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1 G12 FOCUS: MAKE FOCUS SETTING WITH RED NOS. DECREASING

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

- FOR CENTRE TO VIOLET, CORRECT BY INCREASING RED NOS. (BUT NOTE ABOVE CONVENTION FOR BACKLASH)
- DECREASING TEMP WILL CAUSE CENTRE TO VIOLET
- INCREASING TEMP " " " " RED (i.e. CORRECT BY DECREASING RED NOS.)

(TYPICALLY: 40-R FOR WINTER  $\rightarrow$  (0-20°F)  
5-R FOR SUMMER  $\rightarrow$  (1  $\rightarrow$  50°F).

G40 FOCUS: MAKE SETTING WITH NOS. INCREASING  
IF CENTRE TO RED, INCREASE THE SETTING

FOR CRITICAL FOCUS, MAKE SEVERAL TESTS AT FULL APERTURE, CHANGING BY  $\frac{1}{2}$  DIVISION EACH TIME.

Fore IR Photometer focus 20455 with in 10 sec (0.6 sec) with 1000 sec  
deflected toward secondary mirror

2

6

80VE  
ACKLUMY  
(2 hrs.)

ty  
wks  
r  
K  
(na)





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Date Sun - Mon Sept 7-8, 1969 Observer HARRIS, 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.
32575	HD 176318	18 <sup>h</sup> 54. <sup>m</sup> 6	+38° 07'	G12	UoO	9L	73°	20:03 <sup>(32)</sup>	20:35	C
32576	HD 203156	21 <sup>h</sup> 15. <sup>m</sup> 4	+37° 49'	"	"	9xL	70°F	20:56 <sup>(34)</sup>	21:50	B
								23:00 <sup>(35)</sup>	23:35	
32577	1 <sup>st</sup> Cas	23 <sup>h</sup> 25. <sup>m</sup> 4	+58° 0'	G12	UoO	9L	67°F	23:49 <sup>(32)</sup>	00:10	C
32578	2 <sup>nd</sup> Cas	00 <sup>h</sup> 39. <sup>m</sup> 8	+55° 59'	"	"	"	"	00:40 <sup>(8)</sup>	00:48'	B
32579	B Ari	01 <sup>h</sup> 49. <sup>m</sup>	+20° 19'	"	"	9xL	"	01:15 <sup>(8)</sup>	01:23	C
32580	HD 8441	1 <sup>h</sup> 18. <sup>m</sup> 5	+12° 37'	"	"	9L	63°F	01:39 <sup>(34)</sup>	02:58	B
32581	HD 9996	1 <sup>h</sup> 32. <sup>m</sup> 5	+11° 59'	"	"	9L	"	03:07 <sup>(35)</sup>	04:22	C
32582	HD 25823	4 <sup>h</sup> 0. <sup>m</sup> 5	+27° 20'	"	"	9L	61°F	04:30 <sup>(22)</sup>	04:52	A
32582 T	Focus			"	"		60°F			B
32582 T.	calibration step wedge for plates				32574 -	32582		612/5:34		

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

Transparency Conditions *Clear some cloud*

Focus .....

Dome Temp.  $59^{\circ}\text{F}$

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
0 <sup>h</sup> 28 <sup>m</sup> W	+38 <sup>o</sup> 15'	3"	5.7	R6-7	8-8-8	Spect + in	200/160		FINE
	+38 <sup>o</sup> 08'	3-4"	6.3	F216	8-8-8	Fernie*	400/460	clouds interfered	U.S.G. WK
01 <sup>h</sup> 08 <sup>m</sup> W								! Long exposure 2:40	
0 <sup>h</sup> 28 <sup>m</sup> E	+58 <sup>o</sup> 23'	3"	4.89	R3V	12-12	Ecl Bin	200/160	b	FINE
0 <sup>h</sup> 58 <sup>m</sup> E	+56 <sup>o</sup> 29'	3-4"	3.39	K012	12-12	Std Vel	20/28	A top, C, bottom	FINE
01 <sup>h</sup> 40 <sup>m</sup> E	+20 <sup>o</sup> 43'	4"	2.7	A5	12-12	Ecl, Bin	20/21	some cloud	FINE
0 <sup>h</sup> 22 <sup>m</sup> W	+43 <sup>o</sup> 01'	3-4"	5.92	A0p	8-8-8	Ap prog	200/160	wrong slit length	BROKEN V.S.G. WK
01 <sup>h</sup> 37 <sup>m</sup> W	+45 <sup>o</sup> 17'	3"	6.15	Ap	8-8-8	Ap prog	200/160	left side of slit broken off	BROKEN (undivided) FINE
0 <sup>h</sup> 27 <sup>m</sup> E	+27 <sup>o</sup> 23'	3"	4.75	A5i	12-12	Ap prog	200/160		FINE
	in in	1/2 in			5/5	no filter			GOOD
mwp-2 / 48 <sup>o</sup> E / PS48/69								PLATE NUMBERS FOR THIS	
								NIGHT ARE ALMOST	
								IMPOSSIBLE TO READ	

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Date 8 Sept 1949 Observer D. G. M. S. Julian Day .....

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle End
32582	F2 HARTMANN focus test			6440	IL20	13	61°F			A	
	F3									B	
	F4									C	
	F5									A	
	F6									B	
	F7 focus test full aperture									A	
	F8									B	
	F9									C	
	F10									A	
	F11						64°F			B	
	F12									C	
	F13									A	
	F14									B	
	F15									C	
	F16									B	
	F17									C	

Dome Temp. ....

Focus .....

Dome Temp. ....

Hour Angle  
End



Dome Temp. ....

Transparency Conditions .....

Focus .....

Dome Temp. ....

Time	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp. <sup>612 filters</sup>	Program	Exp. Mtr.	REMARKS	Quality
A			focus	32.0			10/10			tilt changed by 1 flat of left-hand adjusting screw; right screw not touched; should rotate c.c.w.	
B			focus	32.0			10/10	}		Both pretty good with Hartmann, perhaps #3 better. In red outer comps are double, perhaps worse at #3.	
C			focus	33.0 (from graph)			10/10				
A			focus	35.0			10/10				
B			focus	37.0			10/10	Try	32 32.5 33 33.5	at full aperture	
A			"	32.0			5/5				
B			"	32.5			5/5				
C			"	33.0			5/5				
A			"	33.5			5/5			} #10 and #12 are equally good. #10 better at 4400 " " " 3900	
B				33.5							
C				34.0							
A				34.5							
B				35.0							
C				35.5							
A				36.0							
C				36.5							



Dome Temp. 61°F

Transparency Conditions scattered cloud

Focus .....

Dome Temp. ....

Time	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
1	A	04 <sup>h</sup> 20 <sup>m</sup> W	+36° 07'	3"	7.0	A0	18-18-18	F-1, Bin	200/15	setting 34	SL. WEAK
3	L	0032 E	+33° 53'	3"	8.7-9.0	A5	18-18-18	"	400/30	setting 33.3 (cloud)	WEAK (SL. GUIDING)
9	C	0033 W	+67 02	3"-4"	8.4-9.0	O9.5	18-18-18	"	400/45	setting 32.5	WEAK
2	B	0 <sup>h</sup> 35 <sup>m</sup> W	+02° 33'	3"	8.5-9.5	K1 III	18-18-18	"	400/75	setting 32 (seems bright)	SL. WEAK
6	C	0017 W	+30° 48'	2"-3"	8.80	K3 III	18-18-18	SEC. STD. VEL.	400/75	setting 31.7	SL. WEAK
0	B	0009 W	+29° 15'	"	8.96	K2 IV	18-18-18	S.S.V.	400/75	"	SL. WEAK
7	A	0029 W	+29° 46'	3'	8.96	K3 III	18-18-18	"	400/75	"	(GUIDING) WEAK
										clouds, closed 03 <sup>h</sup> .	
							5/5	G12 Filter		setting 30	OK
										MWP - 2/7.0 min @ 68°F / (2 AOC 14.8)	

Date Sept. 9/10 1969 Tue, Weds. Observer HL, 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.	Hour Angle End
32590	MY Cyg	20 <sup>h</sup> 16 <sup>m</sup> .2	+33° 38'	G40	IIa-D	BXL	57°	21:30 (57)	22:27	B	1 <sup>h</sup> 06 <sup>m</sup> W
32591	XZ Cep	22 <sup>h</sup> 29 <sup>m</sup> .3	+66° 38'	"	"	"	56°	22:39 (59)	22:46	C	1 <sup>h</sup> 0 <sup>m</sup> W
							5	23:30 (61)	0:31		5 <sup>h</sup> 5 <sup>m</sup> W
32592	MY Cyg	20 <sup>h</sup> 16 <sup>m</sup> .2	+33° 38'	G40	IIa-D	BXL	59°F	0:48 (91)	2:25	A	0 <sup>h</sup> 3 <sup>m</sup> W
32593	HD 12029	01 <sup>h</sup> 53 <sup>m</sup> .0	+28° 59'	G40	IIa-D	BXL	51°F	02:42 (53)	3:35	B	0 <sup>h</sup> 1 <sup>m</sup> E
32594	BF Aps.	04 <sup>h</sup> 58 <sup>m</sup> .0	+41° 09'	"	"	"	50°F	04:12 (41)	04:53	A	0 <sup>h</sup> 09 <sup>m</sup> E
32594 F	Focus			G40	IIa-D					B	
								(640/5:16)			
32594 T1	calibration step wedge for plates				32590 - 32594						

Done Temp. \_\_\_\_\_  
Focus \_\_\_\_\_  
Done Temp. \_\_\_\_\_

Dome Temp.  $66^{\circ}$

Focus .....

Dome Temp.  $47^{\circ}F$

Transparency Conditions *cleared opened*

*cloudy periods*

Time	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
7	B	$1^h 06^m W$	$+33^{\circ} 53'$	$2\frac{1}{3}''$	8.7	AS	3-3-3	ed. Bin	400/60	31.5 setting <sup>max</sup> pin ←	(SL. GUIDING) FINE
6	C		$+67^{\circ} 01'$	"	8.4	095	3-3-3	ed. Bin	400/60	" "cloudy"	(GUIDING) FINE
		$1^h 0^m W$								copped for 45 min	
5	A	$5^h 5^m W$	$+33^{\circ} 52'$	$3\frac{1}{4}''$	8.7	AS	3-3-3	ed. Bin	400/60	setting 30	FINE
	B	$0^h 36^m W$	$+29^{\circ} 15'$	3"	8.96	K21II	3-3-3	Sec. Std Vel	400/100	setting 29 <sup>max</sup> pin ←	(GUIDING) FINE
3	A	$01^h 09^m E$	$+41^{\circ} 15'$	3"	8.5	BSV	3-6	Ed. Bin	400/24	" (at min?) cloudy	(GUIDING) WEAK
	B			in in / out out			3/5	G12 Filter		setting 29	GOOD CALIB
										cut short by dawn	
										mwp-2 / $68^{\circ} F$ / 7.0 min (290 C1H8)	

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Date Sept 10/11, 1969 Wed, Thurs Observer Tn, Bk Julian Day .....

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	How Angle Est
32595	MHD 328-116	19 55.2	39° 41.4	G12	PaO	9L	60	19 40 <sup>(130)</sup>	21:50	A	0.56° W
32596	HD 205021	21 27.4	+70° 07'	"	"	"		22 05 <sup>(4)</sup>	22:09	B	0.17° E
32597	"	"	"	"	"	"		22 10 <sup>(4)</sup>	22:14	C	0.12° E
32598	HD 205021B	"	"	"	"	9S		22 28 <sup>(9)</sup>	22:37	A	
								0:10 <sup>(4)</sup>	0:50		0.25° W
32599	HD 225009	23 <sup>h</sup> 57.5 <sup>m</sup>	+65° 32'	G12	PaO	9L		0 59 <sup>(120)</sup>	2:59	C	0.2000
32600	HD 9774	01 30.5	+72 32	"	"	"	53	3 12 <sup>(3)</sup>	3:42	B	0.1680
32600 F1		Focus					53°			B	
								(m12/5:37)			
# 32600 T1	calibration step wedge for plates 32595 - 32600										

Dome Temp. 6

Focus

Dome Temp.

Dome Temp. 60°

Focus .....

Dome Temp. ....

Transparency Conditions *clear, some cloud*  
*cloud at 22:30 → 0<sup>h</sup>*

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Time	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
00	A	0 <sup>h</sup> 56 <sup>m</sup> W	+39° 46'	2"	2/0.8		8-8-8	Planetary Neb	800/		(WEAK COMPARISON) OK
01	B	0 17 E	+70 27	"	2.93	B2W	12-12	Vis Lin	20/15		(QUIDING) STRONG
04	C	0 12 E	"	"	"	"	12-12	"	20/15		STRONG
07	A	"	+70° 27'	"	2.7		8-8-8	"	400/100	no cloud secondary component	VERY WEAK
05		02 <sup>h</sup> 25 <sup>m</sup> W								Limited (cut short)	
05	C	02 00 W	+65 59	"	6.92	G8W	8-8-8	Vis Lin	200/260	Passing clouds	VERY, VERY WEAK
02	B	01 08 W	+72° 54'	2.25	6.25	G8W	8-16	"	200/260	some cloud haze clouded	WEAK
							5/5	no filter			GOOD
										Closed 04 <sup>h</sup> (cloud)	
										MWP-2/90 min @ 60°F (200 C/F)	(11 Sept/69)





Dome Temp. 58° F

Focus .....

Dome Temp. 54° F

Transparency Conditions Very good

(AMAZING SEEING)  
cloud by 21<sup>st</sup> - clear

Time	P.H.	Hour Angle End	Declination			Seeing		Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
			A	B	C	A	B							
	F	<del>29</del>	F2	F3	F4	F5	F6			5-5			33 in best focus!	
3	C	01:00 E	+33°	51'		<1"	8.7-9.0	A5	3-3-3	ECL. BIN	800/130	Focus 31.3	As. Ecl Bin	FINE
3	A	01:30 W	+33°	51'		<1"	8.7	A5	8-8-8	"	800/425		SOME CLOUDY PERIODS	(GUIDING) SL. WEAK
4	B	02:40 W	+67°	01'		"	8.4	09.5	8-9-9-9	"	800/400	← TEL. TOUCHES PIER (425)	SOME CLOUDY PERIODS	WEAK
1	C	22:00 W	+58°	23'		1-2"	4.89	B3.5	12-12	"	200/170			SL. STRONG
2	A	0 <sup>h</sup> 13 <sup>m</sup> E	+20°	41'		"	2.7	A5	12-12	"	20/22			STRONG
0	B	00:46 E	+41°	15'		"	8.5	B5.5	4-4-8-8	"	800/380	← DAYLIGHT (425)	SOME HAZE	WEAK
									5/5	no filter				NOTHING??
mwp-2/9 min @ GP <sup>A</sup> = / 2 A D C I F 9												(12 Sep 8/09)		
IS THE PAINTING OVER ?       WE SINCERELY HOPE SO.    ( I HOPE SO )														

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Date Fri. Sept. 12/13 1969 Observer Tm/Harris 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.
32607	HD 183056	19 <sup>h</sup> 22.6 <sup>m</sup>	+36° 07'	G12	Ilco	9L	67°F	19:40	19:58	B
32608	HD 173650	18 <sup>h</sup> 41.3 <sup>m</sup>	+21° 53'	"	"	9L	"	20:12	21:03	C
32609	HD 203156	21 <sup>h</sup> 15.9 <sup>m</sup>	+37° 49'	"	"	9xL	"	21:33	22:47	B
32610	HD 192913	20 <sup>h</sup> 15.2 <sup>m</sup>	+27° 24'	"	"	9L	"	23:19	00:27	C
32611	HD 9996	1 <sup>h</sup> 32.5 <sup>m</sup>	+44° 54'	"	"	9L	"	00:42	01:42	B
32612	HD 9441	1 <sup>h</sup> 18.5 <sup>m</sup>	+42° 37'	"	"	9L	64°F	01:55	02:48	A
32613	β Ari	1 <sup>h</sup> 49 <sup>m</sup>	+20° 19'	"	"	9xL	63°F	02:57	03:00	B
32614	HD 16604	2 <sup>h</sup> 34.6 <sup>m</sup>	+47° 08'	"	"	9L	"	03:23	05:13	C
32614F	Focus			G12	Ilco					B

G12/7:07

Dome Temp.  
Focus  
Dome Temp.

Hour Angle  
End

0:17E  
4:50W  
3:35W  
2:23W  
4:44E  
5:11W  
4:50E  
4:50W

Dome Temp. 71°F

Transparency Conditions Scattered cloud

Focus .....

Paint is still wet!??

Dome Temp. 61°F

gain/loss

Time	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
58	F	0 <sup>h</sup> 17 <sup>m</sup> E	+36° 16'	1-2"	4.25	Asi	12-12	Ap Prog	40/32		V.S. S.T.R.
	C	1 <sup>h</sup> 40 <sup>m</sup> W	+21° 59'	2"	6.25	Ap	8-8-8	"	200/160		BK
	B	0 <sup>h</sup> 39 <sup>m</sup> W	+38° 07'	3"	6.3	F2T6	8-8-8	Fernie Star	400/460	broken 2pc	BROKEN SL. WEAR
27	C	3 <sup>h</sup> 23 <sup>m</sup> W	+27° 44'	2-3"	6.33	AOp	8-8-8	Ap Prog	200/160		(GUIDING) V.S. S.T.R.
42	F	0 <sup>h</sup> 44 <sup>m</sup> E	+45° 16'	3-2"	6.15	Ap	8-8-8	"	200/160	Harris guided	(GUIDING) FINE
47	F	0 <sup>h</sup> 36 <sup>m</sup> W	+43° 01'	1-2"	5.92	AOp	8-8-8	"	200/160		(GUIDING) V.S. S.T.R.
		0 <sup>h</sup> 18 <sup>m</sup> W	+20° 41'	2"	2.7	A5	12-12	ed Bin	20/19		(GUIDING) FINE
		01 <sup>h</sup> 45 <sup>m</sup> W	+47° 26'	1"	7.7	A0	8-8-16	KA 6x6 prog	200/112	Finder fld down	Cloud at 05:00 SL. WEAR
										limited by sun cloud	
							5/5	no filter			GOOD

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Urbino N.Y., Sv, Lp. 142 visitors  
 & type shown: excellent seeing

Date Sat April 13/14 Observer J. 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.H.	Hour Angle End
32615	HD 173650	18 <sup>h</sup> 41. <sup>m</sup> 4	+21° 53'	G12	D <sub>2</sub> O	9L	72°F	21:27 <sup>(47)</sup>	22:16	B	02° 45' W
32616	HD 183056	19 <sup>h</sup> 22 <sup>m</sup> 35	+36° 09'	G12	IIaO	9L	71°F	22:36 <sup>(17)</sup>	22:43	C	02° 33' W
32617	HD 192913	20 <sup>h</sup> 12.3	27° 29'	G-12	IIaO	9L	"	22:53 <sup>(34)</sup>	0:17	A	03° 17' W
32618	HD 203156	21 <sup>h</sup> 15. <sup>m</sup> 9	+37° 49'	"	"	9xL	69°F	0:23 <sup>(44)</sup>	01:07	B	03° 05' W
32619	HD 8441	1 <sup>h</sup> 18. <sup>m</sup> 5	+47° 37'	"	"	9L	68°F	01:20 <sup>(40)</sup>	02:00	A	00° 07' E
32620	HD 8441	1 <sup>h</sup> 18.5	+47° 37'	"	"	"	67°F	02:04 <sup>(4)</sup>	02:45	B	00° 3' W
32621	HD 9996	1 <sup>h</sup> 32. <sup>m</sup> 3	+44° 59'	"	"	"	69°F	02:55 <sup>(37)</sup>	03:31	C	01° 09' W
32622	B Ari	1 <sup>h</sup> 49 <sup>m</sup>	+20° 19'	"	"	9xL	66°F	03:42 <sup>(2)</sup>	03:44	A	01° 05' W
32623	HD 25823	4 <sup>h</sup> 0. <sup>m</sup> 5	+77° 20'	"	"	9L	"	03:50 <sup>(13)</sup>	04:07	B	0° 42' E
32624	HD 71866	8 <sup>h</sup> 24.6	140° 33'	"	"	"	"	04:18 <sup>(6)</sup>	05:18	C	0° 55' E
32624F	Focus						65°F	6:12	6:50	B	

Dome Temp. 73°F

Transparency Conditions very good

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Focus .....

Dome Temp. 65°F

g Time S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
16		02 <sup>h</sup> 46 <sup>m</sup> W	+21° 59'	1"	6.25	Ap	8-8-8	Ap prog	200/160		SL. WEAK
13	C	02 <sup>h</sup> 33 <sup>m</sup> W	+36° 17'	1.3"	4.75	Asi	8-8-8	Ap prog	200/160	seeing fluctuated amazingly for a few minutes (U=10")	FINE
17	A	03 <sup>h</sup> 17 <sup>m</sup> W	+27° 43'	2-3"	6.33	AO <sub>p</sub>	8-8-8	Ap prog	800/640		(GUIDING) U.S.S. WE
07	B	03 <sup>h</sup> 05 <sup>m</sup> W	+38° 07'	1.2"	6.3	F216	8-8-8	Fernie	400/460		SL. WEAK BROKEN
00		00 <sup>h</sup> 07 <sup>m</sup> E	+42° 59'	<1"	5.92	AO <sub>p</sub>	8-8-8	Ap prog	200/160	broken <u>SAVED</u> 2 PIECES	U.S.S. WEAK
45		00 <sup>h</sup> 37 <sup>m</sup> W	42° 59.5	1"	5.92	AO <sub>p</sub>	8-8-8	Ap prog	200/160		FINE
31	C	01 <sup>h</sup> 09 <sup>m</sup> W	+45° 16'	1"	6.15	Ap	8-8-8	Ap prog	200/160		FINE
44	A	01 <sup>h</sup> 05 <sup>m</sup> W	+20° 41'	1"	2.7	A5	12-12	ec/Bin	20/19	(guided by quick jerks)	(SL. GUIDING) SL. STRONG
07	B	0 <sup>h</sup> 42 <sup>m</sup> E	+27° 33'	1"	4.75	Asi	8-8-8	Ap Prog	200/160		FINE
18	C	0 <sup>h</sup> 55 <sup>m</sup> E	+40° 21'	3"-2"	6.53	AO <sub>p</sub>	8-8-8	Ap prog	200/114	Cut by SUN	(GUIDING) SL. WEAK
	P		out out			in in					(GOOD)

Date Sun 14-15 Sept. 1969 Observer Ri - Harris 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.
32620	HD 176318	18 54.6	+38° 07'	G12	Ilfo	9xL	71°F	19 31	20:24	B
32626	HD 203156	21 <sup>h</sup> 15 <sup>m</sup> .4	+37° 49'	"	"	9xL	71°F	21:41	23:04	C
32627	HD 212943	22 <sup>h</sup> 22.8	+04° 12"	"	"	9L	69°F	23:16	00:32	A
32628	HD 8441	1 <sup>h</sup> 18.5 <sup>m</sup>	+42° 37'	"	"	9L	"	00:42	02:19	B
32629	HD 9996	1 <sup>h</sup> 32 <sup>m</sup> .5	+44° 54'	"	"	9L	65°F	02:26	03:15	C
32629F1	focus test			"	"	9	"			B
32630	B ARI.	01 49.0	+20° 19'	"	"	9xL	"	03:39	03:44	A
32631	HD 25823	04 02.8 <sup>s</sup>	+07° 20'	"	"	9L	"	03:54	04:37	B
32632	HD 22424	03 <sup>h</sup> 31 <sup>m</sup> .8	+00° 05'	"	"	"	63°F	04:41	05:20	C
# 32032	T1 calibration	step	wedge	for	plates	32607 - 32616				
	T2	"	"	"	"	32617 - 32625, 32629				
	T3	"	"	"	"					

G12 / 7:45

Dome Temp.

Focus

Dome Temp.

Hour Angle  
End

Dome Temp. 73°F

generator was left  
on from main building

Transparency Conditions scattered clouds  
hazy

Focus .....

Dome Temp. 63°F

Hour	Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
24	04 45W	38° 14'	2-3	5.7	B6-7	8-8-8	Spect. Bin.	200/203	clouds	(GUIDING) * SL. WEAK
	01 <sup>h</sup> 3 <sup>m</sup> W	38° 07'	2"	6.3	F2-16	8-8-8	Fernie	400/460	1" off on end	SL. WEAK
	01 <sup>h</sup> 24 <sup>m</sup> W	+04° 35'	2"	5.9	K0	8-8-8	Std. Vel.	400/560	finder field drawn/clouds	WEAK
	00 <sup>h</sup> 16 <sup>m</sup> W	+43° 00'	2"	5.92	A9p	8-8-8	Ap prog.	400/320		SL. WEAK
	00 <sup>h</sup> 57 <sup>m</sup> W	+45° 47'	2"-3"	6.15	A p	8-76	"	400/146	cloud at 3:10	WEAK
						5-5	modifier			GOOD
	01 <sup>h</sup> 11 <sup>m</sup> W	200 43'	3	2.7	A5	12-12	Ecl. Bin	20/21	cleared at 03:20	(SL. GUIDING) FINE
	00 10E	27° 24'	2"-3"	4.75	A5i	8-8-8	Ap Prog.	200/160	clouds at 04:10 cleared at 4:25	FINE
	01 04W	+00° 22'	2"	5.2	F9	8-16	Std Vel	200/150		WEAK
									down	
									(5' Sep 8/69)	
					"					
					"					

\* WHEN NUMBERING PLATES IN THE DARK, ONCE IS ENOUGH; TRYING TO GO OVER A NO. SEVERAL TIMES WILL JUST MAKE IT CONFUSING; WITH MODERATE PRESSURE, THE NO. WILL DEVELOP OUT NICELY.

23

Date 16 Sep 8 / 69 (Trans) Observer W. de Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle End
32632 F1-F7				640	K100	13	68° F				about 20.5

Dome Temp  
Focus  
Dome TempHour Angle  
End





Date Sept 17-18 1969 Observer Ri - Emj - PH Julian Day \_\_\_\_\_

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle End
32633	MY Cyg	20 16.2	33 38	G40	Ilao	13L	60°F	19:45 <sup>(55)</sup>	20:40	A	00 56E
32634	HD 157849	19 41.0	+38 27	"	"	"	"	20:46 <sup>(17)</sup>	21:03	B	00 42W
32635	189577	19 55.6	+17 15	"	"	"	58°F	21:13 <sup>(31)</sup>	21:44	C	01 15W
32636	HD 198134	20 42.2	+34 10	"	"	"	"	21:49 <sup>(16)</sup>	22:05	A	00 49E
32637	HD 211300	22 11.1	+72 49	"	"	"	57°	22:30 <sup>(2)</sup>	22:51	B	00 08W
32638	SZ Pac	23 08.3	+02 08	"	"	"	56°	23:03 <sup>(131)</sup>	01:14	C	01 32W
32638T	focus test	at 07/100					59°F			A	
32639	step					17L		01:49 <sup>(133)</sup>	04:02	B	01 02W
								(640/6:44)			
32639 71	calibration step wedge for plates				32633 - 32639			(18 Sept/69)			

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

Focus \_\_\_\_\_

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

Hour Angle  
End

Dome Temp. 60°F

Transparency Conditions scattered clouds

Focus .....

Dome Temp. 53°

Time Y.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality		
40	A	00 09E	33 54	3	8.7	A5	<sup>G4</sup> 15.5-15	Fc1 B.N.	800/100	29 34.8	SL. WK		
43	B	00 43W	38 40	"	6.9	M2II	<sup>G10</sup> 3-3-3	B+F	200/60	33.7	* FINE		
44	C	01 15W	17 27		7.00	M4II	3-3-3	'	200/60	33.9	* FINE		
45	M	00 48W	34 16		6.37	*3III	3-3-3		200/50	clouds	* FINE		
51	B	00 08W	+73 10	3	7.08	G8V	3-3-3		200/36	33.2	* FINE		
4	A	01 32W	+02 32		8.5	*1II	3-3-3	Fc1 B.N.	800/176	clouds	* FINE		
	A						5-5				** GOOD		
42	B	01 <sup>H</sup> 06W	-25°00'				3-				Hg Emission only		
		MWP-2 / 7.0 min @ 68°F / (240 C IHE)											
										* TRY 2-2-2 COMP. WITH G-12			
		**	IN THE HALF-APERTURE FOCUS TEST, THE OUTSIDE LINES APPEAR TO HAVE GHOST IMAGES ON THE RED SIDE								* TRY 2-2-2 COMP. WITH G-12 FILTER; IT SEEMS MUCH MORE LIGHT IS GETTING THROUGH THE IRON-ARC WINDOW NOW THAT IT'S CLEAN.		

27

Date Sept 19, 20 Tau Sag. Observer B. P. Julian Day \_\_\_\_\_

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle End
32640	HD 203156	21 15.4	37° 49	G12	IIaD	9XL	54	21:27 <sup>(7)</sup>	22:38 <sup>(10)</sup>	A	0° 52' W
32641	HD 21699	03 25.1	47 41	"	"	9L	51°F	22:50 <sup>(10)</sup>	00:31	B	3° 21' E
32642	HD 30798	05 14.9	-18 37			9L		04:06 <sup>(18)</sup>	04:24	C	1° 14' E
32643	" 28 TAU	03 43.2	+23 50			9XL		04:33 <sup>(25)</sup>	04:58	A	0° 49' W
32644	27 Tau	03 43.2	+23 45			9XL	50°F	05:00 <sup>(6)</sup>	05:06	B	0° 50' W
								6:12/3:41			

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

Focus \_\_\_\_\_

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

Hour Angle  
End

Dome Temp. 51

Focus .....

Dome Temp. 50°F

Transparency Conditions Clear; clouded in at  
about 23:30 EST.  
cleared about 04:00 EST.

Time I.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
39	A	0 <sup>h</sup> 57 <sup>m</sup> W	38 07	3-4	6.3	F2II	8-8-8	Fe*	<sup>600</sup> 400 / <sup>can not</sup> 480		FINE
31	B	3 <sup>h</sup> 21 <sup>m</sup> E	47 57	~4"	5.36	B8II	8-8-8	Bp Prog.	2x100 / 156	Bp Prog. clouds about half-way through this exposure closed at 00:45 because of clouds.	FINE
26	C	1 <sup>h</sup> :14 <sup>m</sup> E	-18 30	~5"	6.05	B8	8-16	Bp Prog.	2x100 / 180	Cut short due to insufficient time.	VERY WEAK
55	A	0 <sup>h</sup> 49 <sup>m</sup> W	+24 05		5.01	B8p	8-8-8	" "	2x100 / 200		SC. STRONG
00	B	0 <sup>h</sup> 57 <sup>m</sup> W	+24 00		3.54	B8III	8-16	" "	2x10 / 20		SC. STRONG

Date Sept 21-22 Sun Mon / 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.H.	How Angle End
32645	HD 176318	18 54.6	+38° 07'	G12	IIa0	9L	61°F	19:03	19:23 <sup>(20)</sup>	A	00' 00"
32646	HD 203156	21 15.4	+37° 49'	"	"	9XL	61°F	19:30	20:19 <sup>(49)</sup>	B	00' 00"
32647	NOVA DELPHINI	20 37.7	+18 55	"	"	13S	60°F	20:29	21:06 <sup>(97)</sup>	C	00' 00"
32648	MY Cyg	20 16.2	+33° 38'	"	"	13S	60°F	22:15	00:09 <sup>(107)</sup>	A	03' 30"
32649	HD 209813	22 01.0	+46° 45'	"	"	13L	58°F	00:10	02:25 <sup>(135)</sup>	B	00' 00"
32650	β Ari	01 49.0	+20° 19'	"	"	9XL	56°F	02:34	02:38 <sup>(4)</sup>	C	00' 30"
32651	HD 26162	04 03.3	+19° 21'	"	"	9L	56°F	02:46	04:08 <sup>(82)</sup>	A	00' 15"
32652	BF Aur.	04 58.0	+41° 09'	"	"	13S	55°F	04:17	05:23 <sup>(66)</sup>	B	00' 00"
									G12 / 8:50		
32652 T1	calibration	step wedge for plates			32645 - 32652				22 Sept/69		

Dome Temp.         Focus         Dome Temp.

Dome Temp. 64°F

Transparency Conditions SOME HAZE

Focus .....

Dome Temp. ....

Time T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
23	A	00:13W	+38° 15'	1-2"	5.7	B6-7	8-8-8	SPEC. BIN.	200/160		FINE BROKEN
2	B	01:14E	+38° 08'	~1"	6.3	F2Th	8-8-8	FERNIE*	400/500	BROKEN 2 PIECES	V-SL. WK
6	C	01:10W	+19° 07'	2-3"	8-9?	F?	8-8-8	NOVA DEL.	800/330	FIELD DRAWN (RIGHT STAR)	GOOD
21	A	03:30W	+33° 54'	1-2"	8.7	A5	8-8-8	ECL. BIN.	800/200	(425) TOO HAZY FOR A FAINT STAR	VERY WK.
25	B	04:08W	+47° 07'	2-3"	7.5	K0	8-8-8	?	400/560		SL. WEAK
38	C	00:31W	+20° 40'	2-3"	2.7	A5	12-12	ECL. BIN.	20/21		(GUIDING) SL. STRONG
07	A	00:11E	+19° 32'	1-2"	6.4	K1	8-8-8	STD VEL	400/560		SL. WEAK
23	B	00:07W	+41° 16'	1-2"	8.5	B5V	8-16	ECL. BIN.	80/150		VERY WEAK
										DAWN	
4/69										in WP-2/9.0 min @ 01° E (2A0 < 1E9)	

31

1969

Date Sept. 22-23, Mon.-Tue. Observer Harris-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.
32653	HD 173658	18 <sup>h</sup> 41.3 <sup>m</sup>	+21° 53'	G12	IIaO	9XL	65°F	19:27	21:59	B
32654	$\alpha$ Cas.	00 34.5	+55° 59'	"	"	9L	"	22:28	22:34	C
32655	HD 9996	01 <sup>h</sup> 36 <sup>m</sup> .6	+45° 15'	"	"	9L	61°F	22:51	00:52	B
32656	HD 8441	01 <sup>h</sup> 18.5 <sup>m</sup>	+42° 37'	"	"	9L	"	01:17	01:40	C
								6:2: 5:04		
32656 T1 calibration step wedge for plates 32653-32656								23 Sept 1969		

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

Hour Angle  
End  
03:37  
03:51  
00:58  
01:16



Dome Temp. .... 65° F

Transparency Conditions NO CLOUD, OVERALL SLIGHT HAZE

Focus .....

fog

Dome Temp. ....

Time T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
50	B	03 <sup>h</sup> :4 <sup>m</sup> W	+22°01'	2"-3"	6.50	Ap	8-8-8	Ap prog.	200/200	<u>broken</u> 2 pieces exposure very slow	* (GUIDING) FINE
51	C	02 <sup>h</sup> :15 <sup>m</sup> E	+56°25'	2"-3"	3.34	KOII	12-12	BL SLOW	20/28		FINE
52	B	00 <sup>h</sup> 53 <sup>m</sup> E	+45°17'	3"	6.15	Ap	8-8-8	Ap prog.	400/320	fog lifted temporarily	FINE
	C	00 <sup>h</sup> 10 <sup>m</sup> W	+43°01'	3"	6.17	AO p	8-11/2	Ap prog	400/17	stopped at 01:42 - heavy fog fogged in quickly	NOTHING
		MWP-2/ 9.0 min @ 60°F / (290C 158)									
		* THE LONGER PIECE MUST HAVE SHIFTED SLIGHTLY AFTER BREAKING, AS IRON LENSES ON IT ARE ALL DAMAGED.									

Date Sept 26 27 Fri-Sat Observer I. T. Takahashi Julian Day \_\_\_\_\_

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle End
32657	(F1-F6)			G40	D <sub>10</sub> O	13	54°F				
32658	(F1→F8)			G40	D <sub>10</sub> O	13	54°F				
32659	MDS4-11	1 <sup>h</sup> 18 <sup>m</sup> 3	+42° 39'	G40	D <sub>10</sub> O	13x	55°F	2:12	2:43	A	
32660	"	"	"	G40	D <sub>10</sub> O	13xL	54°F	3:03	3:17	B	
32661	MDS4-11	1 32.5	+41° 11'	G40	D <sub>10</sub> O	13xL	53°F	3:42	3:55	B	
32662	"	"	"	"	"	13xL	"	4:04	4:14	B	
32663	MDS4-11	1 44 4.12	+27° 20'	"	"	11	52°F	4:31	4:35	B	
32664	MDS4-11	8 <sup>h</sup> 24 <sup>m</sup> 6	40° 33'	G40	D <sub>10</sub> O	13		4:34	5:19	B	
3264F				G40	D <sub>10</sub> O	13	50°F			B	

6:09 1:37

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

Dome Temp. 57°F

Transparency Conditions F. HUNDENHANSERS

Focus .....

! THIN WINTER CLOUDS  
CLEAR 1:00

Dome Temp. ....

Time	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
		[F1(32.6)A]	[F2(32)B]	[F3(31.5)C]	[F4(30)A]	[F5( <del>29</del> )B]	[F6(28)C]	[ <del>F7(29)A]</del>	[ <del>F8(28)B]</del>		
		[F1(30 3/4)A]	[F2(30 3/4)B]	[F3(31)C]	[F4(31 1/2)A]	[F5(31 1/2)B]	[F6(32)C]	[F7(32 1/2)A]	[F8(32 1/2)B]		
01	27	W	43° 02'	3"	5.92	A0 <sub>1</sub>	1-3-2	Ap Program	200/10	Setting = 31 1/3	FINE
02	06	W	"	3"	"	"	2-2-2	"	200/40	* ...	FINE
										long ...	
02	23	W	+45° 18'	3"	6.5	Ap	2-1	Ap Program	200/40	setting 30.5	FINE
02	44	W	"	"	"	"	2-4	"	200/35	10x ...	(GOOD FOCUS) FINE
02	39	W	127° 15'	"	4.8	H <sub>2</sub>	2-4	Ap Program	200/10	half way ...	FINE
03	07	E	100° 20'	4"	6.53	A0 <sub>2</sub>	2-3-2	"	400/30		FINE

Object viewed in E Syrac

Date Sept 27 28 1928 Observer J. T. Julian Day 212.5

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
32665	Focus [F1(A, B, C)]									
32666	HD 183056	19 <sup>h</sup> 27.2	+36° 07'	640	1100	13xL	54°F	21:55	21:58	B
32667	HD 17913	20 <sup>h</sup> 17.3	+27° 29'	"	"	"	54°F	22:08	22:25	B
32668	HD 8441	1 <sup>h</sup> 18.5	+42° 37'	"	"	"	54°F	22:55	23:12	B
32669	HD 9996	1 <sup>h</sup> 32.30	44° 54'	"	"	"	32°F	23:30	23:45	B
32670	HD 24523	21 <sup>h</sup> 0.28	27 20'	"	"	"	52°F	00:19	00:25	B
32670F	Focus						48.5°F			

(640/0:58)

Dome Temp. ....

Focus .....

Dome Temp. ....

Hour Angle End

Dome Temp. 54°F

Transparency Conditions Very poor - clouds at 1:00

Focus .....

Dome Temp. 49°F

Log Time S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
			Temp 54°F								
175	P	2 <sup>h</sup> 19 <sup>m</sup> W	+27° 42'	3"	4.75	Asi	2-4	Ap. Prng	200/40	setting 31	FINE
1:12	P	2 <sup>h</sup> 19 <sup>m</sup> W	+27° 42'	3"	6.37	AOp	2-4	"	210/40	" 31	POOR GUIDING FINE
1:12	P	2 <sup>h</sup> 02 <sup>m</sup> E	+42° 59'	3"-4"	5.92	AOp	2-22	"	300/40	" 31	FINE
3:45	B	2 <sup>h</sup> 18 <sup>m</sup> E	+45° 15'	4-3	6.15	A <sub>p</sub>	2-22	"	200/40	" 31	FINE
3:45	B	3 <sup>h</sup> 00 <sup>m</sup> E	+27° 31'	3	4.75	Asi	3-3	"	200/40	" 31	GOOD FOCUS FINE
							3-3				SC. CP VIOLET
										clouds	

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Date Sept 28, 29 Sun-Mon Observer Lo-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.	Hour Angle End
32671	HD 177517	18 <sup>h</sup> 59 <sup>m</sup> 55 <sup>s</sup>	-15° 49'	G-12	IIaO <sup>9</sup>	X Long	57°F	19:06:	21:28 <sup>(122)</sup>	A	2 <sup>h</sup> 35 <sup>m</sup> W
32672	HD 8441	1 <sup>h</sup> 18 <sup>m</sup> 3 <sup>s</sup>	42° 37'	G-12	IIaO	9 X Long	49°F	2:19:	2 hours of cloud 4:25 <sup>(126)</sup>	B	9 <sup>h</sup> 10 <sup>m</sup> W
no	focus (saving scarce G12 plates)										
									6-12/5:08		
32670 T <sub>1</sub>	calibration step	wedge	for plates	32659 -	32670				29 Sept/69		
32672 T <sub>1</sub>	calibration step	wedge	for plates	32671, 2					(2 Oct/69)		
T <sub>2</sub>	"	"	"	"	new plates				"		

Dome Temp. ... 52°F

Focus .....

Dome Temp. ... 48°F

Transparency Conditions ... mostly clear  
intermittent clouds

Stopped at 22 hours  
Started 2:15  
Started at 4:50

ing Time L.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
22	A	2 <sup>h</sup> 35 <sup>m</sup> W	-15° 42'	3 <sup>"</sup> 5	5.71	A0s	68-8	Ap Program	2x100/ ASC	Clouded at 19:32 clouds START 19:44 STOPPED	GUIDING FINE
25	B	4 <sup>h</sup> 18 <sup>m</sup> W	42° 59'	3	5.92	A0p	7-7-7	Ap Program	4x100/ 460	BY PLATFORM HORIZONTAL DISPLAY	STARTING 4:45 GUIDING WEAK
		MWP-2 / 7 min @ 61°F									(240 C 148)
		MWP-2 / 9 min @ 61°F									(240 C 149)
											(240 C 149)

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Visitors from Waterloo, &amp; York viewed Ring Nebula 1st half

Tues - Wed!

 Date Sept 30 - 31 ~~REALLY!~~ Observer Bü, Lake, Ia Julian Day \_\_\_\_\_

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle End
32672 F	(Focus Tests, open aperture)						57°F		FI [A, B, C, (slit widths)		30:20:00
32673	BD+57°245	1960 (correction for NGC 451) 01 <sup>h</sup> 17 <sup>m</sup> .0	+58°04'	C-60	IIc-0	30 L	57°F	23:27	01:36	B	0 <sup>h</sup> 40 <sup>m</sup> W+
32674	BD+57°240	" "	" "	"	"	"	59°F	2:10	3:15	B	275 W+
32674 II	calibration step wedge for plates 32673, 32674								040/3:10 (2 Oct/09)		

Dome Temp. 5

Focus \_\_\_\_\_

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

Hour Angle  
End



Dome Temp. 56°F

Transparency Conditions some cloud

Focus .....

slightly hazy

Dome Temp. ....

Bad night for faint NGC 457 program, ie 3/4 moon

ing Time E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
C. 6:14		3d setting	33]	F2 [B, 33, width 13]			F3 [B, 34]	F4 [B, 35]	F5 [B, 32]	F6 [B, 31]	
								slit width 13			
3:36	B	0 <sup>h</sup> 40 <sup>m</sup> W	+57° 57'	~3'	10.1	B-V = .27	1-2-2	NGC 457	8x100/140	setting 35	with slit (Focus?) FINE
3:45	B	2 <sup>h</sup> 25 <sup>m</sup> W	+58° 13'	~3"	9.8	B-V = .29	1-2-2	"	400/46	setting 33	cloud at 3:15 (poor focus) 0.5L.WK
										cut short	
										closed 4:15	
										mcp-2 / 7 min @ 68° F (300 L.WK)	

Fri - Sat

Date Oct 3 - 4 Observer Ta, Piorden 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 East
32675	HD 186791	19 <sup>h</sup> 41. <sup>m</sup> 5	+10° 22'	G12	Ilao	9L	59°F	18:50	18:57	A	0° 15' E
32676	HD 203156	21 <sup>h</sup> 15. <sup>m</sup> 4	+37° 49'	G12	Ilao	9xL	58°F	20:42	22:16	C	1° 32' W
32677	HD 8441	1 <sup>h</sup> 22. <sup>m</sup> 5	+42° 37'	G12	Ilao	9L	56°F	22:55	0:59	B	0° 10' W
32678	HD 9996	1 <sup>h</sup> 32. <sup>m</sup> 30 <sup>s</sup>	+44° 54'	G12	Ilao	9L	53°F	1:32	3:21	A	2° 20' W
32679	HD 25823	4 <sup>h</sup> 0. <sup>m</sup> 5	+27° 20'	"	"	9L	50°F	3:41	4:06	A	0° 39' W
32680	α Tau	4 <sup>h</sup> 30. <sup>m</sup> 2	+16° 18'	"	"	9L	48°F	4:45	4:50	B	0° 55' W
32680 F	Focus			"	Ilao		48°F			B	
32680 Ti	Cal step wedge	for plates 32675-32680									

6:14 6:04

Dome Temp. 5  
Focus  
Dome Temp.



43

Dy Ir Ib 158 VISITORS  
saw E SyzW

sat - sun  
Date Oct 4-5

Observer Ir. Ia

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.
32681	HD 8441	1 <sup>h</sup> 18.5 <sup>m</sup>	+42° 37'	G12	D20	9xXL	480F	01:01		B

Dome Temp.  
Focus  
Dome Temp.  
Hour Angle  
End

Dome Temp. ....

Transparency Conditions ..... Clouded in after visitors

Focus .....

Clear by 0:50, Cloud by 01:10

Dome Temp. ....

stop 161 at 1:10

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
B	43° 01'	3	5.92	AO <sub>p</sub>	6-12	Ap Program	4x100	auto glow motion push fast cloud stopped drive at 3:95 took 1/2 sec comparison at hour angle = 2:50 <del>stop</del> stopped beam at 2:22 (approx)	VERY WEAK
Anson -						Noticed frig was off (bad connection) It was completely defrosted; lots of water sopped it up			
								T <sub>n</sub>	

45

Date Oct 5-6 Observer T. Hanes/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.H.	Hour Angle End
32682	M Y Cyg	20 <sup>h</sup> 16. <sup>m</sup> <sub>7</sub>	+33° 38'	G12	IIaD	13 S		19:11 <sup>224</sup>	22:55	A	3 <sup>h</sup> 10 <sup>m</sup> 3 <sup>s</sup>
32683	HD 703156	21 <sup>h</sup> 15. <sup>m</sup> <sub>4</sub>	+37° 49'	"	"	9xL		23:20 <sup>76</sup>	0:36	B	3 <sup>h</sup> 59 <sup>m</sup> 4 <sup>s</sup>
32684	HD 8441	1 <sup>h</sup> 18. <sup>m</sup> <sub>5</sub>	+42° 37'	"	"	9xL	51°F	00 47 <sup>79</sup>	2:06	C	0125W 4 <sup>s</sup>
32685	BF Aur	04 58.0	+41 09	"	"	13 S	51°F	02 18 <sup>89</sup>	4:47	A	075W 4 <sup>s</sup>
								(6.12 / 7:44)			
32685 F	Focus									B	
32685 T1	calibration step wedge for plates 32681 - 32685							6 Oct 1969			
	G-12 film changed from J-R							30 46-R			

Dome Temp. 5  
Focus  
Dome Temp. 5

Dome Temp. 54°F      0400 EX MTR 2 New Tubes

Transparency Conditions clear, some haze

Focus .....

Dome Temp. 52°F

cloud by 20:30  
hazy at 03<sup>h</sup>

ing Time S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
'55	A	3 <sup>h</sup> 16 <sup>m</sup> W	+33° 54'	1.2"	8.79	AS	6-6-6	icl Bin prog	400/190	cloud, capped a few times	WEAK
'36	B	3 <sup>h</sup> 59 <sup>m</sup> W	+38° 09'	"	6.3	F2Ib	6-6-6	Fernie*	400/450		V. SL. WE
'06	C	0125 W	+43° 02'	1.2"	5.97	AOp	6-6-6	Ap prog	400/360		(GUIDING) FINE
47	A	0 25 W	+41° 16'	1"	8.5 -9.2	BSV	3-3-3 3-6	Hd Ecl. Bin	400/70	ex. meter removed 03 <sup>h</sup> estimated exposure	VERY, VERY WEAK
										capped at ...	
										Cloud-cut short	
										in in / out out 4/4 no filter (focus S-R)	SL. CTD WE
										Mirror Heat Pilot out	
										Repaired Oct 2/69 HV	

47

Tues - Wed

Date Oct 7-8 Observer T. E. J. M. (Db) Julian Day           

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle End
32686	R. SCT	18 <sup>h</sup> 42. <sup>m</sup>	-5° 48' 8"	612	Ilford	9L	57°F	18:38 <sup>89</sup>	20 <sup>h</sup> 07 <sup>m</sup>	A	02 <sup>h</sup> 09 <sup>m</sup> W
32687	HD 203504	21 <sup>h</sup> 17.5	+19° 23'	"	"	9L	"	20:38 <sup>26</sup>	21 <sup>h</sup> 04 <sup>m</sup>	B	00 <sup>h</sup> 32 <sup>m</sup> W
32688	HD 206778	21 <sup>h</sup> 39. <sup>m</sup>	+9° 25'	"	"	"	56°F	21:28 <sup>7</sup>	21 <sup>h</sup> 35 <sup>m</sup>	B	00 <sup>h</sup> 40 <sup>m</sup> W
32689	HD 211300	22 11.1	72 49	"	"	"	55°F	21:55 <sup>11</sup>	23:46	B	02 <sup>h</sup> 15 <sup>m</sup> W
32690	HD 9774	1 30.5	72 32	"	"	"	"	23:58 <sup>70</sup>	01:08	C	0 <sup>h</sup> 29 <sup>m</sup> W
32690F	Focus (focus not set)			612	Ilford		55°F			B	
									612/5:03		
32690 TI	calibration step wedge for plates 32686 - 32690								6 Oct/69		

Dome Temp.         Focus         Dome Temp.



Dome Temp. 59°F

Transparency Conditions scattered cloud

Focus .....

Dome Temp. 55°F

Trouble with dec slow motion  
(paper-clip cotter pin broke, replaced with  
another paper clip ~~???~~)

ing Time E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
07 <sup>m</sup>	A	02 <sup>h</sup> 09 <sup>m</sup> W	-5° 42'	1.2"	5.3-8.6	68-K0	6-6-6	RV Tau Var	400/410	3 <sup>h</sup> (Lantana) capped 19 <sup>h</sup> , uncapped 19:25	WEAK Dec. trouble
04	B	00 <sup>h</sup> 32 <sup>m</sup> W	+19° 43'	"	5.72	K1 IV	6-6-6	Vis Bin	40/42	guided by EJM.	SL. WEAK
35	B	00 <sup>h</sup> 40 <sup>m</sup> W	+9° 46'	2.3"	3.98	K2 IV	9-9	"	40/42		V. SL. WK
46	B	02 <sup>h</sup> 15 <sup>m</sup> W	+73° 11'	3"	7.08	68 II-III	6-6-6	"	400/400		SL. WK
	C	0 <sup>h</sup> 20 <sup>m</sup> W	72° 55'	"	6.25	68 II-III	6-6-6	"	400/350	cut short by cloud	SL. WK
		in in / out out						no filter	5/5	(focus 30-R)	V. SL. C. TO VIOLET
		mwp-2 / 9.0 min @ 68°F				(290 CITA)		Closed		01:30, <u>Rain</u>	
								Put in cotter pin in dec slow motion armature.			
								The paper clip cotter pin broke.			
								focus changed from 30-R to 40-R			

Date Oct 8-9, Wed. Thru. Observer Dr / Th, BK Julian Day.....

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle End
32691	HD173650	18 <sup>h</sup> 41 <sup>m</sup> 21 <sup>s</sup>	+21° 53'	G12	IIaO	9-L	50°F	19:38	21:30	B	3:40 W
32692	$\beta$ -Ari	01 <sup>h</sup> 49 <sup>m</sup> ?	+20° 19' ?	G12	IIaO	9-XL		22:08	22:16	B	2:45 E
<del>32693</del>	<del>HD-8411</del>	<del>01<sup>h</sup> 18<sup>m</sup> 5<sup>s</sup></del>	<del>+2° 37'</del>	<del>G12</del>	<del>IIaO</del>	<del>9-L</del>		<del>22:34</del>		<del>B</del>	
32693	28 Tau	03 <sup>h</sup> 43 <sup>m</sup> .2	+23° 50'	G-12	IIa-O	9XL	47°F	00:29	01:08	B+C	1:45 E
32694	27 Tau	03 <sup>h</sup> 43 <sup>m</sup> .2	+23° 45'	"	"	9XL	46°F	01:20	01:29	A	1:26 E
32695	HD21699	03 <sup>h</sup> 25 <sup>m</sup> .1	+47° 41'	"	"	9L	46°F	01:45	02:27	B	0:22 E
32696	HD21699	"	"	"	"	9L	46°F	02:38	03:16	C	0:40 W
32697	HD 34798	05 <sup>h</sup> 14 <sup>m</sup> .9	-18° 37'	"	"	9L	49°F	3:27	05:08	A	0:44 W
32698	$\beta$ Tau	05 <sup>h</sup> 20 <sup>m</sup> .0	+28° 31'	"	"	9L		5:13	05:16	B	6:45 W
32699	$\eta$ Aur	04 <sup>h</sup> 59 <sup>m</sup> .5	+41° 06'	"	"	9L	42°F	5:21	05:26	C	0:15 W
32700	R 7 au	05 <sup>h</sup> 20 <sup>m</sup> .0	+28° 31'	G12	IIaO	9XL	"	5:39	5:43	A	1:13 W
32700 F	Focus			G12	IIaO	9L	42°F			B	
32700 T.	calibration	steps	wedge for plates		32691 - 32700			9 Oct / 69			

G12 / 6:03

Dome Temp. 5

Focus

Dome Temp. 4

Dome Temp. 50

Transparency Conditions Clear

50

Focus

cloud 22:44 -> 23:07

Dome Temp. 41°F

Timing Time E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
1:50	B	3:40 W	+21° 57'	3"	6.25	Ap	8-8-8	Ap Program	2x100/150		(SC. GUIDING) FINE
2:16	B	2:45 E	+20° 43'	3"	2.7	As	12-12	Grz	2x10/19		SL. STRONG
				<del>3"</del>	<del>5.92</del>	<del>Ap</del>	<del>8-8-8</del>	<del>Ap Program</del>	<del>2x100/150</del>	<del>Finder added</del>	
	B+C	1:45 E	+24° 06'	3"	5.01	B8p	8-8-8	Bp Program	2x100/223	Plate holder top + bottom pods mixed up - i.e. top from B; bottom from C.	(GOOD AT 1/3) V.S.C. STR.
2:29	A	1:26 E	+24° 01'	2"	3.54	B8p	8-16	Bp Program	4x10/44		SL. STRONG
2:52	B	0:09 E	+47° 57'	3"	5.36	B8p	8-8-8	Bp Program	2x100/151		FINE
3:16	C	0:40 W	+47° 57'	2.5"	5.36	B8p	8-8-8	Bp Program	2x100/150		V.S.C. STR.
3:08	A	0:44 W	-18° 31'	3.5"	6.05	B8	8-8-8	Bp Program	2x100/150		(GUIDING) FINE
3:16	B	0:45 W		3"	1.52	B7III	12-12	Bp Program	20/15		(GUIDING) SL. STRONG
3:26	C	01:15 W		"	2.99	B3V	12-12	Bp Program	20/15		STRONG
4:43	A	1:13 W		"	1.52	B7III	24	Bp Prog	20/22	Fast guided.	STRONG
	B						5/5	no filter		focus 40-R	CENTRE TO UTRET
										Plates seem to be breaking soon after loading holders.	
										UNEXPOSED PLATES SHOULD BE RETURNED TO REFRIGERATOR OR THEY WILL BE FOGGED (mix #2 has been sitting out for 2 days)	

Date Oct 9-10, Thurs Fri Observer Hd, Tr, R. S. / Tr <sup>Bu</sup> Julian Day .....

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
32701	AG 10133	19 <sup>h</sup> 31. <sup>m</sup> 0	+28° 52'	G12	D <sub>a</sub> O	18 <sup>x</sup> S		18:29 <sup>18<sup>s</sup></sup>	21:37	A
32702	HD 213947	22 <sup>h</sup> 29. <sup>m</sup> 9	+26° 05'	G12	D <sub>a</sub> O	13S	59°F	21:45 <sup>9<sup>s</sup></sup>	23:16	C
32703	HD 223094	23 <sup>h</sup> 41. <sup>m</sup> 5	+28° 09'	G12	D <sub>a</sub> O	13S	52°F	23:25 <sup>16<sup>s</sup></sup>	2:07	B
32704	28 Tau	03 <sup>h</sup> 43. <sup>m</sup> 2	+23° 50'	G12	D <sub>a</sub> O	9xL	52°F	02:16 <sup>49</sup>	03:05	A
32705	27 Tau	03 <sup>h</sup> 43. <sup>m</sup> 2	+23° 45'	G12	D <sub>a</sub> O	9xL	52°F	03:12 <sup>13</sup>	03:25	C
32706	HD 21699	03 <sup>h</sup> 25. <sup>m</sup> 1	+47° 41'	G12	D <sub>a</sub> O	9L	51°F	03:36 <sup>28</sup>	04:09	B
32707	1 Ori B	05 <sup>h</sup> 30. <sup>m</sup> 5	-5° 59'	G12	D <sub>a</sub> O	9L	51°F	04:12 <sup>9<sup>s</sup></sup>	5:43	A
32707F	Focus			G12	D <sub>a</sub> O		51°F			B
32707T <sub>1</sub>	calibration	steps	wedge	for	plates	32704 - 32707		7:02		
T <sub>2</sub>	"	"	"	"	"	# 32703		10 Oct/69		
								10 Oct/69		

Dome Temp. 5

Focus

Dome Temp.

Hour Angle  
End02<sup>h</sup> 00<sup>m</sup> W1<sup>h</sup> 4<sup>m</sup> W3<sup>h</sup> 19<sup>m</sup> W0<sup>h</sup> 1<sup>m</sup> W0<sup>h</sup> 35<sup>m</sup> W0<sup>h</sup> 31<sup>m</sup> W1<sup>h</sup> 07<sup>m</sup> W

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

Transparency Conditions *clear*

52

Focus .....

High cloud at 22:15 - 23

Dome Temp.  $52^{\circ}\text{F}$

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
1:37 A	03 <sup>h</sup> 00 <sup>m</sup> W +29° 04'	2"-3"	9.55	F7V	4-3-5 4-4-4	Sec Std Vel	800/310	Sec Std vel.	WEAK
2:16 C	1 <sup>h</sup> 41 <sup>m</sup> W +26° 28'	1"-2"	8.93	K4 III	4-4-4 4-4-4	"	800/4-80	Dec out 6" from previous	WEAK
2:07 E	3 <sup>h</sup> 19 <sup>m</sup> W +28° 34'	"	8.97	K5 III	4-4-4 4-4-4	"	800/490	seeing bad & cloud 1:15	WEAK
2:05 A	0 <sup>h</sup> 15 <sup>m</sup> W +24° 04'	~2"	5.01	B8p	8-8-8	Bp Program	2x100/225		FINE
3:25 C	0 <sup>h</sup> 35 <sup>m</sup> W +23° 59'	~2"	3.54	B8 III	8-16	Bp Program	4x10/23		SLIGHTLY STRONG
4:04 B	01 <sup>h</sup> 31 <sup>m</sup> W +17° 57'	~2"	5.36	B8p	8-8-8	Bp Program	2x100/150		FINE
4:43 E	1 <sup>h</sup> 07 <sup>m</sup> W -5° 53'	2"-4"	~7.3	B9	8-8-8	Bp Program	2x100/170	cut by down	ALMOST BLANK
	min lost out				5/5	no filter		focus 50-R	GOOD
	2.0xP-2 / 9.0 min @ 68°F								
	"	10.5							

Date Wed. June 15, 1969 Observer R. J. <sup>Kroll</sup> Temmer Julian Day           

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle End	
32708	HD 203156	21 15.4	+37 49	G12	400	9xL	49°F	20:46 <sup>120</sup>	22:46	A	02:40	
32709	B ARI	01 49.0	+25 19	.	.	.		20:59 <sup>16</sup>	23:15	B	1:17E	
32709F	found bad						47°F			B		
<u>6/12/21/16</u>												
32709 T1	calibration step wedge for plates 32708, 32709									16 Oct/69		

Dome Temp.     

Focus     

Dome Temp.

Dome Temp. 48°F

Transparency Conditions .....

Focus .....

Dome Temp. ....

Time	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
02:46	A	02 49W	38° 09'	3	6.3	F250	8-85	Fe*	40/450		FINE
02:15	B	14 17E	26° 41'	3	2.7	A5	12-12		40/40	thru sl. cloud BROKEN	SL. STR.
	D		focus 50-2				55	no filter		clouded over	GOOD
02:00-09		MCP-2 / 9.0 min @ 68°F (200C 129)									

SS

Visitors Ny. Sv. Lp. 160 visitors.

what happen to him (KROLL) ??  
 /Ri - Gulliver

Date Oct 18-19 Sat & Sun Observer Ri Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle End
32710	HD 3765	00 39.3	39 40	G12	Ilao	13 S	50°F	21:32	00:01 <sup>149</sup>	A	0°54W
32711	HD 8441	01 18.5	42 37	'	"	9L		00:27 <sup>115</sup>	02:22	B	2°33W
32712	o Ceti	02 14.3	-3 26	G12	Ilao	9xL	45°F	02:32	03:39 <sup>67</sup>	C	2°55W
32713	α Ori	05 53.5	+7 24	'	"	"	45°	03:56	04:08 <sup>12</sup>	A	0°13E
32713 F1	focus test					9			2:3	B	
32713 T1	calibration strip wedge for plates				32710 - 32713				5:12 / 5:43		

Dome Temp. - ?  
 Focus -  
 Dome Temp. -



Dome Temp. 49°F

Transparency Conditions *clear*

Focus .....

*lazy @ 10:00*

Dome Temp. 44°F

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
0454W	40 03	~3	8.2	K5	8-8-8	std val.	800/475		FINE
2433W	43 00	~3	5.92	A0p	8-8-8	Ap PROG.	400/300		FINE
2455W	-03 04	~3	3.5	M6	8-8-8		80/116	clouds @ 03:10	SL. WK (GUIDING)
0413E	+07 26	~4	0.41	M2	12-12		20/35	clouds	SL. WK
	focus 50-R				5-5	no filter			GOOD
m WP-2/9.0 min @ 6.6 F /						(2400129)			

5x

Date Oct. 22-23, 1969 (Wed-Thu) 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.H.
32714	28 TAU.	03 43.2	23 50	G12	IIaO	9xL	34°F	23:00	23:32	A
								00:53	01:45	
								03:34	03:45	
32715	27 Tau	03 43.2	23 45	G12	IIaO	9xL	29°F	03:49	04:02	B
32716	HD21699	03 25.1	+47°41'	G12	IIaO	9L	29°F	04:10	04:58	C
32717	HD21699	"	"	"	"	"	29°F	05:00	05:06	F
32718	T Ori	05 12.8	-6°57'	"	"	"	28°F	05:54	06:04	B
32718F	focus test	out out/	no no	"	"	9	28°F			B
								(612/3:22)		
32718 T1	calibration	stop wedge for plates 32714 - 32718								

Dome Temp. 3  
Focus  
Dome Temp. 2

Hour Angle  
Ecl

2 11 E

0 12 E

1 46 W

2 04 W

3 15 W

4 05 W

2 35 W

Dome Temp. 30°F

Transparency Conditions "Scattered Sky"

Focus .....

Dome Temp. 25°F Boy is it cold

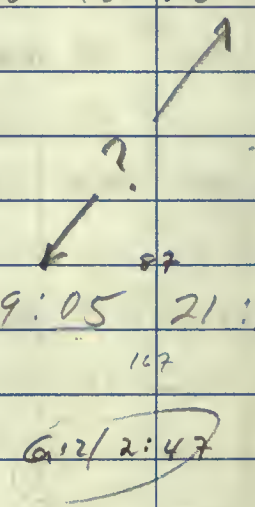
Ending Time E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
3:32	A	2 <sup>h</sup> 27 <sup>m</sup> E	24 06	4"	5.01	B8p	8-	Bp PROG.	400/78	thin clouds; possible moonlight on spectrum.	* U.S.L. STR.
4:45		0 12 E		4"			8-	400/446	400/258		
3:45		1 46 W					8		400/110	should watch this plates for possible flexure (SEVERE)	
4:22	B	2 04 W	24 01	3"-4"	3.54	B8III	8-8-8	Bp Prog.	80/52	MK std.	SL. STRONG
4:58	C	3 15 W	+47° 57'	3"-4"	5.36	B8III	8-8-8	Bp Prog.	4x100/301		SL. STRONG
5:00	F	4 05 W	+47° 57'	3"	"	"	8-8-8	Bp Prog.	4x100/300		SL. STRONG
5:10	B	2 38 W	-6° 51'	~4"	3.47	B8III	12-12	Bp Prog.	8x10/50	MK. std. Cut short because of cloud + sunlight.	FINE
	B			focus 50-R			5-5	no filter			SL. STR. IDLE
								from changed from 50R to 70-R.			

59

Körmendy

Date Oct 24-25 (Fri - Sat) Observer T. H. Ry, / late 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.
32719	HD 203156	21 <sup>h</sup> 15. <sup>m</sup> 7	+37° 49'	G12	IIaD	9xL	42°F	18:40	20:00	A
32719F	Focus			G12	IIaD		42°F			C
32720	Sky Spectrum done Oct 25			G12	IIaD	30L		19:05	21:22	A



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

0° 40' W  
 147  
 167

Full Moon

60

Dome Temp. 44°F

Transparency Conditions scattered cloud

Focus .....

cloud at 19:30

Dome Temp. ....

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
0 <sup>h</sup> 40 <sup>m</sup> W	+38° 08'	3"	6-3	F2I <sub>6</sub>	8-8-8	Fe <sup>+</sup>	400/315	copped by cloud	(GUIDING) WEAK
	in in / out out				5/5	no filter		focus 70-R	GOOD
								Closed at 0 <sup>h</sup> 30 <sup>m</sup>	
	[towards South, as far down as possible]						800/400	Resolution in ?	FOCUS?
					20 sec			away down due to the slit width	

61

Date 26-27 Oct 1969 (Sun-Mon) 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.	P.H.	Hour Angle End
32 721	HD 21699	03 <sup>h</sup> 25 <sup>m</sup> .1	+47° 41'	G-12	Ilco	9L	46°F	03:58	04:54 <sup>56</sup>	A	2 <sup>h</sup> 25 <sup>m</sup> W
32 722	[ Ori	05 <sup>h</sup> 12 <sup>m</sup> .8	-6° 57'	"	"	"	44°F	05:05	05:16	B	2 <sup>h</sup> 05 <sup>m</sup> W
								05:29	05:33		2 <sup>h</sup> 22 <sup>m</sup> W
32 723	γ Ori	05 <sup>h</sup> 19 <sup>m</sup> .8	+6° 16'	"	"	"	43°F	05:46	05:50	C	2 <sup>h</sup> 31 <sup>m</sup> W
32 723F	Focus test			"	"	9	42°F			B	
								(6/2/15)			
32 723 T1	calibration step wedge for plates				32 719, 32 721 - 32 723			27 Oct /69			

Dome Temp. 40°F

Focus .....

Dome Temp. 39°F

Transparency Conditions *Cloud + rain in early evening;*  
*Scattered cloud at ca. 4:00 EST*  
*Clouded in again at ca. 5:50 EST*

Hour	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
5:54	A	3 <sup>h</sup> :28 <sup>m</sup> W	+47°58'	~3"	5.36	B8p	8-8-8	Bp Program	2x100/1149		FINE
5:56	B	2 <sup>h</sup> :05 <sup>m</sup> W	-6°50'	~3"	3.47	B5III	12-12	"	8x10/59	MK std. Capped because of	FINE
5:53	B	2 <sup>h</sup> :22 <sup>m</sup> W								cloud. Continued after cloud passed.	
5:50	C	2 <sup>h</sup> :31 <sup>m</sup> W	+6°24'	~3"	1.41	B2III	12-12	"	2x10/13	MK std.	STRONG
	B		focus 70-2				5-5	no filter		focus setting 70 red.	BLANK
27 Oct/91										mwp-2 / 9.0 min @ 68° F (240 C/179)	

63 ALUMINIZING: 28, 29 OCT (primary only)

Date Oct 30<sup>-31</sup>/69, Thurs-Fri Observer H<sub>d</sub>, H<sub>n</sub>, T<sub>n</sub> / B<sub>n</sub> - T<sub>n</sub> Julian Day <sup>HANES</sup>

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle End
32724	AG 10133	19 <sup>h</sup> 31.0 <sup>m</sup>	+28° 52'	G12	D <sub>00</sub>	18 S	42°F	17 59 <sup>156</sup>	20:25	A	3 <sup>h</sup> 20 W
32725	HD 213947	22 29.9	+26 05	G12	D <sub>00</sub>	13 S	40°F	20 46 <sup>74</sup>	22 00	B	1 45 W
32726	HD 223094	23 41.5	+28 09	G12	D <sub>00</sub>	13 S	40°F	22:09 <sup>68</sup>	23 16	C	1 51 W
32727	HD 4388	00 41.1	+30 25	G12	D <sub>00</sub>	13 S	38°F	23 34 <sup>155</sup>	02.09	A	2 <sup>h</sup> W
<del>32728</del>	<del>HD 31919</del>	<del>05<sup>h</sup> 29<sup>m</sup></del>	<del>02° 21'</del>	<del>G12</del>	<del>D<sub>00</sub></del>	<del>9L</del>	<del>38°F</del>	<del>02:20</del>		<del>B</del>	
32728	HD 21699	03 <sup>h</sup> 25.1 <sup>m</sup>	+47° 41'	G12	D <sub>00</sub>	9L	38°F	03:59 <sup>25</sup>	04:24	C	3 <sup>h</sup> W
32729	22 Tau	03 <sup>h</sup> 43.2 <sup>m</sup>	+23° 50'	G12	D <sub>00</sub>	9XL	38°F	04:31 <sup>27</sup>	05:01	A	3 <sup>h</sup> 29 W
32730	27 Tau	03 <sup>h</sup> 43.2 <sup>m</sup>	+23° 45'	G12	D <sub>00</sub>	9L		05:06 <sup>9</sup>	05:15	C	3 <sup>h</sup> 49 W
32731	HD 21699	03 <sup>h</sup> 25.1 <sup>m</sup>	+47° 41'	G12	D <sub>00</sub>	9L	37°F	05:22 <sup>42</sup>	06:04	B	6 <sup>h</sup> 50 W
32731 F	Focus			G12	D <sub>00</sub>					B	
								6:12 / 9:16			
32731 T1	calibration strip analysis for plate				32724 -	32731			31 Oct/69		



Dome Temp. 42°F

Focus .....

Dome Temp. 37°F

Transparency Conditions wispy cloud but good

As near as I can judge the telescope is now about twice as fast with the new primary coat.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
3 <sup>h</sup> 20 <sup>m</sup> W	+29° 03'	2"-3"	9.55	F7V	4-4-4	Sec Std Vel	800/450	Sec Std Vel. exp should be 800/560 (1 END FOGGED) Finder fld drop	SL. WK. FINE -
W 1 <sup>h</sup> 45 <sup>m</sup>	+26° 28'	"	8.97	K 4 III	8-8-8	Sec Std Vel	800/600	Sec Std Vel. Some cirrus	SL. WK
W 1 <sup>h</sup> 51 <sup>m</sup>	+28° 33'	2"	8.97	K 5 III	8-8-8	Sec Std Vel	400/300	Hoops guided	SL. WK
3 <sup>h</sup> 46 <sup>m</sup> W	+30° 49'	2"-4"	8.80	K 3 III	16-8	Sec Std Vel	400/300	Iron ore trouble (Fire) Capped fire ~ 2 min at 00:20 to check iron ore problem. Sock at 02:30 discarded	SL. WK
<del>6<sup>h</sup> 00<sup>m</sup></del>	<del>5"</del>	<del>8.25</del>	<del>B 8 III</del>	<del>8</del>	<del>Bp Program</del>	<del>4x100/300</del>			
3 <sup>h</sup> 15 <sup>m</sup> W	+47° 58'	3"	5.36	B 8 p	8-8-8	Bp Program	200/150		SL. STR.
3 <sup>h</sup> 34 <sup>m</sup> W	+29° 06'	2"	5.01	B 8 p	8-8-8	Bp Program	200/225		SL. STR.
3 <sup>h</sup> 49 <sup>m</sup> W	+29° 01'	2"	3.59	B 8 p	12-12	Kp Prog	200/149	new photo box of 2x2 MK 1st.	SL. STR. FINE -
4 <sup>h</sup> 56 <sup>m</sup> W	+47° 57'	2"	5.36	B 8 p	8-8-8	Bp Program	200/148		FINE
in/out out					5/5	no filter		four 70-2	GOOD
MWP2 / 11.5 min @ 62°F (290C/139)								calibration fogged	FOG 45%
Anson - Please give my plates about 2 min more development 277x									
* 2 pc from Bp holder put in exposed box (some confusion)									

65.

Date Nov 5-6 1969 Observer TN HANES Julian Day                     

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
<del>32732</del>	<del>HD 22928</del>	<del>3<sup>h</sup> 35<sup>m</sup> 18<sup>s</sup></del>	<del>47° 28'</del>	<del>G12</del>	<del>IIaD</del>	<del>9L</del>	<del>42°</del>	<del>0:30</del>	<del>0105</del>	<del>A</del>

closed 01h (cloud & wind too strong)

Dome Temp. ...  
Focus ...  
Dome Temp. ...  
Hour Angle ...  
Ecl



67 SECONDARY ALUMINIZED.

Date Nov 6-7 Thurs - Fri Observer Ta. H. / T. n. 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.
32732	HD 222099	23 41.5	+28° 09'	G12	IIaO	13s		19:18 <sup>(108)</sup>	21:06	A
32733	$\gamma$ Lyr	18 55.2	+32° 33'	G12	IIaO	9L	41°F	21:11 <sup>(109)</sup>	21:17	B
32734	HD 4388	0 41.1	30 25	G12	IIaO	13s		21:31 <sup>(122)</sup>	23 33	C
32735	HD 9138	1 24.9	+5 38	G12	IIaO	13s		23:35 <sup>(32)</sup>	0 05	A
32736	HD 34797	5 14.9	-18° 36'	G12	IIaO	9L	40°F	0:37 <sup>(126)</sup>	02:43	B
32737	HD 21699	03 <sup>h</sup> 25 <sup>m</sup>	+47° 41'	G12	IIaO	9L	40°F	2:51 <sup>(21)</sup>	3:12	A
32738	17 Tau	03 <sup>h</sup> 38 <sup>m</sup>	+23° 48'	G12	IIaO	9L	40°F	3:18 <sup>(3)</sup>	3:20	C
32739	28 Tau	03 <sup>h</sup> 43 <sup>m</sup>	+23° 56'	G12	IIaO	9xL		3:37 <sup>(30)</sup>	4:07	B
32740	29 Per	03 <sup>h</sup> 11 <sup>m</sup>	+49° 51'	G12	IIaO	9L	39°F	4:13 <sup>(69)</sup>	5:22	A
32740FI							39°F			B
32741	$\gamma$ Ori	05 19.8	+6 16	G12	IIaO	9L		5:43 <sup>(3)</sup>	5:46	C
32742	B GEM	07 39.2	+78° 16'	G12	IIaO	9L	39°F	5:58 <sup>(3)</sup>	6:00	B
32742 +1	calibration step wedge for plates									
					32733 - 32742				7 Nov/69	

Dome Temp.  $42^{\circ}\text{F}$ 

Focus .....

Dome Temp.  $39^{\circ}\text{F}$ Transparency Conditions *clear patch at 19h.  
more cloud though  
bad seeing*

Ending Time E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
21:06	A	0 <sup>h</sup> 07 <sup>m</sup> W	+28° 34'	2"-4"	8.97	K5IV	4-4-4 4-4-4	Sec Std Vel	800/600	Cloud at 20:15 (passed over) Finder HD Down	FINE
21:17	B	05 <sup>h</sup> 06 <sup>m</sup> W	+32° 41'	4"	3.20	B9IV	12-12	Bp Prog	40/30		SL. STR.
23:33	C	W 1 31	+30 49	3-7	8.80	K3IV	4-4-4 4-4-4	Sec Std Vel.	400/285		FINE
0 05	F	W 1 24	+6° 01'	"	6.2	K4	8-8-8	Std Vel	200/145		FINE
02:10	B	W 0:13	-18° 31'	3"-4"	6.18	B8	8-8-8	Bp Prog	400/300		FINE
3 2	A	W 2:30	+47° 56'	3"	5.36	B8IV	8-8-8	Bp Prog	200/150		STRONG *
3:20	C	W 2:30	+24° 03'	2"-3"	3.58	B6IV	12-12	Bp Prog	40/30		VERY STRONG *
4: 7	B	W 3:07	+24° 03'	3"-4"	3.01	B8p	8-8-8	Bp Prog	200/190		VERY STRONG
5:22	B	W 4:54	+50° 08'	3"-5"	5.09	B3V	8-8-8	Bp Prog	200/145	cloud & high wind at 4:30	VERY STRONG
	B		from 70.5R				5/5	no filter		capped often during cloud	GOOD
5:46	C	W 3:11	+6° 21'	4"-8"	1.41	B2III	12-12	Bp Prog	20/11		VERY STRONG
6:30	B	W 1:04	+28° 08'	3"	2.15	K0IV	12-12	Std vel	20/23	Sk <sub>g</sub> too light at 6!	VERY STRONG *
										* THERE IS NO OBVIOUS FLEXURE,	
										HOWEVER IT LOOKS AS IF THE	
										EXP. MTR. ALIGNMENT MAY HAVE	
										BEEEN AFFECTED.	

NCP-2/9.0 min @ 68°C

(290C119)



Dome Temp.  $47^{\circ}\text{F}$

Transparency Conditions  $\text{cleared at } 23^{\text{h}}$  more cloud 70

Focus .....

Dome Temp. ....

Ending Time E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
	A	W 1:34	$-3^{\circ} 03'$	3 sec	3.5	M6	8-16		200/250	some cloud Trouble with x meter	WEAK, MANY NO LINES
										$\nearrow$ closed 4:30 cloud etc	
										<del>in COP-2 / 9.0 mm @ <math>65^{\circ}\text{F}</math> (2.900-159)</del>	
										- UNEXPOSED PLATES WERE LEFT OUT AT ROOM TEMP., PRESUMABLY FROM SAT. A.M.	

Date Nov 12/13 1960

Observer S.B. Ri / H. TEUNISSEN Ri

Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle End
	UBV photometer of		BSL Lac		—	first	leaf				
32744	ζ Per	2 47.2	52 21'	G12	H <sub>20</sub>	9L	380F	00:37	00:45	A	0:50
32745	"	"	"	"	"	"	"	00:54	01:00	B	1:10
32746	HD 28066	4 24.2 1950	39 34 1950			13S	370F	01:24	03:50	C	2:36
32747	S Hen	7 01.2	20 38	"	"	9L		04:06	04:12	A	0:42
32748	"	"	"	"	"	"	350F	04:17	04:25	B	0:50
32749	HD 71866	8 24.6	40 33			9L	340F	04:36	05:21	C	0:50
32750	HD 66141	07 57.1	100 36	"	"	"	340F	05:30	06:02	A	0:40
32750F	focus test		out of focus				340F			B	
32750 TI	calibration step wedge for plates										

Done Temp  
Focus  
Done Temp

Hour Angle End

13 Nov 69



Dome Temp. 42°F

Transparency Conditions clear

Focus .....

Dome Temp. 34°F

Ending Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
				0						shy ok	
0745	A	1405W	52° 40	3	4.62	G0	12-12	TEUNISSON 57001	40/26		(SL. GUIDING) FINE
1.00	B	1420W			"	"	12-12	"	40/24		FINE
13.50	C	2436W	39 38	3	8.5	F8	8-8-8	"	800/410		FINE
4.2	A	0421W	20 38		5.2	G0p	12-12	"	40/26		FINE
1.25	B	0435W			"	"	"	"	40/26		FINE
5.0	C	0404W	46° 20		6.53	A0p	8-8-8	Ap Prog	200/100		FINE
5.2	A	0174W	2° 27		5.5	K3	8-16	sl. red.	i	no exposure meter	SLIGHTLY
	B		focus	-70.5	-R		5-5	no filter		BROKEN TWO PIECES	GOOD
08.45		MCP-2 (9.0 min @ 60°F)						(240 c (129)			
										* (04 9:20 a bright fireball meteorite was reported in North-north west)	

Date Fri. 2nd. Nov. 14-15 1969 Observer R. Ha 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.
32751	( $\tau$ Ori) HD 34503	05 12.8	-06 57	G12	Ilao	9L	35°F	02:02	02:27	A
32752	HD 65523	07 54.3	+29 31	"	"	13L		04:16	05:45	B
32753	HD 29449	10 14.3	+19 59	"	"	9L	32°F	05:52	06:23	C
32753F	focus test	out of focus	in air	"	"	9	31°F			B

Dome Temp. ?  
Focus \_\_\_\_\_  
Dome Temp. ?

Hour Angle  
End \_\_\_\_\_  
\_\_\_\_\_



75

Date <sup>15-16</sup> ~~Nov 15-17~~ ~~and Sun~~ 1969 Observer <sup>Gallier</sup> / R. L. K. Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle End
32754	8 Lyr	18 55.2	32 33	G12	IIaO	9xL	32°F	17:42 <sup>2</sup>	17:44	A	2 <sup>h</sup> 10 <sup>m</sup>
32755	"	"	"	"	"	"		17:49 <sup>2</sup>	17:51	B	2 <sup>h</sup> 15 <sup>m</sup>
32756	"	"	"	"	"	"	32°F	17:55 <sup>3</sup>	17:58	C	
32757	"	"	"	"	"	"		18:02 <sup>4</sup>	18:06	A	2 <sup>h</sup> 10 <sup>m</sup>
32758	T Cas	0 <sup>h</sup> 17.8	55° 14	G12	IIaO	13L		18:44 <sup>23</sup>	19:07	B	1 <sup>h</sup> 50 <sup>m</sup> E
32758F	focus out	out of focus				13	30°F			B	
32759	28 Tau	03 43.2	23 50	G12	IIaO	9xL	30°F	00 20 <sup>15</sup>	00 35	A	0 <sup>h</sup> 10 <sup>m</sup> W
32760	27 Tau	03 43.2	23 45			9xL		00 39 <sup>5</sup>	00 44	B	0 <sup>h</sup> 10 <sup>m</sup> W
32761	HD 28067	04 20.7	36 18			9L		01 05 <sup>8</sup>	02:33	C	1 <sup>h</sup> 30 <sup>m</sup> W

Dome Temp. 3  
Focus  
Dome Temp.

Hour Angle  
End

Dome Temp. 31°F

Transparency Conditions clouds & haze

Focus

Dome Temp. 30°F

Exposure Time E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
7:44	A	24 00 W	32 41	3	3.25	B9 III	12	RG*	40/15		TERRIBLE GUIDING
7:51	B	24 15 W	"		"	"		"	40/20	RANGE OF EXPOSURES IS GOOD.	GUIDING
7:58	C		"		"	"		"	40/30		GUIDING
8:06	A	24 30 W	"		"	"		"	40/40		GUIDING
7:07	B	14 50 E	55 40		7.3	M6c	8-16		500/38	clouded over	
	B						5-5	~ filter		focus 70.5-R	GOOD
7:35	A	04 11 W	24 06	2	5.01	B8p	8-8-8	Bp PROG.	200/120	cleared up	(SL. STRONG) FINE
7:44	B	04 30 W	24 00		3.54	B5 III	8-16	"	40/33		
7:33	C	14 31 W	36 29	2-3	7.00	G5	8-8-8	G1001 LK*	400/182	clouded out	WEAK

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Date Nov 16-17 Sun Mon 1969 Observer R. Ko Julian Day                     

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle End
32762	HD 212943	22 22.8	04 12	G12	IIaO	9L	34°	17:31	17:57 <sup>26</sup>	A	0 <sup>h</sup> 03 <sup>m</sup> E
32763	T Coe	00 17.8	55 14	G12	IIaO	13L		18:12	21:12 <sup>180</sup>	B	00 <sup>h</sup> 16 <sup>m</sup> W
32764	$\eta$ Tau	03 41.6	23 48	G12	IIaO	9L		21:26	21:37 <sup>"</sup>	C	00 <sup>h</sup> 43 <sup>m</sup> E
32764F	focus test		out of focus	B12	IIaO	9	34°F			B	
32764 T1	calibration step wedge for plates										
					32751 - 32764						
									17 Nov 1969		

Dome Temp.             
 Focus             
 Dome Temp.           

Hour Angle  
End

Dome Temp. 36°F

Transparency Conditions clear with some haze

Focus .....

Dome Temp. 34°F 222.00

Time E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
57	A	01 <sup>h</sup> 03 <sup>m</sup> E	+04 34	2-3	5.9	K0	8-8-8	850 V21	200/160		FINE
12	B	00 <sup>h</sup> 16 <sup>m</sup> W	55 40	2	7.3	M6e	6-6-6-6	M470 LAB. K0*	800/434		WEAK
37	C	02 <sup>h</sup> 43 <sup>m</sup> E	24 01		2.86	B7ne	8-16	M470 LAB. K0*	80/71	clouds at 21:30	ALMOST BLANK
	B						5-5	no filter		focus 20.5-R	GOOD
201 1503		MWP-2 / 9.0 mm @ 68° F (2900119)									

THURS. - FRI.

Date Nov 20-21/69

Observer Hd-Hr-Gz/Bi  
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.
32765	HD 204934	21 26.8	27 56	G12	IIa0	155	31°F	17 49	21 36	A
32766	" 9138	01 24.9	+05 38	"	"	"	"	21 55	22 05	B
32767	HYADES: HD 27371	04 14.1	+15° 23.5	H	IIa5	9L	26°F	22:34	22:38	C
32768	HYADES HD 27697	04 17.2	+17° 18'	"	"	"	"	22:48	22:55	A
32769	" HD 28305	04 22.8	+18° 58'	"	"	"	"	23:03	23:08	B
32770	" HD 28319	04 23.0	+15° 39'	"	"	"	"	23:21	23:24	C
32771	" HD 28307	04 22.9	+15° 44'	"	"	"	"	23:29	24:50	A
32772	25 Ori	06 <sup>h</sup> 01 <sup>m</sup> .9	+14° 47'	"	IIa0	9L	26°F	05:31	05:37	B
32773	2 Dra	14 <sup>h</sup> 01 <sup>m</sup> .7	+64° 51'	"	IIa0	9L	"	05:56	06:00	C
32774	HD 89449	10 <sup>h</sup> 14 <sup>m</sup> .3	+19° 59'	"	IIa0	9L	25°F	06:13	06:29	A
32774FI	star/...					9	25°F			
32774 T1	calibration step wedge for plates 32765, 66							6:12 / 5:13		

Dome Temp. 3  
Focus  
Dome Temp. 7

Hour Angle  
Ecl



Dome Temp.  $30^{\circ}F$

Focus .....

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

Transparency Conditions Good - Passing Clouds

CLOUDED OVER AT 23:30

Clear again at ca. 05:00 EST

Time EST	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
130	A	0348W	+2815	4-	9.64	K <sub>1</sub> II	4-4-4 4-4-4	SSV	800/400		FINE
205	B	0020W	+0501	3	6.2	K4	8-8-8	STD. VEL	80/40		FINE
238	C	0158E	+1536	3	3.86	K0	8/8/8	ASTR. 920	32/40		FINE
255	A	0143E	+1730	3	3.93	K0	8/8/8		32/40		FINE
277	B	0136E	+1907	3	3.63	K0	7/8/8		32/40		FINE
292	C	0120E	+1550	3	3.62	F0	8/8/8		26/40		FINE
300	A	0043E	+1556	3	4.04	K0	12/12		23/40	CHLOUDS (FOGGER?)	SL. WK
537	B	0341SW	+14° 50'	3	4.15	B3V	8-8-8	Bp Prg.	4x10/20	MK Std.	FINE
600	C	04 <sup>h</sup> 21E	+64° 32'	3	3.59	A0III	8-16	Bp Prg.	6x10/23	MK Std.	FINE
623	A	00 <sup>h</sup> 05E	+19° 37'	4	5.3	F5	8-16	Std. Nel.	2x100/130		FINE
							5-5	no filter		focus 70.5-R	GOOD
										Dawn	
<p>2100<sup>h</sup> 2/12.5 min @ 65°F (2400-129) Archie: because of the darkroom situation, the rest of these plates won't be developed until tomorrow at the earliest. Hope you have enough plate boxes. - Will</p>											

Date Fri Sat Nov 21-22 1969 Observer G. R. J. / B. R. 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.H.	Hour Angle End
	<u>rapid UBV photometry</u>		<u>KO and Pa</u>								
<u>32775</u>	<u>HD 204934</u>	<u>21<sup>h</sup> 26<sup>m</sup> 8</u>	<u>+27° 56'</u>	<u>G12</u>	<u>Ilao</u>	<u>15S</u>	<u>25°F</u>	<u>18:37</u>	<u>20:52</u>	<u>A</u>	<u>02:10</u>
<u>32776</u>	<u>o Ceti</u>	<u>02<sup>h</sup> 14.3</u>	<u>-03° 26.1</u>	<u>"</u>	<u>"</u>	<u>9L</u>	<u>55°F</u>	<u>21:11</u>	<u>22:20</u>	<u>B</u>	<u>00:28</u>
<u>32777</u>	<u>HD 27831</u>	<u>04<sup>h</sup> 18.5</u>	<u>+38° 49'</u>	<u>"</u>	<u>"</u>	<u>18S</u>	<u>24°F</u>	<u>22:35</u>	<u>00:46</u>	<u>C</u>	<u>00:10</u>
<u>32778</u>	<u>HD 21699</u>	<u>03<sup>h</sup> 25<sup>m</sup> 1</u>	<u>+47° 41'</u>	<u>"</u>	<u>"</u>	<u>9L</u>	<u>23°F</u>	<u>00:59</u>	<u>01:33</u>	<u>A</u>	<u>01:50</u>
<u>32778 F1</u>	<u>focus test</u>	<u>and and/no w</u>		<u>"</u>	<u>"</u>	<u>9</u>	<u>23°F</u>			<u>B</u>	
									<u>6:12 / 6:19</u>		

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

Focus \_\_\_\_\_

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

Dome Temp. 27°F

Transparency Conditions good - all odd clouds

Focus .....

thick haze at ~ 00:30 EST

Dome Temp. 22°F

Hour Angle E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
00:52	A	03 41 0 W	28 15	3sec 2	9.64	K1	4-4-4 4-4-4	SS.U.	800/400		FINE
00:52	B	00:12 E	-03° 05'		2.0-10.1	M5c- M9e	12-12	AST 470	80/60 200/100	clouds	FINE
00:46	C	00:10 W	+39° 00'	3	8.4	G0	8-8-8	"	800/350	hazy at 00:15	FINE
01:33	A	01:50 W	+47° 57'	~3	5.36	B8p	8-16	Bp Argemae	2x100/25	Possible moonlight due to thick haze. Capped early because of cloud.	WEAK
	B						5-5	no filter		focus 70.5-R	* GOOD
										Closed up in disgust (!)	
										at 05:30 AM	
										* WEAK CENTRE	

Date Nov. 22-23 (Sat Sun) Observer Gillespie G. J. / J. Julian Day \_\_\_\_\_

Dome Temp. 35  
Focus \_\_\_\_\_  
Dome Temp. 37

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle End
32779	$\alpha$ Tau A	* 04 <sup>h</sup> 34 <sup>m</sup> .2 <sup>(1970)</sup>	+16° 27'	G12	D a 0	9L	33°F	20 <sup>h</sup> 38 <sup>m</sup> 40 <sup>s</sup> <sup>(2.3)</sup>	20 <sup>h</sup> 41 <sup>m</sup> 00 <sup>s</sup> <sup>(2.3)</sup>	A	4 <sup>h</sup> 05 <sup>m</sup> E
32780	$\gamma$ Tau A	04 <sup>h</sup> 34 <sup>m</sup> .2	+16° 27'	G12	D a 0	9xL	33°F	20 <sup>h</sup> 49 <sup>m</sup> 20 <sup>s</sup> <sup>(5.7)</sup>	20 <sup>h</sup> 55 <sup>m</sup> 00 <sup>s</sup> <sup>(5.7)</sup>	B	3 <sup>h</sup> 45 <sup>m</sup> E
32781	$\alpha$ Ari	02 <sup>h</sup> 01 <sup>m</sup> .3	+22° 59'	G12	D a 0	9L	33°F	21:46 <sup>(6)</sup>	21:52 <sup>(6)</sup>	C	0 <sup>h</sup> 23 <sup>m</sup> E
32782	HO 21699	03 <sup>h</sup> 25 <sup>m</sup> .1	+47° 41'	G12	D a 0	9L	33°F	20:26 <sup>(2.2?)</sup> <sup>(24)</sup>	22:50 <sup>(24)</sup>	A	0 <sup>h</sup> 50 <sup>m</sup> E
32783	HD 21278	03 <sup>h</sup> 20 <sup>m</sup> .9	+48° 43'	G12	II a-0	9L	33°F	23 <sup>h</sup> 04 <sup>m</sup> <sup>(11)</sup>	23:15 <sup>(11)</sup>	B	0 <sup>h</sup> 20 <sup>m</sup> E
32783 F	Focus			G12	II a 0		34°F			B	
32784	$\eta$ Aur	04 <sup>h</sup> 59 <sup>m</sup> .5	+41° 06'	G12	D a 0	9L		01:37 <sup>(10)</sup>	01:47 <sup>(10)</sup>	C	0 <sup>h</sup> 33 <sup>m</sup> W
<p>* PLEASE USE 1900 LEADS FOR OBS. BOOK.</p> <p style="text-align: right;">6.12/2:59</p>											

Dome Temp. 35°F

Focus .....

Dome Temp. 37°F

Transparency Conditions

Full Moon  
 very cloudy, but can see  
 & Tau  
 clearer by 21:30

84

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
4 <sup>h</sup> 05 <sup>m</sup> E	+16° 29'	4"	<sup>B=</sup> 2.4	K5 III	12,12	AST 470	40/32	maybe fogged	FINE
3 <sup>h</sup> 45 <sup>m</sup> E	+16° 29'	4"	2.4	"	12-12	A. 470	40/43		FINE
0 <sup>h</sup> 23 <sup>m</sup> E	+23° 21'	2-3"	3.15	K2 III	12-12	Std Vel	40/32	Gillespie guided   may have fogged.	BADLY FOCUSED. STR,
0 <sup>h</sup> 50 <sup>m</sup> E	+47° 56'	2"	5.36	B8 III	8-8-8	Bp*prog	200/100	" " with guider	FINE
0 <sup>h</sup> 20 <sup>m</sup> E	+48° 58'	2"	4.88	B3 V	12-12	Bp <sup>comp</sup> prog	200/37	cloud/recheck field? one drawn	(GUIDING) SL. WK
								much scattered moon light	
								capped 23:15 cut short	
	in in/out out				5/5	no filter		focus 70.5-R	GOOD
0 <sup>h</sup> 33 <sup>m</sup> W	+41° 13'	2"	2.99	B3 V	12-12	Pp <sup>comp</sup> prog	40/20	thick haze	FINE
								cloud	
								closed 02:30	

Date Nov 23/24 Observer T. Hanes Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	How High East
32785	$\delta$ Per HD 22928	3 <sup>h</sup> 35. <sup>m</sup> 8	47° 28'	G12	IIa0	9L	36°F	2 <sup>h</sup> 08 <sup>m</sup> <sup>(*)</sup>	2 <sup>h</sup> 10	A	2 <sup>h</sup> W
<del>32786</del>	<del>HD 27886</del>	<del>4<sup>h</sup> 19.<sup>m</sup>0</del>	<del>36° 27'</del>	<del>G12</del>	<del>IIa0</del>	<del>9L</del>	<del>33°</del>	<del>2<sup>h</sup> 28<sup>m</sup></del>		<del>B</del>	
32786	HD 37321	5 <sup>h</sup> 32. <sup>m</sup> 6	+1° 30'	G12	IIa0	9L	33°F	3 <sup>h</sup> 10 <sup>m</sup> <sup>(56)</sup>	4:06	C	2 <sup>h</sup> W
32787	67 Ori (5 Ori)	06 <sup>h</sup> 01. <sup>m</sup> 9	+14° 47'	G12	IIa0	9L	33°F	4:24 <sup>(7)</sup>	4:31	A	2 <sup>h</sup> W
32788	$\beta$ Gem	07 <sup>h</sup> 39. <sup>m</sup> 3	+28° 16'	G12	IIa0	9L	"	4:43 <sup>(2)</sup>	4:45	B	0 <sup>h</sup> 58' W
32789	44 Leo	10 <sup>h</sup> 20. <sup>m</sup> 0	+9° 18'	G12	IIa0	9L	"	5:05	5:20	C	0 <sup>h</sup> 0'
								5:40'	6:29		
32789F	Focus	Test		G12	IIa0		32°F			B	
								(G12) 2:11			

Dome Temp.  $34^{\circ}$

Transparency Conditions *clear at 02<sup>h</sup>*

Focus .....

Dome Temp.  $30^{\circ}F$

Ending Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
4:00	A	2 <sup>h</sup> 24 <sup>m</sup> W	47° 43'	2"	3.1	B5	12-12	HARRIS G1001	40/20		(GUIDING) FINE
	B	<del>2<sup>h</sup> 24<sup>m</sup> W</del>	<del>36° 39'</del>		<del>8.15</del>	<del>AD</del>	<del>8-</del>	<del>HARRIS G1001</del>	<del>400/200</del>	useless	
4:06	C	2 <sup>h</sup> 25 <sup>m</sup> W	<u>-1° 23'</u>	2"	7.03	B8	8-8-8	Bp Prog	400/190	Dec way out (cut by cloud) +15"	FINE
4:31	A	2 <sup>h</sup> 20 <sup>m</sup> W	+14° 49'	2"	4.15	B3V	12-12	Pp Prog	40/20	comparison *	FINE
4:45	B	0 <sup>h</sup> 58 <sup>m</sup> W	+28° 08'	2"	2.15	K0III	24	Std Vel	40/32		STRONG
5:20	C	0 <sup>h</sup> 0 <sup>m</sup>	+8° 59'	2"	7.1	gM3	8-8-8	M* prog	200/225	copped by cloud	FINE
5:29	B	in in 1 out out					5/5	no filter		focus 70.5-R	GOOD

Date Wed-Thurs 26/27 Nov 1969 Observer Gu-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.
<del>32790</del>	<del>17 D 204934</del>	<del>21<sup>m</sup> 26<sup>s</sup>.8</del>	<del>127° 56'</del>	<del>G12</del>	<del>IIaD</del>	<del>175</del>				

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









Mon - Tues

Date Dec 1-2 1969 Observer Lake, Jr/Gz, 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.H.	Hour Angle End
32792	$\rho$ Per	02 <sup>h</sup> 58.8 <sup>m</sup>	+38° 27'	G12	D40	9L	22°F	21:45	22:05	A	0° 22' E
32793	"	"	"	"	"	9x6	"	22:21	22:42	B	0° 0' W
32794	HD 28067	4 <sup>h</sup> 20.7 <sup>m</sup>	+36° 18'	G12	D40	9L	18°F	22:56	01:06	C	0° 08' W
32795	HYADES HD 38307	04 22.9	+15 44	"	"	9L	17°F	01:20	01:31	A	01:30 W
32796	" HD 27962	04 19.7	+17 42	"	"	"	"	01:37	01:45	B	01:45 W
32797	" HD 29388	04 32.6	+12 19	"	"	"	"	01:50	01:59	C	01:49 W
32798	" HD 28024	04 20.3	+22 35	"	"	"	"	02:05	02:14	A	02:16 W
32799	" HD 32301	04 57.1	+21 27	"	"	"	"	02:19	02:34	B	02:55 W
32800	BF Aur	04 58.0	+41 09	"	"	13S	15°F	02:47			
32800	HD 37321	5 <sup>h</sup> 32.6 <sup>m</sup>	-1° 30'	"	"	9L	15°F	03:29	04:48	A	3° 38' W
32801	K H <sub>2</sub> O	9 <sup>h</sup> 35.5 <sup>m</sup>	-13° 53'	"	"	9L	"	5:07	05:22	B	00:11 W
32802	(P <sup>31x</sup> ) HD 90994	10 25.2	-00° 01'	"	"	9L	"	05:29	05:43	A	02:17 E
32803	( <sup>m</sup> Hyg) HD 14280	08 38.0	+3° 45'	"	"	9L	"	06:01	06:07	B	01:53 W
32804	( <sup>u</sup> Leo) HD 87901	10 03.1	+12 27	"	"	9L	"	06:23	06:25	C	00:16 W
32805	B VIF	11 <sup>h</sup> 45.5 <sup>m</sup>	+2° 20'	G12	D40	9L	"	06:40	06:49	A	00:33 E
32805 F	Focals			G12	D40					B	

Dome Temp. 19°F

Transparency Conditions (clear again (no snow))

Focus .....

All mechanical parts seemed to freeze

Dome Temp. cold (9°F)

Ending Time E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
12:05	A	0° 32' E	+38° 45'	3"	<sup>MV</sup> 3.5-4.0	M4	8-8-8	G 1001	40/40	2" broken off	FINE
12:42	B	0° 05' W	)	3"	)	)	8-8-8	"	40/53		FINE
1:20	C	01:08 W	+36° 28'	3"	7.63	G5	8-8-8	"	400/260	Finder fld down	U.S.C. WR
1:31	A	01:31 W	+15 56	3-4"	4.04	K0	12-12	AST. 220	40/32		FINE
1:48	B	01:48 W	+17 55	3"	4.24	A2	12-12	"	40/20		SL. STR.
1:49	C	01:49 W	+12° 27'	"	4.30	A3	12-12	"	40/20		U.S.C. STR.
1:16	A	02:16 W	+22 48	"	4.40	A5	12-12	"	40/20		SL. STR.
1:55	C	01:55 W	+21 35	"	4.70	A5	12-12	"	40/20		FINE
			+41 17	"	8.5	B5V	8-	ECL. BIN.	800/266	TOO FAINT	
4:48	A	3° 38' W	-1° 22'	2-3"	7	B8	8-8-8	Bp prog	400/200	Fld Down (ex reads 35.6?)	SL. STR.
5:23	B	00:11 W	-14° 09'	4"	4.90	B5V	12-12	Bp prog	40/20	Comparison Mt	STRONG
5:43	A	00:17 E	-00 26'	4"	4.90	B5V	12-12	"	40/20		SL. STR.
6:07	B	01:52 W	+03 34	4"	4.10	B3V	12-12	"	40/20		SL. STR (GUIDING)
6:49	A	00:46 W	+12:08	4"	1.25	B7V	12-12	"	40/20		SL. STR
6:49	A	00:33 E	+1° 58'	3"	4.18	F8V	12-12	std vel	40/26		STRONG
			min / out of				5/5	no filter		FOCUS 40.5-R (changed to 40-R)	CENTRE TO VILLET

Neptunian

Date Dec 3-4 Wed - Thurs  
 Observer Tr. Terzan  
 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.
32806	CG 5 OB 4	00 <sup>h</sup> 76. <sup>m</sup> 0	+61° 13.3'		103a0			19:25	19:45	2
32807	NGC 654	01 <sup>h</sup> 41.3 <sup>m</sup>	+61° 41'		103aD			20:18	20:38	1
32808	M 82	09 <sup>h</sup> 53.6 <sup>m</sup>	+69° 50'		L-7			2:40	3:22	2

Dome Temp.  
 Focus  
 Dome Temp.

Hour Angle  
 End



Newtonian

Date Dec 4-5, Thurs-Fri Observer Tn Terzan / NgB, 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.	How Angle End
Focus Star	Scor ( $\alpha$ 22 <sup>h</sup> 9 <sup>m</sup> 5 <sup>s</sup> +58° 05')						1970				
32809	Cas OB14	00 <sup>h</sup> 26 <sup>m</sup> 0 <sup>s</sup>	+61° 13.3'		10300			18:27	18:37	2	10 min
32810	An (king 2)	00 <sup>h</sup> 45 <sup>m</sup> 2 <sup>s</sup>	+57° 39'		10300			19:25 <sup>+10</sup>	19:35	1	10 min
Focus Star	( $\alpha$ 00 <sup>h</sup> 47 <sup>m</sup> 2 <sup>s</sup> $\delta$ 57° 39.8')						1970				
32811	N GC 654	01 <sup>h</sup> 41 <sup>m</sup> 3 <sup>s</sup>	+61° 41' [1960]		10300			19:57 <sup>+20</sup>	20:07	2	10 min
32812	NGC 366-Cr 9	01 <sup>h</sup> 00 <sup>m</sup> 0 <sup>s</sup>	+61° 48'		10300			20:25 <sup>+10</sup>	20:35	2	10 min
32813	NGC 654				10300			20:45 <sup>+25</sup>	20:55	1	10 min
Focus Star	( $\alpha$ 00 <sup>h</sup> 47 <sup>m</sup> 2 <sup>s</sup> $\delta$ 57° 39.8')						1970				
32814	NGC 381-Cr 10	01 <sup>h</sup> 02 <sup>m</sup> 1 <sup>s</sup>	+61° 03'		10300			21:45 <sup>+15</sup>	21:55	2	10 min
32815	NGC 654				10300			22:07 <sup>+35</sup>	22:17	1	10 min
32816	Cas OB14				10300			22:25 <sup>+70</sup>	22:45	2	75 min



Dome Temp. 24°F

Focus .....

Dome Temp. ....

Transparency Conditions very clear  
cloud on horizons

Observing Time E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
			+58° 04'								
01:37	2	10 min	+61° 21' ?			(1970 S +61° 14.6')			#I		
01:35	1	10 min	+57° 39'			(1970 S +57° 59')			#II		
			+57° 40'								
01:07	2	10 min	+61° 44'			[1970 S 61° 44' α 01° 42.0']			#V	Comparison	
01:35	2	10 min	+62° 06'			(1970 S +62° 06.3)			#III	set α 01° 04.3*	
01:55	1	10 min	+61° 44'			[1970 S 61° 44']			#IV	Comparison } set α 01° 41.8	
01:55	2	10 min				(1970 S +61° 21.3)			IV		
02:17	1	10 min	+61° 44'						V	Comparison	
02:45	2	75 min							I		
										Cloud for some time	
										Can not reach M82 with	
										telescope's plate holder position	
										3 a.m.	
										Quas }	

Fri - Sat

Date Dec 5-6 1969 Observer Jr. Gulliver Jr. Ho Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle End
32817	$\delta$ Per	3 <sup>h</sup> 35 <sup>m</sup> 8 <sup>s</sup>	+47° 28'	G12	Ilao	9L	25°F	22:55	22:58	A	00° 00'
32818	HD 27831	4 <sup>h</sup> 18 <sup>m</sup> 5 <sup>s</sup>	+38° 49'	G12	Ilao	13S	23°F	23:27 <sup>42</sup>	01:49	B	02° 09' W
32819	HD 37321	5 <sup>h</sup> 32 <sup>m</sup> 6 <sup>s</sup>	-1° 20'	G12	Ilao	9L	"	02:02 <sup>57</sup>	02:59	A	0° 00'
32820	$\eta$ Hyo	08 <sup>h</sup> 38 <sup>m</sup> 0 <sup>s</sup>	+3° 45'	G12	Ilao	9L	22°F	03:13 <sup>4</sup>	03:17	B	00° 45' E
32821	HD 94705	10 <sup>h</sup> 50 <sup>m</sup> 8 <sup>s</sup>	+06° 43'	G12	Ilao	9L	"	03:39 <sup>83</sup>	05:02	C	0° 05' E
32822	$\epsilon$ Leo	09 <sup>h</sup> 40 <sup>m</sup> 2 <sup>s</sup>	+24° 14'	G12	Ilao	9L	21°F	05:14 <sup>3</sup>	05:17	C	00° 18' W
<del>32872</del>	<del>R "Sex"</del>	<del>10<sup>h</sup> 25<sup>m</sup> 2<sup>s</sup></del>	<del>-0° 07'</del>	<del>G12</del>	<del>Ilao</del>	<del>9L</del>	<del>"</del>				
32822F	Focus			G12	Ilao					A	

Dome Temp. 2

Focus

Dome Temp. 2

Hour Angle  
End

Dome Temp. 25°F

Transparency Conditions scattered cloud

Focus .....

thick cloud 02:30

Dome Temp. 20°F

Starting Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
2:58		00° 00'	+47° 42'	2"	8.30	B5	12-12	G1001	40/18		STRONG
	R	02° 09" W	+39° 00'	2"	8.4	A0	8-8-8	A470	800/349		FINE
	A	02° 06" W	-1° 24'	2"	7.03	B8	8-8-8	Bp prog	400/190	much cloud	(GUIDING) FINE
3:17	B	00° 42' E	+03° 32'	2"	4.10	B3V	12-12	Bp Prog MK	40/18		SL GUIDING SL-STR.
5:12	C	01° 08" E	+06° 22'	2"-3"	7.4	M5-III	8-8-8	M <sup>x</sup> Prog	400/450		FINE
5:15	C	00° 16" W	+23° 56'	2"	3.76	G0II	12-12	Std Vel	40/24	[labeled 23 by accident]	(SL-GUIDING) FINE
		<del>0° 27'</del>			<del>4.90</del>	<del>B6V</del>	<del>Bp MK</del>	<del>40/18</del>	cloud again		(BADLY) CENTRE TO VIOLET
		in air / out of					5/5	no filter		(focus 40-R)	
										Closed 06 <sup>h</sup>	

Sat-Sun

Date Dec 6-7 1969 Observer To Bi / To 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.H.	Hour Angle End
32823	HD 203338	21 <sup>h</sup> 16 <sup>m</sup>	+58° 12'	G12	Ilad	9L	26°F	18:09 <sup>71</sup>	19:20	A	02 <sup>h</sup> 42 <sup>m</sup> W
32824	HD 21699	03 <sup>h</sup> 25 <sup>m</sup>	+47° 41'	G12	Ilad	9L	25°F	19:32 <sup>10</sup>	19:42	B	03 <sup>h</sup> 02 <sup>m</sup> E
32825	34 Per	03 22 <sup>m</sup> .2	+49° 10'	"	"	"	"	20:04 <sup>7</sup>	20:11	A	02 <sup>h</sup> 31 <sup>m</sup> E
32826	28 Tau	03 <sup>h</sup> 43 <sup>m</sup> .2	+23° 50'	"	"	9XL	"	20:21 <sup>12</sup>	20:33	B	02 <sup>h</sup> 19 <sup>m</sup> E
32827	HD 37321	05 <sup>h</sup> 32 <sup>m</sup> .6	-1° 30'	"	"	9L	"	20:50 <sup>117</sup>	22:47	A	02 <sup>h</sup> 03 <sup>m</sup> E
32828	HD 37642	05 <sup>h</sup> 34 <sup>m</sup> .9	-3° 24'	"	"	9L	26°F	23:03 <sup>153</sup>	01:36	C	0 <sup>h</sup> 41 <sup>m</sup> W
32828F	Focus			G12	Ilad		23°F			D	
32829	↓ Persei	3 <sup>h</sup> 35 <sup>m</sup> .8	+47° 28'	"	"	9L	"	02:07 <sup>2</sup>	02:09	B	03 <sup>h</sup> 15 <sup>m</sup> W
32830	"	"	"	"	"	"	"	02:12 <sup>3</sup>	02:15	C	02 <sup>h</sup> 21 <sup>m</sup> W
32831	19 Tau	3 <sup>h</sup> 39 <sup>m</sup> .3	+24° 00'	"	"	"	"	02:29 <sup>8</sup>	02:37	B	03 <sup>h</sup> 40 <sup>m</sup> W
32832	21 Tau	03 <sup>h</sup> 40 <sup>m</sup> .0	+24° 15'	"	"	"	"	02:45 <sup>63</sup>	03:48	C	06 <sup>h</sup> 30 <sup>m</sup> W
32832 TI	calibration step wedge for plate										
TV	"	"	"	"							
					32817 - 32826					8 Dec 1969	
					32827 - 32832					9 Dec 1969	

Dome Temp. 27°F

Transparency Conditions *clear*

Focus .....

*cloud at horizon*

Dome Temp. 23°F

*clouded in rapidly at 03:40 EST*

Ending Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
19:20	A	02 <sup>h</sup> 47 <sup>m</sup> W	+58° 30'	2"	7.2	MIT6 <sub>op</sub>	8-8-8	M* prog	200/225	MIT I bop + B	FINE
19:42	B	03 <sup>h</sup> 02 <sup>m</sup> E	+47° 55'	1-2"	5.36	B8IV	8-8-8	Bp prog	200/100		(SL. GUIDING) SL. STR
20:11	A	02 <sup>h</sup> 31 <sup>m</sup> E	+49° 24'	"	4.57	B5V	12-12	Bp prog	200/90	Compassionator	STRONG (SHOWS 43 NICELY) SL. STRONG
20:33	B	02 <sup>h</sup> 29 <sup>m</sup> E	+24° 02'	"	5.01	B8P	12-12	Bp prog.	2x100/130		(GUIDING) FINE
22:47	C	02 <sup>h</sup> 03 <sup>m</sup> E	-1° 24'	2"	7.03	B8	8-8-8	Bp Prog	400/180		(GUIDING) FINE
23:36	C	0 <sup>h</sup> 44 <sup>m</sup> W	-3° 18'	3"	8.0	B9	8-8-8	Bp Prog	400/200	cloud at 0:30	FINE
		<i>mi / out</i>					5/5	<i>no filter</i>		(focus 40-R)	SL. C. TOUT
02:09	R	03 <sup>h</sup> 15 <sup>m</sup> W	+47° 42'	2"	7.30	B5	12-12	G1001	40/19	cloud	(GUIDING) STRONG
02:5	C	03 <sup>h</sup> 21 <sup>m</sup> W	"	"	"	"	12-12	"	40/18		SL. STRONG
02:32	B	03 <sup>h</sup> 40 <sup>m</sup> W	+24° 24'	2"	4.18	B6V	12-12	Bp Prog	20/9	MK Std.	V. SL. STR
03:48	C	04 <sup>h</sup> 30 <sup>m</sup> W	+24° 28'	"	5.71	B8V	8-8-8	Bp Prog	200/56	MK Std. (Capped only because of cloud)	WEAK
										<i>closed 4<sup>h</sup> cloud</i>	
10:45		MCP-2	19.0 min	@	6.5			(290 C I 9)			
9 Dec 69		"	"	"	"			"			

Date Dec 9-10 Tue-Wed Observer To, Ejm / Va, 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.H.	Hour Angle End
<del>32833</del>	<del>_____</del>	<del>_____</del>	<del>_____</del>	<del>612</del>	<del>IIaO</del>	<del>9L</del>	<del>35°F</del>	<del>18:15</del>	<del>_____</del>	<del>A</del>	<del>_____</del>
<del>32833</del>	<del>RD 147 781</del>	<del>03 06.0</del>	<del>41° 44'</del>	<del>612</del>	<del>IIaO</del>	<del>135</del>	<del>25°F</del>	<del>18:38</del>	<del>20:37</del>	<del>C</del>	<del>1° 32' W</del>
32833	BD 47° 781	03 06.4	47° 44'	612	IIaO	135	33°F	20:43	22:10 <sup>87</sup>	A	0° 12' W
32834	M PER	04 7.8	48° 09'	612	IIaO	9L	31°F	0:33	0:43 <sup>10</sup>	C	1° 27' W
32835	M PER	"	"	"	"	"	"	0:59	1:10	B	1° 55' W
32836	HD 37321	05 32.6	-1° 30'	612	IIaO	9L	"	2:55	3:45 <sup>50</sup>	C	3° 06' W
32836F	Focus			612	IIaO		30°F			B	
32836 71	calibration strip wrap for plates			328 33-32836					10 Dec 169		

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

Hour Angle  
End  
\_\_\_\_\_

Dome Temp. 36°F

Transparency Conditions clear some haze

Focus

Dome Temp. 37°F

cloudy periods

Ending Time E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
	L			2"	8.93	K4E	4-	2nd std vel	400/310	(broken many pieces)?	
0:17	C	1° 36" E	+48° 00'	2"	G5	8-8-8	FSB	400/175	Waterloo prog [7/25/81]		
0:21		0° 12" W	+48° 00'	2"	G5	8-8-8	FSB	400/160	coppal 22:10, cloud	(GUIDING) FINE	
0:43	C	1° 27" W	+48° 20'	2"	<sup>m</sup> v 4.3	G2	12-12	G1001	40/23		FINE
1:10	B	1° 55" W	"	2"	"	"	12-12	"	40/24	cloud	FINE
3:45	C	3° 08" W	-1° 24'	2"-3"	7.03	B8	8-8-8	Bp prog	200/36	cloud again <sup>bad</sup>	(GUIDING) WEAK
	E		in in/out/out				5/5	no filter		(from 40-R) closed 5 <sup>h</sup>	S.L.C TO VI
0:52/67			mwp-2	19.0 min @ 68°F / (2402129)							

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Date Dec 15-16 1969 Mon Tues Observer Ri / Ri Ra Julian Day.....

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle End	
32837	HD 4388	00 41.4	30° 25'	G12	IIaD	135	25°F	19: 50	21: 50	A	24300	
32838	HD 66141	07 57.1	+02° 36'	G12	IIaD	9L		03 14	03 44	A	10000	
32838F	focus test		out out / in in			9L	20°F			B		
32838 T1	calibration step wedge for plates 32837, 32838									17 Dec / 69		
	Dec 16-17	Ra Ri		Photometer			19.30 - 19					





195

Date Fri 8-9 Dec 19-20 1969 Observer Ra-Ri / Ri Julian Day.....

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle End
			<u>photometry</u>					<u>17:30</u>	<u>21:00</u>		
<u>32839</u>	<u>HD 28065</u>	<sup>1970</sup> <u>04 25.6</u>	<sup>1970</sup> <u>+43 07.5</u>	<u>Q12</u>	<u>IIaD</u>	<u>13L</u>		<u>23:40</u>	<u>01:40</u>	<u>A</u>	<u>024520</u>
<u>32839F1</u>	<u>from A</u>	<u>2002/12</u>				<u>13</u>	<u>22°F</u>			<u>B</u>	

Dome Temp.

Focus

Dome Temp.

Dome Temp. 28°F

Transparency Conditions .....

Focus .....

Dome Temp. ....

Ending Time E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
01 40	A	02 <sup>h</sup> 52 <sup>m</sup> W	+43 09		7.2	B5	8-8-7	B1001 Rordant	8 <sup>100</sup> / <sub>520</sub>	clear but snow at 01:45	FINE
	B		focus 40-R				5-5	film		clouds at 02:00	CENTRE TO VIOLET
										tried again at 04:00	
										clear but fine snow flurries	

Date *Sat Sun Dec 20-21 1969* Observer *HD-R1* Julian Day.....

Dome Temp.  
Focus  
Dome Temp.

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
32840	HD 223094	23 41.5	+28 09	G12	IIaO	135	23°F	18:53	19:42	A
32840	T1 calibration step wedge for plate				32839, 32840				22 Dec 69	

Hour Angle  
Ecl  
22 Dec 69  
74 W 12

Dome Temp. 24°F

Transparency Conditions .....

Focus .....

Dome Temp. ....

Ending Time E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
9:42	A	1438W	+28 34		8.97	K5III	4-4-4	Sec. Std. Vel,	500/155	cloudy at 19:15	WEAK
22 Dec 19		m WP 2/9.0 min @ 68°F (2 AOC, 29)									

Date was wrong!  
R<sup>2</sup>

Date Mon Tue Dec 22-23 1969 Observer Hd-Ri / Ri-Hn Julian Day .....

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle End
32841	223094	23 41.5	+28° 09'	G12	IIaO	13S	2:30F	17 46	19 48	A	1 <sup>h</sup> 52 <sup>m</sup> W
32842	12029	1 53.0	+28 54	"	"	"	17°F	19:57	22:14	B	2 <sup>h</sup> 05 <sup>m</sup> W
32843	HD 23169	03 37.9	+25 25	"	"	17S	12°F	22:30	01 12	C	3 <sup>h</sup> 30 <sup>m</sup> W
32844	<sup>(M Hya)</sup> HD 74280	08 <sup>h</sup> 38.0	+30 45'	G12	"	9L	8°F	01 <sup>h</sup> 30	01 53	A	0 <sup>h</sup> 59 <sup>m</sup> E
32845	HD 66141	07 57.5	+2 36	"	"	9L	7°F	02 <sup>h</sup> 10'	02:4	B	0 <sup>h</sup> 34 <sup>m</sup> W
32846	HD 65583	07 <sup>h</sup> 54.3	+29° 31'	"	"	13S	7°F	02 <sup>h</sup> 58'	04 <sup>h</sup> 14	C	2 <sup>h</sup> 05 <sup>m</sup> W
32847	<sup>(K10)</sup> HD 87901	10 <sup>h</sup> 03.1	+12 27'	"	"	9L	5°F	04 <sup>h</sup> 22'	04 39	A	0 <sup>h</sup> 12 <sup>m</sup> W
32847Fi	focus test	out out/ w w		"	"	9	4°F			B	
# 32847 T1	calibration	step wedge for plates			32841 - 32847				25 Dec 1969		7 <sup>h</sup> 67 <sup>m</sup> W
									22		
32847 F1	focus test	23 Dec 1969			focus 90-R						

Dome Temp. 18°F

Transparency Conditions clear

Focus

chill haze at 00:30

Dome Temp. 0°F (Boy is that cold)

Ending Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality	
9:43	A	1 <sup>h</sup> 52' W	28 32	3	8.97	K5 III	4-4-4 4-4-4	Sec Std Vel.	800/300		V. SL. WK	
2:14	B	2 <sup>h</sup> 05' W	29 14	3	8.96	K2 III	4-4-4 4-4-4	"	800/300		U. SL. WK	
2	C	3 <sup>h</sup> 20' W	25° 40		9.39	G2 V	4-4-4 4-4-4	"	800/260		U. SL. U.	
01:53	A	0 <sup>h</sup> 59' E	+03 30	3	4.10	B3 V	8-8-8	Bp Prog.	400/200		STRONG	
	B	0 <sup>h</sup> 34' W	+2° 25'	3	5.5	K3	8-8-8	Std. Vel.	400/320	clear by 2:30	FINE	
	C	2 <sup>h</sup> 05' W	+29° 50'	3	7.9	G7	4-4-4 8-8	Std. Vel.	800/210	hazy again at 3:45	FINE	
4:37	A	0 <sup>h</sup> 12' W	+12° 09'	3	1.3	B7 V	8-8-8	Bp Prog.	200/100		VERY STRONG	
	B						5-5 no filter			focus 40-R	BADLY CENTRE TO VIOLET	
4:21:30		In WP-2/9.0 min @ 68°F / (2 to C.I.B.)									changed @ 90-R	
											V. SL. C TO VIOLET	

Date Tues - Wed Dec 23-24 Observer Va, 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.
32848	HD 27961	4 <sup>h</sup> 19.7 <sup>m</sup>	+34° 31'	G12	Ilao	13s	6° F	01:23	03:20	A
32849	E Leo	9 <sup>h</sup> 40.2	+24° 14'	G12	Ilao	9L	5° F	03:54	04:01	B
32850	HD 90861	10 <sup>h</sup> 24.3	+29° 05'	G12	Ilao	13s	5° F	04:24	05:52	C
32851	HD 109896	12 <sup>h</sup> 33.3 <sup>m</sup>	+02° 24'	G12	Ilao	9L	4° F	06:11	07:07	A
32851F	Focus			G12	Ilao		4° F			B

Dome Temp. +5

Focus

Dome Temp.

Hour Angle End

42° 48' W

0° 10' W

0° 18' W

0° 24' W







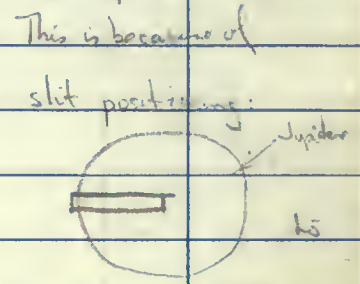
Dome Temp. 24°F

Focus .....

Dome Temp. 20°F

some variation over opening in the wind 114  
 Transparency Conditions clear, very windy  
 some snow blowing

Ending Time E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
11	C	01 <sup>h</sup> 55 <sup>m</sup> W	+34° 41'	2-3"	8.4	F5	8-8-8	G-1001	800/300	(guided by wind) cut short	FINE
2:09	B	03 <sup>h</sup> 55 <sup>m</sup> W	-35° 10'	3"-5"	8.1	F0	8-8-8	Kö A470	400/180		FINE
2:32	C	03 <sup>h</sup> 07 <sup>m</sup> W	+9° 58'	3"	3-4	08	12-12	G1001/2 <sub>year</sub>	40/18	Acomp	STRONG
2:52	B	0 <sup>h</sup> 26 <sup>m</sup> E	+28° 45'	"	8.36	K2II	4-4-4 4-4-4	SSV	400/210		FINE
4:08	C	01 <sup>h</sup> 35 <sup>m</sup> W		"	4.10	B3V	12-12	Bp prog	40/17	MK	SL. STRONG
4:32	A	01 <sup>h</sup> 05 <sup>m</sup> W	-14° 08'	"	4.90	B5V	12-12	Bp prog	40/16.5	MK	FINE
4:55	B	0 <sup>h</sup> 35 <sup>m</sup> W	-0° 28'	2"	4.90	B6V	12-12	Bp prog	40/17	MK	FINE
6:06	A	1 <sup>h</sup> 05 <sup>m</sup> E	+24° 44'	"	8.74	F8I	4-4-4 4-4-4	SSV	800/355		FINE
6:50	C	1 <sup>h</sup> 08 <sup>m</sup> E	————	"	12.9	K2II	12-12	AND SV <del>AND SV</del>	40/29		FINE
	B	0 <sup>h</sup> 35 <sup>m</sup> E					24		20/16		(GUIDING) STRONG
	B	1 <sup>h</sup> 10 <sup>m</sup> E					5/5	no f: HPT			GOOD



Date Dec 28-29 Sun.-Mon. Observer Va, TN, / In, Teunison 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.
32862	HD 2207	0 <sup>h</sup> 20.9 <sup>m</sup>	50° 43'	G12	IIaO	13S	21°F	21:42 <sup>m</sup> <sup>(110)</sup>	23:32	A
32863	SATURN			G12	IIaO	9L	21°F	23:49 <sup>m</sup> <sup>(5)</sup>	23:54	C
32864	HD 27961	4 <sup>h</sup> 19.7 <sup>m</sup>	+34° 31'	G12	IIaO	13S	"	00:16 <sup>m</sup> <sup>(166)</sup>	3:02	B
<del>32865</del>	<del>HD 90851</del>	<del>10<sup>h</sup> 24.3<sup>m</sup></del>	<del>29° 05'</del>	<del>"</del>	<del>"</del>	<del>13S</del>	<del>20°F</del>			<del>A</del>
32865	HD 96813	11 <sup>h</sup> 3.8 <sup>m</sup>	+36° 51'	G12	IIaO	9L	20°F	03:41 <sup>(79)</sup>	05:00	A
32866	HD 102870	11 <sup>h</sup> 45.5 <sup>m</sup>	+2° 20'	G12	IIaO	9L	19°F	05:11 <sup>(9)</sup>	05:20	C
32867	HD 101153	11 <sup>h</sup> 33.3 <sup>m</sup>	+08° 41'	G12	IIaO	9L	18°F	05:28 <sup>(60)</sup>	06:28	B
32867 F	Focus			G12	IIaO		18°F			B
32867 T1	calibration	step	micrometer	for	plate	32862 - 32867,		32848 - 32851		
T2	"	"	"	"	"	32852 - 32861				

1-2  
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Dome Temp. -2  
Focus  
Dome Temp. -  
Hour Angle End  
5<sup>h</sup> 20<sup>m</sup> 5  
4<sup>h</sup> 4<sup>m</sup>  
4<sup>h</sup> 5<sup>m</sup> 43<sup>s</sup>  
0<sup>h</sup> 6<sup>m</sup> 5<sup>s</sup>  
0<sup>h</sup> 8<sup>m</sup> 5<sup>s</sup>  
1<sup>h</sup> 4<sup>m</sup> 4<sup>s</sup>  
in WP-2

Dome Temp. .... 23°F

Transparency Conditions ..... clear at 21:20 but windy

Focus .....

Dome Temp. .... 17°F

Ending Time E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
3:32	A	5 <sup>h</sup> 20 <sup>m</sup> W	51° 09'	3-4"	7-8 VAR.	F5	8-8-8	G1001	400/130	(changed to 135 after 10 min 1st arc)	* FINE
3:35	C	4 <sup>h</sup> 4 <sup>m</sup> W					24		20/14	right edge)	* FINE
3:02	A	4 <sup>h</sup> 51 <sup>m</sup> W	+34° 41'	2"	8.4	F5	8-8-8	G1001	400/160	(changed from 9L → 135 after 5 minutes)	* FINE
	A				8.36	K20		Sec. Sol. Velocity	400/210	moon too close, cloud	
5:00	A	0 <sup>h</sup> 6 <sup>m</sup> W	38° 30'	3"	7.2	gM35	8-8-8	M prog	400/400		* FINE
5:20	C	0 <sup>h</sup> 16 <sup>m</sup> E	+10 59'	2-3"	4.2	F8V	12-12	Bit std Vel.	40/24	cloud	* FINE
1:23	B	1 <sup>h</sup> 4 <sup>m</sup> W	+8° 19'	3"	6.8	gM6	8-8	M prog	200/200		* FINE
	B						5/5	no filter			GOOD
		mwp-2 / 9.0 min @ 6.8°F (2900 I9)									
		"									
		* ALL THE PLATES ARE FOGGED (BADLY) TOWARDS 1 END, AS THOUGH THE BOX COVER WAS NOT ON PROPERLY									

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Date Jan 4-5, 1970 Sun Mon Observer Va. Tol / Va. Gil <sup>Gillespie</sup> Julian Day.....

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle End
32868	<u>u PER</u>	<u>4<sup>h</sup> 7.6<sup>m</sup></u>	<u>48° 9'</u>	<u>612</u>	<u>IIaD</u>	<u>9L</u>	<u>18°</u>	<u>19:10</u>	<u>19:34</u>	<u>C</u>	<u>2:00</u>
<del>32859</del>	<del>—————</del>	<del>—————</del>	<del>—————</del>	<del>612</del>	<del>IIaD</del>	<del>9L</del>	<del>—————</del>	<del>19:47</del>	<del>—————</del>	<del>B</del>	<del>—————</del>
32869	<u>HD 27729</u>	<u>4<sup>h</sup> 17<sup>m</sup>.5</u>	<u>+41° 30'</u>	<u>612</u>	<u>IIaD</u>	<u>9L</u>	<u>17°F</u>	<u>0:39</u>	<u>1:27</u>	<u>C</u>	<u>3:00</u>
32869F	<u>Focus</u>			<u>612</u>	<u>IIaD</u>		<u>16°F</u>			<u>B</u>	

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

Focus \_\_\_\_\_

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

Hour Angle  
End

Dome Temp. .... 17°

Transparency Conditions .... very hazy then cloud

Focus .....

Dome Temp. .... 16°F

cloud again at 1:38

Ending Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
	C	2 <sup>h</sup> 0 <sup>m</sup> E	48° 20'	3"	4.3	G2	8-8-8	G1001	100/58		FINE
	E			3"		K2			40/28	clouds!!! closed	
1:27	C	3 <sup>h</sup> 47 <sup>m</sup> W	+41° 42'	2"-3"	6.88	A2	8-8-8	G1001	400/90	Sat short by cloud.	(GUIDING) WEAK
	C						5/5	no filter			GOOD
										Closed 02 <sup>h</sup>	

Date Jan 5-6, 1970, Mon-Tue Observer Riordan, J. / Chen, 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.H.	Hour Angle End
32870	$\xi$ And	1 <sup>h</sup> 16. <sup>m</sup> 5	45° 00'	G12	D 00	9L	20°F	18:22 <sup>(28)</sup>	18:50	A	0 <sup>h</sup> 11 <sup>m</sup> E
32871	U Per	1 <sup>h</sup> 53 <sup>m</sup>	54° 20'	G12	D 00	13S	19°F	19:16 <sup>(177)</sup>	22:13	B	03 <sup>h</sup> 00 <sup>m</sup> W
32872	$\alpha$ Per	3 <sup>h</sup> 20. <sup>m</sup> 8 <sup>(1950)</sup>	49° 41' <sup>(1950)</sup>	G12	D 00	9L	15°F	22:32 <sup>(3)</sup>	22:36	C	01 <sup>h</sup> 5 <sup>m</sup> W
32873	"	"	"	"	"	"	15°F	22:41 <sup>(3)</sup>	22:44	A	02 <sup>h</sup> 05 <sup>m</sup> W
32874	"	"	"	"	"	"	"	22:51 <sup>(4)</sup>	22:55	C	02 <sup>h</sup> 15 <sup>m</sup> W
32875	$\lambda$ Tau	3 <sup>h</sup> 59.0 <sup>(1969)</sup>	+12° 24' <sup>(1969)</sup>	"	"	9L	"	23:26 <sup>(2)</sup>	23:28	B	02 <sup>h</sup> 13 <sup>m</sup> W
32876	$\lambda$ Tau	"	"	"	"	"	"	23:49 <sup>(2)</sup>	23:51	A	02 <sup>h</sup> 38 <sup>m</sup> W
32877	HD 31398	4 55.0 <sup>(69)</sup>	23° 5' <sup>(69)</sup>	"	"	"	14°F	0:15 <sup>(5)</sup>	0:20	B	02 <sup>h</sup> 09 <sup>m</sup> W
32878	HD 35864	5 26.5 <sup>(1950)</sup>	53° 7.2' <sup>(1950)</sup>	"	"	13S	15°F	0:51 <sup>(112)</sup>	2:43	A	04 <sup>h</sup> 08 <sup>m</sup> W
32879	HD 90861	10 <sup>h</sup> 24. <sup>m</sup> 3	+29° 05'	"	"	13S	"	3:06 <sup>(41)</sup>	3:47	C	0 <sup>h</sup> 03 <sup>m</sup> W
32880	B Vir	11 45.5	+2° 20'	"	"	9L	12°F	4:12 <sup>(4)</sup>	4:16	B	0 <sup>h</sup> 45 <sup>m</sup> E
32881	R Vir	12 33.4	+7° 32'	"	"	9L	"	4:46 <sup>(129)</sup>	6:55	C	01 <sup>h</sup> 04 <sup>m</sup> W
32881 F	Focus			"	"		12°F			B	



Dome Temp. 19°F

Transparency Conditions clear some haze in WSW

Focus .....

Dome Temp. 15°F

some cloud

Ending Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
21:50	A	0 <sup>h</sup> 17 <sup>m</sup> E	+45° 23'	2"	6.0	K0	8-8-8	G1001	200/160	<u>2 01 20.3?</u>	FINE
22:03	B	03 <sup>h</sup> 00 <sup>m</sup> W	+54° 42'	"	7-10 <sup>g</sup>	M6	8-8-8	"	400/270	<u>broken</u> 2pc, also 1" piece discarded	SL. WK
22:03	C	01 <sup>h</sup> 57 <sup>m</sup> W	+49° 46'	"		F5	12-12	"	40/20		STRONG
22:04	A	02 <sup>h</sup> 05 <sup>m</sup> W	"			"	12-12	"	40/22	guiding on lower slit	STRONG
22:05	C	02 <sup>h</sup> 16 <sup>m</sup> W	"			"	12-12	"	40/20	guided on upper slit	STRONG
22:28	B	02 <sup>h</sup> 13 <sup>m</sup> W	+12° 26'	2"	3.3	R3V	12-12	"	40/18		SL. STRONG
22:51	A	02 <sup>h</sup> 36 <sup>m</sup> W	"	3"	"	"	12-12	"	40/17		SL. STR.
23:00	B	02 <sup>h</sup> 09 <sup>m</sup> W	+33° 08'	2"	V=24	K2	12-12	"	40/28		SL. WK
23:43	A	04 <sup>h</sup> 00 <sup>m</sup> W	+53° 10'	"	8.6	F0	8-8-8	"	800/350		FINE
23:47	C	0 <sup>h</sup> 03 <sup>m</sup> W	+28° 43'	"	8.36	K2	<del>4-4-4</del> 4-4-4	Sec Std Vel	400/210		FINE
23:50	B	0 <sup>h</sup> 48 <sup>m</sup> E	+01° 51'	"	4.16	F8V	12-12	Std Vel	40/21		SL. STR.
23:55	C	01 <sup>h</sup> 04 <sup>m</sup> W	+7° 10'	3"	7.7	M40	8-8-8	M* prog	400/400	clouds	FINE
	B	in	out				5/5	no filter			GOOD





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Date Jan 8-9 Thurs-Fri Observer Hd, Tn/Tn Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
32882	HD 23169	03 37.9	+25° 25'	G12	Ilao	175	+8°F	21:50	20:24	B
32883	HD 66141	07. 57.1	+2 36	"	"	"	+5°F	00 94	0 52	A
32882F	Frown Fort					B	+5°F			B
32884	HD 65934	07 56.1	+26° 55'	G12	Ilao	135		01:23	3:41	B

Dome Temp. +4  
 Focus  
 Dome Temp.  
 Hour Angle  
 End

2:38 +  
 5:27  
 02:38 +

Dome Temp.  $+4^{\circ}F$

Transparency Conditions *scattered clouds & haze but clear*

Focus .....

Dome Temp.  $+4^{\circ}F$

Ending Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
01:24	B	W 3 38	$+25^{\circ} 46'$	3"	9.39	G2V	4-4-4 4-	Sec Std. Vel	800/227		FINE
01:52	B	E 13 <sup>m</sup>		3	5.5	K3	12-12	Std vel.	80/23		FINE
	B						5/5	no filter			SL. C. TO WOL
3:41	B	02:38W	$+26^{\circ} 44'$	2"	8.87	G8III	4-4-4 4-4-4	Sec Std Vel	800/320		FINE
										Dec inoperable	

Date Jan 10-11 Sat-Sun

Observer <sup>Gillespie</sup> G. T. 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.H.
32885	$\circ$ Ceti	02 <sup>h</sup> 14 <sup>m</sup> .3	-03° 27'	G12	II a-D	9L	414°F	17 <sup>h</sup> 57 <sup>m</sup>	20:59	A
32886	HD 27729	04 17.5	+41° 30'	"	"	"	"	21 <sup>h</sup> 13 <sup>m</sup>	21:30	B
32886 F	Focus			"	"		13°F			B

Dome Temp. 16  
 Focus  
 Dome Temp.  
 Hour Angle  
 End  
 01<sup>h</sup> 45<sup>m</sup> W  
 00<sup>h</sup> 40<sup>m</sup> W

Dome Temp. 16°F

Focus

Dome Temp. 15°F

Transparency Conditions very clear

cloud at 21:30

closed 0:30

Starting Time E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
01:59	A	01 <sup>h</sup> 45 <sup>m</sup> W	-3° 06'	1"-2"	~7	g M62	8-8-8	G1001	400/370	rather long exposure??	FINE- with
02:00	B	00 <sup>h</sup> 40 <sup>m</sup> W	+41° 40'	1"	6.94	A2	8-16	"	400/78	(very good seeing) cloud	SE. WIK
	B		from 90-R				5/5	no filter			GOOD

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Date JAN 11-12 SUN-Mon Observer VA, 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.
32887	HD 2207	0 <sup>h</sup> 20.9 <sup>m</sup>	50 <sup>o</sup> 43 <sup>'</sup>	G12	IIc0	13 <sup>x</sup> S	18 <sup>o</sup> F	17 <sup>h</sup> 54 <sup>m</sup>	18:40	A
32887 T1	calibration	step wedge	for plates		32882 - 32884				12 Jan / 70	
T2	"	"	"	"	32868-9, 32885-87,			32870, 32872-4	"	"
T3	"	"	"	"	32871, 32875 - 32881				"	"
<p><u>NOTE</u> :- TELESCOPE SHUT DOWN NIGHT OF JAN 12/70          FOR MODIFICATION TO RA DRIVE - COMPLETELY          OVERCAST, SO NO TIME LOST.</p>										

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

Hour Angle  
 End

110<sup>o</sup>21'

"

"



Dome Temp.  $20^{\circ}\text{F}$

Transparency Conditions  $\text{haze, cloud at } 18:40$  128

Focus .....

Dome Temp.  $19^{\circ}\text{F}$

complete sock  
closed 0:30

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
8'40 A	$1^{\circ}29'W$	$51^{\circ}09'$	2"	7-8 VAR	F3	8-8-8	G1001	400/61 cloud(capped)	FINE
12 Jan 79	mwp-2 / 1.3 min @ $68^{\circ}\text{E}$ / (2100, 17)								
"	" 9.0 min @ $68^{\circ}\text{E}$ / "								
"	" " "								

Date JAN 13-14 TUES-WED Observer..... Julian Day.....

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
32888	HD 106890	12 <sup>h</sup> 11.1	+41° 13'	G12	IL90	9L	17°F	02 14	02 52	A
	focus too out of focus					9	12°F			B

Dome Temp. 8  
Focus \_\_\_\_\_  
Dome Temp. \_\_\_\_\_

Hour Angle \_\_\_\_\_  
End \_\_\_\_\_

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Date Wed thru Jan 14-15 1970 Observer Bi Ri / 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.	P.H.
<del>32889</del>	<del>HD 37321</del>	<del>05 32.6</del>	<del>-01 30</del>	<del>G12</del>	<del>IIa0</del>	<del>9L</del>	<del>9°F</del>	<del>18:05</del>	<del>18:45</del>	<del>A</del>
32889	HD 92588	10 36.3	-01 13	G12	IIa0	9L	7°F	03 07	05 26	A
32890	HD 107328	12 15.3	+03 53	G12	IIa0	9L	3°F	05 38	06 12	B
32890F1	focus test	out of focus		G12	IIa0	9	20°F			B
32890 71	calibration	step wedge for plate # 32888							16 Dec 70	
T2	"	"	"	"	32889-32890				"	



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Date *Sun Mar 18-19 1970* ..... Observer *R. H. S. P. / R. H. F.* ..... 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.
	<i>photometry</i>								<i>1:10</i>	

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



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Date *M. T. T. Jan 19-20 1970* Observer *R<sup>2</sup> H<sub>AS</sub> Bui Ri / R<sup>2</sup> H<sub>AS</sub> R. Julian Day*

*R<sup>2</sup> H<sub>AS</sub>*

*where's 2nd level observer (CHEN)*

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	
32891	HD 21699	03 25.1	+47 41	G12	IIaO	9L	10°F	17:54	18:09	B	
32892	HD 21278	03 20.9	+48° 43	"	"	"	10°F	18:21	18:30	C	
32893	"	"	"	"	"	"	10°F	18 37	18 46	A	
32893F	<i>focus test</i>	<i>out out / mini</i>		"	"	9	10°F			B	
	<i>photometry</i>							19:00	03:30		
32894	HD 115046	13 9.5	+40 41	"	"	9L	40°F	03:45	04:19	A	
32895	HD 122693	13 58.3	+25 03	"	"	13S		04:40	05:20	B	
32895 T1	<i>calibration step wedge for plates 32891-32893</i>									<i>20 Jan / 70</i>	

Dome Temp. /

Focus

Dome Temp.

Hour Angle End

E1<sup>h</sup> 4<sup>m</sup>

E1<sup>h</sup> 1<sup>m</sup>

E1<sup>h</sup> 00<sup>m</sup>

E1<sup>h</sup> 4

E01.00

20 Jan / 70



(KEN)

Dome Temp. 100°F

Transparency Conditions clear

Focus .....

few clouds at 03:00

Dome Temp. 1°F

cloud layer at 05:00

Ending Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
8 09	B	E 1 <sup>h</sup> 42 <sup>m</sup>	+47 56	~3"	5.36	B8III	8-8-8	Bp Prog.	200/100		STRONG
8 30	C	E 1 <sup>h</sup> 17 <sup>m</sup>	+48 57		4.88	B3V	12-12	"	40/20	counter missing counts	STRONG
15 46	A	E 1 <sup>h</sup> 00 <sup>m</sup>	"	"	"	"	"	"	40/20	missed 5 counts	(VERY) STRONG
	B						5-5 no filter			(focus 90-R) clock motor blew two fuses	GOOD
04 00	A	E 1 <sup>h</sup> 14	+40° 18	2	7.17	M0III	8	M Prog.	200/200		FINE
05 20	B	E 01 10	+24 43		8.74	F8V	4-20	See 8:00	500/038	in middle of experiment Chuck Lacy closed up	VERY WEAK
22 Jan 70		m w p. 2 (9.0 min @ 61°F) / 2A = C 129									

Date Wed 9 hrs Jan 21-22 1970 Observer Bu Ri/HF-Ri Julian Day .....

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle End
32896	HD 37321	05 <sup>h</sup> 32. <sup>m</sup> 6	-1°30'	G-12	IIaO	9L	040F	18:34 <sup>m</sup>	20:14	A	14:35E
32897	HD 36046 (1 Ori B)	05 23.8	-0° 41	G12	IIaO	9L	20F	20:29	22:56	B	1 <sup>m</sup> 17W
32898	HD 37043	05 30.5	-05 59	G12	IIaO	9L	0°F	23:10	23:37	C	1 <sup>m</sup> 50W
32898 F1	focus test	out out/mini		G12	IIaO	9	0°F			B	
32898 +1	calibration step wedge for plates										

Dome Temp. C

Focus

Dome Temp. F

Hour Angle  
End

Dome Temp. 0°F

Focus

Dome Temp. -3°F

Transparency Conditions *clear*

*generator blew main circuit breaker 4 times at the beginning of the evening*

Ending Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
23:14	A	14 35E	-01 25	3"	7.03	B38	8-8-8	Bp Prog.	4x100/190	Possibly fogged. <u>no</u>	FINE
23:56	B	1 <sup>n</sup> 17W	-00° 35'	~2"	8.8	B39	8-8-8	Bp Prog.	400/190	Watch for possible moonlight + flare. → NOT OBVIOUS	FINE
23:37	C	1 <sup>n</sup> 50W	-05° 53'	~2"	7.3	B9	8-16	Bp PROG.	400/63	Capped early because of cloud.	WEAK
	B			focus	90-R		5-5	no filter		closed up at 00:15	CENTRE TO VIOLET
1/2/70		mwp:2 / 9.0 min @ 0.2°E / 2 AUG 1979									

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Date Jan 23-24 Fri-Sat Observer Riordan, Jr / T<sub>4</sub>-G<sub>2</sub> Julian Day                     

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
32899	ε And	1 <sup>h</sup> 16.5	45° 00'	G12	DaO	9L	15°	18:21	18:51	A
32900	HD 28065	4 <sup>h</sup> 21 <sup>m</sup>	42° 58'	"	"	"	8°F	20:03	23:20	B
32901	HD 91948	10 <sup>h</sup> 31.9	+60° 38'	"	"	9L	8°F	00:07	01:29	C
32902	HD 128661	14 <sup>h</sup> 33.1	+36 29'	"	"	9L	6°F	01:42	03:08	A
<del>32903</del>	<del>HD 131861</del>	<del>14<sup>h</sup> 50.9</del>	<del>+45° 43'</del>	<del>"</del>	<del>"</del>	<del>9L</del>				<del>B</del>
32902 T <sub>1</sub>	calibration	step	wedge	for	plates	32899 - 32902			26 Jan 170	

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

Focus \_\_\_\_\_

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

Hour Angle  
End

01 25 W

02 50 W

01 12 E

03 32 E

A.W.P. 21

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

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

Ending Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
8:51	A	01 <sup>h</sup> 25 <sup>m</sup> W	+45° 22'	2"	6.0	K0	8-8-8	G 1001	400/340	2 counter misses	FINE
3:00	B	0 2 <sup>h</sup> 50 <sup>m</sup> W	43° 10'	3"			8-8-8	"	400/250	"	FINE
0:29	C	01 <sup>h</sup> 12 <sup>m</sup> E	+60° 17'	3-4"	7.37	F8	8-8-8	SPECT. BIN	400/260		SL-STRONG
3:08	A	03 <sup>h</sup> 32 E	+36° 04'	"	7.0	A0	8-8-8	ECLIP. BIN	400/200		FINE
	B	<del>.....</del>									
					7.64	F3		SPECT. BIN	400/260		
6 Jan 1970		mwp. 2/9.0 min @ 68°F									
		<u>DEC. DOES NOT WORK (TEMP. 0°F)</u>									
		- THE EXPOSED PLATES REALLY SHOULD BE PUT IN THE REFRIGERATOR - AT LEAST IF THEY ARE TO SIT OUT THE WHOLE WEEKEND									



Dome Temp. 18°F

Transparency Conditions .....

Focus .....

Dome Temp. 17°F

Ending Time E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
9:30										clouds at 1915	
10:02	B	14 55W	+47° 57	3	5.36	B8III	8-8-8	Bp Prog.	200/90		FINE
2:34	C	17 20W	-01° 25	3	7.03	B8	8-8-8	Bp Prog.	4x100/122	?!?!?! Snow!!! Cupped only	SL. W/K
	C		from	90R			5-5	no filter		because of cloud	GOOD

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Date San Mar Feb 1-2 1970 Observer Bair 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.
32905	HD 21699	03 25.1	+47° 41'	G12	IIaD	9L	36°F	18:06 <sup>15</sup>	18:21	A
32906	HD 37321	05 30.6	-01° 30'	G12	IIaO	9L		18:31 <sup>52</sup>	19:23	B
32907	29 Per	03 11.5	+49° 51'	G12	IIaO	9L	36°F	19:38 <sup>35</sup>	20:13	C
32908	HD 21278	03 20.9	+48° 43'	G12	IIaO	9L	37°F	20:16 <sup>11</sup>	20:27	A
32909	34 Per	03 22.2	+49° 10'	G12	IIaO	9L	37°F	20:32 <sup>8</sup>	20:40	C
32910	28 Tau	03 43.2	+23° 50'	G12	IIaO	9XL	37°F	20:46 <sup>23</sup>	21:09	A
32911	27 Tau	03 43.2	+23° 45'	G12	IIaO	9L	37°F	21:13 <sup>11</sup>	21:24	B
32912	17 Tau	03 38.9	+23° 48'	G12	IIaO	9L	37°F	21:29 <sup>10</sup>	21:39	C
32913	18 Tau	03 39.2	+24 32	G12	IIaO	9L	37°F	21:44	21:52	A
								22:22 <sup>33</sup>	22:28	
								22:32	22:49	
32913F1	focus test	out/out/in/in		G12	IIaO	9L	37°F			B
32913T1	calibration step wedge	for plates		32903-32913					2 Feb/70	

Dome Temp. 3

Focus .....

Dome Temp. .....

Hour Angle  
End

0<sup>h</sup> 38<sup>m</sup> E

1<sup>h</sup> 42<sup>m</sup> E

1<sup>h</sup> 27<sup>m</sup> W

1<sup>h</sup> 31<sup>m</sup> W

1<sup>h</sup> 43<sup>m</sup> W

1<sup>h</sup> 53<sup>m</sup> W

2<sup>h</sup> 07<sup>m</sup> W

2<sup>h</sup> 27<sup>m</sup> W

2<sup>h</sup> 39<sup>m</sup> W

3<sup>h</sup> 15<sup>m</sup> W

3<sup>h</sup> 36<sup>m</sup> W

2 Feb/70



Dome Temp. 38°F

Focus .....

Dome Temp. 38°F

Transparency Conditions thick haze + windy  
 clouded in completely at 23:00

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Observing Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
8:21	A	0 <sup>h</sup> 38 <sup>m</sup> E	+47° 55'		5.36	B8 II	8-8-8	Bp Prog.	200/90		FINE
8:23	B	1 <sup>h</sup> 42 <sup>m</sup> E	-1° 25'	~2"	7.03	B8	8-16	" "	8x100/70	Capped early due to excessive haze.	VERY WK
8:13	C	1 <sup>h</sup> 27 <sup>m</sup> W	+50° 08'	~3"	5.09	B3 V	8-8-8	" "	25x100/93	Comparison star	FINE
8:27	A	1 <sup>h</sup> 31 W	+48° 58'	~2"	4.88	B3 V	8-8-8	" "	2x100/90	Comparison star	STR.
8:40	C	1 <sup>h</sup> 43 <sup>m</sup> W	+49° 25'	~2"	4.57	B5 V	8-8-8	" "	2x100/91	Comparison star	STRONG
8:09	A	1 <sup>h</sup> 53 <sup>m</sup> W	+24° 03'	~3"	5.01	B8 p	8-8-8	" "	2x100/135		(GUIDING) SL. STR.
8:24	B	2 <sup>h</sup> 07 W	+23° 57'	~3"	3.54	B8 II	8-16	" "	2x100/90	MK std.	SL. STR.
8:39	C	2 <sup>h</sup> 27 W	+24° 02'	~3"	3.58	B6 III	12-12	" "	2x100/90	MK std.	SL. STR.
8:52	A	2 <sup>h</sup> 39 W	+24° 45'	~3"	5.56	B8 II	8-	' "	4x100/5	400/30 broken 2 pieces	BROKEN VERY WEAK
8:28		3 <sup>h</sup> 15 W							4x100/5		
8:49		3 <sup>h</sup> 36 W							4x100/20		
	B						16				
							5-5 no filter			closed up at 23:15	LOST THE CENTRE OF FIELD
28/4/73		MWP-2 19.0 min @ 64°F / 2900, 29									

1  
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Date Feb 3-4 Tue-Wed Observer T.J. Hns. R<sup>2</sup>/ Julian Day \_\_\_\_\_

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
32914 Photometry	#D 14969	02 19.7	+29 26	G12	IIaD	135	06°F	18:14 21 <sup>h</sup>	20:37 06:30	A
32914 T <sub>1</sub>	calibration step	edge for plate no.				32914			5 Feb / 70	

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

2<sup>h</sup> 54<sup>m</sup> 11<sup>s</sup>

in 10:21

Dome Temp.  $+6^{\circ}\text{F}$

Transparency Conditions *very clear*

Focus .....

Dome Temp.  $-8^{\circ}\text{F}$

*9.26 or 8.96 ?*

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
2 <sup>h</sup> 54 <sup>m</sup> W	+29°46'	3-4	<u>1</u>	K3II	<del>4-4-4</del> 4-4-4	S S V	800/300	Finder Hd drawn closed 06:30	WEAK
<p><i>hr WP-2 / 9 min @ 65° = 2900159</i></p>									

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Date Fri Feb 6-7/70 Observer Hd Tom Hozok 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.
32915	HD 23169	3 37.9	25 25	G12	Ilao	135	31°F	19:38	22 12	B
32916	HD 32963	05 01.8	+26 12	"	"	"	30°F	22 18	23 50	C
32917	HD 65583	07 54.3	+29 31	"	"	"	"	23:57	00:41	A
32918	HD 75935	08 47.9	+27° 18'	"	"	"	29°F	00:49	04:06	B
32919	HD 103095	11 47.2	+38° 26'	"	"	"	"	04:10	04:38	A
32920	HD 132737	14 55.6	+27° 33'	"	"	95	27°F	04:45	06:37	C
32920 F	Focus			4	"	9	25°F			B

Dome Temp. 3

Focus

Dome Temp. 2

Hour Angle  
End

3 19

21 35

20 30

20 06

20 38

20 30

1

Dome Temp. 32°F

Transparency Conditions clear. scot doed, no 70 748

Focus .....

Dome Temp. 25°F

Ending Time E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
2 2		W 3 19	25 39	1-3	9.39	G2V	<del>4-4-4</del> 4-4-4	SSV	800/300	Anson - rem. for	FINE
23 50	C	W 3 35 <sup>m</sup>	+26° 18'	"	8.36	G2V	<del>4-4-4</del> 4-4-4	"	800/300	to develop these longer	FINE
00:44		W 01 35 <sup>m</sup>	+29° 19'	2-3	7.9	G7	<del>4-4-4</del> 4-4-4	Std Vel.	800/300	as JF heard has instructed	
04:06		W 04 06	+27° 02'	2"	9.35	G8V	<del>4-4-4</del> 4-4-4	SSV	800/290	cloud <u>Tn</u>	WEAK
04:32		W 01 38	+37° 56'	2"	7.3	G5	<del>4-4-4</del> 4-4-4	Std Vel	800/300		FINE
06:37	C	W 00 30	+27° 17'	1-2"	9.03	K0 III	<del>4-4-4</del> 4-4-4	SSV	800/300		FINE
		min 1 out at					5/5	no filter			GOOD
plates don't fit exposed box!!											
Sat: I found the upstairs front door open - DR											

Date Sat Feb 7-8 1970 Observer Kö. An - Tn / GZ Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle End
32921	$\eta$ Tau	3 <sup>h</sup> 41 <sup>m</sup> .6	23° 49'	G12	IIaD	9XL		1858	1900	A	0° 6' W
32922	$\eta$ Tau	3 <sup>h</sup> 41 <sup>m</sup> .6	23° 49'	G12	"	9XL		1910	1912	B	0° 18' W
32923	HD 27716	4 <sup>h</sup> 17.4	35° 01'	"	"	9L		1932	21:56	A	02 28' W
32924	HD 27716	4 17.4	35 01	"	"	9L		2201	2400	C	04:3' W
32925	HD 91948	10 <sup>h</sup> 31.9	+60° 38'	"	"	9L	29°F	00:17	01:56	B	00 22'
32926	HD 128661	14 <sup>h</sup> 33.1	+36° 22'	"	"	9L	29°F	02:10	03:21	A	02 20' E
32927	HD 131861	14 <sup>h</sup> 50.9	+45° 43'	"	"	13S	28°F	03:31	04:53	B	01 55' E
32928	HD 139892	15 35.6	+36° 58'	"	"	9L	28°F	05:00	05 10	C	01 33' E
32929	HD 128661	14 <sup>h</sup> 33.1	+36° 22'	"	"	9L	28°F	05:17	06 15	A	00 35' E
32930	HD 176318	17 <sup>h</sup> 54.6	+38° 07'	"	"	9L	28°F	06:20	06:40	C	02 11' E
32930	Focus						27°F			B	

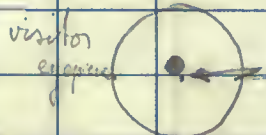
Dome Temp. 32°F

Transparency Conditions clear at base on horizon, rising.

Focus .....

Dome Temp. 29°F

Ending Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
0000	A	0° 6" W	(24° 01')	2-3"	2.8	B7ne	8-8-8	Ku A470	40/24	exposure meter v. erratic!	FINE
0002	B	0° 18" W	(24° 01')	2-3"	2.8	B7ne	8-8-8	"	40/20	↓	FINE
0106	B	02 28 W	35.1	1"-2"	3.05	F0	8-8-8	"	400/130	haze rising 2010 Broken in 2 pieces	BROKEN V.S.L. WK
0109	C	04 31 W	35.1	1"-2"	3.05	F0	8-8-8	"	400/145	exposure better.	VERY WEAK
0152	B	00 14 W	+60° 16'	1"-3"	7.37	F8	8-8-8	SPEC. BIN	400/260	Seeing good, thick fog. ①	(GUIDING) FINE
0152	B	02 20 E	+36° 03'	1-2"	7.0	A0	8-8-8	ECL. BIN.	400/200	Variable seeing	(GUIDING) FINE
0153	B	01 05 E	+45° 25'	"	7.64	F3	8-8-8	SPEC. BIN	400/180	"	V.S.L. WK
0510	C	01 33 E	+36° 45'	"	5.1	B8.	8-8-8	SPEC Bin	200/100	"	FINE
0615	A	00 35 W	+36° 04'	"	7.0	A0	8-8-8	ECL. BIN	400/200	broken 1 large & 1 small piece	BROKEN (GUIDING) FINE
0700	C	03 21 E	+38° 13'	"	5.7	B6-7	8-8-8	SPEC. BIN	200/100		FINE
							5/5	no filter			GOOD



① A second star ~3 mag fainter seems to be visible at ~5" from the observed star.

Date 8-9 Feb 1970 (Sun-Mon) Observer Bu-Th/Ta-Gz Julian Day.....

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle End
32931	HD 37321	05 <sup>h</sup> 32 <sup>m</sup> .6	-1° 30'	G12	D <sub>a</sub> O	9L	31°F	18:22	20:44	A	0 <sup>h</sup> 06 <sup>m</sup> W
32932	"	"	"	"	"	"	30°F	21:00	22:14	C	01:37 W
32933	<del>Orion B</del>	05 <sup>h</sup> 30 <sup>m</sup> .5	<del>-5° 59'</del>	"	"	"	"	<del>22:45</del>	00:04	<del>A</del>	03:25 W
32934	1091948	10 <sup>h</sup> 31.9	+60° 38'	"	"	9L	27°F	00:18	02:38	C	01:06 W
32935	F Focus						"			B	
32934 T1	calibration step wedge for plates										9 Feb / 70
T2	"	"	"	"	"						"
T3	"	"	"	"	"						"

Dome Temp. 3

Focus

Dome Temp.

Hour Angle  
End



Dome Temp. 30°F

Transparency Conditions clear, some haze

Focus .....

Low cloud at 02:30

Dome Temp. 26°F

Ending Time E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
0:44	A	0h 06m W	-1° 25'	2-3"	7.03	B <sub>2</sub>	8-8-8	B <sub>p</sub> Perz.	4x100/170	(Probably actual count should be at ~ 190; this due to imbalance in exp. meter BROKEN - 2pc)	<u>BROKEN</u>
2:14	C	01 37 W	"	2"	"	"	8-8-8	"	4x100/190		FINE
<del>2:14</del>	<del>W</del>	<del>03 25 W</del>	<del>-5° 54'</del>	<del>2"</del>	<del>7.3</del>	<del>B<sub>2</sub></del>	<del>8-8-8</del>	<del>"</del>	<del>4x100/170</del>	<del>cut short by limit</del>	<del>BROKEN WEAK</del>
2:38	C	01 00 W	+60° 18'	2-3"	7.37	F8	8-8-8	SPEC. BIN.	400/240	cloud	FINE
	B		focus	90-2			5/5	no filter			GOOD
										Closed 03	
Feb 20		MWP-2	15 min @	62°F	240	LI 29					
"		"	9.0	"	"	"					
"		"	"	"	"	"					

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Date 11-12 Feb 1970 Observer Tm - Hansen 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.	
32935	HD 128661	14 <sup>h</sup> 33 <sup>m</sup> 11	36° 22'	G12	IIa0	9L	15°	3:40	6:24	A	
32935 F	Focus			G12	IIa0	9	14°F			B	
	no calibration plate										
32935 T1	<del>calibration step wedge for plate 32935, 32935</del>								12 Feb 70		

Dome Temp. ...

Focus .....

Dome Temp. ...

Hour Angle  
End

0<sup>h</sup> 59<sup>m</sup> 11<sup>s</sup>

11/12/70

Dome Temp.  $15^{\circ}$

Transparency Conditions *Even thin haze*

Focus .....

*Very bad seeing*

Dome Temp.  $17^{\circ}F$

Ending Time E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
6:2-	A	$0^h 59^m W$	+36 09	3-4	7.0	A0	8-8-8	Eclipsing Binary	4x100 /200	clouds	FINE
	P						3/5-				GOOD
		MWP-2 / 10 min @ 11°F / 2400129									

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Date 12-13 Feb 1970

Observer Tn-Gi

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.
32936	HD 91948	10 <sup>h</sup> 31 <sup>m</sup> .9	+60° 38'	G12	IIa-O	9L	+6°F	02 <sup>h</sup> 41 <sup>m</sup>	05:41	A
32937	HD 139892	15 35.6	+36° 58'	G12	IIa-O	9L	+5°F	05 <sup>h</sup> 59 <sup>m</sup>	06:20	B
32938	HD 174897	19 11.1	+19° 42'	"	"	"	"	06:26	06:30	C
32938F	Focus					9	+5°F			B
32938 T1	calibration step sledge for plates 32936									

Dome Temp.

Focus

Dome Temp.

Hour Angle  
End

04 20W

00 03E

01 30W

Dome Temp.  $6^{\circ}\text{F}$

Transparency Conditions *clear at 07<sup>h</sup>*

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Focus .....

*very bad seeing again*

Dome Temp.  $-1^{\circ}\text{F}$

Ending Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
5:41	A	04 20W	+60° 17'	5-6"	7.37	F8	8-8-8	Sp Bin	400/230	cut short (too long)	* FINE
6:20	B	00 03E	+36° 44'	4-5	5.1	B8n	8-8-8	Sp Bin	200/100	bad seeing (maybe some comp)	SL. STR.
6:30	C	01 30W		"	1.29	K2mp	24-	SD Vel	40/28		SL. STR.
	B		90-R				5/5	no filter			CENTRE VIOLET
										* SHOWS FLEKURE	

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Fri - Sat

R<sup>o</sup>-Hns IR Phot

Date 13-14 Feb 1970 Observer Kö. 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.
32939	HD 23630 <sup>(η Tau)</sup>	03 41.6	+23° 48'	G12	Ilao	9xL	9°F	19:05	19:10	A
32940	"	"	"	"	"	9xL	8°F	19:15	19:20	B
<del>32941</del>	<del>HD 27716</del>	<del>04 17.4</del>	<del>35° 01'</del>	<del>"</del>	<del>"</del>	<del>9L</del>	<del>"</del>	<del>19:31</del>		<del>C</del>
32940 F	Focus			G12	Ilao	9	8°F			C
IR Photometry 20h →										

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

Hour Angle  
End  
00° 52' W  
01° 04' W

Dome Temp. 9°F

Transparency Conditions scattered cloud

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Focus .....

good seeing

Dome Temp. ....

Timing Time E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
0.0	A	00 <sup>m</sup> 53 <sup>m</sup> W	+24° 02'	2"	2.8	B7 III	8-8-8	K6 A470	40/20	back cover loose: may not have been pressed <sup>down</sup>	CSL. GUARDIAN V. SL. STR
2.20	B	01 04 W	"	"	"	"	8-8-8	"	40/22	guided with fast motor throughout	SL. STR
	C		35° +		8.05	F0	8	"	400f	cut for IR phot	
	C		in in/out out				5/5	no filter		8 sec comp from part exp	CENTRE TO UZOL.
	W						(from 70-R)				

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SAT SUN

Date 14-15 FEB, 1970 Observer R. VA/P. 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.
32941	λ ORION	5 <sup>h</sup> 29 <sup>m</sup> 38 <sup>s</sup>	+9°52'	G12	IIaD	9L	14°F	18 <sup>h</sup> 30 <sup>m</sup>	18 <sup>h</sup> 51 <sup>m</sup>	A
32942	HD 44131	6 <sup>h</sup> 15.0 <sup>m</sup>	-2°54'	G12	IIaD	9L	12°F	21 <sup>h</sup> 19 <sup>m</sup>	22 <sup>h</sup> 54 <sup>m</sup>	B
32942F	from the	IIaD	from	'	'	9	12°F			B

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



Dome Temp. ... 12°F

Transparency Conditions .....

Focus .....

Dome Temp. ... 12°F

Observing Time E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
2 <sup>h</sup> 51 <sup>m</sup>	A	1 <sup>h</sup> 10 <sup>m</sup> <del>W</del> <sup>E</sup>	9 <sup>h</sup> 55 <sup>m</sup>	3	3.4	08	8-8-8	G1001	80/40		STRONG
2 <sup>h</sup> 54 <sup>m</sup>	B	2 <sup>h</sup> 10 <sup>m</sup> <del>W</del>	-02 55	3	6.5	M1	8-8-8	sd vel.	400/266		WEAK
	B		focus 90-R				5-5				GOOD
								CLOUDS , CLOSE UP		1130	
								Alison,			
								the clocks in the dome are			
								quite a bit out. Could you please			
								check them.			



Dome Temp. 19°

Transparency Conditions .....

Focus .....

Dome Temp. ....

Hour Angle EST.	P.R.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
5m	A	0 <sup>h</sup> 24 <sup>m</sup> E	7° 26'	3 <sup>s</sup>	0.4	M2	12-12	A470	20/39		STRONG
10	B	0 <sup>h</sup> 34 <sup>m</sup> E	-0° 54'	3 <sup>s</sup>	5.9	160	8-16	S.V	400/330	too hazy aborted 02:00	~BLANK
11:55/70		mwp-2 / 9.0 min @ 61° (2.900159)								opened up clouded out @ 03:00 cloud up went home.	
								* THERE SHOULD BE A FOCUS TEST EACH NIGHT THERE IS SPECT. OBSERVING.			

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Date Feb 16-17 1970

Observer 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.
32945	HD 37321	05 32.6	-1° 30	B12	Ilao	9L	20°F	21:10	22:12	14
32945F1	focus test	and out/in				9	20°F			3
32945 T	calibration step wedge for plate no 32945								17 Feb / 70	

Dome Temp. 2

Focus

Dome Temp.

Hour Angle End

3405W

7.11

Dome Temp. 20°F

Transparency Conditions .....

Focus .....

Dome Temp. ....

Hour Angle	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
24 05W	-01 27		7.03	B8	8-8-8	Bp 200G.	400/130	clouded out	V-56. WK
			focus 90-R			5-5 no filter			500.0

mic. 2 / 9-0 min @ 68°F / 2000 159

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Date Thurs. Fri. Feb. 19-20, 1970 Observer Hd. 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.
32946	HD 22484	03 31.8	+00 05	G12	IIaO	135	20°F	18:46	19:49	A
<del>32947</del>	<del>HD 29587</del>	<del>4 34.5</del>	<del>+41 57</del>	<del>"</del>	<del>"</del>	<del>135</del>	<del>18°F</del>	<del>20:14</del>		<del>B</del>
32946 F	und. unfl. in in					9	17°F			
32946 TI	calibration step wedge for plate #					32946			20 Feb 1970	

Dome Temp.

Focus .....

Dome Temp.

Hour Angle  
End

W 1 55

MWP 21

Dome Temp. 16°F

Transparency Conditions .....

Focus .....

Dome Temp. ....

Hour	Angle	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
9:40	W 1 55	+0 20		5.2	F9	4-4-4 4-4-4	Std. Vol.	400/150	Through clouds.	FINE
				7.7	G2	4-	<del>Std. Vol.</del>	<del>400/</del>	- Thickening up.	
		focus 90-R.				5/5	no filter			GOOD
20F/170	MWP-2/ 9.0 min @ 68°F / 240C 1 I 9									

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Date Fri-Sat: Feb 20-21..... Observer R. T. / 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.H.	Hour Angle End
32947	HD 37321	05 32.6	-01° 30'	G12	D <sub>00</sub>	9L	16°F	18:45	21:04	A	1:13W
32948	1 Ori B	05 30.5	-05° 59'	"	"	"	15°F	21:13	23:15	B	3:26W
32949	γ Ori	05 19.8	+06° 16'	"	"	9L	"	23:21	23:23	C	3:41W
32949F	Focus			"	"		"			B	
Photometry IR		with	Hns	1st	GC	1417					

Dome Temp.

Focus

Dome Temp.

Hour Angle  
End



Dome Temp. 17°F

Transparency Conditions scattered cloud but good

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Focus .....

Dome Temp. 14°F

Obs. Time E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
1:09	A	1:13 W	-01° 25'	2.3"	7.03	B8	8-8-8	Bp prog	400/190		FINE
3:15	B	3:26 W	-05° 54'	~3"	~7.3	B9	8-8-8	Bp Prog	400/172		FINE
3:23	C	3:45 W	+6° 22'	"	1.41	B2 III	12-12	"	20/8	MK std.	FINE
			in/in/out/out.				5/5	no filter			GOOD

Much cloud at 03h  
closed 05h

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Date Sun - Mon Feb 22-23 Observer Tn-G2/70-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.H.	Hour Angle Ecl
32950	HD 23169	03 37.9	+25° 25'	G12	D00	135	32°F	18:59	21:51	A	04 01W
32950F	Focus			G12	D00	13	32°F			B	04 01W
32951	HD 128661	14 33.1	+36° 22'	G12	D00	9L	29°F	01:39	03:48	C	06 34E
32952	HD 139892	15 35.6	+36° 58'	"	"	"	24°F	04:09	04:30	A	01 13E
32953	Brt comp of HD 139892	"	"	"	"	"	22°F	04:38	05:08	B	00 36E
32954	Nova Serp	<sup>(1970)</sup> 18 29.2	<sup>(1970)</sup> +02° 40'	"	"	9L	"	05:19	06:10	C	02 25E
32955	<sup>HD</sup> 161096	17 38.5	+04° 37'	"	"	"	"	06:16	06:23	A	01 25E
32955 T1	calibration	step	wedge	for	plate	32947-32949,		32951-32955	23 Feb/70		no wp.
T2	"	"	"	"	"	32950				"	"

Dome Temp. 35°F

Transparency Conditions scattered cloud but good (very windy)

Focus .....

Dome Temp. 15°F

Timing Time E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality	
1.5	A	04 01 W	+75° 46'	2"	9.39	G2V	<del>4-4-4</del> 4-4-4	SSV	800/275	Anson overdevelop for Hdl. intermittent clouds / cut short	FINE	
		04 01 W					5/5	no filter			SL. CTDR.	
3:48	C	00 54 E	+36° 04'	2-4"	7.0	AD	8-8-8	ecl Bin	400/200	very slow ??	FINE	
4:30	A	01 13 E	+36° 34'	"	5.1	B8n	8-8-8	Sp Bin	80/40	very bad resolution ??	(GUIDING) FINE	
5:08	C	00 36 E	"	2-3"	5.5	2B	8-16		200/100	for comparison with previous star	FINE	
5:10	C	02 25 E	+07° 36'	"	05	AK	8-8-8	Nova	200/150	Finder fld' Dm	FINE	
5:23	A	01 25 E	+04 36	"	3.93	K2V	12-12	Brit Std Vel	40/29		FINE	
5:41	26:30	in WP-2 / 9.0 min @ 68°F (2900x29)										
		" / 15 min @ 68°F										
												It's the 1st plate in the box with a large gap between it & others.

Date Mon-Tues Feb 23-24 Observer P. T. / H. T. Julian Day           

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
32956	HD 36919	05 29.9	-06° 04'	G12	Il00	9L	26°F	18:44	21:52	A
32957	HD 37321	05 32.6	-01° 30'	"	"	"	25°F	22:00	23:27	B
32958	$\beta$ Tau	05 20.0	+28° 31'	"	"	"	24°F	23:38	23:41	C
32959	HD 74280 <sup>(M Hy)</sup>	08 38.0	+03° 45'	"	"	"	25°F	23:51	23:58	A
32960	(d Leo) HD 87901	10 03.1	+12° 27'	"	"	"	25°F	00:05	00:08	B
32961	( $\gamma$ UMa) HD 120315	13 43.6	+49° 49'	"	"	"	25°F	00:20	00:23	C
32962	HD 75935	08 47.9	+27° 18'	"	"	75 185	"	00:40	03:40	A
32963	HD 128661	14 33.1	+36° 22'	"	"	9L	"	03:47	05:22	C
32964	Nova Scrp	18 29.2 <sup>(1970)</sup>	+02° 40' <sup>(1970)</sup>	"	"	9L	26°F	05:28	06:19	A
32964 F	Focus			"	"	9	26°F			B
32964 T1	calibration	step	width	for	plates	32956 - 32964			24 Feb 1970	

Dome Temp. 26°F

Transparency Conditions clear - scattered cloud 172

Focus .....

Dome Temp. 29°F

Ending Time E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
1:52	A	02:15W	-06° 00'	2"	8.25	B8II	10-8-6	Bp prog	800/300	watch for possible flexure.	U.SL.WK
3:27	B	03:48W	-01° 25'	3"	7.03	B8	8-8-8	"	400/112	cut short by limit	(SL) WEAK
3:41	C	04:14W	+28° 36'	~3"	1.52	B7IV	12-12	"	20/8	MK std.	U.SL.STR
3:52	A	01:13W	+03° 32'	2-3"	4.10	B3V	12-12	"	40/17	MK std	SL.STR.
0-08	B	00:01E	+12° 09'	~2"	1.25	B7V	12-12	"	20/8	MK std.	SL.STR
0-23	C	03:26E	+49° 27'	2"-3"	1.66	B3V	12-12	"	20/8	MK std.	SL.STR
3:40	A	04:47W	+27° 03'	2"	9.35	B8V	4-4-4	SSV	800/235	13s for 70 counts / cut short 18s for rest } cloud	* SL.WK
3:52	C	0045W	+36° 04'	3"	7.0	A0	8-8-8	Ecl Bin	400/100	Cloud / cut short for nova	U.SL.WK
3:19	A	0211E	+02° 36'	3-5"	~5	~K	8-8-8	Nova	200/150	very bad seeing	FINE
							5/5	no filter			GOOD
										* I THINK IT'S RISKY CHANGING THE WIDTH PARTWAY THROUGH	
4:06	14:25	mwp-2 / 9.0 min @ 61° E / 2900159									

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Date WED/THURS 25/26 FEB Observer Hns, P<sup>2</sup>, In/Tn, M<sup>5</sup> Julian Day .....

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	How Angle End
32965	NOVA SERP	18129.2	<sup>1970</sup> +2° 40'	612	TI 00	9L	0° F	05:06	5:51	A	E 21 32
IR	PHOTOMETRY	FROM	SUNSET	TO	04:30						
32965 T1	calibration	step wedge for	# 32965						27 Feb/70		11 21 71

Dome Temp. ....

Transparency Conditions ...EXCELLENT... TO 04:30

Focus .....

Dome Temp. ...0°F...

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
E 2: 32	+02° 37'	2-3	25	OK	8-16	NOVA	200/35	MOSTLY CLOUDY, SNOW	SL. WK
MWP-7/ 15 min @ 68°F / 2400C/189									

Date FRI-SAT FEB 27-28 Observer T.W. HANES Julian Day .....

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
<del>32</del>	<del>HD 109303</del>	<del>12<sup>h</sup> 28.<sup>m</sup> 6</del>	<del>49° 51'</del>	<del>G 12</del>	<del>II a 0</del>	<del>(35</del>		<del>2:35</del>		<del>a</del>

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



Dome Temp.  $18^{\circ}$

Transparency Conditions *cloud & snow*

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Focus .....

*useless*

Dome Temp. ....

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
	<del><math>49^{\circ} 27'</math></del>	<del><math>2-3''</math></del>	<del>8.12</del>	<del>F8</del>	<del>8-</del>	<del>HANES 51001</del>	<del>800/550</del>	<del>High snow cancelled</del>	
								<i>closed 04</i>	
								<i>Much snow had blown in from day before. I swept up &amp; brushed off Telescope Mirrors slightly frosty as well.</i>	

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Date SAT-SUN FEB 28 March / Observer K.S. Tm / Tm - GZ Julian Day .....

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle End
32966	$\eta$ Tau	5 47.6	23° 48'	G12	IIaD	9xL	23°F	18:52	19:06	C	1° 35' W
32967	HD 27716	4 37.4 (1970)	35° 01' (1970)	"	"	13S	"	19:12	21:50	A	3° 46' W
32968	$\delta$ Tau	04 34.2	16 27	"	"	9xL	22°F	22:08	22:12	C	53 57 W
32969	$\gamma$ Ori	05 33.5 1970	+09 55 1970	"	"	9xL	21°F	22:20	22:31	B	9 15 W
32970	HD 91948	10 <sup>h</sup> 31 <sup>m</sup> .9	+60° 38'	"	"	9L	"	22:43	00:15	A	00 05 E-C
32971	HD 128661	14 33.1	+36 22	"	"	9L	20°F	00:24	01:44	C	02 35 E
32972	HD 131861	14 50.9	+45 43	"	"	13L	19°F	01:50	04:00	B	00 35 E
32973	HD 139892	15 35.6	+36 58	"	"	9L	18°F	04:06	04:19	A	01 01 W
32974	NOVA SERP	18 29.2 (1970)	+2° 40	"	"	9L	"	04:24	05:17	C	02 35 E
32975	HD 128661	14 33.1	+36 22	"	"	9L	"	05:23	06:16	B	01 58 W
32975F	Focus			"	"	9	17°F			C	
329 35 T1	calibration	step wedge for plates 32966 - 32975							2 May 1970		

Dome Temp. 23°F

Transparency Conditions *clear some haze*

Focus .....

Dome Temp. ....

PH	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
C	1 <sup>h</sup> 35 <sup>m</sup> W	+24° 01'	2"	3.8	B7ne	8-8-8	A 470	40/20	<i>fast guided</i>	FINE
A	3 <sup>h</sup> 46 <sup>m</sup> W	+35° 11'	"	8.05	F0	8-13-4	"	400/170		(SL. GUIDING) FINE
C	03 57 W	+16 29'	"	2.4	K5M	12-12	"	40/35	"	SL. WK (GUIDING) FINE
B	3 15 W	+09° 56'	"	3.4	O8	12-12	B1001	40/28		* FINE
A	00 05 E	+60° 15'	"	7.37	F8	8-8-8	Sp Bin	400/260		* FINE
C	02 35 E	+36 02'	1-2"	7.0	A0	8-8-8	ECL. BIN	400/200	<i>hit head on spect counter</i>	* FINE
B	00 35 E	+45° 25'	2"	7.64	F3	8-8-8	SPEC. BIN	400/210	<i>cut short</i>	(GUIDING) FINE
A	01 01 <sup>W</sup> E	+36 44'	1-2"	5.1	B8m	8-8-8	"	200/100	<i>HA ISOFOIE -SAS Feb/90</i>	SL. STONE (GUIDING)
C	02 54 E	+2 36'	2'-3"	~5	~K	8-8-8	NOVA	200/110	<i>HEAVY HAZE FROM 4:45 ON</i>	WEAK (GUIDING)
B	01 58 W	+36 04'	"	7.0	A0	8-8-8	Ecl Bin	400/90	<i>cut short by dawn</i>	WEAK (GUIDING)
C	<i>in no/out at</i>					5/5	<i>no filter</i>			SL. CARE TO RED
	<i>Try to use 2 if possible</i>						<i>focus 90-R</i>			
	01 WP-2/	9.0 min @ 62°K/	2900	IF 9						
* NOT GUIDED TO ENDS OF SLIT AS PER ATTACHED NOTE										

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Date MON-TUES. Mar. 2-3 Observer Tu. Gi/Hr. Jn Julian Day .....

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
32976	HD 23169	03 <sup>h</sup> 37 <sup>m</sup> .9	+25° 25'	G12	IIa-O	135	30°F	18 <sup>h</sup> 48 <sup>m</sup>	21 <sup>h</sup> 31 <sup>m</sup>	A
32977	HD 91948	10 31.9	+60° 38'	"	"	9L	27°F	21 <sup>h</sup> 48 <sup>m</sup>	00:02	B
32978	HD 109303	12 28.6	+49° 51'	"	"	135	25°F	00 15	03:15	C
32979	HD 84441	09 40.2	+24° 14'	"	"	135	23°F	03 28	03:41	A
32980	HD 139892	15 35.6	+36° 58'	"	"	9L	"	03:55	04:26	C
32981	NOVA Scrp	<sup>1970</sup> 18 29.2	<sup>1970</sup> +02° 40'	"	"	9L	"	04 40	06:08	A
32981 F	Focus			"	"		23°F			B
32981 T1	calibration	step wedge for plates				32976 - 32981			3 Mar 190	

Dome Temp. 31°F

Transparency Conditions clear haze in S.V.

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Focus .....

Dome Temp. 23°F

cloud at 02:15

Ending Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
1:31 <sup>m</sup>	A	4 <sup>h</sup> 25 <sup>m</sup> W	+25° 40'	1-2"	4.39	G2 V	4-4-8-8	S.S.V.	800/134	haze (cut short, too slow)	VERY WEAK
0:02	B	00 00 E	+60° 15'	"	7.37	F8	8-8-8	Spect Bin	400/260		(GUIDING) FINE
3:15	C	01 08 W	+49° 27'	2"	8.12	F8	8-8-8	G1001 <sup>Hony</sup>	800/290	R.A. 1970-12 <sup>h</sup> 32.0 Finder fld drawn } Cloud cut short	(GUIDING) FINE
3:4	A	04 23 W	+24° 56'	3"	3.76	60 II	12-12	Std Vel	40/17	cloud etc	V.S.L.WK
04:26	C	00 47 E	+36° 44'	1-3"	5.1	B8n	8-8-8	Spect Bin	200/90		SL. STR.
06:08	A	01 57 E	+02 36	2"	=5	=K	8-8-8	nova	400/190	Thru cloud cut short by dawn	* FINE
	B		in in/out wet				5/5	not filter		from 90-R	SL. CENTRE TO RED
										* TOO MANY FINGERPRINTS	
3:40/30		m WP-2	9.0 min @ 68°F				210	C129			

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Date Fri-Sat Mar 6-7 Observer Ha-Jo! Julian Day \_\_\_\_\_

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle End
32982	HD 109303	12 <sup>h</sup> 28 <sup>m</sup> .6	49° 51'	G12	IIa0	135	32°F	23:49	00:40	A	01:05
								01:40	02:49		00:58W
32983	HD 146051	16 09.1	-03° 26'	G12	IIa0	135	31°F	03:00	03:50	C	01:40E
32984	Novo Serp	18 <sup>h</sup> 29 <sup>m</sup> .2	02° 40'	G12	IIa0	9L	30°F	04:11	05:10	B	02:37E
32984F	Focus			G12	IIa0	9	30°F		focus 90-R	B	

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

Focus \_\_\_\_\_

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

Hour Angle  
End

Dome Temp. 33°F

Focus .....

Dome Temp. 29°F

Transparency Conditions *clear by 23:30* 122  
*meteorites in N.E. -> S.W.*  
*cloud at 00:30*

Hour	Angle	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
01:40	10E	+49° 28'	2.3"	7.7	F8	8-8-8	<sup>Hamm</sup> G1001	800/135	cloud Finder fld Drawn	VERY WEAK
00:49	58W								copped part-way thru cloud	
01:50	40E	-03° 36'	2.3"	4.30	M1 III	4-4-4 4-4-4	std vel	200/90	develop as for SSV. * for much cloud J.F.H.	WEAK
02:00	37E	+2° 37'	2"	~5	~K	8-8-8	Novo-	400/55	Bad night	ALMOST BLANK
						5/5	no filter			VERY VERY SLIGHT CENTRE TO RED

Date Sun - Mon Mar 8-9 Observer T. n., Chen/Hf.-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.	Hour Angle End	
32985	i Ori A	05 30.5	-05° 59'	G12	IIaO	9L	20°	19:13	19:18	A	0° 32' W	
32986	HD 31398	04 <sup>h</sup> 51.2 <sup>m</sup>	+33° 03'	G12	IIaO	9L	20°	19:24	19:55	B	01 42W	
32987	HD 31398	04 <sup>h</sup> 51.2 <sup>m</sup>	+33° 03'	G12	IIaO	9L	"	20:12 <sup>m</sup>	20:22	C	02 15W	
32988	HD 25204	03 55.1	+12 12	"	"	"	"	20:35	20:43	B	03 32W	
32988F	Focus			"	"	9	18°F	c. focus	90-R	B		
32989	HD 128661	14 33.1	+36° 22'	"	"	9L	+15°	01 32	3 50	C	00 41W	
32990	HD 139892	15 35.6	+36° 58'	"	"	"	"	03:54	04:10	A	00 32E	
32991	Nova Serpens	(1970) 18 29.2	(1970) +02° 40'	"	"	"	"	04 18	05:42	B	01 57E	
32992	HD 161096	17 38.5	+04° 37'	"	"	"		05 48	05 54	C	00 59E	
3299 2T1	calibration	step wedge for plate				32982 - 32992					9 Mar, 70	00 00E



Dome Temp. 19° F

Transparency Conditions scattered cloud

184

Focus .....

thick cloud at 19:30  
clear at 20h again

Dome Temp. 12° F

Ending Time  
E.S.T.

P.H.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
0 <sup>h</sup> 32 <sup>m</sup> W	-05° 54'	2"	2.5	O9	12-12	Bp Prog	40/17		STRONG
01 48 W	+33° 09'	"	m 2.9	K2	8-8-8	G1001	40/30	thick cloud	3L FCM
02 15 W	"	"	"	K2	8-8-8	"	40/28		FINE
03 32 W	+12° 21'	"	3.5-4.0	B3V	8-8-8	"	40/17	DOUBLE EXPOSURE # 32986	WITH
	<i>in in/out out</i>				5/5	no filter		NO CENTRE	COMP?
00 04 W	+36° 03'	2"-4"	7.0	A0	8-8-8	Ecl Bin	400/200	bad seeing now	FINE
00 38 E	+36° 44'	2"	5.1	B8 <sub>h</sub>	8-8-8	Spect Bin	200/80		SL STR.
01 57 E	+02° 38'	3"	=5.5=k		8-8-8	NOVA	200/140		FINE
00 05 E	+04 36		3.93	K2III	12-12	Std Vel	40/29		FINE

mwp-2/ 9.0 min @ 01° E (270 C159)

185

Hns + R<sup>o</sup> on IR photDate Mon-Tues Mar 9-10 Observer Tn/Hr-Tn Julian Day           

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle End
32993	i Ori A	05 30.5	-05° 59'	612	II a0	9L	18°F	19:03	19:06	A	00 24W-
IR	Photometry		4* in Procepap					19:30 → 03:00			
32994	HD128661 ✓	14 33.1	+36° 22'	612	II a0	9L	14°F	03:23	05:06	B	0124W-
32995	Nova Serp	<sup>(1970)</sup> 18 29.2	<sup>(1970)</sup> +02° 40'	"	"	"	"	05:12	05:58	C	0137E-
32995 F	Focus			"	"	9	+13°			B	
32995 T1	calibration step wedge for plates				32993 - 32995						10 hrs / 70

Dome Temp.!

Focus

Dome Temp.

Hour Angle  
End

Dome Temp. 17°F

Strange Aurora in W at 1:30 AM  
E in SW at 5:30 AM

Transparency Conditions Photometric

Focus .....

some snow with clear sky?

Dome Temp. 13°F

Ending Time E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
9:08	A	00 29W	-05° 54'	2"	2.5	09	12-12	Bp prog	40/15	(all plates used tonight are the new batch.)	STRONG
3:00											
5:06	R	01 24W	+36° 03'	2-3'	7.0	A0	8-8-8	Ecl Bin	400/1078		(GUIDING) FINE
5:58	C	01 37E	+02° 36'	1"	25.5	OK	8-8-8	nova	200/120	One left of old batch is saved for you.	FINE
			in in/out out				5/5	no filter			GOOD
										↑ Tn	
		MWP-2/	9.0 min @	08°F	( <u>2A0159</u> )			NEW PLATES		MANY THANKS.	

RT 33,000 PLATE NIGHT

Date Tues-Wed Mar 10-11 Observer Lt-Tn/Tn ↙ where is Waterloo? they missed a good night! 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.
32996	HD 28067	04 20.7	+36° 18'	G12	IIaO	9L	21°F	19:05	20:04	C
32997	HD 66141	07 57.1	+02° 36'	G12	IIaO	13s	20°F	21:56	22:50	A
32998	HD 91948	10 31.9	+60° 38'	G12	IIaO	9L	"	23:15	00:30	B
32999	HD 103095	11 47.2	+38° 26'	G12	IIaO	13s	"	00:40	01:16	A
33000*	↘ Bootis	14 25.7	+39° 18'	G12	IIaO	13s	"	01:52	04:17	C
33001	nova serp	<sup>1970</sup> 18 29.2	<sup>1970</sup> +02° 40'	G12	IIaO	9L	"	04:32	05:09	B
33002	HD 139892	15 35.6	+36° 58'	G12	IIaO	9L	"	05:16	05:29	A
33003	HD 139891	"	"	"	"	9L	"	05:26	05:41	C
33003 F	Focus			"	"	9	20°F			B
33003 T1	calibration	step wedge for plates			32996 - 33003			" Mar 10		

Dome Temp. 22°F

Transparency Conditions clear, cloud coming in

Focus .....

Dome Temp. 20°F

Ending Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
00:04	C	02 30 W	+36° 29'	1"	7.63	G5	8-8-8	G1001	400/100	quite fast, excellent seeing thick cloud, cut short	VERY WET + FINGERPRINTS
										broken 2pc	BRONN (GUIDING)
00:50	A	01 40 W	+02° 27'	2"-3"	5.5	K3	4-4-4 4-4-4	Std Vel	800/350	standard for 55V (thru cloud)	FINE
00:30	B	00 50 W	+60° 19'	1"-2"	7.37	F8	8-8-8	Spect Bin	400/240	clear again, some cloud	(GUIDING) FINE
01:16	A	00 21 W	+37° 56'	"	7.3	G5	4-4-4 4-4-4	Std Vel	800/350	some cloud	FINE
01:17	C	00 45 W	+38° 58'	1"	8	M6e	8-8-8	G1001	800/500	very clear] Fld Drawn	FINE
05:09	B	02 23 E	+02° 37'	2"	5.5	K	8-8-8	Nova	200/120		FINE
05:24	A	00 43 W	+36° 44'	1"	5.1	B8n	8-8-8	Spect Bin	200/65	seeing perfect 100% separation of the 2	(GUIDING) FINE
05:41	C	01 00 W	"	"	5.6	B	12-12	comp for ↑	200/75		FINE
							5/5	no filter		focus 90-R	GOOD
05:20		MWP-2/ 9.0 min @ 68" = 1240 C. 59									
										" Mar/70: changed focus to 80-R	

Date Wed - Thurs Mar 11-12 Observer Hd-Tn / H2-Tn Julian Day .....

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle End
<del>33004</del>	<del>HD 32965</del>	<del>05 01.8</del>	<del>+26 12</del>	<del>G12</del>	<del>IIaO</del>	<del>135</del>		<del>19 00</del>		<del>A</del>	
33004	AG 4044	7 28.2	+28 57	G12	IIaO	135	24°F	20 41	23:19	A	02 47W +
33005	HD 90861	10 24.3	+29 05	G12	IIaO	135	23°F	23 27	00:17	B	08 49W +
33006	HD 122693	13 58.3	+25° 03'	"	"	135	+22°	00 24	02 28	C	03 32E +
33007	HD 132737	14 55.6	+27° 33'	"	"	135	"	02 34	04 02	A	00 05W +
33008	HD 136202	15 14.2	+02° 09'	"	"	135	21°F	04 05	04 15	B	00 01E +
33009	HD 128661	14 33.1	+36° 22'	"	"	9L	"	04 22	05 10	C	01 35W +
33010	nova serp	<sup>1970</sup> 18 29.2	<sup>1970</sup> +02° 40'	"	"	9L	20°F	05 16	05 54	A	01 35E +
33010F	Focus			"	"	9	20°F			B	
33010 T1	calibration	step wedge for plates				33004 - 33010					12 Mar 70

Dome Temp. 27°F

Transparency Conditions Photometric

Focus .....

Dome Temp. 20°F

Ending Time E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
	A		<del>+26° 19'</del>	2"	8.36	G2V	<del>4-4-4</del>	<del>SSV</del>	<del>400/</del>	Sketch not drawn.	
3:19	A	02 47W	+28° 48'	2"	9.29	G0V	4-4-4	SSV	800/300	Field drawn.	SL. WK
0:17	B	00 49W	+28° 43'	1-2"	8.36	K 2 1/2	4-4-4	SSU	400/160	Worth following + brightness of pair (GUIDING)	SL. WK
2:28	C	0032E	+24° 43'	"	8.74	F8V	4-4-4	SSV	800/300	Finder Drawn	SL. WK
4:02	A	0005W	+27° 17'	"	9.03	K0III	4-4-4	SSV	800/300	Finder fld Dr.	WEAK
4:15	B	0001E	+01 53	2"	5.6	G0	8-8-8	Std Vel	200/75		(GUIDING) FINE
5:10	C	0135W	+36 05	1-2"	7.0	A0	8-8-8	Ecl Bin	200/90		(GUIDING) FINE
5:54	A	0135E	+02 37	2	5.5	=K	8-8-8	nova	200/70	(BUT SHOWS THE STRUCTURE) EMISSION	SL. WK
	L						5/5	no filter		focus 80-R	GOOD
12 min 50		MWP-2 / 9.0 min @ 68°F (240 C (159))									

Date ~~Thurs~~ <sup>Fri</sup> ~~Mar 12-13/70~~ Observer ~~Tm~~ <sup>Hd - G2</sup> ~~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.	Hour Angle End	
33011	HD 35410	05 19.4	-0 59	G12	IIaO	13S		19:13	20 18	A	W 1:58	
33012	HD 65934	07 56.1	+26 55	"	"	"		20 30	11 <sup>23</sup> :40	B	W 2:46	
33013	HD 89449	10 14.3	+19° 59'	"	"	"	26°F	11 <sup>23</sup> :47	00:12	A	W 3:58	
33014	HD 91948	10 31.9	+60° 38'	"	"	9L	"	00:20	02:17	C	W 2:15	
33015	HD 128661	14 33.1	+36° 22'	"	"	9L	24°F	03:13*	04:45	A	W 1:15	
33016	HD 139892	15 35.6	+36° 58'	"	"	9L	25°F	02:134	03:05	B	E 1:27	
33016F	Focus			"	"	"	"			B		
330 16 T1	calibration	step wedge for plates 33011 - 33016								13 May 1970		W 1:21



Dome Temp. 29°F

Transparency Conditions Part cloudy (Kerrins)

192

Focus .....

Dome Temp. 24°F

Hour Angle E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
0:18	A	W 1:58	-0° 53'	1.2"	5.9	KO	4-4-4 4-4-4	Std Vel	800/300	Through clouds for a bit of Jovian	SL. WEAK
0:40	B	W 2:46	+26° 45'	2"	8.87	G8 <sup>III</sup>	4-4-4 4-4-4	See Std Vel	800/241	thick haze Cirrus, Broken in 2 pieces	SL. WEAK (GUIDING) BROKEN *
0:12	A	W 0:58	+19° 38'	"	5.3	F5	4-4-4 4-4-4	STD. VEL.	800/300		(GUIDING) FINE *
0:17	C	W 2:45	+60° 18'	"	7.37	F8	8-8-8	SPEC. BIN.	400/195	HAZY AT TIMES	FINE
0:15	A	W 1:15	+36° 04'	"	7.0	A0	8-8-8	ECL. BIN.	400/120	Taken after 33016-CLOUDS	FINE
0:05	C	E 1:27	+36° 44'	"	5.1	B8 <sup>M</sup>	8-8-8	SPEC. BIN.	400/170	thru cloud	USL. STR
	P						5/5 no filter			focus so -R	(GOOD)
										Closed 05 <sup>h</sup> cloud	
13 Nov 70		MWP-2 / 12 min @ 68° = (2900159)									
										* FINGER PRINTS!	

193

Date Fri Mar 13/14 Observer Ri-Gru / 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.H.
33017	HD81797	9 22.7	-8 14	G12	Ilco	95	27°	22.40	23.13	A
33017 F	Focus			"	"		26°			B

Dome Temp. ....

Focus .....

Dome Temp. ....

Hour Angle  
End

0<sup>h</sup> 55<sup>m</sup> W



195

Date SAT SUN 14/15 Observer Ri-VA/Ri-Gr 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.
33018	HD42397	06 <sup>m</sup> 05.4	+25°02'	G12	IIaO	13S		19 <sup>m</sup> 13	21:54	A
3301FP1	four stars					9	240F			B
33019	HD 107328	12 15.3	+03 53	G12	IIaO	9L	240F	00:25	01:34	A
33020	HD 128661	14 33.1	+36° 22'	"	"	9L		01:42	02:57	B

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

" S6W  
0028W  
0026E

Dome Temp. .... 26°F

Transparency Conditions ..... haze

Focus .....

Dome Temp. ....

Ending Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
01:54	A	2 <sup>h</sup> 56W	+25° 02	~3	8.68	60IV	4-4-4 4-4-4	S.S. V.	800/300	microscopy layers of dust	(GUIDING)* FINE
	B						5-5	no filter		from 80-R	GOOD
01:34	A	00:28 W	+03 30	~3"	6.1	K1	8-8-8	Std. Vel.	200/160		(GUIDING)* FINE
01:57	B	00:26 E	+36 05	~3"	7.0	AD	8-16	ECL. BIN	400/68	CUT SHORT! TOO HAZY	(VERY) WEAK

\* NOT FAR ENOUGH TO THE ENDS OF THE SLIT.

197

Sun - Mon

Date Mar 15/16

Observer Gu

(R<sub>1</sub>-H<sub>v</sub>)

Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
33021	HD 65934	7 <sup>h</sup> 56 <sup>m</sup> .1	+26° 55'	G12	II <sub>00</sub>	135	21°	20 08	21:20	B
33022	HD 66141	7 <sup>h</sup> 57 <sup>m</sup> .1	+20 36'	G12	II <sub>00</sub>	135	"	21:35	22:11	C
33022F	Focus		out out - in in							B
33022 F1	calibration step wedge for plates				33017 -	33022			16 Mar 1970	

Dome Temp. 21

Transparency Conditions Clear - Haze later

Focus

STILL CLOUDS + HAZE AT 4 AM

Dome Temp.

Ending Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
11.20	B	6 <sup>h</sup> 37 <sup>m</sup> W	+26° 45'	2	8.87	G 8	4-4 16	S.S.V.	800/72	cut short - too hazy	VERY NEAR
11	B	1 <sup>h</sup> 27 <sup>m</sup> W	+ 2° 27'	3	5.5	163	4-4-4 4-4-4	S.V.	200/110		FINE
	B		from so - R				5/5	no filter		heavy haze - closed 2800	GOOD
12.10		MWP-2 / 10 min @ 65°F / 200C 159									

199

Date Mar 16/17 1970 Observer Hans-Ri/Hn 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.
33023	HD 65934	7 <sup>h</sup> 56. <sup>m</sup>	26° 55'	G 12	II a0	135	27°F	19:14	21:21	A
33023F	focus test			w/w/outload		9	26°F			B
33024	HD 89449	10 14.3	+19 59	G 12	II a0	135	25°F	22:00	22:14	C
33025	HD 66141	7 <sup>h</sup> 57. <sup>m</sup>	+02° 30'	G 12	II a0	135		22:54	23:27	A
33026	Nova Serp	18 29.2	+02° 40'	"	"	9K		05:44	05:53	A
	photometry							23:30	05:30	
33026 T1	calibration step wedge for plates					33023-33026				17 Mar, 70

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

Focus \_\_\_\_\_

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

Hour Angle  
End

045

045

2460

145E

100-2



Dome Temp.  $26^{\circ}F$

Transparency Conditions *clear*

Focus .....

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

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
0 <sup>h</sup> 40 <sup>m</sup> W	26°45'	2"-3"	8.87	G8 III	4-4-4 -4-4-4	<i>secondary</i> Std Vel	800/300		SL. WK
					5-5	no filter		press F0-R	GOOD
0 <sup>h</sup> 45 <sup>m</sup> E	19°40'	2"	5.3	F5	4-4-4 4-4-4	Std Vel	200/90		STRONG
2446W		3"	5.5	K3	4-4-4 4-4-4	Std Vel	200/110	Probably somewhat overexposed - photomultiplier not open fully?	FINE
1415E	102 43		5.5	K	5-16	nova	200/30		WEAK
mwp-2 / 9.0 min @ 60° F / 2400 / 59									

201

Walden visitors  
looked at moon

Date Mar 17/18 1970 Observer Em. Ri Julian Day 71

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	
33027	HD 66141	07 57.1	+02 36	G12	IIaO	9L	32°F	21:03	21:39	A	
33028	HD 91948	10 31.9	+60 38	G12	IIaO	9L		21:51	23:31	B	
33029	HD 106690	12 11.1	+41 13	G12	IIaO	9L	31°F	23:41	01:58	C	
33030	HD 145931	16 08.5	+42 38	G12	IIaO	9L	31°F	02:02	03:16	A	
33031	HD 135722	15 11.5	+33 41	G12	IIaO	9L		03:20	03:34	B	
33032	Nova Serp	<sup>1970</sup> 18 29.2	<sup>1970</sup> +02° 40	G12	IIaO	9L	30°F	03:46	05:46	C	
33032 F1	focus test		out out/wa	G12	IIaO	9	30°F			B	
33032 71	calibration	step wedge for plates 33027 - 33032								18 Mar/70	

Dome Temp. 3  
Focus  
Dome Temp.

Hour Angle  
Ecl

1°32W

0°19W

1°07W

1°30E

0°15E

1°20E

11:42

Dome Temp. 320F

Transparency Conditions lazy

Focus .....

Dome Temp. 290F

Ending Time E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
01:34	A	1402W	+02 26	3	5.5	K3	8-8-8	Std. Vel	200/160		FINE
03:31	B	0419W	+60 18	2	7.37	F8	8-8-8	Spect. Bias Waterloo	400/250		FINE
05:58	C	1407W	+40 50	2	7.36	M1III	8-8-8	V.S. B.N. BK*	400/400		FINE
03:16	A	1430E	+42 27	2	7.38	K4II	8-8-8	" "	400/320		FINE
03:34	B	0415E	+33 25	2	4.42	Q8III	8-8-8	" "	200/130		FINE
05:46	C	1420E	+02 37	3	-	NOVA	8-8-8	NOVA	800/365	logs	FINGERPRINTS / SL. WR
	B			focus 80-B			5-5	no filter		(broken during processing)	GOOD
		MCP-2 / 9.0 min @ 60°E / 290C155									

Date Mar 18-19 1970

Observer C. Knoll

*C. Knoll*

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.
33033	HD 31398	04 51.2	+ 33° 2.7'	G12	IIaO	9L	35°F	19:27	19:41	A
33034	AG 4044	07 28.2	+ 28 57	B12	IIaO	13		19:55	20:08	B
33034 F1	focus test		out-out-in	G12	IIaO	9	35°F			B
33035	HD 128661	14 33.1	+36 22	G12	IIaO	9L	35°F	02:15	3:47	A
33036	NOVA SERPENTIS	<sup>1970</sup> 18 29.2	+02° 40'	G12	IIaO	9L		04:16	5:34	B
33036 T1	calibration	step wedge for plates			33033 - 33036				19 Mar/70	

Done Temp. 3

Focus

Done Temp.

Hour Angle  
End

2<sup>h</sup>13<sup>m</sup>

0<sup>h</sup>03<sup>m</sup>

2<sup>h</sup>05<sup>m</sup>

1<sup>h</sup>26<sup>m</sup>

19 Mar/70

Dome Temp. 36°F

Transparency Conditions Clear

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Focus .....

Dome Temp. 30°F

Ending Time E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
19 41	A	2413 W	+33° 10	3	2.9	K2	8-8-8	CHEN	200/160		FINE
08	B	0403 W	+28 47		9.29	G0V	4-20	SS.U	80/22	cloud cover.	BLANK
	B						5-5	no filter		from 20-R	GOOD
3 7	A	0446 W	36. 04	3	7.0	A0	8-8-8	Ed. Loring	400/200		FINE
5 5	B	1 26 E	2° 42'				8-8-8	NOVA	200/140		FINE
4 30		MWP-2 / 9.0 min @ 6.5° E / 290 C 159									

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T. Linn  
F. M.

Date Mar 19-20 1970 Observer H. D. R. / R. - G. 2 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.
33037	AG 4044	07 28.2	+28 57	G12	IIaD	13 95	38°F	19:08	21:35	A.
33038	HD 86801	09 55.8	+29 02	G12	IIaD	13S	38°F	21:43	01:03	B
33039	HD 128661	14 33.1	+36 22	"	"	9L	36°F	01:19	02:23	C
33039F1	found text	and on / m					36°F			B
33039 T1	calibration step wedge for plates					33039 - 33039			20 Mar / 70	

Dome Temp. 40°F

Transparency Conditions CLEAR → HAZY LATER

Focus .....

Dome Temp. 33°F

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
W 1 34	+28 49	3	9.29	GO II	5-4-4 4-4-4	Sec. Std. Vel.	800/300	Changed slit at 39 counts - seeing getting worse BOLFN (S Pico) BROKEN FINE	
W 2:35	28 43	3	9.48	GO II	4-4-4 4-4-4	" " "	800/270	HAZY	SL. WK (GUIDING)
E: 00:36	+36 02	2-3"	7:00	AO	8-16	ECL. BIN.	400/85	VERY HAZY → CUT SHORT	SL. WK
					5-5	no fault			GOOD
mwp-2 / 12 min @ 45°F / 2 FOC 179									
								Anson - Please develop sec std vel stars for 12-min. Note 1st plate broken	

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Tues - Wed

Date Mar 24 - 25, 1970

Observer

LK-Tm/Ems-Tm

Julian Day

Waterloo

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle Ead
33040	HD 31398	04 <sup>h</sup> 51 <sup>m</sup> .2	+33° 2.7'	G12	IIaO	9L	38°	19:40	19:55	A	13 <sup>h</sup> 48 <sup>m</sup>
33041	HD 60204	07 28.3	-28 55'	G12	IIaO	13S	34°	20:18	21:25	B	15 <sup>h</sup> 19 <sup>m</sup>
33042	HD 89449	10 <sup>h</sup> 14.3	+19° 59'	G12	IIaO	13L	33°	22:12	22:29	A	17 <sup>h</sup> 3 <sup>m</sup>
33043	"	"	"	"	"	13L	"	22:37	22:48	B	17 <sup>h</sup> 25 <sup>m</sup>
33044	"	"	"	"	"	9L	"	22:57	23:20	A	17 <sup>h</sup> 03 <sup>m</sup>
33045	"	"	"	"	"	13L <sup>51</sup>	33°F	23:25	00:09	C	17 <sup>h</sup> 01 <sup>m</sup> 43 <sup>s</sup>
33046	HD 106690	12 11.1	+41° 13'	"	"	9L	"	00:44	02:33	B	17 <sup>h</sup> 02 <sup>m</sup> 10 <sup>s</sup>
33047	HD 135722	15 11.5	+33° 41'	"	"	"	"	02:40	02:49	A	17 <sup>h</sup> 03 <sup>m</sup> 34 <sup>s</sup>
33048	HD 147165	16 15.1	-25 21'	"	"	"	"	02:59	03:09	C	17 <sup>h</sup> 03 <sup>m</sup> 17 <sup>s</sup>
33049	Nova Serp	<sup>1970</sup> 18 29.2	<sup>1970</sup> +02 40	"	"	"	"	03:19	04:20	B	17 <sup>h</sup> 04 <sup>m</sup> 15 <sup>s</sup>
33050	HD 185622	19 34.9	+16° 21'	"	"	13S	33°	04:27	05:27	C	17 <sup>h</sup> 05 <sup>m</sup> 18 <sup>s</sup>
33051	Bennett Comet			"	"	9S	32	05:40		A	17 <sup>h</sup> 05 <sup>m</sup> 30 <sup>s</sup>
33051F	Focus			"	"	9	32			B	
33051T1	calibration step wedge for plates				33040 - 33051						25 Mar 1970



Dome Temp. 38°

Transparency Conditions very clear, then hazy

Focus

Dome Temp.

These are readings of RA.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
13 <sup>h</sup> 48 <sup>m</sup>	33° 56'	2"	3.9	K2	8-8-8	G1001	40/32	Clear	(GUIDING) FINE
15 <sup>h</sup> 19 <sup>m</sup>	29° 42'	2"	7.52	G5	4-4-4 4-4-4		800/300	Clear. This is the bright star of the group (finder field drawn)	FINE
W 3 <sup>m</sup>	19° 36'	2"	5.3	F5	8-8-8	Exp. Vial	400/109	109 cts on A half with image	SL. STR. ↑
W 23 <sup>m</sup>		2"	"	"	8-8-8	std Vial	400/180	faded normally	SL. STR. ↑
W 0 53		2"	"	"	8-8-8	"	400/180	" "	SL. STR. ↓
W 01 43	"	2-3"	"	"	8-8-8	"	400/140	140 cts on A with image	LOW - 100
W 02 10	+40° 49'	"	7.36	M/IV	8-8-8	Vis Bin	400/400	140 cts on B with image	HIGH - BLUE
W 00 34	+33° 23'	2"	4.42	G8/II	12-12	"	200/130		* FINE
W 01 17		3"	3.07	B1/IV	8-8-8	"	200/90		* SL. STR.
W 02 15	+02° 35'	2-3"	2.6	AK	8-8-8	nova	200/85	cut short	* FINE
W 02 18	+16° 29'	2"	8.44	K4/ab	8-8-8	Vis Bin	400/200		* WFRK
W 04 30					29		40/6	an attempt	NOTICE
in air / out out					5/5	no filter		* 1 END FOGGED (BLUE)	
								** " " (24DLT, RED)	GOOD
m WP-2 / 11 min @ 68°F 12 AUG 1979								Anson - Please develop plates 41-45 for 11 mins for JFH	

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Fri - Sat

Date Mar 27-28 / 1970 Observer G. L. Taylor / Hans-T. Hansen-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.
33052	HD 31398	04 51.2	+33° 03'	G12	IIaD	9L	35°F	19:20	19:32	A
33053	HD 81797	09 22.7	-08 14'	"	"	"	"	19:40	19:47	B
33054	HD 91948	10 31.9	+60 38'	"	"	"	"	20:04	22:58	C
	IR Photometry of $\delta$ Leo							23 <sup>h</sup> →	0 <sup>h</sup>	
33054F	Focus			G12	IIaD	9	33°F			B
33055	HD 128661	14 <sup>h</sup> 33.1 <sup>m</sup>	+36° 22'	G12	IIaD	9L	32°F	02:32	04:38	A
33056	Novo Serp	<sup>1970</sup> 18 29.2	<sup>1970</sup> +02° 40'	"	"	"	"	04:45	05:19	C

Done Temp. 3

Focus \_\_\_\_\_

Done Temp. \_\_\_\_\_

Hour Angle  
End

02 39 W

01 35 E

00 24 W

bottle

02 38 W

01 07 E

Dome Temp. 36°F

Transparency Conditions ..... very clear at 1st

Focus .....

cloud from south at 20<sup>h</sup>  
clear, but haze at 21<sup>h</sup>

Dome Temp. 31°F

Timing Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
00:38	A	02 39W	+33° 09'	3"	2.9	K2	12-12	G1001	200/160		
00:47	B	01 35E	-9° 30.5'	3"	3.40	K4	12-12	SH Vel	200/150		
02:58	C	00 24W	+60° 21'	2"	7.37	F8	8-88	spect Bin	400/250	thick cloud from south	
		battery dead (nothing done)								cloud again at 0:30	
	P	no in/out act.								5/5 no filter	
01:38	A	02 06W	+36° 03'	2"	7.0	A0	8-8-8	Gorzo - ech. binaries	400/160	Very hazy	FINE
01:19	C	01 07E	+2° 36'	2-3"	6	K	8-88	nova	200/8	very hazy, cloud thick	NOTHING

Sat - Sun  
Date Mar 28-29 1970 Observer Ch. Taylor / Taylor, R. <sup>Gr</sup> Julian Day 197

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
33057	β CM.	<sup>1970</sup> 07 25.7	<sup>1970</sup> +08 21	G12	II90	9L		21:19	21:25	B
33058	HD107328	12 15.3	+03°53'	G12	II90	13s		21:46	22:37	A
33059	HD97778	11 <sup>m</sup> 9.9	+23°38'	"	"	9L	26°F	22:44	23:44	C
	IR Photometry	3C273						0 <sup>h</sup> →	01:30	
33060	HD128661	14 33.1	+36°22'	G12	II00	9L	22°F	01:52	03:00	B
33060 T <sub>1</sub>	Test Comp only									A
										A
T <sub>2</sub>	Fluore Test with						32°F			A

East side of slit open to arc for 20s  
West " " " " " " " " 5s.

Dome Temp. 2

Focus

Dome Temp. 2

Hour Angle  
End

Dome Temp. 25°F

Transparency Conditions scattered cloud

212

Focus

Dome Temp. 20°F

Ending Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
01:25	B	02 <sup>h</sup> 06 <sup>m</sup> W	+08°22'	3"	2.91	B7	8-8-8	G1001	40/17	Chenguided	(GUIDING) FINE
02:37	A	01 35 E	+03°22'	"	6.1	K1	8-8-8	Std Vel	400/180	some cloud	FINE
03:44	C	00 <sup>h</sup> 38 <sup>m</sup> W	+23°16'	2-3	6.4	M3	8-8-8	M* prog	200/200		(GUIDING) FINE
04:30										cloud at 01:30	
										thick haze again	
03:10	B	00 33 W	+36°04'	3"	7.0	A0	8-16	Ecl Bin	400/38	cloud (cut short)	VERY WEAK
	A										
	A	outside mirror, inside 3 <sup>h</sup> W					20/20	Dec 29N		no flexure	

Date SUN/Mon March 29/30 1970 Observer Gz-Tn/Gz-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.
33061	AG 4044	07 28.2	+28 57	G12	Ilao	135	26°F	19 31	22:31	A
33062	HD 91948	10 31.9	+60 38	"	"	9L	24°F	22:37	00:55	B
33063	HD 128661	14 33.1	+36° 22'	"	"	"	22°F	01:03	03:00	C
33063 F	Focus			G12	Ilao	9	28°F			B
33063 T1	calibration	step wedge for plots								
T2	"	"	"	"						
					33052 - 33061				30 Mar/70	
					32062, 63				"	

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

Focus \_\_\_\_\_

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

Hour Angle  
End

03 09W

02 30W

00 37W

in cap 21

Dome Temp. 26°F

Focus .....

Dome Temp. 18°F

Transparency Conditions Excellent (Photometric)

seeing not so hot  
Cirrus cloud at 03<sup>h</sup>

Ending Time E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
2:31	A	03 09W	+28° 49'	2-3"	9.29	GOIV	<del>4-4-4</del> 4-4-4	SEC. STD. VEL	800/145	cut short, (too slow)	poor. mble. weak
2:55	B	02:30W	+60° 18'	3-4"	7.37	F8	8-8-8	SPEC. BIN.	400/230		
3:00	C	00 37W	+36° 04'	3-4"	7.0	A0	8-8-8	Ecl. Bin.	400/130	thick Cirrus] cut short	weak
	B		focus	<u>80-R</u>			5/5	no filter		closed 03 <sup>h</sup>	
2:20		2100P-2/	9.0 min @ 04°F				2900 159				

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Date Mon-Tues March 30-31 Observer H.S. Jr. / J.A. 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.H.
	IR Photometry of		43 Leo	d	3C273			20 <sup>h</sup> <del>20<sup>h</sup></del>	02 <sup>h</sup>	
33064	HD 128661	14 33.1	+36° 22'	G12	Ilao	9L	25°F	02 05	04 13	A
33065	NOVA Scrp	<sup>1970</sup> 18 29.2	<sup>1970</sup> +02 40	"	"	"	24°F	04 18	05 20	C
33065 F	Focus			G12	Ilao	9	23°F			B

Dome Temp. ....

Focus .....

Dome Temp. ?

Hour Angle  
End

0153W

0052E



Dome Temp. 30°F

Transparency Conditions Photometric

Focus .....

thick haze at 01:30

Dome Temp. 21°F

Ending Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
02 <sup>h</sup>											
0413	A	0153W	+36° 04'	1"-3"	7.0	A0	8-8-8	e/bia	400/168		FINE
0520	C	0052E	+02° 35'	2"-3"	≈65	≈K	8-8-8	NOVA	200/64		WEAK
	B		in in/out out				5/5	no filter		focus 80-R	GOOD
										Bennet Comet observed with 6" refractor, Tail about 4° long (visible with eye) ( & curved sharply ) spectacular	

Date Mar 31 - April <sup>1930</sup> Tues-Wed Observer Wi-Tu / AH/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.	
640	Focus Tests	Settings [21, 22, 23, 24, 25]			A, B, C		33°F	(fogged plates)			
33066	AH Vir	12 <sup>h</sup> 09.3	+12° 23'	640	Ilford	17L	32°F	23 <sup>h</sup> 34	02 27	A	
33067	HD 106690	12 11.1	+41° 13'	640	Ilford	13L	"	2 <sup>h</sup> 39	03 00	A	
33068	HD 135722	15 11.5	+33° 41'	640	Ilford	9L	31°F	03 13	03 16	A	
33069	HD 147165	16 15.1	-25° 21'	"	"	9L	"	03 26	03 33	A	
33070	HD 185622	19 34.9	+16 21	"	"	13L	"	03 47	04 55	A	
33071	Bennett Comet	22 22.9	+20 24	"	"	"	30°F	05 01	05 17	A	
33071 T	calibration strip, ridge for plate						33064 -	<sup>33071</sup> <del>33065</del>	36/170		

Dome Temp. 3

Focus

Dome Temp.

Hour Angle  
Ecl

also

02 34 W +1

03 05 W +4

00 21 W +3

00 26 E -

00 22 E +

02

20 WP

Dome Temp. 32°F

Transparency Conditions clear but hazy at 23<sup>h</sup> 218

Focus .....

Dome Temp. 29°F

Ending Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
		also [ settings 25.A & 25.C temp 32°F ]									
02 27	A	02 34 W	+12° 01'	2"	9.7	KD	3-3-3	Spect Bin	800/95	BK* needs 200 counts, cloud	(setting 25) (FOGGED) FINE
03 00	A	03 05 W	+40° 50'	3"	7.36	MJIV	3-3-3	Vis Bin	400/100		(setting 25) (GUIDING) FINE
03 16	A	00 21 W	+33° 25'	1"-2"	4.42	G8III	9	Vis Bin	200/37		setting 25 FINE
03 33	A	00 26 E	—	3"	3.07	B1III	9	"	200/23		set 25 FINE
5	A	02 22 E	+16° 31'	2"-3"	8.44	K4Iob	3-3-3	"	400/100	(haze)	set 25 (GUIDING) FINE
05 17	A		+20° 24'		22.5	αB	4-5	comet	400/34	(same @)	set 25 FINE
3 36	70	mwp-2 / 9.0 min @ 68°F / 8 TO C 1.59 N.B. THE DARK ROOM WTS LEFT IN PRETTY MUCH OF A MESS AFTER THE EPLMS TESTS. - Sorry, I sort of rush I ran out of time to bed like. In									

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Date April 3/70 Fri-Sat Observer Jn / Julian Day .....

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle East
<del>33072</del>	<del>AG 4044</del>	<del>07 28.2</del>	<del>128° 57</del>	<del>G12</del>	<del>Ilco</del>	<del>13s</del>		<del>19:33</del>	<del>19:55</del>	<del>A</del>	<del>0° 53W</del>

Dome Temp. 3  
Focus  
Dome Temp.

Hour Angle  
East  
0° 53W



Date April 4-5 Sat-Sun Observer Tn/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.	P.H.
33072	AG 4044	07 28.2	+28° 57'	G12	Da0	17s	34°F	19:33	22:33	B
33073	HD 112299	12 50.6	+26° 16'	"	"	17s	33°F	22:40	01:20	C
33074	HD 136202	15 14.2	+02 09'	"	"	17s	31°F	01 27	01:40	A
33075	HD 146913	15 41.1	+28 47'	"	"	13s	30°F	01 45	04:19	B
33075F	Focus			"	"	13	29°F			B

Done Temp. 3  
Focus \_\_\_\_\_  
Done Temp. 2

Hour Angle  
End  
03 35 W  
01 02 W  
01 02 E  
1 06 W

Dome Temp. 35°F

Focus .....

Dome Temp. 28°F

Transparency Conditions cleared at sunset  
some cloud at horizon west  
cloud 03<sup>h</sup>, snow

Timing Time E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
2:33	B	13 35 W	+28° 49'	2-3"	9.29	GOV	4-4-3 4-4-4	SSV	800/270	overdevelop* s. slit is sl longer than .3 mm	s/weak
1:20	C	01 02 W	+25° 54'	2"	9.19	F8V	4-4-3 4-4-4	SSV	800/300	Fld Drawn overdevelop*	Fine
1:40	A	01 02 E	+09° 54'	3"	5.6	GO	7-7-7	SH vel	200/90	*	Fine
1:19	B	1 06 W	+28° 34'	2'	8.81	GOV	4-4-5 3-4-4	SSV	800/250	cloud Capped 10 min	weak
	B						5/5 no filter			closed 04:30 (cloud)	good

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Date Sun/Mon. April 5/6 Observer Tn Eg Julian Day .....

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle End
33076	HD 65583	07 54.3	+29° 31'	612	Ilad	13s	34°F	19:32	21:07	A	01 47W +
33077	"	"	"	"	"	17s	35°F	21:11	23:27	A	04 07W
step wedge for plates 33072 → 77 <u>not available</u> (plug not in firmly) 7 April 70											

Dome Temp. 3-

Focus .....

Dome Temp.

Hour Angle  
EndHour Angle  
End



Dome Temp. 35°F

Transparency Conditions haze & scattered cirrus  
thick cloud at times

Focus .....

Dome Temp. ....

Timing Time E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
1:02	A	01 47W	+29° 19'	1"-2"	7.9	G7	4-4-4 4-4-4	Std. Vel	800/300	thru haze. overdev *	Fine
3:27	A	04 07W	"	"	"	"	4-3-4 4-8	"	800/175	thru cloud (very slow 1st hr) overdevelop * weak	weak
71 April 75 MWP-2 / 11 min at 67.5°F / 2 AOC 119											

Date Tues-Wed April 7-8 Observer H.S.-Tn / Emj.-Tn Julian Day           

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle End
	Focus Test	G40			settings 24, 25, 26, 27, 28, 29, 30, 27(159)			with A plateholder			9 sec
	I R Photometry							20 <sup>h</sup> → 0 <sup>h</sup>			
33078	HD 106400	12 09.3	12° 23'	G40 GH2	D40	17L	38°F	00:31	02:55	A	03 30W +3
33079	HD 106690	12 11.1	+41° 13'	"	"	13L	36°F	03:05	03:33	A	04 06W +4
33080	HD 135722	15 11.5	+33 41	"	"	"	"	03:40	03:43	A	04 15W +3
33081	HD 147165	16 15.1	-25 21	"	"	"	"	04:05	04:08	A	04 21W +3
33082	comet BENNETT	22 47.6 <sup>70</sup>	+36° 40 <sup>70</sup>	"	"	"	"	04:18	04:48	A	05 08E +3

Dome Temp. 45°F

Transparency Conditions very clear - cloud in NW

Focus .....

Dome Temp. ....

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
								(9 sec comp) with G12 filter & UV filter over slit [temp 40→41°F]	
								hazy	
03 30W	+11° 59'	2-3"	9.7	K0	3-3-3	Spect Bin	800/75	setting 28] very slow.)	
04 06W	+40° 51'	)	7.36	M1 III	3-3-3	vis bin	400/100	" "	
01 15W	+33° 24'	2"	4.42	G8 III	5-4	"	200/37	" "	
00 36W	+32° 30'	4"	3.07	B1 III	5-4	"	200/23	" "	
05 08E	+36° 40'			c6	3-3-	comet	400/70	" "[head of comet]	

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Date Thurs-Fri April 9-10/70 Observer H. d. Tn Julian Day .....

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle End
33083	HD 89449	10 14.3	+19 59	G12	5aD	135	44°F	20 01	20 25	C	21 00
33084	HD 92588	10 36.3	-1 13	"	"	135	42°F	20 34	21:52	A	W 00 07
33084 F	Focus			"	"	B	40°F			B	
33084 T1	Calibrat'n step wedge for plates					33078 →		33084	April 10/70		W 00 12

Dome Temp. 39°

Focus .....

Dome Temp. ....

Hour Angle  
End

Dome Temp. 39°F

Transparency Conditions ..... clearing at dusk

Focus .....

Seeing two hours for p.t.'s.

Dome Temp. ....

Ending Time E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
20 25	C	Σ 1 00	19 37	3-4"	5.3	F5	8-8-8	Std vel	200/80		
21 52	A	W 00 07	-01° 35'	"	7.4	K1	8-8-8	std vel	400/155	cloud	
	B		min/out out				3/5	no filter			
MWP2 / 11 min @ 68°F / 2AOC1J9											

Date Fri - Sat April 10-11 / 70 Observer JA GZ Julian Day \_\_\_\_\_

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	
33085	HD 91948	16 31.9	60° 38'	G12	D00	135 <sup>*</sup>	27°F	22:27	01:29	A	
<del>33086</del>	<del>HD 128561</del>	<del>14 33.1</del>	<del>+36° 22'</del>	<del>"</del>	<del>"</del>	<del>135</del>	<del>27°F</del>	<del>01:36</del>	<del>04:24</del>	<del>B</del>	
33087	HD 139892	15 35.6	+36 58	"	"	9L	24°F	04:30	05 09	C	
<del>33087F</del>	<del>Focus</del>			<del>"</del>	<del>"</del>	<del>9</del>	<del>24°F</del>			<del>B</del>	
33087 T1	Calibrate step wedge for plates 33085 & 33087								April 11 / 70		

Dome Temp. 2

Focus

Dome Temp.

Hour Angle  
Ecl

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

Transparency Conditions ..... clear by 22<sup>h</sup>

Focus .....

SEEING BAD

Dome Temp. ....

Drive slipping terribly for 33086 !!!

Ending Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
1:29	A	03:40W	+60° 16'	3-4'	7.37	F8	8-8-8	Sp Bin	400/130	* (9L slit impossible) (52.38mm by scale)	
4:24	B	<del>02:48W</del>	<del>+36° 06'</del>	"	<del>7.0</del>	<del>A0</del>	<del>8-8-8</del>	<del>ECL. BIN</del>	<del>400/130</del>	<del>cloud from N.W. [maybe blank]</del>	<del>blank</del>
5:54	C	02:25W	+36° 47'	"	5.1	B8m	8-8-8	SPEC. BIN	200/80		
								S/S no filter			
4:10/70		MWP2 / 9min @ 68°F		(2AOC159)						(*) Fixed drive in about 2 mins	

1st Visitor's Night. 80 in 1st group  
 231 Hns - GZ 60 in 2nd group observed M67

Date Sat-Sun April 11-12/70 Observer Tn Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
33088	Novo Serp	18 26.1	+02 36	G12	IIaD	9L	30°F	03:14	04:53	A
IR photometry all night (after visitors)										

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













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Date Tue Wed April 14-15 1970 Observer Ea. Ri, Emj, PH Julian Day \_\_\_\_\_

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle End
			Focus to G40				setting 20	(31) 32, 33, 34, 35			
33094	HD 106400	12 <sup>m</sup> 09.3	12° 23'	G40	IIa0	17L	50°F	20 05	23:24	B	0 50W
33095	HD 106690	12 11.1	41 13	G40	IIa0	13L	48	23 54	00:25	L	1 25W
33096	HD 145931	16 08.5	42 38	G60	IIa0	13L	48	00 46	01-15	B	1 20E
33097	HD 182955	19 22.1	+19 41	G40	IIa0	13L		01:26	02:07	B	4 03E
33098	MHx 328-116	19 55.0	+39 41	G40	IIa0	17L	47	02:21	04:43	B	5 58E
33098T1	calibration	step wedge for plates 33094 - 33098						14 April 1970			

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

Hour Angle  
End  
0 50W  
1 25W  
1 20E  
4 03E  
5 58E

Dome Temp. *52°F*

Transparency Conditions *clear*

Focus .....

Dome Temp. *40°F*

Ending Time E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
<i>23:35</i>											
<i>23:24</i>	<i>B</i>	<i>0 28W</i>	<i>12° 04'</i>		<i>9.7</i>	<i>KO</i>	<i>3-3-3</i>	<i>BAKOS</i>	<i>800/85</i>	<i>setting 31</i>	<i>GUIDING SL. WEAK</i>
<i>00:25</i>	<i>B</i>	<i>14 25W</i>	<i>40° 53'</i>	<i>3</i>	<i>7.36</i>	<i>MIII</i>	<i>3-3-3</i>	<i>BAKOS</i>	<i>400/100</i>	<i>" 31-1</i>	<i>FINE</i>
<i>01:15</i>	<i>B</i>	<i>14 42E</i>	<i>42° 31'</i>		<i>7.38</i>	<i>K4II</i>	<i>3-3-3</i>	<i>"</i>	<i>400/90</i>	<i>" "</i>	<i>FINE</i>
<i>02:07</i>	<i>B</i>	<i>4 403E</i>	<i>19 55</i>		<i>7.44</i>	<i>MOTII</i>	<i>3-3-3</i>	<i>"</i>	<i>400/100</i>	<i>" "</i>	<i>FINE</i>
<i>02:43</i>	<i>B</i>	<i>1 458E</i>	<i>39 48</i>		<i>10.8</i>	<i>En</i>	<i>3-3-3</i>	<i>F+</i>	<i>800/23</i>		<i>FINE</i>
<i>03:10</i>			<i>M.W. 102</i>			<i>9 min @ 68°F</i>					

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Date Wed Thurs. April 15-16 1970 Observer Bii - Ri Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle End
33099	HD47105 ( $\gamma$ Gem)	06 <sup>h</sup> 31. <sup>m</sup> 9	+16° 29'	G-12	IIaO	9L	52°F	19:48	19:49	A	02 <sup>h</sup> 32 <sup>m</sup> W +
33100	HD35497 ( $\beta$ Tau)	05 <sup>h</sup> 20. <sup>m</sup> 0	+28° 31'	"	"	"		20:02	20:03	B	03 <sup>h</sup> 46 <sup>m</sup> W +
33101	HD38899 ( $\beta$ Tau)	05 <sup>h</sup> 43. <sup>m</sup> 9	+12° 37'	"	"	"		20:09	20:32	C	04 <sup>h</sup> 02 <sup>m</sup> W +
33102	HD91948	10 31.9	+60 38	"	"	"	50°F	20:41	23:09	A	01 <sup>h</sup> 50 <sup>m</sup> W +6
33103	HD 98664 ( $\sigma$ Leo)	11 <sup>h</sup> 16. <sup>m</sup> 0	+6° 35'	"	"	"	46°F	23:45	23:58	B	01 <sup>h</sup> 57 <sup>m</sup> W +
33104	HD 138764	15 <sup>h</sup> 29. <sup>m</sup> 0	-8° 51'	"	"	"	45°F	00:19	00:59	C	01 <sup>h</sup> 15 <sup>m</sup> E -
33105	HD 147165 ( $\delta$ Sco)	16 15.1	-25° 21'	"	"	"	45°F	01:16 <sup>+2 min</sup>	01:31	A	01 <sup>h</sup> 29 <sup>m</sup> E -
33106	HD 147394 ( $\tau$ Her)	16 16.7	+46° 33'	"	"	"	45°F	01:48	01:57	B	01 <sup>h</sup> 06 <sup>m</sup> E +4
33107	HD 172167 ( $\delta$ Lyr)	18 33.6	+38° 41'	"	"	"	43°F	02:16	02:17	C	02 <sup>h</sup> 00 <sup>m</sup> E +3
33108	HD 166182	18 04.5	+20 48'	"	"	"	43°F	02:27	02:50	A	02 <sup>h</sup> 02 <sup>m</sup> E +
33109	HD 144334	16 00.1	-23° 20'	"	"	"	43°F	03:00	03:06	B	00 <sup>h</sup> 20 <sup>m</sup> W -2
33110	HD 176437 ( $\delta$ Lyr) ( $\beta$ Vir)	18 55.2	+32 33	"	"	"		03:28	03:40	C	02 <sup>h</sup> 00 <sup>m</sup> E +5
33111	HD 182255	19 18.7	+26° 04'	"	"	"	42°F	03:49	04:16	A	01 <sup>h</sup> 45 <sup>m</sup> E +
33112	HD 186882 ( $\delta$ Cyg)	19 41.9	+44° 53'	"	"	"		04:42	04:46	C	01 <sup>h</sup> 39 <sup>m</sup> E +6
33112F	focus test			"	"	"	42°F			B	
33112T1	calibration step				33093,			16 April	1970		
33112T2	wedge for plates				33008,	33099-33007		"	"		
					33112						



Dome Temp. 52°F

Transparency Conditions clear

Focus .....

Dome Temp. 40°F

Ending Time E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
01:09	A	02 <sup>h</sup> 32 <sup>m</sup> W	+16° 32'	~3"	1.93	A0IV	12-12	Bp Avg	20/8	MK std.	FINE
01:03	B	03 <sup>h</sup> 46W	+28° 39'	~3"	1.52	B7III	12-12	"	20/8	MK std.	GUIDING FINE
01:32	C	04 <sup>h</sup> 02W	+12° 44'	~3.4"	4.83	B9IV	8-8-8	"	200/95	Comparison star	FINE
01:09	A	01 <sup>h</sup> 50W	+60° 20'	~3"	7.37	F8	8-8-8	Spect. Bwi	400/260	Broken 2 pieces <sup>1/2 plate missing</sup>	1/2 a plate
01:58	B	01 <sup>h</sup> 57W	+6° 16'	~3"	Visual 4.12	B9V	8-8-8	Bp Avg	200/95	Comparison star	FINE
01:39	C	01 <sup>h</sup> 15 <sup>m</sup> E	-9° 00'	~2.5"	5.10	B6IV-V	8-8-8	"	200/95	Comparison star	FINE
01:31	H	01 <sup>h</sup> 29 <sup>m</sup> E	-25° 25'	~4"	3.07	B1III	12-12	"	200/95	MK std. <sup>Forgot the exact starting time.</sup>	FINE
01:57	B	01 <sup>h</sup> 04 <sup>m</sup> E	+46° 28'	~3"	3.74	B5IV	12-12	"	40/18	MK std.	FINE
02:17		03 <sup>h</sup> 00E	+38° 46'	~3"	0.04	A0V	12-12	"	20/8	MK std.	FINE
02:50	A	02 <sup>h</sup> 02E	+20° 53'	~2"	4.27	B2V	8-8-8	"	200/95	Comparison star	FINE
02:06	B	00 <sup>h</sup> 20W	-23° 26'	~3"	5.84	B8p	8-16	"	400/16	Capped early. Counting rate much too slow. Possibly blank.	BLANK
03:40	C	02 <sup>h</sup> 00E	+32° 43'	~4"	3.20	B7III	12-12	"	200/95	MK std.	FINE
04:16	A	01 <sup>h</sup> 45E	+26 15	~3"	4.76	B6III	8-8-8	"	200/95	Comparison star	FINE
04:46	C	01 <sup>h</sup> 39E	+45° 05'	~2"	2.89	B9.5III	12-12	"	200/95	MK std.	FINE
	B						5-5	no filter			C. To Red
		MW P. 2		9min	@ 68°F						

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Date Thurs Fri April 16-17 1970 Observer Ri Julian Day                     

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle Ead
33113	HD 128661	14 33.1 <sub>1970</sub>	+36 22 <sub>1970</sub>	G12	IFaO	9L	48°F	23:30	02:10	A	0 <sup>h</sup> 57 <sup>m</sup> W
33114	Nova Serpens	18 29.2	+02° 40	G12	IFaO	13L		02:23	04:45	B	0 <sup>h</sup> 20 <sup>m</sup> E
33114F	focus test	out out / in in		G12	IFaO	9	44°F			B	
33114T	calibrator	step wedge									

Dome Temp. 56  
 Focus             
 Dome Temp. 44

Hour Angle  
Ead

0<sup>h</sup>57<sup>m</sup>W  
0<sup>h</sup>20<sup>m</sup>E





Dome Temp. 47°F

Focus *Reset from 80 to 70 (red ms.)*

Transparency Conditions <sup>7</sup>

*Seeing not too bad, but a 9th mag star would be out of the picture tonight!*

Dome Temp. ....

Ending Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
03 08	A	02 <sup>h</sup> 05 <sup>m</sup> W	28 49	4	8.36	K211	4-4-4 4-4-4	Sec Std Vel	800/300	Lower right, 10 north following of pair	FINE
0 45	B	W 1 <sup>h</sup> 50	43 32	3	6.1	K1	4-4-4 4-4-4	Std. Vel.	400/150	Some clouds.	FINE
					7.0	B0	4-4-	<del>Selbin</del>	<del>700</del>	Condensed at 200	
	B						5-5	no photo		from 70-a	GOOD

Date *Sat Sun 18-19 1970* Observer *Ri-Gates?* 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.
33117	HD 107328	12 15.3	+03 53	G12	IIaD	13L	410F	22:50	00:25	A
33118	HD 139592	15 35.6	+36 58	G12	IIaD	9L	400F	00:40	01:30	B
33119	HD 136202	15 14.2	+02 09	G12	IIaD	9L	390F	01:37	03:15	C
33120	HD 145001	16 03.6	+17 19	G12	IIaD	13L	370F	03:24	04:37	A
33120F	focus test	at at/n w		G12	IIaD	9	360F			B
33120 T1	calibration	step	under for plates		33115-	33120			20 Apr/70	

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

Hour Angle  
End  
01:36W  
00:49E  
01:25W  
02:02W  
m.w. 2/9

Dome Temp. 40°F

Transparency Conditions very hazy

Focus .....

Dome Temp. 33°F

Ending Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
00:25	A.	01 <sup>h</sup> 36W	+03 33	3	6.1	K-1	8-8-8	std. vid	400/320		(-STRONG) FINE
01:30	B.	00 <sup>h</sup> 49E	+36° 48	3	5.1	B8 <sub>n</sub>	F-8-8	SPECT. BIN.	400/200		STRONG
03:15	C.	01 <sup>h</sup> 28W	+01° 57		5.6	G0	8-8-8	std. vid.	400/240		SL. STRONG
04:37	A.	02 <sup>h</sup> 02W	+17° 14 <sup>x</sup>		6.1	G4	8-8-8	.	400/260		FINE
	B.		focus 70-R				5-5	no filter		exposed long #3	GOOD
204m		m W7-2 / 9.0 min @ 68°F / 240C174									

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Date Mon Yano April 26 1951 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.	P.H.	
331211	HD 91948	10 31.9	+60° 38	G12	IIaD	9L	48	21 148	2356	A	
33122	" 139892	15 35.6	+36 58	"	"	9L	46	00 05	0032	B	
33122F	focus test	out out/axis		G12	IIaD	9	45			B	
33122 T1	calibration step wedge for plates 33121, 33122									21 Apr 1951	

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

Focus \_\_\_\_\_

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

Hour Angle  
End

0257W

01° 33 E

21 Apr 1951



Dome Temp. 48.0 F

Transparency Conditions .....

Focus .....

0035 Clouds

Dome Temp. 41.0 F

Ending Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
356	A	0257W	+60° 20'	~2'	7.37	F8	8-8-8	Spect. Bin.	400/260		FINE
032	B	01233 E	+36 46		5.1	BBN	12-12	SPECT. BIN.	200/100	Passing Clouds	FINE
	B						5-5	no filter		focus 70-R	CENTRE TO RED
21 Oct 79		mwp-2/ 9.0 min @ 66° E / 2 AOC 159									
										changed focus to 55-R	

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Date Thurs Apr 23-24/70 Observer Hd <sup>Hd</sup> <sub>Tr</sub> Julian Day .....

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
33123	HD 75935	8 47.9	27 18	B12	IIaO	14.5 <sup>0.3mm</sup>	55F	19 54	22 54	A
33124	HD 107328	12 15.3	+03 53	"	"	14.5	"	23 05	00 10	C
33129F	Focus			"	"	14	54°F			B
33124 T1	calibration strip				wedge for plates			331 33; 33134		24 Apr/70

Dome Temp. 51

Focus 51/124

Dome Temp.

Hour Angle  
Ecl

43 52

41 40

MWP 2/1

Dome Temp. 58°F

Focus 55 (red mark)

Dome Temp. ....

Transparency Conditions clear, scattered cirrus 250

Cirrus & Cumulus thick by 23<sup>h</sup>

Ending Time E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
22 54	A	W 3 52	+27° 05'	2"-4"	9.35	G80	4-4-4 4-4-	S. S. V.	800/142	lots of cirrus cloud. fld down pretty thick at end	WEAK
00 10	C	W 1 40	+3 33	3	6.1	K1	4-4-4 4-8	Std Vel.	800/109	through clouds.	WEAK
	P	in in / out out					5/5	no filter		focus 55-R	GOOD
21 Oct 70		mwp-2 / 15 min @ 68°F / 2000159									
										Amron. Please develop 3312344 with maximum time Hd	







Dome Temp. 57°F.....

Transparency Conditions scattered cloud, but good

Focus .....

Dome Temp. 55°F.....

Observing Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
2:00	A	1 <sup>R</sup> .05 <sup>m</sup> W	+45° 29'	2"	7.64	F3	8-8-8	Spec Bin	409/170		FINE
2:38	B	10 58 W	+36° 49'	2"4"	5.1	B8m	8-8-8	Spec Bin	209/90	bad seeing now a 8th mag, [Evergreen]	FINE
	C								400/	Too faint under these conditions.	
3:35	C		+38° 14'	~3"	5.17	B6-7	8-8-8	Spec Bin	200/130	(capped 3:35 cloud)	FINE
4:26		00 43 E	:							<u>FLEXURE</u> (BAD)	
4:35	A	00:34 <sup>m</sup> W	+2° 57'	2"	4.0	B5	12-	B std Vel	40/17		SL. WK
	X		in in / out out				5/5	no filter		from SS-R	SL. CENTRE TO RED

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Photometry 20' -> 02' VdB & Racine

Date <sup>SUN</sup> APRIL 26 / <sup>MON</sup> 27 1970 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.H.
23133	HD 139892	15 35.6	+36° 58'	G12	II aD	9L	59°F	02:28	02:44	A
33134	HD 176318	18 54.6	+38° 07'	"	"	9x1	"	02:55	03:52	B
33135	HD 172044	18 32.9	+33° 23'	"	"	9L	58°F	04:00	04:22	C
33135 F	FOCUS			"	"	9	57°F			B
33135 11	calibration	atop	wedge	for	plates				27 Apr/70	
T2	"	"	"	"		33127,	33128		27/04/70	

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



Dome Temp. ... 65°F

Transparency Conditions ... very clear

Focus .....

Dome Temp. ... 56°F

Ending Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
2:44	A	01 09W	+36° 47'	2"4'	5.1	B8n	12-12	Spect Bin	200/90		FINE
3:52	B	01 02E	+38° 16'	2"	5.7	B6-7	8-8-8	"	200/130	Start time approx ± 2	FINE
4:22	C	00 11E	+33° 28'	2:3"	5.9	B9	8-8-8	std vel	200/90		(GUIDING) FINE
	B		in in / out out				5/5	no filter		from 55-R	GOOD
27 Oct 79		mwp 2 / 9.0 min @ 64°F / 240 C / 59									
27 Oct 79		"									
										changed from 6 to 40-R	

Date April 27/28 Mon-Tues Observer Mr-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.
33136	HD 34759	05 14.7	+41° 42'	G12	Ilco	9L	68°F	20:05	21:15	A
33137	HD 91948	10 31.9	+60° 38'	G12	Ilco	9L	65°F	21:24	00:54	C
<del>33138</del>	<del>HD 139892</del>	<del>15 35.6</del>	<del>+36° 58'</del>	<del>"</del>	<del>"</del>	<del>9L</del>	<del>61°F</del>	<del>01:47</del>		<del>B</del>
33137 F	Focus			G12	Ilco	9	61°F			B
33137 T1	calibration step wedge for plates								28 Apr/70	
	Wed Apr 29									
33137 T2	flexure test		+42°							
	Then BFL									
33137 T3	flexure test		+42°							

Dome Temp. 7

Focus

Dome Temp.

Hour Angle End

06 00 W

04 24 W

28 Apr/70

Sp. Tem

Sp. Tem

Sp. Tem

Dome Temp. 70°F

Transparency Conditions hazy

Focus .....

Dome Temp. ....

Balance terrible past 4<sup>h</sup> W

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
06 00 W	+41° 52'	1.2"	4.91	B5V	8-8-8	Bp Prog	200/80	cut short by limit Red RA drift	(GUIDING) 11.36.41
04 24 W	60° 20'	1.3"	7.37	F8	8-8-8	Spec Bin	400/180	cloud at times cut short	FINE
		<del>1.2"</del>	<del>5.1</del>	<del>B8a</del>	<del>8</del>	<del>Spec Bin</del>	<del>200/</del>	thru cloud <u>Cancelled</u>	
	in/out/out				5/5	no filter	focus 40-R	Fe LINES DOUBLED AGAIN (FLEXURE)	SL. CENTRE TO RED
in WP.2 / 9.0 min @ 68°K / 270C 159									
sp. Temp. 62F There is flexure now, cut by about 1/μ. (compare to 33060 T2 (Mar 29, Temp 32F)									
of mirror movement) + counterweight									
0130 - Focus Sw. at guiding eyepiece replaced									
sp Temp 62F Flexure is now less - VISITORS Needs the same about 4μ C 2nd.									
DONE 4/30/70 HV									
									1 45
									1 34
									1 69

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VdBc Racine

Date April 28/29 Tues-Wed Observer J.A. 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.
	Photometry							20 <sup>h</sup> →	21:30	

Dome Temp. 66  
Focus \_\_\_\_\_  
Dome Temp. \_\_\_\_\_  
Hour Angle \_\_\_\_\_  
End \_\_\_\_\_



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Date *Wed - Thurs* *Apr 29/30* Observer *Hanes - 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.	
33138	HD 91948	10 <sup>h</sup> 31 <sup>m</sup> .9	+60° 38'	G12	IIaO	13S	59°F	20:30	22:40	A	
33139	HD 139892	15 35.6	+36° 58'	G12	IIaD	9L	58°F	02:29	02:53	B	
33140	HD 176318	18 54.6	+38° 07'	"	"	9xL	"	03:02	04:15	C	
33141	HD 164353	17 55.6	+02 56	"	"	9L	57°F	04:19	04:31	A	
33141 F	Focus			"	"	9	57°F			B	
33141 T1	calibration step wedge for plates 33138 - 33141									30 Apr / 70	

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

Hour Angle  
End

02:17V

01:28W

00:28E

00:44W

10:00

Dome Temp.  $60^{\circ}$  H-55% *Reported Fire at 02 40*  
 at Coreville Rd E. Transparency Conditions *Low in west*

Focus .....  
 Dome Temp.  $58^{\circ}$  F H-61% *Bayview*  
*Ty* Terrible seeing

Ending Time E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
2:40	A	02:17W	+60° 21'	3.4"	7.37	F8	8-8-8	Spec. Bin.	400/95	thru haze cloud cut short	WEAK
2:53	B	01:28W	+36° 49'	"	5.1	B8n	12-12	spat bin	200/90		(GUIDING) FINE
4:15	C	00 28 E	+38° 17'	2.3"	5.7	B67	8-8-8	Spec bin	200/130		FINE
4:31	A	00 48 W	+02° 59'	"	4.0	B5	12-12	Bstd vel	40/20	broken 2pc.	BROKEN FINE
		in in/out out					5/5	no filter		focus 40 B-R	GOOD
6:30		MWP-2 / 9.0 min @ 68°F / 240 c 159									

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G.H. showed 20 visitors Jupiter &amp; Uiso minor double

Date Sun-Mon-May 3-4 1970 Observer Eo-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.
33142	HD 91948	10 31.9	60 38	G12	D <sub>60</sub>	9L	53°F	20:52	23:18	A
33143	HD 122693	13 58.3	+25° 03'	"	"	135	51°F	23:24	02:30	B
33143 F	FOCUS			"	"	13	47°F			B
33143 T <sub>1</sub>	calibration step wedge for plates	33142, 33143								4 May/70

Dome Temp.

Focus

Dome Temp.

Hour Angle  
End

03:10

03:00

M.W.P. 2



Dome Temp.  $52^{\circ}\text{F}$  H=5670

Transparency Conditions *scattered cloud*

264

Focus .....

*thick cloud at 02<sup>h</sup>*

Dome Temp.  $46^{\circ}\text{F}$  H=6570

note\*

Ending Time E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
3:18	A	03 10 W	+60° 21'	1.3"	7.37	F8	8-8-8	Spect Bin	400/240		FINE
2:30		03 00 W	+24° 46'	1.3"	8.74	F8V	<del>4-4-4</del> 4-6-2	SSV	800/190	cloud [cut short overdevelop]	SL. WK
			<i>in in/out ref</i>		<sup>40</sup> <i>focus</i>	<del>SS-R</del>	5/5	<i>no filter</i>		<i>closed 03:40</i>	GOOD
		<i>mwp-2 / 12 min @ 68°K / 240 C / 159</i>									

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Date Mon-Tues May 4-5/70 Observer Hr-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.H.
33144	HD 99998	10 31.9	60 38	612	IIaD	9L	+52	21 47	00:30	A
33145	HD 139892	15 35.6	36° 58'	"	"	"	"	0038	00 56	B
33146	" 136202	15 14.2	+02° 09'	"	"	"	50°F	0102	01 46	C
	Nova Aquilae	—	too	faint	for	tonight	$\Delta m_p = 8$			
33147	HD 176318	18 54.6	+38° 07'	612	IIaD	9XL	48°F	0216	03 20	A
33148	HD 135722	15 11.5	+33° 41'	"	"	9L	47°F	0331	03 44	C
33148 F	Focus			"	"	9	47°F			B
33148 T1	calibration	step	wedge	for	plates	33144 - 33148				5 May 1970

Dome Temp. 52°F H=57%

Transparency Conditions clear by 21:30

Focus .....

Windy & bad seeing

Dome Temp. 44°F H=56%

Ending Time E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality	
0:30	A	04 24 W	+60° 21	3-4"	7.37	F8	8-8-8	Spect Bin	400/185	cut short [limit]	* FINE	
0:56	B	0009 E	+36° 49'	2-3"	5.1	B8n	8-8-8	"	200/90	note bad seeing, maybe interference	FINE	
1:46	C	0102 W	+01° 58	3	5.6	G0	8-8-8	STD. VEL	200/120		FINE	
		Fid drawn ? 7						[α 1970 = 19° 23.2; δ 1970 = +04° 16' (for 79" Tol)]				
3:20	A	0104 E	+38 16	3-4	5.7	B6-7	8-8-8	Spect Bin	200/130		(GUIDING) FINE	
7:44	C	0304 W	+33° 30'	"	4.42	G8III	12-12	Vis Bin	200/110	For Waterloo <sup>1970</sup> 15" 14.7	FINE	
	B	in in / out out					5/5	no filter		focus <sup>40</sup> 35-R	GOOD	
		No more stars										
		mwp-2 / 9.0 min @ 68°F / 2400159										
		* FLEXURE										

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Waterloo

Date Tues-Wed May 5-6/70 Observer Emj-Tm Julian Day Temp at end 41°

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	
33149	HD 106400	12 09.3	+12° 23'	G40	Ilad	17L	44°F	21:14	00:14	B	
33150	HD 145931	16 08.5	+42° 38'	G12	Ilad	13s	40°F	00:28	01:32	A	
33151	HD 156014	17 70.1	+14° 30'	"	"	"	39°F	01:41	01:49	B	
33152	HD 182955	19 22.1	+19° 41'	"	"	"	38°F	01:56	03:35	C	
33152 F	Focus	.	.	G12	Ilad	13	37°F			B	
33152 T <sub>1</sub>	calibration step wedge for plates 33149 - 33152									6 May 1970	

Dome Temp. 4

Focus

Dome Temp. 3

Hour Angle  
End

02 32W +1

00 00 +4

00 42E +1

01 13E +1

12 41

11 40 7/9

Dome Temp. 42°F H = 70%

Focus .....

Dome Temp. 38°F H = 67%

Transparency Conditions *very clear?*

*thick cloud at 21:30 for 15 min  
very bad seeing.*

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Ending Time E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
0:14	B	02 38W	+12° 04'	2-3'	9.7	K0	3-3-3	spect Bin	800/70	Fld Drawn set 29 (some cloud)	FINE
1:32	A	00 00	+42° 32'	"	7.38	K4II	8-8-8	vis Bin	400/220	cloud at 01 <sup>h</sup>	V. SL. WK
1:49	B	00 48E	+14° 31'	2"	4.41	M5U	12-12	std vel	40/25		FINE
3:35	C	01 13E	+19° 56'	2-3'	7.44	M10III	8-8-8	vis Bin	400/180	Fld drawn/more cloud (cut short. cloud)	SL. WK VERY SL. CENTRE TO PROJECT
	B	in in / out out				5/5	no filter		focus	5/5 R 40	
6 May 70		mwp. 2 / 9.0 min	@ 60°F / 240C	1.79							

Date Wed - Thurs May 6-7/70 Observer HT - 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.
33153	HD 112299	12 50.6	126.16	G12	II60	135	38°F	20 19	23 39	A
33154	HD 144579	16 01.5	139 24	"	"	135	"	23 59	01 00	B
33155	HD 139892	15 35.6	36 58	"	"	92	"	01 05	01:19	C
33156	Novo Aquilae	<sup>1970</sup> 19 23.2	<sup>1970</sup> 404° 10'	"	"	135	37°F	01 26	04:05	A
33156 F	Focus			"	"	13	36°F			B
33 156 T1	calibration	step wedge for plate			33154 - 33156			7 May 1970		
T2	"	"	"	"	33153					
Fri May 8 1970		Temp 50°F		H 96%		telescope damp				

Dome Temp. 51  
Focus \_\_\_\_\_  
Dome Temp. \_\_\_\_\_

Hour Angle  
End  
01 26W  
00 22E  
00 22W  
10 35E  
40  
8-12  
15

Dome Temp.  $41^{\circ}\text{F}$   $H=51\%$

Focus .....

Dome Temp. ....

Transparency Conditions

*excellent, good seeing too*  
*(Looked at Uranus at 2345, disc observed*  
*no moons*

200

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
01 26W	+26° 00'	1-3"	9.19	F8V	4-4-4 444	SSV	800/130	Fld drawn } cut short (MANY FINGERPRINTS)	FINE
00 22E	+39° 18'	2-3"	7.2	G8	8-8-8	std vel	400/180	Fld drawn	FINE
00 22W	+36° 49'	1-2"	5.1	B8n	8-8-8	spect Bin	200/90		SL. STR
00 35E	+04° 16'	1-3"	28.5	2K	8-8-8	nova	800/60.	Fld Drawn mag 5 } haze	WEAK
<u>40</u> B-12	in in/out out				5/5	no filter		↑ Much too faint ?? (hope for H $\beta$ emission)	SL. CENTRE TO VIOLET
MWP-2/	9.0 min @	67°F	/ 2900159					↳ H $\beta$ shows	
'	15	" "	"	"					
								Anson! could you overdev. #33153 for Hd	
								& also 33156 (it needs it) *	
								Tn	
								See you in 2 wks	
								* # 33156 WAS OUT OF ORDER	
								# 33156 FI GOT EXTRA DEVELOPMENT	

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Date *Sat Sun May 9-10 1970* Observer *Ro. Pi* Julian Day .....

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
33157	HD 139892	15 35.6	+36° 58	G12	IIaO	9L	53°F	23:04	00:00	A
33158	HD 145001	16 06.4	+17 19	G12	IIaO	9L	52°F	00:20	02:20	B
33158F	<i>focus test</i>	<i>out of focus</i>		G12	IIaO	9	50°F			B
<i>Sun Mon May 10-11</i>		<i>Temp 60°F H 91% the telescope wet again</i>								
33158 T1	<i>calibration step using fe. plates 33157-33158</i>							<i>13 May/70</i>		



Dome Temp. 50°F H 79%

Transparency Conditions *hazy*

Focus .....

*Bad seeing*

Dome Temp. 48°F H 81%

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
0445E	36° 48'	4-5	5.1	B8K	5-8-8	Spect. Box	400/240		(Guiding) FINE
1407W	+17° 11'	3-4	6.1	Q4	8-8-8	Std. Vel.	400/260	thick haze & clouds	V. SL. WK
					5-5	w filter		<sup>50</sup> focus S-R	GOOD

MWP 2 / 9.0 min @ 68°F / 270C / 59

ALUMINIZING: MAY 13-14 - LOST  
(CLOUDY) NIGHT

Date *Sun May 17-18 1970* Observer *R. J. McCl* 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.
33159	HD 112299	12 50.6	+26 16	G12	IIaO	13S	52°F	20:29	23:30	A
33160	HD 140913	15 41.1	+28 47	G-12	IIaO	13S	48°F	23:46	03:03	B
33161	HD 182422	19 19.5	+20 04	G-12	IIaO	9L	46°F	03:12	04:08	C
33161 F1	focus bad		out out/mini	G12	IIaO	9	46°F			B

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

Hour Angle  
End ...  
...  
...  
...

Dome Temp. 50°F H 66%

Transparency Conditions *clear*

Focus .....

Dome Temp. 44°F H 69%

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality	
3 30 A	2° 02 W	+ 26° 00	3	9.19	F8V	4-4-4 4-8	S.S.V.	800/200	} left end of box	* WK.
3 03 B	2° 45 W	+ 28 37	3	8.81	G0V	4-4-4 4-4-4	S.S.V.	800/300		* SL-WK
4 08 C	04 12 W	+ 20 15	3	6.47	A0	8-8-8	D.A.O. <sup>Hd</sup> STVD	200/100	} middle of box	FINE
						5-5 no filter				focus 40-R
										DAWN
										* POSSIBLY FLEXURE

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Mon-Tues

Date May 18-19 1970 Observer Ri-Hanes Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle End
33162	HD 122693	13 <sup>h</sup> 58 <sup>m</sup> .3	+25° 03'	G12	II-o	13S	57°F	20 29	23 18	A	00 <sup>m</sup> 26 <sup>s</sup>
33163	HD 131861	14 <sup>h</sup> 50 <sup>m</sup> .9	+45° 43'	G12	IIa0	13S	56°F	23 <sup>m</sup> 27 <sup>s</sup>	00 <sup>m</sup> 06 <sup>s</sup>	B	00 <sup>m</sup> 43 <sup>s</sup>
								00 <sup>m</sup> 17 <sup>s</sup>	01: 36	B	01 <sup>m</sup> 19 <sup>s</sup>
33164	HD 184467	19 <sup>h</sup> 29 <sup>m</sup> .5	+58° 24'	G12	II-o	13S	55°F	01 <sup>m</sup> 45 <sup>s</sup>	02: 43	C	01 <sup>m</sup> 22 <sup>s</sup>
33165	HD 180555	19 <sup>h</sup> 11 <sup>m</sup> .9	+14° 23'	G12	IIa0	9L	54°F	02 <sup>m</sup> 47 <sup>s</sup>	03 12	A	00 <sup>m</sup> 33 <sup>s</sup>
33165 F	focus test	out-out/in-in		G12	IIa0	9	54°F			B	
33165 T1	calibration step wedge for plates				33159-	33165					19 May/70

Dome Temp.  $T 54^{\circ}$  H 702

Transparency Conditions *very good - intermittent patchy cloud up to 0200.*

Focus .....  
Dome Temp.  $50^{\circ}F$  H 69  $\frac{1}{6}$

Ending Time E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
2318	A	00 <sup>h</sup> 46 <sup>m</sup> W	$\lambda 24^{\circ} 47'$	2"	8.74	F8V	<del>4-4-4</del> 4-4-4	SSV	800/300		* U.S.L. WK
00 <sup>h</sup> 06 <sup>m</sup>	B	00 <sup>h</sup> 43 <sup>m</sup> W	$+45^{\circ} 30'$	2"	7.64	F3	8-8-8	Spec. Bur.	800/320	Capped at 00 <sup>h</sup> 06 <sup>m</sup> due to thick patchy cloud. re-opened at 00 <sup>h</sup> 17 <sup>m</sup>	* FINE
01:36	B	02 <sup>h</sup> 14 <sup>m</sup> W									
02:03	C	01 <sup>h</sup> 22 <sup>m</sup> E	$+58^{\circ} 34'$	2"	7.5	K5	<del>4-4-4</del> 4-4-4	Stand. Vel	800/300	telescope very fast. seeing excellent.	FINE
03:02	A	00 <sup>h</sup> 33 <sup>m</sup> E	$+14^{\circ} 33'$	2"	5.46	A0	8-16	<sup>HD</sup> DAD std Vel	200/42	thick patchy clouds. Had to stop at 03:12.	SL. WK.
	B		$\frac{40}{1000} R$				5-5	no filter			SL. C. TO RED
										* POSSIBLY FLEXURE	
12 Aug 79		mwp-2 / 9.0 min @ $68^{\circ}E$ / 270 C.I.T.9									





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Date *Wed Thurs May 20-21 1970* 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.	P.H.	Hour Angle End
33168	<i>HD 132737</i>	<i>14 55.6</i>	<i>+27 33</i>	<i>G12</i>	<i>IIaD</i>	<i>135</i>	<i>65°F</i>	<i>20: 34</i>	<i>23: 05</i>	<i>A</i>	<i>0°16E</i>
33169	<i>" 171232</i>	<i>18 28.5</i>	<i>+25 25</i>	<i>G12</i>	<i>IIaD</i>	<i>135</i>	<i>61°F</i>	<i>23 14</i>	<i>01: 20</i>	<i>B</i>	<i>°34E</i>
33170	<i>184467</i>	<i>19 29.5</i>	<i>+58 24</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>58°F</i>	<i>01 46</i>	<i>03: 54</i>	<i>C</i>	<i>0°02W</i>
33170F	<i>focus test</i>	<i>and out / in</i>		<i>G12</i>	<i>IIaD</i>	<i>9</i>	<i>56°F</i>			<i>B</i>	
33170 T1	<i>calibration</i>	<i>step wedge</i>	<i>for plates</i>		<i>33166 - 33170</i>				<i>21 May / 70</i>		<i>1100-2 / 9.0</i>

Dome Temp. *60*Focus *40*

Dome Temp.

Hour Angle  
End



Dome Temp. 60°F H54%

Transparency Conditions Good

Focus 40-R

0230 Thin Cloud from North

Dome Temp. ....

Ending Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
3:05	A	04 16 E	+27 20	2	9.03	K0 III	4-4-4 4-4-4	S.S.V	800/300	field check	V.S.G. WR
1:20	B	14 34 E	+25 33	2	8.66	G8 III	4-4-4 4-4-4	S.S.V	800/300	" "	FINE
3:54	C	04 02 W	+58 35	3	7.5	K5	4-4-4 4-4-4	STD. VEL.	800/300	Very Nova Aquilae too faint ~11-12 mag very red looking	FINE
	B			40 focus 40-R			5-5	no filter			SL. CENTRE TO RED
										- DAWN	
21 May 1970		MWP-2 / 9.0 min @ 60°F / 290C .59									

281

Date Thurs Fri May 21-22 1970 Observer Ri-MCU Julian Day .....

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle End
33171	HD 139 892	15 35.6	+36.58	G-12	IIaO	9L	66°	20:51	21:30	B	01:37E
33172	HD 136202	15 14.2	+02 09	G12	IIaO	9L	64°F	21:40	23:16	C	01:20E
33173	HD 145001	16 03.6	+17 19	G12	IIaO	9L	62°F	23:25	00:25	A	01:00
33173F	focus test			G12	IIaO	9	62°F			B	

Dome Temp. 60  
Focus 40-  
Dome Temp. 50

Hour Angle  
End  
01:37E  
01:20E  
01:00

Dome Temp. ... 60°F H62%

Focus ... 40-R

Dome Temp. ... 59°F H67%

Transparency Conditions ... very hazy with the occasional clouds

clouded out 00:30

closed up 01:00

Ending Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
01:30	B	24 27 E	+36° 47'	3	5.1	B8n	8/8-8	SPECTROSCOPE BINARY	400/200		(GUIDING) FINE
03:16	C	04 20 E	+01 56	3	5.6	G0	8-8-8	STD VEL.	400/260		U.S.L. WK
00:25		04 00	+17 13	2	6.1	G4	8-8-8	STD VEL	400/260	clouds	SL. WK
	B						5-5	no filter		focus 40 45-R	U.S.L. C. TO RED
										changed focus to 20-R 20 May.	

283 VISITORS : Hms/WZ/G2 }  
 1st GROUP ~85 } + R.A.S.C. MEMBERS } SHOWN JUPITER  
 2nd " ~80 }

Date SAT/SUN 23/24 1970 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.	
33174	HD 131861	14 50.9	+45 43	G12	Il90	135	55°F	23:12	01:30	A	
33175	HD 139892	15 35.6	+36 58	"	"	9L	"	01:35	01:47	B	
33176	HD 176318	18 54.6	+38° 07	"	"	9L	"	01:53	02:37	C	
33177	HD 180555	19 11.9	+14 23	"	"	9L	"	02:47	03:19	A	
33178	β Ari	01 49	+20° 19'	"	"	9L	"	03:32	03:52	C	
33178 F	Focus			"	"	9	54°F			B	
# 33178 T1	calibration stars wedge for plates 33171 - 33178									25 May 1970	

Done Temp. 5  
 Focus 20  
 Done Temp. 5  
 How Angle End  
 02 25W 4  
 01 52W 3  
 02 31E 18  
 02 07E 11  
 06 10E 20  
 04 02/9

Dome Temp. 54°F H. 54%

Focus 20-R

Dome Temp. 52°F H. 61%

Transparency Conditions EXCELLENT (Well??)

cloud at 23:30

Ending Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
01:30	A	02 25 W	45° 30'	2"	7.64	F3	8-8-8	SPEC. BIN.	800/340		FINE
01:47	B	01 58 W	+36° 47'	1-2"	5.1	B8 <sub>m</sub>	8-8-8	"	200/100		(GUIDING) SL STR
02:37	E	00 31 E	+38° 16'	"	5.7	B6-7	8-8-8	"	200/100		FINE
03:19	A	00.07 E	+14° 39'	2-3"	5.46	A0	8-8-8	COMP. PROB.	200/100		(GUIDING) FINE
03:52	C	06 10 E	+20° 48'	8"	2.7	A5	12-12	ECL. BIN.	200/80	Very far over	SL W
	B						5/5	no filter		focus 20-R	GOOD
25 Jan/30		new R-2 / 9.0 min @ 68°F / 240C 159									

Date Tues-Wed 26/27 1970 Observer EJM & 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.	
<del>33179</del>	<del>HD 106400</del>	<del>12 09.3</del>	<del>12° 23'</del>	<del>G40</del>	<del>IIaO</del>						
33179	HD 106690	12 11.1	41.13	G12	IIaO	9L	58°F	21:15	23:45	A	
33180	HD 145931	16 08.5	42 38	G12	IIaO	13S	51°F	23:50	00:48	B	
33181	HD 182955	19 22.1	19 41	"	"	13S	49°F	00:54	02:16	C	
33182	HD 189090	19 53.2	+16 31	"	"	9L	"	02:20	02:52	A	
33183	HD 198478	20 45.5	+45 45	"	"	9L	47°F	02:58	03:16	B	
33184	B Ari	01 49	+20 19	"	"	9L	"	03:25	03:38	C	
33184 F	Focus			"	"	9	45°F			B	
# 33184 T1	calibration step wedge for plates 33179 - 33184									27 May 70	

Dome Temp. 5  
Focus 20  
Dome Temp. 4

Hour Angle  
Ecl

12 30V +4

10 37V +4

11 08E +1

11 04E +1

01 33E +4

06 20E +2

May 27



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Date Wed Thurs, May 27-28 Observer H.T. T.M. Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
33185	HD 140913	15 41.1	+28 47	G12	D <sub>20</sub>	135	49°	2123	00.18	A
33186	149803	16 32.0	29 56	"	"	"	46°	00 25	03.42	B
33186F	Focus			"	"	13	44°			B

Dome Temp. 50  
Focus 20  
Dome Temp. 40  
Hour Angle  
End  
0039W +2  
0312W +2  
in







Dome Temp. 52°F H=63%

Focus 20-R

Dome Temp. 49°F H=67%

Transparency Conditions very clear

cloud at 01:30

Ending Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
00 24	A	00 03E	+29° 53'	1.2"	8.90	F7II	<del>4-4-4</del> 4-4-4	SSV	360/300		FINE
03 22	B	01 00W	+25° 33'	"	8.66	G8II	<del>4-4-4</del> 4-4-4	"	800/300	cupped due to cloud for 20 min	FINE
3 45	C	01 21W	+11° 09'	2"-3"	5.2	g67	8-8-8	std vel	200/80		FINE
	B		in in / out out				5/5	no filter			GOOD
								Note*		These plates & yesterdays can all be developed as JFH desires for his SSV, including the std vel # 32189 ✓	

29 Aug 79

in WP-2 / 15 min @ 65°F / 290 & 29

Spent 1st part investigating M5 for suspect nova - Negative result  
ie (1 var star at max)

Date Fri-Sat, May 29-30 Observer Tn Julian Day         

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle End
33190	HD 160952	17 37.7	+29 39	G12	D <sub>20</sub> D	135	58°F	21:42	00:42	A	00 45E +2
33191	HD 145001	16 03.6	+17 19	"	"	"	57°F	00:48	01:04	B	01 10W +1
33192	HD 139892	15 35.6	+36 58	"	"	9L	"	01:10	01:26	C	02 00W +3
33193	HD 176318	18 54.6	+38° 07'	"	"	9L	"	01:30	02:00	A	00 46E +3
33194	HD 182422	19 19.5	+20° 04'	"	"	"	56°F	02:05	02:49	B	00 21E +2
33195	HD 183914	19 26.7	+27° 40'	"	"	"	"	02:56	03:08	C	00 09E +2
33196	HD 183227	19 23.4	+02 43'	"	"	"	"	03:14	03:42	A	00 28W +0
33196 F	Focus Test			"	"	9	56°F			B	

Dome Temp. 57  
Focus 20  
Dome Temp. 53

Hour Angle  
End  
00 45E +2  
01 10W +1  
02 00W +3  
00 46E +3  
00 21E +2  
00 09E +2  
00 28W +0

Dome Temp. 57°F H=65%

Transparency Conditions very clear

Focus 20-2

Dome Temp. 53°F H=70%

Ending Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
00:42	A	00 45 E	+29° 40'	2-3"	9.04	G8 III	4-4-4 4-4-4	SSV	800/300*	Fld Drawn] bad seeing after 23'	FINE
01:04	B	01 10 W	+17° 12'	2"	6.1	G4	8-8-8	std vel	200/80*		FINE
01:26	C	02 00 W	+36° 49'	2"	5.1	B8n	8-8-8	Sp Bin	200/90		FINE
02:00	A	00 46 E	+38° 17'	"	5.7	B6-7	8-8-8	sp Bin	200/100		FINE
02:49	B	00 21 E	+20° 16'	"	6.47	A0	8-8-8	comp std	200/100	Fld drawn	FINE
03:02	C	00 09 E	+27° 58'	1-2"	5.34	B9	12-12	"	200/90		FINE
03:42	A	00 28 W	+02° 56'	2"	5.92	B9	8-8-8	"	200/100		FINE
	B			in in / out out			5/5	no filter			GOOD
<div style="border: 1px solid black; padding: 5px; display: inline-block; margin: 10px auto;">             *extra devlat for S.S.V.         </div>											
FOR 15 MINUTES DEO, PLEASE BEAR IN MIND THAT THE PLATE FOR ← IT'S NOT REALLY POSSIBLE IS EXTREMELY HIGH TO SQUEEZE NONEXISTENT INFORMATION OUT OF THESE PLATES.											

293 VISITORS: Dy, G1, G2  
 ~35 PERSONS IN EACH GROUP  
 JUPITER WAS SHOWN

Date SAT. / SUN. MAY 30 / 31 1970 Observer Tn. / 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.
33197	HD 131861	14 50.9	+45°43'	G12	Ilao	135	60°F	22:56	01:37	A
33198	HD 139892	15 35.6	+36 58	"	"	9L	"	01:47	02:10	C
<del>33199</del>	<del>HD 176318</del>	<del>18 54.6</del>	<del>+38 07</del>	<del>"</del>	<del>"</del>					
33198 T1	calibration	step	wedge	for	plates	33192 - 33198			1 June / 70	
T2	"	"	"	"	"	33190, 33191			"	

Dome Temp. 5  
 Focus 24  
 Dome Temp. 9

Hour Angle  
 End

03:21:14

02:20:03

00:00:00

"

Dome Temp. 58°F H=68%

Transparency Conditions CLEAR (SOME HAZE)

Focus 20-R

Dome Temp. 58°F H=74%

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
03:01 W	45° 30'	1"-3"	F3	7.64	8-8-8	SPEC. BIN.	400/150	HEAVIER HAZE AT 24:00 HRS.	FLEXURE FINE
02:19 W	+36° 48'	1-2"	B82	5.1	8-8-8	"	200/150	cloud at 02 <sup>h</sup>	WEAK
			B67	5.7		"	2, 100		
								closed 02:15	
								cloud	

\* Last two nights' plates  
in one box in order

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on WP - 2 / 7.0 min @ 68°F / 2 ADC 159  
" 15 min @ 68°F "

295 NEWTONIAN

Mon - Tues June 1-2 Dome stars visible at times, but not workable. Sa, Ct, Tn  
 Tues - Wed June 2-3 No stars tonight " " "

12:45 EST

WED-THURS

Date JUNE 3-4/70

Observer CC-TN-HV-Kennedy-Killebrew

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.	Hour Angle End
33199	NGC 5904	15 17.1	+02 12	NEWT.	103A0			21 45 <sup>30</sup>	21 47 <sup>30</sup>	2	00 58E
33200	" 5053	13 14.9	+17 51	"	"			22 00	22 10	1	01 27W
33200T <sub>1</sub>	—	—	-5°	"	"			22 26 <sup>30</sup>	22 36 <sup>30</sup>	2	00 17W
33201	5053	13 14.9	+17 51					22 51 <sup>25</sup>	23 01	1	02 18W
33202	5634	14 28.0	-05 51					23 22	23 36	2	01 39W
33203	6171	16 30.8	-12 58					00 01 <sup>40</sup>	00 11 <sup>40</sup>	1	00 13W
33204	M 57	18 52.5	+33 00					00 26	00 36	2	01 47E
33205	"	"	"					00 42	00 57	1	01 23E
33206	NGC 6171	16 30.8	-12 58					01 10	01 20	2	01 20W
33207	" 6366	17 26.1	-05 02					01 32	01 42	1	00 49E
33208	M 16	18 17.2	-13 48					01 54	02 02	2	05 17W
33209	M 11	18 49.5	-06 19					02 10 <sup>45</sup>	02 15	1	00 09
33210	"	"	"					02 18 <sup>05</sup>	02 20	2	00 04W
33211	NGC 6171	16 30.8	-12 58					02 34	02 44	1	02 45W
33212	" 6356	17 21.8	-17 47					02 52 <sup>50</sup>	03 00 <sup>50</sup>	2	02 17W
33213	" 6366	17 26.1	-05 02					03 09	03 19	1	02 25W



12:45 EST

Dome Temp. +57°F 52%

Transparency Conditions scattered clouds

Focus .....

cloudy at the beginning of the night after 23<sup>h</sup> EST clear everywhere

Dome Temp. 52°F 63% DEC. CORRECTION -3m

Ending Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	EX Sp. TIME	FILTER Comp.	Program	Exp. Mtr.	REMARKS	Quality
147 <sup>30</sup>	2	0058E	+0208			2 <sup>m</sup>	—			UNGUIDED	
210	1	0127W	+1749			10 <sup>m</sup>					
236 <sup>30</sup>	2	0017W	-0503			10 <sup>m</sup>		clouds in the south		KB primary mirror closed - test plate to find how much light on the dome. DENSITY ~1.3!	
301	1	0218W	+1748.5			10 <sup>m</sup>					
336	2	0139W				14 <sup>m</sup>				KB	
11 <sup>40</sup>	1	0013W	-13°02'			10				Focus * 50ph.	
036	2	0145E	+3256			10				KB	
057	1	0123E	"			15				KB	
121	2	0120W	-1301			10					
012	1	0048E	-0504			10					
0202	2	0017W	-1351			8				KB	
0215	1	0000	-0623			5				KB	
0220	2	0004W	"			2				KB	
244	1	0245W	-1302			10					
300 <sup>50</sup>	2	0211W	-1758			8					
319	1	0225W	-0505			10					

Newtonian  
297

2 pgs

Thurs - Fri  
Date June 4-5 / 70 Observer C. K. T. Julian Day

Plate No.	Object	R.A. 1970 1900	Declination 1970 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle End
33214	M 63	13 14.4	+42° 11'	Newt	103A0			21 35 <sup>50</sup>	21 39 <sup>50</sup>	1	01 02 W
33215	M 51	13 28.6	+47° 21'	"	"			21 54 <sup>20</sup>	21 58 <sup>20</sup>	2	01 06 W
33216	NGC 5053	13 14.9	+17° 51'	"	"			22 16 <sup>25</sup>	22 25	1	01 42 W
33217	" 6205	16 40.6	+36° 31'	"	"			22 46	22 49	2	01 46 W
33218	" 5904	15 17.1	+02° 12'	"	"			23 10 <sup>15</sup>	23 15 <sup>15</sup>	1	00 35 W
33219	" "	"	"	"	"			23 22 <sup>15</sup>	23 29 <sup>15</sup>	2	00 49 W
33220	"	"	"	"	"			23 32 <sup>30</sup>	23 35	1	00 55 W
33221	"	"	"	"	"			23 38 <sup>15</sup>	23 40 <sup>45</sup>	2	01 00 W
33222	"	"	"	"	"			23 43 <sup>05</sup>	23 45 <sup>35</sup>	1	01 05 W
33222T	Test of Background light			"	"			00 02 <sup>40</sup>	00 12 <sup>40</sup>	2	01 35 W
33223	NGC 6535	18 02.3	-0° 18'	"	"			00 34	00 44	1	00 41 W
33224	" 6366	17 26.1	-05° 02'	"	"			00 59 <sup>05</sup>	01 09 <sup>05</sup>	2	00 20 W
33225	M 27	19 58.2	+22 38	"	"			01 35 <sup>10</sup>	01 45	1	01 36 E
33226	NGC 6960	20 44.4	+30 36	"	"			01 55 <sup>40</sup>	02 00 <sup>40</sup>	2	02 06 E
33227	NGC 6356	17 21.8	-17° 47'	"	"			02 18 <sup>25</sup>	02 26	1	00 42 W
33228	" 6366	17 26.1	-05 02	"	"			02 34 <sup>55</sup>	02 44 <sup>55</sup>	2	01 56 W

Dome Temp. 66  
Focus  
Dome Temp. 55

Hour Angle  
End  
01 02 W  
01 06 W  
01 42 W  
01 46 W  
00 35 W  
00 49 W  
00 55 W  
01 00 W  
01 05 W  
01 35 W  
00 41 W  
00 20 W  
01 36 E  
02 06 E  
00 42 W  
01 56 W

Dome Temp. 60°F H=60%

Transparency Conditions cloudy with clear patches

Focus .....

Dome Temp. 57°F H=70%

clearer by 0h  
then clear with cloudy patches

Hour Angle End	Declination	Seeing	Ptg. Mag.	Ex Sp. Time	filter Comp.	Program	Exp. Mtr.	REMARKS	Quality
01 02 W	+42° 08'	0742	610	4	-			* } extra caution with dome lights. "	K <sub>0</sub>
01 06 W	+47° 18'		622	4	-			} dome lights. "	K <sub>0</sub>
01 48 W	+17° 48'		640	9" 10"	-				
01 13 E	+36° 28'		658	3	-				K <sub>0</sub>
00 35 W	+02° 07'		676	5	-			} Test of MWP-2 vs D19	
00 49 W	"		685	7					
00 55 W	"		690	2 1/2		These are at "other" end of the expand plate box Rest disp in D19, standard disp.		- Develop in MWP-2 for 8 min.	
01 00 W	"		694	2 1/2			} Develop in MWP-2 for 8 min		
01 05 W	"		697	2 1/2			Develop in D19		
01 35 W	+05° 00'		714	10				Prime mirror closed focus not changed	K <sub>0</sub>
00 41 W	-08° 22'		735	10					
00 20 W	-05° 06'		753	10					
01 36 E	+22° 36'		778	10				some haze seeing very good	K <sub>0</sub>
02 06 E	+30° 33'		790	5				some haze. seeing very good	K <sub>0</sub>
01 42 W	-17° 50'		807	8					
01 56 W	-05° 04'		819	10				new box opened.	

29A  
cont

June 4-5/70

Date Thurs - Fri ..... Observer C. Kö, Th ..... Julian Day .....

Plate No.	Object	R.A. <sup>1970</sup> <del>1900</del>	Declination <sup>1970</sup> <del>1900</del>	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
33229	NGC 6826	19 44.0	50 27	Newton	103A0			03 02 <sup>45</sup>	03 07	1

Done Temp.  
Focus  
Done Temp.

Hour Angle  
End  
00 00

CAS

Dome Temp. ....

Transparency Conditions .....

Focus .....

Dome Temp. ....

Ending Time E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Ex Sp. Time	Comp.	Program	Exp. Mtr.	REMARKS	Quality
03 07	1	00 00	+50° 24'	0742	837	5				seeing very good close to northern limit! kö	
										<u>Note #</u> Standard Time slow by $\approx$ 2 min (should check it) I corrected sid Time Clock	
										E.S.T. was $\approx$ 2:30 slow; S.C.L. $\approx$ 2 MIN FAST	
										C.A.S. SECONDARY RE-ALUMINIZED. (Primary had been done May 13-14)	+ calculate julian dates accordingly

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Date Fri-Sat June 5-6 / 70 Observer Tn; Ro Julian Day .....

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle End
33230	HD 132737	14 55.6	+27° 33'	G12	IIaO	135	60°F	22:13	00:05	A	21° 45' W
33231	HD 139897	15 35.6	+36° 58'	G12	IIaO	9L	"	00:32	00:42	B	21° 45' W +3
33232	HD 176318	18 54.6	+38° 07'	"	"	"	"	01:02	01:23	C	22° 29' E +3
33233	HD 182422	19 19.5	+20° 04'	"	"	"	"	02:00	02:37	B	00° 05' E +2
33234	B Ari	01 49	+20° 19'	"	"	"	58°F	02:45	03:00	A	06° 12' E +2
33235	"	"	"	"	"	"	"	03:05	03:15	C	05° 57' E
33236	"	"	"	"	"	"	"	03:19	03:24	A	05° 48' E
33236 F	Focus			"	"	9	56°F			B	17° 12'

Dome Temp. 66

Focus

Dome Temp. 5

Hour Angle  
End

Dome Temp. 60°F H=6270

Transparency Conditions Excellent

Focus .....

Sid Time clock slow

Dome Temp. 52°F H=6770

also clock in basement is slow 8 min

Ending Time E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
0:05	A	01 <sup>h</sup> 45 <sup>m</sup> W	+27°20'	3-4"	9.03	KOIII	4-4-4 4-4-4	S.S.V	800/300	very fast ???	FINE
0:42	B	01 <sup>h</sup> 45 <sup>m</sup> W	+36°47'	2-3"	5.1	B8 <sub>n</sub>	8-8-8	Spect bin	400/190	Ex. bad ↑	(SL) STRONG
0:53	B	00 <sup>h</sup> 54 <sup>m</sup> E	+38°15'	"	5.7	B6-7	8-8-8	Spect Bin	400/200		(GUIDING) FINE
12:37	B	0005E	+20°15'	"	6.47	A0	8-8-8	Comp Std.	400/20.0		(GUIDING) FINE
3:00	A	0612E	+20°45'	10"	2.7	A5	12-12	Ecl Bin	400/200		FINE
3:15	C	0557E	"	"	"	"	12-12	"	400/200		FINE
3:24	A	0548E	"	"	"	"	12-12	"	40/18		(GUIDING) FINE
	B	in in / out out					5/5	no filter			(GOOD)
										*Ex. meter, bad x1 & x2 gears not working	





Dome Temp. 56°F H=65%

Transparency Conditions Excellent

Focus 20-R

Dome Temp. 53°F H=67%

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
01:35W	45° 29'	1-2"	7.64	F-3	8-8-8	SPEC. BIN.	400/150		FINE
01:08W	36° 48'	"	5.1	B8 <sub>n</sub>	12-12	"	40/20		GL-STR
01:53E	38° 17'	"	5.7	B6-7	8-8-8	"	40/30		FINE
01:50E	+15° 35'	"	5.46	A0	12-12	COMP. PROG.	40/20		FINE
01:26E	+33 55'	2"	8.7	A5	8-8-8	ECL. BIN.	400/135		(GUIDING) FINE
00:18E	+12° 12'	"	6.24	B9	12-12	Comp Prog	40/20		FINE
00:14E	+10° 36'	"	4.15	K3II	12-12	STD. VEL.	40/38		FINE
06:07E	+20° 46'	4-5"	2.7	A5	12-12	Ecl Bin	40/20		(GUIDING) FINE
05:58E	"	"	"	"	12-12	"	40/20		(GUIDING) FINE
05:47E	"	"	"	"	12-12	"	40/20		(GUIDING) FINE
00:27E	-5° 33'	~3"	5.45	B8	12-12	COMP. PROG.	40/20	TELESCOPE IN EXCELLENT	FINE
	in in / out out				5/5	no filter		CONDITIONS: ABOUT 3 TIMES	U. SL. CENTRE OR VIOLET
								FASTER THAN IT USED TO BE	
* THERE SHOULD BE A FINDER FIELD → TWO STARS OF ~ EQUAL MAG. IN THE FINDER (NORTH STAR - LOWER ONE - WAS DONE THIS TIME)									

305

Date Sun-Mon, June 7/8 1970 Observer Ed-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.H.
33248	HD 131861	14 50.9	+45° 43'	G12	Ilao	135	65°F	21:02	22:53	A
33249	HD 139892	15 35.6	+36° 58'	"	"	9L	"	22:59	23:09	B
33250	HD 149803	16 32.0	+29 56	"	"	135	63°F	23:16	02:15	C
33251	HD 176318	18 54.6	+38° 07'	"	"	9L	"	02:24	02:42	A
33252	HD 187691	19 46.2	+10 10'	"	"	"	"	02:48	03:10	B
33253	B Ari	01 49	+20° 12'	"	"	"	62°F	03:18	03:29	C
33253F	Focus			"	"	9	62°F			B
33253 T1	calibration step wedge for plates				33 237-33240,			33244-33253		8 June/70
T2	"	"	"	"	33230 - 33232,			33241-33247		
T3	"	"	"	"	33233 - 33236					

Dome Temp. -6

Focus - 24

Dome Temp. 5

Hour Angle  
East

00 46W +4

00 18W +3

01 13W +2

01 33W +3

00 08W +1

05 26E +2



392

Date Mon-Tues, June 8/9 Observer McU, T<sub>n</sub> Julian Day         

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	
33254	HD 140913	15 41.1	+28 47	G12	Ilco	135	74°F	21 00	22:28	A	
<del>33255</del>	<del>HD 149803</del>	<del>16 32.0</del>	<del>+29 56</del>	<del>"</del>	<del>"</del>	<del>"</del>	<del>74°F</del>	<del>22 36</del>	<del>00:46</del>	<del>C</del>	
33255	HD 171232	18 28.5	+25 25	"	"	"	72°F	00 53	01:57	C	
33256	HD 171391	18 29.5	-11 03	"	"	"	69°F	02 03	02 16	A	
33257	HD 180555	19 11.9	+14 23	"	"	9L	"	02 24	02 36	B	
33258	HD 182422	19 19.5	+20 04	"	"	"	"	02 42	03 02	C	
33259	HD 176318	18 54.6	+38 07	"	"	"	"	03 06	03 16	A	
33260	B Ari	01 49	+20° 19'	"	"	"	"	03 21	03 29	C	
33260F	Focus			"	"	9	68°F			B	
33260 T1	calibration	step wedge for plate 33254 - 60								9 June 70	

Dome Temp. 70°F H=56%

Focus 20-R

Dome Temp. 66°F H=68%

Transparency Conditions Excellent

Looked at Moon before starting) excellent view. good seeing

Ending Time E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
22:28	A	00 25E	+28° 37'	1-2"	8.81	G0V	4-4-4 4-4-4	5.5 V.	800/350	(Develop normally please)	FINE
0:45	C	<del>01 02W</del>	<del>+29° 52'</del>	<del>1-2"</del>	<del>8.90</del>	<del>F7V</del>	<del>4-4-4 4-4-4</del>	<del>11</del>	<del>800/350</del>	<del>omit, forgot. Dark slide</del>	<del>---</del>
11:57	C	00 17W	+25° 32'	2"	8.66	G8III	4-4-4 4-4-4	"	800/350	DEVELOP NORMALLY PLEASE	FINE
2:16	A	00 37W	-10° 54'	2"-3"	5.2	g67	8-8-8	std Vel	40/17		SL. WK
02:36	B	00 12W	+14° 37'	1-2"	5.46	A0	12-12	comp prog	40/18		FINE
03:02	C	00 30W	+20° 18'	"	6.47	A0	8-8-8	"	40/20		FINE
03:16	A	01 10W	+38° 18'	"	5.7	B6-7	12-12	Spect Bin	40/18		FINE
03:29	C	05 33E	+20° 44'	3"	2.7	A5	12-12	Ecl Bin	40/20		(GUIDING) FINE
							5/5	no filter			GOOD
										Anson - It seems SSV	
										stars will be done	
										normally now because	
										Tel is much faster	
										1) THE FC COMP. IS WEAK	
										ON ALL THE PLATES - 25% MORE	
										2) THERE APPEARS TO BE A BIT OF DIRT	
										LYING ACROSS THE SLIT	

309

Date Tues-Wed, June 9/10 Observer Emj, Jn Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
33261	HD 106690	12 11.1	41 13	G12	DaO	9L	76°F	20:55	22:00	B
33262	HD 106400	12 09.3	+12° 23'	G40	DaO	175	"	22:12	23:08	B
33263	HD 124224	14 07.2	+02 53'	"	"	135	"	23:17	23:21	B
33264	HD 171767	18 31.5	+04 52	"	"	"	74°F	23:30	00:16	B
33265	HD 177708	19 00.7	-11 48	"	"	"	73°F	00:32	02:15	B
33266	HD 186791	19 41.5	+10° 22'	"	"	"	73°F	02:24	02:26	B
33267	HD 198134	20 43.2	34 00	G12	"	9L	"	02:37	03:11	C
33268	HD 206778	21 39.3	+09 25	"	"	"	72°F	03:16	03:22	A
33268 F	Focus			"	"	9	72°F			B
33268 T1	calibration	step	wedge for plates 33261 - 33268						10 June/70	
T2	"	"	" : soaked DaO (16H @ 50°C)							

Dome Temp. 72°F H=58%

Transparency Conditions Excellent

Focus

Hazy later

Dome Temp. 69°F H=65%

Hour	Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
02:40	W	+40°54'	1"-2"	7.36	M1 III	8-10-10	vis bin B&A	400/400		** FINE
03:08	W	+12°04'	2"-3"	9.7	K0	3-3-2	Spect Bin	800/28	setting 40 very bad I know	VERY WEAK
02:07	W		2"	4.97	B9p	7 sec	"	40/5		FINE
01:23	E	+05°00'	"	7.89	K0 III	2-3-3	"	400/100		FINE
02:15		-11°38'	2"-3"	7.68	A2	3-2-2	"	400/50	very hazy seeing bad now	* FINE
00:22	E		2"	4.15	K3 II	8	std vel	40/10		FINE
00:38	E	+34°20'	"	6.37	K3 III	10-10-10	vis bin	40/35		** SL. WK
01:25	E	+09°50'	1"-2"	3.98	K2 I b	10-10-10	"	40/35		** FINE
		in in / out out				5/5	no filter		* PECULIAR FOG (AGE?)	GOOD
21:00-2		9.0 min @ 68°F		2.90	c	1.59			** FC LAMP IS STILL WEAK	(TRY +50%)
"		"	"	"	"	"	Anson +1) I think weak iron arc was due			
							too fast counting by McU. He did			
							most; so I only slightly compensated.			
							+2) Could you please cut more 640 plates			
							for Waterloo, for next week. They will be			
							using it regularly.			

311

Date WED/THUR 10/11 JUNE 1970 Observer To - GZ Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle Ecl	
CBC	T.V. UP	TO 21:40										
33269	HD 131861	14 50.9	+45 43	G12	IIao	13S	80°F	22:08	00:14	A	2:30W	
33270	HD 139892	15 35.6	+36 58	"	"	9L	76°F	00:21	00:37	B	02:00W	
33271	HD 176318	18 54.6	+38 07	"	"	9L	"	00:45	01:18	C	02:10E=3	
33272	HD 186122	19 37.5	+11 58	"	"	9L	74°F	01:25	02:33	A	02:05E=11	
33273	HD 189090	19 53.2	+16 31	"	"	9L	"	02:37	03:03	B	02:06W	
33274	HD 186791	19 41.5	+10° 22'	"	"	9L	73°F	03:07	03:13	C	00:28W	
33275	β Ara	01 49.0	+20° 19'	"	"	9L	"	03:22	03:42	A	05:10E=12	
33275 F	Focus			"	"	9	73°F			B		
33275 T1	calibration slip wedge for plates 33269-33275											11 June 1970



Dome Temp. 74°F H=639  
 Focus 20-R  
 Dome Temp. 70°F H=7270

Transparency Conditions VERY HAZY  
 scattered cloud

Ending Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality	
	A	02:20 W	+45 29	1"-3"	7.64	F3	12-12-12	SPEC. BIN.	800/300	<u>FLEXURE</u>	FINE	
0:37	B	02:00 W	+36 47	1"2"	5.1	B8m	18-18	"	40/20		FINE	
1:15	C	00:40 E	+38 15	"	5.7	B6-7	12-12-12	"	200/100		FINE	
1:35	A	00:08 E	+12° 11'	"	6.24	B9	12-12-12	COMP. PRGT.	200/100		FINE	
1:03	B	00:06 W	+16° 45'	"	5.36	B9	12-12-12	"	200/100		FINE	
3:13	C	00 28 W	+10° 36'	"	4.15	K3II	18-18	STD. VEL.	40/32		V.S.C. WK	
3:03	A	05 10 E	+20 43	4"	2.7	A5	18-18	ECL. BIN.	40/20		SL. WK	
	B		in in/out of				7/7	no filter			SL. CENTRE TR. RED	
										Fe COMP. IS MUCH BETTER		
		MWP. 2/9.0 min @ 68°F / 290C 1.59										
										Aason - Could you explain further as to why sometimes we must separate baked & unbaked plates, i.e. If we take over 10 baked plates?	see H0 H1 H2 H3 H4 H5 H6 H7 H8 H9 H10 H11 H12 H13 H14 H15 H16 H17 H18 H19 H20	

313

Date Fri-Sat, June 12/13 Observer She-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.
33276	HD 140913	15 41.1	+28° 47'	G12	IIaD-6	13c	68°F	21:03	23:44	A
33277	HD 139892	15 35.6	+36 58	"	IIoO	9L	67°F	00:01	00:11	B
33278	HD 176318	18 54.6	+38° 07'	"	"	9L	66°F	00:26	01:00	C
33279	HD 186122	19 37.5	+11 58	"	"	9L	64°F	01:14	01:56	B
33280	<del>HD 196426</del>	<del>19 32.2</del>	<del>-00.15</del>	"	"	<del>9L</del>	<del>62°F</del>	<del>02:08</del>	<del>03:42</del>	<del>C</del>
33280F	Focus			"	"	9	62°F			B
		19 32.4	-00 22							
	3801									
		19 30.1	-0 27.5							

Dome Temp.  $68^{\circ}\text{F}$   $H=50\%$

Focus .....

Dome Temp.  $60^{\circ}\text{F}$   $H=50\%$

Transparency Conditions *Excellent trans, but bad seeing*

3/4

Ending Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
10:44	A	01:07 W	+28° 37'	2" 4"	8.81	60V	5-5-6- 6-5-5	S.S.V.	800/300		SL-STR
10:11	B	01:40 W	+36° 48'	2" 3"	5.1	B8 <sub>4</sub>	12-12-12	Spect Bin	40/20		SL-STR
1:00	C	00:50 E	+38° 16'	3"	5.7	B6-7	12-12-12	"	200/100		(GUIDING) U.SL-WK
1:56	A	00:38 E	+12° 13'	"	6.24	B9	12-12-12	Comp Prog	200/100	(She wrote on plate)	FINE
13:42	C	01:14 W	-00° 07'	2" 3"	6.11	B8	12-12-12	"	200/70	(worry star actually HD185090) very slow fld cleanup	
	P	in in/out out				↑	7/7	no filter			GOOD
					7.6	↑					
						A 5?					check fld again

Visitors: Ro, ? ? (She)

- 35 persons in each group approx.
- Moon + Jupiter shown.

Date Sat-Sun, June 13/14 Observer She - 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.
33281	HD 139892	15 35.6	+36 58	G12	IIoO	9L	63°F	23:00	23:08	A
33282	HD 171232	18 28.5	+25 25	"	IIaOb	13S	60°F	23:19	00:55	C
33283	HD 194071	20 18.5	+27 55	"	IIoOb	13S	59°F	01:07	02:33	A
33284	HD 187691	19 46.2	+10 10	"	IIoO	13S	57°F	02:43	02:54	C
33285	HD 183227	19 26.9	+02 43	"	IIoO	9L	"	03:06	03:31	B
33285F	Focus			"	IIoO	9	57°F			B
33285 T1	calibration step wedge				IIaO					
72	"				IIaOb					

ALSO, PERHAPS LEAVE THE  
 EMPTY IN A CONSPICUOUS SPOT  
 ON MY DESK

Dome Temp. 60°F H=5270

Transparency Conditions Excellent

Focus 20-R

Dome Temp. 56°F H=5370

Hour	Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
00:08	40W	+36° 48'	2"	5.1	B8 <sub>1</sub>	12-24	Spect Bin	40/20		FINE
00:05	23E	+25° 32'	"	8.6	G8II	6-4-8 -6-6-6	SSV	800/300	(maybe fogged)	SL-STR
00:23	38E	+28° 12'	"	9.0	G8III	6-6-6 -6-6-6	SSV	800/300	IT SEEMS WE CAN DERATE THIS TO 7.570	V.SL-STR.
00:54	16W	+10° 26'	2-3'	5.8	F8	12-12-12	Std Vel	200/90	NORMAL WHEN USING BAKED PLATES	SL-STR.
01:31	16W	+02° 56'	2"	5.92	B9	12-12-12	Comp Prog	200/100		FINE
	in in	1 out out				7/7	no filter			GOOD

Anson - I think more

33284, 33285 / 15 June / 20 / MWP-2, 9.0 mi @ 60°F (179)

612 unbaked plates need cutting. ✓

TIM: 1) FORGET ALL PREVIOUS

Could you also prepare & check

NOTES & JUST KEEP

~~640 plates for Waterloo~~

I just saw them but will need more in future

(EXPOSED) BAKED PLATES

~~for Tuesday next please.~~

SEPARATE FROM (EXP.)

If you have time Tuesday,

UNBAKED PLATES.

it might be good to test

2) WOULD YOU LEAVE A NOTE IN THE BOOK WHENEVER YOU EMPTY A PLATE BOX (I DIDN'T FIND THE EMPTY UNTIL LATE P.M.; TO DATE TO CUT PLATES)

640 focus, if I may play with it Monday if cloudy. In

317

Date Thur-Fri, June 18/19Observer Ri-McU

Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle End
33286	HD 139892 <sup>scr</sup> <sub>8A</sub>	15 35.6	+36 58	G-12	IIaO	9L	73°F	21 14	21:22	A	0°45E
33286F	<i>focus test</i>		<i>out of focus</i>		IIaO	9				B	
33287	HD 131 861	14 50.9	+45 43	G-12	IIaO	13S	73°F	21 46	22:55	C	1°33W
33288	HD 176318	18 54.6	+38° 07	G-12	IIaO	9L		00:30	00:47	A	0°44E
33289	HD 184467	19 29.5	+58° 24	G-12	IIaO	13L	70°F	00:57	01:12	B	0°45E
33289 T1	calibration step wedge				IIaO			for plates 33286 - 33289			

Dome Temp. .... 70°F H 67%

Transparency Conditions ..... occasional clouds

Focus ..... 20 Reel.....

Dome Temp. ....

Obs. Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
1:22	A	0445E	+46° 47	2	5.1	B87	12-12-12	SPECTROSCOPIC BINARY	80/40		FINE
	B						7-7	no filter		clouds	U.S.L. CENTRE TO RED
1:55	C	1433W	+45° 29	~2	7.64	F3	6-6-6 6-12	SPEC. BIN	800/224	clouded out	FINE
0:47	A	0444E	+38° 15		5.7	B6-7	12-12-12	SPEC. BIN	80/40		FINE
1:2	A	0445E	+58° 33		7.5	K5	6-30	STD VEL	800/696	clouds	VERY WEAK
										closed up at 01:30 I give up going	
3:28		19 June/70						microp-2 / 9.0 min @ 68° E (P.A.C. 159)		none	

319

Date June 19/20 Fri/Sat Observer Gu - 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.
33290	$\delta$ Leo	11 <sup>h</sup> 8 <sup>m</sup> 47 <sup>s</sup>	+21° 4'	G12	II-A0	9L	55°F	21:19	21:23	A
33291	$\theta$ Leo	11 <sup>h</sup> 9 <sup>m</sup> 0 <sup>s</sup>	+15° 59'	G12	II00	9L	"	21:27	21:32	B
33292	$\beta$ Leo	11 <sup>h</sup> 43 <sup>m</sup> 58 <sup>s</sup>	+15° 8'	G12	"	"	"	21:36	21:39	C
33293	$\delta$ Vir	12 <sup>h</sup> 36 <sup>m</sup> 36 <sup>s</sup>	-0° 54'	"	"	"	"	21:45	21:51	A
33294	$\alpha$ Boo	14 <sup>h</sup> 30 <sup>m</sup> 20 <sup>s</sup>	+30° 11'	"	"	"	"	22:00	22:13	B
33295	$\delta$ Boo	14 <sup>h</sup> 28 <sup>m</sup> 3 <sup>s</sup>	+38° 45'	"	"	"	"	22:18	22:21	C
33296	45 Boo	15 <sup>h</sup> 2 <sup>m</sup> 55 <sup>s</sup>	+25° 16'	"	"	"	53°F	22:27	22:58	A
33297	HD 145389	16 05.6	+45 12	G12	IIa0	9L		23:05	23:17	B
33298	$\delta$ Her	16 17.3 <sup>s</sup>	+19 23	"	"	"	51°F	23:21	23:28	C
<del>33299</del>	<del>HD 175744</del>	<del>18 51.7</del>	<del>+17 52</del>	<del>"</del>	<del>"</del>	<del>"</del>	<del>"</del>	<del>23:37</del>	<del>00:53</del>	<del>A</del>
33298 F1	four fix	01 01 / ww		G12	IIa0	9	49°F			B
33299	39 Dra	18 <sup>h</sup> 22 <sup>m</sup> 27 <sup>s</sup>	+58° 45'	"	"	9L	"	1:52	02:04	A
33300	$\alpha$ Del	20 <sup>h</sup> 35 <sup>m</sup> 0 <sup>s</sup>	+15° 34'	"	"	"	48°F	02:13	02:18	B
33301	$\epsilon$ Cep	22 <sup>h</sup> 11 <sup>m</sup> 21 <sup>s</sup>	+56 33	"	"	"	"	02:34	02:47	C
33302	HD 175744	18 51.7	+17 52	"	"	"	"	02:56	03:42	A





Visitors: Hws, Wz, Gi; gps of 75 & 81  
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Date June 20/21 Sat Sun Observer Pi - 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.
33303	HD.171232	18 28.5	+25 25	G.12	Baked TIAO	13 S	56°F	23 22	00 17	A
33304	HD 194071	20 18.5	+27 55	"	"	"		00 41	01 55	B
33304F	focus test	out out	out out	"	"	7	54°F			B

Dome Temp. 53  
Focus 20.6  
Dome Temp. 53

Hour Angle  
Ecl. 0° 35'E 25  
0 49'E 28



323

SUN-MONDAY

Date JUNE 21-22 Observer Ri-McU Julian Day .....

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle End	D
33305	HD 139892 5 Cr Bra	15 35.6	+36 58	G-12	IIaO	9L		21 07	21:14	A	0° 43E	13
33306	HD 160952	17 37.7	+29 39	G-12	IIaO	13S		21 24	22:43	B	1° 16E	2
33307	AG 10133	19 31.0	+28 52	G-12	IIaO-B	13S	58°F	22.51	01:57	C	0° 05W	8
33308	HD 213947	22 29.9	+26 05	G-12	IIaO-B	13S	57°F	02:07	03:04	A	1° 47E	2
33309 F	focus test		in use/out of use	G-12	IIaO	9	57°F			B		
33309 T1	calibration step wedge				IIaO			for plates 33290 - 33299				22 June 13
T2	"	"	"		IIaO	"	"					
T3	"	"	"		IIaO-b	"	"	33303, 4, 33307, 8				22 June 13

Dome Temp. 58

Focus 20

Dome Temp. 58

Dome Temp. 58°F 63%

Transparency Conditions Intermittent thin cloud

Focus 20-R (612)

Dome Temp. 54°F 64%

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
0 <sup>h</sup> 43E	+36° 47	2	5.1	B8n	12-12-12	SPECT. B.M.	80/40		SL. STR
1 <sup>h</sup> 16E	+29° 40	2	9.04	G8III	6-6-6 6-6-6	SSV	800/300		FINE
0 <sup>h</sup> 05W	+29° 04	2-3	9.55	F7II	6-6-6 6-6-6	SSV	800/300	(field drawn "BAKED PLATE")	SL. STR
1 <sup>h</sup> 47E	+26 32	3	8.93	K4III	6-6-6 6-6-6	S.S.U	800/302	} right end of exposed "BOX" BAKED PLATE	FINE
					7-7	reflector		clouded over	GOOD
22 Jun 1970 / NW 1.2 / 9.0 min @ 6.8°F / 2 to c. 19									
22 Jun 1970									

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Date Mon-Tues June 22-23 1970 Observer Hr-Ri Julian Day .....

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle Ecl
33310	HD 131861	14 50.9	+45 43	G12	IIaO	13S	68°F	21:02	2:138	A	0035W +
33311	" 149803	16 32.0	+29 56	G12	IIaO	13S	68°F	21:45	2:315	B	002W +
33312	AG 10133	19 31.0	+28 52	"	"	13S	67°	23 30	02:22	C	0035W +
33313	HD 200340	20 57.8	-01 19	"	"	9L	63°F	02 29	0304	A	002E -
33314	HD 198667	20 46.8	-05 52	"	"	"	62°F	03:10	0327	B	002W -
33314F1	focus test	out of focus		"	"	9	62°F				
33314 T1	calibration	step envelope	for plates			33310 - 33314			23 June /70		002W -

Dome Temp. 64°F 59%  
 Focus 20" R (612)  
 Dome Temp. 59°F 70%

Transparency Conditions .....

Hour	Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
138	0030W	+45° 29	2	7.64	F3	6-6-6 6-6-6	Spec. Bin.	400/150		(GUIDING) FINE
315	0028W	+29° 53	2-3	8.90	F7II	6-6-6 6-6-6	S.S.V	800/300		FINE
322	00435W	+29° 06	3	9.55	F7IV	6-6-6 6-6-6	SSV	800/300	POSSIBLY SOME FLEXURE	FINE
304	0010E	-00 58	3	6.26	B9	12-12-12	Comp. Prog.	200/100		FINE
327	0024W	-05 35	3	5.45	B8	12-12-12		200/100		FINE
						7-7 no filter			Dawn	V.V. SC. CENTRE TO RED

MWP-2 / 9.0 min @ 68°F (2900179)

ARCHIE : THERE ARE FRESH BAKED PLATES IN THE REFRIDGE IF YOU NEED THEM (THEIR USABLE LIFE TIME IS ~ 2 WKS, AFTER WHICH THEY'RE NO FASTER THAN UNB AKED).

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Date Tues Wed June 23-24 1970 Observer R. Moore Julian Day .....

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle End	
33315	HD 124224	14 07.2	2 -53	G40	Ilao	135	72°F	21:17	21:21	A	01:00W	
33316	HD 171767	18 31.5	4 52	G40	Ilao	135	7	21:29	22:19	B	02:26E	
33317	MH $\alpha$ 328-116	19 55.0	+39 41	G40	Ilao	17L	71°F	22:34	01:34	C	00:32E	
33318	HD 171708	19 00.7	-11 48	G40	Ilao	13L	68°F	01:48	02:50	A	01:36W	
33319	HD 196927	20 35.3	+3 05	G40	Ilao	13L		2:55	3:35	B	00:27W	
33319F	focus test	out of focus		G40	Ilao	13	65°F			C		
33319T	calibration	step wedge for plates <sup>Ilao</sup> 33315 - 33319								24/6/70		11:10.2/



Dome Temp. 66°F H 65%

Transparency Conditions clear - some haze

Focus .....

Dome Temp. 61°F H 70%

Ending Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
01:21	H	01400W	+02° 37	2"	4.77	B9p	G40 filter 5-10	Speed Bin.	495	setting 38.8 } used wrong filter	* STRONG
2:19	B	02426E	+05° 00	2	7.84	K0III	G40 filter 5-5-5	Speed Bin.	800/200	"	* STRONG
01:34	C	00432E	+39° 47		10.8	Em	G10 filter F10-5	FF	800/70	field as I 30353	
2:50	A	01436W	-11° 35		7.68	A2	G10 filter 5-5-5	Speed Bin.	800/110	setting 37.7	FINE
3:35	S	00437W	+03° 25	2	7.74	K2III	-5-5-	" "	800/150		FINE
	C						7-7 G10 filter				CENTRE TO VIOLET
20:16/70		MWP-2 / 9.0 min @ 68°F / 2900 c / 59									
										* WRONG FILTER CUTOFF FOR COMP?	

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Date WED./THUR. JUNE 24/25 1970 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.H.
<del>33320</del>	<del>HD 131861</del>	<del>14 50.9</del>	<del>+45° 43'</del>	<del>G12</del>	<del>Ilax</del>	<del>9L</del>	<del>71°F</del>			
				CLOSED	UP	AT	23:00			
				OPENED	AT		00:00			
33320	HD 139892	15 35.6	+36 58	G12	Ilax	9L	67°F	00:14	00:31	A
33321	HD 176318	18 54.6	+38 07'	"	"	9L	65°F	00:37	01:29	B
<del>33322</del>	<del>HD 186122</del>	<del>19 37.5</del>	<del>+11 58</del>	<del>"</del>	<del>"</del>	<del>9L</del>				
				CLOSED	UP	AT	01:30			

Dome Temp. 64°F H=63%

Transparency Conditions CLEAR ONLY FOR  
A BRIEF INTERVAL  
CLEAR AT 00:00

Focus .....

Dome Temp. ....

Ending Time E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
					7.64	F3		SPEC. BIN.	400/260		
00:31	A	02:48 W	+36 49	~3"	5.1	B8m	12-12-12	SPEC. BIN	200/100		SL. STRONG (GUIDING)
00:27	B	00:27 W	+38 17	"	5.7	B6-7	12-12-	"	200/100	some clouds	FINE
					6.24	B9		COMP. PROG.	200/100		

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Date 1970 JUNE 25/26, THUR/FRI Observer HD-Ri-Mell 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.
33322	HD 131 861	14 50.9	45 43	G-12	IIaO b	13-0.4	64°F	21 04	23 04	B
33323	γ OPH (HD 142714)	17 47.3	-06 07	G-12	IIaO b	13-0.4	60°F	23 14	0 32	C
33323F1	focus test			G0	IIaO	9	58°F			B
33323 T1	calibration step wedge				IIaO					
T2	"	"	"		IIaO b					
								plates 33322, 33321		
								33322, 33323		

Dome Temp. 61

Focus 22

Dome Temp. 51

Hour Angle  
End

W 2 09

W 40

26 June

Dome Temp. 60°F H 57%

Focus 22 - Red

Dome Temp. 55°F H 62%

Transparency Conditions *very foggy*

Ending Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality	
23.04	B	W 2 09	+ 45° 28	4"	7.64	F3	12-12-12	SPECT. BIN-12	400/200	Much Li cloud.	SL-STRONG	
0.32	C	W 40 <sup>m</sup>	- 06° 04'	3"	7.01-7.83	F816-6376	12-24	CEPHEID	400/57	Thickened right up	WEAK	
	B						7-7	no. filter			GOOD	
										closed up at 02:00		
33321		26. June / 70 / MWP-2 / 9.0 mi @ 45° F / 2 AD C-179									baked plates left side of box,	
33323										unbaked (faintest) right.		

Date 27/28 JUNE SAT/SUN Observer G. V. 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.
33324	HD 168481	18 <sup>h</sup> 14. <sup>m</sup> 8	+15°47'	G-12	Ilao	9L	63°F	23:03	00:08	A
33325	HD 165623	18 <sup>h</sup> 01. <sup>m</sup> 8	+42°57'	"	"	"	61°F	00:15	01:37	B
33326	HD 173415	18 40.1	+47° 29'	G.R.	Ilao	9L	59°F	01:42	02:37	C
33327	HD 176003	18 <sup>h</sup> 53. <sup>m</sup> 0	+44°05'	"	Ilao	"	58°F	02:43	03:28	A
33327E										

Dome Temp. 5

Focus 20

Dome Temp. 5

Hour Angle End

0 23.5W + 4

140W + 4

202W

202W

Dome Temp. 58°F 57% H

Transparency Conditions clear

Focus 20 - red

Dome Temp. 54°F 63% H

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
0 <sup>h</sup> 03 <sup>m</sup> .5 W	+15° 53'	3s	7.08	A3	12-12-12	Ap (Gu)	400/200		FINE
1 <sup>h</sup> 40 W	+42° 58	"	7.20	A0	12-19-19	Ap (Gu)	400/200	U.B. long exposure	FINE
2 <sup>h</sup> 02 <sup>m</sup> W	+47° 35	"	6.95	A2	17-17-17	Ap (Gu)	400/200	" " "	FINE
2 <sup>h</sup> 40 <sup>m</sup> W	+44 14	"	7.00	A2	17-	Ap (Gu)	400/200	" " "	(SC GUIDING) FINE
					7-7	no filter			GOOD

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Date 28/29 June Sun/Mon Observer T. G. Z 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.
33328	HD 139892	15 35.6	+36 58	G12	DOD	9L	65°F	22:32	22:51	A
	<del>HD 176318</del>	<del>18 54.6</del>	<del>+38° 07'</del>							
33328 T.	calibration step wedge for plates				33324 - 33328		29 June 1970			
<p>changeover to automatic: Mon / June 29</p>										

Dome Temp. 62

Focus 22.9

Dome Temp. 62

Hour Angle  
End

01 23W+3

20W+2







Dome Temp. 68° H=7676

Transparency Conditions hazy, some cloud

Focus .....

windy, ∴ lowered soil

Dome Temp. H= (Add 5' to center)

humidity rising rapidly

Timing Time E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Exp. Comp.	Filter Program	Exp. Mtr.	REMARKS	Quality
			+06° 36'				1.11				
1:35	2	00 31 W	+02° 16'	0766	606		4 min				
1:47	1	02 46 W	+17° 55'		614		5 min	should be 10 min		cloud	
2:31	2	03 30 W	"		643		10			NGC 5897 too low "	
3:03	1	02 48 W	-05° 46'		665		12			(too much absorption)	
2:23	2	04 23 W	+17° 55'		680		9	cloud		bad guiding. due to 'soil' effect in RA	
										at thopt. we removed the shroud + closed for clouds for a while	
1:09	2	01 57 W	-05 02		754		8				
1:36	1	03 19 W	-12 57		772		10			guiding. poor again - RA moved by large amounts during last 3 minutes	
			+09 48								
2:21	2	00 52 E	+12° 06'		803		11	B		Humidity 97% ∴ closed up	
										Water starting to condense	
										<u>SOME OF THE PLATES HAVE TOO MANY DUST MARKS</u>	
										We had to remove the cloth ∴ of the wind	
										Could it be put on again? - more tent - or perhaps anchored in more places	

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① Newtonian Tues-Wed

Date June 30 - July 1 1970 Observer CC, Tn, K's Mine Julian Day .....

Plate No.	Object	R.A.		Declination		Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle End	Dist
		1900	1970	1900	1970									
Focus star	Arcturus	14	14.3	+19°	20'		103a0							
33337	NGC 5904	15	17.1	+02	12'		↓			21:27 <sup>05</sup>	21:31 <sup>20</sup>	1	103W	+0
33338	5053	13	14.9	+17	51'					21:41 <sup>50</sup>	21:51	2	125W	+1
33339	5904	15	17.1	+02	12					22:20 <sup>15</sup>	22:24	1	125W	+0
33340	Test Plate									23:15 <sup>15</sup>	23:25 <sup>15</sup>	2	108W	-0
33341	"									23:29 <sup>35</sup>	23:39	1	129W	-0
33342	NGC 5053	13	14.9	+17	51					23:56 <sup>00</sup>	00:06	2	109W	+17
33343	M 17	18	19.1	-16	12					00:18 <sup>40</sup>	00:22	1	121W	-1
33344	NGC 6366	17	26.1	-05	02					00:34 <sup>05</sup>	00:44	2	135W	-0
33345	" 6356	17	21.8	-17	47					00:55 <sup>15</sup>	01:03	1	158W	+17
33346	M 16	18	17.2	-13	48					01:12 <sup>30</sup>	01:16	2	117W	-1
focus	ε Peg A	21	42.7	+09	45									
33347	NGC 7078	21	28.6	+12	01					01:44 <sup>20</sup>	01:53 <sup>20</sup>	1	15E	+12
33348	"	"	"	"	"		103aD			01:58 <sup>10</sup>	02:09 <sup>20</sup>	2	100E	
33349	NGC 6656	18	34.5	-23	58		103a0			02:20 <sup>40</sup>	02:24 <sup>40</sup>	1	128W	-23
33350	NGC 6626	18	22.8	-24	54		↓			02:33 <sup>15</sup>	02:37	2	132W	-24

Dome Temp. 68°F H=72%

Transparency Conditions *clear*

Focus .....

Dome Temp. ....

*add 4 min to Dec*

Ending Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Exp Comp.	Filter Program	Exp. Mtr.	REMARKS	Quality
			+19° 24'								
21:31 <sup>20</sup>	1	00 31 W	+02 16'	6767	604		15 sec 4 min			Kö	
21:51	2	02 54 W	+17 55'		616		10 min				
22:24	1	01 25 W	+02 13'		641		4 min			If fogged, we know why also <sup>house light</sup>	
23:25'	2	00 08 W	-05° 00'		681		10 min			D ~ 0.3 - 0.5	MUCH BETTER
23:39	1	01 39 W	-05° 00'		691		10 min			"	"
01:06	2	05 09 W	+17 55'		709		10 min				
01:22	1	00 21 W	-16° 06'		723		4 min			Kö	
01:44	2	01 35 W	-05° 04'		735		10 min				
01:03	1	01 58 W	-17 44'		749		8 min				
01:16	2	01 17 W	-13 44'		759		4 min			Kö	INTERESTING
01:53 <sup>10</sup>	1	01 15 E	+12 06'		784		9 min	R Filter			
02:09 <sup>20</sup>	2	01 00 E	"		794		11 <sup>10s</sup> min	V Filter			
02:24 <sup>40</sup>	1	02 08 W	-23 51'		808		4 min	no filter			
02:37	2	02 32 W	-24 48'		816		4 min	↓			

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cont

*Newt*

Date June 30 - July 1 Observer..... Julian Day.....

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle End	D
33351	M31	00 41.1	41 07		103aD			02:53 <sup>50</sup>	03:01	1	03 22E	
33352	NGC 7078	21 28.6	+12 01		"			03:11 <sup>25</sup>	03:19	2	10 16W	

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



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July 1-2 heavy cloud - waited until 0<sup>h</sup> EST

NEWTONIAN

Thurs - Fri

Date July 2-3, 20 Observer C. T. She Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
Focus	α Ser	15 42.8	+06 31							
33353	NGC 5904	15 17.1	+02 12		103 a 0			22:02 <sup>13</sup>	22:06	2
33354	" 5053	13 14.9	+17 51'		"			22:13 <sup>15</sup>	22:23	1
33355	" 5904	15 17.1	+02 12		"			22:35 <sup>7</sup>	22:37	2
33356	" 7078	21 28.6	+12 01		"			01:37 <sup>40</sup>	01:46	1
33357	"	"	"		103 a D			01:50 <sup>35</sup>	02:01	2
33358	"	"	"		103 a 0			02:04 <sup>20</sup>	02:13	1
33360	"	"	"		103 a D			02:16 <sup>2</sup>	02:27	2
33359	"	"	"		103 a 0			02:29 <sup>16</sup>	02:38	1
33361	"	"	"		103 a D			02:41 <sup>34</sup>	02:50	2



Dome Temp. 66°F H=83%

Transparency Conditions scattered cloud here

Focus .....

fog, lightning in distance

Dome Temp. 63°F H=86%

Ending Time E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Filter Program	Exp. Mtr.	REMARKS	Quality
			+06 36								
22:06	2	01 14W	+02 16	0769	628		4 min				
22:23	1	03 33W	+17 55		638		9 min				
22:37	2	01 47W	+02 16		650		2 min			not guided	
22:51	1	01 16 E	+12 06'		779		9 min	B		clouds for 3 hours	
23:01	2	01 02 E	"		789		11 min	V			
23:13	1	00 48 E	"		798		9 min	B			
23:27	2	00 36 E	"		806		11 min	V			
23:38	1	00 24 E	"		815		9 min	B			
23:50	2	00 12 E	"		824		9 min	V			

du. 4.0 min @ 60° in 2-19 // 3 July 70

CHANGED BACK TO CASSETTE REWIN FOR FRIDAY NIGHT.



Dome Temp. 63°F H=79%

Focus 2nd-Red

Dome Temp. 60°F H=82%

Transparency Conditions very good  
scattered cloud

Ending Time E.S.T.	PR	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
13:01	A	01 57 W	+36° 47'	2-3"	5.1	B8n	12-12-12	Spec. Bin.	200/90	cloud	STRONG
	B	20 04 W	+38° 15'	3"	5.7	B6-7	12-12-12	Spec. Bin.	200/63	cut short, cloud again	(GUIDING) FINE
			in in/out cut				7/7				GOOD
1:33	A	09 10 W	+16° 46'	2-3"	5.36	B9	12-12-12	comp prog	200/86	clear by 1:10, cloud again	FINE
	B				<del>4.3</del>	<del>B5</del>		<del>std vet</del>	<del>40/17</del>		

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Sun - Mon

Date July 5-6, 1970 Observer M.C.H., J.A. 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.
33365	HD 131861	14 50.9	+45° 43'	G12	Ilao	135	69°F	20 58	21 56	A
33366	HD 139892	15 35.6	+36° 58'	"	"	9L	68°F	22 04	22:11	B
33367	HD 176318	18 54.6	+38° 07'	"	"	9L	67°F	22:18	22:31	C
33368	HD 162714	17 47.3	-06 07.2	"	Ilao	135	66°F	22:40	23:18	A
33369	HD 194071	20 18.5	+27 55	"	Ilao	"	66°F	23:28	00:53	B
33370	HD 186122	19 37.5	+11 58	"	Ilao	9L	65°F	01:00	01:32	C
33371	HD 196926	19 32.2	-00 15	"	Ilao	9L	65°F	01:41	03:31	A
33371 F	Focus			"	Ilao	9	64°F			C
33371 T1	calibration step wedge for				<sup>Ilao</sup> plates					
T2	"	"	"	"	<sup>Ilao</sup> plate					

Dome Temp. 66

Focus 20-

Dome Temp.

Hour Angle  
End

38W +4

09W +3

50E +3

05W -0

52E +2

+12

232W -00

.40

21W P-2

Dome Temp. 66°F H=54%

Transparency Conditions Excellent

Focus 20-R

but seeing not so

Dome Temp. 60°F H=57%

Hour	Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
1:50	A 01 38 W	+45 28	1.3"	7.64	F3	12-12-12	Spect Bin	400/150	broken 2pc	<del>BROKEN</del> FINE
2:11	F 01 09 W	+36 48'	2"	5.1	B8m	12-12-12	"	200/90		STRONG
2:31	C 01 50 E	+38 16'	"	5.7	B6-7	12-12-12	"	200/90		(GUIDING) FINE
3:12	A 00 05 W	-06 03	2.3"	7.01-7.83	F876-6376	12-12-12	Cep Prog	400/160		WEAK
10:53	F 00 52 E	+28 12'	2"	9.06	G811	6-6-6	S.S.V.	800/300		FINE
1:32	C	+12 12	2.4"	6.24	B9	12-12-12	comp prog	200/100	seeing fluct wildly	FINE
2:31	02 32 W	-00 06"	"	6.11	B8	12-12-12	JY	200/100	wrong star actually HD185090	FINE
		in in/out out				7/7				GOOD
									down	
2:71		new P-2 / 9.0 min @							68°F / 240 C I T 9	6 July / 70
		"	"	"	"	"	"	"	BAKED	

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Mon - Tues

Foubert

Date July 6-7, 1970 Observer T.J. CF 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.
33372	HD 139892	15 35.6	+36 58	G12	D <sub>a</sub> O	9L	73°F	21:00	21:08	A
33373	HD 131861	14 50.9	+45° 43	"	D <sub>a</sub> O	13S		21:44 <sup>56</sup>	22:40	B
33374	<del>AG 10133</del>	<del>19 31.0</del>	<del>+28° 52</del>	<del>"</del>	<del>D<sub>a</sub>O<sub>b</sub></del>	<del>13S</del>		<del>23:01</del>	<del>23:52</del>	<del>C</del>
33375	HD 194071	20 18.5	+27 55	"	D <sub>a</sub> O <sub>b</sub>	"		00:23	01:31	A
33376	HD 213947	22 29.9	+26 05	"	D <sub>a</sub> O <sub>b</sub>	"	66°F	01:55	02:43	C
33377	HD 212943	22 22.8	+04 12	"	D <sub>a</sub> O	13S	"	02:50	03:02	R
33378	HD 213998	22 30.2	-00 38	"	D <sub>a</sub> O	9L		03:10	03:14	A
33379	HD 212097	22 16.7	+27 50	"	D <sub>a</sub> O	9L	64°F	03:19	03:25	C
33379F	Focus			"	D <sub>a</sub> O	9	64°F			B
33379T1	calibration step wedge				D <sub>a</sub> O			plates 33372 - 33374,		
"	"	"	"	"	D <sub>a</sub> O <sub>b</sub>			" 33374 - 33376		

Dome Temp. 68  
 Focus 20  
 Dome Temp. 67  
 Hour Angle End  
 D  
 11W +3  
 27W +4  
 100E -2  
 08E +2  
 08E +2  
 43E +0  
 037E -0  
 013E +2  
 3377, 333

Dome Temp. 68°F H=56%

Transparency Conditions Excellent

Focus 20-R

Dome Temp. 62°F H=68%

Hour	Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
21:08	A 00 11 W	+36° 47'	2"	5.1	B8n	12-12-12	Spect Bin	200/85		STRONG
22:40	B 02 27 W	+45° 29'	1"-2"	7.64	F3	12-12-12	"	400/150		(GUIDING) FINE
23:52	C 01 00 E	+29° 08'	"	9.55	F7	<del>6-6-6</del> 6-6-6	SSV	800/300	i Wrong stat, fld drop	FINE
01:31	00 08 E	+28° 12'	"	9.06	68 III	<del>6-6-6</del> 6-6-6	SSV	800/300		FINE
02:43	01 08 E	+26° 30'	2"	8.97	K9 III	<del>6-6-6</del> 6-6-6	SSV	800/300		FINE
03:02	00 43 E	+04° 37'	"	5.9	K0	12-12-12	Std Vel	200/80		FINE
03:14	A 00 37 E	-00° 12'	"	4.08	B8	12-18	Comp Std	40/17		FINE
03:25	C 00 13 E	+28° 14'	"	4.83	B8	15-18	"	40/17		FINE
		in in / out out				7/7	no filter			GOOD
33374	33377, 33379					2 W P - 2 / 9.0 min @ 60°F / 290 C 159 / 7 July / 20				
33376						"	"			

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Tues - Wed

Date July 7-8 1970 Observer T. Enj. CD 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.
33380	HD182955	19 22.1	+19 41	G12	D <sub>20</sub>	9L	72°F	01:22	02:41	B
33380 F	Focus						72°F			B
33380 71	calibration step wedge used for plate # 33380									

Dome Temp. 70  
Focus  
Dome Temp. 63

Hour Angle  
End  
202W 11  
11



Dome Temp. 70°F H=58%

Transparency Conditions scattered cloud

Focus .....

Dome Temp. 67°F H=62%

Ending Time EST.	P.R.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
2:41	8	0202W	+19 53	2"-3"	7.44	MOTW	10-12-12	Vis Bin	400/400		U.S.C. WK
	8		in in/out out				7/7			(Dec won't unclamp) I <sup>TRIED</sup> <del>tried</del> moving it by hand.	
										gave up	

MWP-2/9.0 min @ 65°F / 290 C 159 (9 July 70)







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Ending Time  
E.S.T.

754

358

HANDBOUND  
AT THE  
  
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