O	135h		22:46 ²⁶	01:12	A
31893	{ HD 101501	11 ^h 20 ^m 8	+20 46	"	"	9cm	{	01:31	02:19	C
02:25								02:35		
31894	HD 101503	11 ^h 20 ^m 5	-10 41	"	"	135h				

Dome Temp. +34°F

Focus

Dome Temp. 31°F

Transparency Conditions *hazy patches*
clouds at ca. 01:15
cleared again
more clouds at 04:50. Completely clouded
in at 05:00

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
	+22° 21'	3"	3.2	K2-III	15-	no filter tilt grating from U.V.	10/60
3:20 W	"	"	"	"	5s-	no filter " " Red	10/60
	+21° 08'	2"	3.0	P0V	none	L.H. side print 2. Celestia	40/17
0 36 W						R.H. side print 1	40/17
	-1° 57'	"	2.1	O9.5	none	L.H. side 2	40/12
0 51 W						R.H. 2	40/14
			1.7	B1II	none	L.H. 2	40/12
0 33 W						R.H. 2	40/12
		10"	2.5	F8Ia	none	L.H. 2	40/12
0 29 W						R.H. 2	40/12
			4.0	G8IV	none	L.H. 2	40/12
						R.H. 2	40/12
2:21 W	+44° 11'	3"	8.5	A0	5-5-5	Ecl. Binary 4d	200/150
0 46 W	+34° 25'	3.5"	5.3	G5V	5-5-5	BK*	200/150
			8.5	F5		Ecl. Binary 4d	200/150

FINE

FINE
(32.60 12.00)

Date 21-22 Feb. 1969 contd. Observer Co - Bu 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.
31894	HD 125661	14 ^h 33 ^m .1	+36° 22'	G-12	II a 0	13	30°F	03:13	03:59 ⁽⁴⁶⁾	B
31895	II Vir	14 ^h 14.4	-1° 48'	"	"	9	30°F	04:30	04:52 ⁽²²⁾	A
31896	HD 120725	14^h 11.6	+10° 25'	"	"	9	"			C
31895 F	Focus plate		in in / out out			9	30°F			F
31897	calibration		step wedge		II a 0					
	FL				103 R E					

Dome Temp.

Transparency Conditions

Focus

Dome Temp.

g Time
S.T.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0 ^h 45 ^m E	+26° 06'	~4"	7.0	A0	5-5-5	Hd* (Ed. Bin?)	400/150 (50.6 μm) FINE
	-02° 04'	~3.5"	6.6	68 II	5-6	SC* Should have had 100 counts. Tried to stop because of clouds.	200/57 WEAK
			7.6	K0		SC* ↑ Possible light leak. (plate OK)	400/305
					3-3		OK: V.S.C. LITTLE TO A. 1000
						for plates 31885, 31887 - 31891	
						mwp-2/68° = 1/24 Feb/69	
						for plate # 31886	HIGH FOOT LEVEL

Fri - Sat 2870, - mark 1
 Date 28-29 Feb. 1969 Observer Hal Mar Th / J. Th Julian Day 195

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I.	Hour Angle End
31896	Q Per	1 37.9	+50° 11'	G12	IIaO	9L	32°	18 ^h 47 ^m 14 ^s	19 ^h 01 ^m	A	23
31897	HD 42397	6 ^h 05.4	+25° 02'	G12	IIaO	13S		19 ^h 35 ^m	22 ^h 03 ^m	B	26
31898	HD 65934	7 ^h 56.1	+26° 55'	G12	IIaO	13S	30°	23 ^h 12 ^m 7 ^s	00 ^h 51 ^m	A	30
31896	2 PERS HD 11291 ?	1:45.6	50° 18'								
31898 II	calibration stop wedge for plates 31896-8 / 28 Feb/69										

Dome Temp. 32°F

Transparency Conditions clear.

40

Focus

Dome Temp.

This may be wrong star → SEE BELOW

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
N 3° 25"	Solar	2	3.95	B0pe	5-10	HK* - seems too long & thin exp meter very yellow!	40/20
W 2 07	+25° 01'	3	8.68	G0 II	5-5-5	Hd SSV. 4" hyp off end.	8x100/277
N 3° 06"	+26° 43'	3	8.87	G8 III	5-5-5	Hd SSV. moonlight about 1/3 of starlight	800/288
<i>Cloud 02 30" dark</i>							
<i>2 P.M. Loaded in Ni Pic</i>							
			5.56	39			

FINE
BROKEN
FINE

FINE

Dome Temp. 32°FTransparency Conditions Haze

42

Focus

Dome Temp.

Mag Time S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
							<i>put on in middle</i>	
04	0° 47' W	+01° 59'	7"	4.16	F8V	5-10	Bright star, vel.	FINE
25	01° 25' E	-17° 22'	3"	1.29	K2V	5-5-5	" " "	STRONG
42	0° 26' E	+36° 05'	5"	7.0	A0	5-10	Hd * <u>clouds</u> <u>cloud up.</u>	VERY WEAK

Dome Temp. 33°F

Transparency Conditions Fairly clear w. occasional cloud.

Focus

Dome Temp. 27°F

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
03 43 W	+50° 26'	5"	3.95	B0 _{pe}	5-10	working immediately Probably too strong because exp. rate not	40/19 STRONG
03 54 W	+50° 34'	"	"	"	5-10	HK*	40/17 VERY STRONG
00 52 W	-06° 01'	"	2.25	B8 _{III}	5-10	vG* Stopped because would take much too long	8x/20/19 VERY WEAK
02 56 W	+23° 52'	"	3.54	B8 _{III}	5-10	vG*	40/15 VERY STRONG
03 29 W	+26° 06'	"	5.01	B8 _p	5-5-5	vG*	200/20 STRONG
03 57 W	-05° 55'	"	7.2	B9	5-5-5	vG* Forced to stop. Took up wire for platform. Should have had 1500.	400/108 VERY STRONG
04 25 W	+40° 13'	"	2.99	B3 _{II}	5-5-5	vG*	40/15 STRONG
04 17 W	+28° 36'	"	1.52	P7 _{II}	5-10	vG*	20/8 VERY STRONG
04 46 W	+49° 18'	"	5.1	K5 _{lab}	5-5-5	Bk*	200/225 SL. WEAK
07 04 E	-02° 05'	"	6.6	G18 _{II}	5-5-5	STD CN *	200/125 SL. WEAK
01 10 E	+36° 04'	3"	7.0	A0	5-5-5	ECL. BIN.	4x/100/150 (GUIDING) FINE
00 12 W	+0° 46'	5"-6"	7.3	K4 _{IIIp}	5-5-5	STD CN *	4x/100/211 FINE
Note - some plates were too wide for holding on automatic box							VERY SL. WEAK UNSET

Mon-Tues
 Date 3-9 Mar 1959 Observer T. J. J. / T. J. J. 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.
31914	Φ Per	01 ^h 37 ^m 9	150° 11'	612	D40	9X ¹⁰⁰	30	15:48 ⁴	18:52	A
31915	Φ Per	"	"	"	"	9L	"	19:00 ⁷	19:07	A
31916	HD 5441	01 ^h 18 ^m 5	+42° 37'	"	"	9L	"	19:24 ⁴²	20:06	C
31917	HD 9576	01 ^h 32 ^m 38	+44° 34'	"	LI	"	28°	20:15 ³³	20:48	A
31918	HD 25823	04 ^h 00 ^m 28	+27° 20'	"	LI	"	"	21:58 ¹³	22:11	C
31919	HD 71866	08 ^h 21 ^m 2	+40° 23'	"	LI	"	"	22:32 ³⁷	23:09	C
31920	HD 92968	08 ^h 32 ^m 35	-7° 38'	"	"	"	27	23:25 ²⁵	23:50	A
31921	HD 17000	18 ^h 22 ^m 12	+71° 17'	"	"	"	26	0 ^h 23 ^m 45	01:00	E
31923	↑ HD 17364	18 41 ^m 21	+21° 53'	"	"	"	22	02 ^h 40 ^m 75	03:05	A
31922	↓ HD 128661	14 33.1	+36° 20'	"	"	"	24°	01 ^h 12 ^m 56	02:08	C
31924	HD 183056	19 22 33	+35° 9'	"	"	"	22°	41 20 ¹⁸	04:50	A
31925	HD 171586	18 ^h 30 ^m 6	+4° 51'	"	"	"	22°	5 ^h 03 ^m 51	5:55	C
31926	HD 177511	18 ^h 55 ^m 02	-15° 49'	"	"	"	21°	16 ^h 07 ^m 10		A

MAR 14/59 EX. MTL. D. J. J. - D. J. J. - D. J. J. - D. J. J.

Dome Temp. $27^{\circ}F$ Transparency Conditions *Excellent*

Focus

Dome Temp. $18^{\circ}F$

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
03:30 W	$+50^{\circ} 34'$	3"	3.95	Bop	5-10	* BEGINNING TO CUT OFF FEJ SLIT TOO LONG	* SL. WEAK
03:55 W	"	"	"	"	15		FINE
05:15 W	$+43^{\circ} 01'$	4"	6.19	AOp	5-5-5	[plate ^{~1/2" MISSING} out too] Ir*	FINE
05:42 W	$+45^{\circ} 14'$	4-6"	6.40	Ap	5-5-5	long Ir*	FINE
04:37 W	$+29^{\circ} 32'$	6"	5.05	Asi	5-5-5	" Ir*	FINE
01 ^h 10 ^m W	$+40^{\circ} 21'$	4"	6.19	AOp	5-5-5	Ir*	FINE
01 ^h 47 ^m W	$-07^{\circ} 52'$	4"	5.68	Ap	5-5-5	Ir*	(V. SL. WEAK) FINE
01 ^h 10 ^m E	$+71^{\circ} 19'$	4"	4.83	Aosi	5-5-5	Ir*	(GUIDING) STRONG BROKEN
01 ^h 17 ^m E	$+21^{\circ} 58'$	6-8"	6.52	Ap	5-5-5	Ir* ^{broken} exposed ^{wouldn't keep contact!}	FINE
01 ^h 56 ^m E	$+36^{\circ} 03'$	3"	7.0	AD	5-5-5	Hd*	FINE
01 ^h 15 ^m E	$+36^{\circ} 15'$	3-4"	5.04	Asi	5-5-5	Ir* ^{balance off} ^{probably unbalanced}	VIS. STRONG
01 ^h 08 ^m E	$+40^{\circ} 55'$	4"	6.52	AO	5-5-5	Ir*	FINE
01 ^h 15 ^m E	$+16^{\circ} 17'$	3"	4.98	Asi	5-10	Ir*	VERY WEAK
						3 unexposed plates left !! Can sand only 1/2 fall exposed the exposure meter contact?	

ANSW

can't
see
platecan't
see
platefall exposed
the exposure meter contact?3 unexposed plates left !!
Can sand only 1/2

fall exposed the exposure meter contact?

Dome Temp. ^{5.5} 23°C 16°F

Transparency Conditions good

Focus

Dome Temp.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
01 ^h 45 ^m W	+31° 50'		3.0	R16	none	L.H. side ^{position} 2 - calcite	40/15 FINE
1 ^h 59 ^m W						R.H. side ^{position} 1	40/20
0 ^h 26 ^m W	+20° 10'		4.7	cB1e	none	L.H. side " "	40/15 FINE
01 ^h 00 ^m W						" " "	40/20
2 ^h 13 ^m W	+05° 57'	3"	7.0	Beg	5-5-5		400/250 FINE
1 ^h 01 ^m W	+14° 09'	3"	8.5	A0	5-5	cut off after 17 counts - too faint apparently the star is near min. of 10 th mag	800/17 BLANK
1 ^h 19 ^m E	+28° 22'	3"	5.6	K1III	5,5,5	Sc ~1" MISSING FROM BLUE END.	400/150 FINE
2 ^h 11 ^m E	+36° 01'	"	7.0	A0	5,5,5	HD*	400/120 V.SL. WEAK
3 ^h 06 ^m W	23 50	"	9.6	G0II	5,10	Shaded V.*	40/20 V.SL. WEAK
0 ^h 34 ^m E	19 22		1.29	K2III	5,	" faint but comparison 2 nd star ^{position} by III	70/15 WEAK COMP. SL. STRONG
0 ^h 32 ^m E	"	"	"	"	15	" ~1/2" MISSING FROM BLUE END was broken when?	20/16 FINE
0 ^h 25 ^m E	"	"	"	"	15	"	20/15 FINE
1 ^h 56 ^m E	-3 26	4"	4.30	K1III	5,10	"	40/20 V.SL. WEAK
2 ^h 25 ^m W	-15 44	"	5.9	K1III	5,5,5	Sc *	200/114 WEAK DR

49

Wed-Thurs
Date 5-6 Mar 1969 Observer T_g / Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I.	Hour Ang End
31938	Q Pers	01 ^h 37 ^m 4	+50° 11'	G12	Il00	9L	22	19 ^h 28 ^m	19 ^h 32 ^m	A	7
31939	HD 44329			G12	Il00	9L	20	21 29	21 31	B	127"
31940	HD 34255			G12	Il00	9L	19	21 ^h 4 ^m 5	22 03	C	3 25"
31941	HD 84941	09 40^m 2	+29° 14'	"	"	"	"	23^h 16^m	23^h 23^m	C	0 15"
31940 r.	calibration for plates 31938 - 31940 (7 men)										

Dome Temp. 19°F

Transparency Conditions Clean - Clouds - Under Clouds etc etc

Focus

Dome Temp.

ng Time S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
32	7	+50° 34'	3"	3.95	B0	5-10	Timed ~ 6 min with cloud.	(GUIDING) WEAK
8	1 ^h 27 ^m W		3"			15] Waterloo Stars - roughly timed as Exposure counter does not work	WEAK VERY WEAK
63	3 ^h 25 ^m W	+62° 39'	3"	.		5-55		
							Why don't people tell me about <u>all</u> maintenance due during <u>the day</u> ???	
23	0 ^h 16 ^m W	+23° 56'	"	3.76	G0	5-3-5		BLANK
							Knot for arc and cell cappia has been put into proper adjustment. It is <u>now</u> working	

51

Fri - Sat

Date 7-8 March 1969 Observer S. Tu / Lp 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 Est
31942 ¹	ζ Per	2 ^h 47.8	+31° 35'	0-12	IIa-D	9L	21°F	18 ^h 54 ^m [ⓐ]	18 ^h 57 ^m	A	01:50W
"	"	"	"	"	"	"	"	19 ^h 00 ^m [ⓑ]	19 ^h 04 ^m	"	01:57W
31943 ²	"	"	"	"	"	"	"	19:10 [ⓒ]	19:17	B	02:14W
31944 ³	"	"	"	"	"	"	"	19:20 [ⓓ]	19:27	C	2:19
31945 ⁴	ϕ Per	1 ^h 22 ^m	+50° 11'	"	"	"	"	19:40 [ⓔ]	19 ^h 47 ^m	A	4:55
31946 ⁵	α Com	4 ^h 44.1	+66° 10'	"	"	"	"	20:03 [ⓕ]	20:13	B	2:20
								20:14 [ⓖ]	20:20	"	2:20
31947 ⁶	ϵ Ori	5 ^h 21.1	-1° 16'	"	"	"	"	20:15 [ⓗ]	20:47	A	1:50E
"	"	"	"	"	"	"	"	20:18 [ⓓ]	20:50	"	2:01W
31948 ⁷	γ CMi	8 ^h 01.4	+2° 13'	4-12	IIa-D	13S	"	21:25 [ⓓ]	01:08	B	?
31949	67 Wri	13^h 22.1	-13° 27'	"	"	"	"	clouded in 02 h.			

Dome Temp. 25°15

Transparency Conditions Very Good

Focus

Dome Temp. 17°F

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
01° 50' W	+31° 50'	3"	3.0	A126	none	no 1 L.H. side 40/15	FINE
01° 57' W	"	"	"	"	"	2 R.H. side 40/20	
02° 14' W	"	"	"	"	"	Zwinger used L.H. side = light ordinary image 40/10	FINE
2° 19' W	"	"	"	"	"	no 1 - L.H. side ordinary R.H. extra (each) 40/15	FINE
4° 52' W	+50° 34'	3"	3.95	00p	5-5-5		40/10 (GUIDING) 1/2 U.S.L. WEAK
	+66° 19'		4.38	09.5 Ia	none	no 1 - L.H. side ord mag 40/15	FINE
2° 22' W	"					2 - R.H. ord mag. 40/20	
1° 58' W	-01° 13'		1.71	B0 Ia	none	no 1 " 40/15	FINE
2° 01' W	"	"	"	"	"	" " 40/10	
?	+02° 03'	"	8.5	E6	5-5-5	Hd binary (some level 122° S) interrupted Funderfield star 40/10	WEAK
Remainder plates in box 23 possibly fogged / checked over please							FOGGED AT 1 END! 1/2" SUITABLE FOR FOCUS PLATES
none of tonight (exposures started)							

55

lat/sun
 Date 8-9 March / 69 Observer To-Bir / To-Bair 21 Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angl H
31950 49	ϕ Per	01 37.4	+50° 11'	G-12	IIaD	9	23°F	18:54 ⁽⁴⁾	18:58 ⁽¹⁰⁾	A	01° 08'
31951 50	28 Tau	03 43.2	+23° 50'	"	"	"	"	19:10	19:20	B	02° 22'
31952 51	27 Tau	03 43.2	+23° 45'	"	"	"	"	19:25 ⁽³⁾	19:28	C	02° 30'
31953 52	HD 36919	05 29.9	-06° 04'	"	"	"	23°F	19:42 ⁽¹⁰⁶⁾	21:28	A	02° 30'
31952 F1	Focus Test										?

at 0100' at ... clouds again 02° 26'

in in - without case, no filter

Dome Temp. 26°F

Transparency Conditions Hazy; scattered cloud

Focus

Clouded over at 21:40

Dome Temp. 23°F

Cloud - then clouded at 22:20

ig Time S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
28	A	04 ^h 05 ^m W	+50° 34'	~3"	3.95	BQ ₂	5-10	HK*	49/17 FINE
27	E	02 ^h 22 ^m W	+24° 06'	"	5.01	B2 _p	5-5-5	rG* Possibly fogged.	200/80 (SL. GUIDING) FINE
28	C	02 ^h 30 ^m W	+24° 00'	"	3.54	B8 _{III}	5-10	rG*	60/15 FINE
28	A	02 ^h 42 ^m W	-06° 01'	"	8.25	B8 _{IV}	5-10	rG* Capped because of cloud. Completely clouded over at 21:40. Should have had 300 counts.	800/77 VERY WEAK
Cloud at ca. 22:00									
									at centre to violet

57

319-1100
 Date 9-10 Mar 1959 Observer T. C. S. / T. C. 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.E.
31954 ⁵³	PPR	01 ^h 37.4	+50°11'	G12	Da0	9	26	19 ^h 02' ⁽⁶⁵⁾	19 ^h 07'	E
31955 ⁵⁴	YYC mi	2 ^h 01.4	+2°13'	S12	Da0	135	23	19 ^h 40' ⁽⁶⁰⁾	22 ^h 20'	C
31956 ⁵⁵	HD 128661	14 ^h 33.1 ^m	+36°04'	"	"	13L		01 ^h 27' ^{m(45)}	02 ^h 12' ^m	B
31955 T1	calibration	step wedge for plate			31941 -	31950			10 ^h 00 ^m	
31955 T2	"	"	"	"	31951 -	31955			"	

Dome Temp. 28°

Transparency Conditions ... Excellent

Focus

Dome Temp.

CLOUDS

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
07 1 04 18' W	+50° 34'	3"	3.95	B0 _p	5-10	Hk* 40/17	FINE
20' 6 1 08' W	+02° 03'	"	8.5-9.5	FG	5-5-	Hd* Finder Field frame 4x100/89	SL. WEAK
12 6 1 30" E	+36° 05'	4"	7.0	A0	5-5-5	Hd* Clouds 01 30' 4x100/127 CUT SHORT DUE TO SNOW CLOSE UP AT 02:25	(GUIDING) FINE

57

Date 11-12 Mar 1969Observer Th-C/Tn-1n 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.F.	
31956	S Cnc	8 ^h 39 ^m .2	+19° 24'	G12	Ilao	9s	21°F	19 ^h 11 ^m	22 ^h 41 ^m	A	
31957	69 Vir	13 22.1	-15° 27'	"	"	9L	17°F	23 ^h 08 ^m	0 ^h 13 ^m	C	
31958	HD 72968	8 ^h 38 ^m 35 ^s	-70 38'	"	"	9L		0 ^h 27 ^m	0 ^h 57 ^m	B	
31960	HD 71866	8 ^h 24.6	40° 33'	"	"	9L		01:19	2 ^h 41 ^m	A	
31959	HD 173650	18 ^h 41 ^m 21 ^s	21° 53'	"	"	9L		03:16	04 ^h 28 ^m	B	
31961	HD 177517	18 ^h 59 ^m 15 ^s	-15° 49'	"	"	"		04:53	06 ^h 02 ^m	C	
31961	calibration	stop emulsions for plates 31956 - 31961							12:01		

Dome Temp. 17°F Transparency Conditions *Good* (14.00)

Focus

*Satellite (very bright)**few clouds*

Dome Temp.

*unspotted
due north 04³⁰ 45**1130**(mostly from seeing
difficult)*

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0 ^h 55' W	+19° 09'	4"	8.45 (10.11)	A0	5-5-5	Hd ⁺ Eclipsing binary 4x100/95	SL. WEAR
02 ^h 10' E	-15° 44'	4"	5.9	K1	5-5-5	Ir* Sc 2x100/151	V. SL. WEAR
03 ^h 15' W	-07° 49'	4"	8.572	Ap	5-5-5	Ir* limited HA West 2x100/47	V. SL. WEAR
05 ^h 08 ^m W	+40° 20'	4"	6.79	Ap	5-5-5	Ir* 2x100/80	(SL. WEAR) FINE
03 ^h 18' E	+21° 58'	4"	6.50	Ap	5-5-5	Ir* FIELD DRAWN 200/80	FINE
02 ^h 05' E	-15° 39'	4"	5.98	A0	5-5-5	Ir* had 10 counts when 200/80 by ^{5 by 5} considerably	FINE
<p>It seems we used the slightly fogged plates when returning, until closing up, - plate have ~ 1/2 fog at 1 end</p>							

Dome Temp. $13^{\circ}F$

Transparency Conditions *Some cloud*

Focus

Dome Temp.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
02 ^h 37 ^m W	+31 ^o 47'	3"	2.93	81.76	none.	2 images used - end. on L.H. side	40/40 FINE
	"	"	"	"	"	same	40/40 FINE
03 ^h 03 ^m W	"	"	"	"	"	same.	40/40 FINE
2 ^h 20 ^m W						pr. 1 extra. R.H. and L.H. with	40/20 FINE
3 ^h 53 ^m W						... end. only L.H. (snow clouds)	40/20 FINE
<u>snov at 20^h 50^m closed</u>							
<p><u>Note - To Frank Hawker - Take a look at</u> <u>T.V. input to control panel, ie.</u> <u>Loose connection in RA. TV. apt.</u> <u>Repaired 11/1/69</u></p>							
<p>136^o 05' 2" 7.0 AO 5, HDX Finder, 100/100</p>							
<p><u>Closed again 03^h 25^m</u></p>							

PERFECT
 USE 100/100
 OK IN 1-1500
 CTD 11-1-69

65

Date Mar 15/16, 1969 Sat/Sun Observer HK-Tm-Je ^(10 min) for 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.F.	Hour Ang End
31967	ϕ Per	1 ^h 37.4 ^m	-50° 11'	G-12	Ilford	95	33°F	19 ^h 09 ^m ⁽³⁰⁾	19 ^h 47 ^m	C	5:14
31968	"	"	"	"	"	71	"	19 ^h 42 ^m ⁽⁴⁾	19 ^h 46 ^m	A	5:20
31969	HD 25223	4 ^h 0.5	+27° 20'	"	"	9L	"	20 ^h 07 ^m ⁽⁴⁾	20 ^h 18 ^m	B	5:33
31970	HD 71866	8 ^h 29.2 ^m	+45° 19'	"	"	"	32°F	20 ^h 48 ^m ⁽⁴⁴⁾	21 ^h 32 ^m	C	5:46
31971	HD 72368	8 ^h 33.1 ^m	+7° 05'	"	"	"	31°F	21 ^h 51 ^m ⁽³⁰⁾	22 ^h 21 ^m	A	01:03
31972	"	"	"	"	"	"	"	22 ^h 28 ^m ⁽⁴⁷⁾	23 ^h 15 ^m	B	01:53
31973	HD 128661	14 33.1	+36° 29'	"	"	"	30°F	23 ^h 25 ^m ⁽⁴¹⁾	00 ^h 46 ^m	C	07:33
31974	ϵ Lib	14 ^h 53.5	-10° 45'	"	"	"	29°F	01 ^h 51 ^m ⁽⁴¹⁾	03 ^h 32 ^m	A	00:58
31975	HD 139892	15 ^h 35.6	+36° 56'	"	"	"	27°F	04 ^h 01 ^m ⁽⁴⁾	04 ^h 12 ^m	B	50:00
7551	(contrast film in tank) no filter				C						

Dome Temp. 34° F

Transparency Conditions very hazy
14.30 - clear

Focus

Dome Temp.

ing Time L.S.T.	Hour End	Angle	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
51° C	5	14 W	+50° 34'	2"	3.95	B ₂ pe	5-5-5	Hk *	40/18 (560-2ma) FINE
46° A	5	20 W	"	"	"	"	5-5-5	"	40/17 FINE
18° E	3	30 W	+27° 34'	3"-2"	5.05	A ₅ i	5-5-5	Ir *	200/80 (GUIDING) FINE
0	0	19 W	+40° 21'	1.5"	6.74	NOp	5-5-5	Ir *	200/80 (GUIDING) FINE
21° A	01	03 W	-07° 49'	2"	5.68	Ap	5-5-5	Ir * some cloud (broken eye)	200/80 BROKEN FINE
11° B	01	56 W	"	3"	"	"	5-5-5	Ir * Finder 1/4 frame	200/80 V. SL. WEAR
1° C	02	13 E	36° 05'	3"	7.0	A0	5-5-5	Hd *	200/80 (GUIDING) FINE
1	00	08 E	-11° 01'	3"	7.0	K4	5-5-5	Sc *	400/300 SL. WEAR
1	00	10 E	+36° 47'	2"	5.1	B ₂ e	5-10	Hd *	40/15 FINE

WAS THIS A TRUE HARTMAN TEST? THE POLARS
LOOKS TOO GOOD TO BE
TRUE!
(THEN SEE 31983-1)

NOTE: Right-left slow motion - alt. in 1/2 of a sec

67

Sun-Mon

Date Mar. 16-17/1969 Observer Tn, Cs, H⁽³⁷⁰⁰⁾ 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.	
31976	⊙ Pers	1 ^h 37 ^m 9	-50° 11'	612	F40	9.5	30°F	19 ^h 07 ^m 30 ^s	19 ^h 34 ^m	C	
31976 T1	calibration strip and/or for plates 31967 - 31976								17 Mar/69		

Dome Temp. 32°F

Transparency Conditions Cloudy

Focus

Dome Temp.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
05 ^h 11 ^m W	+50° 34'	2-3"	3.95	BDpc	5-5.5	HK* Complete cloud by 22° * Frank - slow motion from right → left doesn't work. R. 1/3/67 Jain	90/14.4 FINE

69

Date Mon Mar 17-18 / 69 Observer — / Tol L HF Julian Day 156

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
✓ 31977	HD. 92620	10 366	32 13	G 12	II 90	set 9L		02:11 ¹⁰²	04:53	A
31978	φ Pers	01 ^h 37.9	+50° 11'	"	"	9 ^h	40°F	05 ^h 18' ⁽³⁾	05:55	B
31978 T1	calibration step wedge for plates 31977, 31978.							15 Mar / 69.		

Dome Temp. 42°F

Transparency Conditions Length 1000 ft

Focus

Dome Temp. 37°F

g Time S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
		3 ^h 11 W	31° 50'	6"	2.93	B126	7 begin	double image L.H. = ord. ray	40/40
		3 ^h 49 W		6"	"	"	7 end	position 1 - L.H. side = ord ray. - no extra.	40/25
		1 ^h 47 E	11° 52'	6"	3.58	A016		both images - L.H. = ord.	40/40
		1 ^h 34 E	09° 30'		3.85	B126		"	40/40
		0 ^h 50 E	41 40		4.5	M011	5-5-5	clouds	40/34
		1^h 60	00		7.57	F8	5-	Spect. Bin.	40/34
							5/5	no filter closed up at 12:30	SC
							5/5-	down 47°F	SC
							5/5-	focuss: 85 R (unchanged)	SC
							5/5-	focuss: 50 R (from 85 R)	FINE

73

WED - THURS.

Waterloo {
Marsden
EBV
(CS) 314

Date MAR. 19/20/69 Observer H. - Ri. Su. 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 Angl End
31984	ϕ Per	01 37.4	+50 11	G12	IIaO	9	41°	19 16 ⁽¹²⁾	19 28	A	5° 17'
31985	HD 75732	08 46 ^m 39	+28 43	"	"	"	"	20 24 ⁽¹⁷⁾	23 14	A	0° 56'
31986	" 73262	¹²² 08 36 35	¹²² +25 48	"	"	"	"	23 20 ⁽²¹⁾	23 47	B	4° 34'
31987	" 91948	10 31.9	60 38	"	"	13	"	00 13 ⁽⁴²⁾	00 55	C	1° 20'
31987E	focus too		out of focus			"	37			H	
31987 T1	calibration	step	made for plates	31984 - 31987				20 Mar / 69.			
	Mar 21	R.C.	opened up then	closed up again				at 00.30			

Dome Temp. 74.3

Transparency Conditions FAIR - HAZE - 6.5

Focus

Dome Temp. 35

g Time S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
29		5 ^h 17 ^m W	+50 33	5	395	Bope	5-5-5	Bal BW CS Guiding (WITH A LITTLE HELP FROM YOUR FRIENDS) 40/17	SL. WEAK (LIGHT STREAK)
12		01 55 W	+23 27	2	5.94	dKo	5-5-5	EBY Proc. 200/141	SL. WEAK
47		24 43 W	+05 52	3	4.14	AoV	5-5-5	WAVEC " 40/15	SL. WEAK
55		14 50 W	60 20	~3	7.37	F8	5-5	Spectroscopic binary 2 pairs fused over 400/90 no filter	BROKEN WEAK SL C. T. R.
H.U. overload light was on									

SAT-SUN

Date MAR 22/23 1969

Observer B. Ri - Arc 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.
31988	ϕ Per	01 37.6	+50 11	G12	Ilad	9	37	19:16	19:20	A
31989	4036919	05 29.9	-06° 04	"	"	"	"	19 35	21:13	B
31990	β Tau	05 20.0	+23 31	"	"	"	"	21 20	21 21	C
31991	γ Aur	06 59.5	+41° 06'	"	"	"	"	21 28	21 30	A
31992	46 Leo	10 26.9	+14 13	"	"	"	"	21:45	22:23	B
31993	HD 92620	10 36.6	+32 13	"	"	"	"	22:31	23:29	C
31994	HD 132737	14 55.6	+27 23	"	"	13	"	23:43	23:33	A
31995	HD 149803	16 32.0	+29 56	"	"	"	"	02:50	05:40	B
31995	focus test		out of focus				32			C

Dome Temp. 38

Transparency Conditions

Focus

Dome Temp. 32

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
5:20W	+50 34	3"	3.95	BQ _{pe}	5-5-5	HK ⁺	40/17 FINE
3 ^h 23W	-06 00	4"	8.25	B8 _{II}	5-10	rG ⁺ Broken	800/150 BROKEN WEAK
3 ^h 00W	+22 36		1.52	B7 _{III}	5-5-5	rG ⁺	20/8 EXP. DR. (LOW B.M. #1)
4 ^h 09W	+41 15	4-5"	2.99	B3 _V	5-10	rG ⁺	40/15 FINE
0 ^h 26 ^m E	+14 18	4"	~7.0	gM2	5-5-5	rG ⁺	400/300 SL. WEAK
0 ^h 33 ^m W	+31 54		~7.7	gM5	5-5-5	rG ⁺	400/300 SL. WEAK
0 ^h 40E	+27 18	~2	9.03	F0 _{III}	5-5-5	Hid Sec. Std. Vel. field check	800/600 SL. WEAK
0 ^h 50W	+29 50		8.90	F7 _V	5-5-5	Hid Sec. Std. Vel. field drawn	800/800 SL. WEAK
					5-5	no filter	SL. C. TO ST. IN RED

WHAT IS THE BLANK PLATE??

one isolated P.H. in NP.

} G. quite deal of backscatter - also see slow motion - slow
 (note) (some 10-15 sec to produce any movement)

Dome Temp. 4.3

Focus

Dome Temp.

Transparency Conditions Cloudy then hazy clear-logy

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0 ^m 14 ^m W	02 13	~3 ^{over}	6.70	M0 III 6	5-5-5	r G* variable transparency & seeing 400/360	SL. WEAK EMULSION SCRATCH
1 ^m 46 ^m E	44 01	2"	7.00	M4-4.5 III	5-5-5	P.H. fell apart while unloading 400/300	SL. WEAK ALMOST BLANK
0 ^m 29 ^m E	45 29	3	7.64	F8	5-10	Speed Bin. 800/101	BLANK
					5-5	→ ^{fit} CLOUDS: CLOSED UP ON 40	FINE
						BETTER 400 COUNTS.	

Hr:

Bull's E knob swatchers have been at work on the automatic guides. Please replace 2 fix it.
R. [unclear] 25/9/69

79

Date Tues Mar 29, 1969 Observer R. Su 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.
31998	HD 128661	^h 14 ^m 33.1	[°] 36 ['] 22	G12	IIaD	9		2 23 ^{2:32}	04 55	B
32000	HD 129392	15 35.6	36 58	"	"	"		05:05 ⁰⁵	05:12	A
32000F	focus test	center/axis				9	21°F			B
32000T	calibration	steps made for plates 31998 - 32,000								

Date Mar 27/28 1959 TAU/FRI Observer CS HK/R. 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.F.	
32001	HD 75935	$08^h 47.9^m$	$+22^{\circ} 18'$	G12	IIaO	13^{\prime} short	27°F	19:58 ²	22:30 ³²	A	
32002	HD 112299	$12^h 50.6^m$	$+26^{\circ} 16'$	G12	IIaO	13^{\prime} short	25°F	23:20 ^{3:10}	02:30	A	
32003	HD 140913	$15^h 41.1^m$	$+28^{\circ} 47'$	G12	"	"	23°F	02:39 ^{1:51}	04:30	B	
32003F	format	$12^h 50.6^m$					22°F			B	
3200371	calibration	step wedge for plate 32001-3							28 hrs		

Dome Temp. 27°F

Transparency Conditions Clear, moon

Focus

HAEY 3:30

Dome Temp. 24°F

no ext. meter

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
1 ^h 01 ^m W	+27° 03'	~3	9.35	G8V	5/5/5	Exposure meter being repaired. Previous exposure 2 1/2 hrs - use this as criterion Hd sec ^x stud. vel.	V. SL. WEAK
1 ^h 38 ^m W	+25° 55'	~4	9.19	F8V	5/5/5	Hd ^x secondary stud. vel.	FINE
0 ^h 49 ^m W	+28° 35'	~3.5	8.81	G0V	5/5/5	Sec. Sld. Vel. field drawn CLOUDS AT 3 AM MORE CLOUDS 4:30	SL. WEAK
					5-5	no filter	OK
						CLOSE UP AT 4:45 A.M BECAUSE OF CLOUDS	

SOME CLOUDS

84

Dome Temp. 25°

Transparency Conditions

Focus

It seems we have boulders above water level (with feathers)

Dome Temp.

STILL NO EXPOSURE METER →

g Time
S.T.

P.H.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
2h 37min	$-7^{\circ} 50'$	4"6	5.68	Ap	5-55	Tr * 95 min	FINE
5h 30min	$+40^{\circ} 22' 3''$	6.79	10p	5-55	Tr *	80 min $4^{\circ} 3'' \approx 50$ min	SLIWEAK
						<u>clouds</u> -	

85

Sun - Mon

Date Mar 30-31 / 69 Observer r G-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
32006	HD 37058	5 ^h 30. ^m 6	-4° 54'	G12	II 00	9L		19 ^h 38 ^m ⁽⁶⁵⁾	20 ^h 43'	A
32007	36 LYN	9 ^h 07. ^m 3	+43° 38'	G12	II 00	9L		20 ^h 55 ^m ⁽²⁵⁾	21 ^h 20 ^m	B
32008	34 _μ UMi	10 ^h 26. ^m 4	+42° 40'	"	"	"		21 ^h 25 ^m ⁽¹⁵⁾	21 ^h 40 ^m	A
32009	37 LEO	10 ^h 11. ^m 3	+14° 14'	"	"	"	22°F	21 ^h 53 ^m ⁽³²⁾	22 ^h 25'	B
(32009E) Focus Test			out-out - in				22°F			C
32009 71	calibration strip and edge for plates 32004 - 32009									

Dome Temp. 23°F Transparency Conditions *Excellent*

Focus

Dome Temp.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
$3^{\text{h}}25^{\text{m}}\text{W}$	$-04^{\circ}48'$	2.5"	7.18	B3p	5-5-5		SL-WEAK
$0^{\text{h}}20^{\text{m}}\text{W}$	$+43^{\circ}23'$	2.0"	5.05	B3p	5-5-5		FINE
$0^{\text{h}}25^{\text{m}}\text{E}$	$+41^{\circ}42'$	2.0"	4.7	M0	5-5-5		FINE
?	$+13^{\circ}56'$	2.5"	7.3	M1	5-10	Finder field from some haze (bad) 22:15 capped at 22:25 no good Moon light Snow at 22:30	WEAK
					5-5	no filter	FINE
						Ex Hoc. Pwr. Supply Required MAR 31/87 HV.	
						plate capping light doubt work - sometimes	

Dome Temp. 23°F

Transparency Conditions Clear (Clouds on horizon)
Hazy

Focus

Dome Temp. 24°F

Time T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
								At 8 ~ 50° HA ~ 2 ^h E, one of the leaf covers fell — better catches would be a good idea!	
12 ^h	B	1 ^h 50 ^m E	+41° 41'	~2.5	4.5	M0 III	5/5/5		40/30 V.SL.WEAK
42 ^h	B	0 ^h 40' E	+31° 52'	~2	7.7	M5	5/5/5	getting some coars from haze (moon)	400/300 V.SL.WEAK
17 ^h	C	1 ^h 09 ^m E	+40° 52'	2	7.1	M1 III	5/5/5	(check for comp)	400/300 V.SL.WEAK
							5/5	no filter	↑ SL. C TO VT
								<u>closed 01^h clouds</u>	TRY 350?

Wed-Thurs

Date April 2 / April 3 69 Observer Sr. 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.
32013	37LEO	10 ^h 11.3	+14° 14'	G12	D ₀₀	9L		19:32 ⁹	21:41	C
32014	HD 52005	6 ^h 54 ^m 31 ^s	-16° 13'	G12	D ₀₀	9L	29°F	21:48 ³⁹	23:07	B
32015	HD 101501	11 ^h 36 ^m 42 ^s	34 46	G12	D ₀₀	"		23:25 ⁶⁶	00 ^h :31	A
32016	HD 131511	14 48 52	19.33	G12	D ₀₀	"		00:44 ¹²⁴	02:48	B
32017	HD 176318	18 ^h 59 ^m 6 ^s	-138° 07'	"	"	9XL	24°F	03:00 ³³	03:33	C
32018	HD 146051	16 ^h 09 ^m 1 ^s	-63° 26'	"	"	9L		04:17 ⁶⁷	04:34	C
32019	HD 165391	18 ^h 00 ^m 9 ^s	+102° 31'	"	"	"		03:48 ²¹	04:09	A
32019 F	out-out			"	"		23°F			B
32020	HD 157999	17 ^h 21 ^m 5 ^s	+109° 14'	"	"	9L	"	04:54 ⁴⁴	05:23	B
320 19T1	Calibration of plate 32013-32020 (not from same box as ...)									

Dome Temp. 34

Focus

Dome Temp. 23

Transparency Conditions

Excellent (Full Moon)
Jan 24 05 thin clouds

90

Time ST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
	C	2 ^h 2 ^m E	+14° 54'	3"	7.0	GM11	5,5,5	400/341	Ed weak
	B	4 ^h 35 ^m W	16° 07'	3"	6.6	CK4	5,5,5	under exposed Eby	VERY weak
	A	1 ^h 18 ^m W	+39° 24'	3"	6.6	G8V	5,5,5	Eby	Fine
	B	0 ^h 24 ^m W	+19° 18'	"	7.3	CK4	5,5,5	Eby	Fine
	C	2 ^h 56 ^m E	+38° 13'	"	5.7	K6-7	5,5,5	Hube* finder fld	guiding?
	C	0^h 50^m E	-03 35	"	4.3	M10	5,5	Silver	Fine
	A	0 ^h 21 ^m E	+02 32	3"	4.0	K0X	5,5,5	BR* (comp star 3" from Jupiter)	Fine
	B							5/5 no filter	?
	B	0 ^h 25 ^m W	04 12	3"	4.4	K30	5,5,5	too long	Fine
								OK, same E emission	

data but for next field)

91

Sat-Sun

Date April 5/6 Observer Ir-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.I.	Hour Angle End
32021	HD 71866	8 ^h 24.6	+40° 33'	G-12	IIaO	9-L	40°	23:55	⁽¹¹²⁾ 01 ^h 30'	C	05 ^h 35'
32022	HD 128661	19 ^h 33.1	+36° 22'	G-12	IIaO	9-L	35°	01 ^h 53'	⁽¹¹³⁾ 03 ^h 03'	B	01 ^h 57'
32023	HD 156014	17 ^h 10.1	+14° 30'	G-12	IIaO	9-L	34°	3 ^h 17'	⁽¹¹⁴⁾ 03 ^h 29'	C	01 ^h 58'
32024	HD 17000	18 ^h 22.12	+71° 17'	G-12	IIaO	9-L	"	3 ^h 51'	⁽¹¹⁵⁾ 03 ^h 56"	A	02 ^h 15'
32025	HD 183056	19 ^h 22.5	+35° 07'	"	"	"	"	4:13	⁽¹¹⁶⁾ 04 ^h 30'	B	02 ^h 11'
32026	HD 177517	18 ^h 59' 58"	-15° 49'	"	"	"	35F	4:42	⁽¹¹⁷⁾ 05 ^h 14.1	C	01 ^h 10'

Dome Temp. 39°

Focus

Dome Temp. 33°FVARIABLE CLEAR STARING
2310

Transparency Conditions

2nd C PH has pit for in total cut

92

g Time S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
20 C	05 ^h 35 ^m W	+40° 22'	6"	6.72	A0p	5-5.5	17* 1 LEAF FELL DURING 200 EXPOSURE @ 2000X CLOSED POSITION LEAF HOOK TIGHTENED) suspected ec. binar 400/168	Fine
08 R	01 ^h 07 ^m W	+36° 07'	3"	7.0	A0	5-5.5	11d* (st vel) 4" separation blue faint companion 40/34	sl weak
21 C	01 ^h 04 ^m E	+14° 28'	4"	4.6	M5II	5-5.5	Tn* 40/34	Fine
50 L	02 ^h 15 ^m E	+71° 20'	3"	4.2	A0s	5-10	Tr* 40/5	Fine
20 W	07 ^h 11 ^m E	+36° 16'	8"	5.16	A3s	5-5.5	Tr* Very dark, did miss 40/80	Fine
WVC	01 ^h 10 ^m E	-15° 42'	9-	6.0	A0s	5-10	Tr* under 1000x, cut by sky 20080	weak

98

Sun-Mon

Date April 5-7 Observer Jay R G Julian Day _____

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle
32027	HD 37058	5 ^h 30 ^m .6	-4° 54'	G12	Da-0	9L	42°F	19:23	⁽⁶²⁾ 20:25	A	3:52 ^m
32028	HD 86801	9 ^h 55 ^m .8	+29° 02'	"	"	13S	"	20:35	⁽¹²⁴⁾ 22:39	B	01:21 ^m
32029	HD 123423	14 ^h 07 ^m .5	-10° 41'	"	"	"	41°F	23:23	⁽⁴¹⁾ 00:00	C	2:00 ^m
32030	HD 176318	18 ^h 59 ^m .6	+38° 09'	"	"	9(L)	"	04:19	⁽²⁸⁾ 04:40	A	01:29 ^m
32031	HD 161096	17 ^h 36 ^m .5	+09° 37'	"	"	9(L)	36°F	04:50	⁽¹⁰⁾ 05:00	C	0 ^h 50 ^m
32031 F	Focus		out of focus				"			C	

Dome Temp. 44°F

Transparency Conditions Good

Focus

Dome Temp. 36°F

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp. Fe	REMARKS	Quality
3 ^h 52 ^m W	-4°49'	2"	7.2	B	5-5-5	MG? * 200/66	sl weak
01 ^h 21 ^m W	+28°44'	1.5"	9.5	G0	5-5-5	su. std. Vel. very good seeing - star almost lost in slit. 4x100/140	Fine
2 ^h 40 ^m W	-11°06'	2.5"	7.9	F5	5-5-5	Hd* trouble with fields - 2 settings. 4x100/140 <u>wrong position - corrected</u>	sl weak
01 ^h 29 ^m E	+38°14'	2.5"	5.7	B6-7	5-5-5	Hube* 4x100/200	Fine
0 ^h 00	+04°36'	3"	3.95	K2 III	5-10	Std Vel 40/40	Fine
						5/5 no filter	

Mon-Tues

Date April 7-8 Observer Tn (only) 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.
32032	HD 26311	09 ^h 4 ^m 5 ^s	+33° 19'	G12	Ilford	9L	49°F	19 ^h 31' ⁽⁸²⁾	20 ^h 53'	A
32033	HD 90754	10 ^h 20 ^m 0 ^s	+09° 18'	"	"	"	"	21 ^h 06' ⁽⁵⁹⁾	22 ^h 05'	B
32034	HD 115202	13 ^h 10 ^m 6 ^s	-19° 26'	"	"	"	"	22 ^h 19' ⁽⁸⁾	23 ^h 45 ^m	A
32035	HD 130705	14 ^h 04 ^m 6 ^s	+10° 28'	"	"	9L	"	24 ^h 00 ^m ^(2:40)	02 ^h 46'	B
32036	HD 176318	18 ^h 54 ^m 6 ^s	+38° 07'	"	"	<u>9L</u>	42°F	02 ^h 42' ⁽¹⁶⁾	03 ^h 52'	A
32036 T1	Calibration for plates 32021-32036							April 7/69		

Dome Temp. 51°FTransparency Conditions Fair

Focus:

some hazeDome Temp. 42°F

(some trouble with Dec SI math.)
 (as if it has reached Limit going North (but it hasn't))

check finder

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
5 ^h 30 ^m W	+33° 32'	2"	7.0	CK5	5-5-5	E64* (some sky light) bad finder #d 4x100/318	weak?
0 ^h 27 ^m W	+08° 58'	2"	7.1	GM3	5-5-5	T _h * broken spec 4x100/350	sl weak
0 ^h 42 ^m E	-19° 44'	3"	6.2	K1	5-5-5	Small piece broken off image looks very nice (makidex) also looks too bright. 4x100/300	sl weak
?	+10° 12'	2"	7.6	K0	5-10	cap of 1.75 scale 400/88	weak
02 ^h 16 ^m E	+38° 14'	2"	5.7	86-7	5-5-5	(lots of cloud) Hake* 4x100/150	guiding
						<u>cloud again closed. 4^h</u>	
						do HO 90254 again	

21

Date *Tues-wed* April 8-9 Observer Sc, To Julian Day _____

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
32037	HD 91716 ^{pleo.}	10 ^h 27.5 ^{31.0}	+09 47	G-12	Il ₂ -0	9L ²	43°F	19 ^h 50 ^m (20)	21:10	A
32038	"	"	"	"	"	"	"	22:40 (21)	23:41	B
32039	Levy A	13 ^h 51.3	+28 51	"	"	"	"	0:01 (22)	0:15	C
32040	"	"	"	"	"	"	"	0:19 (26)	0:35	B
32041	"	"	"	"	"	"	"	0:27 (27)	0:51	A
32042	HD 123657	14 ^h 03.9	+44 20	"	"	9L	37°F	01 ^h 08 ^m (28)	02:13	C
32043	HD 123821	14 4.8	+52 04	G-10	Il ₂ -0	17L	38°F	02 ^h 42 ^m (23)	3:45	A
32044	β Lyrae	18 46.4	+23 15	G-12	"	9L ²	38°F	04 ^h 03 ^m (24)	04:19	A
32045	"	"	"	"	"	"	"	04:21 (25)	04:46	B
32046	"	"	"	"	"	"	36°F	04:48 (26)	05:00	C
32046A	out-out-in-in			"	"	9L	36°F			A
32040T1	Calibration step wedge							for plates 32037-46	April 9	

Dome Temp. 45°F

Transparency Conditions *Very Hazy*
clears after midnight

Focus

Dome Temp. 37°F

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
30"E	+09° 30'	2-3"	3.85	15/16	5-5	calite LH = ord. image (2 pieces broken)	40/40
2.02W	"	"	"	"	"	(heavy clouds) LH ord. 45° - extra	10/10
↓	+31° 29'	4"	2.8	B9.5	one	calite LH = ord. double image	40/40
↓	"	"	"	"	"	same as 32039 but miss over it	40/40
0 ^h 47W	"	"	"	"	"	45° image	10/10
0 ^h 57W	+44° 00'	3"	5.7	gM4	5-10	T ₆ *	4 x 100 / 350 sl/wack
2 35W	+51° 44'	3"	9.4	G-XIII	8-8-8	S*	100/17 Fogged 7 SL-WK
↓	+33° 18'	3"	3.4	Bpe		S _c * calite LH = ord. image (double)	40/40
0 ^h 09'E	"	"	"	"	"	45° -	40/40
0 ^h 57'E	"	"	"	"	"		40/40
					5/5	no filter	
						Just 5-40 plates for dog	

99

Thurs - Fri

Date April 10-11 Observer T₉ 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.
32047	HD176318	18 ^h 59 ^m 6 ^s	+38° 7'	512	T100	9 ^h 34	42°F	02 ^h 42 ^m ⁴⁸	03 ^h 25 ^m	A
FRI 11 APRIL	FLEXURE TEST									
32047 T ₁			+40°		"	"				
	Centre - meridian									Plate holder
" T ₂			+40							
	"		"		"		3 h E		"	B
" T ₃	"		"		"		5.5 h E		"	C

Dome Temp. 38°F Transparency Conditions *cleared a 2"*

Focus

Dome Temp.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
02 ^h 33 ^m E	+38°14'	4"	57	B6-7	5-5-5	Huber (70 filter)	4.40/200 <i>ending strong</i>
A							
B							
C							

Fri. 30t.

Date April 11-12

Observer S. O. T. 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.
32040	HD 302	6 34 31	16 15	11	135	9L		19^h 43^m 21^s	21^h 04^m	A
32049	HD 123423	14 42.5	-10.91	"	"	135		21 ^h 25 ^m 03 ^s	23 ^m 23 ^s	B
32050	HD 128661	14 ^h 33.1	+36° 22'	"	"	9L	34	3 ^h 04 ^m 42 ^s	04 ^m 42 ^s	A
32051	HD 150014	17 10.1	14 30	"	"	9L	"	4 ^h 49 ^m 09 ^s	09 ^m 59 ^s	C
32051 F	Focus	in 20/100 out					33°F			A

Dome Temp. 40° F

Transparency Conditions clear

Focus

Dome Temp. 39.0 F

at 19:30 - suspicious bright object in N to NW (gone in 10 min)
 / UFO most likely) or a bright Jupiter

log Time S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
04		3:07 W	+16° 28'	2"	7	K4	5-5-5	Waterloo, broken 2" off 500/300	Weak
05	B	2:20 W	-10° 59'	2.5"	1.2	F5	5-5-5	Edging binary (10) actual 150 500/130	Weak
02		3:10 W	36 06	3"	2.0	A0	5-5-5	H0 * 400/150	Fine
09	C	0:30 E	14 26	"	4.4	M0II	5-10	Standard veloc. 4x10 / 35	Fine
								2 640 plate 21 = low & left 72 = " = right	
								5/5 no filter	

103

Visitors: 160 Hne, Goe, Cyle

real observing started 10:15

Sat - Sun

Date April 12-13 Observer In - Im 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.
No plate	HD 72968	8 38 35	7 38	G-12	Ilao	94		22:25	22:46	
32052	HD 71866	8 ^h 29.6	+40° 33'	G-12	D90	"	44°	23:09 ³⁴	23:43	A
32053	UX Her	17 ^h 49.7	+16° 58'	G-12	Ilao	135	44°	0 ^h 30 ⁽⁴³⁾	2 ^h 53	B
32054	HD 192913	20 ^h 12.3	27° 29'	G-12	Ilao	<u>Z-L*</u>	43°	3 ^h 33 ⁽⁴²⁾	04 ^h :15'	C
32055	HD 177517	19 ^h 00	-15° 49'	"	"	<u>Z-L*</u>	41°	09:28 ⁽³⁷⁾	05 ^h 05	B
32055F	Focus	Test					41°			B

Dome Temp. 43°

Transparency Conditions clear

Focus

Dome Temp. 40°F

g Time ST.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
46	03^h 18^m W	- 70° 51'	2	5.72	Ap	5-10	1A* dark with not out ☹️ wood should have been 200/55	
43A	04 ^h 20 ^m W	+40° 21'	1"	6.8	AO _p	5-5-5	Ir* inevitably good seen consistently in 200/80	Fine guiding
53B	01 ^h 52 ^m E	+16° 59'	1"	9.0 ₅₀	AO	5-5-5	Hd* Ec Brn (BOTTOM C) first copy with a long slit 800/200 holder 200	sl weak
55C	02 ^h 52 ^m E	+27° 42'	1	6.69	AO _p	5-5-5	Fr* (probably) 200/80	Fine guiding
056	?	-15° 43'	2"	6.0	Ap _{si}	5-5-5	IrX (some @ quiet) 72 slit 200/79	sl weak
0	0 ^h 50 ^m E	min. set-out				5/5	no filter	FINE

Sun Mon

Date April 13-14 Observer K. J. To Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
32056	η Aur	4 ^h 59 ^m .5	+41° 00'	G-12	IIaD	9L	51°F	19:47	19:48	C
32057	ρ Tau	5 ^h 20 ^m .0	+28° 31'	"	"	"	"	19:58	19:59	B
32058	HD 1797	09 ^h 22 ^m .7	-08° 14'	"	"	9L	50°F	20:15	20:18	A
32059	HD 101501	11 ^h 35 ^m .8	134° 46'	"	"	"	"	20:02	21:08	B
32060	HD 128661	14 ^h 33 ^m .7	+36° 22'	"	"	"	"	21:24 ⁵³	22:17	C
32061	71 UMa	17 ^h 20 ^m .2	+57° 20'	"	"	"	50°F	22:42 ⁵⁸	23:40	A
32062	73 UMa	12 ^h 22 ^m .8	+56° 16'	"	"	"	"	23:55 ⁴¹	00:36'	C
32063	42 L.6	15 ^h 34 ^m .4	-23° 36'	"	"	"	49°F	01 ^h :09 ⁹²	02:41'	A
32064	HD 175318	18 ^h 54 ^m .6	+38° 07'	"	"	9L	"	02 ^h :57 ²⁰	03:21'	C
32065	93 Her	17 ^h 55 ^m .6	+16° 46'	"	"	9L	47°F	03 ^h :32' ¹⁰	03:51'	B
32066	HD 171586	18 ^h 30 ^m .6	+09° 51'	"	"	"	"	04 ^h :00' ¹²	04:28'	B
32067	HD 146051	16 ^h 09 ^m .1	-03° 26'	"	"	"	46°F	04 ^h :37' ¹⁰	04:48'	A
32067FC	Focus Test						46°F			C
32067I	calibration for plates							April 14		

Dome Temp. 53°F

Transparency Conditions Good (Excellent seeing)

Focus

Dome Temp.

0" 18' (satellite thru cup of big dipper) going North
 filter + 0" 25" planet ball *

Time	P.E.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality	
8	C	3 54 W	+41° 15'	2"	2.99	BVI	5-10	rL*	40/15	Strong
9	B	3 44 W	+28° 36'	"	1.52	BVII	5-10	rG*	20/8	Strong
12	A	0 00	-08° 29'	3.5	3.40	K4III	5-10	st vel*	40/30	Strong
16	B	1 20 E	+34° 24'	2"	6.7	G8V	5-5.5	EL*	4x100/225	Fine
17	C	3 05 W	+36° 05'	1"	7.0	A0	5-5.5	Ho* (ed delay)	LX100/150	Fine
20	B	0 26 W	+57° 00'	2.5"	7.3	GM3	5-5.5	Th* (finder field same) check.	LX100/150	Good
21	C	1 20 W	+55° 53'	1.5"	7.1	GM2	5-5.5	Tn*	4x100/300	Strong
24	A	0 14 W	-23° 41'	2"	7.0	K9	5-5.5	Sc* (bad finder field)	4x100/300	Weak
21	C	02 22 E	+38° 14'	3"	5.7	B6-7	5-5.5	Hube*	4x100/200	Fine
51	B	0 55 E	+16° 47'	2"	5.9	K0V	5-5.5	Sc*	4x100/300	Strong
27	B	0 55 E	+09° 57'	1"	6.4	A0	5-5.5	I*	4x100/150	Fine
48	A	2 45 W	-03° 34'	1"	4.30	M1III	5-10	st vel	40/35	Fine
	C						5/5	no filter good night ch?		

107

Wed-Thurs

Date April 16-17

Observer

T.H.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.I.	
32068	HD 72968	8 ^h 38 ^m 6 ^s	-07° 38'	G-17	II 00	9L	56°F	19 ^h 44 ^m ⁽²⁶⁾	20 ^h 20 ^m	A	
32069	HD 89449	10 ^h 14 ^m 3 ^s	-19° 59'	"	"	"	"	21 ^h 06 ^m ⁽²⁸⁾	21 24	B	
32070	"	"	"	"	"	"	"	21 32 ⁽²⁵⁾	21 57	B	
32070	T ₁	calibration step wedge for plates 32068-32070						Apr 18/69			

Dome Temp. 62°F

link out of focusing chain.

Transparency Conditions

Hazy

Focus

Dome Temp.

Plate breaking right exposure

g Time S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
2 A	01 ^h 07 ^m W	-07 ^o 51'	2"	5.7	Ap	5-5-5	Ir* 200/80	WEAK
2 B	00 28 W	+19 38	2"	5.3	F5	5-5-5	st vel (1/2 in 2 sec)	SL. WEAK
2 C	01 ^h 00 W	"	"	"	"	5-5-5	" " repeat. 40/21	SL. WEAK
							<u>clouds</u>	
							<u>see you in 10 days, from</u>	

109

Lp Go Hns # VISTORS 153
OBJECT VIEWED M67

Date Wed April 17/23 1969 Observer Ir 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.F.	How Angl in
32071	HD 91866	08 246	+40 33	G12	Ilao	9L	42°	22 34 ⁽⁷⁾	23:45	A	4500
32072	HD 128661	14 337	+36° 22	"	"	"		23:55 ⁽⁸⁾	01:23	E	2100
32073	HD 192913	20 123	+27 29	"	"	"	38°F	01:43 ⁽⁹⁾	02:41	C	4000
32074	HD 177517	18 ^h 59 ^m 58 ^s	-15 49'	"	"	"		02:52 ⁽³⁾	03:55	A	17330
32075	HD 170000	18 ^h 52 ^m 12 ^s	71° 17	"	"	"	36°F	04:19 ⁽⁵⁾	04:22	B	0 ^h 30 ^m
32075F	four tel		at tel/cin				36°F			B	

Dome Temp. 40°F

Transparency Conditions CLEAR
SEEING IMPROVING
THROUGH NIGHT

Focus

Dome Temp. 34°F

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
4450W	+40 21	6"4	6.72	Aop	5-5-5	Ir* 200/80	(SL. WEAR) FINE
0" 22W	+36 05	4"-3	7.0	AO	5-5-5	Hd* EL BIN? 1 INCH BROKEN OFF END 200/80	FINE
4" 00"E	+27 42	3	6.69	Aop	5-5-5	Ir* 200/80	* FINE
1" 33E	-15° 42'	—	5.99	AO Si	5-5-5	Ir* broken 2 pos 3 pieces 200/80	FINE
0" 25*	+71° 19'	3	4.20	AO Si	5-5-5	Ir* counts reduced because of comparison 200/41	* FINE
					5-5	no filter	FINE

* DIFFICULT TO MAKE BUT PLATE NUMBERS

Date Sun. Morn. April 20. 21. 1969 Observer R. B. 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.F.	
32076	HD 107274 (435 Vir)	12 14.9	+49 32	G12	IIaD	9L	44°F	23:26	00:57	A	
32077	HD 112300	12 50.6	+3 56	"	"	"	42°F	01:04	01:21	B	
32078	HD 131861	14 50.9	+45° 43	"	"	13		01:32	03:18	C	
32078F	focus test	out out / in in					40°F			A	
32078 T1	calibration	step wedge for plates 32071-32078							21 Apr / 69		

Dome Temp
Focus
Dome Temp

Hour Angle
End

2:17W
2:25W
2:03

Dome Temp. 40°F

Focus

Dome Temp.

Transparency Conditions

Cloudy at 19:30 EST

Broken clouds at ca. 23:15 EST

Clear at midnight.

112

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
2:17 W	+49° 11'	4.5 2.5- 3.0	6.8	GM1	5-5-5	Th* Remarkable variation in seeing during this exposure	400/382 SL-WEAK
2:05 W	+03 35	3-4	4.95	M3T	5-5-5	Th* 4x FS Proj. 03 is thick haze from Spect. Bin the south	40/40 SL-WEAK
2:03 W	+45 27	3	7.64	F3	5-10	5-5 no diffie clouds and thick haze clouded up at 03:30	400/93 WEAK
							SL. C TO VIOLET

Date *Fri. 8-9. 25/26. 1969* Observer *Li Su* 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 Ecl
32079	HD 90362	^m 10 20.7	-06 33	G12	IIa0	0 L		20:53.5	³⁹ 21:22.5	A	0.50
32080	HD 123423	^m 14 02.5	-10 41	G12	IIa0	13S	55°F	21:42	³⁸ 03:00	C	3.10
32081	HD 176318	^m 18 54.6	+38 07	G12	IIa0	0 L	50	3:41	³² 04:13	A	0.45
32082	HD 161096	^m 17 38.5	+2 37	G12	IIa0	9		4:20	³¹ 04:27	C	0.45
32082F ₁	focus test		out out / in in				40°F			B	

Dome Temp. 58

Transparency Conditions *hazy at first then clear*

Focus

Dome Temp. 46

ng Time S.T.	P.M.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality	
22.5	A	0 56 W	-06 54	2	5.58	M0 III	5-5-5	<i>T_n*</i> was found at $10^m 25.1^s$ (1/2" broken after exps)	<i>(M 49 95 300)</i> 2x100/200	- W.F.M.K. SL. WEAK
30	C	3 10 W	-10 59	2	8.5 ¹⁰ 0.2	F5	5-5-5	<i>(Hd*)</i> Ed. Bin field same as 32 029	8x100/300	SL. WEAK
13	A	0 45 E	38 14	3	5.7	B6,7	5-5-5	Spectroscopic binary (Hubt)	4x100/200	FINE
22	C	0 45 W	4 36		3.93	K2 III	5-5-5	Bright Standard Velocity Star	2x100/150	FINE
	D						5-5	no filter		FINE
								Dawn		

VISITORS

137

G0-G3-1r

NO OBJECT VIEWED BECAUSE OF CLOUDS

Date Sat - SUN Apr 26/27

Observer Ir-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.	
32083	HD 112300	12 ^h 50.6	+3° 56'	G-12	IIa-O	9-L	47°F	23:15 ⁽⁴³⁾	25:58	A	
32084	HD 170000	18 22:12	71° 17'	"	"	9-L	45°F	00:10 ⁽¹⁷⁾	00:24	B	
32085	HD 139892	15 ^h 35.6	36° 55'	"	"	9-L	45°F	00:40 ⁽²²⁾	01:02	C	
32085F	focus test		out of focus				44			B	
32085 T1	calibration step wedge for plates 32079 - 32085								28 Apr 1969		

Dome Temp. 46°F

Transparency Conditions

CLOUDS TILL 23:00
INTERMITTENT TO CLEAR

Focus

Dome Temp. 45°F

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
01 ^h 07 ^m W	3° 37'	7	4.95	M3-II	5-5-5	NG* <i>(250-300)</i> 20/200	SL. WEAK
03 ^h 52 ^m E	71° 19'	10	4.2	A05i	5-5-5	IR* 20/80	FINE
00 ^h 34 ^m E	36° 44'	6	5.1	B8m	5-5-5	Spec. Bin CLOUDS AT 1:00 20/80	FINE
					5-5	w/ filter closed up at 01:30 P.H.A loaded and in N.P.	SL. C. TO R

111

Tues - Wed
 Date April 29-30 Observer L, To Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
32086	HD128661	19 ^h 33 ^m 1	+36° 22'	G12	BaO	9L	44°F	21 40	23 ^h 17 ^m ⁽¹³⁾	A
32087	13 Boo	19 ^h 4 ^m 6	+49° 56'	"	"	"	42°F	23 29	0 ^h 41 ^m B	B
32087	13 Boo	19 46	49 56	"	"	"	40°F	00 47	02 ^h 40 ^m C	C
32088	93 HER	17 ^h 55 ^m 6	+16° 46'	"	"	"	38°F	02 59	03 ^h 32 ^m A	A
32089	HD186791	19 ^h 41 ^m 5	+10° 22'	"	"	"	"	03 40	04 53 ⁽⁶⁶⁾	B
32089 F	Focus			"	"		38°F			B
32089 T	calibration	top wedge for plate			32086 - 32089			30	Apr 1969	

Dome Temp. 43°F

Focus

Dome Temp.

Transparency Conditions Clear some high cloudHazy after 02h.

Hour	Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
17	0° 54' W	+36° 05'	4"	7.0	A0	5-5-5	Edl Bin Hd* 4x100/150	SL. WEAK
41	0° 49' W	+49° 37'	3"	6.7	GM2	5-5-5	T _h * broken (discarded) 4x100/400	
40	02° 49' W	+49° 37'	3"	6.7	GM2	5-5-5	T _h * 4x100/400	SL. WEAK
32	0° 11' E	+16° 47'	3"	5.9	KOE-II	5-5-5	Sc* 4x100/340	FINE
13	1 37 E	+10 33	3"	4.15	A3D	5-5-5	st vel 40/30	SL. WEAK
						5/5	no filter	FINE

119

Wed - Thurs

Date Apr 30 - May 1 / 69 Observer Ec, To Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
32090	HD 75732	+8 ^h 46 ^m 7 ^s	+28° 43'	G12	D40	9L	49°F	20 ^h 37 ^m 59 ^s	21 ^h 36 ^m	A
32091	HD 95129	10 ^h 54 ^m 0 ^s	+36° 38'	"	"	"	48°F	21 ^h 50 ^m 28 ^s	0 ^h 18 ^m	B
32092	HD 139892	15 ^h 35 ^m 6 ^s	+36° 58'	"	"	"	45°F	0 ^h 36 ^m 12 ^s	0 ^h 45 ^m	C
32093	MHα 328-116	¹⁹⁵⁰ 19 ^h 55 ^m 3 ^s	¹⁹⁵⁰ +39° 41.4'	"	"	"	"	01 ^h 46 ^m 32 ^s	04 ^h 18 ^m	A
32093F	Focus Test						41°F			B
32093T1	calibration step wedge for plates 32090 - 32093								May 169	

Dome Temp. 50°F

Transparency Conditions Clear

Focus

Plates in new batch seem bad

Dome Temp.

(THESE PLATES ARE THE LAST

Time	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	OR THE OLD BATCH (mag)	Quality
36	A	03 ^h 04 ^m W	+28° 26'	2.5"	7.2	dK0	5-5-5	Ebs, Waterloo	4x100/400	(GUIDING) FINE BROKEN
8	R	03 ^h 38 ^m W	+36° 16'	2"	7.4	M20	5-5-5	Tn* broken (3pc) bad!!!	4x100/570	FINE
8	C	0 ^h 31 ^m E	+36° 44'	"	5.1	B8n	5-5-5	Sp Bin	4x100/180	FINE
8	A	01 ^h 16 ^m E	+39° 42'	2"	10.8		5-5-5	Fitz Waterloo (planetary/neb)	8000/255	FINE
	b			in in - out out			5-5			FINE

PLATES IN SOME ARE FRESH CUT

121

Thurs - Fri

Date May 1-2/69 Observer Tn Ci 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.	
32094	HD 112300 ⁽⁴⁷⁵⁸⁴⁾	12 ^h 50 ^m .6	+03° 56'	G-12	IAO	9L	51°F	20 ^h 54 ^m ⁽²²⁾	21 ^h 16 ^m	C	
32095	HD 115202 ⁽⁵⁷⁴¹⁹⁾	13 ^h 10 ^m .6	-19° 26'	"	"	"	50°F	21 ^h 38 ^m ⁽⁵⁰⁾	22 ^h 38 ^m	A	
32096	HD 128661	14 ^h 33 ^m .1	+36° 22'	"	"	"	48°F	23 ^h 11 ^m ⁽⁶⁸⁾	0 ^h 19'	B	
32097	✓ 800	14 ^h 11 ^m .1	+19° 42'	"	"	"	"	0 ^h 41 ^m ⁽⁶⁾	0 ^h 42'	C	
32098	13800	14 ^h 4 ^m .6	+49° 56'	"	"	"	"	01 ^h 04 ^m ⁽⁶⁾	02 ^h 40'	C	
98F1										?	
32098	T, calibration	step wedge for plates 32094-32098							2 May 1969		

Dome Temp. 51°F

Focus

Dome Temp.

Transparency Conditions Cloudy at 15 then Clear at 21^h

Clouds stop at 02^h (thick by 034)

Time	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
16	C	01 ^h 16 ^m E	+03° 34'	2"-4"	495	M3 III	5-5-5	T _h * 4x10/45	FINE
17	A	00 ^h 13 ^m W	-19° 45'	1"	5.32	K1 IV	5-5-5	Sc* 4x100/400	FINE
19	E	00 ^h 05 ^m W	+36° 05'	2"	7.0	A0	5-5-5	Hd* <u>Ecl (1/2)</u> 4x100/180	(GUIDING) BROKEN FINE
42	C	00 ^h 50 ^m W	+19° 19'	2"	129	K2 III _p	5-10	S+vel <u>wav East</u> 4x10/37	STRONG
60	C	02 ^h 55 ^m W	+49° 36'	1"	6.7	gm2	5-5-5	T _h * Stopped by cloud 4x100/507	FINE
									V, V, SL.C. TO RED.
<p><u>Lesson -</u> You cut some short G12 plates (They are a bit 3 in Dome) I didn't try any but found they are too short.</p> <p style="text-align: center;">↓ Jim</p> <p>PLATES 1/2" SHORT; OK FOR G-12.</p>									

123

Visitors = 140 (Go, Hms, Sr)

Object = Jupiter

Date May 3-4 Sat-Sun Observer 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.
32099	HD 91866	8 ^h 24.6	40° 33'	G-12	IIaO	9-L	54°F	22:55 ⁽⁷⁰⁾	00:05	A
32100	HD 171586	18 ^h 30.6	+04° 51'	G-6	IIaO	9-L		00:31 ⁽⁷³⁾	02:01	B
32101	HD 171586	18 ^h 30.6	+04° 51'	G-12	IIaO	9-L	48°F	02:29 ⁽⁵³⁾	03:22	C
32102	HD 170000	18 ^h 22.1	91° 17'	G-12	IIaO	9-L	47°F	02:55 ⁽⁵²⁾	04:03	A
32103	φ Pers	18^h 22.1 18 ^h 37.4	91° 17' 50° 11'	G-12	IIaO	9-L	47°F	04:28 ⁽⁵³⁾	04:51	B
32103F					FOCUS TEST		46°			A

Dome Temp. 51° F

HIGH CIRRUS

124

Transparency Conditions

Focus

TRIED SMALL FINDER,

LIGHT FOR CROSSHAIRS DOESN'T WORK

Dome Temp. 47

*The clock is still ONE MINUTE SLOW!

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
21:55 ^h	40° 21'	3"-4"	6.79	Aop	5-10	1/2 inch broken at 27 counts telescope drifted 5 minutes out of H.A. work	VERY WEAK BROKEN
21:55 ^h E	40° 56'	5	6.52	AO	5-5.5	Broken @ 4 pieces NO L25 try again	FINE
22:00 ^h 40° E	40° 36'	4-36.52	AO	5-5.5	UNBROKEN ☺	20/80 V-SL. WK	
22:00 ^h 13 ^m	47° 19'	2	4.13	AOsi	15	Ir ^v 3 pieces slow motion	FINE
22:00 ^h 35 ^m	45° 31'	2	3.95	Bope	15	HK* start exp sky was 1/2 cond end exp sky was 1/3 cond probably SOME CONTAMINATION	VERY WEAK
	IN-IN	-	OWT	OUT	5-5	no filter	V. SL. C. TO V.S.
* 4:00 pm Run: S. CL. & EST. clocks within 10 sec.							

125

Date May 4-5 Sun-Mon Observer Ta Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle
32104	HD 139892	15 ^h 35 ^m 6 ^s	+36° 58'	G12	D40	9L	56°F	23 ^h 28 ^m 23 ^s	23 ^h 46 ^m 46 ^s	A	01 ^h 16 ^m
32105	HD 128661	14 ^h 33 ^m 9 ^s	+36° 22'	"	"	"	"	23 ^h 55 ^m 01 ^s	01 ^h 16 ^m	C	01 ^h 15 ^m
32105F		Focus Test					59°F			E	
32105	T1	calibration	step wedge for plates		32099 - 32105			5 May 1969			

Dome Temp. 56°F Transparency Conditions ... Clear at 23^h

Focus

Some haze

Dome Temp. 53° Clouds at 0^h

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
01 ^h 16' E	+36° 49'	2.5"	5.1	BBn	5-5-5	Sp Bin Hd* 4x100/180	FINE
01 ^h 15' W	+36° 09'	2"	7.0	A0	5-5-5	Hd* Ecl Bin <u>Clouds</u> 4x100/111	SL. WEAK
						Cloud by 01 ^h 30'	
					5-5	no filter	SL. C. TO UL.

127

Date Mon-Tues
May 5-6Observer Sc. 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.
32106	pleo	10 ^h 27.3 ²¹	+09° 47'	G-12	II ₂ -0	9L	54°F	20 ^h 12' ⁽¹³⁾	20 ^h 25'	A
32107	"	"	"	"	"	"	"	20 ^h 29' ⁽¹⁴⁾	20 ^h 53'	B
32108	"	"	"	"	"	"	"	20 ^h 57' ⁽¹⁴⁾	21 ^h 11'	C
32109	α Boo	14 ^h 14.3 ¹⁹²⁰	+19° 20' ¹⁹²⁰	G-12	II ₂ -0	7L		21 ^h 24' ⁽¹³⁾	21 ^h 27'	B
32110	α Boo	14 ^h 11.1	+19° 42' ¹⁹²⁰	"	"	7L	52°F	21 ^h 39' ⁽¹⁴⁾	22 ^h 03'	A
32111	HD 108177	12 ^h 20.5	+38° 54'	G-40	II ₂ -0	13L	52°F	22 ^h 36' ⁽¹⁴⁾	22 ^h 45'	A
32112	HD 125260	14 ^h 13.2	+55° 45'	"	"	"	"	23 ^h 28' ⁽¹⁵⁾	23 ^h 58'	C
32113	HD 128091	14 ^h 29.9	+18° 51'	"	"	"	"	0 ^h 10' ⁽¹⁵⁾	01 ^h 09'	B
32114	HD 156841	17 ^h 16.7	+28° 20'	"	"	"	50°F	01 ^h 27' ⁽¹⁵⁾	2 ^h 17'	A
32115	HD 145001	16 ^h 02.7	+17° 19'	"	"	"	"	2 ^h 28' ⁽¹⁵⁾	2 ^h 31'	C
Focus test	G-40	5 ^h 5' 6.12	14 ^h (Jan. 38)							C
32116	Blyrac	18 ^h 40.8	+32° 15'	G-12	II ₂ -0	9L	50°F	02 ^h 55' ⁽¹⁶⁾	03 ^h 03'	A
32117	"	"	"	"	"	"	"	03 ^h 07' ⁽¹⁶⁾	03 ^h 22'	B
32118	"	"	"	"	"	"	"	03 ^h 26'	01 ^h 35'	C
32119	"	"	"	"	"	7L	49°F	03 ^h 39'	4 ^h 00'	A
32119 F-B	Focus					7L	"			E
32119 T1	calibration	for plates	32106 - 32110, 32116 -					32119	6 May 1969	

Dome Temp. 55°F

Transparency Conditions Clear Some haze

Focus

Dome Temp. 50°F

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality	
0 ^h 31 ^m W	+09° 28'	2-3"	7.85	M2 IV	4sec	L.H. side = out. very double image	40/40 FINE	
0 ^h 59 ^m W	"	"	"	"	4sec	L.H. side out - 45°	40/40 FINE	
1 ^h 16 ^m W	"	"	"	"	4sec	double image incl. some are 22106	40/40 FINE	
2 ^h 18 ^m E	+19° 20'	"	41.5	K2 III p	4sec	" " "	40/20 STRONG	
1 ^h 24 ^m E	"	"	"	"	5sec	tilt empty in 2000Å filter 700 volts on Exp. meter.	10/45	
1 ^h 28 ^m W	+38° 30'	2-3"	8.5	K1 II	10-10-10	from 640 = 38	40/40 FINE	
0 ^h 22 ^m W	+55° 28'	"	8.2	K2 II	10-10-10		40/40 FINE (3rd dir.)	
01 ^h 15 ^m W	+58° 33'	"	9.2	K1 II	10-10-10		800/20 FINE	
00 ^h 22 ^m E	+28° 17'	"	8.7	K2 III	10-10-10		40/40 FINE	
1 ^h 04 ^m W	-17° 08'	"	6.1	G Y	10-10-10	std vel.	40/30 FINE	
							BADLY CENTRE TO VIOLET.	
1 ^h 07 ^m E	+33° 19'	2"	24	Bep	4sec	L.H. side = out. double image	40/40 FINE	
0 ^h 19 ^m E	"	2"	"	"	4sec	45°	40/40 FINE	
0 ^h 14 ^m E	"	"	"	"	4sec	2-double image	but 40/40 FINE	
0 ^h 10 ^m E	"	"	"	"	4sec	2-45°		
					5/5	no filter	56 C. TO VI	

131

Date ^{Sun - Mon} May 11-12Observer 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.
32120	HD 128661	14 ^h 33.1	+36° 22'	G12	Duo	9L	45°F	20 ^m 22 ^s	22 ^m 05 ^s	B
32121	HD 120219	13^h 46.7	+35° 18'	"	"	"	44°F	23^m 03^s	01^m 16^s	C
32120F	Focus Test						47°F			C
32120+1	calibration strip									
	undge for plate # 32120.								12 May 1969	

Dome Temp. 47°F

Focus

Dome Temp.

Transparency Conditions Clear (Some cloud)

Hazy periods after 22h

Thick cloud at 01h

g Time S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
05	6	01 ^m 27L	+36° 04'	3"-5"	7.0	A0	5-5-5	HD [*] Ecl. Bin 4x100/180	(GOING) SL-WEAK
06	02 ^m	23W	+34° 48'	3"-6"	6.5	gM1	5-5-5	Cloudy Thick cloud at 01h Damn (dark slab left)	
								in in - out of 5/5 no filter	OK

13 NEWTONIAN

S, Cc, W2

Date Mon. May 12-13/69 Observer L. Tm Julian Day

Plate No.	Object	R.A. 1900 69	Declination 1900 69	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
32121	NGC 5053 ✓	13 14.8	+17 51	Newt	103A0			10 47	10 57	1
32122	" 4374	12 23.6	+13 03	"	"			11 07	11 08½	2
32123	"	"	"	"	"			11 14	11 17	1
32124	"	"	"	"	"			11 19	11 25	2
32125	"	"	"	"	"			11 29	11 41	1
32126	"	"	"	"	"			11 44	12 08	2
32127	" 5053 ✓	13 14.8	+17 51	"	"			12 41	12 51	1
32128	" 6171 ✓	16 30.8	-12 59	"	"			01 20	01 30	2
32129	" 5566	14 18.8	4 06	"	"			02 47	02 50	1
MAY 13/69 (TUES-WED) CLOUDY.										

Dome Temp. $45^{\circ}F$ Transparency Conditions *clear till 0.3 w h*

Focus

Dome Temp.

+3 min correction to S

Time T.	P.H.	Hour End	Angle	Declination	Seeing	Ptg. Mag.	Sp.	EXPOS. Comp.	REMARKS	Quality
09		0	46 W					10	(MIN.) C ₃ quit	
09	2	01	50 W					1 1/2	W ₃	
17		01	58 W					3	W ₃	
25		02	06 W					6	W ₃	
41		02	21 W					12	W ₃	
53		02	49 W					24	W ₃ - refocused	
5		02	41 W					10	C ₃	
10		00	04 W					10	C ₃ Sa quit 01:15 EST	
								3	W ₃	
									1 P.H. loaded.	
									CAREFULLY DUST OFF EACH PLATE WITH THE BRUSH. THE PLATES OF MAY 12/3 ARE BADLY MARKED.	

135

Date Wednesday, May 14-15 Observer T. M. Inso, S. C. Wg. (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.
32130	NGC 5053 ✓	69			103a0			21 ^h 45 ^m	21 ^h 53 ^m	2
32131	4486	12 ^h 29 ^m 3 ^s	+12° 33'		103a0			22 05	07	1
32132					"			22 ^h 10 ^m	22 25	2
32133	NCC 5053 ✓				"			22 35	22 43	1
32134	5634 ✓				"			22 50	23 ^h 04 ^m	2
32135	5053 ✓				"			23 14	23 22	1
32136	5634 ✓				"			23 ^h 29 ^m	23 43	2
32137	4559				" + GG			0:10 ¹⁵	0:29 ¹⁵	1
32138	4559				103a-D + GG			0:31 ²⁰		2
32139	5053 ✓				103a-0			01 ^h 00 ^m	01 ^h 08 ^m	1
32140	6171 ✓				103a-0			01 ^h 23 ^m	01 ^h 35 ^m	2
32141	5566				103a0			01 ^h 48 ^m	02 ^h 03 ^m	1
32142	6171 ✓				103a0			2:09	2:21	2
32143	5566				103a0			2:31	2:46	1
32144	6171 ✓				103a0			3:04	3:18	

Dome Temp.

Transparency Conditions ... GOOD

Focus

LOST ~ 1 HR ^{AT START} LIMIT SWITCHES STICKING WITH PAINT

Dome Temp.

Time T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
58 2	E 0:00					8 m	cc good focusing star plates Instrument dirty, no focus	
07 1	00:50					2 m	9:30 EST Aurora beautiful & blue	
25 2	01:13					15 m	W ₃	
42 1						8 m	Cc	
64 2	E 0:11'					14 m	S	
27 1	01:21					8 m	Cc	
48 2	00:27					14 m	S ← FOCUS *; α 700.	
15 1	03:04					15 m	W ₃	
2 2	03:25					15 m	W ₃ 12:30 Aurora still here. H ₂ quite soft	
08 1	N 3:07					8 m	Cc YELLOW FILTER TOO TIGHT	
35 2	W 0:18'					12 m	Cc	
78 1	W 2:57'					15 m	W ₃	
2 2	W 0:04					12 m	Cc	
40 1	03:40					15 m	W ₂ ← LOST ~ 20 MIN REMOVING YELLOW FILTER	
18 2	02:00					10 m	Cc	

137

Thurs - Fri

Date May 15-16

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.
Focus Star	S VIF	13° 33.1	-0 26.3							
32145	5053 ✓	13° 19.9	+17° 51'					22 ^h 05'	22 ^h 13'	1
FINISHED NEWTONIAN										
Change to Cassegrain May 16										

Dome Temp.

Transparency Conditions

clouds

Focus

Dome Temp.

ing Time
EST.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
?			5.9	A2	8 ^m CC	<p>Closed $\approx 23^h$</p> <hr/> <p>CC has borrowed Newtonian eyepiece for downtown use</p> <p><u><u>T_H</u></u></p> <p>plate. 32130 - 32145 dec 21.11 10 Aug 199</p> <p>plate. 32121 - 32129 " " 13 " "</p>	

139

CASS EGR & IN

TII - 504

Date May 16/17 Observer Ta only 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.F.	
32146	HD128661	19° 33'	136° 22'	G12	D00	96	69°	21° 14'	22° 22'	A	
32147	HD130705	19° 44'	140° 28'				66°	23° 22'	02° 10'	B	
								(2:57)			
32147-F	Focus Test						69°			B	
32147 71	calibration	step wedge for # 32146, 32147.							no may/69		

Dome Temp. 71°F

Focus

Dome Temp. 64°F

1: 51 E

Transparency Conditions Clear (some haze to the north)
(Clouds at 02h)

Kids with firecrackers kept me awake

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
AO 51 E	+36° 09'	3"	F0	AO	5-5-5	H (broken 2pc) 4x100/200	BROKEN FINE
AO 51 W	+10° 11'	2-4"	F6	KO	5-5-5	Sc* (gain off i. ^{clouds +00} ≈ 400 counts) 4x100/345	V. SL. WEAK
	<u>no filter</u>				5-5	Complete cloud cover by 02:30 (Could not get std vel) <u>closed by 03h</u>	SL. C. TO VIOLET
		2.579 23.72 <u>2.57</u>					

141

Date 20-21 May Tues-Weds Observer Ri Sc 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.	
32148	p Leo	10 ^h 27.5	+09° 47'	5-12	II ₂ -0	9L		21:03 ⁽²²⁾	21:25	A	
22149	p Leo	"	"	"	"	"	55°F	21:27 ⁽³⁹⁾	22:06	B	
	HD 175023										
32150	α Ser	¹⁴²⁰ 15 42.8	⁹³⁰ +06 31	6-12	II ₂ -0	9L		23:15 ⁽⁶⁵⁾	0:20	C	
32150 TI	calibration step wedge for plates 32148 - 32150								21 May 1969		

Dome Temp. 54°F

Focus

Dome Temp.

Transparency Conditions

Both High Voltages to Exp. Mtn. were off

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
2 ^h 30 ^m W	+09 30	3"	3.85	B156	4-4-4	L.H. side = ord. - double image used with = 40/35	FINE
2 ^h 11 ^m W	"	"	"	"	4-4-4	L.H. = ord. 450. with = 40/25	FINE
						← (DuPay checked out scanner)	
		5-6"	3.8	K2I	see	tilt in 1000A - 700 volts. 0.2" lens no filter double 13/14	very WEAK
						closed up - clouds	

143

Date MAY 22-23 THUR - FRID Observer HD/R/G2 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.F.
32151	HD 128661	14 ^h 33.1	+36° 22'	G12	Ilford	009	52°F	23:10 ⁽⁷²⁾	00:22	A
32153	UX HER	17 ^h 49.7	+16 58'	"	"	013	"	00:56 ⁽⁸⁹⁾	02:25	B
32152 T.	calibration strip wedge for plates 32151, 32152							23 May 1969		

Dome Temp. 56°F

Transparency Conditions

Focus

Dome Temp. 48

Mag Time S.T.	P.M.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
30	A	01 17E	36 05		7.0	A0	5-10	Sky clouding over	(GUIDING)* SL-WEAK
49	B	01 45W	16 58	2	9.0?	A0	5-5-5	800 Bin. Sky clearing	800/250 V. SL-WEAK
	B						5-5	no filter	C. TO VIOLET
								* WEAK COMPARISON	

149

Date *Sun Mon May 25-26 1970* Observer *Ri. Fa. (Su)* 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.F.
32156	HD 128661	14 33.1	36 32	G12	IIaO	9L	52°F	20:47 ^(1:51)	22:38	A
32157	HD 149103	16 32.0	29 56	G12	IIaC	135	52°F	22 49 ^(5:00)	03 49	B
32157F	focus test	out of focus			1D3a I		40°F			B
32157 + 1	calibration step wedge for plates 32153 - 32157 26 May 1970.									

Dome Temp. 45

Transparency Conditions Good

Focus

Dome Temp. 29

Hour Angle Eul	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0°	+36° 04	3	7	A0	5-5-5		400/200 FINE
3 ^h 13 ^m W	29° 49	3	8.9	F7IV	5-5-5	See 8th Vel.	* FINE
					5-5	no filter	C. TO VIOLET
* FLEXURE; N.G. FOR RAD. VEL.							
RESET FOCUS: 75-R from 50-R							

151

Date *Mon Tues May 26-27 1969* Observer *Ri Hr* Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	
32158	HD 128661	14 33.1	+36 22	G12	Ha0	9L	50°F	20:53 ⁽⁵⁴⁾	21:47	A
32159	HD 160952	17 37.7	+29 39	G12	Ha0	135		21:58 ⁽⁵³⁾	23:31	B
32160	UX Her	17 49.7	+16 58	"	"	135		23:51 ⁽⁵²⁾	03:13	C
32160F	<i>focus test</i>		<i>out of focus</i>		103a E		45°F			B
32160 T1	<i>calibration step wedge for flats</i>				32158 - 32160			27 May 1969		

Dome Temp. 51°FTransparency Conditions Good

152

Focus

Dome Temp. 44°F

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0 ^h 47 ^m E	+36° 06'	3	7	A0	8-8-8	Ed. Bin	400/200 FINE
02 ^h 08 ^m E	+29 36	2	9.04	G8III	8-8-8	Sec. Std. Vel. field drawn	800/350 V.SL.WEAK
01 ^h 22 ^m W	+16 58		9.0 -9.9	A0	8-8-8	Hd Ed. Bin. PH. "fell apart while unloading"	800/350 V.SL.WEAK
					5-5	no filter	SL.C TO U.I.
						FLEXURE	
						DURING EXPOSURE PLATE N.G.	
						FOR RADIAL VELOCITY	
						FOCUS SET : TO 100-R (OR 0-R) FROM 75-R.	

153

Date Tues Weds May 27-28 Observer ScTn 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.
32161	β Lyrae	18 46.4	+33 15	G12	IIc-0	9L	56°F	01:15	01:22	A
32162	"	"	"	"	"	"	"	01:25	01:37	B
32163	"	"	"	"	"	"	"	01:40	2:01	C
32168F	focus test	out - out in in			103a E C-5	no filter	55°F			B
32163 T.	calibration stars wedge for plates 32161 - 32163. 28 May.									

155

Date May 28-29 ^{Wed Thurs} Observer L. T. Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.
32164	HD 183056	19 22 33	36° 9'	G12	Il00	902	72°F	01 ²² 40'	02 ¹⁴ 19'	A
32165	HD 170000	18 22 12	71° 17'	G12	Il00	9L	"	07 ¹⁴ 38'	02 ¹⁴ 41"	B
32166	HD 177517	18 59 58	-15° 44'	G12	"	9L	"	03 ¹⁴ 04'	03 ¹⁴ 48"	C
32166	^{F1} Focus Test				1030E		72°F			?
32166	T1	calibration rtds wedge for plates				32164	-C		29 May 169	
32166	F2	focus test in in/out out				1030E	9	73°F		B
32166	F3	focus test in in/out out				1030E	9			B
32166	F4					1030E	9	75°F		B

Dome Temp. 73°F at 02^hTransparency Conditions Clouds haze etc

Focus

Some clear patches at 0^h
later, rather thick haze
bright stars observableDome Temp. 72°F

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
01 ^h 01 ^m E	+36° 15'	2"-3"	4.75	A Si	8-8-8	Ir* 2x100/110	* OK
0 ^h 35 ^m W	+71° 19'	2	3.85	A O Si	12-12	Ir* 2x100/80	OK
0 ^h 54 ^m W	-15° 41'	3"-4"	5.71	A O Si	8-8-8	Ir* exposure meter didn't balance well 2x100/80	SL. WEAK
in-in-out-out (no filter 5-5) slow motion with red light on is erratic.							BADLY C.T.O RED.
* Emulsion seems to be wet (be careful on developing light)							BADLY C.T.O RED
no change from 32166 F1 5/5- focus set from 100-R to 85-R 5/5							C.T.O RED C.T.O RED
* SLIT TOO LONG; PART OF Fe COMPARISON							C.T.O RED
FOCUS SET TO 20-R (FROM 85-R)							V. SL. C TO RED
5/5							
FOCUS SET TO 5-R (FROM 20-R)							

151

NOTE: G112 PLATES IN THE DOME
ARE THE ONLY PLATES LEFT.
G112

Date May 29-30 1965 - F1 Observer Hd. G2, Jr. 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.
32167	HD 128661	14 ^h 33 ^m	+36° 22'	G12	Ilao	9L	70°F	21:02 ⁽¹⁰²⁾	22:44	A
32167 F	Focus Test			G40	"	13 L	70°			A
32168	UX Her	17^h 49^m 7	+16 58'	G40	"	13 L	70°F	23:20		C
32167 F2	Focus						70°			C
F3										B
F4										A
F5										C
F6										A
F7										B
32168	UXHER	17 ^h 49 ^m 7	+16° 58'	G40	Ilao	13 L	65°F	01 ^h 41 ^m 41 ^s ⁽¹⁰⁷⁾	02:28	C
32169	MY Cyg	20 ^h 16 ^m 2	+33° 38'	"	"	"	62°F	02:40 ⁽¹⁰⁸⁾	03:10	B
32170	HD 187691	19 ^h 16 ^m 2	+10 10	"	"	"	62°F	03:19 ⁽¹⁰⁹⁾	03:21	A
32170 T1	calibration step wedge				Ilao (200C148)			32168 - 32170	30 May 69	
32170 F1	focus test			G12	103a E			(30 May / 5c)		

Dome Temp. 72°FTransparency Conditions Some haze to Sun

Focus

Dome Temp.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0° 20' W	+36° 04'	3-4	7.0	A0	8-8-8	* COMP. VERY STRONG ECL. BIN (Meter out of balance) 400/200 G12 filter Focus very much c. 5 mi.	* FINE
	+17° 00'	3-4	9.0	A0	8-8-8	G40 filter 400/25	
					5/5	G12 filter	
					5/5	↓ muted?	
					5/5		
					5/5		
					5/5		
					5/5		
					5/5		
					5/5		
					5/5		
00 48W	+16° 59'	3-4	9-9.8	A0	8-8-8	G2* } 4x100/20 Faint	FINE
00 55E	+33 51'	"	8.7	A5	8-8-8	G2* } 800/40 weaker	SL. WEAK
00 15E	+10 23	"	5.8	F8	8-16	STD. VEL. * } 200/15	FINE
						G-40 left on, 2 G-12 plate holders loaded & generator left on ↳ plates were crushed	FINE

159

Fri - Sat

Date May 30-31Observer L. T.

Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I.
32171	HD 123423	19 ^h 02.5	-10° 41'	G90	1800	13L	67°F	21 07 ⁽⁶⁾	22 09	A
32172	HD 132237	14 ^h 55.6	+27° 33'	"	"	"	65°F	22 20 ⁽³²⁾	22 52	C
32173	HD 140013	15 41.1	28 47	"	"	"	63°F	23 17 ⁽³³⁾	23 50'	C
32174	UX Her	17 ^h 49.7	+16° 58'	"	"	"	61°F	0 ^h 09 ⁽⁴³⁾	0 ^h 52'	A
32175	MY Cen	20 ^h 16.2	+33° 38'	"	"	"	60°F	01 ^h 09 ⁽²⁴⁾	01 ^h 33'	B
32176	DM Del	20 ^h 34.9	+14° 04'	"	"	"	"	01 51 ⁽²⁷⁾	02 18'	C
32177	HD 181603	19 ^h 16.0	+20° 41'	"	"	"	56°F	02 41 ⁽⁵⁹⁾	03 30'	A
32177 F1	Focus Test						56°F			B
F1	calibration for plate	32171	32177	June	21969					
	2 June 1969									
F2	FL						63.5°F			A
F3	(discarded)						"			B
F4	(discarded)						"			C
F5	(discarded)						"			A
F6	(discarded)						"			B
F7	F5						"			C

41.4 from graph
142 (line)

Dome Temp. 66°F
 Focus
 Dome Temp. 54°F

Transparency Conditions Clear
Hazy by 0^h 30^m

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0 20W	-11° 01'	3"	8.5-9.2	F5	10-10-10	Hd* Finder fld drawn } 8x100/60	WEAK
0 00W	+27 17	3"	9.03	K0 III	10-10-10	Sec Std Vel } 40 setting 4x100/40	(GUIDING) SLWK
0 24W	+28° 34'	3"	8.81	G0 V	10-10-10	Sec Std Vel } 4x100/30	WEAK
0 45E	+16° 58'	2"	9.0	A0	10-10-10	G2* (perhaps some @ spect) } 8x100/40	WEAK
0 30E	+33° 51'	2"	8.7-9.0	A5	10-10-10	G2* (changed to 39 setting) } 4x100/20	WEAK
0 03E	+14° 19'	2"	8.5-9.0	A3	10-10-10	Hd* (Fld drawn) } 4x100/20	WEAK
0 28W	+20° 51'	3"	9.1	G8 III	10-20-15	P-1 Vel Plate } 4x100/37	SLWK
						G10 Filter in-in-out-out 5/5 (39 Focus setting)	CENTRE TO VIOLET
						(whole in the G12 box / found in the box that has another in it)	
						G2 filter	
						focus 39.0 5/5	CENTRE TO VIOLET
						" 40.0 5/5	
						" 41.0 5/5	
						" 42.0	
						" 43.0	
						" 44.0	
						" 45.0	
						" 46.0	
						" 47.0	
						" 48.0	
						" 49.0	
						" 50.0	
						" 51.0	
						" 52.0	
						" 53.0	
						" 54.0	
						" 55.0	
						" 56.0	
						" 57.0	
						" 58.0	
						" 59.0	
						" 60.0	
						" 61.0	
						" 62.0	
						" 63.0	
						" 64.0	
						" 65.0	
						" 66.0	
						" 67.0	
						" 68.0	
						" 69.0	
						" 70.0	
						" 71.0	
						" 72.0	
						" 73.0	
						" 74.0	
						" 75.0	
						" 76.0	
						" 77.0	
						" 78.0	
						" 79.0	
						" 80.0	
						" 81.0	
						" 82.0	
						" 83.0	
						" 84.0	
						" 85.0	
						" 86.0	
						" 87.0	
						" 88.0	
						" 89.0	
						" 90.0	
						" 91.0	
						" 92.0	
						" 93.0	
						" 94.0	
						" 95.0	
						" 96.0	
						" 97.0	
						" 98.0	
						" 99.0	
						" 100.0	

Tonight's plates in (also covering) CENTRE TO VIOLET
 unexposed box in lower tray
 Sorry I didn't notice the 15 min comp plate till the last plate

Dy I II I 6 for VISITORS
 NO OBJECT VIEWED

140 VISITORS
 SAT. May 31, 1969

161

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

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.F.
32177	14 focus test		3 June 1969	G40	100?	13	54.5°F	3 June 1969		A
	15				too slow					B
	16				to be					C
	17 (discarded)				bad.					A
	18 (discarded)									B
	F7		4 June 1969		THIS CAN'T BE bad		50.5°F	dome 54°F		A
	F8									B
	F9									C
	F10		6 June 1969	G40	?	8	55°F			A
	F11									B
	F12									C
	F13									A
	14									B
	15									C
	16									A
	17									B
	18									C

38.3
 32.0 with new
 curve

Dome Temp. 56° F

Transparency Conditions

Focus

Dome Temp.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
21:3	+43°				8/5 ←	a-12 filter focus 31.0	V. SL. C. TO RED
						33.0 ← comparison	GOOD
						36.0 ← best results	V.O. SLIGHT C. TO VIOLE
						39.0	
						42.0	
						low light off.	
focus	32.0				10/5		GOOD
focus	29.0				10/5	} no filter	C. TO R
focus	35.0				10/5		C. TO JT.
focus	31.0						SL. C TO R
focus	33.6 ←					} from graph	GOOD
focus	36.2						SL. C TO JT.
	20.0					} full spectrum	
	25						
	30						
	35						
	40						

Dome Temp. 59°F

Transparency Conditions Hazy

Focus

clear by 0^h 30^m

Dome Temp. 50°F

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0 ^h 45 ^m W	+50° 17'	2"	9.3	gK	15-15-15	Rod Hal Pl (forgot fld flattener) 400/37	N.G.
					5/5	G12 filter (35 setting)	FINE (GUIDING)
0 ^h 30 ^m W	+20° 34'	2"	8.81	GV	15-15-15	HdSSV. 400/40	V. SL. WK
0 ^h 09 ^m E	+16° 59'	2"	9.0	A0	15-15-15	G2 Ecl. Bin. 400/25	(GUIDING) FINE
1 ^h 57 ^m E	+22° 57'	3"	8.90	A5	15-15-15	G2 Ecl. Bin. 400/25	FOCUS P. IS AWFULLY STRONG
					5/5	G-12 filter (34 setting)	FINE
1 ^h 25 ^m E	+14° 19'	3"	8.5	A3	15-15-15	G2 Ecl Bin. 400/25	? PLATE IN TILTED?
1 ^h 21 ^m W	+32° 42'	2"	8.6	K0III	15-15-15	Rod Hal. Pl. (Presley fogged. Fused to cap immediately) 400/30	FIELD FLATTENER?
1 ^h 57 ^m W	+33° 42'	3"	8.4	K0III	15-15-15	Rod Hal Pl. 400/30	FIELD ? FLATTENER
						<p>Since lost focus test G90 filter wasn't in its fully corrected position, because of a groove in holder. Didn't notice in the dock. (It may obstruct coma.)</p>	<p>FORGET TO REMOVE G-12 FILTER AFTER FOCUS TEST ??</p>

165

Sun - Mon

Date Jan 8-9 Observer W. J. 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.
32185	HD 128091	14 29.9	+58° 51'	G40	Duo	13L	55°F	21 ^h 31 ^m ⁽⁵⁹⁾	22:30	A
32185 F	Focus Test			"	"	13L	53°F			B
32186 F	Focus Test			"	"	13L	53°F			C
32186	HD 123423	19 ^h 02.5	-10° 41'	G40	"	13L	53°F	23 ^h 18 ^m ⁽⁶⁰⁾	0 ^h 18 ^m	B
32187 F	Focus Test			"	"	13L	50°F			C
32187	UY Her	17 ^h 49.7	+16° 55'	G40	Duo	13L	50°F	0 ^h 57 ^m ⁽¹¹⁷⁾	2:54	C
32188	HD 184467	19 ^h 29.5	+58° 24'	G40	Duo	13L	49.5°F	03:11 ⁽¹²⁾	03:23	A
32188 71	calibration step used for plates								9 June	

Dome Temp. 54°F

Focus

Dome Temp.

Transparency Conditions (Clear in Central-west of First)

Photometric after midnight
(milky way clear)

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0 ^h 50 ^m W	+58° 34'	4-3" 9.2	29K	15-15-15	Red Vel Plate	1,100/37	(GUIDING) SL WEAK FINE (FOCUS ED) C TO R
	setting 34				5/5 G12 Filter		
	setting 33				5/5 G12 Filter		FINE
03 ^h 04 ^m W	-10° 57'	5-6" 8.5-9.2	F5	15-15-15	G2* spot bin (cut short by limit) (some haze in some)	8,100/20	SL WEAK
	setting 31	(G12 Filter)			5/5 (some doubt about this star as dec [angled 7]) was out 4' north, but there isn't anything there		SL. C. TO R.
1 ^h 55 ^m W	+16° 58'	3" 9.0-9.5	A0	15-15-15	G2* (very faint) ? probably not a star started very faint count rate increased by 4X photometer another star	8,100/50	(SL. GUIDING) FINE
0 ^h 45 ^m W	+58° 31'	3" 7.5-8.5	K5	15-15-15	SH Vel	4,100/50	FINE

Dome Temp. 69°F Transparency Conditions *Excellent*

Focus

Dome Temp. 57°F

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
						Scanner observations until 23 ^h	
12 W	$-25^{\circ}07'$	$\sim 4''$	5.80	B8p	8-8-9	Bu [*] Exposure <u>note</u> not using	SL. WEAK
	Setting 34				5/5	G12 Filter * Focus Test to check if focus out from changing camera * (Remind Gary of front about meter trouble) - VOLTAGE WAS SET AT 300	U.S.C. TO 300

JUNE INST VISITORS TO 21:30

PENCILS REQUIRED FOR 74° DOME

169

Date June 10-11 Tues-Weds Observer Sc-Tw-Mee 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.
32190	α Cen	15 ^h 12.8	+06° 21'	G12	Il00	9L	66°F	21:30 ⁽¹¹⁶⁾	23:26	A
32190 F1	focus test	out out / in in		G12	Il03a E	9	63°F			B
32191	HD 123821	14 ^h 04.8	+2° 04'	G40	Il00	13L	"	23:55 ⁽¹¹⁷⁾	01:35	A
32192	HD 171232	15 ^h 38.5	+25° 25'	G40	Il00	13L	60.5°F	1:50 ⁽¹¹⁸⁾	02:08	C
32191 F1	focus test	out out / in in		G40	Il00	13L	60.5°F			B
32193	Nova Del	20 ^h 37.7	+16° 48'	G40	Il00	13L	60°F	02:28 ⁽¹¹⁹⁾	02:55	A
32194	DM Del	20 ^h 34.9	+14° 24'	G40	Il00	13L	59°F	03:01 ⁽¹²⁰⁾	03:24	C
32194 T1	calibration	step	edges for	G40				12 June 1969		
32194 T2	"	"	"	plates	32191-32194			"		

Dome Temp. 66°F

Transparency Conditions CIRRUS

170

Focus

Dome Temp.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
10:41	+06° 33'	3"-2"	2.8	K2 III	10-10	titled gratings - $\lambda = 700$ - exp. at 700 Å. $\frac{700V}{10/50}$	WEAK
					6/4	← NO FILTER; GRATING BACK TO NORMAL ← G40 FILTER	FINE
14:34	+51° 46'	3"	9.4	G85 p	15-20-18	SC RAD. VEL. $\frac{900V}{8 \times 100/100}$ finder fld down from 36.6	* SL. WEAK
0° 13" W	+25° 30'	4"	8.66	G80	20-35	Sec Std Vel $\frac{4 \times 100}{50}$	FINE
	Setting 35.6				6/4	G-17 FILTER	FINE
0° 42" W	+19° 04'	2"	27.5	A 55 p	17-15-16	(finder fld down) $\frac{4 \times 100}{45}$	* FINE
0° 12" E	+14° 20'	2"	85-9.0	A 3	17-35	G2* ecl B ₁₁ $\frac{4 \times 100}{30}$	FINE

* Fe comp. a bit weak - count a little more slowly.

Dome Temp. ... 55°F

Transparency Conditions Cloudy with open patches of sky (ca 0:30)

Focus

172

Dome Temp. ... 53°F

ing Time
S.T.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
01 ^h 25 ^m W	+02° 50'	~4"	6.0	K5I6	8-8-8	BA * (cut very short) Finder Eld Brand 4x100/400 should be 600 counts. *	WEAK
(in-in-out-out)					5/5	no filter	V.S.L.C TO VIOLET
						* MWP-2 : 10MIN @ 68° (INSTEAD OF 7.4)	

113
NEWTONIAN

Date June 16-17, 1969 (Mon/Tues) Observer HSH, Co, L, 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.
32196	NGC 5904	15 17.1	¹⁹⁷⁰ 02 12	Newt	103a0			9 24	9 26	1
32197	5634	14 28.0	-05 51		103a0			9 31	9 43	2
32198	5053	13 14.9	17 51		"			9 54	10 04	1
32199	5634	14 28.0	-05 51		"			10 15	10 27	2
32200	5904	15 17.1	+02 12		"			10 30	10 32	1
32201	5897	15 15.3	-20 53					10 38	10 48	2
32202	5053	13 14.9	+17 51					10 55	11 05	1
32203	6171	16 30.8	-12 58					11 19	11 33	2
32204	6366	17 26.1	-05 02					11 42	11 52	1
32205	5053	13 14.9	17 51					00 04	00 14	2
32206	6171	16 30.8	-12 58					00 22	00 34	1
32207	6356	17 21.8	-17 47					00 38	00 46	2
32208	6093	16 15.2	-22 56					00 53	01 01	1
32209	6366	17 26.1	-05 02					01 10	01 18	2
32210	6171	16 30.8	-12 58					01 26	01 38	1
32211	6356	17 21.8	-17 47					01 43	01 51	2

Dome Temp.

Transparency Conditions

Focus

Dome Temp.

Dec. +4m

Hr could we have a red lamp for the dome

Hour	Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0	02:26					2m	focus on α Boo unguided	LIGHT STREAK
03	04 37W					12m	HSH guided	
04	04 12W					10m	Ce guided	
07	1" 21W					12m	HSH guided	
08	04 38W					2m	HSH guided	
08	04 56W					10m	HSH guided	
05	03 12W					10m	Ce guided refocus 8.0ph	
03	0 24W					14m	Ce guided	
02	04 11E					10m	HSH guided	
014	4" 23W					10m	Ce guided	
024	1" 31W					12m	Ce guided	
040	04 48W					8m	HSH guided	
01 01	02 08W					8m	HSH guided	
0 8	04 15W					8m	HSH guided	
01 38	04 31W					12m	Ce guided	
01 51	04 53W					8m	HSH guided	

Date June 16-17 (contd) Observer HSH, C. H. P. Julian Day 161

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I.	Hour Angle End
32212	NG.C 6171	16 30.8	-12 58	Nord	103a0			01 58	02 10	1	0300
32213	6535	18 02.3	-00 18					02 18	02 28	2	0300
32214	6838	19 52.2	+18 41					02 35	02 39	1	0300
32215	6626	18 22.8	-24 54					02 54	02 57	2	0300
32216	6656	18 34.5	-23 58					03 01	03 05	1	0300
32217	7089	21 31.9	-00 57					03 10	03 10 ³⁰	2	0300
<p>Tues-Wed June 17-18 Rain and clouds HSH, C.H.P.</p> <p>Wed-Thurs June 18-19 ^{HSH, C.H.P.} Jupiter, Uranus, Mars, Vega visible at times in 1st half. Nothing else than solid cloud.</p> <p>Thurs-Fri June 19-20 Heavy clouds, a few very fleeting ^{small} breaks. HSH, C.H.P.</p>											

Dome Temp.

Transparency Conditions

Focus

Dome Temp.

ing Time S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
10	3403W					12m	Cc guided	
28	1449W					10m	HSH guided	Astronomical Antiquities Starting
39	0410W					4m	HSH guided	
57	1457W					6m	Cc guided	
05	1454W					4m	HSH guided	
00	0457E					30s	unguided	A very good night
							*** DUST CAUSING PINHOLES IN THE EMULSION, AGAIN. → BETTER USE THE BRUSH PROVIDED.	

Dome Temp.

Transparency Conditions

Focus

Dome Temp.

Dc + 4 m

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
45 / 1 30 54	3° 4' W				2m	after heavy clouds just half, partial clearing 12:30 opened Focussed on η Sars Focus excellent micro. adjustment	OK
?					12m	Exposure stopped because of clouds Heavy clouds everywhere now, including zenith This night is a lost cause. Cloud up 1:15. P. HV 2 loaded unexposed	? NO CLUSTER

179

Date 20-21 June 1969 (Fri-Sat) Observer Cc, Ri, Bu 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.
32220	NGC 5904	15 17.1	¹⁹⁷⁰ 02 12	DaA	103 _u 0			21:06	21:08	1
32221	5634	14 28.0	-05 51					21:20	21:30	2
32222	5053	13 14.9	17 51					21:38	21:46	1
32223	5634	14 28.0	-05 51					21:53	22:05	2
32224	5904	15 17.1	02 12					23:07	23:22	1
32225	5887	15 15.2	-20 52					22 16	22 26	1
32226	5053	13 14.9	+17 51					22 48	22 56	2
32227	5904	15 17.1	02 12					23:27	23:30	2
32228	6171	16 30.8	-12 58					23:38	23:51	1
32229	5053	13 14.9	+17 51					23:59	00:08	2
32230	5904	15 17.1	02 12					00:15	00:25	1
32231	6171	16 30.8	-12 58					00:39	00:52	2
32232	6356	17 21.8	-17 47					01:07	01:15	1
32233	6535	18 02.2	-00 18					01:20	01:30	2
32234	6171	16 30.8	-12 58					01:43	01:55	1
32235	6356	17 21.8	-17 47					02:01	02:04	2

Dome Temp. 58°F

Transparency Conditions Clear

Focus

Dome Temp. Dec +4m

Hour	Angle End	Declination	Secing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
09	0:30E					2m	focus too	
20	0:41W					10m	unquaded difficultly in finding cluster because of brightness of sky.	
46	2:10W					8m	exposure shortened by 2min because moon close by	
	1:16W					12m		
22	1:44W					15m	Exposure taken to plate limit for comparison with 24" image tube	
26	0:50W					10m		
56	3:19W					8m	refocus + 50ph exposure again shortened by 2min because moon close by.	
30	1:53W					3m	plate taken for comparison with 24" image tube	
51	0:59W					13m		
08	4:33W					9m	unexposed box ^{perhaps} exposed to a bit of light at this pt ←	MAPS etc
25	2:48W					10m	Plate for comparison with 24" image tube	
52	2:02W					13m		
15	1:33W					8m		
30	1:07W					10m		
45	3:04W					13m		
37	2:27W					8m		

Dome Temp.

Transparency Conditions

Focus

Dome Temp. 48°F

ing Time S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp. Exposure	REMARKS	Quality
1	1 ^h 24E					4min		
2	0 ^h 26W					4min		
1	1 ^h 56W					6min		
2	2 ^h 07W					4min		
1	0 ^h 45E					30sec.	unguided	

183

Date 25-26 June 1969 Observer Ri - Egn 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.
32241	HD 135722	15 11.5	+33 41	G10	Ilad	9L	66	21:10	21:27	17
32242	HD 145931	16 08.5	+42 38	B12	"	9L		21:37	23:53	186
32242F1	focus test		cont. red/m. in		*1030E		63			I
32242 71	calibration step wedge for plates				32241, 32242				26 June 1969	
* WHEN THESE PLATES ARE USED UP, RETURN TO Ilad FOR FOCUS TESTS										

Dome Temp.

Transparency Conditions

lazy

Focus

Dome Temp.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0 13 W	33 26	~3	4.42	G8II	8-8-8	BK	40/28 SL. WEAK
1 42 W	42 26		7.38	K4II	8-8-8	" clouds at 23:45 5-5 m filter	40/272 WEAK OK
	EMULSION	#	2A0C	IF9			

187

Fis - 50f

Date June 27-28

Observer Bv, T, HR

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.
32243	HD 139892	15 ^h 35 ^m .6	136° 58'	G12	Doo	9L	73°F	23:07	23:22	A
32244	MY C₂					9L	74°F	23:38		B
32244	HD 203156	21 ^h 15 ^m .4	337° 49'	E13	Doo	9XL	74°F	00:38	01:55	A
32245	HD 186791	19 ^h 41 ^m .5	110° 22'	"	"	9L		02:10	02:32	C
32246	HD 176312	18 ^h 51 ^m .6	125° 7'	"	"	9XL	72°F	02:33	03:09	B
32247	prom. int.	school	low in	G12	Doo	9	71°F			B

Dome Temp. 75°F

Transparency Conditions Hazy

Focus

Less humid than yesterday

Dome Temp. 70°F

Heavy Fog by 03 h

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
21° 50' W	+36° 47'	3"	5.1	B6n	8-8.8	Star Bin 2x100/190	(GUIDING) SL WEAK
		2"	8.2	AE	8-	HD* Fe Bin (too faint) 4x100/180	
21° 15' E	+38° 07'	3"	6.2	F716	8-8.8	Ternio* (bad field) (no draw) 4x100/375	VERY WEAK
21° 11' W	+10° 34'	2"	4.5	K3D	8-16	Bright Std. Nel. 4x100/35	WEAK (GUIDING)
21° 17' W	+38° 15'	3"	5.7	B6-7	8-16	Make* 2x100/120	WEAK
					5-5	no filter Exposure meter balance off	FINE

191

Date June 29-30 Observer R. J. T. Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.
32249	3 Sco	15 ^h 48 ^m .7	-24° 57'	G12	D00	96		21:01	22:15	A
								21:31	22:01	
							66°F	22:30	22:50	
32250	HD 139892	15 ^h 35 ^m .6	36° 58'	G12	D00	96	66°F	21:00	22:20	B
32251	γ H ₂ L	19 ^h 41 ^m .3	+10° 22'	"	"	"	64°F	22:30	22:36	C
								23:50	00:02	
32251 F	Focus Test			G12	D00	96	64°F			B

Dome Temp. 67°F

Focus

Dome Temp. 63°F

Transparency Conditions Some Cloud
 then lot of cloud at 21^h 15^m
 Clear again at 22^h 30^m
 Clouds at 22^h 30^m complete overcast

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
01 ^h 13 ^m W	+35° 07'	4"-6"	5.00	BII	7-10-6	BII* (stopped from cloud/overcast) 40/39	VERY WEAK
01 ^h 56 ^m W	+36° 45'	3"	5.1	BII	8-8-8	Spect Bin 20/50/90	SL. WEAK
	+10° 23'	~3"	5.15	K3II	8-8-8	Bright red. Neb. 40/35 (ground for a while, cloud)	WEAK
01 ^h 27 ^m E					5/5	Closed at 01 ^h overcast still	FINE

1944

Dome Temp. 69°F

Focus

Dome Temp. 62°F

Transparency Conditions ... Cloudy in early evening;
 clear patches at about 01:00 EST.
 quite windy. Cleared quite well at 2:00 EST.

ing Time EST.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
56	00 ^h 03 ^m E	+38° 07'	~6.5"	6.3	F276	8-8-8	Ferne *	2x100/195 WEAK
09	00 ^h 01 ^m E	-5° 41'	~3"	3.73	CO16	8-8-8	Bright 5th. Vel.	4x10/28 U.S. WEAK
		-29° 22'	~9"	4.14	B8III	8-	Bu # Seeing too bad. Sunrise interfered.	3x100/195
		in in / out out		no filter		5-5		FINE

145

Date Tue - Wed
July 1-2 1969Observer Sc, In

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.
32254	α Cen.	19 39.4	+06 44	G17	IIcO	9L	64°F	21:30 ⁽¹⁵⁾	00:25	A
32255	ρ Cyg	19 46.9	+37 15	"	"	"		00:20 ⁽³⁾	00:25	B
32256	"	"	"	"	"	"		01:43 ⁽⁴⁾	00:52	C
32257	"	"	"	"	"	"		1:08 ⁽¹²⁾	1:20	B
32258	α Her AB	19 11.3	+17 25	G-12	IIIcO	9L		01:40 ⁽²⁾	2:01	C
32259	ϵ Cyg	20 45.5	+45 45	"	"	"		2:09 ⁽²⁾	2:20	B
32260	ω Cyg	20 38.0	+44 55	"	"	"		02:38 ⁽²⁾	02:40	A
32261	η Cyg	20 56.4	+47 02	"	"	"	57°F	2:42 ⁽¹⁴⁾	03:01	C
32262	ρ Cyg	20 17.1	+37 43	"	"	"	"	03:08 ⁽²⁾	3:29	A
32262K	Focus test						56°F			B
32262	calibration for plates 32263 - 32262							2 July 1969		

Dome Temp. 64° F
 Focus
 Dome Temp.

BUILD MUST
 BE ≥ 100 W → TO
 WORK PROPERLY

Transparency Conditions Excellent
 Trouble with shutters fuse blown
 fixed by Barry
 → [light dimmer does not work correctly]

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0° 45' W	+46° 30'	2.5"	2.2	K27	8-2-8	tilt for 2300 220 rolls	19/10 weak
0°	+46° 00'	2.5"	2.5	E2	10sec	double image, roll on left. broken	2/10 FINE
0° 20' W	"	"	"	"	"	45°	30/10 FINE
0° 53' W	"	"	"	"	"	double image	40/10
0° 11' W	+48° 30'	"	4.5	MV2	10sec	double image	40/10 SL. WEAR
0° 9' W	+46° 00'	"	4.9	B35a	10sec	"	40/10 SL. WEAR
0° 28' W	+45° 10'	"	1.3	M2c	10sec	"	100/10 FINE
0° 25' W	+45° 20'	"	4.9	B3e	"	"	40/10 FINE
1° 35' W	+37° 57'	"	4.9	B10g	"	"	40/10 SL. WEAR
				no-filter	5-5		FINE
# 2 A O C 1 F 9 (annulation #)							

197

Date *Wed - Thurs*
*July 2-3 69*Observer *Tom Wi*

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.	
32263	HD135722	15 ^h 11.5	+33° 41'	G12	Il 0	9L	67°F	21:10 ⁽⁷⁸⁾	21:20	A	
32264	HD145931	16 ^h 06.5	+42° 38'	G12	IIa 0	9L	"	21:38 ⁽⁷⁸⁾	22:40	E	
32265	HD175558	15 ^h 51.0	+36° 47'	"	"	"	64°F	23:03 ⁽⁷⁸⁾	23:18	C	
32266	"	"	"	"	"	"	"	23:20 ⁽⁷⁸⁾	23:35	B	
32267	HD182762	19 ^h 21.1	+19° 37'	"	"	"	63°F	23:48 ⁽⁷⁹⁾	01:07	A	
32262 F	<i>Focus</i>						62°F			B	
32267 71	calibration slip under for plates 32263 - 32267								3 July 1969		

Dome Temp. 66°F

Focus

Dome Temp. 62°F

Transparency Conditions Excellent

198

Some cloud at 23:30

ing Time EST.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
20	$0^{\circ} 32' \text{W}$	$+33^{\circ} 26'$	2"	4.42	G80	8-16	BK [*]	FINE
45	$0^{\circ} 55' \text{W}$	$+42^{\circ} 28'$	"	2.38	K4II	8-8-8	BK [*]	(GOODING) V. SL. WEAK
	$1^{\circ} 09' \text{E}$	$+36^{\circ} 52'$	"	5.74	M90	8-16	BK (wrong star on finder field; one drawn)	(GOODING) FINE
	$0^{\circ} 50' \text{E}$	"	"	"	"	8-16	BK [*]	FINE
	$0^{\circ} 10' \text{W}$	$+19^{\circ} 45'$	"	6.15	G80	8-8-8	BK ⁺ cut shooting cloud	SL. WEAK
						5/5	no filter	FINE
		(230 C I F 9)					[9.5 MIN @ 65°E]	

199

VISITORS Schedule

No. Fr. Ib · 105 people
viewed Jupiter, MarsDate ^(2nd-Gen) July 5-6, 1969

Observer Tn-Bu

Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	F
32268	HD 153589	19 ^h 25 ^m	+02° 41'	G12	DOD	9XL	55°F	22:49	02:46	A
32269	HD 203156	21 ^h 15 ^m	+37° 49'	"	"	9x6	60°F	02:54	03:55	B
32269 F	Focus Test			"	"		58°F			B
32269 T1	calibration step wedge for plate				32268, 9			7 July 1969		

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

Focus

Dome Temp. $56^{\circ}F$ Transparency Conditions *Some high cloud
but clear*

200

ing Time
EST.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
$1^h 55^m W$	$+02^{\circ} 52'$	3"-4"	6.0	K576	8-8-8	Baker* interfered by cloud filter 4x100/650	* U.S.L. WEAK
$01^h 16^m W$	$+38^{\circ} 08'$	3"	6.3	F2:b	8-8-8	Femie* (cut short by down) 4x100/380	* FINE
		in interfered			5/5	no filter	FINE
	MWP-2 / 9 min					(possible solar lines) amine 4.52, should be OK	
						* SLIT TOO LONG, PART OF FC COMP MISSING	

201

Date July 28, Mon-Tues, 1969 Observer Jf, 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
32270	HD 171232	18 ^h 20.5	+25° 25'	G12	IIaO	13s	61°F	21:25 ⁽¹⁵⁾	00:40	A
32271	HD 203156	21 ^h 15.4 ^m	+37° 49'	G12	IIaO	9x1	60°F	0:21 ⁽⁹⁾	01:10	B
32272						13s	59°F	01:23		C
32272	HD 204867	21 ^h 26.3	-6° 01'	G12	IIaO	9L	58°F	01:50 ⁽⁹⁾	01:59	A
32273	Novo Delphius	20 ^h 37.7	+18° 55'	"	"	9L	57°F	02:14 ⁽⁹⁾	03:44	C
32273F	Focus Test			"	"	"	55°F			B
32273 T	calibration strip wedge for plates 32270 - 32273 F July 1969									

Dome Temp. 63°F

Focus

Dome Temp. 55°F

Transparency Conditions ... Some high cloud
good seeing

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
02h W	+25° 29'	2"	8.66	G8	8-8-8	Sun-like Slit Vel. * 4x100/250	(GUIDING) FINE
01:27 E	+38° 06'	2"	6.3	F2 Ib	8-8-8	Ferris * 4x100/920	(SLIGHTLY) FINE
		2"	9.69	K1/4	8	Exposure stopped after 10 mins too slow. 4x100/300	
0:43 E	-05° 42'	3"	3.73	G0 1/2	8-16	Bright Slit Vel. 40/33	FINE
01:50 W	+19° 02'	2"	7.2	F	8-8-8	some cloud cut short very 5/5 no filter. 4x100/100	FINE. SHOWS EMISSIO STRUCTURE
							FINE
						best temp down to 40 with (but is good)	
						* FLEXURE	

m.w.p. 2/9 min

Tue - Wed

Date July 8-9 1969 Observer T. D. J. 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.
32274	HD 171586	18 ^h 30 ^m 6	+1 ^o 51'	G12	Duo	9L	67°F	21:18	22:24	A
32275	HD 19000	18 ^h 22	+71 ^o 17'	G12	Duo	9L	"	22:40	22:48	C
	HD 173650	18^h 41^m 4	+71^o 53'	G12	Duo	9L	66°F	23:09	23:20	B
32275F	Focus Test			G12	Duo	9L	65°F			B
32276	HD 173650	18 ^h 41 ^m 4	+71 ^o 53'	G12	Duo	9L	65°F	23:58	01:03	C
	HD 177519	18^h 03^m 55	+15^o 41'			9L	64°F	01:15	01:55	F
32277	HD 183056	18 ^h 33	+36 ^o 07'	G12	Duo	9L	64°F	02:34	02:44	E
32278	HD 8441	1 ^h 18 ^m 5	+42 ^o 37'			9L	64°F	02:58	03:30	A

Dome Temp. 67°F

Focus

Dome Temp.

Transparency Conditions

cloud haze but good
seeing in clear areas

Clouds

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
01° 20' E	+7° 57'	2"	6.29	AO	8-8-8	Ir* since plates tried 200 rather than 160 slow	9x100/220 FINE
0° 42' E	+71° 19'	2"	3.85	AO _{si}	8-16	Ir*	4x10/22 FINE
01° 20' E	+71° 19'	2"	6.25	Ap	8-	Ir* cloud cancelled (cloud)	9x100/220
	in-in/out				5/5	no filter	FINE
01° 08' W	+21° 58'	2"	6.25	Ap	8-8-8	Ir* same as above	9x100/220 FINE
01° 42' W	-15° 40'	3"	5.71	AO _{si}	8-16	Ir* broken (discarded) *	4x10/220
02° 10' W	+36° 16'	1.5"	4.25	Asi	8-16	Ir*	40/22 FINE
03° 03' E	+42° 59'	2"	3.92	AO _p	8-16	Ir* Clouds	9x100/220 91 WEAK
<p>→ May have fogged remaining plates. If last exposure is fogged then check remainder of plates in box.</p> <p>In PLATES OK</p>							
* BROKEN PLATES WHICH HAVE							
OCCUPIED 74" TIME SHOULD NOT BE DISCARDED.							

207

Date Thurs July 10-11/69 Observer KL Julian Day 1969.254

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.
32285	HD 149503	16 32.0	+27 56	716	320	13 S	72°F	01 00 ⁽¹⁾	00 12	A
32286	HD 171232	18 28.5	+25° 25'	"	"	"	70°F	02 23 ⁽¹⁾	02 17	B
32287	HD 203155	21 ^h 15 ^m 4	+37° 49'	"	"	9XL	69°F	02 46 ⁽⁴⁾	03 07	C
32288	HD 204567	21 ^h 26 ^m 3	-06° 01'	"	"	9L	68°F	03 24 ⁽⁴⁾	03 28	A
32289	HD 206778	21 ^h 39 ^m 3	+9° 25'	"	"	"	67°F	03:40 ⁽³⁾	03:43	C
32289F	Focus Test			"	"	9L	67°F	5:54 ⁽⁵⁾		B
32289 T	calibration	step wedge plate				32285 - 32289		July 1969		

Dome Temp. 71°F Transparency Conditions *Hazy, but clear*

Focus

*cloud lot of oil*Dome Temp. 68°F

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
15-25	$129^{\circ}50'$	$1.5''$	3.30	F4v	8-8-8	See Std Vol * 400/150	** WEAK
16-24	$129^{\circ}57'$	$2.0''$	3.30	GSD	8-8-8	See Std Vol (balance off) 400/150	** WEAK
17-23	$+9^{\circ}01'$	$1.5''$	6.3	F37b	8-8-8	Ferris * 400/400	SL. WEAK
18-22	$-5^{\circ}41'$	$2.0''$	3.33	G01b	8-16	Std Vol } 40/33	FINE
19-21	$+9^{\circ}46'$	$2.8''$	3.93	K21b	8-16	Std Vol } 40/43	FINE
					5/5	no filter }	FINE
11:00 2/9 MEN							
						Then exposure meter balance worked	
						IMPOSSIBLE	
						* PLATE NUMBERS ARE HARD TO MAKE	
						** FLEXURE; PC LINES DOUBLED	

Dome Temp. 74°
 Focus
 Dome Temp. 69° F

Transparency Conditions SMALL CLOUDS - HORIZON
heavy clouds @ 2:00

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
48 1 ⁿ 38W	-19° 57'	4	7.30	Az	8-16	RG* ^{same year var?} limited by mill per	ALMOST BLANK (GUIDING) 4x100/20
14 0 ^h 18 ^m W	-15° 41'	3-2	5.71	Ao	8-88	Ir*	SL. WEAK (GUIDING) 4x100/22B
10 21 ^h 37 ^m W	4° 56'	2	6.29	Ac	8-88	Ir*	SL. WEAK 4x100/220
12 0 ^h 12 ^m W	+71° 19'	2	3.85	AO	8-16	Ir*	FINE 40/22
2 00:37E	+05° 42'	4	3.98	KzIb	8-16	Stand Vel thru clouds in cap some time	WEAK 40/43
27° 47'		6.22		AO		Ir* got two counts clouds 3.14	40/220
monitored						etc on filter	FINE

Dome Temp. 70°F

Transparency Conditions ^{Very} Good _{no cloud}

Focus

Dome Temp. 55°F

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
02:31W	+17 00	2"	9.0	A0	8-8-8	G2* (broken 300) (METER OFF BALANCE) → 4x100/75	** VERY WK
01:52W	+33 53	"	8.7	A5	8-8-5	G2* 400/160	WEAK
01:57W	+38 07	"	6.3	F3IIb	8-16	Ferric* (cut short by down) 400/350	FINE
						** FLEXURE	FINE

Dome Temp. 74°

Transparency Conditions *Clear - again*

214

Focus

Dome Temp.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
1 ^h 34 ^m W	-19° 55'	2"	7.33	A2p	8-8-8	r6* (cut short by limit L) ^{2/30 balance} 4x100	VERY WEAK
0 ^h 15 ^m W	-15° 41'	4"	5.71	A0si	8-8-8	Ir*	4x100/220 FINE
1 ^h 55 ^m W	+4° 56'	2"-3"	6.27	A0	8-8-8	Ir*	4x100/220 FINE SETBACK
2 ^h 21 ^m W	+71° 21'	3"	3.85	A0si	15-10	Ir*	40/22 FINE (SLIGHTLY OVER)
2 ^h 58 ^m W	-21° 59'	3"	6.25	Ap	8-8-8	Ir*	4x100/230 FINE
2 ^h 45 ^m W	+36° 18'	2"-3"	7.25	A1	8-8-8	Ir*	4x100/220 FINE
1 ^h 50 ^m W	+38° 08'	3"	6.3	F216	8-8-8	Ferris*	4x100/430 FINE
					55	no filter	FINE

14 July 1969 / MWP. 2/9 0min

RE EXP. INTR. IMBALANCE: THERE IS SOME ADVANTAGE IN CUTTING THE HIGH VOLTAGE (NOT THE AMPLIFIER GRID) TO THE INTUBE; FOR EACH 100V CUT THE NO. OF COILS BY HALF OR SO, SOMEWHERE BELOW 300 V. THE TEST CUTS ARE

Dome Temp. 76°F

Transparency Conditions

Clear to South

Cloud to North

210

Focus
Dome Temp. 75°F when

H079 at 2:30

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
01 30W	-03 25'	1-2	4.3	m III	8-20	Expt. Sid. Vel.	4x100/45 SL. WORK
01 05W	+19° 09'	1-2	7.2	F	8-8-8		* EXP. OK
01 00W	+38° 07'	1-2"	6.3	F276	8-8-8	Fornio* (Fantastic; Fast)	4x100/435 FINE
01 20E	+58° 23'	1-2"	4.89	B3V	8-16	Hd* Ecl. Len	40/23 FINE
02 48E	+20° 43'	1-2"	2.7	A5	8-16	Hd* maybe strong	40/40 (GUIDING) SL. STRONG
	min. contact				5/5	no filter	FINE
						so fine as 8x at night in 2000	
						<u>To</u> Whoever spills wet paint on small ladder, <u>don't!!!</u> (+hot's o no no)	
						* FLEXURE; N.G. FOR RAD. OBL	

MWP 2/90 min @ 60°F

217

Date July 15-16, 1969 Time and Observer Tn, She, Dr, Bn 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.
32310	HD 140334	16 ^h 0 ^m	-23° 20'	G-12	II _a -O	9L	80°F	21:03	22:07	A
32311	HD 194071	20 ^h 18 ^m	+177° 55'	"	"	135	"	22:23	00:43	B
32312	HD 202156	21 ^h 15 ^m	+37° 49'	"	II _a -O	9XL	70°F	01:11	02:20	A
32313	HD 21699	03 ^h 25 ^m	+17° 11'	"	"	9L	"	02:46	03:30	C
32314	HD 12929	02 ^h 01 ^m	+22° 59'	"	"	9L	74°F	03:42	03:48	A
32314F	Focus			X	"		79°F			F
32314 T1	calibration strip - edge of plate									

(5:23)

16 July 1969

Dome Temp. 83F

Transparency Conditions clear, some haze

Focus

Dome Temp. 73°F

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
01 ^m 19 ^m W	-23° 29'	~4"	5.80	B8p	8-8-8	Bu* (cut short by 4" - PL) 2x100/91	SL. WEAK
00 ^m 2 ^m F	+28° 10'	2-3"	9.66	G8II	8-8-8	Hu* Sec Std Vel 4x100/250	* SL. WEAK
0 ^m 30 ^m W	+41° 53'	2"	6.3	F2Ib	8-8-8	Ferne* 4x100/420	SL. WEAK
04 ^m 40 ^m E	+47° 56'	~4"	5.36	B8II	8-8-8	Bu* 2x100/110	SL. WEAK
02 ^m 57 ^m E	+23° 22'	~3"	3.45	K2III	8-16	Orange Std Vel 40/45	SL. WEAK
	manufact				S/S	no filter	GOOD
MCP-2/9.0 min @ 68°F						see you in 10 days, Jan	
						* POSSIBLE FLEXURE	

219

~~Remember to add 25% more counts than listed on chart.~~

Date July 18-19, 1969 (Fri-Sat) Observer Ri-Bu 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.
32315	HD 176318	18 ^h 55 ^m .6	+32° 07'	C-12	E-33	9XL	76°F	20:50	21:48	A
32316	α Her	17 ^h 10 ^m .1	+16° 30'	"	"	9L	76°F	22:01	23:04	B
32317	HD 203156	21 ^h 15 ^m .6	+37° 49'	"	"	9XL		{ 23:15	{ 00:31	C
								{ 00:38	{ 03:14	
									20:06	
32318	β Ori	01 ^h 49 ^m	+10° 19'	"	"	9XL	70°F	03:29	03:37	A
32318F										B
									(5:31)	

Dome Temp. 78°F

Focus 05R

Dome Temp. 69°F

Transparency Conditions ... Clouds in S and W. Mase.
 Cloudy at about 00:30 EST
 Clear again at about 00:45 EST

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
01 ^h 39 ^m E	+38° 14'	~3"-4"	5.7	B6-7	8-8-8	Hude* 2x100/173	FINE
01 ^h 20 W	+14° 28'	~3"-4"	4.4	NSII	8-8-8	Bright Ed. Hel. some cloud during exposure 8x10/128	FINE
01 ^h 16 E	+38° 07'	~2"	6.3	F2Ib	8-8-8	Famie* some clouds 2x100/250	
01 ^h 26 W		~3"				capped at 00:31 EST because of clouds. Intermittent clouds after 00:40. Clear again towards end of exposure. Plate broken into 2 pcs. 4x10/36	BROKEN FINE
02 ^h 46 ^m E	+20° 41'		2.7	A5	8-8-8	Hd. Ed. Bin. 4x10/36	FINE FINE

223

Date Sun. July 20-21, 1969 Observer Ri. Ir. - 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.I.
32320	HD 176318	18 54.6	+38 07	G12	IIaO	9xL	74°F	22:05	23:20	A
32321	HD 187691	19 ^h 46.2	+10° 10'	G12	IIaO	9L	70°F	23:27	01:20	B
32322	HD 8441	1 ^h 18.5	+42° 31'	G12	IIaO	9L		02:05	03:37	C
32323	HD 25823	4 ^h 28.9	+28° 20'	G12	IIaO	9L	58°F	03:48	04:06	A
32323F	focus test		stop/min		IIaO	9L				B
									4:58	
32323 11	calibration	step wedge	for plates	12315-32323				21 July 1969		

Dome Temp. 71°F

Transparency Conditions *Hazy*

Focus

cloud at 22:30

Dome Temp. 66°F

clear after 23:30

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
14 46 E.	38 13	2	5.7	B6-7	8-8-8	Hube Spect. Bin. Buser 2 pair 2,100/173	V.SL. WK
14 56 E.	38 20	2	7.06	F8 III	8-16	Sec Sid. of Vel. <i>elongated not felt drawn 2,170/110</i>	VERY, VERY WEAK
21 4 12 W	-10 58	3.5	5.2	F7	8-8-8	Std. Vel. <i>2,120/200</i>	V.SL. WEAK
00 4 28 E	+38 07	~3	6.3	F2 IB	8-8-8	F. + <i>4x100/420</i>	SL. WEAK
01 4 14 W	+47 07	~3	7.5	F0	8-8-8	<i>4x400/500</i>	V.SL. WK
00 4 10 W	+58 23	~3	4.09	33 I	8-8-8	Galaxy Pair. <i>2x10/35</i>	(GAIDING) FINE
					5-5	<i>no filter</i>	FINE
MWP 2 / 9.2 min @ 68°F							

Dome Temp. 72° Transparency Conditions Clear
Beautiful 22:15 EST

Focus

Dome Temp. 64°

p.m.

ing Time EST.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality	
37	N 1 ^h 18 ^m	-23° 28'	3"	5.84	B8p	8-8-8	Bruckner's Star 200/130	U.S.L.WK	
34	N 1 ^h 29	28° 10'	2"	9.06	G-8	8-8-8	Secondary S.V. (star off alt) 800/330 2x	* U.S.L.WK	
25	2 ^h 30E	-18 05	3"	3.06	K1III	8-16	Bright Vel' Std 40/56	FINE	
27	4 ^h 34 ^m E	-47 57	2"	5.36	B6III	8-8-8	Bruckner's Star 200/140	FINE	
35	0 ^h 06E	+58 24	2"	4.89	B3V	8-8-8	ARC Cas Ech. Bin. 40/40	SL. STRONG, (POOR GUIDING)	
51	02 ^h 15E	+20 41	2	2.7	A5	8-16	Ech. Bin 20/20	SL. STRONG	
						5-5	no filter	FINE	
	m.w.p. 2/9 min @ 61° E						* PLATE SHOWS SIGNS OF FLEXURE; PERHAPS 3 HRS ↓ IS STILL THE UPPER LIMIT (OR LESS)		

229

Wed - 7 hours

Date Jul. 23-24, 1969 Observer Ri-Wi 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.
32336	HD 147165	16 15.1	-25 21	G12	IIaO	9L	75°	2045 ⁽¹⁰⁾	2055	A
32337	HD 148656	16 15.8	+3 20	G12	IIaO	9L	74°	2109 ⁽⁶⁰⁾	2209	B
32337F	focused	out of focus					74°			B
32337 T1	calibration	step	edge	for	plates	32336,	32337	24 July 1969		
								(1.50)		

Dome Temp. 74° Transparency Conditions *clouds in West*

Focus

*closed up at 23:00*Dome Temp. 72°

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0 ^h 25 ^m	-25 28	4	3.07	B III	8-16	<i>Broken</i> BK* $\frac{1}{2}$ " off one end	40/26 SL. WEAK
0 ^h 21 ^m	+3 24	4	5.76	FF III	8-8-8	<i>clouds at 21:25</i> BK* cut short by clouds 55" <i>no filter</i>	4x100/270 SL. WEAK V.U. SL. CENTER TO RED
<i>MWP-2 / 9.0 min @ 65°F</i>							

233

Go Lp Er - 178 visitors
- 2 Her

Date July 26/27 1969 Sat/Sun Observer Tom / 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.
32338	HD 203156	21 ^h 15.4	+37° 49'	G12	Ilao	9XL	70°F	23:17	00:12	F
32340	Y2 Cep	22 ^h 29.3	+66 38'	G12	Ilao	13E	4	00:25	01:42	B
32341 F	Focus						65°F			B
									(2:15)	
32340 7.	calibration step wedge for plates				32338 - 32340				28 July 1969	

Dome Temp. 68°F

Transparency Conditions Haze + clouds

Focus

Dome Temp.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
01 05 E	+38 06	3-3"	6.3	F216	8/8/8	Ferric *	400/440
00 48 E	+65 59	4	8.4	09.5	8/8/8	ECL. BINARIES	400/57
					5/5	<u>CLOUDS</u> + 5 E/HR	NO. SL. CENTER - 10. RTD
MUR 2/ 9.0 min @ 68°F							
<u>N.B.</u> TOP DOOR <u>VERY</u> HARD TO OPEN							

235

Date July 28-29, 1969 Observer Jf, In 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.
32341	HD 139892	15h 35.6m	+36°58'	G12	400	9L	70°F	20.53 ¹²	21:05	A
32342	My Gigg.	20h 16.2	+33°38'	G12	400	135	69°F	21:20	23:45	B
32341 F	Focus Test						69°F			B
								(0:12)		
32341 71	calibration	step	emulge	for	plate #	32341		29 July 1969		

Dome Temp. 70°

Focus

Dome Temp. 65° ↓

Transparency Conditions Scattered clouds
 Clouded in 23^h
 Open again at 0^h 50^m
 Clear 1^h and on

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
W 0 ^h 4 ^m	+22° 00'	4"	6.25	Ap	8-8-8	Ap Program Star (6-ster 1" off) 200/150	SL. WEAK
W 0 ^h 26 ^m	+33° 21'	3"	3.4	Bp	-	Polarization Program (long exposure) 52	OK
					5/5	no filter	FINE
W 1 ^h 39 ^m	+27° 43'	3"	6.33	AOp	8-8-8	Ap Program Star 200/150	FINE
W 1 ^h 52 ^m	+38° 07'	2.5"	6.3	FAI 6	8-8-8	Trans * 40/450	U.S.L. WEAK (GUSTY WIND)
2 ^h 25 ^m	+20° 42'	3"	7.7	A5	8-16	Et. Ecl. Bin 20/18	FINE
3 ^h 26 ^m	+47° 56'	5"	5.36	B ^{III}	8-8-8	Fp Program star 200/140	FINE
3 ^h 31 ^m	+23° 58'	2"	3.54	B ^{III}	8-16	Bp Program Star 40/40	U.S.L. STRONG
3 ^h 18 ^m	+24° 03'	3"	5.01	B8p	8-16	Fp Program star (Sunlight too strong) 40/30	SL. WEAK
						Just like the pictures!	
<p>inc P. 2 / 9.0 min @ 6.5x</p>							

239

Wood - Tanks

Waterloo

Date July 28-31 Observer T. E. J. M. Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I.
32350	Sky Spectrum			G12	Duo	9L	73°F	21:28 ⁽¹³⁾	23:31	A
32351	α Lyr	18 ^h 33 ^m	+38° 41'	"	"	9L	70°F	23:47 ⁽¹³⁾	23:49	C
32352	"	"	"	"	"	9L	"	23:52 ⁽¹³⁾	23:53	A
32353	M.H. 328-116	19 ^h 55 ^m	+59° 41'	"	"	9L	71°F	0:20 ⁽¹³⁾	02:58	A
32354	α Lyr	18 ^h 33 ^m	+38° 41'	"	"	9L	70°F	03:07 ⁽¹³⁾	03:10	C
32355	HD 216916	27 ^h 51 ^m	+41° 04'	"	"	9L	70	03:25 ⁽¹³⁾	03:43	A
32356	HD 3627 3627	0 ^h 34 ^m	+30° 19'	"	"	9L	69°F	03:50 ⁽¹³⁾	03:59	C
32356 F	Focos			"	"	"	69°F			E
32350 71	calibration strip		wedge	fo. #32350						31 July 169
32350 72	"	"	"	"	plates 32350 - 32356					"

(5:14)

Dome Temp. 74°F

Focus

Dome Temp. 69°F

Transparency Conditions

superior
clear by 23:30

240

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
	-10°				8-8-8	of clouds. Hour L 0° [much moonlight for 2nd hour]	NO SKY
N 1° 30"	+38° 46'	2-3"	.04	A0V	12-12	prob strong	20/15 VERY STRONG (GUSTING)
N 1° 35"	"	"	"	"	12-12		20/13 STRONG (GUSTING)
N 03° 20"	+39° 45'	2"	10.8		8-8-8	Planetary Nebula emission	2000/105 (GUSTING)
N 04° 51"	+38° 46'	3"	.04	A0V	12-12		20/13 FINE
N 01° 06"	+41° 27'	3"	5.48	B2IV	8-8-8	Vis Bin	200/150 FINE
E 0° 22"	+30° 47'	2"	157	K3IV	8-16	Vis Bin	40/56 FINE
					5/5	no filter	FINE
						Area: Dr Fitzgerald wants a calibration to go with the 5th spectrum. You do it anyway. I guess I can take photos of plates / etc in the dome.	
						in WP. 2 / 9.0 min @ 68°	

Dome Temp. 71°F

Focus

Dome Temp. 70°F

Transparency Conditions *overcast but clear* 242
very hazy when started

*Some light clouds at 07:45
clear at 08:00
cloud by 09:00*

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
$02^{\text{h}}30^{\text{m}}$	$+38^{\circ}06'$	3"	6.3	F216	8-8-8	Ferne* capped for 15 min because 4x100/470 5/5 no filter	* U.S.A. WK (GOOD)
						* NO COMPARISON!	

Dome Temp. 73°F

Transparency Conditions Good Excellent

Focus

Dome Temp. 64°F

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
01:03	+33° 53'	1-2"	8.7	A5	8-8-8	ECL. BINARIES	400/150 SL. WEAK
01:05 W	+14° 21'	"	8.5	A3	8-8-8	"	400/150 SL. WEAK
01:12 W	+67° 00'	2-3"	8.4	09.5	8-8-8	"	400/150 VERY WEAK (MIXING)
01:16	+58 22'	"	4.89	B3E	8-8-8	"	40/30 SL. WEAK
01:01 E	+20 40	"	2.7	A5	8-16	" (broken 2pc)	50/14 <u>BROKEN</u> STRONG
	on the test out				5/5	500 5/100	GOOD

247

Date Su / Mon Aug 3/4 1969 Observer Tn, Bu, Ske Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End
32364	HD 128661	14 ^h 32.1 ^m	+36° 22'	G12	D ₀₀	9L	72°F	20:37	22:28	A
32365	HD 203156	21 ^h 15.4 ^m	+37° 49'	G12	II ₀₀	9XL	71°F	22:46	00:30	B
32366	E Peg	21 ^h 39.3 ^m	+3° 25'	"	"	9L	69°F	01:08	01:46	C
32367	HD 21699	03 ^h 25.1 ^m	+47° 21'	"	"	9L	68°F	02:05	04:15	A
32367F	Focus	Test		G12	II ₀₀					B
									(6:23)	
32375 71	calibration	step wedge	for plate		32361, 32362,		32368 - 32374			Aug 8/69
32375 72	"	"	"	"	32357 - 32360,		32363 - 32367, 32375.			"

249

Date March 20, 1952 Observer Gz. To Julian Day 171.5

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I.
32368	HD 138661	14 ^h 33 ^m	+36° 21'	G12	D10	91	72°F	20:38 ⁽²⁾	21:40	A
32369	M4 Cap	20 ^h 16 ^m	+33° 38'	G12	D10	13S	72°F	21:27 ⁽⁹⁵⁾	23:22	C
32370	M8 Cap	22 ^h 29 ^m	+66° 38'	"	"	13S	70°F	23:33 ⁽¹⁰⁾	01:27	C
32371	AR Cap	22 ^h 25 ^m	+58° 00'	"	"	9L	69°F	01:37 ⁽⁸⁾	01:45	A
32372	B Am	01 ^h 49 ^m	+20° 19'	"	"	9XL	69°F	01:56 ⁽¹⁾	01:57	A
32373	HD 203156	21 ^h 15 ^m	+37° 49'	"	"	9XL	69°F	02:09 ⁽³⁹⁾	02:39	E
32374	M7 Plc	23 ^h 05 ^m	+2° 08'	"	"	13S	"	02:50 ⁽⁷⁾	04:08	A
32375	B Am	01 ^h 49 ^m	+20° 19'	"	"	9XL	68°F	04:20 ⁽²⁾	04:22	B
32375 F	Focus	Test		"	D10		68°F			B

(6:30)

Dome Temp. 75°F

Transparency Conditions *scattered cloud*
(SEEING VERY GOOD)

Focus

Dome Temp. 70°F?

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
03 ^h 40 ^m	+36° 06'	2"	7.0	A0	8-8-8	<i>not binary</i>	700/280 U.S.L. WIK
0 ^h 19 ^m	+33° 52'	2"	8.7	A5	8-8-8	ECL. BINARIES	700/160 SL. WEAK (GUIDING)
0 ^h 26 ^m	+67° 01'	1"-2"	8.4	O9.5	8-8-8	" "	(SOME CLOUDS) 400/160 WEAK
01 ^h 05 ^m	+58° 22'	<1"	4.59	B3V	8-8-8	" "	(SEEING < 1") 400/300 SL. STRONG GUIDING
04 ^h 43 ^m	+20 40'	<1"	2.7	A5	12-12	" "	20/20 EXP. OK
02 00	+38 05'	1-2"	6.3	F2Ib	12-12	Ferris *	400/450 FINE
01 37	+02 32'	1-2"	8.5	K1III	8-8-8	ECL. BINARIES	400/330 SL. WEAK BROKEN
0 ^h 51 ^m	+20° 42'	1-2"	2.7	A5	12-12	broken spec.	20/20 U.S.L. STRONG (GUIDING)
					5/5	no filter	GOOD

251

Date *Tues. Evng Aug 5 6* Observer *St. 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.	
32376	4D 203156	21 ^h 15 ^m	37° 47'	GI2	IIaD	9XL	71°F	01:56	02:44	A	
# 32376 T1	calibration step wedge for plate # 32376								6 August 1969		
									(0.46)		

Dome Temp. 70°F Transparency Conditions *scattered cloud*

Focus

Thick cloud at 02:30

Dome Temp.

bad night

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
44 2 ^h 08 ^m W	+38° 06'	4	6.3	F2 Ib	8-16	<i>Form* (stopped by cloud) closed 03^h</i>	<i>4x100/120 VERY WK.</i>
	<i>mwp-2 / 9.0 min @ 68°F</i>						

Dome Temp. 77° F

Focus

Dome Temp. 70° F

Transparency Conditions *Hazy then clear*

254

1st plate broken, reported exposure

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
52 ^m E	+19° 45'	2"	6.15	68E	8-16	BK [*] Vis. P.aries 40/45	SL WEAK
54 ^m W	+19° 50'	2"	7.44	M0 III	8-8-8	BK [*] Vis. Binary 200/330	SL WEAK
2 ^h 05 W	+38° 45'	3"	0.04	A0 V	38	Setting 40 (did flat) 200/12	STRONG
2 ^h 12 W	+38° 45'	2"	0.04	A0 Z	36	40 200/12	STRONG
2 ^h 36 W	+39° 44'	2"	10.8		12-24-18	Planetary Neb 40 400³/156	FINE-STR.
5 ^h 09 W	+38° 46'	3"	0.04	A0 E	53	200/14	FINE
					5/5	612 filter (40 setting)	CENTRE TO VIOLET
0 ^h 14 ^m E	+58° 09'	3'	5.63	F0 Ia	8-8-8	BK [*] Vis. 2 nd cut short by deep clouds 40/33	(POOR GUIDING) V.S.L. WEAK
					5/5	no filter	GOOD

new p. 1/9 min @ 68° C

The phantom pointers did it again. Point subject etc. but they in the morning with dark sky and during the evening session, please!

Dome Temp. 75°F

Transparency Conditions good, some cloud cleared at 9:00 EST

Focus

Dome Temp. 65°F

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
33 ^m E	+77° 00'	2"	6.25	Ap	8-8-8	Ap Program 2x100/160	(GUIDING) FINE
14 ^m W	+71° 21'	2"	3.85	Ap	12-12	Ap Program prob 5 ⁺ 2x10/18	FINE
01 ^h 05 ^m W	-15° 39'	3"	5.71	1051	8-8-8	Ap Program 2x100/170	FINE
03 ^h 11 ^m W	+4° 59'	3"	6.29	AO	8-8-8	Ap Program 2x100/160	FINE
02 ^h 55 ^m W	+36° 18'	2"	4.75	As2	8-8-8	Ap Programme 2x100/160	FINE
03 ^h 45 ^m W	+27° 44'	3"	6.33	Ap	8-8-8	Ap Programme some faint problems 4x100/320	FINE
02 ^h 21 ^m E	+56° 23'	3"	3.34	KO	8-12	Standard Velocity 40/56	FINE
01 ^h 10 ^m E	+43° 00'	2-3"	5.92	NO p	8-8-8	Ap Programme (1" filter used) 4x100/320	FINE
					5/5	no filter	GOOD

Dome Temp. 65°F

Focus

Dome Temp.

Transparency Conditions

260
Cloud + 120 12:30
clouds at 1:00
clear 1:20
clouds 1:30
cloud 2:30

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
	38° 07'	3-2	62	F21	8-	Frame 3121 Only 10% exposure so throw out	
						Disc. T.V. doesn't work particularly large group visitors might have some things to do	

261

Shepherd

Date Sun - Mar 16-11-49 Observer Bu, Jr, Hs 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.
32393	HD 16 0952	17 ^h 37 ^m 7	+29 ^o 39'	G12	Ilao	9s	67°F	20:45 ⁽²⁴⁾	0:46	A
32394	HD 203156	21 ^h 18 ^m 5	+38 ^o 07'	G12	Ilao	9XL	63°F	0:57 ⁽¹³⁾	01:10	C
								01:30 ⁽⁴⁶⁾	02:16	
32395	HD 21699	03 ^h 25 ^m 7	+47 ^o 41'	G12	Ilao	9L	62°F	02:52 ⁽²⁵⁾	03:20	A
32396	28 Tau	03 ^h 45 ^m 3	+23 ^o 50'	G12	Ilao	9XL	62°F	03:41 ⁽¹⁴⁾	03:55	B
								04:03 ⁽¹⁰⁾	04:13	
32397	27 Tau	03 ^h 43 ^m 3	+23 ^o 45'	G12	Ilao	9XL	60°F	04:15 ⁽⁵⁾	04:23	A
32397F	Focus			G12	Ilao		60°F			C
32397	71	calibration step wedge for plates 32394 - 32397						6:12/5:57	11 Aug/69	

263

①

NEWTONIAN

Date Aug 11-12/69 Observer CC-Tn-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.	I	Hour Angle End
32398	NGC 7078	21 28.6	+12 02	Newt	103A0			22 19	22 26	1	1:37E
32399	"	"	"	"	103A0			22 33	22 40	2	
32400	"	"	"	"	103A0			22 49	22 56	1	1:28E
32401	"	"	"	"	103AD			23 00	23 07	2	1:17E
32402	"	"	"	"	103A0			23 13	23:22	1	1:25E
32403	"	"	"	"	103AD			23 26	23:34	2	
32404	" 6864	20 044	-22 01		103A0			00 25	00 40	1	1:40W
32405	" 7078	21 28.6	+12 02		103AD			00 51	00 58	2	1:34W
32406	"	"	"		103A0			01 01	01 08	1	1:43W
32407	" 6864	20 044	-22 01		103A0			01 15	01 30	2	1:38W
32408	" 7078	21 28.6	+12 02		103A0			01 43	01 50	1	1:37W
32409	"	"	"		103AD			02 05	02 12	2	1:43W
32410	"	"	"		103A0			02 16	02 23	1	1:36W
32411	"	"	"		103AD			02 27	02 34	2	1:31W
32412	"	"	"		103A0			02 37	02 44	1	1:42W

Dome Temp. 68°F

Transparency Conditions

264
 Cloudy early evening
 very clear patches
 clear after 23^h

Focus

Dome Temp.

Hour	Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
22:26	1 57E					7 min		
22:40						7 min	Light cloud	
22:56	1 28E					7 min	Clouds.	
23:07	1 17E					7 min		
23:22	1 02E					9 mins		
23:34						8 mins	↳ Refocused	
23:40	1 40 W					15 mins no filter		
23:56	0 34 W					7 mins		
00:08	0 45 W					7 mins		
00:30	2 30 W					15 mins no filter		
01:00	1 27 W	+12° 04'				7 mins		
01:12	1 49 W					7 mins		
01:28	2 00 W					7 mins		
01:34	2 11 W					7 mins		
01:44	2 21 W					7 mins		

cont next page →

Dome Temp.

Transparency Conditions

Focus

Dome Temp.

cloud by 03130

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
02 ^h 30 ^m W					7 mins		
02 ^h 41 ^m W					6 mins		
02 ^h 50 ^m W					7 mins		
03 ^h 02 ^m W					7 ins		
03 ^h 10 ^m W					6 mins	clouded in (cut short)	
(NEWTON) 2137						* exposed plates in dark room.	

267

①

Newtonian

Date Tues-Wed Aug 12-13/69 Observer CC-Tm-HL Julian Day

Plate No.	Object	R.A. 1900 1970	Declination 1900 1970	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
32418	NGC 7078	21 ^h 28.6 ^m	+12° 02'	Neut	103A ₀			22:28	22:37	1
32419	" "	"	"	"	103AD			22:39	22:50	2
32420	" "	"	"	"	103A ₀			22:53	23:02	1
32421	" "	"	"	"	103AD			23:07	23:17	2
32422	" "	"	"	"	103A ₀			23:21	23:28	1
32423	" "	"	"	"	103AD			23:31	23:42	2
32424	" "	"	"	"	103A ₀			23:45	23:54	1
32425	" "	"	"	"	103AD			23:56	00:08	2
32426	" "	"	"	"	103A ₀			00:15	00:23	1
32427	" "	"	"	"	103AD			00:33	00:45	2
32428	" "	"	"	"	103A ₀			00:56	01:04	1
32429	" "	"	"	"	103AD			01:07	01:17	2
32430	" "	"	"	"	103A ₀			01:20	01:29	1
32431	" "	"	"	"	103AD			01:31 ⁴⁶	01:43 ⁴⁶	2
32432	" "	"	"	"	103A ₀			01:52 ⁴⁵	02:02	1
32433	" "	"	"	"	103AD			02:06 ³⁰	02:18	2

Dome Temp. 68°F Transparency Conditions HAZY, SOME CLOUDS

268

Focus

Dome Temp. 63°F

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
01 ^h 43 ^m E	+12° 04'				9 mins	from the sky	
01 ^h 30 ^m E					11 mins	some cloud	
01 ^h 16 ^m E					9 mins		
01 ^h 02 ^m E					10 mins		
01 ^h 51 ^m E					7½ mins		
01 ^h 37 ^m E					11 mins		
01 ^h 25 ^m E					9½ mins		
01 ^h 11 ^m E					12 mins		
01 ^h 3 ^m W					8 mins	Tr guided	
01 ^h 25 ^m W					12 mins	Tr guided	
01 ^h 45 ^m W					8½ mins		
01 ^h 57 ^m W					12 mins		
01 ^h 9 ^m W					9 mins		
01 ^h 24 ^m W					12 mins		
01 ^h 43 ^m W					10 mins	Tr guided	
01 ^h 59 ^m W					12 mins	Tr guided	continued next page

Dome Temp.

Transparency Conditions

Focus

Dome Temp.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
2 ^h 12 ^m W					9 mins	Hl guided	
2 ^h 29 ^m W					12 mins		
2 ^h 41 ^m W					9 mins		
2 ^h 54 ^m W					12 mins		
3 ^h 08 ^m W					8 min	Tn guided	
3 ^h 28 ^m W					12 min	Tn guided	
NEWTON / 3:44							

Dome Temp. 75°F

Transparency Conditions Clear, but hazy all night

Focus

some haze in west

Dome Temp. 70°F

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
						focus * 8 Oph	
23	2 ^h 04 ^m W	-12° 57'			10 mins		
00	1 ^h 44 ^m W				8 mins		
05	2 ^h 09 ^m E	+12° 04'			8 mins		
09	1 ^h 37 ^m E				10 mins		
12	1 ^h 24 ^m E				8 mins		
15	1 ^h 11 ^m E				10 mins		
18	0 ^h 58 ^m E				8 mins		
21	0 ^h 37 ^m E				10 mins		
24	1 ^h 26 ^m E				8 mins		
01	0 ^h 14 ^m E				10 mins		
03	0 ^h 02 ^m E				8 mins		
06	0 ^h 11 ^m W				10 mins		
09	0 ^h 21 ^m W				8 mins		
12	0 ^h 34 ^m W				10 mins		

Dome Temp.

Transparency Conditions

Hazy at 0^h

274

Focus

Dome Temp.

Hour	Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
1	04 ^m W					10 mins.		
1	18 ^m W					10 mins.	In guided	
1	30 ^m W					8 mins.	In guided	
1	43 ^m W					10 mins.	In guided	
1	58 ^m W					8 mins.		
2	11 ^m W					10 mins.		
2	24 ^m W					8½ mins.		
2	37 ^m W					10 mins.		
2	49 ^m W					7 mins.		
3	01 ^m W					9 mins.		
3	11 ^m W					7 mins.		
3	23 ^m W					9 mins.		

~~Seeing~~

- CHANGE BACK TO

CASSGRAIN.

275

CASSEGRAINDate Fri - Sat Aug 15/16, 1969 Observer Tm - G2 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.
33456	MY Cyg	20 ^h 16.2	+33° 38'	G12	Ilao	13 S	78°F	21:23	22:27	A
32467	HD 176318	18 ^h 54.6	+38° 07'	"	"	9 L	76°F	22:37	23:36	C
32455	AR Cas	23 25.4	+58° 00'	"	"	9 L	"	23:48	00:05	B
								00:05		
								<u>6:12/2:20</u>		

Dome Temp. 80°F Transparency Conditions *Very Hazy*

276

Focus

Dome Temp.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
00 32 E	$+33^{\circ} 51'$	2"	8.7	A5	8-16	ECL. BIN. (TOO SHOW)	400/44 very weak
01 52 W	$+38^{\circ} 14'$	2-3"	5.7	B5-7	8-8-8	Spot. P.P.	200/160 vs. weak
02 03 E	$+58^{\circ} 23'$	~1-2"	4.89	B3V	8-8-8	ECL. BIN.	200/160 Fine guiding
PLATES WERE BRAKING (ALL OF THOSE TRIED)							
GAVE UP. HAVY HAZE ANYWAYS.							
(From Fresh box)							

Dome Temp. 72° E

Transparency Conditions ... Very hazy

Focus

clear after 22 h

Dome Temp.

Hour Angle Ead	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0° 55" W	+22° 02'	2"	4.25	A 50	8-8-8	Ap Program	Fine
0° 55" W	+22° 02'	2-3"	6.25	Ap	2-8-8	Ap Program	2.000/160
5° 42" E	+18° 07'	2"	4.3	F516	8-8-8	For Focus.	4.000/170 ^{guiding} vs least
1° 29" W	+27° 43'	3'	4.33	ADP	8-8-8	Ap Program (Vixen eye)	2.000/160 Fine

- Plates - breaking apart,
- I cut more - they break apart,
- Weather looked at several
interesting objects & closed up
clouded in at 03^h

114P-2 / 9 min @ 68°K

279

Date Tues - Wed 9/19/2010 Observer Dr. J. Julian Day 2454.5

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I.
32473	HD-160952	17 ^h 37.7 ^m	+29° 39'	G12	IIa0	135	66°F	20:14	23:56	C
32474	HD 203156	21 ^h 15.4 ^m	+37° 49'	"	"	9xL	55°F	00:19	01:40	A
32475	HD 222361	23 ^h 34.8 ^m	+5° 05'	"	"	9L	61°F	01:55	02:14	B
32476	2 Sc1	0 ^h 53.8 ^m	-29° 54'	"	"	9L	60°F	02:27	02:59	A
32477	AF Cas	23 ^h 26.4 ^m	+50° 0'	"	"	9L	59°F	03:16	03:36	C
32478	L Cas	01 ^h 49 ^m	+20° 19'	"	"	9L	"	03:44	03:50	A
32479	27 Tau	03 ^h 43.2 ^m	+23° 45'	"	"	9xL	55°F	04:38	04:45	
32479F	Focus			G12	IIa0		57°F			
32479T1	Coli Step wedge				for plates 324					

6/2/5/27

Dome Temp. 68°FTransparency Conditions quite clear

280

Focus

Dome Temp.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
3 ^h 52 ^m W	+29° 37'	3"	9.04	G8 III	8-8-8	See Std. Vel (finder PU down) <i>Sold the br. on</i>	4x100/260
1 ^h 58 ^m W	+37° 07'	4"	6.3	F2 Ib	8-8-8	For Fernie	4x100/470 Fine
0 ^h 11 ^m W	+5° 32'	4"	4.64	F7 V	12-12	Std Vel	4x100/42 Fine
0 ^h 21 ^m E	-29° 25'	6-11"	4.14	B8 III	8-8-8	Bp Program	4x100/32 Fine
01 ^h 44 ^m W	+58° 25'	3-6"	4.69	B3 V	12-12	Ecl Bin	4x100/30 Fine
0 ^h 20 ^m E	+20° 42'	3"	2.7	A5	12-12	Bp Ecl Bin	20/1.9 sl strong
01 ^h 25 ^m E	+23° 54'	3-4"	3.54	B8 III	12-12	Bp Program	2x100/32 sl strong ^{gully}
						↑ did 2870v lit exposed plate (700 times etc. etc.)	
						5/5 not filter	vst. to violet
Aug 23/69. M.W.P. 2 for 2 min @ 68°F							

281

Waterloo night

Date Wed - Thurs Aug 20/21 Observer Rt. In 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.
32480	HD 168656	18 15.8	+ 3 20	G12	D 00	9L	63°F	20:08 ⁽³⁷⁾	20:45	A
32481	HD 172748	18 ^h 36.8 ^m	- 9° 09'	"	"	9L	62°F	20:56 ⁽³⁸⁾	21:28	B
32482	HD 180955	19 22.1	+ 19 41	"	"	"	62.0	21:42 ⁽³⁹⁾	23:24	B
32483	HD 214665	22 34.7	+ 56 17	"	"	"	59.0	23:48 ⁽⁴⁰⁾	0:54	A
32484	HD 215373	22 ^h 39.6 ^m	+ 41° 18'	"	"	"	58°F	01:03 ⁽⁴¹⁾	1:52	C
32485	HD 203156	21 ^h 15.4 ^m	+ 37° 48'	"	"	9L	57°F	01:59 ⁽⁴²⁾	2:44	A
32486	HD 3574	0 ^h 38.6 ^m	+ 48° 49'	"	"	9L	56°F	02:52 ⁽⁴³⁾	03:56	C
32487	HD 3677	0 ^h 34.8 ^m	+ 30° 19'	"	"	9L	"	04:04 ⁽⁴⁴⁾	04:14	B
32488	HD. 12533	1 57.8	24 51	"	"	9L	55°	04:24 ⁽⁴⁵⁾	04:26	A
32488 F	Focus			"	"		55°F			B
32488 T1	Cal. step wedge for plates									

32481, 82, 83, 85, 86, 87, 88 Aug 22/29

G12/6:47

Dome Temp. 73°F

Transparency Conditions

Very Good

Focus

clouds at 73h
scattered clouds throughout

Dome Temp. 65°F

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality (HR)
4 ^h 39 ^m W	+36° 07'	2-3"	7.0	A0	8-8-8	ECL. BIN.	200/160 FINE
	+33° 54'	1-2"	8.7	A5	8-8-8	" [coupled at 23:15]	400/154? FINGERPRINT* V. SL. STRONG
01 23 W	"	"	"	"	"		
01:20 W	+38° 08'	2-3"	6.3	F2IB	8-8-8	FERNIE*	400/450 V. FINE
02:16 W	+67° 02'	"	8.4	095	8-8-8	ECL. BIN. [SPEC. TOUCHES PIER]	400/151 WEAK (SL. GUIDING)
02:12 W	+58° 22'S	1-2"	4.89	B3V	8-8-8	" CLOUDS	200/160 STRONG (SL. GUIDING)
00:01 W	+20° 40'	"	2.7	A5	12-12	"	20/23 SL. STRONG
01:10 E	+47° 55'	"	5.26	B8III	8-8-8	Bp PROGRAM	200/160 SL. STRONG
01:16 E	+23° 58'	"	3.54	B8p	12-12	"	20/16 STRONG
	in / out of				5/5	no filter	FINE
	M.W.P. 2	9 min	@ 67°F			* watch fingerprints & dirt	

987

Visitors Go - 78+88. M13

Date SAT/SUN Aug. 23/24, 1969. Observer Ri/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.F.
32503	M1 Cep	20 ^h 16.2	+33° 38'	G12	Ilav	13S	77°F	21:59 ¹¹⁴	23:53	A
32504	X7 Cep	23 ^h 25.3	+66° 38'	"	"	13S	75°F	00:00 ¹³¹	02:11	B
32505	AR Cas	23 ^h 25.4	+58° 00'	"	"	9L	73°F	02:18 ¹¹	02:29	C
32506	B Ari	01 ^h 42.0	+20° 19'	"	"	9XL	73°F	02:37 ³	02:40	A
32507	B Ari	04 ^h 58.0	+41° 09'	"	"	13S	73°F	02:50 ²⁹	04:10	B
32507F	focus test	out	out/w/w	"	"	13	70°F			B
32507A	Calibration	step wedge for plates				32489-94,	32505-06	Aug 24		
								(6/2/5:48)		

Dome Temp. 78°F

Transparency Conditions

Good (some haze)

298

Focus

Dome Temp. 72°F

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
01 25 W	+33° 52'	1-2"	8.7	A5	8-8-8	ECL. BIN.	800/424 sl weak
01 32 W	+63° 02'	~1"	8.4	09.5	8-8-8	"	800/424 sl weak
00 52 W	+58° 24'	"	4.89	B3V	8-8-8	"	200/170 FINE
01 20 E	+20° 42'	"	2.7	A5	12-12	"	50/23 FINE
?	+41° 17'	"	8.5	B5V	8-16	" 5' Broken no filter	800/218 weak C TO V1
M.W.P. 2 9 min @ 67°F							

289

Date Sun Mon Aug 24-25 1969 Observer Ri-BZ 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.
32508	HD 128661	14 33.1	+36 22	G12	IIA0	9L	74°F	20:02 ⁸⁵	21:27	A
32509	MY Cys	20 16.2	+33 38	"	"	135		21:40 ¹²⁰	23:40	B
32510	HD 203156	21 15.4	+37 49	"	"	9xL	75°F	23:48 ⁵²	00:40	C
32511	α Scl	0 53.8	-29° 54'	"	"	9L	73°F	01:04 ⁵¹	01:58	A
32512	HD 21699	02 ^h 25 ^m .1	+47° 41'	"	"	9L	72°F	02:20 ¹⁹	02:39	B
32513	28 Tau	03 ^h 43 ^m .2	+23° 50'	"	"	9XL	72°F	03:13 ³⁰	03:43	C
32514	27 Tau	03 ^h 43 ^m .2	+23° 45'	"	"	9XL	71°F	03:50 ⁴	05:14	A
32515	HD 34792	05 ^h 14 ^m .9	-18° 27'	"	"	9L		04:08 ³⁵	04:42	B
32515 F	frame					9	71°F			C
32515 T	Calibration slip wedge for plates			32507	32508-32515				Aug 28	
									(6/12/69)	

Dome Temp. 78°

Transparency Conditions Good

290

Focus

Dome Temp.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
04 ^h 46 ^m W	+36° 07'	2"	7.0	A0	8-8-8	ECL. B1W.	400/320 FINE
01 ^h 15 ^m W	33 54	1-2"	8.7	A5	8-8-8	" "	800/434 FINE
01 ^h 17 ^m W	38 08	~3"	6.3	FZIB	8-8-8	F ₂ *	400/460 FINE FING. PL. W
01 ^h 02 ^m E	-29° 26'	~3"	4.14	B8B	8-8-8	B _p Programme	4x10/32 FINE
02 ^h 55 ^m E	+47° 57'	~2"	5.26	B2B	8-8-8	B _p Programme (seeing very variable)	2x100/160 FINE
02 ^h 08 ^m E	+76° 06'	~2"	5.01	B8P	8-9-7	B _p Programme (v. G*) Forgot to pull out lock side. store the data. 2x100/240	GUIDING FINE
01 ^h 56 ^m E	+24° 01'	~2"	3.24	C8B	12-12	B _p Programme (comparison star)	2x10/20 FINE
01 ^h 57 ^m E	-18° 28'	~6"	6.05	B8	8-16	B _p Programme (should have had 160 counts. Comparison very weak)	2x100/21 v. weak
					5-5	had 160 counts. Comparison very weak	FINE
						at bit cold as the first 2 sec. were taken while the old was still XL.)	

M.U.P. from 01 57^m E

291

Date Mon. Tns. Aug 25-26 1969 Observer R. J. J. Julian Day 242.5

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.F.
32516	HU 128661	14	33.1 +36 22	G12	IIaD	9L	76°F	20:00 ¹²⁰	22:00	A
32517	HU 176318	18	54.6 +38 07	"	"	9xL	72°F	22:10 ⁴²	22:52	B
32518	HU 203156	21	15.4 +37° 49	"	"	9xL	70°F	23:01 ⁷⁶	00:17	C
32519	HD 209213	23	01.0 +26° 45'	"	"	13L	68°F	00:25 ⁽¹⁶⁰⁾	03:13	A
32520	HD CAS	23	25.4 +58 00	"	"	9L		03:25 ⁽¹⁵⁾	03:40	C
32521	B 111	01	49.0 +20 19	"	"	9/2	65°F	03:46 ⁽⁹⁾	03:51	A
32522	HD 221184	03	31.8 +00 05	"	"	9L		03:56 ⁽³²⁾	04:24	B
32521F	focus test		20.00/mini				64°F			B
32522T1	calibration		step wedge for plates		32516-22				Aug 25 1969	
									(6/27:44)	

Dome Temp. 76°F

Transparency Conditions lazy

Focus

Dome Temp.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
05 ^h 25W	+36 06	2-3	7.2	R0	8-8-8	Fal. 3W, 40/208	weak
01 ^h 55W	+38 15	3	5.7	R6-7	8-8-8	Sp-7. 5W, 200/173	sl. weak
01 ^h 00W	38 08	3	6.3	R220	8-8-8	7.4, 400/460	sl. weak
23 10W	47 07	3	7.5	R0	8-8-8	Plate broken - 5 pieces, 400/540	FINE
02 10W	56 25	3-4	4.8	S3V	8-8-8	Fal. 6W, 200/170	FINE
00, 02E			2.7	R5	12-12	" " 20/22	FINE
21.00E	+20 22		5.2	F9	8-8-8	Spl. 1el. 40/48	FINE
					5.5	no filter	OK
	M.W.P. 9mm	670F					



293

Date Wed. Aug. 26.87. 1969 Observer Ri/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.F.
32523	MY Cys	20 16.2	33 38	G12	ITaO	185	65°F	19:54 ⁽¹⁴⁾	22:15	B
32524	XZ Cep	22 ^h 29.3	+66° 38'	"	"	135	63°F	22:27 ⁽¹⁹⁾	00:26	A
32525	AR Cas	23 ^h 25.4	+58° 00'	"	"	9L	61°F	00:34 ⁽¹⁴⁾	00:48	C
32526	MY Cys	20 ^h 16.2	+33° 38'	"	"	135	58°F	00:56 ⁽¹²⁾	02:48	B
32527	β Ari	01 ^h 43.0	+20° 19'	"	"	2XL		02:55 ⁽⁴⁾	02:52	A
32528	BE Awt	04 ^h 58.0	+41° 09'	"	"	135		03:07 ⁽⁹⁹⁾	04:46	C
32528F	glass test	22nd/11				13	55°F			B
32528T	Calibration	Step Wedge	for plates	32523-28				27 Aug 69		
								G12/8:09		

Dome Temp. 65°F

Transparency Conditions VERY GOOD (SEEING BAD)
SOME CLOUDS AT 00^h

Focus

Dome Temp. 54°F

Hour	Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
00	00	13 53	3-4"	8.7	A5	8-8-8	col. Bin	500/300 weak
00	10E	+67 03'	"	8.4		09-58-16	"	800/210 weak
00	38E	+58 24'	"	4.89	B3V	8-8-8	"	300/170 FINE
00	00	+33 54	"	8.7	A5	8-8-5	"	500/300 sl. weak
00	50E	+20 43'	"	2.7	A5	12-12	"	20/22 FINE
00	10E	+41 17	"	8.5	B5V	8-16	"	500/165 weak
						5-5	no filter	OK
M.W.P. = 9. max 673°F								

295

Date WED. THUR 27-28 1969 Observer Ri/Wi Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
32529	HD 192955	19 ^h 22.1	+19° 41'	G12	IIaD	9L	67°F	19 ^h 58 ^m ⁽³²⁾	21:30
32530	α Lyr	18 ^h 33.6	+38° 41'	G40	IIaD	13L	67	21 ^h 49 ^m ⁽³¹⁾	21 ^h 50 ^m
32531 *	MHD 320-116	14 ^h 55.0 ^m	+39° 41'	G40	IIaD	13L	67	22 ^h 07 ^m ⁽²²²⁾	01 49
32532	α Lyr	18 ^h 33.6	+38° 41'	G40	IIaD	13L	64	1 ^h 59 ^m ⁽³¹⁾	02:00
32532F	focus test	out of focus		G40	"	13	64	2:18 ⁽²⁹⁾	
32533	HD 2927	1 ^h 13.8	+53° 42'	G12	IIaD	9L	64	2 ^h 18 ^m ⁽³⁹⁾	02:47
32534	HD 13994	2 ^h 11.0	+57° 04'	G12	IIaD	9L	64	2 ^h 56 ^m ⁽³⁹⁾	03:35
32534F	focus test			G12	"		64		

* plate same

(G40 3:48)

(G12 2:40)

Dome Temp. 69

Transparency Conditions clouds in SW haze

Focus

Dome Temp. 64

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
11:30 W	19° 53'	3"	7.44	MOTT	8-8-8	BK*	400/440 weak
1:22 W	38° 43'	4"	0.04	AD	36	with G12 filter	200/15
4:02 W	39° 46'	1"	10.8	Em.	15-15-15	G40 focus 37.8	2000/232
3:32 W	38° 44'	4"	0.04	AD	50	G40 *	200/12
					5-5	with G12 filter	
11:38 E	158 05	2"	5.63	F21a	8-8-8	BK*	200/340 FINE
0:22 E	157 24	2-4"	7.04	G21	8-16	BK* clouds	200/78 Very weak OK
					5-5		

* Comp is much too weak

297

Date THUR / FRID. Aug. 28 / 29 1969 Observer Ri / G2 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.l
32535	HD 123661	14 ^h 33.1	+36° 22'	G13	Ilad	2L	76°F	19:45	22:10	A
32536	HD 176318	18 ^h 54.6	+38° 07'			2XL	74°F	22:19	23:13	B
32537	XZ Cep	22 ^h 29.3	+66° 38'			17S	72°F	23:24	00:44	C
32538	AR Cas	23 ^h 25.4	+58° 00'			2L	71°F	00:56	01:18	A
32539	HD 203156	21 ^h 15.4	+37° 49'			2XL	70°F	01:25	03:47	B
32540	♄ Ari	01 ^h 42.0	+20° 19'			2XL	68°F	03:50	03:58	C
32540F	focus test	out out / in in				9	68°F			B
32540T	Calibration	step wedge	for plates	32529, 32533 - 32540				Aug 29 1969		

6.12 / 7:28

Dome Temp. 77° F

Transparency Conditions SOME HAZE.

Focus

Dome Temp. 68° F

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
05:46W	+36° 06'	2-3"	7.0	AD	8-8-8	Ecl. Bin. 400/368	weak
02:28W	+38° 15'	"	5.7	B6-7	8-8-8	Spec. Bin. 200/210	sl weak FINE
00:25W	+67 00	"	8.4	O9.5	8-16	Ecl. Bin clouds (STOPPED. TOO HAZY) 800/135	VERY weak
00:01W	+58° 24'	1-2"	4.89	B3V	8-8-8	" " 200/170	FINE
04:38W	+38° 00'	"	6.3	F2I6	8-8-8	FERNIE* (HEAVY HAZE) 400/400	weak
00:17W	+20 43	"	2.7	A5	12-12	ECL. BIN. 20/22	FINE
						5-5 no filter	OF
	M.W.P.2	9 min.	67 1/2° F				

Dome Temp. 74 F

Transparency Conditions

300

Focus

Dome Temp.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
					G12		
					55	focus 41.6 (previous graph)	center to violet
					5/5	40.0 (previous graph)	
					5/5	37.0	OK in violet
					5/5	35.0	sl. c to vi. in red
					5/5	36.0	v. sl. c to R in violet
					5	33.0	- not so bad in R.
					5	34.0	fairly good in violet & R.
					5	35.0	
					5	36.0	
					5	37.0	
					5	38.0	
						39.0	
						40.0	
						41.0	
<p>12 is best at 3927, but 7 or 8 is best at 4500. So the tilt is bad!</p>							2595 12605.

301

Date SAT/SUN Aug 30/31 1969 Observer Ri/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.
32541	HD 203156	21 ^s 15.4	+37° 49'	G12	Iao	9XL	78°F	22:38 ⁽⁸⁶⁾	00:04	A
32542	AR Cas	23 ^s 26.4	+58° 00'	"	"	9L	76°F	00:09 ⁽²⁸⁾	00:37	B
32543	β Ari	01 ^s 43.0	+20° 19'	"	"	9XL	76°F	00:46 ⁽¹⁰⁾	00:56	C
32544	HD 8441	01 ^s 18.5	+42° 37'	"	"	9L	76°F	01:02 ⁽⁷⁵⁾	03:17	A
32545	HD 2226	01 ^s 32.5	+44° 51'	"	"	9L	76°F	02:25 ⁽⁵²⁾	03:17	B
32546	HD 25823	04 ^s 00.25	+27° 20'	"	"	9L	74°F	03:24 ⁽²⁹⁾	03:52	C
32546F	focus test	out of win		"	"	9	73°F			B
32547	BF Awe	04 ^s 58.0	+41° 09'	G40	"	13L	73°F	04:07 ⁽²¹⁾	04:28	A
32547F	focus test	out of win		"	"	13	73°F			B
32547T1	Calibration	step wedge	for plates		32530 - 32,32547			31 Aug 69		
32547T2	Calibration	step wedge	for plates		3254 - 46			"		
								(640/021)		
								(612/4:40)		

Dome Temp. 79°F

Transparency Conditions HEAVY HAZE

302

Focus

Dome Temp. 72°F

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
01:05W	+38° 08'	2-3"	6.3	F2I _b	8-8-8	T ₂ ^c	400/460
00:33 E	+58° 25'	3-4"	4.89	B5I	8-8-8	Ecl. B ₁	300/170
02:38 E	+20° 42'	"	2.7	A5	12-12	" "	20/22
00:46 E	+43° 00'	"	5.92	A0A	8-8-8	Ap programme	400/320
00 00	+45° 16'	1-2"	6.15	A _p	8-8-8	" "	400/320
01:52 E	+27° 35'	1-2"	4.75	A5I	8-8-8	" " 3 pieces Broken	200/160
					5-5	no filter	
02 15 E	+41° 15'		8.5	B5I	15-	B40 focus 380 ECL. B ₁ cloud at 04.15	800/16 <small>(over 10)</small>
					5-5	wild B12 filter	
						M.W.P 2 7 min 68°F	
						M.W.P 2 9 min 67½°F	

305

WED-THURS

Date SEPT 3-4, 1959 Observer Tn, W. 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.
32555	HD 172748	18 36.6	-9 09	612	D ₂₀	9L	71°F	19:45 ⁽²⁷⁾	20:12	A
32556	HD 187849	19 ^h 47 ^m	+38° 27'	"	"	"	71°F	20:35 ⁽³⁵⁾	21:20	B
32557	HD 189577	19 ^h 55 ^m	+17° 15'	"	"	"	70°F	21:26 ⁽³⁷⁾	22:16	C
32558	HD 203156	21 ^h 15 ^m	+32° 49'	"	"	9xL	"	22:27 ⁽³⁴⁾	23:11	A
32559	HD 200120	20 ^h 56 ^m	+47° 08'	"	"	9L	69°F	23:21 ⁽³⁶⁾	23:27	B
32560	HD 203509	21 ^h 17 ^m	+19° 23'	"	"	9L	"	23:40 ⁽³⁸⁾	23:52	C
32561	HD 211665	22 ^h 34 ^m	+56° 17'	"	"	9L	68°F	00:14 ⁽³⁴⁾	00:48	B
32562	HD 215373	22 ^h 39.6	+41° 04'	"	"	9L	68°F	01:10 ⁽³⁶⁾	01:36	A
32563	HD 3524	0 ^h 33.6	+48° 49'	"	"	"	68°F	01:46 ⁽³⁷⁾	02:25	C
32564	HD 3627	0 ^h 34.0	+30° 19'	"	"	"	"	02:54 ⁽³⁸⁾	03:01	B
32565	HD 16078	2 ^h 29.8	+36° 53'	"	"	"	66°F	03:13 ⁽⁴¹⁾	04:14	C
32566	HD 12533	1 ^h 57.8	+11° 51'	"	"	"	"	04:25 ⁽⁴⁵⁾	04:30	A
32567	12534			"	"	"	65°F	04:34 ⁽⁴⁹⁾	04:43	B
32567 F	Focus	Test		612	D ₂₀		65°F			B
32567 TI	calibration	step wedge for plates			32555-32565					

612 5:55

Dome Temp. 72°FTransparency Conditions clear, some cirrus

Focus

Dome Temp.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0 ^h 06 ^m W	-9° 02'	2-3"	5.08	F3 II	8-8-8	Bk * Visual Energy prog.	200/240 FINE
0 ^h 06 ^m E	+38° 38'	2-3"	6.90	M2 II	8-8-8	"	200/340 (GUIDING) V.SL. WK
0 ^h 43 ^m W	+17° 28'	2"	7.00	M9 III	8-8-8	"	200/340 (GUIDING) V.SL. WK
0 ^h 28 ^m W	+38° 06'	2-3"	6.3	F2 II	8-8-8	for 2 nd time	200/300 FINE
01 ^h 09 ^m W	+47° 24'	"	4.57	R1 IV	12-12	Visual Energy prog.	40/30 STRONG
0 ^h 06 ^m W	+19° 43'	2"	5.22	K1 IV	12-12	"	40/56 FINE
0 ^h 46 ^m W	+56° 38'	1-2"	6.66	M4 II	8-8-8	"	200/340 (GUIDING) FINE
1 ^h 27 ^m W	+41° 41'	"	6.06	K0 II	8-8-8	"	200/290 FINE
0 ^h 24 ^m W	+49° 12'	"	7.08	K7 III	8-8-8	"	200/300 V.SL. WK
1 ^h 00 ^m W	-30° 44'	2"	4.57	K3 III	12-12	"	40/60 * V.SL. WK
0 ^h 16 ^m W	+37° 11'	"	7.10	K3 IV	8-8-8	"	200/500 (POOR GUIDING) WEAK
01 ^h 09 ^m W		"	3.62	K2 III	12-12	"	40/60 SL. ST. WK
01 ^h 16 ^m W		"	X 5.08	AD AD	12-12	Bright comparison of 400533 No filter	40/34 STRONG FINE
						* VERY HIGH BACKGROUND FOG.	

mwp-2/4548/69

Dome Temp. 73°

Transparency Conditions

Haze
Opened at 1:15 EST

310

Focus

Dome Temp.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0005 W	+45° 16'	2"	6.4	Ap	8-8-8	Ap program (balance off) (clouds) (last comparison at 1:38) 200/118	V.S.L. WK
					5-5	no filter clouds; clear 03h	6000
						8	200/118

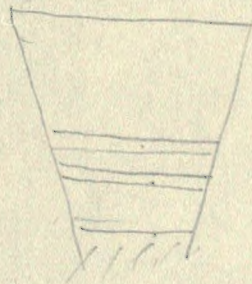
312

Ending Time
E.S.T.

313

20:03

314



HANDBOUND
AT THE



UNIVERSITY OF
TORONTO PRESS