

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 6×10^{-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: 90-R FOR WINTER \rightarrow (10-20°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 2^m45 s. with switch at folded Cassegrain focus.
deflected toward secondary mirror

2

BOVE
ACKLASH
(2 MS.)

6
y
s
wks
K
(na)

4
3

Temperature

Barometer

Temperature

Angle	Declination

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4

6

ome Temp.

Transparency Conditions

ocus

ome Temp.

Date Observer Julian Day

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
						DAVID DUNLAP OBSERVATORY			
						14" LOG BOOK			
						VOL. 41			
						PLATE NOS. 32575 - 33383			

Quality

INE

SL.WK

INE

INE

INE

OKEN

SL.WK

OKEN

(LUDING)

INE

INE

000

3

5

Date Sun - Mon Sept 7-8, 1969 Observer HARRIS, Th Julian Day _____

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
32575	HD 176318	18 ^h 54 ^m .6	+38° 07'	G12	UoO	9L	73°	20:03 ⁽³²⁾	20:35	C
32576	HD 203156	21 ^h 15 ^m .4	+37° 49'	"	"	9XL	70°	20:56 ⁽³⁴⁾	21:50	B
								23:00 ⁽³⁵⁾	23:35	
32577	AR Cas	23 ^h 25 ^m .4	+58° 01'	G12	UoO	9L	67°	23:49 ⁽³¹⁾	00:10	C
32578	α Cas	00 ^h 34 ^m .8	+55° 59'	"	"	"	"	00:40 ⁽⁸⁾	00:48'	B
32579	B Ari	01 ^h 49 ^m	+20° 19'	"	"	9XL	"	01:15 ⁽⁸⁾	01:23	C
32580	HD 8441	1 ^h 18 ^m .5	+92° 37'	"	V	9L	63°	01:39 ⁽³⁹⁾	02:58	B
32581	HD 9996	1 ^h 32 ^m .5	+44° 54'	"	"	9L	"	03:07 ⁽³⁵⁾	04:22	C
32582	HD 25823	4 ^h 0 ^m .5	+27° 20'	"	"	9L	61°	04:30 ⁽²²⁾	04:52	A
32582 F	Focus			"	"		60°			B
32582 T.	calibration step wedge for plates				32574 - 32582			612/5:34		

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

Transparency Conditions *Clear, some cloud*

Focus

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

Observer *W. A. ...* Date *2-2-69*

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
$0^{\circ}28'W$	$+38^{\circ}15'$	3"	5.7	R67	8-8-8	Spect Bin	200/160		FINE
	$+38^{\circ}08'$	3-4"	6.3	F216	8-8-8	Fernie*	400/460	clouds interfered	U.S.G. WK
$01^{\circ}08'W$								∴ Long exposure 2:40	
$0^{\circ}28'E$	$+58^{\circ}23'$	3"	4.89	R3V	12-12	Ecl Bin	200/160	b	FINE
$0^{\circ}58'E$	$+56^{\circ}29'$	3-4"	3.39	K012	12-12	Std Vel	20/28	A top, C, bottom	FINE
$01^{\circ}40'E$	$+20^{\circ}43'$	4"	2.7	A5	12-12	Ecl, Bin	20/21	some cloud	FINE
$0^{\circ}22'W$	$+43^{\circ}01'$	3-4"	5.92	A0p	8-8-8	Ap prog	200/160	wrong slit length	BROKEN V.S.L. WK
$01^{\circ}37'W$	$+45^{\circ}17'$	3"	6.15	Ap	8-8-8	Ap prog	200/160	left at slit for 50 counts 1/2" broken off	BROKEN (GUMMING) FINE
$0^{\circ}22'E$	$+27^{\circ}23'$	3"	4.75	A5i	12-12	Ap prog	200/160		FINE
		in in			5/5	no filter			GOOD
<i>mwp-2 / 48°E / PS48/69</i>								PLATE NUMBERS FOR THIS	
								NIGHT ARE ALMOST	
								IMPOSSIBLE TO READ	

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Date 8 Sept 1969 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			6140	IL20	13	61°F			A	
	F3									B	
	F4									C	
	F5									A	
	F6									B	
	F7									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.

Observer Julian Day Date

Time	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp. ^{G12 filter}	Program	Exp. Mtr.	REMARKS	Quality
A			focus	30.0			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			} # and 11 are equally good. 10 better at 4400 " " " 3900	
B				33.5							
C				34.0							
A				34.5							
B				35.0							
C				35.5							
B				36.0							
C				36.5							

Dome Temp. 61°F

Transparency Conditions Scattered cloud

Focus

Dome Temp.

Observer Date

Time	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
1	A	04 ^h 20 ^m W	+36° 07'	3"	7.0	A0	18-18-18	Fcl, Bin	200/15	setting 34	SL WEAK
3	B	0032 E	+33° 53'	3"	8.7-9.0	A5	18-18-18	"	400/30	setting 33.3 (cloud)	WEAK
9	C	0033 W	+67 02	3"-4"	8.4-9.0	O9.5	18-18-18	"	400/45	setting 32.5	(SL GUIDING) WEAK
2	B	0 ^h 55 ^m 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
					8.5-9.2	B5 V		Ed bin		clouds, closed 03 ^h .	
	B						5/5	G12 Filter		setting 30	OK
										mwp. 2/7.0 min @ 68°C / (290C/148)	

Date Sept. 9/10 1969, Tues, Weds. Observer HL, 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.	Hour Angle End
32590	MY Cyg	20 ^h 16 ^m .2	+33° 38'	G40	IIa-D	BXL	57°	21:30 (57)	22:27	B	1:30
32591	XZ Cep	22 ^h 29 ^m .3	+66° 38'	"	"	"	56°	22:39 (59)	22:46	C	1:40
								23:30 (61)	0:31		1:50
32592	MY Cyg	20 ^h 16 ^m .2	+33° 38'	G40	IIa-D	BXL	59°F	0:48 (91)	2:25	A	5:30
32593	HD 12029	01 ^h 53 ^m .0	+28° 59'	G40	IIa-D	BXL	59°F	02:42 (52)	3:35	B	2:40
32594	BF Aur.	04 ^h 58 ^m .0	+41° 09'	"	"	"	50°F	04:12 (61)	09:53	A	2:15
32594 F	focus			G40	IIa-D					B	
								(640/5:16)			
32594 T1	calibration	tip wedge for plates			32590 - 32594						

Done Temp.
Focus
Done Temp.

Dome Temp. 66°

Transparency Conditions *cleared opened*

Focus

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

cloudy periods

Time	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
7	P	$1^h 06^m W$	$+33^{\circ} 53'$	$2\frac{1}{3}''$	8.7	A5	3-3-3	ed Bin	400/60	31.5 setting	^{max} <i>min</i> ← (SL. GUIDING) FINE
	P		$+67^{\circ} 01'$	"	8.4	095	3-3-3	ed Bin	400/60	" "cloud"	(GUIDING) FINE
		$1^h 0^m W$								<i>capped for 45 min</i>	
A		$5^h 5^m W$	$+33^{\circ} 52'$	$3\frac{1}{4}''$	8.7	A5	3-3-3	ed Bin	400/60	setting 30	FINE
		$0^h 38^m W$	$+29^{\circ} 15'$	3"	8.96	A2 IV	3-3-3	ed Bin	400/100	setting 29	^{max} <i>min</i> ← (GUIDING) FINE
3	A	$01^h 09^m E$	$+41^{\circ} 15'$	3"	8.5	B5 V	3-6	ed Bin	400/24	" (at min?) cloud"	(GUIDING) WEAK
				<i>1/2" / 24" out</i>			3/5	G12 Filter		setting 29	GOOD CENTER
										<i>col. short by dawn</i>	
										<i>mwp-2 / 65°F / 7.0 min (2 APOLONS)</i>	

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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.	Hour Angle Est
32595	MHD 328-116	19 55.2	39° 41.4	G 12	Π aO	9L	60	19 40 ⁽¹³⁰⁾	21:50	A	01° W
32596	HD 205021	21 27.9	+70° 07'	"	"	"		22 05 ⁽⁴⁾	22:09	B	01° E
32597	"	"	"	"	"	"		22 10 ⁽⁴⁾	22:14	C	01° E
32598	HD 205021B	"	"	"	"	9S		22 28 ⁽⁹⁾	22:37	A	
								0:10 ⁽⁴⁾	0:50		02° W
32599	HD 225009	23 ^h 57.5	165° 32'	G 12	11aO	9L		0 59 ⁽¹²⁰⁾	2:59	C	02:00 W
32600	HD 9774	01 30.5	+72 32	"	"	"	53	3 12 ⁽³⁾	3:42	B	01:58 W
32600 T1		Focus					53°			I	
								(012/5:37)			
# 32600 T1	calibration step wedge for plates 32595 - 32600										

Dome Temp. 6

Focus

Dome Temp.

Hour Angle
Est

Dome Temp. 60°

Focus

Dome Temp.

Transparency Conditions

clear, some cloud
cloud at 22:30 → 0h

Time	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
00	A	0 ^h 56 ^m W	+39° 46'	2"	2/0.8		8-8-8	Planetary Neb	800/		(WEAK COMPARISON) OK
01	E	0 17 E	+70 27	"	2.93	R2U	12-12	Vis Bin	20/15		(COMIDING) STRONG
04	G	0 12 E	"	"	"	"	12-12	"	20/15		STRONG
07	A		+70° 27'	"	27		8-8-8	"	400/100	no secondary cloud component	VERY WEAK
00		02 ^h 25 ^m W								Limited (cut short)	
09	E	02 00 W	+65 59	"	6.92	G80	8-8-8	Vis Bin	200/260	Passing clouds	VERY WEAK
02	B	01 08 W	+72° 54'	22"	6.25	G80	8-16	"	200/260	some cloud base clouded	VERY WEAK
							5/5				GOOD
										Closed 09 ^h (cloud)	
										MWP-2/90 mi @ 64°F (200 C/F) (11 Sep 69)	

Dome Temp. 58° F

Focus

Dome Temp. 54° F

Transparency Conditions very good

(AMAZING SEEING)
cloud by 21st - clear

Time	P.H.	Hour Angle End	Declination			Seeing		Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
			A	B	C	A	B							
			F2	F3	F4	F5	F6							
			29	30	31	32	33			5-5			33 is best focus!	
3	C	01:00 E	+33°	51'		<1"	8.7-9.0	A5	3-3-3	ECL. BIN	800/130	Focus 21.3	As. 2.6 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	8-4-4-4	"	800/400	TFL TOUCHES PIECE (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° 13" 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	"	800/230	DAYLIGHT (425)	SOME HAZE	WEAK
									7/5	As. 2.6 Bin				NOTHING?
mwp-2/9 min @ 425 / 2 ARC 1F9													(12 Sept/09)	
<p> IS THE PAINTING OVER? </p> <p>WE SINCEERELY HOPE SO.</p> <p>(I HOPE SO)</p>														

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Date Feb. Sept. 1919 1919 Observer T. H. Norton Julian Day

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 ^h 22.6 ^m	+36° 07'	G12	D00	9L	67F	19:40	19:58	B
32608	HD 173650	18 ^h 41.3 ^m	+21° 53'	"	"	9L	"	20:12	21:03	C
32609	HD 203156	21 ^h 15.0 ^m	+37° 49'	"	"	90L	"	21:33	22:47	B
32610	HD 172913	20 ^h 15.2 ^m	+21° 24'	"	"	9L	"	23:19	00:27	C
32611	HD 9996	1 ^h 26.5 ^m	+44° 04'	"	"	9L	"	00:52	01:42	F
32612	HD 17411	1 ^h 11.5 ^m	+41° 37'	"	"	9L	64F	01:55	02:48	A
32613	β Ari	1 ^h 49 ^m	+30° 19'	"	"	90L	58F	02:57	03:30	B
32614	HD 16604	2 ^h 19.6 ^m	+41° 02'	"	"	9L	"	03:23	05:13	C
32614 F	Focus			G12	D00				6.12/3:07	

Done Temp.
Film
Done Temp.

How long
Exp.

31E

31E

31E

31E

31E

31E

31E

79

Visitors Ny, Sv, Lp. 142 visitors
 & type shown: excellent seeing

Date Sat Sept 13/14 Observer J.F. 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.
32615	HD 173650	18 ^h 41. ^m 9 ^s	+21° 53'	G12	D ₂₀ O	9L	72°F	21:27 ⁽⁴⁷⁾	22:16	B
32616	HD 183056	19 ^h 22 ^m 55 ^s	+36° 09'	G12	II ₂₀ O	9L	71°F	22:36 ⁽¹⁷⁾	22:43	C
32617	HD 192913	20 ^h 12.3	27° 29'	G-12	II ₂₀ O	9L	"	22:53 ⁽³⁴⁾	0:17	A
32618	HD 203156	21 ^h 15. ^m 9 ^s	+37° 49'	"	"	9xL	69°F	0:23 ⁽⁴⁴⁾	01:07	B
32619	HD 8441	1 ^h 18. ^m 5 ^s	+42° 37'	"	"	9L	68°F	01:20 ⁽⁴⁰⁾	02:00	L
32620	HD 8441	1 ^h 18.5	+42° 37'	"	"	"	67°F	02:04 ⁽⁴¹⁾	02:46	D
32621	HD 9996	1 ^h 32. ^m 5 ^s	+44° 54'	"	"	"	69°F	02:55 ⁽³²⁾	03:31	C
32622	B Ari	1 ^h 49 ^m	+20° 19'	"	"	9xL	66°F	03:42 ⁽²⁾	03:44	A
32623	HD 25823	4 ^h 0. ^m 5 ^s	+77° 20'	"	"	9L	"	03:50 ⁽¹³⁾	04:07	B
32624	HD 71866	8 ^h 24.6	+40° 33'	"	"	"	"	04:18 ⁽⁶⁾	05:18	C
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

Hour	Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
22 ^h	46 ^m W	+21° 59'	1"	6.25	Ap	8-8-8	Ap prog	200/160		SL. WEAK
22 ^h	33 ^m W	+36° 17'	1.5"	4.75	As ₂	8-8-8	Ap prog	200/160	seeing fluctuated during for 2-4 min. (U-10")	FINE
03 ^h	17 ^m W	+27° 43'	2-3"	6.23	AO _p	8-8-8	Ap prog	800/640		(GUIDING) U.S.G. WEAK
03 ^h	05 ^m W	+38° 07'	1.2"	6.3	F216	8-8-8	Fernie	400/960		SL. WEAK
00 ^h	07 ^m E	+42° 59'	<1"	5.92	AO _p	2-8-8	Ap prog	200/160	broken <u>SAVED</u> 2 PIECES	<u>BROKEN</u> U.S.G. WEAK
00 ^h	37 ^m W	42° 59.5	1"	3.92	AO _p	8-8-8	Ap prog	200/160		FINE
01 ^h	09 ^m W	+45° 16'	1"	6.15	Ap	8-8-8	Ap prog	200/160		FINE
01 ^h	05 ^m W	+20° 41'	1"	2.7	A5	12-12	red lin	20/19	(guided by quick jester)	(SL. GUIDING) SL. STRONG
0 ^h	42 ^m E	+27° 33'	1"	4.75	As ₁	8-8-8	Ap Prog	200/160		FINE
0 ^h	55 ^m E	+40° 21'	3"-2"	6.53	AO _p	8-8-8	Ap prog	200/114	Cut by SUN	(GUIDING) SL. WEAK
		out out			in in					GOOD

Date Sun. Mon. Sept. 14-15, 1969 Observer R. - [unclear] Julian Day _____

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
32625	HD 176318	18 54.6	+38° 07'	G12	Ilfo	9xL	71°F	19 31	20:24	B
32626	HD 253156	21 ^h 15.4	+37° 49'	"	"	9xL	71°F	21:41	23:04	A
32627	HD 212943	22 ^h 22.2	+04° 12"	"	"	9L	69°F	23:16	00:10	A
32628	HD 2441	1 ^h 12.5	+45° 37'	"	"	9L	"	00:42	02:19	B
32629	HD 9906	1 ^h 32.5	+44° 54'	"	"	9L	65°F	02:26	03:15	C
32629M	focus test	23:27/100		"	"	9	"			B
32630	B ARI	01 49.0	+20° 19'	"	"	9xL	"	03:39	03:44	A
32631	HD 25823	04 02.5	+07° 20'	"	"	9L	"	03:54	04:37	B
32632	HD 23424	05 31.8	+00° 02'	"	"	"	63°F	04:41	05:20	C
									6/12/7:45	
# 32032 T1	calibration	step	wedge	for	plates	32607 - 32616				
T2	"	"	"	"	"	32617 - 32625, 32629				
T3	"	"	"	"	"					

Dome Temp. 73°F

generator was left on from main building

Transparency Conditions scattered clouds

Focus

Dome Temp. 63°F

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
07 45W	38° 14'	2-3	5.7	B6-7	8-8-8	Spect. Bin.	200/203	clouds	(GUIDING) * SL. WEAK
01:3 ^m W	38° 07'	2"	6.3	F2-16	8-8-8	Fernie	400/160	1" off on end	SL. WEAK
01 ^h 24W	104° 35'	2"	5.9	K0	8-8-8	Std. Vel.	400/560	clouds	WEAK
00 ^h 16W	+43° 00'	2'	5.92	A9p	8-8-8	Ap Prog.	700/320		SL. WEAK
00 ^h 57W	+45° 47'	2-3"	6.15	A p	8-76	"	400/146	cloud at 2:10	WEAK
					5-5	modifier			GOOD
01 ^h 11W	200 43'	3	2.7	A5	12-12	Ecl. Bin	10/21	cloud at 03:20	(SL. GUIDING) FINE
00 10E	27° 24'	2-3"	4.75	A5i	8-8-8	Ap Prog.	200/160	cloud at 04:10	FINE
01 04W	+08 20'	2"	5.2	F9	8-16	Std Vel	200/150		WEAK
								down	
								mod 2 / 9.0 min @ 62°F / 2900 CIF9	(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.									

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Date 16 Sep 8 / 69 (Tues) Observer H. 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.
32632 F1-F7				6140	Ilco	13	68° F			

Dome Temp
Focus
Dome Temp

Hour Angle
End

6:25

Date Sept 15/18 1969 Observer R. - Fuj - 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.
32633	MY Cys	20 16.2	33 38	G40	IIaD	13L	60°F	19:45 ⁽⁵⁵⁾	20:40	A
32634	HD 15749	19 44.0	+38 24					20:46	21:03	B
32635	189514	19 55.6	+17 15				58°F	21:15 ⁽³¹⁾	21:44	C
32636	HD 198134	20 42.2	+34 20					21:49 ⁽¹⁰⁾	22:05	A
32637	HD 211700	22 11.1	+52 49				57°	22:30 ⁽²⁾	22:51	B
32638	SZ Pac	22 08.3	+02 08				56°	23:03 ⁽¹³⁾	01:14	C
32639	stars	22 07 / w					54°F			A
32639	stars					17L		01:49 ⁽¹³⁾	04:02	B
								(640/6:44)		
32639 71	calibration	step wedge for plates			32633 - 32639	(18 Sept/69)				

Dome Temp. 60°F

Transparency Conditions scattered clouds

Focus

Dome Temp. 53°

Time T.	PH	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
00	A	09E	33 54	3	8.7	45	^{G4} 15-15-15	Fel. Bin.	800/100	27.345	SL. WR
00	B	43W	38 40		6.9	M2II	¹⁰ 3-3-3	B+	200/60	33.7	FINE
01	-	15W	17 27		7.0	M4II	3-3-3	'	200/60	33.9	FINE
00		48L+	34 16		6.37	*3III	3-3-3		200/50	seconds	FINE
00		08W	+73 10	3	7.25	385	3-3-3		200/36	33.2	FINE
01		32W	+02 32		8.5	*1II	3-3-3	Fel. Bin.	800/176	seconds	FINE
							5-5				** GOOD
		01 ^H 00W	+25 00'				3-				Hg Emission only.
<p>MWP-2 / 7.0 min @ 68°F / (240 c IHE)</p>											
<p>* TRY 2-2-2 COMP. WITH G-12</p>											
<p>** IN THE HALF-APERTURE FOCUS TEST, THE OUTSIDE LINES APPEAR TO HAVE GHOST IMAGES ON THE RED SIDE</p>											
<p>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.</p>											

27

Date Sept 19, 20 Tau Cen 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	01 15.4	37° 47'	G12	IIaD	9x2	54	21:27 ⁽²¹⁾	22:38	A	07:11
32641	HD 21699	03 25.1	47 41	"	"	9L	51F	22:50 ⁽²⁰⁾	00:31	B	3:21E
32642	HD 36778	05 14.9	-18 37			9L		04:06 ⁽²⁴⁾	04:24	C	12:14E
32643	" 28 TAU	03 43.2	+03 50			9XL		04:33 ⁽²⁵⁾	04:58	A	07:11
32644	27 Tau	03 43.2	+03 45			9XL	50°F	05:00 ⁽⁶⁾	05:06	B	07:11
									6:12/3:41		

Dome Temp.

Focus

Dome Temp.

Hour Angle
End

Dome Temp. ... 51

Focus

Dome Temp. ... 50°E

Transparency Conditions ... Clear; clouded in at

about 23:20 EST.

Clear about 04:00 EST.

Time S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
29	A	0 ^h 57 ^m W	38 07	3-4	6.3	F2II	8-8-8	Fe*	⁶⁰⁰ 400 / ¹⁰⁰⁰ 480		FINE
31	B	3 ^h 21 ^m E	47 57	~4"	5.36	B8II	8-8-8	Bp Prog.	2x100 / 156	Bp Prog. Cloud about half-way through the exposure Cloud at 00:45 because of clouds.	FINE
30	C	1 ^h 14 ^m E	-18 30	~5"	6.05	B8	8-16	Bp Prog.	2x100 / 118	Cut short due to insufficient time.	VERY WEAK
33	A	0 ^h 49 ^m W	+24 05		5.01	B8p	8-8-8	" "	2x100 / 213		SL. STRONG
30	B	0 ^h 57 ^m W	+24 00		3.50	B8II	8-16	" "	2x10 / 20		SL. STRONG

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
	A	00:13 W	+38° 15'	1-2"	5.7	B6-7	8-8-8	SPEC. BIN.	200/160		FINE BROKEN
	B	01:14 E	+38° 08'	~1"	6.3	F2Th	8-8-8	FERNIE*	400/550	BROKEN 2 PIECES	V. SL. WK
	C	01:10 W	+19° 07'	2-3"	8-9?	F?	8-8-8	NOVA DEL.	800/930	FIELD DRAWN (RIGHT STAR)	GOOD
	E	03:30 W	+33° 54'	1.5"	8.7	A5	8-8-8	ECL. BIN.	800/300	TOO FAZY FOR RESULT SOME	VERY WK.
	F	04:08 W	+47° 07'	2-3"	7.5	K0	8-8-8	?	400/550		SL. WEAK
	G	00:31 W	+20° 40'	2-3"	8.7	A5	12-12	ECL. BIN.	30/81		(GUIDING) SL. STRONG
	H	00:11 E	+19° 32'	1-2"	6.4	K1	8-8-8	STD VEL	400/560		SL. WEAK
	I	00:07 W	+41° 15'	1-2"	8.5	B5I	8-16	ECL. BIN.	800/150		VERY WEAK

MWP-2/9.0 min @ 0.1° C (2A0 < 12.9)

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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 173653	18 ^h 41.3 ^m	+21° 53'	G12	IIaO	9XL	65°F	19:27	21:59	B
32654	HD 173654	02 34.8	+55° 59'	"	"	9L	"	22:28	23:00	C
32655	HD 9996	05 ^h 57.6	+45° 15'	"	"	9L	61°F	22:51	23:00	B
32656	HD 4441	01 ^h 16.5	+45° 37'	"	"	9L	"	01:17	01:45	C
32656 T1	calibration	step wedge	48 plates							

G.L.: 5:04

23 Sept 1969

Dome Temp. ... 65° F

Transparency Conditions NO CLOUD, OVERALL SLIGHT HAZE

Focus

foc

Dome Temp.

Time T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
		03 ^h 4 ^m W	+22° 01'	2"-3"	6.50	Ap	8-8-8	Ap prog.	200/200	<u>broken 2 pieces</u> expanding	* GUIDING FINE
		02 ^h 45 ^m E	+56° 25'	2"-3"	3.34	KOZ	2-12	BLB/BLB	20/28		FINE
		00 ^h 53 ^m E	+45° 17'	3"	6.12	Ap	8-8-8	Ap prog.	450/200		FINE
		00 ^h 10 ^m W	+43° 01'	3"	6.17	Ap	8-8-8	Ap prog.	400/17	slight fog - broken fused in quickly	NOTHING
		MWP-2/ 9.0 min @ 60°F / (2900188)									
		* THE LONGER PIECE MUST HAVE SHIFTED SLIGHTLY AFTER BREAKING, AS IRON LEGS ON IT ARE ALL FUSED.									

Date Sept 20, 1953 Observer I. Iy. Takahara Julian Day 182

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
32657	(F1 - F6)			G40	Ilao	13	54°F			
32658	(F1 → F5)			G40	Ilao	13	54.5°F			
32659	HDSNH1	1 ^h 18 ^m	14 ^o 53'	G40	Ilao	13	55°F	3:12	3:43	A
32660			"	G40	Ilao	13	54.5°F	3:09	3:17	B
32661	HDSNH	1 ^h 23 ^m	14 ^o 25'	G40	Ilao	13	53°F	3:42	3:55	B
32662						13	"	4:09	4:14	E
32663	HDSNH	1 ^h 23 ^m	14 ^o 25'	"	"	"	53.5°F	4:31	4:35	"
32664	HDSNH	1 ^h 20 ^m	14 ^o 35'	G40	Ilao	13		4:04	5:19	B
32665	F			G40	Ilao	13	50.5°F		OUT - OUT	B

(6+9) 1:37

Dome Temp.
Focus
Dome Temp.
Hour Angle
End

F11326

Dome Temp. 57°F

Transparency Conditions EDMUNDSON

Focus

! THIN WHITE CLOUDS

Dome Temp.

FLARE 1958

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(29)B]	[F6(28)C]	[F7(27)A]	[F8(26)B]		
[F1(30.5)A]	[F2(30.2)B]	[F3(31)C]	[F4(31.5)A]	[F5(31.3)A]	[F6(32)C]	[F7(32.5)A]	[F8(33)B]		
01 ^h 27 ^m W	42° 22'	3	5.2	AG ₁	1-3-2	A. P. M.	200/50	Setting = 21 1/2	FINE
02 ^h 00 ^m W	45° 00'	3	"	"	2-2-2	"	200/40	"	FINE
02 ^h 33 ^m W	45° 18'	3	6.5	AG ₁	2-4	A. P. M.	200/40	Setting = 20.5	FINE
03 ^h 40 ^m W	"	"	"	"	2-4	"	100/25	100% X200	(GOOD FOCUS) FINE
04 ^h 31 ^m W	42° 35'	"	4.8	AG ₁	2-4	A. P. M.	200/50	100% X200	FINE
05 ^h 02 ^m E	40° 20'	4"	5.0	AG ₂	2-2-2	"	400/80	"	FINE

Object: Pleiades - Syrac

Date: Sept 27 1937 Observer: J. T. Julian Day: 244

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	Em. (Pleiades)	05h 32m 27s	+23° 37'	"	F2B	317	54°F	21:30	21:58	B
32666	HD 183656	19h 20m 2s	+30° 07'	640	D 60	13x4	50°F	21:55	22:54	B
32667	HD 183657	20h 12m 3s	+27° 21'	"	"	"	54°F	22:07	22:25	B
32668	HD 8441	1h 18m 5s	+42° 37'	"	"	"	54°F	22:55	23:12	B
32669	HD 9996	1h 32m 30s	44° 54'	"	"	"	52°F	23:30	23:45	B
32670	HD 20223	4h 00m 28s	27° 20'	"	"	"	52°F	01:19	01:25	B
32671	Em. (Pleiades)	05h 32m 27s	+23° 37'	"	"	"	48°F			

(640/0:58)

Dome Temp.
Focus
Dome Temp.
Hour Angle
End

Dome Temp. 54°F

Transparency Conditions Cloud 2 - 1.00

Focus

Dome Temp. 49°F

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
Temp 54°F									
2h 00m		3"	4.75	A _p	2-4	A _p	200/40	" 31	FINE
2h 10m	+42° 40'	2"	5.20	A _p	2-4	"	200/40	" 31	POOR GUIDING, FINE
2h 02m E	+42° 59'	3"-4"	5.92	A _p	2-22	"	300/40	" 31	FINE
2h 18m E	+45° 15'	4"-3"	6.15	A _p	2-72	"	200/40	" 31	FINE
3h 30m	+27° 31'	3"	4.75	A _p	3-3	"	200/40	" 31	GOOD FOCUS FINE
					3-3				SL. CT VIOLET
						Cloud		04 h 25m	

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Date Sept 29, 29 Sun Observer Lo - 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.	Hour Angle End
32671	HD 177517	15° 31' 50"	-15° 41'	G-12	NaO	9x Long	52°F	19:06	21:28	A	2:30W
32672	HD 8441	14° 18' 33"	42° 37'	G-12	NaO	9x Long	49°F	2:19	2:25	B	9:10W
no	focus (saving scarce G12 plates)										
									6:12/5:08		
32670 T1	calibration step	wedge	for plates		32659 -	32670			29 Sept/69		
32672 T1	calibration step	wedge	for plates		32671, 2				(2 Oct/69)		
T2	"	"	"	"	new plates				"		

Dome Temp. 52°F

Focus

Dome Temp. 48°F

Transparency Conditions

mostly clear intermittent clouds

Started at 22 hours
Started 2:15

Started 2:45, 50

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
2° 35' W	-15° 42'	3-5	5.71	A0si	68-8	Ap Program	2x100 / 180	Completed at 19:32 START 19:44 STOPPED BY PLATFORM	GUIDING FINE
4° 18' W	42° 59'	3	5.92	A0p	7-7-7	Ap Program	4x100 / 460	START 20:15 STOPPED BY PLATFORM	4:45 GUIDING WEAK
mwp-2 / 7 min @ 61°F						(240 C 148)			
mwp-2 / 9 min @ 61°F						(240 C 149)			
4						(240 C 149)			

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Visitors from Waterloo, a York viewed Ring Nebula 1st half

Tues - Wed!

Date Sept 30-21 **REALLY!** Observer B. J. Loh, 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.	Hour Angle End
32672 F	(Focus tests, open aperture)						57°F		FI [A, B, C, (slit width)		
32673	BD+57°245	1960 (counts for NGC 45) 01 ^h 17 ^m .0	+58°00'	C-60	T-6-0	30 L	57°F	23:27 ⁽⁷²⁹⁾	01:36	B	04 ^h W
32674	BD+57°240	≈ " "	≈ " "	"	"	"	59°F	2:10 ⁽⁶⁵⁾	3:15	B	72 ^h W
32674 T1	calibration step wedge for plates 32673, 32674							^(640/3:10) (26ct/09)			

Dome Temp. 56°F

Transparency Conditions some cloud

Focus

slightly hazy

Dome Temp.

Bad night for faint NGC 457 program i.e. 3/4 moon

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
3d setting 33, F2 [B, 33 width 13] F3 [8, 34] F4 [8, 35] F5 [8, 32], F6 [8, 31]									
slit width 13									
0 ^h 40 ^m W	+57° 57'	~3'	10.1	B-V = .27	1-2-2	NGC 457	8x100/140	setting 35	(focus?) FINE
2 ^h 25 ^m 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-7 / 7 min @ 61° F (240C max)									

Date ^{Fri - Sat} Oct 3 - 4 Observer Ta, P. Jordan Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
32675	HD 186791	19 ^h 41 ^m	+10° 22'	G12	UoO	9L	59°F	18:50 ⁽⁷⁾	18:57	A
32676	HD 203156	21 ^h 15 ^m	+37° 49'	G12	UoO	9L	58°F	20:42 ⁽⁹⁾	22:16	C
32677	HD 8442	1 ^h 22 ^m .5	+42° 37'	G12	UoO	9L	56°F	22:55 ⁽¹⁴⁾	0:59	B
32678	HD 9996	1 ^h 32 ^m 30 ^s	+44° 54'	G12	UoO	9L	53°F	1:32 ⁽¹⁰⁾	3:22	A
32679	HD 25823	4 ^h 0 ^m .5	+27° 20'	"	"	9L	50°F	3:41 ⁽²⁵⁾	4:06	A
32680	α Tau	4 ^h 30 ^m	+16° 18'	"	"	9L	48°F	4:45 ⁽⁵⁾	4:50	B
32680 F	Focus			"	UoO		48°F			B
32680 T1	cal. exp wedge	for plates	32675-32680							

6:14 6:04

Done Temp. 6
Focus
Done Temp.

Hour Angle
End

Dome Temp. 63°F

Transparency Conditions quite clear

Focus

changed from 640-612

Dome Temp. very bad seeing

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
0 ^h 15 ^m E	+10° 33'	2"	4.15	K3II	12-6	std Vel	40/42	cloud for 1 hour	Fine
1 ^h 32 ^m W	+38° 06'	3"	6.3	F216	6-6-6	Fernie *	400/50		Fine
0 ^h 10 ^m W	+42° 59'	2-4"	5.92	A0p	6-6-6	A p prog	400/310	broken 1/2 min	Fine
2 ^h 20 ^m W	+45° 15'	3"	6.15	Ap	6-6-6	Ap Prog	400/300		Fine
0 ^h 39 ^m W	+27° 33'	"	4.75	Asi	6-6-6	"	40/26		Fine
0 ^h 50 ^m W	+16° 28'	5"	2.39	K5III	9-9	std Vel	40/50	prob 4x5 string	Fine
						5/5	no filter		REMARKS NO UTILET
								Note* forgot to remove UV filter from slit head but I removed it for focus test	
								I did this to check how bad it is Inscr - check by criteria for estimating plate quality & focus test	

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Dy Ir Ib 158 VISITORS
 Nov E Syn

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 ^h 18 ^m 5 ^s	+47° 37'	G12	D20	9xXL	48CF	01:01		B

Dome Temp.

Focus

Dome Temp.

Hour Angle
Ecl

Dome Temp.

Transparency Conditions Clouded in after visibility

Focus

Clear by 0:50, clouded by 01:15

Dome Temp.

512 - 161 (unclear)

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
	43° 01'	3	5.92	A0	6-12 A	Prism	4x100	auto glow reduction 1200 fast 7000 stopped during 3:35 took 1/2 sec comparison hour angle 2:50 stopped stopped exposure at 2:22 (approx)	VERY WEAK
<p>Anson - noticed frig was off (had connection) It was completely defrosted; lots of water sopped it up</p>									
<hr/> <p>T_n</p>									

45

Date Oct 5-6 Observer T.J. Hanes/H. Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
32682	M1 Y Cyg	20 ^h 16. ^m	+33° 38'	G12	D ₆₀	13 S		19:11 ²⁴	22:55	A
32683	HD 703156	21 ^h 15. ^m	+37° 49'	"	"	9xL		23:20 ⁷⁶	0:36	B
32684	HD 8441	1 ^h 18. ^m	+42° 37'	"	"	9xL	51°F	00 47 ⁷⁹	2:06	C
32685	BF Aur	04 58.0	+41 09	"	"	13 S	51°F	02 18 ⁸⁹	4:47	A
								(6:12 / 7:44)		
32685 F	Focus									B
32685 T1	calibration step wedge for plate					32681 - 32685		6 Oct 1969		
	G-12 film changed from J-R							30 46-R		

Dome Temp.

Focus

Dome Temp.

Hour Angle
End

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

Transparency Conditions clear, some haze

Focus

Dome Temp. 52°E

cloud by 20:30
hazy at 03:00

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
3 ^h 16 ^m W	+33° 54'	1.2"	8.79	A5	6-6-6	icl Bin prog	400/190	cloud, capped a few times	WEAK
3 ^h 59 ^m W	+38° 09'	"	6.3	F2TB	6-6-6	Fernie*	400/450		V. SL. WK
0125 W	+43° 07'	1.2"	5.92	ADP	6-6-6	Ap Prog	400/360		(GUIDING) FINE
0 75 W	+41° 16'	1"	8.3 -7.2	B5X	3-3-3 3-6	HL Ecl. Bin	400/70	ex meter removed 03h 55:00 - 02:00 exposure capped at 02:00	VERY, VERY WEAK
					4/4	no filter		(cloud-cut short)	
								(focus S-R)	SL. CTD WK
						Mirror Heat		Pilot out	
								Repair - 1 Oct 2/67 HV	

mwp-2 / 9.0 min @ 61°E (2700, 25)

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Date Tues-Wed 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.	
32686	R SCT	18 ^h 42.1 ^m	-5° 48' 8"	612	Dag	9L	57°F	18:38 ²⁹	20 ^h 07 ^m	A	
32687	HD 203504	21 ^h 17.5 ^m	+19° 23'	"	"	9L	"	20:38 ²⁶	21 ^h 04 ^m	B	
32688	HD 206778	21 ^h 39.3 ^m	+9° 25'	"	"	"	56°F	21:28 ⁷	21:35	B	
32689	HD 211300	22 11.1	72 49	"	"	"	55°F	21:55 ¹¹	23:46	B	
32690	HD 9774	1 30.5	72 32	"	"	"	"	22:58 ⁷⁰	01:08	C	
32690F	Focus (focus and 30.2)			612	Dag		55°F			B	
								612/5:03			
32690 TI	calibration step wedge for plates 32686 - 32690								6 Oct / 69		

Dome Temp. ✓
Focus
Dome Temp.

Hour Angle
End

10/2/69

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 ???

Hour	Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
02 ^h	09 ^m W	-5° 42'	13 ["]	538.6	68-K0	6-6-6	RV Tau Var	400/410	36 (lantern) capped 19 ^h ; uncapped 19 ^h 25	WEAK Detractable
00 ^h	32 ^m W	+19° 43'	"	5.22	K1 IV	6-6-6	Vis Pin	40/42	guided by EJM	SL. WEAK
00 ^h	40 ^m W	+9° 46'	23 ["]	3.98	K2 Ib	9-9	"	40/42		V.SL. WK
02 ^h	15 ^m W	+73° 11'	3"	7.08	G8 II-II	6-6-6	"	400/400		SL. WK
0 ^h	20 ^m W	72° 55'	"	6.25	G8 II-III	6-6-6	"	400/350	cut short by cloud	SL. WK
								5/5	(focus 30-R)	V.SL. C. TO VIOLET
mwp-2 / 9.0min @ 68°F					(290 citta)		Closed	01:30,	<u>Rain</u>	
Put in cotter pin in dec slow motion orimate.										
The paper clip cotter pin broke.										
from changed from 20-R to 40-R										

49

Date Oct 2-9, Wed. Thru. Observer Dr. / Ta. 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 ^h 41 ^m 21 ^s	+21° 53'	G12	Ilao	9-L	50°F	19:58	21:30	B	2:40 W
32697	β -Ari	01 ^h 49 ^m ?	+20° 19'?	G12	Ilao	9-XL		22:08	22:16	B	2:45 E
32692	HD-84111	01^h 18^m 15^s	+2° 31'	G12	Ilao	9-L		22:34		B	
32693	28 Tau	03 ^h 42 ^m 2	+23° 50'	G-12	Ilao	9XL	47°F	00:29	01:09	B+C	1:40 E
32694	27 Tau	03 ^h 43 ^m 2	+23° 45'	"	"	9XL	46°F	01:20	01:29	A	1:40 E
32695	HD21699	03 ^h 25 ^m 1	+47° 6'	"	"	9L	46°F	01:45	02:22	B	0:40 W
32696	HD21699	"	"	"	"	9L	46°F	02:38	03:16	C	0:40 W
32697	HD34798	05 ^h 14 ^m 9	-15° 37'	"	"	9L	44°F	3:27	05:08	A	0:44 W
32698	δ Tau	05 ^h 20 ^m 8	+25° 31'	"	"	9L		5:13	05:16	B	0:45 W
32699	γ Aur	04 ^h 59 ^m 5	+41° 06'	"	"	9L	42°F	5:21	05:26	C	0:45 W
32700	δ Tau	05 ^h 20 ^m 8	+25° 31'	G12	Ilao	9XL	"	5:39	7:43	A	1:13 W
32700 F	Focus			G12	Ilao	9L	42°F			B	
32700 T.	calibration	steps	wedge for plates		32691 - 32700			9 Oct / 69			

G12/6:03

Dome Temp. 50

Transparency Conditions Clear

50

Focus

cloud 23:44 -> 23:07

Dome Temp. 41°F

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
3:40 W	+21° 57'	3"	6.25	Ap	8-8-8	Ap Program	2x100/150		(SE. GUIDING) FINE
2:45 E	+20° 43'	3"	2.7	As	12-12	Grz	2x10/19		SL. STRONG
		3"	5.92	Ap		Ap Program	2x100/150	Plate holder top & bottom pods mixed	
1:45 E	+24° 06'	3"	5.01	Bp	8-8-8	Bp Program	2x100/2:3	Plate holder top & bottom pods mixed up - i.e. top from B; bottom from C.	(GOOD AT 1/3) V.S.G. STR.
1:26 E	+24° 01'	2"	3.54	Bp	8-16	Bp Program	4x10/44		SL. STRONG
0:09 C	+47° 57'	3"	5.16	Bp	8-8-8	Bp Program	2x100/151		FINE
0:40 W	+47° 57'	3-3"	5.16	Bp	8-8-8	Bp Program	2x100/150		V.S.G. STR.
0:44 W	-18° 31'	3-5"	6.05	Bp	8-8-8	Bp Program	2x100/150		(GUIDING) FINE
0:45 W		3"	1.52	B7III	12-12	Bp Program	20/15		(GUIDING) SL. STRONG
0:15 W		11	2.99	B3V	12-12	Bp Program	20/15		STRONG
1:13 W		11	1.52	B7III	24	Bp Prog	20/22	fast-guided	STRONG
								focus 40-R	CENTRE TO UTNET
								plates seem to be heating up after handling plates	
<p>UNEXPOSED PLATES SHOULD BE RETURNED TO REFRIGERATOR OR THEY WILL BE FOGGED (mix #2 has been sitting out for 2 days)</p>									

Date Oct 9-10, 1945 Fri Observer Hd, Ten, P. ... ^{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.
32701	AG 10133	19 ^h 31.0	+28° 52'	G17	D00	18 ^x S		18:29 ¹⁵	21:37	A
32702	HD 213997	22 ^h 29.9	+26° 05'	G17	D00	13S	54°F	21:45 ⁹¹	23:16	C
32703	HD 223094	23 ^h 41.5	+26° 09'	G17	D00	13S	52°F	23:25 ¹⁶²	2:07	B
32704	28 Tau	03 ^h 43.2	+27° 50'	G17	D00	9xL	52°F	02:16 ⁴⁹	03:05	A
32705	27 Tau	03 ^h 43.2	+27° 45'	G17	D00	9xL	52°F	03:12 ¹³	03:25	C
32706	HD 21699	02 ^h 25.1	+67° 41'	G12	D00	9L	51°F	03:36 ²⁸	04:09	B
32707	1 Ori B	05 ^h 36.5	-5° 59'	G17	D00	9L	51°F	04:12 ⁹¹	5:43	A
32707F	Focus			G17	D00		51°F			C
32707T1	calibration	step	wedge	for	plates	32704 - 32707		6:12 7:02		
T2	"	"	"	"	"	# 32703		10 Oct/49		
								10 Oct/49		

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

Dome Temp. 55°F

Transparency Conditions clear

52

Focus

High cloud at 2215 - 23

Dome Temp. 52°F

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
03 ^h 00 ^m W	+29° 04'	2-3"	9.15	F7V	4-3-5 4-4-4	Sec Std Vel	500/310	Sec Std vel.	WEAK
1 ^h 41 ^m W	+26° 28'	1-2"	8.98	K4E	4-4-4 4-4-4	"	800/480	Obs. out 5" from programmed	WEAK
3 ^h 19 ^m W	+26° 34'	"	8.97	K5E	4-4-4 4-4-4	"	800/490	seeing bad & cloud 1:15	WEAK
0 ^h 15 ^m W	+24° 04'	~2"	5.01	PKp	8-8-8	Bp Program	2x100/100		FINE
0 ^h 25 ^m W	+23° 59'	~2"	3.54	20E	8-16	Bp Program	4x100/100		SL. STRONG
01 ^h 31 ^m W	+27° 57'	~2"	5.20	21p	8-8-8	Bp Program	2x100/100		FINE
1 ^h 07 ^m W	-5° 53'	2-4"	~7.3	19	8-8-8	Bp Program	2x100/170	col by dew	ALMOST BLANK
					5/5	no filter		focus 50-R	GOOD
	2x100-2 / 90 aim @ 68°F								
	"	10.5							

Dome Temp. 48°F

Transparency Conditions

Focus

Dome Temp.

Hour	Angle	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
40	A	02 49W	38 09	3	63	F250	8-85	F ₂₅	400/450	FINE
5		1417E	20° 41	3	2.7	A5	12-12		40/40	through lens BROKEN
			focus 50-2				55	no film	clouded over	(GOOD)
		MCP-2 / 9.0 min @ 68°F (290C 129)								

55

Ursulae My. Sw. Lp. 160 visitors.

what happen to him (KROLL) ??

Date Oct 18-19 Sat & Sun Observer R. / Ri - Gulliver Julian Day

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
32710	HD 3765	00 39.3	39 40	G12	IIaO	135	50°F	21:32	00:01	A	0°50'
32711	HD 8441	01 18.5	42 37	'	"	9L		00:27	02:02	B	2°33'
32712	o Ceti	02 14.3	-3 26	G12	IIaO	7xH	45°F	02:32	03:39	C	2°50'
32713	α Ori	05 53.5	+7 24	'	"	"	45°	03:56	04:08	A	0°15'
32713 F1	focus test	217 017	017			9				B	
32713 T1	calibration strip wedge for plates										

612/5:43

20 Oct /69

Dome Temp.

Focus

Dome Temp.

Hour Angle
Ecl

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 PPOB	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 @ 64 F / (240C/179)									

11/14

Dome Temp. 30°F

Transparency Conditions "Scattered Sky"

Focus

Dome Temp. 25°F Boy is it cold

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
2 ^h 27 ^m E	24 06	4"	5.01	B8p	8-	Bp PROG.	400/78	thin clouds; printable moonlight on spectrum.	* U.S.L. STR.
0 12 E		4"			8-	400/446	400/258	should watch this plate for possible flexure (SEVERE)	
1 46 W					8		400/110		
2 04 W	24 01	3'-4"	3.54	B8III	8-8-8	Bp Prog.	80/52	MK 1st.	SL. STRONG
3 15 W	+47° 57'	3'-4"	5.36	B8III	8-8-8	Bp Prog.	4x100/301		SL. STRONG
4 05 W	+47° 57'	3"	"	"	8-8-8	Bp Prog.	4x100/300		SL. STRONG
2 38 W	-6° 51'	~4"	2.47	B8III	12-12	Bp Prog.	8x10/50	MK 1st. Cut short because of cloud + moonlight.	FINE
	focus 50-R				5-5	no filter			SL. S. TR IDLE
	from changed from				50-R	to	70-R		

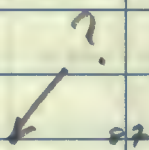
141

Körwendi

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.	Hour Angle End
32719	HD 203156	21 ^h 15. ^m 4	+37° 49'	G12	Da0	9.6	42°F	18:40	20:00	A	0° 4' W
32719F	Focus			G12	Da0		42°F			C	
32720	Sky Spectrum done Oct 25			G12	Da0	30L		19:05	21:22	A	

G12/2:47



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
1:00	A 0° 40" W	+38° 08'	3"	6-3	F216	8-8-8	F ₀	400/315	covered by cloud	(GUIDING) WEAK
A	C	in in / out out				5/5	no filter		from 70-R	GOOD
									Closed at 0° 30"	
1:30	A	[towards South, as far down as possible]				20sec		800/400	Resolution in ?	15" focus. ?
									away down due to 26"	
									slit width	

17

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
32721	HD21699	03 ^h 25 ^m .1	+47°41'	G-12	Il.0	9L	46°F	03:58	04:54 ^{s6}	A	2 ^h 35 ^m
32722	τ Ori	05 ^h 12 ^m .8	-6°57'	"	"	"	48°F	05:05	05:16	B	2 ^h 05 ^m
								05:29	05:33		2 ^h 22 ^m
32723	γ Ori	05 ^h 19 ^m .8	+6°16'	"	"	"	43°F	05:46	05:50	C	2 ^h 05 ^m
32723F	Focus test			"	"	9	42°F			B	
								(612/1115)			
32723 T1	calibration step wedge for plates				32719, 32721-32723			27 Oct/69			

63 ALUMINIZING: 28, 29 OCT (primary only)

Date Oct 30⁻³¹/69, Thurs-Fri Observer H.H. To/ R. 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.
32724	AG 10133	19 ^h 31.0 ^m	+28° 52'	G12	D60	18 S	47°F	17 59 ¹⁵⁶	20 35	A
32725	HD 213947	22 29.9	+26 05	G12	D60	13 S	40°F	20 46 ⁷⁴	22 00	B
32726	HD 228099	23 4.5	+28 09	G12	D60	13 S	45°F	22:08 ⁶⁸	23 16	C
32727	HD 4288	00 41.1	+30 25	G12	D60	13 S	38°F	23 34 ¹⁵⁵	02 04	A
32728	HD 36919	05 49.7	28 21	G12	D60	9L	36°F	02:20		B
32728	HD 71649	03 ^h 25.1 ^m	+47° 41'	G12	D60	9L	29°F	03:59 ²⁵	04:24	C
32729	22 Tau	02 ^h 45.7 ^m	+20° 50'	G12	D60	9XL	38°F	04:31 ²⁷	05:01	A
32730	32 Tau	02 ^h 43.2 ^m	+22° 45'	G12	D60	9L		05:06 ⁹	05:15	C
32731	HD 21699	03 ^h 25.1 ^m	+47° 41'	G12	D60	9L	37°F	05:22 ⁴²	06:04	B
32731 F	Focus			G12	D60					B
								6:12 / 9:16		
32731 T1	calibration	step wedge for plates			32724 -	32731		31 Oct/69		

Dome Temp. 47°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 ^h 20 ^m W	+29° 03'	2.5"	9.55	F7V	4-4-4	Sp. 57/101	800/450	See 9/24 Vol. (1 END FOGGED)	SL. WK. FINE -
W 1 ^h 45 ^m	+26° 28'	"	8.97	K 4II	3-3-8	Sp. 56/101	800/500	See 9/24 Vol. Some cirrus	SL. WK
W 1 ^h 51 ^m	+28° 33'	2"	8.97	K5III	8-8-8	Sp. 56/101	400/300	Hours quoted	SL. WK
3 ^h 1 ^m W	+30° 19'	2.4"	8.80	K3III	16-8	Sp. 56/101	400/300	1 min. 20 sec. (F. 10) Capped for ~ 2 min. at 00:20 to check on the problem. Start of 02:30	SL. WK
6^h 00^m	3"	8.21	2000	8	Bp Program	100/100	300	discarded	
3 ^h 13 ^m W	+27° 08'	3"	5.76	Bp	8-7-8	Bp Program	200/150		SL. STR.
3 ^h 34 ^m W	+29° 06'	2"	5.01	Bp	8-8-8	Bp Program	200/125		SL. STR.
3 ^h 49 ^m W	+29° 01'	2"	3.59	Bp	12-12	Bp Program	200/100	new photo box opened	SL. STR. FINE -
6 ^h 54 ^m W	+47° 57'	2"	5.36	Bp	8-8-8	Bp Program	200/140		FINE
					5/5			focus 70-2	GOOD
<p>MWP2 / 11.5 min @ 64°F (2900139) calibration fogged</p> <p>Answer - Please give my plate about 2 min more development 7/25</p> <p>* 2 pc from Bp with the same exposure (some overexposed)</p>									

Date Nov 5-6 1969 Observer T. N. Hayes 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.
33732	HD 22928	3^h 35^m	47[°] 25'	G12	II 00	9L	42°	0:30	01:05	A
			<i>closed</i>		<i>01 h</i>			<i>(cloud & wind too strong)</i>		

Hour Angle
End

67 SECONDARY ALUMINIZED.

Date Nov 6-7 Thurs-Fri Observer Ia/H/ Jm-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 223099	23 40.5	+28° 09'	G12	D40	13s		19:18 ⁽¹⁰⁸⁾	21:06	A
32733	γ Lyr	18 55.2	+32° 33'	G12	D40	9L	41°F	21:11 ⁽¹⁰⁹⁾	21:17	B
32734	HD 4388	0 41.1	30 25	G12	D40	13s		21:31 ⁽¹¹²⁾	23 33	C
32735	HD 9139	1 24.9	+5 38	G12	D40	13s		23:35 ⁽¹¹³⁾	0 05	A
32736	HD 34797	5 14.9	-18° 36'	G12	D40	9L	40°F	0:37 ⁽¹¹⁶⁾	02:43	B
32737	HD 21699	03 ^h 25. ^m	+47° 41'	G12	D40	9L	40°F	2:51 ⁽¹²¹⁾	3:12	A
32738	17 Tau	03 ^h 38. ^m	+23° 40'	G12	D40	9L	40°F	3:18 ⁽¹²¹⁾	3:20	C
32739	28 Tau	03 ^h 48. ^m	+23° 56'	G12	D40	9XL		3:37 ⁽¹²⁰⁾	4:07	B
32740	29 Per	03 ^h 11. ^m	+49° 51'	G12	D40	9L	39°F	4:13 ⁽¹²⁹⁾	5:22	A
32740F1							39°F			B
32741	γ Ori	05 19.8	+6 16	G12	D40	9L		5:45 ⁽¹³⁾	5:46	C
32742	R Gem	07 39.2	+70° 16'	G12	D40	9L	39°F	5:58 ⁽¹³⁾	6:00	B
32742 +1	calibration step wedge for plates				32732 - 32742			7 Nov/69		

Dome Temp. 42°F

Focus

Dome Temp. 39°F

Transparency Conditions clear patch 0-196
more cloud than
bad seeing

PH	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
01:06	0° 07" W	+28° 34'	2-4"	8.97	K5 III	4-4-4 4-4-4	Sec Std Vel	800/600	Cloud at 20:15 (passed over) Finder still clear	FINE
01:15	05° 06" W	+32° 41'	4"	3.20	B9 III	12-12	Bp Prog	40/100		SL. STR.
01:31	W 1 31	+30 49	3-7	8.80	K3 III	4-4-4 4-4-4	Sec Std Vel	400/285		FINE
01:24	W 1 24	+6° 01'	"	6.2	K4	8-8-8	Std Vel	200/145		FINE
01:13	W 0:13	-18° 31'	3-4"	6.18	B8	8-8-8	Bp Prog	400/300		FINE
02:30	W 2:30	+47° 56'	3"	5.36	B8 III	8-8-8	Bp Prog	200/110		STRONG *
02:30	W 2:30	+29° 03'	2-3"	3.58	B6 III	12-12	Bp Prog	40/30		VERY STRONG *
03:07	W 3:07	+29° 03'	3-4"	3.01	B8 p	8-8-8	Bp Prog	200/110		VERY STRONG
04:54	W 4:54	+50° 08'	3-5"	5.09	B3 V	8-8-8	Bp Prog	200/145	cloud & high wind at 4:30	VERY STRONG
		from 70.5R				5/5	no light		clouded after being clear	GOOD
03:11	W 3:11	+6° 21'	4-8"	1.41	B2 III	12-12	Bp Prog	20/11		VERY STRONG
01:04	W 1:04	+28° 08'	3"	2.15	K0 III	12-12	Std Vel	20/23	St. too light at 5'	VERY STRONG *
									* THERE IS NO OBVIOUS FLEXURE,	
									HOWEVER IT LOOKS AS IF THE	
									EXP. MTR. ALIGNMENT MAY HAVE	
									BEEEN AFFECTED.	

200P-2/9.0 min @ 68°C

(@ 90C I 19)

Date Nov 7-8 Fri-Sat Observer G. J. To Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
32743	0.501	03 14 3	-3° 26'	S.2	D.20	9L		(21) 23:29 (9)	01:00	A
32743	71	calibration	step	wedge	for #	32743	calibration	fogged	15 Nov/69	
										(faulty plate loss)

Dome Temp. 47°F

Transparency Conditions cleared at 23^h & more cloud 70

Focus

Dome Temp.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
W 1:34	-3° 03'	3 sec	3.5	M6	8-16		200/250	some cloud faded w. 1x mirror	WEAK, MANY NG LIVES
closed 4:30 closed									
200 P. 2 / 9.0 mm @ 45° (2.900-159)									
								- UNEXPOSED PLATES WERE	
								LEFT OUT AT ROOM	
								TEMP., PRESUMABLY FROM	
								5.9T. A.M.	

Date Nov 12/13 1900

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.
	UBV photometer on		BSL Lac		—	first	leaf			
32744	ε Per	5 47.2	52 21'	G12	H ₂ O	9L	380F	00:37	00:45	A
32745	"	"	"	"	"	"	"	00:54	01:00	B
32746	HD 28066	4 24.2 1950	39 34 1950			13S	370F	01:24	03:50	C
32747	δ Gem	7 01.2	20 38	"	"	9L	"	04:06	04:12	A
32748	"	"	"	"	"	"	350F	04:17	04:25	B
32749	HD 71866	8 24.6	40 33			9L	340F	04:36	05:21	C
32750	HD 66141	07 57.1	100 36	"	"	"	340F	05:30	05:42	H
32750F	focus test		out of focus				340F			B
32750 TI	calibration step wedge for plates									

13 Nov 1900

Dome Temp. 42°F

Transparency Conditions clear

Focus

Dome Temp. 34°F

Ending Time E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
				0						shy ok	
		14 05W	52° 40	3	4.62	G0	12-12	TEWISSAN 57001	40/26		(SL-GUIDING) FINE
1.00	B	14 20W			"	"	12-12	"	40/24		FINE
1.00	C	24 36W	39 38	3	8.5	F8	8-8-8	"	800/410		FINE
1.00	A	04 21W	20 38		5.2	G0p	12-12	"	40/26		FINE
1.00	B	04 35W			"	"	"	"	40/26		FINE
1.00	C	04 04W	40° 20		6.53	A0p	8-8-8	Ap Ring	200/100		FINE
1.00	D	01 14W	2° 27		5.5	k3	8-16	2nd. red.		no exposure with	SLIGHTLY
			from	70.5-R			5-5	no filter		BROKEN TWO PIECES	GOOD
		MCCP-2 (9.0 min @ 68°F)						(2 AD C 179)			
										* At 9:20 a bright fireball meteorite	
										was reported in North-north west	

Date *Fri. Sept. 12-15 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	(τ Ori) HD 34503	05 12.8	-06 57	G12	Ilao	9L	35°F	02:02	02:27	A
32752	HD 65523	07 54.3	+22 21	"	"	13L		04:16	05:45	B
32753	HD 22112	10 14.3	+12 59	"	"	9L	32°F	07:52	06:03	C
32754F	focus test	07 07	12 59	"	"	9	31°F			B

Dome Temp.

Focus

Dome Temp.

Hour Angle
East

75

Date ¹⁵⁻¹⁶ ~~Nov 14-17~~ ~~and Sun~~ 1869. Observer ~~S. L. L.~~ / R. L. 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.
32754	δ Lyr	18 55.2	32 33	G12	IIaO	9xL	32°F	17:42 ²	17:44	A
32755	"	"	"	"	"	"	"	17:49 ²	17:51	B
32756	"	"	"	"	"	"	32°F	17:55 ³	17:58	C
32757	"	"	"	"	"	"	"	18:02 ⁴	18:06	A
32758	γ Cas	04 17.8	55° 14	G12	IIaO	13L	"	18:44 ²⁸	19:07	B
32758F	focus test	out/pit / mini				13	30°F			B
32759	α Tau	03 43.2	23 50	G12	IIaO	9xL	30°F	00 20 ¹⁵	00 35	A
32760	β Tau	03 43.2	23 45			9xL		00 39 ⁵	00 44	B
32761	HD 28067	04 20.7	36 18			9L		01 05 ⁸⁸	02:33	C

Dome Temp.
Focus
Dome Temp.

Hour Angle
Ecl

2:40
2:45

2:42

2:50

2:42

2:42

2:42

Dome Temp. 31°F

Transparency Conditions clouds & haze

Focus

Dome Temp. 30°F

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
24 00 W	32 41	3	3.25	B9 II	12	RG*	40/15		TERRIBLE GUIDING
24 15 W	"	"	"	"	"	"	40/20	RANGE OF EXPOSURES IS GOOD.	GUIDING
	"	"	"	"	"	"	40/30		GUIDING
24 30 W	"	"	"	"	"	"	40/40		GUIDING
14 50 E	55 40		7.3	M6c	8-16		500/38	clouded over	
					5-5	~ filter		focus 70.5-R	GOOD
24 11 W	24 06	2	5.01	B8p	8-8-8	Bp PROG.	200/130	cleared up	(SLI STRONG) FINE
24 30 W	24 00		3.54	B5 II	8-16	"	40/33		
14 31 W	36 29	2-3	7.00	G5	8-8-8	G1001 LK*	400/182	clouded out	WEAK

77

Date *Nov 16-17 Sun Mon 1949* Observer *R. Ko* 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.	Hour Angle End
32762	HD 212943	22 22.8	04 12	G12	IIaO	9L	34°	17:31	17:57 ²⁶	A	0°03E
32763	T Cap	00 17.8	55 14	G12	IIaO	13L		18:12	21:12 ¹⁸⁰	B	0°03E
32764	n Tau	03 41.6	23 48	G12	IIaO	9L		21:26	21:37 ["]	C	0°14E
32764F	focus test	<i>out of focus</i>		B12	IIaO	9	34°F			B	
32764 T1	calibration step wedge for plates			32751 - 32764					17 Nov 1949		

Dome Temp.
Focus
Dome Temp.

Dome Temp. 36°F

Transparency Conditions clear with some haze...

Focus

Dome Temp. 34°F 22:00

Hour	Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
01	03E	+04 34	2-3	5.9	K0	8-8-8	Std Val.	200/160		FINE
00	16W	55 40	2	7.3	M6e	6-6-66	M470 K0*	800/434		WEAK
02	43E	24 01		286	37ne	8-16	M470 KAB K0*	80/7	clouds at 21:30	ALMOST BLANK
						5-5	no filter		focus 20.5-R	GOOD
<p>MWP. 2 / 9.0 mm @ 61° E (2900129)</p>										

THURS. - FRI.

Date Nov 20-21/69

Observer Hd-Hr-Gz/Bu
R1 Julian Day

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	II ₂₀	15S	31°F	17 49	21 36	A
32766	" 9133	01 24.9	+05 38	"	"	"	"	21 55	22 05	B
32767	HYADES: HD 27371	04 14.1	+15° 23.5	"	II ₂₅	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	24:00	A
32772	25 Ori	06 ^h 07.9	+14° 47'	"	II ₂₀	9L	26°F	05:31	05:37	B
32773	2 Dra	14 ^h 01.7	+66° 51'	"	II ₂₀	9L	"	05:56	06:00	C
32774	HD 89469	10 ^h 14.3	+19° 59'	"	II ₂₀	9L	25°F	06:13	06:29	A
32774 FI	atad/wi					9	25F			
32774 T1	calibration step wedge for plates 32765, 66									

G12 / S:13

21 Nov 1969

Dome Temp. 30°F

Focus

Dome Temp. 20°F

Transparency Conditions Good - Passing Clouds
 CLOUDED OVER AT 23:30
 Cleared again at ca. 05:00 EST

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
0348W	+2815	4-	9.64	K ₁ II	4-4-4 / 4-4-4	SSV	800/400		FINE
0020W	+0501	3	6.2	K ₄	8-8-8	STD. VEL	80/40		FINE
0158E	+1536	3	3.86	K ₀	8/8/8	ASTR. 920	32/40		FINE
0143E	+1730	3	3.93	K ₀	8/8/8		32/40		FINE
0136E	+1907	3	3.63	K ₀	7/8/8		32/40		FINE
0123E	+1550	3	3.62	F ₀	8/8/8		26/40		FINE
0043E	+1556	3	4.04	K ₀	12/12		23/40	CHOUUS (FOG?)	SL. WK
0341SW	+14° 50'	3	4.15	B3V	8-8-8	Bp Prog.	4x10/20	MR fld.	FINE
0421E	+64° 32'	3	3.59	A0II	8-16	Bp Prog.	4x10/23	MR fld.	FINE
0005E	+19° 37'	4	5.3	F5	8-16	Std. Vel.	2x100/130		FINE
					5-5	no filter		focus 70.5-R	GOOD

2100^h 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. - Mike

Date Fri Sat Nov 21-22 1969 Observer Guri/ Bir 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.
	<i>trid UBV photometry</i>		<i>KO and Pa</i>							
32775	HD 204934	21 ^h 26 ^m .8	+07 ^o 50'	G12	I00	15S	25°F	18:37	⁽¹³⁵⁾ 20:52	A
32776	o Ceti	02 ^h 14.3	-03 ^o 26.4	"	"	9L	55°F	21:11	⁽⁶⁹⁾ 22:20	B
32777	HD 27831	04 ^h 18.5	+38 ^o 49	"	"	18S	84°F	22:35	⁽¹³¹⁾ 00:46	C
32778	HD 21699	03 ^h 25.1	+17 ^o 41'	"	"	9L	23°F	00:59	⁽⁸⁴⁾ 01:33	A
32778F	<i>focus test</i>	<i>out and in</i>				9	23°F			B
									<u>6:02 / 6:19</u>	

Dome Temp. 27°F

Transparency Conditions good - all cold 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
	A	03:40 W	28 15	3.0-2	9.64	K1	4-4-4	SS U.	800/400		FINE
	B	00:12 E	-03° 05'		2.0-10.1	MSc- M9e	4-4-4	AST 470	80/60 200/100	clouds	FINE
	C	00:10 W	+39° 00'	3	8.4	G0	8-8-8	"	800/350	hazy at 00:15	FINE
	A	01:20 W	+47° 57'	~3	5.36	B8p	8-16	By Pyramax	2x100/25	Possible moonlight at 01:20. Capped seeing because of cloud. <i>from 10.5-R</i>	WEAK * GOOD
							5-5	no filter		cloud again in quiet (!)	
										at 05:30 AM	
										* WEAK CENTRE	

Date Nov 22-23 (Sat Sun) Observer Gillespie G. 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.
32779	α Tau A	*04 ^h 34 ^m .2	+16° 27'	G12	D 0	9L	33°F	20 ^h 38 ^m 40 ^s	20 ^h 41 ^m 00 ^s	A
32780	α Tau A	04 ^h 34 ^m .2	+16° 27'	G12	D 0	9xL	33°F	20 ^h 49 ^m 20 ^s	20 ^h 55 ^m 00 ^s	B
32781	α Ari	02 ^h 01 ^m	+22° 59'	G12	D 0	9L	33°F	21:46	21:52	C
32782	HD 21699	03 ^h 25 ^m	+47° 41'	G12	D 0	9L	33°F	20:26	22:50	A
32783	HD 21278	03 ^h 20 ^m .9	+48° 43'	G12	II a-0	9L	33°F	23 ^h 04 ^m		B
32783 F	Focus			G12	II 0		34°F			B
32784	π Aur	04 ^h 59 ^m .5	+11° 06'	G12	D 0	9L		01:37	01:47	C
* PLEASE USE 1900 LOOKS FOR OBS. BOOK.										

6.12/2:59

Dome Temp. 30
Focus
Dome Temp.

Hour Angle
End
4:05 E
3:45 E
0:25 E
0:55 E
0:35 E

Dome Temp. 35°F

Focus

Dome Temp. 37°F

Full Moon

84

Transparency Conditions very cloudy, but can see

d Tau
clearer by 21:30

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
4 ^h 05 ^m E	+16° 29'	4"	2.4	K5 III	12, 12	AST 470	40/32	maybe fogged	FINE
3 ^h 45 ^m E	+16° 29'	4"	2.4	"	12-12	R. 470	40/43		FINE
0 ^h 23 ^m E	+23° 21'	2-3"	3.15	K2 IV	12-12	SW Vel	40/32	Gillespie guided mag have fogged.	SLIGHTLY STR.
0 ^h 50 ^m E	+17° 56'	2"	5.36	B8 III	8-8-8	Bp* prog	200/100	" " with guider	FINE
0 ^h 20 ^m E	+18° 58'	2"	4.88	B3 V	12-12	Bp ^{Comp} prog	200/37	cloud (reduced field?) or 2200 mud scattered moon light capped 2015 cut short	(GUIDING) SL. UK
						sl. solidier		focus 70.5 R	GOOD
0 ^h 30 ^m W	+19° 13'	2"	2.99	B3 V	12-12	pprog	40/30	thick haze cloud closed 02:30	FINE

Date Nov 23/24 Observer T. J. 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.
32785	δ Per HD 22928	3 ^h 35. ^m 8	47° 28'	G12	IIa0	9L	36°F	2 ^h 08 ^m ^(*)	2 ^h 10	A
32786	HD 27886	4^h 12.^m 0	36° 27'	G12	D00	9L	33°	2^h 28^m		B
32786	HD 37321	5 ^h 22. ^m 6	-1° 30'	G12	IIa0	9L	33°F	3 ^h 10 ^m ⁽⁵⁶⁾	4:06	C
32787	67 Ori (50 Ori)	06 ^h 01. ^m 9	14° 47'	G12	D00	9L	33°F	4:24 ⁽⁷⁾	4:31	A
32788	R Gem	07 ^h 39. ^m 3	+28° 16'	G12	D00	9L	"	4:43 ⁽⁸⁾	4:45	B
32789	44 Leo	10 ^h 20. ^m 0	+9° 18'	G12	D00	9L	"	5:05	5:20	C
								5:40 ^m	6:29	
32789F	Focus Test			G12	D00		32°F			B
								(G12) 2:11		

Dome Temp.

Focus

Dome Temp.

How high
East

Dome Temp. 34°

Transparency Conditions clear at 02^h

Focus

Dome Temp. 30°F

Ending Time EST

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
2 ^h 24 ^m W	47° 43'	2"	3.1	B5	12-12	HARRIS G1001	40/20		(GUIDING) FINE
2^h 24^m W	36° 39'		8.5	A0	8-	HARRIS G1001	400/100	useless	
2 ^h 25 ^m W	-1° 23'	2"	7.23	B8	8-8-8	Bp Prog	400/190	Dec way out for by cloud (+15')	FINE
2 ^h 20 ^m W	+14° 49'	2"	4.15	B3V	12-12	P ₁ Prog	40/20	comparison *	FINE
0 ^h 58 ^m W	+28° 08'	2"	2.15	K0III	24	SV vel	40/32		STRONG
0 ^h 0 ^m	+8° 59'	2"	7.1	gM3	8-8-8	M* prog	200/225	covered by cloud	FINE
					5/5	no filter		from 70.5-R	GOOD

8+

Date Wed-Thurs 26/27 May 1969Observer Gu-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.
32790	17 D 20493	21 26.8	127 56'	G12	Ilao	175				

Dome Temp.

Focus

Dome Temp.

Hour Angle
East

Sat - Sun

Date 29-30 Nov 1969 Observer Kö, 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	
32790	η Tau HD22630	3 ^h 41 ^m .6	-23°47'9	G12	D-0	9xL	31°F	2:08	2:13 ⁵	A	24W	
32791	"	"	"	"	"	9xL	"	2:13	2:23 ¹⁰	B	25W	
32791F	Focus			"	"		30°F			B		
									(12/0:15)			
32791	T1	calibration step wedge for plates								15 Dec/69		
	T2	"	"	"	new emulsion				"			
	T3	"	"	"	plate # 32775				"			
	T4	"	"	"	"	32779 - 32783, 32787 - 32789			"			
	T5				"	32772 - 32774, 32784						
32805	T1	calibration step wedge for plates			32790, 91, 32793 - 32798				20 Dec/69			
	T2	"	"	"	"	32792, 32799 - 32805						

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	ρ Per	02 ^h 58.8 ^m	+38° 37'	G12	200	9L	22°F	21:45	22:05	A	0:05
32793	"	"	"	"	"	9xL	"	22:21	22:42	B	0:05
32794	HD 28067	4 ^h 20.7 ^m	-38° 18'	G12	1100	9L	18°F	22:56	01:06	C	0:05
32795	HYADES HD 38307	04 22.9	+15 44	"	"	9L	17°F	01:20	01:31	A	0:05
32796	" HD 27962	04 19.7	+17 42	"	"	"	"	01:37	01:45	B	0:05
32797	" HD 29388	04 32.6	+12 19	"	"	"	"	01:50	01:59	C	0:05
32798	" HD 28024	04 20.3	+22 35	"	"	"	"	02:05	02:11	A	0:05
32799	" HD 38301	04 57.1	+21 27	"	"	"	"	02:19	03:29	B	0:05
32800	BF Aur	04 58.0	+41 09	"	"	13S	15°F	02:47			
32800	HD 37321	5 ^h 32.8 ^m	-1° 30'	"	"	9L	15°F	03:29	04:48	A	7:04
32801	ϵ H ₂ O	9 ^h 35.8 ^m	-13° 53'	"	"	9L	"	5:07	05:22	B	0:05
32802	(P 322) HD 90994	10 25.2	-00° 01'	"	"	9L	"	05:29	05:43	A	0:05
32803	(γ Hyg) HD 14280	08 38.0	+3° 45'	"	"	9L	"	06:01	06:07	B	0:05
32804	(ϵ Leo) HD 87901	10 03.1	+12 27	"	"	9L	"	06:23	06:25	C	0:05
32805	B Vir	11 ^h 45.5 ^m	2° 20'	G17	1100	9L	"	06:40	06:49	A	0:05
32805 F	Focal			G12	200					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
01:15	A	$0^{\circ}32^{\circ}\text{E}$	$+38^{\circ}45'$	3"	^{MV} 3.5-4.0	M4	8-8-8	G 1001	40/40	<i>-2" broken off</i>	FINE
01:42	A	$0^{\circ}05^{\circ}\text{W}$	"	3"	"	"	8-8-8	"	40/53		FINE
01:20	C	$01^{\circ}08^{\circ}\text{W}$	$+36^{\circ}25'$	3"	7.63	G5	8-8-8	"	400/260	<i>Field of view down</i>	U.S.C. WK
01:10	A	$01^{\circ}31^{\circ}\text{W}$	$+15^{\circ}56'$	3-4"	4.04	K0	12-12	AST. 220	40/32		FINE
01:25	C	$01^{\circ}48^{\circ}\text{W}$	$+17^{\circ}55'$	3"	4.24	A2	12-12	"	40/20		SL. STR.
01:17	C	$01^{\circ}49^{\circ}\text{W}$	$+12^{\circ}27'$	"	4.30	A3	12-12	"	40/20		U.S.C. STR.
01:10	A	$02^{\circ}16^{\circ}\text{W}$	$+22^{\circ}48'$	"	4.40	A5	12-12	"	40/20		SL. STR.
01:10	A	$01^{\circ}55^{\circ}\text{W}$	$+21^{\circ}35'$	"	4.70	A5	12-12	"	40/20		FINE
			$+41^{\circ}17'$	"	8.5	B5V	8-	ECL. BIN.	300/360	<i>TOO FAINT</i>	
01:48	A	$3^{\circ}38^{\circ}\text{W}$	$-1^{\circ}22'$	2-3"	2.7	B8	8-8-8	Bp 1109	400/200	<i>F/D DOWN (x read?)</i>	SL. STR.
01:24	A	$00^{\circ}11^{\circ}\text{W}$	$-14^{\circ}09'$	4"	4.70	B5V	12-12	"	40/20	<i>Comparison MC</i>	STRONG
01:10	A	$00^{\circ}17^{\circ}\text{E}$	$-00^{\circ}36'$	4"	4.90	B5V	12-12	"	40/20		SL. STR.
01:07	A	$01^{\circ}52^{\circ}\text{W}$	$+03^{\circ}34'$	4"	4.10	B3V	12-12	"	40/20		SL. STR.
01:15	C	$00^{\circ}14^{\circ}\text{W}$	$+12^{\circ}08'$	4"	1.35	B7V	12-12	"	40/20		(GUIDING) SL. STR.
01:11	A	$00^{\circ}13^{\circ}\text{E}$	$+1^{\circ}58'$	3"	4.18	F8V	12-12	STD 401	40/26		STRONG
			<i>initial set</i>				5/5	<i>no filter</i>		<i>FOCUS TO S-R (changed to 40-R)</i>	CENTRE TO VILLET

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Neuronian

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.	Hour Angle End
32806	Cos OB 4	00 ^h 76 ^m 0	161 ^o 13 ^s 4		103a0			19:25	19:45	2	
32807	NGC 654	01 ^h 41 ^m 3	+51 ^o 41'		103aD			20:18	20:38	1	
32808	M 82	09 ^h 53 ^m 3	+62 ^o 50'		1-7			2:40	3:22	2	

Dome Temp.

Focus

Dome Temp.

Newtonian

Date Dec 4-5 Thurs-Fri Observer T. Terzan/VgB, 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
Focus Star	Scor (α 22 ^h 9 ^m 5 ^s +58° 05')										
32809	Cas OB14	00 ^h 26 ^m 00 ^s	+61° 13.3'		10300			18:27	18:37	2	
32810	An (King 2)	00 ^h 45 ^m 2 ^s	+57° 39'		10300			19:25 ⁺¹⁰	19:35	1	
Focus Star	(α 00 ^h 47 ^m 2 ^s δ 57° 39.8')										
32811	NGC 654	01 ^h 41 ^m 3 ^s	+61° 41' [1960]		10300			19:57 ⁺²⁰	20:07	2	
32812	NGC 386-G9	01 ^h 00 ^m 00 ^s	+61° 48'		10300			20:25 ⁺¹⁰	20:35	2	
32813	NGC 654				10300			20:45 ⁺²	20:55	1	
Focus Star	(α 00 ^h 47 ^m 2 ^s δ 57° 39.8')										
32814	NGC 381-G10	01 ^h 02 ^m 1 ^s	+61° 03'		10300			21:45 ⁻¹⁵	21:55	2	
32815	NGC 654				10300			22:07 ⁺³⁵	22:17	1	
32816	Cas OB14				10300			22:25 ⁺¹⁰	22:45	2	

Dome Temp. 24°F

Transparency Conditions very clear

cloud on horizons

Focus

Dome Temp.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
	+58° 04'								
10 min	+61° 21' ? (1970 S +61° 14.6')						#I		
10 min	+57° 39' (1970 S +57° 59')						#II		
	+57° 40'								
10 min	+61° 44' [1970 S 61° 44', α 01° 42.0']						#V	comparison	
10 min	+52° 06' (1970 S +62° 06.3')						#III	set α 01° 04.3'*	
10 min	+61° 44' [1970 S 61° 44']						#IV	comparison } set α 01° 41.8'	
10 min	(1970 S + 61° 21.3')						IV		
10 min	+61° 44'						V	comparison	
75 min							I		
cloud for some time									
Can not reach M82 with									
Tevra's plate hole position									
3 a.m.									
Quadrant									

Fri - Sat

Date Dec 5-6 1959 Observer Jay Gulliver/T.M.H. Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
32817	S Per	3 ^h 30 ^m 8	-47° 26'	G12	D00	9L	25°F	22:55	22:58	A
32818	HD 27231	4 ^h 17 ^m 5	+58° 49'	G12	D00	13S	23°F	23:27 ⁴²	01:08	B
32819	HD 31101	5 ^h 32 ^m 6	-1° 30'	G12	D00	9L	"	02:02 ⁵⁷	02:15	A
32820	? Hyg	08 ^h 30 ^m 5	+3° 45'	G12	D00	9L	22°F	03:13 ⁴	03:17	B
32821	HD 94705	10 ^h 50 ^m 2	+06° 43'	G12	D00	9L	"	03:39 ⁴³	05:02	C
32822	ε Leo	09 ^h 45 ^m 2	+74° 14'	G12	D00	9L	21°F	05:14 ³	05:17	C
32822	R "Sex"	10^h 25^m 2	-0° 07'	G12	D00	9L	"	"	"	"
32822F	Focus			G17	D00					A

Dome Temp. 2
Focus
Dome Temp.

Hour Angle End
00:00
02:30
04:45
06:50
09:00
11:10

Dome Temp. 25°F

Transparency Conditions scattered cloud

Focus

thick cloud 02:30

Dome Temp. 20°F

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
00° 00'	+42° 42'	2"	6.30	B5	12-12	G1001	40/18		STRONG
02° 09' W	+39° 00'	2"	8.4	A0	8-7-8	A470	800/349		FINE
02° 06' W	-1° 24'	2"	7.03	B5	8-8-8	Bp prog	400/90	much cloud	(GUIDING) FINE
00° 42' E	+03° 32'	2"	4.10	B3V	12-12	Rp Prog MK	40/18		SL GUIDING SL-STR.
01° 08' E	+06° 22'	2"-3"	7.4	M55	8-8-8	M ^x prog	400/450		FINE
00° 16' W	+23° 56'	2"	3.76	G03	12-12	std vel	40/2A	[labeled 23 by accident]	(SL GUIDING) FINE
	0° 27'		4.90	B6V		Bp prog	40/18		cloud again
					5/5	no filter		(from 40-R) closed	

Sat-Sun

Date Dec 6-7 1969 Observer To Bi / T. U. Julian Day

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 ^h 16 ^m 30 ^s	+58° 12'	G12	Ilad	9L	26°F	18:09 ⁷¹	19:20	A	02:43
32824	HD 21699	03 ^h 25 ^m 7 ^s	+47° 41'	G12	Dad	9L	25°F	19:32 ¹⁰	19:42	B	03:22
32825	24 Per	03 22 ^m 2	+49° 10'	"	"	"	"	20:04 ⁷	20:11	A	03:35
32826	28 Tau	03 ^h 43 ^m 2	+23° 50'	"	"	9XL	"	20:21 ¹²	20:33	B	03:45
32827	HD 37321	05 ^h 32 ^m 6	-1° 30'	"	"	9L	"	20:50 ¹⁷	22:47	A	04:20
32828	HD 37642	05 ^h 34 ^m 9	-3° 24'	"	"	9L	26°F	23:03 ¹⁵³	01:36	C	05:10
32828F	Focus			G12	Ilad		23°C			D	
32829	♄ Persei	3 ^h 35 ^m 8 ^s	+47° 26'	"	"	9L	"	02:07 ²	02:09	B	05:15
32830	"	"	"	"	"	"	"	02:12 ³	02:15	C	05:18
32831	19 Tau	2 ^h 39 ^m 3	+26° 04'	"	"	"	"	02:29 ⁵	02:37	B	05:20
32832	21 Tau	03 ^h 40 ^m 0	+24° 15'	"	"	"	"	02:45 ⁶³	03:48	C	05:25
32832 T1	calibration step wedge for plate										
T2	"	"	"	"							
					32817 - 32826					8 Dec 69	
					32827 - 32832					9 Dec 69	

Dome Temp. 27°F

Transparency Conditions clear

Focus

cloud at horizon

Dome Temp. 23°F

clouds in vicinity at 03:40 EST

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
02 ^h 47 ^m W	+58° 30'	2"	7.2	MIT6 _{op}	8-8-8	M* prog	200/225	MIT I box + B	FINE
03 ^h 02 ^m E	+47° 55'	1.2"	5.36	B8II	8-8-8	Bp prog	200/100		(SL. GUIDING) SL. STR
02 ^h 31 ^m E	+49° 24'	"	4.57	B5V	12-12	Bp prog	200/90	Comparison star	STRONG (SHOWS H _β NICELY) SL. STRONG
02 ^h 29 ^m E	+24° 02'	"	5.01	B8p	12-12	Bp prog.	200/130		(GUIDING) FINE
02 ^h 03 ^m E	-1° 24'	2"	7.03	B8	8-8-8	Bp prog	400/150		(GUIDING) FINE
02 ^h 41 ^m W	-3° 18'	3"	8.0	B9	8-8-8	Bp prog	400/200	cloud at 01:30	FINE
					4/5	outlier		(from 40-R)	SL. C. TOUT
03 ^h 15 ^m W	+43° 42'	2"	23.0	B5	12-12	G1001	40/19	cloud	(GUIDING) STRONG
03 ^h 21 ^m W	"	"	"	"	12-12	"	40/18		SL. STRONG
03 ^h 40 ^m W	+29° 24'	2"	4.15	B6V	12-12	Bp Prog	20/9	MK Std.	V. SL. STR
02 ^h 30 ^m W	+29° 28'	"	5.71	B8V	8-8-8	Bp prog	200/56	MK Std. (copyed with beam of cond)	WEAK
								cloud at 4 cloud	

MCP-2 / 9.0 min @ 6.0" (2900 I 9)

" " " "

Date Dec 9-10 Tues-Wed Observer To, Eja / Va, To Julian Day _____

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle End
32833				G12	D00	9L	35°F	18:15		A	
32833	RD 147781	03 06.0	41° 44'	G12	D00	135	25°F	18:38	20:37	C	17:15
32833	RD 47781	03 06.0	47 44"	G12	D00	135	35°F	20:43	22:10 ⁸⁷	A	0:11W
32834	MUR	04 30"	48° 09'	G17	D00	9L	31°F	0:33	0:43 ¹⁰	C	1:25V
32835	MUR	"	"	"	"	"	"	0:59	1:10	B	1:50W
32836	HD 37321	05 32.6	-1° 30'	G12	D00	9L	"	2:55	3:45 ¹⁰	C	3:00W
32836F	Focus			G12	D00		30°F			B	
32836 71	calibration strip wrap for plate			328 33-32836					10 Dec 1969		

Dome Temp. 3

Focus

Dome Temp.

Dome Temp. 36°F

Transparency Conditions clear, some haze

Focus

Dome Temp. 37°F

cloudy periods

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
		2"	8.93	K45	4-	2nd std dev	400/	(broken many pieces?)	
1° 36" E	+48° 00'	2"	G5	8-8-8	FSB	400/	400/	with 100 prog	
0° 12" W	+48° 00'	2"	G5	8-8-8	FSB	400/160	400/160	copied 22:10, cloud	(GUIDING) FINE
1° 27" W	+48° 20'	2"	4.3	G2	12-12	G1001	40/23		FINE
1° 55" W	"	2"	"	"	12-12	"	40/24	cloud	FINE
3° 08" W	-1° 24'	2-3"	7.07	B8	8-8-8	lp prog	200/36	cloud assist	(GUIDING) WEAK
	no in/out				5/5	no filter		(from 40-R) closed 5h	SLC TO VI
mwp-2 (9.0 min @ 66°F / (2902129))									

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

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle Ecl	
32837	HD 4388	60 41.4	30° 25'	G12	IIaD	135	25°F	19:50	21:50	A		
32838	HD 66141	07 57.1	+03° 36'	G12	IIaD	96		03:14	03:44	A		
32838F	focus test		out of focus			9	20°F			B		
32838 T1	calibration step wedge for plates 32837, 32838									17 Dec / 69		
	Dec 16-17	Re Ri		Photometer			19:30 - 19					

Dome Temp. 22°F.....

Focus

Dome Temp.

clear at 18:00 but snow + ice on tracks turned on heater
open up at 19:15
Transparency Conditions 104

Ending Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
11:50	A	2 ^h 30 ^m W	320 49'	3	8.80	K3 III	4-4-4 4-8	SS V.	800/300	for moon clouds at 20:25 after 20:50 same field as 32734 clouded out at 22:00	FINE
12:00		1 ^h 06 ^m W	+02 27	3	5.5	K3	8-8-8	8-d. Vel	200/160	clouds at 04:00 clouded up at 04:30	FINE (SI) CENTRE TO OBJECT
12:45		MWP - 2 / 11.0 mm @ 68°F / (290 - 159)									

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Date Fri 8-7 Dec 19-20 1969 Observer Ba-R₁ / R₁ Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
			<u>platonatey</u>						21-00	
32839	HD 28065	¹⁹⁷⁰ 04 25.6	¹⁹⁷⁰ +43 07.5	G12	IIaO	13L		23:40	01:40	A
0283971	<u>form. BX</u>	<u>20.7/min</u>				13	22° F			B

Dome Temp.
Focus
Dome Temp.

Hour Angle
End

Dome Temp. 28°F

Transparency Conditions

Focus

Dome Temp.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
02 ^h 52 ^m	+43 09		7.2	B5	8-8-8	B1001 Rordant	800/520	clear but snow at 01:45	FINE
	focus 40-R				5-5 m	filter		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

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
32840	HD 223094	23 41.5	+28 09	G12	IIaD	135	23°F	18:53	19:42	A	1735 W
32840	T1 calibration step wedge for plates				32839, 32840				22 Dec/69		in 4 P2

Dome Temp.

Focus

Dome Temp.

Hour Angle
End

Date was wrong!
R²Date 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	23°F	17 46	19 45	A	1 ^h 52 ^m
32842	12079	1 53.0	+28 54	"	"	"	17°F	19:37	22:11	B	2 ^h 05 ^m
32843	HD 23169	03 37.9	+25 25	"	"	17S	12°F	22:30	01 12	C	3 ^h 30 ^m
32844	^(in Hy) HD 72280	08 ^h 38.0	+30 45'	G12	"	9L	8°F	01 ^h 30	01 53	A	0 ^h 50 ^m E
32845	HD 66141	07 57.5	+2 36	"	"	9L	7°F	02 ^h 10'	02 10	B	0 ^h 10 ^m
32846	HD 65583	07 ^h 54.3	+29° 31'	"	"	13S	7°F	02 ^h 52'	04 ^h 10	C	0 ^h 10 ^m
32847	^(in HD) HD 87901	10 ^h 03.1	+12 27	"	"	9L	5°F	04 ^h 22'	04:39	A	0 ^h 20 ^m
32847E	focus test	out out/ in in		"	"	9	4°F			B	
A 32847 T	calibration step wedge for plates				32841 - 32847						2/28 Dec 1969
32847 F	focus test	230 Dec/69			focus 90-R						

Date Tues - Wed Dec 23-24 Observer Va. 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.	Hour Angle End
32848	HD 27961	4 ^h 19.7 ^m	+34° 31'	G12	IIaO	13S	6°F	01:23	03:20	A	4 ^h 48 ^m W L
32849	E Leo	9 ^h 40.7	+24° 14'	G12	IIaO	9L	5°F	03:54	04:01	B	0 ^h 16 ^m W L
32850	HD 90861	10 ^h 24.3	+29° 05'	G12	IIaO	13S	5°F	04:24	05:52	C	0 ^h 12 ^m W L
32851	HD 109896	12 ^h 33.3 ^m	+02° 24'	G12	IIaO	9L	4°F	06:11	07:07	A	0 ^h 20 ^m W L
32851F	Focus			G12	IIaO		4°F			B	

Dome Temp.

Focus

Dome Temp.

Dome Temp. $+5^{\circ}F$

Transparency Conditions

bad seeing
clear some haze

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Focus

Dome Temp. $+1^{\circ}F$

Full Moon
Some cloud during night

Ending Time E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
7:20	A	$4^{\circ}48'W$	$+34^{\circ}41'$	$3.4''$	8.4	F5	8-8-8	G1001	400/123	Some @ maybe? ^{cloud}	SL. WEAK
7:01	B	$0^{\circ}10'W$	$+23^{\circ}56'$	$3''$	3.76	G0II	12-12	Std vel	40/23		STRONG
7:52	C	$0^{\circ}18'W$	$+28^{\circ}45'$	"	8.36	K2III	4-4-9 4-4-9	2nd std vel	800/400	Hd wants 300 counts for 400 but i could use 400	FINE
7:57	D	$0^{\circ}24'W$	$+2^{\circ}02'$	"	7.3	gM3	8-8-8	M PROGRAM	200/121	cut short by dawn	FINE
							5/5	no filter			SL. CENTER TO VIOLET

Dome Temp. 24°F

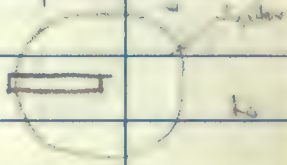
Focus

Dome Temp. 20°F

some ~~sun~~ over opening in the wind 114
 Transparency Conditions clear very windy
 some snow heating

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
01° 55" W	+34° 41'	2-3"	8.4	F5	8-8-8	G-1001	800/300	(avoided by wind cut shot)	FINE
03° 55" W	-35° 10'	3"-5"	8.1	F0	8-8-8	Kö A470	400/180		FINE
03° 07" W	+9° 58'	3"	3-4	08	12-12	G1001/2 _{4x}	40/18	Acomp	STRONG
0° 26" E	+28° 45'	"	8.36	K20	4-4-4 4-4-4	SSV	400/210		FINE
01° 35" W		"	4.10	B3V	12-12	Bp prog	40/17	MK	SL STRONG
01° 05" W	-14° 08'	"	4.90	B5V	12-12	Bp prog	40/16.5	MK	FINE
0° 35" W	-0° 28'	2"	4.90	B6V	12-12	Bp prog	40/17	MK	FINE
1° 05" E	+24° 44'	"	8.74	F8I	4-4-4 4-4-4	SSV	800/355		FINE
1° 08" E	————	"	12.7	K20	12-12	ANT SV G-1001	40/29		FINE
0° 35" E					24		20/16		(GUIDING) STRONG
					5/5	no filter			GOOD

This is because of
 slit position:



Tennison

Date Dec 28-29 Sun-Mon Observer Va, TN / 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.
32862	HD 2207	0 ^h 20.9 ^m	50° 43'	G12	IIaD	13S	21°F	21:42 ^m ⁽¹¹⁰⁾	23:32	A
32863	SATURN			F12	IIaD	9L	21°F	23:49 ^m ⁽⁵⁾	23:54	C
32864	HD 27961	4 ^h 19.7 ^m	+34° 31'	G12	IIaD	13S	"	00:16 ^m ⁽¹⁶⁶⁾	3:02	B
32865	HD 96813	11^h 3.8^m	29° 05'	"	"	55	20°F	 	 	A
32865	HD 96813	11 ^h 3.8 ^m	+36° 51'	G12	IIaD	9L	20°F	03:41 ⁽⁷⁹⁾	05:00	A
32866	HD 102870	11 ^h 45.5 ^m	+2° 20'	G12	IIaD	9L	19°F	05:11 ⁽⁹⁾	05:20	C
32867	HD 101153	11 ^h 33.3 ^m	+08° 41'	G12	IIaD	9L	18°F	05:28 ⁽⁶⁾	06:28	B
32867 F	Focus			G12	D60		18°F			B
32867 T1	calibration	step	wedge	for	plate	32862 - 32867		32848 - 32851		
T2	"	"	"	"	"	32852 - 32861				

Dome Temp.
Focus
Dome Temp.

Hour Angle
Ecl

45° W

45° W

06° W

06° E

14° W

W.P. 2

Dome Temp. 23°F

Transparency Conditions clear at 21:30 but waxy

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
23:22	A	5 ^h 20 ^m W	51° 09'	2.4"	7-8 VAR	F5	8-8-8	G1001	400/130	(changed to 135 after 10 min 1st arc)	* FINE
	C	4 ^h 4 ^m W					24		20/14	right edge	* FINE
23:02		4 ^h 51 ^m W	+34° 41'	2"	8.4	F5	8-8-8	G1001	400/130	(changed from 92 to 135 after 5 minutes)	* FINE
					8.36	K20		Sec. Sol. Velocity	400/130	moon too close, cloud	
5:00	A	0 ^h 6 ^m W	38° 30'	3"	7.2	9M35	8-8-8	M prog	400/400		* FINE
5:23	C	0 ^h 16 ^m E	+10° 59'	2'-3"	4.2	F8V	12-12	Bit star Vel.	40/24	cloud	* FINE
5:28	A	1 ^h 4 ^m W	+8° 19'	3"	6.8	9M6	8-8	M prog	200/200		* FINE
							5/5				GOOD
		mwp-2 / 9.0 min @ 64° E / (2900 (179))									
		"									
		* ALL THE PLATES ARE FOGGED (BABLY) TOWARDS 1 END, AS THOUGH THE BOX COVER WAS NOT ON PROPERLY									

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Gillespie

Date Jan 4-5, 1970 Sun-Mon Observer Va. T. / T. G. 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.
32868	μ PER	4 ^h 7.6 ^m	48° 9'	612	IIaD	9L	18°	19:10	19:34	C
32869	μ PER	4^h 7.6^m	48° 9'	612	IIaD	9L		19:47		C
32869	HD 27729	4 ^h 17.5	+41° 30'	612	IIaD	9L	12°	0:34	1:27	C
32869F	Focus			612	800		16°			O

Hour Angle
End

Dome Temp. 17°
 Focus
 Dome Temp. $16^{\circ}F$

Transparency Conditions *very hazy then cloud*
cloud again at 1:30

Ending Time EST	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
		$2^{\circ} 05' E$	$48^{\circ} 20'$	$3''$	4.3	G2	8-8-8	G1001	100/58		FINE
				$3''$		K2			40/00	Clouded! closed	
		$3^{\circ} 15' W$	$+41^{\circ} 42'$	$2.3''$	6.88	A2	8-8-8	G1001	400/90	Sat short by cloud.	(GUIDING) WEAK
							5/5	no filter			GOOD
										Closed 02 ^h	

Date Jan 5-6, 1970, Mon-Tue Observer R. Rorden, Jr. / Jan, Im Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle End
32870	ξ And	1 ^h 16. ^m 5	45° 00'	G12	D 00	9L	20°F	18:22 ²⁸	18:50	A	0 ^h 18 ^m
32871	U Per	1 ^h 53 ^m	54° 20'	G12	D 00	13S	19°F	19:16 ¹⁷⁷	22:13	B	0 ^h 23 ^m 10 ^s
32872	α Per	3 ^h 20. ^s ⁽¹⁵⁴⁾	49° 41' ⁽¹⁵⁰⁾	G12	D 00	9L	15°F	22:32 ^③	20:32	C	0 ^h 02 ^m 00 ^s
32873	"	"	"	"	"	"	15°F	22:41 ^③	22:44	A	0 ^h 02 ^m 10 ^s
32874	"	"	"	"	"	"	"	22:51 ^④	22:55	C	0 ^h 02 ^m 16 ^s W
32875	λ Tau	3 ^h 59. ^s ⁽¹⁰⁶⁹⁾	17° 29' ⁽¹⁰⁶⁰⁾	"	"	9L	"	23:26 ^②	23:28	B	0 ^h 02 ^m 18 ^s V
32876	λ Tau	"	"	"	"	"	"	23:49 ^②	23:57	A	0 ^h 02 ^m 30 ^s V
32877	HD 31398	4 55.0 ⁽⁶⁹⁾	33° 5' ⁽⁶⁹⁾	"	"	"	14°F	0:15 ^⑤	0:20	B	0 ^h 02 ^m 00 ^s V
32878	HD 35864	5 26.5 ⁽¹⁹⁵⁰⁾	53° 7.2' ⁽¹⁹⁵⁰⁾	"	"	13S	13°F	0:51 ¹¹²	2:43	A	0 ^h 02 ^m 00 ^s V
32879	HD 90861	10 ^h 24. ^m 3	+29° 05'	"	"	13S	"	3:06 ⁴¹	3:47	C	0 ^h 02 ^m 00 ^s V
32880	B Vir	11 40.5	+2° 20'	"	"	9L	12°F	4:12 ⁴¹	4:16	B	0 ^h 02 ^m 00 ^s V
32881	R Vir	12 33.4	+7° 32'	"	"	9L	"	4:46 ¹²⁹	6:55	C	0 ^h 02 ^m 00 ^s V
32881 F	Focus			"	"		12°F			B	

Dome Temp. 19°F

Transparency Conditions clear some haze in west

Focus

Dome Temp. 15°F

some cloud

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
0 ^h 19 ^m E	+45° 23'	2"	6.0	K0	8-8-8	G1001	200/160	<u>2.01 20.3?</u>	FINE
03 ^h 00 ^m W	+54° 42'	"	7-10	M6	8-8-8	"	40/270	<u>broken 2pc</u> 1" pin on diaphragm	SL. WK
01 ^h 57 ^m W	+49° 46'	"		F5	12-12	"	40/20		STRONG
02 ^h 05 ^m W	"			"	10-12	"	40/22	guiding on lower slit	STRONG
02 ^h 16 ^m W	"			"	12-12	"	40/20	guiding on upper slit	STRONG
02 ^h 13 ^m W	+12° 26'	2"	3.3	B3V	12-12	"	40/18		SL. STRONG
02 ^h 36 ^m W	"	3"	"	"	12-12	"	40/17		SL. STR.
02 ^h 09 ^m W	+33° 08'	2"	V-24	K2	12-12	"	40/28		SL. WK
04 ^h 28 ^m W	+53° 10'	"	8.6	F0	8-8-8	"	800/350		FINE
0 ^h 03 ^m W	+28° 43'	"	8.36	K2 III	4-4-4	See SW vel	400/210		FINE
0 ^h 48 ^m E	+01° 57'	"	4.16	F8V	12-12	SW vel	40/21		SL. STR.
01 ^h 04 ^m W	+7° 10'	3"	7.7	M40	8-8-8	M ⁺ prog	400/400	<u>clear</u>	FINE
					5/5	no filter			GOOD

¹²¹ Jan 6-7. Hns, Rr & Ta initiated IR Photometry, ironed out bugs
mainly cloudy & cold

Date Jan 7-8 Wed-Thurs 1947 Observer Ta, Va. Julian Day

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	UNIDENTIFIED	20^h 3^m	50^h 45^m	12	IaO	13.5		20^h 57^m	21^h 46^m	

Dome Temp.
Focus
Dome Temp.
Hour Angle
Ecl

Date Jan 8-9 Thurs-Fri Observer Hd, Jr/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	Duo	175	+8°F	21:50	00:24	B
(32883)	HD 66141	07 57.1	+2° 36'	"	"	"	+5°F	00 94	0 52	A
32882F	From Ent					<u>B</u>	+5°F			B
32884	HD 65934	07 56.1	+26° 55'	G12	Duo	135		01:23	3:41	B

Dome Temp.
Focus
Dome Temp.
Hour Angle
End

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

Transparency Conditions *scattered clouds haze but clear*

Focus

Dome Temp. $+9^{\circ}F$

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
01:24	W 3 38	+25° 46'	3"	9.39	G2V	4-4-4 4-	Sec Std Vel	800/227	FINE
01:52	E 13 ^m		3	5.5	K3	12-12	Std vel.	80/23	FINE
						5/5	no filter		SL. C. TO WFL
02:41	02:38W	+26° 44'	2"	8.87	G8IV	4-4-4 4-4-4	Sec Std Vel	800/320	FINE
								Dec inappropable	

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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 ^h 20.9 ^m	50°43'	G12	IIcO	13 ^x S	18 ^o F	17 ^h 54 ^m	18:40	A
32887	T1	calibration step wedge for plates				32882 - 32884			12 Jan / 70	
	T2	"	"	"	"	32868-9, 32865-87, 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

" 07.2

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 106592	12 ^h 11.1	+41° 13'	G12	E20	9L	17°F	02 14	02 52	A
	four to out of view					9	12.5			B

Dome Temp.
Focus
Dome Temp.

Hour Angle
End

10.5

Date Wed thru Jan 14-15 1970 Observer B. 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.
32889	HD 37321	05 32.6	-01 30	G12	IIa0	9L	90F	18:07	18:45	A
32889	HD 92588	10 36.3	-01 13	G12	IIa0	9L	70F	03 07	05 26	A
32890	HD 107328	12 15.3	+03 53	G12	IIa0	9L	30F	05 38	06 12	B
32890F1	focus test	adjust focus		G12	IIa0	9	20F			B
32890 71	calibration	tip wedge for plate #			32888				16 Dec / 70	
T2	"	"	"	"	32889-32890				"	

Date Sun Mar 18-19 1970 Observer R. H. S. R. / 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>								1:10	

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

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Date *Mon. Tues. Jan. 19-20, 1970* Observer *R² HAS / Bui Ri / R²-HAS-R* Julian Day *where's 2nd half 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	100F	17:54	18:09	B	
32892	HD 21278	03 20.9	+48° 43	"	"	"	100F	18:21	18:30	C	
32893	"	"	"	"	"	"	100F	18 37	18 46	A	
32893F	<i>focus test</i>	<i>out out / mini</i>		"	"	9	100F			B	
	<i>photometry</i>							19:10	03 30		
32894	HD 115046	13 9.5	+40 41	"	"	9L	40F	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>	

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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.
32896	HD 37321	05 ^h 32 ^m .6	-1°30'	G-12	IIaO	9L	040F	18:34	20:14	A
32897	HD 36046 (10m B)	05 23.8	-0° 41'	G12	IIaO	9L	20F	20:29	22:56	B
32898	HD 37043	05 30.5	-05 59	G-2	IIaO	9L	0°F	23:10	23:27	C
32898 F1	focus test	out out/		G12	IIaO	9	0°F			B
32898 +1	calibration	step wedge for plates								

Dome Temp.

Focus

Dome Temp.

Hour Angle
End

Dome Temp. 0°F

Focus

Dome Temp. -30°F

Transparency Conditions clear
 generator blew main circuit breaker 4 times
 at the beginning of the evening

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
14 35E	-01 25	3"	7.03	B38	8-8-8	Bp Prog.	4x100/190	Possibly fogged. <u>no</u>	FINE
1 ⁿ 17W	-00° 35'	~2"	8.8	B39	8-8-8	Bp Prog.	400/190	Watch for possible moonlight + flare. → NOT OBVIOUS	FINE
1 ⁿ 50W	-05° 53'	~2"	7.3	B9	8-16	Bp PROG.	400/63	Capped early because of clouds	WEAK
		focus	90-R		5-5	no filter		closed up at 00:15	CENTRE TO VIOLET
mwp: 2 / 9.0 min @ 42° = / 2 AUG 1959									

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Date Jan 23-24 Fri-Sat Observer Riordan, In / T₄-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.
32899	ε And	1 ^h 16.5	45° 00'	G12	II ₀ 0	9L	15°	18:21	18:51	A
32900	HD 28865	4 ^h 21 ^m	42° 58'	"	"	"	8°F	20:03	23:20	B
32901	HD 91948	10 ^h 31.9	+60° 38'	"	"	9L	8°F	00:07	01:29	C
32902	HD 128661	14 ^h 33.1	+36 23'	"	"	9L	6°F	01:42	03:08	A
32903	HD 131561	14^h 50.9	+45° 43'	"	"	9L				B
32902 T ₁	calibration	step	wedge	for	plates	32899 - 32902			26 Jan 1970	

Dome Temp.
Focus
Dome Temp.

Transparency Conditions very good

Ending Time E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
8:51	A	01 ^h 25 ^m W	+45° 22'	2"	6.0	K0	8-8-8	G1001	400/340	2 counter misces	FINE
9:08	B	02 ^h 50 ^m W	43° 10'	3"			8-8-8	"	400/250	"	FINE
9:24	C	01 ^h 12 ^m E	+60° 17'	3-4"	7.37	F8	8-8-8	SPECT BIN	400/260		SL. STRONG
9:58	D	03 ^h 32 E	+36° 04'	"	7.0	A0	8-8-8	ECLIP. BIN	400/200		FINE
					7.64	F3		SPECT BIN	400/260		
6 Jan 1979		mwp. 2/9.0 min @ 68°									
		<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 WINTER?									

Date Fri Sat Jan 30-31 1970

Observer ^{Bir} R² Hns-R₁

Julian Day _____

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
								18:20	19:30	
32903	HD 21699	03 25.1	+47° 41	G12	IIaD	9L	18°F	20:46	21 02	B
32904	HD 37321	05 32.6	-01° 30	B12	IIaD	9L	18°F	21: 12	22:34	C
32904F1	from test	out out / in in		G12	IIaD	9	17°F			F

Dome Temp. /
Focus _____
Dome Temp. _____

Hour Angle
End

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
								clouds at 19:15	
14 55W	+47° 57	3	5.36	B8III	8-8-8	Bp Prog.	200/90		FINE
15 20W	-01° 25	3	7.03	B8	8-8-8	Bp Prog.	4x100/122	?!#!?!? Snow!!! Cupped early	SL. W/K
	from 90R				5-5	no filter		because of cloud	GOOD

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

Dome Temp. 38°F

Focus

Dome Temp. 38°F

Transparency Conditions

thick haze + windy

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clouded in completely at 23:00

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
0 ^h 38 ^m E	+47° 55'	"	5.86	B8 II	8-8-8	Bp Prog.	200/90		FINE
1 ^h 42 ^m E	-1° 25'	~2"	7.03	B8	8-16	" "	8x100/70	Capped early due to excessive haze.	VERY WK
1 ^h 27 ^m W	+50° 08'	~3"	5.09	B3 V	8-8-8	" "	2x100/93	Comparison star	FINE
1 ^h 31 ^m W	+48° 58'	~2"	4.88	B3 V	8-8-8	" "	2x100/90	Comparison star	STR.
1 ^h 43 ^m W	+49° 25'	~2"	4.57	B5 V	8-8-8	" "	2x100/91	Comparison star	STRONG
1 ^h 53 ^m W	+24° 03'	~3"	5.01	B8 p	8-8-8	" "	2x100/135		(GUIDING) SL. STR.
2 ^h 07 ^m W	+23° 57'	~3"	3.54	B8 III	8-16	" "	2x100/90	MK std.	SL. STR.
2 ^h 27 ^m W	+24° 02'	~3"	3.58	B6 III	12-12	" "	2x100/90	MK std.	SL. STR.
2 ^h 39 ^m W	+24° 45'	~3"	5.56	B8 II	8-	" "	4x100/5	400/30 broken 2 pieces	BROKEN VERY WEAK
3 ^h 15 ^m W							4x100/5		
3 ^h 36 ^m W							4x100/20		
					16				
					5-5 no filter			closed up at 23:15	LOST THE CENTRE COMPARISON
MWP-2 19.0 min @ 68°F / 2900 IF9									

Dome Temp. 32°F

Transparency Conditions clear, not closed, 148

Focus

Dome Temp. 25°F

Hour	Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
19		25 39	1-3	9.39	G2V	4-4-4 4-4-4	SSV	800/300		FINE
20	355	+26° 18'	"	8.36	G2V	4-4-4 4-4-4	"	800/300		FINE
21	35	+29° 19'	2-3	7.9	G7	4-4-4 4-4-4	Std Vol.	800/300		
04	06	+27° 07'	2"	7.75	G2V	4-4-4 4-4-4	SSV	800/290	cloud	WEAK
01	38	+37° 56'	2"	7.3	G5	4-4-4 4-4-4	Std Vol.	800/300		FINE
00	30	+27° 17'	1-2"	9.03	K0IV	4-4-4 4-4-4	SSV	800/500		FINE
						2"	no filter			GOOD
plates don't fit exposed box!!										
Sat: I found the upstairs front door open - MR										

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Date Sat Feb 7-2 1970 Observer Kö. An - T₁/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.	Hour Angle End
32921	η Tau	3 ^h 41 ^m .6	23° 42'	G12	K ₂ D	9XL		1858	1900	A	0.64
32922	η Tau	3 ^h 41 ^m .6	23° 42'	G12	"	9XL		1910	1912	B	0.171
32923	HD 27716	4 ^h 17 ^m .4	35° 01'	"	"	9L		1932	2156	A	02.216
32924	HD 27716	4 17.4	35 01	"	"	9L		2201	2400	C	14.9
32925	HD 91948	10 ^h 31.9	+60° 38'	"	"	9L	29°F	00:17	01:56	B	00.21
32926	HD 138661	14 ^h 33.1	+36° 22'	"	"	9L	29°F	02:10	03:21	A	02.25
32927	HD 138661	14 ^h 33.1	+36° 22'	"	"	13S	28°F	03:31	04:53	B	0.15
32928	HD 139882	15 35.6	+36° 58'	"	"	9L	28°F	05:00	05:10	C	01.37
32929	HD 138661	14 ^h 33.1	+36° 22'	"	"	9L	28°F	05:17	06:15	A	0.15
32930	HD 116318	17 ^h 54.6	+38° 07'	"	"	9L	28°F	06:20	06:40	C	02.15
32930	Focus						27°F			B	

Dome Temp.

Focus

Dome Temp.

Dome Temp. 32°F

Transparency Conditions clear, 2 haze on horizon, rising

Focus

Dome Temp. 29°F

Hour	Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
00	0° 6" W	(24° 01')	2-3"	2.8	B7ne	8-8-8	K0 A470	40/24	exposure meter v. erratic	FINE
01	0° 18" W	(24° 01')	2-3"	2.8	B7ne	8-8-8	"	40/20	↓	FINE
02	28" W	35.1	1-2"	8.05	F0	8-8-8	"	400/130	haze rising 2010 Broken in 2 pieces	BROKEN U.S.C. WK
04	31" W	35.1	1-2"	8.05	F0	8-8-8	"	400/145	exposure meter	VERY WEAK
00	14 W	+60° 16'	1-3"	7.37	F8	8-8-8	SPEC. BIN	400/260	Seeing good, thick fog (1)	(GOOD) FINE
02	20 E	+36° 03'	1-2"	7.0	A0	8-8-8	ECL. BIN.	400/200	Variable seeing	(GOOD) FINE
01	05 E	+45° 25'	"	7.64	F3	8-8-8	SPEC. BIN	400/180	"	U.S.C. WK
01	33 E	+36° 45'	"	5.1	B2	8-8-8	SPEC. BIN	200/100	"	FINE
00	35 W	+36° 04'	"	7.0	A0	8-8-8	ECL. BIN	400/200	broken 1 large 2 small pieces	BROKEN (GOOD) FINE
03	21 E	+38° 13'	"	5.7	B6-7	8-8-8	SPEC. BIN	200/100		FINE
			from 90-R			5/5	no filter top			GOOD



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

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Date 8-9 Feb 1970 (Sun-Mon) Observer Bu-Tn/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
32931	HD 37321	05 ^h 32 ^m .6	-1° 30'	G12	IIaO	9L	31°F	18:22	20:44	A	0 ^h 06 ^m W
32932	"	"	"	"	"	"	30°F	21:00	22:14	C	01:37 W
32933	Orion	05 ^h 30 ^m .5	50° 54'	"	"	"	"	22:45	00:04	B	02:55 W
32934	1091948	10 ^h 31.9	+60° 38'	"	"	9L	27°F	00:18	02:38	C	01:20 W
32935	F = 10 cur						"			B	
32934 T1	calibration step wedge for plate							32915 - 32920			9 Feb / 70
T2	"	"	"	"	"	"		32921 - 32930			"
T3	"	"	"	"	"	"		32931 - 32934			"

Dome Temp. 30°F

Transparency Conditions clear some haze

Focus

Low cloud at 02:30

Dome Temp. 26°F

Ending Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
00:00	P	0h 06m W	-1° 25'	2-3"	7.03	B _p	8-8-8	B _p Perz.	4x100 / 170	(Probably actual count should be at ~ 190; this due to imbalance in exp. meter BROKEN - 2pc)	BROKEN
00:14	C	01 37 W	"	2"	"	"	8-8-8	"	6x100 / 190		FINE
00:24	H	03 25 W	-5° 54'	+	7.3	B_p	8-8-8	"	4x100 / 170	cut short by nit	BROKEN WEAK
00:30	C	01 00 W	+60° 18'	2-3"	7.37	F8	8-8-8	SPEC. BIN.	400 / 240	cloud	FINE
			focus	90-2				no filter			GOOD
										Closed 03	
8 Feb 70		2 W P-2	15 min @	62°F	240	LI	EA				
		"	9.0	"	"	"					
		"	"	"	"	"					

Date 11-12 Feb 1970 Observer Tm - 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.	
32935	HD 128661	14 ^h 33 ^m 11	36° 22'	G12	II ₀ 0	9L	15°	3:40	6:24	A	
32935 F	Focus			G12	II ₀ 0	9	14F			P	
	no calibration plate										
32935 T ₁	calibration step wedge for plates 32933, 32935									12 Feb 70	

Dome Temp

Focus

Dome Temp

Hour Angle End

Dome Temp. 15°

Transparency Conditions *Even thin haze*

Focus

Very bad seeing

Dome Temp. 12°F

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
0 ^h 59 ^m W	+36 04	3-4	7.0	A0	8-8-8	Eclipsing binary	4x100 200	clouds	FINE
					5/5				GOOD
<i>20 WP-2 / 10 min @ 11°F / 2400159</i>									

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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 ^h 31 ^m .9	+60° 38'	G12	IIa-O	9L	+60°	02 ^h 41 ^m	05:41	A
32937	HD 139892	15 35.6	+36° 58'	G12	IIa-O	9L	+50°	05 ^h 59 ^m	06:20	B
32938	HD 174697	19 11.1	+10° 42'	"	"	"	"	06:26	06:30	C
32938F	Focus					9	+50°			P
32938 T1	calibration step wedge for plates 32936									

Dome Temp

Focus

Dome Temp

Hour Angle
End

04:33W

00:25

01:21

Dome Temp. 6°F

Transparency Conditions clear - 0° 82"

Focus

very bad seeing again

Dome Temp. -10°F

Ending Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
04	A	04 20W	+60° 17'	5-6"	7.37	F8	8-8-8	Sp Bin	400/230	cut short (too bad)	* FINE
00	B	00 03E	+36° 44'	4-5	5.1	Bin	8-8-8	Sp Bin	200/100	bad seeing (no water correction)	SL. STR.
01	C	01 30W		"	1.29	422	24-	FWV	40/22		SL. STR.
			90-R				5/5	no filter			CENTRE VIOLET
										* SHOWS FLEXURE	

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Fri - sat

R^o - Hns IR Phot

Date 13-14 Feb 1970

Observer Kō, Ta /

Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle End
32939	HD 23630 ^(γ Tau)	03 41.6	+23° 48'	G12	Il00	9xL	9°F	19:05	19:10	A	00° 52'
32940	"	"	"	"	"	9xL	8°F	19:15	19:20	B	01:34
32941	HD 27776	04 17.4	35° 01'	"	"	9L	"	19:31		C	
32940 ^E	Focus			G12	Il00	9	8°F			C	
IR Photometry 20h →											

Dome Temp.

Focus

Dome Temp.

Dome Temp. 9°F

Transparency Conditions several feet

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Focus

Dome Temp.

good seeing

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
00° 53" W	+24° 02'	2"	2.8	P7 III	8-8-8	K6 A470	40/20	back cover loose: may not have been pressed ^{down}	(SL. GUIDING) V. SL. STR
01 04 W	"	"	"	"	8-8-8	"	40/22	guided with fast motion throughout	SL. STR
	35° +		2.05	F0	8	"	400f	cut for 24 sec	
	in air/out of				5/5	not filter		8 sec comp from part exp	CENTRE TO UTOL.
					(from 90-R)				

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SAT. SUN

Date 14-15 FEB. 1970 Observer R.V. / R.G. Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle End
32941	λ ORION	5 ^h 29 ^m 38 ^s	+9°52'	G12	TTaD	9L	14°F	18 ^h 30 ^m	18 ^h 51 ^m	A	5:57
32942	HD 44131	6 ^h 15.0 ^m	-2°54'	G12	TTaD	9L	12°F	21 ^h 19 ^m	22 ^h 54 ^m	B	5:58
32942 F	from the	TTaD	p ~	.	.	9	12°F			B	

Dome Temp. Focus Dome Temp.

Hour Angle End

Dome Temp. 12°F

Transparency Conditions

Focus

Dome Temp. 12°F

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
1 ^h 10 ^m E	9 ^h 55 ^m	3	3.4	08	8-8-8	G1001	80/40		STRONG
2 ^h 10 ^m W	-02 55	3	6.5	M1	8-8-8	std vel.	400/266		WEAK
	focus 90-R				5-5				GOOD
								CLOUDS , CLOSE UP 1:30	
								fusion,	
								the locks in the dome are quite a bit out. Could you please check them.	

Date 15-16 Feb 1970 Observer Go-R. / R. Julian Day _____

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	
32943	+ Ori	5 ^h 49 ^m 4 ^s	7° 23' 3"	G12	II 01	9L	18°	19.45	19.50	A	
32944	403512	05 ^h 19 ^m 4 ^s	7° 23' 59"	G12	II 01	9L	18°	20.55	20.19	B	
*											
32944 T1	calibration step wedge for plates	32939 - 32944								16 Feb 1970	

Dome Temp _____
Focus _____
Dome Temp _____
Hour Angle _____
End _____

Dome Temp. 19°

Transparency Conditions

Focus

Dome Temp.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
0 ^h 24 ^m E	7° 26'	3"	1.41	M2	12-12	A47D	20/39		STRONG
0 ^h 34 ^m E	-0° 50'	3"	59	160	8-16	S.V	400/23	too foggy clouded out	~ BLANK
mwp-2 / 7.0 min @ 61°K (2900C / 159)								opened up clouded out at 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
32945T	calibration step				wedge for plate no					32945
								17 Feb/70		

Dome Temp. 2

Focus

Dome Temp.

Hour Angle
End

2405

7/11/70

Dome Temp. 20°F

Transparency Conditions

Focus

Dome Temp.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
2405W	-01 27		7.03	B8	8-8-8	Bp 200G	400/130	clouded out	V-56. WK
								focus 90-R 5-5 no filter	6.000

ending Time
E.S.T.

P.H.

1974/1/10

mwp 2 / 9.0 min @ 68° E / 2000159

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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
32947	HD 29587	4 34.5	+41 57	"	"	135	18°F	20:14		B
32946F	und. slit in in					9	17°F			
32946 T1	calibration step wedge for plate #					32946			20 Feb 1970	

Dome Temp.

Focus

Dome Temp.

Hour Angle
End

W155

mu-7

Dome Temp. 16°F

Transparency Conditions

Focus

Dome Temp.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
N 1 55	40 20		5.2	F9	4-4-4 4-4-4	Std. V.L.	400/150	Through clouds.	FINE
			7.7	G2	4-		400	- Thickening up.	
	focus 90-2.				5/5	no filter			GOOD
MWP-2/ 9.0 min @ 68°F / 2400C129									

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Date Fri-Sat: Feb 20-21 Observer R.A., T.A., 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.
32947	HD 37321	05 32.6	-01° 30'	G12	D00	9L	16°F	18:45	21:04	A
32948	1 Ori B	05 30.5	-05° 59'	"	"	"	15°F	21:13	23:15	B
32949	γ Ori	05 19.8	+06° 16'	"	"	9L	"	23:21	23:23	C
32949 F	Focus			"	"		"			B
	Photometry IR	with	Hns	1st	GC	1417				

Dome Temp.

Focus

Dome Temp.

Hour Angle
Ecl

Dome Temp. 17°F

Transparency Conditions scattered cloud but good

Focus

Dome Temp. 14°F

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
1:13 W	-01° 25'	2"-3"	7.3	B8	8-8-8	Bp prog	400/190		FINE
3:26 W	-05° 54'	~3"	~7.3	B9	8-8-8	Bp Prog	400/172		FINE
3:45 W	+6° 22'	"	141	B2 III	12-12	"	20/8	MK Std.	FINE
	<i>min/out out.</i>				5/5	no filter			GOOD
								<i>much cloud at 03h</i>	
								<i>closed 05h</i>	

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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 End
32950	HD 23169	03 37.9	+25° 25'	G12	D00	135	32°F	18:59	21:51	A	04:24
32950F	Focus			G12	D00	13	32°F			B	04:24
32951	HD 128661	14 33.1	+36° 22'	G12	D00	9L	29°F	01:39	03:48	C	06:14E
32952	HD 139892	15 35.6	+36° 58'	"	"	"	24°F	04:09	04:30	A	06:17E
32953	Brit. comp. of HD 139892	"	"	"	"	"	22°F	04:38	05:08	B	06:17E
32954	Novo Star	(1970) 18 29.2	(1970) +02° 40'	"	"	9L	"	05:19	06:10	C	06:17E
32955	HD 161096	17 38.5	+04° 37'	"	"	"	"	06:16	06:23	A	06:17E
32955 T1	calibration	step	wedge	for	plate	32947-32949,		32951-32955	23 Feb 70		
T2	"	"	"	"	"	32950				"	

Dome Temp. 35°F

Transparency Conditions scattered clouds but good
(very windy)

Focus

Dome Temp. 15°F

Hour	Angle	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
04	01 W	+25° 46'	2"	9.39	G2V	4-4-4	SSV	800/275	Anson pward also for Hbl. intermittent clouds / out of focus	FINE
04	01 W					5/5	no filter			SL. C. TO R.
00	54 E	+36° 04'	2-4"	7.0	AD	8-8-8	ecl Bin	400/200	very slow??	FINE
01	13 E	+36° 34'	"	5.1	R6n	8-8-8	Sp Bin	80/20	very bad resolution??	(GUIDING) FINE
00	36 E	"	2-3"	2.5	B	8-16		200/100	for comparison with previous star	FINE
02	25 E	+02° 36'	"	0.5	AK	8-8-8	Nova	200/150	Finder III Bin	FINE
01	25 E	+04 36	"	3.93	K2V	12-12	B+SID VET	40/29		FINE
in WP-2 / 9.0 min @ 64° (2.90c x 29)										
" 15 min @ 64°										
J+1 to let plate in 200 box with a large gap between it & others.										

A71

Date Mon-Tues Feb 23-24 Observer Lu To/Hu To Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle End
32956	HD 36919	05 29.9	-06° 09'	G12	Ilod	9L	26°F	18:44	21:52	A	02:15
32957	HD 37321	05 32.6	-01° 30'	"	"	"	25°F	22:00	23:27	B	03:40
32958	β Tau	05 20.0	+29° 31'	"	"	"	24°F	23:38	23:41	C	04:10
32959	HD 74280 ^(M Hyg)	08 38.0	+03° 45'	"	"	"	25°F	23:51	23:58	A	01:17
32960	(d Leo) HD 87901	10 03.1	+12° 27'	"	"	"	25°F	00:05	00:08	B	00:01 E
32961	(M UMa) HD 120315	13 43.6	+69° 69'	"	"	"	25°F	00:20	00:23	C	02:06 E
32962	HD 76935	08 47.9	+27° 18'	"	"	13 18.5	"	00:40	03:40	A	04:17
32963	HD 128661	14 33.1	+36° 22'	"	"	9L	"	03:47	05:22	C	00:10
32964	Novae Survey	18 29.2 ⁽¹⁹³⁰⁾	+02° 40' ⁽¹⁹⁷⁰⁾	"	"	9L	26°F	05:28	06:19	A	01:15
32964 F	Focus			"	"	9	26°F			B	
32964 T1	calibration	step	wedge	for	plates	32956 - 32964					24 Feb 1930

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Date WED/THURS. 25/26 FEB Observer Hns. R. Jn. / Tr. 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
32965	NOVA SERP	18129.2	¹⁹⁷⁰ +2° 40'	612	TI 20	9L	0°F	05:06	5:51	A	F 21 30
IR PHOTOMETRY		FROM SUNSET		TO 04:30							
32965 T1	calibration step wedge for # 32965								27 Feb 70		

Dome Temp.
Focus
Dome Temp.
Hour Angle
End

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	2K	8-16	NOVA	200/35	MOSTLY CLOUDY, SNOW	SL. WK
MWP-7/ 15 min @ 68°F / 2400CL79									

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Date FRI SAT FEB 27-28 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.
37	HD 109303	12^h 28^m 6^s	49° 51'	G 12	II a 0	(35)		2:35		a

Dome Temp.

Focus

Dome Temp.

Hour Angle

Eat

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Date SAT-SUN FEB 28 March / Observer L. S. T. - G. B. Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
32966	η Tau	5 45.6	21° 48'	G12	IIaD	9xL	23°F	18:52	19:06	C
32967	HD 27716	4 37.4	35° 01'	"	"	13S	"	19:12	21:50	A
32968	μ Tau	04 34.2	16 27	"	"	2W	27°F	22:08	22:12	C
32969	λ Urs	05 33.5	+09 55	"	"	9xL	21°F	22:20	22:31	B
32970	HD 91048	10° 31' 19"	+60° 38'	"	"	9L	"	22:43	00:15	A
32971	HD 128661	14 33.1	+36 22	"	"	9L	20°F	00:24	01:44	C
32972	HD 131861	14 50.9	+45 43	"	"	13L	19°F	01:50	04:00	B
32973	HD 139893	15 35.6	+36 58	"	"	9L	18°F	04:06	04:19	A
32974	NOVA SERP	18 29.2	+22° 40'	"	"	9L	"	04:24	05:17	C
32975	HD 128661	14 33.1	+36 22	"	"	9L	"	05:23	06:16	B
32975F	Focus			"	"	9	17°F			C
32975 TI	calibration step analysis for plate								2 May 1970	

Dome Temp. 23

Focus

Dome Temp.

Hour Angle
End

Dome Temp. 23°F

Transparency Conditions *clear some haze*

Focus

Dome Temp.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
1 ^h 35 ^m W	+24° 01'	2"	3.8	B7.0	8-8-8	A 470	40/20	fast guided	FINE
3 ^h 46 ^m W	+35° 11'	"	8.05	F0	8-13-4	"	400/170		(SL. GUIDING) FINE
23 57 W	+16 29'	"	3.0	K5M	12-12	"	40/35	"	SL. WK (GUIDING) FINE
3 15 W	+09° 56'	"	5.4	OR	12-12	G1001	40/22		* FINE
00 05 E	+60° 15'	"	7.37	F2	8-8-8	Sp Bin	400/260		* FINE
12 35 E	+36 03'	1-2"	7.0	A0	8-8-8	ECL. BIN	400/200	hit head on spec counter *	FINE
00 35 E	+45 25'	2"	7.64	F3	8-8-8	SPEC. BIN	400/210	cut short	(GUIDING) FINE
01 01 W ^E	+36 44'	1-2"	5.1	B8.0	8-8-8	"	200/100	HA ISOTOPIE - SAS Feb/90	SL. STRONG (GUIDING)
02 54 E	+2 36'	2'-3"	~5	~K	8-8-8	NOVA	200/110	HEAVY HAZE FROM 4:45 ON	WEAK (GUIDING) W.F. 7K
01 58 W	+36 04'	"	7.0	A0	8-8-8	Ecl Bin	400/90	cut short by down	(GUIDING) W.F. 7K
	<i>mm/old ad</i>				5/5	no filter			SL. COMP. TO RED
	<i>Try to use 2 if possible</i>					<i>focus 90-R</i>			
01 WP-2/	9.0 min @ 41° K/	2900	1E9						* 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 ^h 37 ^m .9	+25° 25'	G12	IIa-O	135	30°F	18 ^h 48 ^m	21 ^h 31 ^m	A	
32977	HD 91948	10 31.9	+60° 38'	"	"	9L	27°F	21 ^h 48 ^m	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 SCOP	¹⁹⁷⁰ 18 29.2	¹⁹⁷⁰ +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 S.V.

180

Focus

cloud at 02:15

Dome Temp. 23°F

Ending Time EST.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
	4 ^h 25 ^m 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
	00 00 E	+60° 13'	"	737	F8	8-8-8	Spect Bin	400/200		(GUIDING) FINE
	01 08 W	+4° 17'	2"	812	F8	8-8-8	G1001	200/290	RA 1070-12 ^h 320 finder field drawn } cloud cut short	(GUIDING) FINE
	01 23 W	+24° 55'	3"	376	G0 II	12-12	Std Vel	40/17	cloud etc	V.S.L. WK
	00 47 E	+36° 44'	1.3"	5.1	B8n	8-8-8	Spect Bin	200/90		S.L. STR.
	01 57 E	+02 36	2"	=5	=K	8-8-8	nova	400/190	Thru cloud cut short by cloud	* FINE
		in in/out set				5/5	not tilted		from 90-R	S.L. CENTRE TO RED
									* TOO MANY FINGERPRINTS	
	MWP-2	9.0 min @ 65°F				210	C129			

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.
32982	HD 109303	12 ^h 28. ^m 6	49° 51'	G12	IIaD	13S	32°F	23:49	00:40	A
								01:40	02:49	
32983	HD 146051	16 09.1	-03° 26'	G12	IIaD	13S	31°F	03:00	03:50	C
32984	Nova Scarp	18 ^m 29.2	02° 40'	G12	IIaD	9L	30°F	04:11	05:10	B
32984 F	Focus			G12	IIaD	9	30°F	from 90-R		B

Dome Temp.
Focus
Dome Temp.

Hour Angle
End
01:18
00:58W
01:49E
02:19E

Dome Temp. 33°F

Focus

Dome Temp. 29°F

Transparency Conditions clear by 23:30 132
meteorites in N.E. -> S.W.
cloud at 00:30

Hour	Angle	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
01	10E	+49° 28'	2.3"	7.7	F8	8-8-8	Hamm G1001	800/135	cloud Finder SD Drawn	VERY WEAK
00	58W								copped part way thru cloud	
01	40E	-03° 36'	2.3"	4.30	M1 III	4-4-4 4-4-4	SWVet	200/90	Developed as for SSV. * for much cloud J.F.H.	WEAK
02	37E	+2° 37'	2"	5	WK	8-8-8	Novo-	400/50	Bad night	ALMOST BLANK
						3/5	no filter			VERY, VERY SLIGHT CENTRE TO RED

Date Sun - Mon Mar 8-9 Observer T.N. Chen / H.T. 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	ϵ Ori A	05 30.5	-05° 59'	G12	IIaO	9L	20°	19:13	19:18	A	0° 20'
32986	HD 31398	04 ^m 51.2	+33° 03'	G12	IIaO	9L	20°	19:24	19:55	B	01 42W
32987	HD 31398	04 ^m 51.2	+33° 03'	G12	IIaO	9L	"	20:12 ^m	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	focus	90-R	B	
32989	HD 128661	14 33.1	+36° 22'	"	"	9L	+15°	01 32	3 50	C	04 30E
32990	HD 139892	15 35.6	+36° 58'	"	"	"	"	03:54	04:10	A	04 30E
32991	Nova Serpens	⁽¹⁹⁷⁰⁾ 18 29.2	⁽¹⁹⁷⁰⁾ +02° 40'	"	"	"	"	04 18	05:42	B	05 17E
32992	HD 161096	17 38.5	+04° 37'	"	"	"	"	05 49	06 54	C	06 05E
32992T	calibration	step wedge for plates 32982 - 32992									9 Mar, 70

Dome Temp. 19°F

Transparency Conditions scattered cloud

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Focus

thick cloud at 19:30
clear at 20^h again

Dome Temp. 12°F

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
0 ^h 32 ^m W	-05° 54'	2"	2.5	Q9	12-12	Bp Prog	40/17		STRONG
01 48 W	+33° 09'	"	m29	K2	8-8-8	G1001	40/30	thick cloud	30 FINE
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 NO CENTRE COMP?
	in a lot of				5/5	not in a			
00 04 W	+36° 03'	2-4"	2.5	A0	8-8-8	Eel Bin	400/100	bad seeing now	FINE
00 38 E	+36° 44'	2"	5.1	B8 _n	8-8-8	Spect Bin	200/80		SL. STR.
01 57 E	+02° 38'	3"	5.5	K	8-8-8	NovA	200/100		FINE
00 58 E	+04 36		3.93	K2 III	12-12	Std Vel	40/29		FINE
mwp-2/ 9.0 m @ 01°F (270 C 139)									

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Mas & R^o on IR PastDate Mon-Tues Mar 9-10 Observer Tn/Hr-Tn Julian Day 31

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 00	9L	18° F	19:03	19:06	A	00 24W-
IR	Photometry		4* in Proceppap					19:30 → 03:00			
32994	HD128661 ✓	14 33.1	+36° 22'	612	II 00	9L	14° F	03:23	05:06	B	01 24W-
32995	Novae Serp	⁽¹⁹⁷⁰⁾ 18 29.2	⁽¹⁹⁷⁰⁾ +02° 40'	"	"	"	"	05:12	05:58	C	01 37E-
32995 F	Focus			"	"	9	+13°			E	
32995 T1	calibration step wedge for plates				32993 - 32995				10 hrs / 70		04 21 A.

Dome Temp.

Focus

Dome Temp.

Hour Angle
End

Dome Temp. 17°F

Focus

Dome Temp. 13°F

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

Transparency Conditions Photometric

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some snow with clear sky?

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
00 29W	-05° 54'	2"	2.5	09	12-12	Rp Prog	40/15	* (all plates used tonight are the new batch)	STRONG
01 24W	+36° 03'	2.3'	7.0	A0	8-8-8	Ecl Bin	400/178		(GUIDING) FINE
01 37E	+02° 36'	4	5.5	OK	8-8-8	NOVA	20/120	One left of old batch is saved for you.	FINE
	in in/out out				5/5	no filter		↑ Tn	GOOD
MWP-2/	9.0 min @	0.8"	9	(2A0159)		NEW PLATES		MANY THANKS.	

RT 33,000 PLATE NIGHT

where is water/oo? they missed a good night!

Date Tues-Wed Mar 10-11 Observer Lt-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.
32996	HD 28067	04 20.7	+36° 18'	G12	IIaD	9L	21°F	19:05	20:04	C
32997	HD 66141	07 57.1	+02° 36'	G12	IIaD	13s	20°F	21:56	22:50	A
32998	HD 91948	10 31.9	+60° 38'	G12	IIaD	9L	"	23:15	00:30	B
32999	HD 103095	11 47.2	+38° 26'	G12	IIaD	13s	"	00:40	01:16	A
33000*	↘ Bootis	14 25.7	+39° 18'	G12	IIaD	13s	"	01:52	04:17	C
33001	nova serp	¹⁸⁷⁰ 18 29.2	¹⁹⁷⁰ +02° 40'	G12	IIaD	9L	"	04:32	05:09	B
33002	HD 139892	15 35.6	+36° 58'	G12	IIaD	9L	"	05:16	05:29	A
33003	HD 139891	"	"	"	"	9L	"	05:26	05:41	C
33003 F	Focus					9	70°F			B
33003 T1	calibration	step wedge for plates			32996 - 33003				" Mar 170	

Dome Temp. 22°F

Transparency Conditions clear, cloud coming in W

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 24	C	02 30W	+36° 29'	1"	7.63	G5	8-8-8	G1001	400/100	quite fast excellent seeing thick cloud cut short	VERY WEAK + FINGERPRINTS BROKEN (GUIDING)
00 50	L	01 40W	+02° 27'	2-3"	5.5	K3	4-4-4 4-4-4	Std Vel	800/350	standard for 50V (thick cloud)	FINE (GUIDING)
00 30	E	00 50W	+60° 19'	1-2"	7.37	F8	8-8-8	Spect Bin	400/240	clear again, some cloud	FINE (GUIDING)
00 11	A	00 21W	+37° 56'	"	7.3	G5	4-4-4 4-4-4	Std Vel	800/350	some cloud	FINE
00 15	C	00 45W	+38° 58'	1"	8	M6e	8-8-8	G1001	800/500	very clear] Fld down	FINE
00 18	R	02 23E	+02° 37'	2"	5.5	K	8-8-8	Nova	200/120		FINE
00 54	A	00 43W	+36° 42'	1"	5.1	PE _n	8-8-8	Spect Bin	200/65	[seeing perfect 100% separation of the 2	(GUIDING) FINE
00 41	C	01 00W	"	"	8	B	12-12	comp 5.0	200/75		FINE
							5/5	no filter		focus 90-R	GOOD
		20 WP-2/ 9.0 min @ 68°F = 1240C. 59									
										" Max/70: changed focus to 80-R	

Date Wed - Thurs Mar 11-12 Observer Hd-Tn / Hd-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
33004	HD 32963	05 01.8	+26 12	G12	IIaO	135		19 00		A	
33004	AG 4044	7 28.2	+28 57	G12	IIaO	135	24°F	20 41	23:19	A	02 41
33005	HD 90861	10 24.3	+29 05	G12	IIaO	135	23°F	23 27	00:17	B	04 49
33006	HD 122693	13 58.3	+75° 03'	"	"	135	+22°	00 24	02 28	C	08 51
33007	HD 132737	14 55.6	+27° 33'	"	"	135	"	02 31	04 02	A	08 51
33008	HD 136202	15 14.2	+02° 09'	"	"	135	21°F	04 05	04 15	B	01 45
33009	HD 128661	14 33.1	+36° 22'	"	"	9L	"	04 22	05 10	C	08 51
33010	Novo scip	¹⁰⁰ 18 29.2	¹⁰⁰ +07° 40'	"	"	9L	20°F	05 16	05 54	A	01 55
33010F	Focus			"	"	9	20°F			B	
33010 T1	calibration	step	weights	for	plates	33004 - 33010					12 Mar 1970

Dome Temp. 27°F

Focus

Dome Temp. 20°F

Transparency Conditions Photometric.....

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Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
02 47W	+26° 19'	2"	8.36	G2V	4-4-4	SSV	400/	Slide not drawn.	
02 47W	+28° 48'	2"	9.29	G0V	4-4-4	SSV	800/300	Field drawn.	SL. WK
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
00 32E	+24° 43'	"	8.74	F8V	4-4-4	SSV	800/300	Finder Drawn	SL. WK
00 05W	+27° 17'	"	9.03	K0 III	4-4-4	SSV	800/300	Finder, fld. dr.	WEAK
00 01E	+01 53	2"	5.6	G0	8-8-8	Std Vel	200/75		(GUIDING) FINE
01 35W	+36 05	1-2"	7.0	A0	8-8-8	Ecl Bin	200/90		(GUIDING) FINE
01 35E	+02 37	2	5.5	=K	8-8-8	nova	200/70	(200) SHOWS THE MISSION	SL. WK
					5/5	no filter		frames 80-R	GOOD
mwp-2 / 9.0 min @ 68°F (240 C (159))									

Date ~~Thurs~~ ^{Fri} ~~Mar 12-13/70~~ Observer ~~Tm~~ ^{Hd - G2} ~~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.	
33011	HD 35410	05 19.4	-0 59	G12	IIaO	13S		19:13	20 18	A	
33012	HD 65934	07 56.1	+26 55	"	"	"		20 30	11 ²⁵ :40	B	
33013	HD 89449	10 14.3	+19° 59'	"	"	"	26°F	11 ²⁵ :47	00:12	A	
33014	HD 91948	10 31.9	+60° 38'	"	"	9L	"	00:20	02:17	C	
33015	HD 128661	14 33.1	+36° 22'	"	"	9L	24°F	03:13*	04:45	A	
33016	HD 139892	15 35.6	+36° 58'	"	"	9L	25°F	02:134	03:05	B	
33016F	Focus			"	"		"			B	
33016 T1	calibration	step wedge for plate 33011 - 33016								13 May 1970	

Dome Temp. 29°F

Transparency Conditions Part cloudy (Kerins)

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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
	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	SL. WEAK
	E	W 2:46	+26° 45'	2"	8.87	G8 ^{III}	4-4-4 4-4-4	See Std Vel	800/241	Light haze. Cirrus. Broken in 2 pieces	SL. WEAK (GUIDING) BROKEN *
	F	W 0:58	+19° 38'	"	5.3	F5	4-4-4 4-4-4	STD. VEL.	800/300		(GUIDING) FINE *
		W 2:45	+60° 18'	"	7.37	F8	8-8-8	SPEC. BIN.	400/195	HAZY AT TIMES	FINE
		W 1:15	+36° 04'	"	7.0	A0	8-8-8	ECL. BIN.	400/120	Taken after 33016-CLOUDS	FINE
		E 1:27	+36° 44'	"	5.1	B8M	8-8-8	SPEC. BIN.	400/170	thru cloud	USL. STR
							5/5	no filter		focus so-r	(GOOD)
										Closed 05 ^h , cloud	
		MWP-2	/ 12 min @ 68° = (2900159)								
										* FINGER PRINTS!	

Date Fri Mar 13/14 Observer Ri-Gu/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.	Hour Angle End
33017	4081797	9 22.7	-8 14	G12	T60	95	27°	22.40	23.13	A	
33017 F	Focus			"	"	-	26°			B	

Dome Temp.
Focus
Dome Temp.

Date SAT SUN 14/15 Observer Ri-VA/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.
33018	HD 42397	06 ^h 05.4 ^m	+25° 02'	G12	IIaO	13S		19 ^h 13 ^m	21:54	A
33019	HD 107328	12 15.3	+03 53	G12	IIaO	9L	240F	00:25	01:34	A
33020	HD 138661	14 33.1	+36° 22'	"	"	9L		01:42	02:57	B

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

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Sun - Mon

Date Mar 15/16

Observer G. / (R-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.
33021	HD 65934	7 ^h 56 ^m .1	+26° 55'	G12	IIo0	135	21°	20 08	21:20	B
33022	HD 66141	7 ^h 57 ^m .	+2° 36'	G12	IIo0	135	"	21:35	22:11	C
33022F	Focus		out out in in							B
33022 r1	calibration	step	wedge for plates		33017 -	33022			16 Mar 1970	

Dome Temp
Focus
Dome Temp

Hour Angle
End

Mar 15/70

Dome Temp. 21

Transparency Conditions Clear - haze later

Focus

Still cloudy + haze by 4 AM

Dome Temp.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
0 ^h 37 ^m W	+26° 45'	2	8.87	G 8	4-4 10	S.S.V.	800/72	cut short - too crazy	VERY WEAK
1 ^h 27 ^m W	+ 2° 27'	3	5.5	103	4-4-4 4-4-4	S.V.	200/110		FINE
	from so - R				5/5	no filter		heavy haze - closed 2800	GOOD
MWP-2 / 10 min @ 65° E / 2800 FT									

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 ^h 56. ^m 7	26° 55'	G12	II 00	135	27°F	19:14	21:21	A	
33023F	focus test		in in/out of			9	26°F			B	
33024	HD 89449	10 14.3	+19 59	G12	II a0	135	25°F	22:00	22:14	C	
33025	HD 66141	7 ^h 57. ^m 1	+02° 30'	G12	II 00	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	study for plates 33023-33026								17 Mar 70	

Dome Temp.

Focus

Dome Temp.

Hour Angle
End

Hour Angle

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
$0^h 40^m W$	$26^{\circ} 45'$	2"-3"	8.87	G8	4-4-4 -4-4-4	^{secondary} Std. Vel	800/300		SL. WK
					5-5	no filter		from F0-R	GOOD
$0^h 45^m E$	$19^{\circ} 40'$	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 generated in ground - photo multiple with 1/2 sec / 1/2 sec	FINE
$1^h 15^m E$	$102^{\circ} 43'$		5.5	K	5-16	nova	200/30		WEAK
mwp-2 / 9.0 min @ $60^{\circ} F$ / 2400 / 59									

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Walslow visitors
looked at moonDate Mar 17/18 1970 Observer Em. 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.	
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	18 29.2	+02° 40	G12	IIaO	9L	30°F	03:46	05:46	C	
33032 F1	focus test		out out/wind	G12	IIaO	9	30°F			B	
33032 71	calibration	step wedge for plates 33027 - 33032								18 Mar/70	

Dome Temp. 32°F

Transparency Conditions *hazy*

Focus

Dome Temp. 29°F

Ending Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
		1 ^h 02 ^m W	+02 26	3	5.5	K3	8-8-8	std. 2xl	200/160		FINE
		0 ^h 19 ^m W	+60 18	2	7.37	F8	8-8-8	<i>Just. Ben Waterloo</i>	400/250		FINE
		1 ^h 07 ^m W	+40 50	2	7.36	M1 ^{III}	8-8-8	v.s. BIN. BK*	450/450		FINE
		1 ^h 30 ^m E	+42 27	2	7.38	K4 ^{II}	8-8-8	" "	400/320		FINE
		0 ^h 15 ^m E	+33 25	2	4.42	Q8 ^{II}	8-8-8	" "	200/130		FINE
		1 ^h 20 ^m E	+02 37	3		NOVA	9-8-8	NOVA	800/365	<i>hazy</i>	FINGERPRINTS/SL. WR
							5-5	no filter		(broken during processing)	GOOD
		MUP-2 / 9.0 min @ 61°F / 290C 159									

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° 27'	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	¹⁹⁷⁰ 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	

Dome Temp. 36°F

Transparency Conditions *Clear*

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Focus

Dome Temp. 30°F

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
2413 W	+33° 10	3	2.9	K2	8-8-8	CHEN	200/160		FINE
0403 W	+28 47		9.29	GOD	4-20	SS.U	80/22	cloud cover	BLANK
					5-5	no filter		from 20-2	GOOD
0446 W	36. 04	3	7.0	A0	8-8-8	Ed. Linsky	400/200		FINE
1 26 E	2° 42'				8-8-8	NOVA	200/140		FINE
MWP. 2 / 9.0 min @ 64°F / 290 C 159									

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*T lens -
Fini*

Date *Mar 19-20 1970* Observer *Hd R./R.-G2* Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
33037	AG 4044	07 28.2	+28 57	G12	ITaO	¹³ 95	38°F	19:08	21:35	A
33038	HD 86801	09 55.8	+29 02	G12	ITaO	13S	38°F	21:43	01:03	B
33039	HD 128661	14 23.1	+36° 22	"	"	9L	36°F	01:19	02:23	C
33039T1	<i>for test</i>	<i>out of focus</i>					36°F			B
33039 T1	<i>calibration step wedge for plates</i>				<i>33037 - 33039</i>				<i>20 Mar/70</i>	

Dome Temp.

Focus

Dome Temp.

Hour Angle
Ead

11:34

12:35

13:16

14:02

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	8-4-4 4-4-4	Sec. Std. Val.	800/300	Changed slit at 39 counts - seeing 1.5" (5 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 5-5	ECL. BIN.	400/85	VERY HAZY → CUT SHORT	SL. WK GOOD
<p>mwp-2 / 12 min @ 45°F / 2 AOC 129</p>									
								<p>Anson - Please develop new silver stars for 12 min. Note 1st plate broken</p>	

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Tues - Wed

Date Mar 24 - 25, 1970

Observer

LK-Tm / Emj - 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 End
33040	HD 31398	04 ^h 51 ^m .2	+33° 2.7'	G12	IIaO	9L	38°	19:40	19:55	A	12:50
33041	HD 60204	07 28.3	-28 55'	G12	IIaO	13S	34°	20:18	21:25	B	11:50
33042	HD 89442	10 ^h 14 ^m .3	+19° 59'	G12	IIaO	13L	33°	22:12	22 29	A	11:20
33043	"	"	"	"	"	13L	"	22 37	22 48	B	11:50
33044	"	"	"	"	"	9L	"	22 57	23:20	A	11:30
33045	"	"	"	"	"	13L ⁵¹	33°F	23:25	00:09	C	11:43
33046	HD 106690	12 11.1	+41° 13'	"	"	9L	"	00:44	02:33	B	11:10 - 11
33047	HD 135722	15 11.5	+33° 41'	"	"	"	"	02:40	02:49	A	11:34 - 7
33048	HD 147165	16 15.1	-25 21'	"	"	"	"	02:59	03:09	C	11:17
33049	Nova Serp	18 39.2	+62 40	"	"	"	"	03:19	04:20	B	11:15
33050	HD 185622	19 34.9	+16° 21'	"	"	13S	33°	04:27	05:27	C	11:12
33051	Bennett's Cond			"	"	9S	32	05 40		A	11:00
33051F	Focus			"	"	9	32			B	11:00
33051T1	calibration step wedge for plates				33040 - 33051						11:00
									25 Mar / 70		11:00

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 ^h	48 ^m	33° 56'	2"	3.9	K2	8-8-8	G1001	40/32	Clear. 5' South of AG 4044.	(GUIDING) FINE
15 ^h	19 ^m	29° 42'	2"	7.52	G5	4-4-4 4-4-4		800/300	Clear. This is the faintest star of the group (border field drawn)	FINE
W	3 ^m	19° 36'	2"	5.3	F5	8-8-8	Exp. Val.	400/109	109 stars on in half with image	STRONG STR.
W	23 ^m		2"	"	"	8-8-8	std Val.	400/180	faded normally	SL. STR.
N	0 53		2"	"	"	8-8-8	"	400/180	" "	SL. STR.
N	01 43	"	2-3"	"	"	8-8-8	"	400/140	140 stars on A with image 40 stars on B with image	104 - 100
N	02 10	+40° 49'	"	7.36	M10	8-8-8	Vis Bin	400/400		* FINE
E	00 34	+33° 23'	2"	4.42	G80	12-12	"	200/130		* SL. STR.
E	01 17		3"	3.07	B10	8-8-8	"	200/90		* FINE
E	02 15	+02° 35'	2-3"	2.6	Ak	8-8-8	NOVA	200/85	cut short	* WEAK
E	02 18	+16° 29'	2"	8.44	K42ab	8-8-8	Vis Bin	400/200		
E	04 30					29		40/6	an attempt	NOTHING
		lost				55	no filter		* END FOGGED (BLUE)	
									** " " (RED, RED)	GOOD
<p>m WP-2/ 11 min @ 68°F 12 Nov 1979</p>									<p>Anson - Please develop plates 41-45 for 11 mins for JFH</p>	

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Fri - Sat

Date Mar 27-28 / 1970 Observer G.W.J. / Hns-Th Julian Day
Hans-Th

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 5 Leo							23 ^h →	0 ^h	
33054F	Focus			G12	IIaD	9	33°F			B
33055	HD 128661	14 ^h 33.1 ^m	+16° 02'	G12	IIaD	9L	32°F	02:32	04:38	A
33056	Novo Sarp	¹⁰⁷⁰ 18 29.2	¹⁰⁷⁰ +12° 40'	"	"	"	"	05:19		C

Dome Temp. 3

Focus

Dome Temp.

Hour Angle
End

02 29 W

01 35 E

00 24 W

6 15 E

02 04 W

01 17 E

Dome Temp. 36°F

Transparency Conditions Very clear at 1st
 cloud from South at 20h
 clear, but haze at 21h

Focus

Dome Temp. 31°F

Ending Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality	
00:32	A	02 39W	+33° 09'	3"	2.9	K2	12-12	G1001	200/160			
00:47	C	01 35E	-9° 30.5	3"	3.40	K4	12-12	Star Vel	200/150			
00:58	C	00 24W	+60° 21'	2"	7.37	F8	8-88	spec Bin	400/100	thick cloud from South		
		- battery dead (nothing done)									cloud again at 0:30	
		in in/out out.									5/5 no filter	
01:32	C	02 06W	+36° 03'	2"	7.0	A0	8-8-8	Gage - ech. binoculars	400/160	Very hazy	FINE	
01:19	C	01 07E	+2° 36'	2"	6	K	8-88	nova	200/8	Very hazy, cloud thick	NOT A DAY	

Sat - Sun
 Date Mar 28-29 1970 Observer Ch. Taylor^{Gr 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.
33057	PCM	¹⁹⁷⁰ 07 20.7	¹⁹⁷⁰ +08° 21'	G12	II 90	9L		21:19	21:25	B
33058	HD107328	12 15.3	+03° 53'	G12	II 90	13c		21:46	22:37	A
33059	HD97778	11 ^m 9.9	+23° 38'	"	"	9L	26°F	22:44	23:44	C
	IR Photometry	3C 273						01 →	01:30	
33060	HD128661	14 33.1	+36° 22'	G12	II 90	9L	22°F	01:52	03:00	B
33060 T ₁	Test Comp only									A
T ₂	Fluore Test with mon arc						32°F			A

Dome Temp. 2
 Focus
 Dome Temp.

Hour Angle
 End
 00:00
 01:30
 03:00

Dome Temp. 25°F

Transparency Conditions scattered cloud

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
00:25	B	02 ^h 06 ^m W	+08°22'	3"	2.91	B7	8-8-8	G1001	40/17	Chon guided	(GUIDING) FINE
00:37	A	01 35 E	+03°22'	"	6.1	K1	8-8-8	Std vel	400/180	some cloud	FINE
00:40	C	00 ^h 38 ^m W	+23°16'	2-3	6.4	M3	8-8-8	M th prog	200/250		(GUIDING) FINE
										cloud at 01:30	
										thick haze again	
00:50	B	00 33 W	+36°04'	3"	7.0	A0	8-16	Ecl Bin	400/38	cloud (cut short)	VERY WEAK
	A	outside mirror, inside 3 ^h W					20/20	Dec 29N		no flexure	

Date SUN/MON March 29/30 1970 Observer GT-Ta/GZ-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.
33061	AG 4044	07 28.2	+28 57	G12	Ilao	135	26°F	19 31	22:31	A
33062	HD 91978	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	33052 - 33061			30 Mar/70	
T2	"	"	"	"	"	32062, 63			"	

Dome Temp.

Focus

Dome Temp.

Hour Angle
End

03:34

02:10

00:37W

00:00

Dome Temp. 26°F

Transparency Conditions Excellent (Photometric)

Focus

Dome Temp. 18°F

seeing not so hot
Cirrus cloud at 03^h

Ending Time EST	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	4-4-4 4-4-4	SEC. STD. VEL.	800/145	cut short (+00.56W)	from mble work
2:57	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	Ech. Bin.	400/130	cut Cirrus] cut short	work
	B		focus	<u>80-R</u>			5/5	no filter		closed 03 ^h	
2:40		MCP-2/	9.0 min @ 65°F				2.90C 1.59				

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Date Mon-Tues March 30-31 Observer H.S. Ta. / Ta. 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.
	IR Photometry of		43 LEO	a	3C273			20 ⁱ → 02 ^h		
33064	HD 128661	14 33.1	+36° 22'	G12	Il00	9L	25°F	02 05	04 13	A
33065	NOVA Scrp	¹⁹⁷⁰ 18 29.2	⁴⁷⁰ +02 40	"	"	"	24°F	04 18	05 20	C
33065F	Focus			G12	Il00	9	23°F			B

Dome Temp.
Focus
Dome Temp.
Hour Angle
End

Dome Temp. 30°F

Transparency Conditions Photometric

Focus

thick haze at 01:30

Dome Temp. 21°F

Ending Time E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
04:13	A	0153W	+36° 04'	1"-3"	7.0	A0	8-8-8	2" Bin	400/168		FINE
05:20	C	0052E	+02° 35'	2-3'	~6.5	~K	8-8-8	NOVA	200/64		WEAK
			in in front of				5/5	no filter		focus w-R	GOOD
										Bennet Comet observed with 6" refractor, Tail about 4° long (visible with eye & curved sharply) spectacular	

Date Mar 31 - April Tues-Wed 1950 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 ^h 09.3	+12° 23'	640	Ilford	17L	32°F	23 ^h 34	02 27	A
33067	HD 106690	12 11.1	+41° 13'	640	Ilford	13L	"	2 ^h 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's Comet	22 22.9	+20 24	"	"	"	30°F	05 01	05 17	A
33071 T	calibration strip, wedge for plate					33064 -	33071	33065	36/170	

Dome Temp.
Focus
Dome Temp.

Hour Angle
Ecl

2/0
02 34 W
03 05 W
03 21 W
03 33 E
04 55 E

Dome Temp. 32°F

Transparency Conditions clear but hazy at 23^h

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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	25A	8.25C	temp	32°F				
02 27	A	02 34W	+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 05W	+40° 50'	3"	7.36	MJIV	3-3-3	Vis Bin	400/100	(setting 25)	(GUIDING) FINE
03 16	A	00 21W	+33° 25'	1-2"	4.42	G8III	9	Vis Bin	700/37	setting 25	FINE
03 33	A	00 26 E	—	3"	3.07	B1III	9	"	200/23	set 25	FINE
03 44	A	02 22 E	+16° 31'	2-3"	8.44	K4Iob	3-3-3	"	400/100 (size)	set 25	(GUIDING) FINE
03 57	A		+20° 24'		22.5	AB	4-5	const	400/34 (same @)	set 25	FINE
03 59	A	<p>mwp. 2 / 9.0 min @ 68°F / 20°C, 59 N.B. THE DARK ROOM WAS LEFT IN PRETTY MUCH OF A MESS AFTER THE FILM'S TESTS.</p> <p>- Sorry I could not get to bed this In</p>									

Date April 3/70 Fri-Sat Observer Jm / Julian Day

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	Ilford	13s		19:33	19:55	A

Dome Temp. 3

Focus

Dome Temp.

Hour Angle
End

0:53 W

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Date April 4-5 Sat-Sun Observer T_n/T_n-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.	Hour Angle End
33072	AG 4044	07 28.2	+28° 57'	612	D ₁₀₀	17s	34°F	19:33	22:33	B	03 35 W
33073	HD 112299	12 50.6	+26° 16'	"	"	17s	35°F	22:40	01:20	C	01 02 W
33074	HD 136202	15 14.2	+02 09	"	"	17s	31°F	01 27	01:40	A	01 02 E
33075	HD 146913	15 41.1	+28 47	"	"	13s	30°F	01 45	04:19	B	1 06 W
33075F	Focus			"	"	13	29°F			B	

Dome Temp. 3

Focus

Dome Temp.

Dome Temp. 35°F

Transparency Conditions cleared at sunset
some cloud at horizon west

Focus

Dome Temp. 28°F

Cloud 03^h, snow

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
13 35 W	+28° 49'	2-3"	9.29	GOV	4-4-3 4-4-4	SSV	800/270	overdeveloped sl longer than .5 min	sl weak
01 02 W	+25° 54'	2"	9.19	F8V	4-4-3 4-4-4	SSV	800/300	Fld crown overdone *	Fine
01 02 E	+09° 54'	3"	5.6	GO	7-7-7	SH vel	200/90	*	Fine
1 06 W	+28° 34'	2"	8.81	GOV	4-4-5 3-4-4	SSV	800/250	cloud Fld crown capped 10 min	weak
					5/5	nots/fer-		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	Duo	13s	34° F	19:32	21:07	A	01 47 W
33077	"	"	"	"	"	17s	35° F	21:11	23:27	A	04 27 W
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
End
01 47 W
04 27 W
11 21 W

Dome Temp. 35°F

Transparency Conditions haze & scattered cirrus

Focus

thick cloud at times

Dome Temp.

Hour	Angle	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
01	47W	+29° 19'	1"-2"	7.9	G7	4-4-4 4-4-4	Std Vel	800/300	thru haze overdev *	Fine
04	07W	"	"	"	"	4-3-4 4-8	"	800/175	thru cloud (very slow slip) overdev, elop * weak	Weak
12:11 WP-2 / 11 min at 67.5°F / 2 AOC 119										

Date Tues. Wed April 7-8 Observer H.S.-Tn / E.M.-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 Tests	G40			settings 24, 25, 26, 27, 28, 29, 30, with A plate holder	27(159)					19 sec
	I R Photometry							20 ^h → 0 ^h			
				G40							
33078	HD 106400	12 09.3	12° 23'	G42	D20	17L	38°F	00:31	02:55	A	03:20
33079	HD 106690	12 11.1	+41° 13'	"	"	13L	36°F	03:05	03:33	A	04:00
33080	HD 135722	15 11.5	+33 41	"	"	"	"	03:40	03:43	A	04:15
33081	HD 147165	16 15.1	-25 21	"	"	"	"	04:05	04:08	A	04:30
33082	comet + spectrum	22 47.6 ⁹⁰	+36° 40 ⁷⁰	"	"	"	"	04:18	04:48	A	05:15

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	3-33	Spect Bin	800/75	setting 28 (very slow)	
04 06W	+40° 51')	7.36	M III	3-33	vis bin	400/100	" "	
01 15W	+33° 24'	2"	4.42	G8 III	5-4	"	200/37	" "	
00 26W	+32° 30'	4"	3.07	P III	5-4	"	200/23	" "	
05 08E	+36° 40'			G6	3-3	comet	400/70	" " [head of comet]	

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

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
33083	HD 89449	10 14.3	+19 59	Gu	500	135	44°F	20 01	20 25	C
33084	HD 92588	10 363	-1 13	"	"	135	42°F	20 34	21:52	A
33084 F	Focus			"	"	13	40°F			B
33084 T1	Calibration step wedge for plates					33078 →	33080	April 10/70		

Dome Temp. 39
Focus _____
Dome Temp. _____

Hour Angle
End

21 00

W 00 00

W 12

Dome Temp. 39°F

Transparency Conditions clearing a bit

Focus

Seeing too poor for pt #'s.

Dome Temp.

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

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
Σ 1 00	19 37	3-4"	5.3	F5	8-8-8	Std Vel	200/80		
W 00 07	-01° 35'	"	7.4	K1	8-8-8	Std vel	400/155	cloud	
	min/lost out				5/5	no filter			
MWP2 / 11 min @ 68°F / 2 ADC1J9									

Date Fri - Sat April 10-11 / 70 Observer 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.	
33085	HD 91948	10 31.9	60° 38'	G12	Doo	135 ⁺	27°F	22:27	01:29	A	
33086	HD 128661	14 33.1	+36° 22'	"	"	135	27°F	01:36	04:24	B	
33087	HD 139893	15 35.6	+36 58	"	"	9L	24°F	04:30	05 09	C	
33087F	Foos			"	"	9	24°F			B	
33087 T1	Calibrate step wedge for plates 33085 & 33087								April 11 / 70		

Dome Temp. +26°F

Transparency Conditions clear by 22^h

Focus

SEEING BAD

Dome Temp.

Drive slipping terribly for 33086 !!!

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality	
03:40W	+60° 16'	3-4'	7.37	F8	8-8-8	Sp Bin	400/130	(9L sl. + impossible) (52.38mm by scale)		
02:48W	+36° 06'	"	7.0	A0	8-8-8	ECL. BIN	400/130	cloud in view [maybe blank]	blank	
02:25W	+36° 47'	"	5.1	B8m	8-8-8	SPEC. BIN	200/80			
5/5 no filter										
MWP2 / 9min @ 65°F				(2A0C159)						
								* 7 final drive in about 2 miles		

1st Visitor's Night
231

Hrs - 62

80 in 1st group

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	IIcO	9L	30°F	03:14	04:53	A
IR photometry all night (after visitors)										

Dome Temp.
Focus
Dome Temp.
Hour Angle
Ecl

Dome Temp. 40°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
		1 ^h 36 ^m W	+02 25	3	5.5	K3	8-8-8	Star val.	200/160		FINE
		1 ^h 29 ^m W	+60° 28'		7.37	F8	8-8-8	Spect. Sw.	400/260		SL GUIDING FINE
		6 ^h 23 ^m W	+36 04		7.0	A0	8-8-8	Gal. Sw.	400/200		GUIDING SL WEAK
		5 ^h 10 ^m W	+70 31.5	3			8-8-8	NOVA	400/154	HR < wrong / (dec off too)?	SL WEAK
								no filter			OK
		MWP2 19mm @ 68°F									

235

Date *Mon Tues April 13-14 1970* Observer *HAS-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.
			<i>distorted by</i>					23:30	01:35	
33093	HD 128661	14 33.1	+36 22	412	IIaO	9L	43°F	01:52	04:40	A
33093F	<i>focus test</i>		<i>atad/w in 62</i>		IIaO	9	43°F			B

Dome Temp.
 Focus
 Dome Temp.
 Hour Angle
 End

Dome Temp. 52°F

Transparency Conditions clear

Focus

Dome Temp. 40°F

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
0 28 W	12 04'		9.7	KO	3-3-3	BAKOS	800/85	setting 31	GUIDING SL. WEAK
1 25 W	43 54'	3	7.36	MIII	3-3-3	BAKOS	400/100	" 31	FINE
1 42 E	42 31'		7.38	K4II	3-3-3	"	400/90	" "	FINE
4 03 E	19 55'		7.44	MOTII	3-3-3	"	400/100	" "	FINE
1 58 E	39 48'		10.8	Fn	3-3-3	F+	800/23	" "	FINE
	M.W. 10 2		9 min @ 65°F						

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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 (γ Gem)	06 ^h 31. ^m 9	+16° 29'	G-12	IIaO	9L	52°F	19:48	19:49	A	02° 32' W +
33100	HD35497 (β Tau)	05 ^h 20. ^m 0	+28° 31'	"	"	"		20:02	20:03	B	03° 46' W -
33101	HD38899 (β Tau)	05 ^h 43. ^m 9	+12° 37'	"	"	"		20:09	20:32	C	04° 02' W +
33102	HD91948	10 31.9	+60° 38'	"	"	"	50°F	20:41	23:09	A	07° 50' W +
33103	HD98664 (δ Leo)	11 ^h 16. ^m 0	+6° 35'	"	"	"	46°F	23:45	23:58	B	01° 57' W +
33104	HD138764	15 ^h 29. ^m 0	-8° 51'	"	"	"	45°F	00:19	00:59	C	03° 5' E -
33105	HD147165 (δ Sco)	16 15.1	-25° 21'	"	"	"	45°F	01:16 ^{+2 min}	01:31	H	01° 24' E -
33106	HD147394 (ϵ Her)	16 16.7	+46° 33'	"	"	"	45°F	01:48	01:57	B	01° 14' E +
33107	HD172167 (δ Hyr)	18 33.6	+38° 41'	"	"	"	43°F	02:16	02:17	C	03° 00' E +
33108	HD166182	18 04.5	+20° 48'	"	"	"	43°F	02:27	02:50	A	11° 01' E +
33109	HD144334	16 00.1	-23° 20'	"	"	"	43°F	03:00	03:06	B	06° 11' W -
33110	HD176437 (δ Ugr) (δ Vul)	18 55.2	+32° 33'	"	"	"		03:28	03:40	C	01° 02' E -
33111	HD182255	19 18.7	+26° 04'	"	"	"	42°F	03:49	04:16	A	01° 55' E -
33112	HD196897 (δ Cyg)	19 41.9	+44° 53'	"	"	"		04:42	04:46	C	11° 05' E +
33112F	focus test						42°F			B	
33112T1	calibration step										
33112T2	"										
	wedge for plates										
					33093, 33098	33099-33107					
						33112					
								16 April 1970			

Dome Temp. 52°F

Transparency Conditions clear

Focus

Dome Temp. 40°F

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
02 ^h 32 ^m W	+16° 32'	~3"	1.93	A0IV	12-12	Bp Avg	20/8	MK std.	FINE
03 ^h 46W	+28° 39'	~3"	1.52	B7III	12-12	"	20/8 -	MK std.	GUIDING FINE
04 ^h 02W	+12° 44'	~3-4"	4.83	B9IV	8-8-8	"	200/95	Comparison star	FINE
01 ^h 50W	+60° 20'	~3"	7.37	F8	8-8-8	Spect. Bwi	400/260	Broken 2 pieces ^{1/2 plate missing}	1/2 a plate
01 ^h 57W	+6° 16'	~3"	Visual 4.12	B9V	8-8-8	Bp Avg	200/95	Comparison star	FINE
01 ^h 15 ^m E	-9° 00'	~2.5"	5.10	B6IV V	8-8-8	"	200/95	Comparison star	FINE
01 ^h 29 ^m E	-25° 25'	~4"	3.07	B1III	12-12	"	200/95	MK std. ^{Forgot the exact starting time.}	FINE
01 ^h 06 ^m E	+46° 28'	~3"	3.74	B5IV	12-12	"	40/18	MK std.	FINE
03 ^h 00E	+38° 46'	~3"	0.04	A0V	12-12	"	20/8	MK std.	FINE
02 ^h 02E	+20° 53'	~2"	4.27	B2II	8-8-8	"	200/95	Comparison star	FINE
00 ^h 20W	-23° 26'	~3"	5.84	B8p	8-16	"	600/16	Capped early. Counting rate much too slow. Probably blank.	BLANK
02 ^h 00E	+32° 43'	~4"	3.20	BIII	12-12	"	200/95	MK std.	FINE
01 ^h 45E	+26 15	~3"	4.76	B6II	8-8-8	"	200/95	Comparison star	FINE
01 ^h 39E	+45° 05'	~2"	2.89	B9.5II	12-12	"	200/95	MK std.	FINE
					5-5	no filter			C. To Red
	MW P. 2	9 min	@ 68°F						

Date Thurs Fri April 16-17 1970 Observer R1 Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
33113	HD 128661	14 33.1 ₁₉₇₀	+36 22 ₁₉₇₀	G12	IIaO	96	48°F	23:30	02:10	A
33114	Nova Serpens	18 29.2	+02° 40	G12	IIaO	13L		02:23	04:45	B
33114F	focus test			G12	IIaO	9	44°F			B
33114T	calibrator	step wedge								

Dome Temp.
Focus
Dome Temp.

Hour Angle
Ecl

055W
00E

243

Date Fri Apr 17-18/70 Observer Ad, 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.
33115	HD 90861	10 243	+29 05	G12	DaD	13.3	50F	20:08	23:08	A
33116	HD 109328	12 15.3	+03 53	G12	DaD	135	46°F	23:33	0 45	B
33117	HD 128661	14 33.1	+26 22					0 51		C
33116F	<i>focus test</i>						430F			B

Dome Temp. 71
 Focus Free
 Dome Temp.

Hour Angle
 End 03:05W
W 11:00

Dome Temp. 47°F

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

Transparency Conditions ⁷.....

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

Dome Temp.

Ending Time EST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
11:00		D2 ^h 05W	28 49	4	8.36	K2"	⁴⁻⁴⁻⁴ 4-4-4	Sec Std Vel	800/300	<i>Lower mag star, 9th with following of pair</i>	FINE
10:45	B	W 1 ^h 50	+3 32	3	6.1	K1	⁴⁻⁴⁻⁴ 4-4-4	Std. Vel.	400/150	<i>Some clouds.</i>	FINE
					7.0	A0	4-4-	Sel bin	700	<i>Clouded up at 200</i>	
							5-5	<i>no photo</i>		<i>from 70-a</i>	GOOD

Date *Sat. Sep. 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	IIa0	13L	41°F	22:50	00:25	A
33118	HD 139592	15 35.6	+36 58	G12	IIa0	9L	40°F	00:40	01:30	B
33119	HD 136202	15 14.2	+02 09	G12	IIa0	9L	39°F	01:37	03:15	C
33120	HD 145001	16 03.6	+17 19	G12	IIa0	13L	37°F	03:24	04:37	A
33120F	focus test	at other in		G12	IIa0	9	36°F			B
33120 T1	calibration	step wedge	for plates			33115-33120			20 Sep 70	

Dome Temp.
Focm
Dome Temp.

Hour Angle
Ecl

01:30

00:40

01:37

03:24

20 Sep 70

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
01:25	A	01 ^h 36W	+03 33	3	6.1	K1	8-8-8	std. ul	400/320		(-STRONG) FINE
01:30	B	00 ^h 49E	+36° 48	3	5.1	B8	8-8-8	SPECT. BIN.	400/200		STRONG
01:35	C	01 ^h 28W	+01° 57		5.6	G0	8-8-8	std. ul	400/240		SL. STRONG
01:38	D	00 ^h 02W	+17° 14		6.1	G4	8-8-8	.	400/260		FINE
			<i>focus 70-R</i>				<i>5-5</i>	<i>no filter</i>		<i>exposed box #3</i>	GOOD
		<i>m w7-2 / 9.0 min @ 68°F / 240 (1.79)</i>									

247

Date Mon Yano April 20 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	21:48	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									2. Apr 1951	

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

249

Date Thurs Apr 23-24/70 Observer Hd 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.
33123	HD 75935	8 47.9	27 18	G12	IIaO	14 ^{1/2} 5	55F	19 54	22 54	A
33124	HD 107328	12 15.3	+03 53	"	"	14 5	"	23 05	00 10	C
33124F	Focus			"	"	14	54°F			B
33124 71	calibration step			wedge	for plates	331 33, 33134			24 Apr/70	

Dome Temp. 55

Focus 55

Dome Temp.

Hour Angle
East

1352

11:00

0.422/

Dome Temp. 58°F
 Focus 55 (red mark)
 Dome Temp.

Transparency Conditions clear, scattered cirrus 250
 Cirrus & Cumulus thick by 23^h

Ending Time E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality	
52 54	C	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	
50 10	C	W 1 40	+3 33	3	6.1	K1	4-4-4 4-8	Std Vel.	800/109	Through clouds.	WEAK	
	C		10000				5/5	no filter		focus 55-R	GOOD	
		mwp-2 / 15 min @ 68°F / 2000159										
										Amson. Please develop 3312344 with maximum time Ad		

3rd V. Laito's night
253 GH-Hans

80 in first group - no observing
200 in second - observed 5 UMa AB

SAT/SUN

Date APR 25/26 1970 Observer Tom - Hans Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
33129	HD 131861	14 ^h 50 ^m .9	+45° 43'	G12	IIa0	13S	58°F	23:00	02:00	A
33130	HD 179892	15 ^h 35 ^m .6	+36° 58'	G12	IIa0	9L	54°F	02:07	02:38	B
33131	Nova Serp	18 26.7	+02° 36'	G12	IIa0	13S	54°F			C
33131	HD 176318	18 ^h 54 ^m .6	+38° 07'	G12	IIa0	9XL	54°F	02:58	03:35	C
								03:50	04:16	
33132	HD 164353	17 55.6	+02° 56'	G12	IIa0	9L	54°F	04:23	04:35	A
33132 F	Focus			G12	IIa0	9	54°F			X

Done Temp. 2...

Focus...

Done Temp. 2...

How Angle
End

85°

52°

43°

57°

Dome Temp. 57°F

Transparency Conditions scattered cloud, but good

Focus

Dome Temp. 55°F

Hour	Min	Sec	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
1	05	^m W	A		+45°29'	2"	7.64	F3	8-8-8	Spec Bin	409/170		FINE
2	58	W	B		+36°49'	2"4"	5.1	B8m	8-8-8	Spec Bin	209/90	bad seeing now	FINE
											430/	a 8th mag, [Evergreen] Too faint with 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	43	E											FLEXURE (BAD)
00	34	^m W	A		+2°57'	2"	4.0	B5	12-	B std vel	40/17		SL. WK
			X		in in / out out				5/5	no filter		from 55-R	SL. CENTRE TO RED

255

Photometry 20" → 02" VdB & Roane

Date ^{SUN} APRIL 26 / ^{Mon} 27 1970 Observer Tn Ea Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
33133	HD 139892	15 35.6	+36° 58'	G12	II 60	9L	59°F		02:44	A
33134	HD 176318	18 59.6	+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 atp									27 Apr/70
T2	"	"	"	"				33127, 33128		29/04/70

Dome Temp.

Focus

Dome Temp.

Hour Angle
Ecl

01:00V

01:02E

01:05E

2.4.70

257

Date April 27/28 Mon-Tues Observer Mr. Tom Julian Day

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	+11° 42'	G12	D40	9L	68°F	20:05	21:15	A
33137	HD 91948	10 31.9	+50° 38'	G12	D40	9L	65°F	21:24	00:54	C
33138	HD 139692	15 35.6	+36° 58'	"	"	9L	61°F	01:47		B
33137 F	Focus			G12	D40	9	61°F			F
33137 T1	calibration step wedge for plates								28 Apr/70	
	Wed Apr 29									
33137 T2	flexure test		+42°							Outside on mirror Inside 3 rd W
	Then									HTL tightened & checked various components (tightness)
33137 T3	flexure test		+42°							Outside on mirror Inside 3 rd W

Dome Temp. 70°F

Transparency Conditions hazy

Focus

Dome Temp.

Balance terrible part 4 W

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
06 00 W	+41° 52'	1.2"	491	B5V	8-8-8	Rp prog	200/80	cut short by limit red RA drift	(GUIDING) 11.5L. WTX
04 24 W	60° 20'	1.3"	732	F5	8-8-8	Sped lin	400/180	cloud at times cut short	FINE
		1.2"	51	B5V	8	sped lin	200/	too cloud / <u>Cancelled</u>	
					5/5	no filter	form 40-R	Fe LINES DOUBLED GAIN (FLEXURE)	SL. CENTRE TO RED
<p>in w.p. 2 / 9.0 min @ 68°C / 270°C 159</p>									
<p>Sp. Temp. 62F (2 min in mounts) + counteracting There is flexure now C512 by about 1μ (compare to 33060 T2 (Jan 29, Temp 30F)</p>									
<p>0130 - Focus SW. of guiding eyepiece replaced VISITORS " " " " " "</p>									
<p>Sp Temp 62F flexure is now less - about 4μ C 2nd.</p>									
									1 45
									1 34
									1 69
									DONE 4/30/70 HR

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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 ^h → 21:30		

Dome Temp.

Focus

Dome Temp.

Hour Angle
End

261

Wed - June

Date Apr 29/50 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 ^h 31 ^m 9 ^s	-60° 38'	G12	Il20	13S	59°F	20:30	22:40	A	
33139	HD 139892	15 35.6	+36° 58'	G12	Il20	9L	58°F	02:29	02:53	B	
33140	HD 176318	18 54.6	+38° 07'	"	"	9xL	"	03:02	04:15	C	
33141	HD 169353	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 / 50	

Reported Fire at 02 40
 Dome Temp. 60° H-55% at Coreville Rd E
 Transparency Conditions hazy mist
 Focus
 Dome Temp. 58°F H-61% Bayview
Ty Terrible seeing

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
02:17W	+66° 21'	3.4"	7.37	F8	8-8-8	Spec. Bin.	400/95	thru haze cloud cut short	WEAK
01:28W	+36° 49'	"	5.1	B8a	12-12	spat bin	200/90		(GUIDING) FINE
00 28 E	+38° 17'	2.3"	5.7	B67	8-8-8	Spec bin	200/130		FINE
00 48 W	+02° 59'	"	4.0	B5	12-12	B&W vel	40/20	broken spec	<u>BROKEN</u> FINE
	in foot out				5/5	no filter		focus 40 B-R	GOOD
mwp-2 / 9.0 mls @ 68°F / 2400 / 59									

263

G.H. showed 20 visitors Jupiter & Uiso Minor double

Date Sun-Mon-May 3-4 1970 Observer Lo-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	D00	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 ₁	calibration step wedge for later									4 May/70

Dome Temp.

Focus

Dome Temp.

Hour Angle
End

03:14

03:00

04:02

Dome Temp. 52°F H=56⁹⁰

Transparency Conditions *scattered cloud*

264

Focus

thick cloud at 02⁹

Dome Temp. 46°F H=65⁹⁰

note*

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
03 10 W	+60° 21'	1.3"	7.37	F8	8-8-8	Spect Bin	400/240		FINE
03 00 W	+24° 46'	1.3"	8.74	F8V	4-4-4 4-8-2	SSV	800/190	cloud [cut short overdevelop]	SL. WK
	<i>in air/out of</i>		<i>focus ⁴⁰ 45-R</i>		5/5	no filter		closed 03:40	GOOD
<i>mwp-2 / 12 min @ 68° E / 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 99948	10 31.9	60 38	612	TI 00	9L	+52	21 47	00:30	A
33145	HD 139892	15 35.6	36° 58'	"	"	"	"	0038	0056	B
33146	" 136202	15 14.2	+02° 09'	"	"	"	50°F	0102	0146	C
	Nova Aquilae	—	too	faint	for	tonight	$m_p = 8$			
33147	HD 176318	18 54.6	+38° 07'	612	TI 00	9 XL	48°F	0216	0320	A
33148	HD 135722	15 11.5	+33° 41'	"	"	9L	47°F	0331	0344	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°

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
04 29 W	+60° 21'	3-4"	7.37	F8	8-8-8	Spect Bin	400/185	cut short [limit]	* FINE
00 29 E	+36° 49'	2-3"	5.1	B8n	8-8-8	"	200/90	note bad seeing, maybe interference	FINE
01 02 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° 70)]			
01 04 E	+38 16	3-4	5.7	B6-7	8-8-8	Spect Bin	200/130		(GUIDING) FINE
03 04 W	+33° 30'	"	4.42	G8III	12-12	Vis Ria	200/110	For Waterloo ¹⁰²⁰ 15" 14.7	FINE
	in in / out out					5/5	no filter	focus 8-R	GOOD
								No more stars	
MWP-2 / 9.0 min @ 68°F / 2400159									
								* FLEXURE	

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	D60	135	38°F	20 19	23 39	A
33154	HD 144579	16 01.5	+39 24	"	"	135	"	23 59	01 00	B
33155	HD 139892	15 35.6	36 58	"	"	9L	"	01 05	01:19	C
33156	Nova Aquilae	¹⁹⁷⁰ 19 23.2	¹⁹⁷⁰ +04° 10'	"	"	135	37°F	01 26	04:05	A
33156 F	Focus			"	"	13	36°F			C
33 156 71	calibration	step wedge for plates			33154 - 33156				7 May 70	
72	"	"	"	"	33153					
Fri May 8 1970		Temp 50°F		H 96%	telescope damp					

Dome Temp. 41°F H=51%

Transparency Conditions excellent, good seeing too

Focus

(Looked at Uranus at 2345, disc observed no moons)

Dome Temp.

270

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	800/230	Fld drawn cut short (MANY FINGER PRINTS)	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	speed bin	200/90		SL. STR
00 35E	+04° 16'	1-3"	28.5	2K	8-8-8	nova	800/60.	Fld Drawn w/ 5" haze	WEAK
40 B-12	in in/out out				5/5	no filter		↑ Much too faint 77	SLIGHTLY TO VIOLET
								(hope for HP revision)	
								↳ 1/2 1/2 1/2 1/2	
MWP-2/	9.0 min @	61°F	12900	159					
"	15 "	"	"	"					
								ANSOL could you	
								overdev. #33153 to Hd	
								& also 33156 (it needs it) *	
								To	
								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. 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.
33157	HD 139892	15 35.6	+36° 58	G12	ITao	9L	53°F	23:04	00:00	A
33158	HD 145001	16 06.4	+17 19	G12	ITao	9L	52°F	00:20	02:20	B
33158F	<i>focused</i>	<i>out of focus</i>		G12	ITao	9	50°F			B
	<i>Sun Mon May 10-11</i>		<i>Temp 60°F</i>	<i>H 91%</i>	<i>the telescope wet again</i>					
33158	<i>7, calibration step made for plates</i>				<i>33157 - 33158</i>				<i>13 May 70</i>	

Dome Temp. 50°F H 79%

Transparency Conditions *hazy*

272

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	138	5-8-8	Spect. Box	400/240		(GUIDING) FINE
1407W	+17° 11'	3-4	61	84	9-8-8	Std. Vel.	400/240	thick haze & clouds focus ^{to} S-R	V.S.C. WK 6000
					5-5	no filter			

MWP. 2 / 9.0 min @ 68°F / 270C / 59

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

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
2 ^h 02 W	+ 26° 00	3	9.19	F8V	4-4-4 4-8	S.S.V.	800/200	} left end of box	* WK.
2 ^h 45 W	+ 28 37	3	8.81	G0V	4-4-4 4-4-4	S.S.V.	800/300		* SL. WK
04 ^h 12 W	+ 20 15	3	6.47	AJ	8-8-8	^{Hd} D.A.O. STWJ	200/100	} middle of box focus 40-R	FINE
					5-5 no filter				GOOD
								DAWN	
								* POSSIBLY FLEXURE	

225

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.
33162	HD 122693	13 ^h 58 ^m 03	-25° 03'	G12	II-0	13S	57°F	20 29	23 18	A
33163	HD 131861	14 ^h 50 ^m 09	+45° 43'	G12	II-0	13S	56°F	23 27	00 ^h 06 ^m	B
								00 ^h 17	01 36	B
33164	HD 184467	19 ^h 29 ^m 5	+58° 24'	G12	II-0	13S	55°F	01 ^h 45 ^m	02 43	C
33165	HD 180555	19 ^h 11 ^m 9	+14° 23'	G12	II-0	9L	54°F	02 ^h 47 ^m	03 12	A
33165 F	from test	out-out/in-in		G12	II-0	9	54°F			B
33165 +1	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 EST	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
00:08	P	00 ^h 46 ^m W	$+24^{\circ} 47'$	2"	8.74	F8I	4-4-4 4-4-4	SSV	800/300		* U.S.L. WK
00:00	B	00 ^h 43 ^m W	$+45^{\circ} 30'$	2"	7.64	F3	8-8-8	Spec. Bin.	800/320	<i>capped at 00^h 06^m due to thick patchy cloud. re-opened at 00^h 17^m</i>	* FINE
02:30	F	02 ^h 14 ^m W									
01:00	C	01 ^h 22 ^m E	$+58^{\circ} 34'$	2"	7.5	K5	4-4-4 4-4-4	Std Vel	800/300	<i>telescope very fast. seeing excellent.</i>	FINE
01:00	F	00 ^h 33 ^m E	$+14^{\circ} 33'$	2"	5.46	A0	8-16	^{HD} DAD Std Vel	200/42	<i>thick patchy clouds. Had to stop at 03:12.</i>	SL. WK. SL. C. T RED
			<i>from ⁴⁰S - R</i>				5-5	<i>no filter</i>			
										<i>* POSSIBLY FLEXURE</i>	
										<i>mwp-2 / 9.0 min @ $65^{\circ}E$ / 270 C.I.T.9</i>	

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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.
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>
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>
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>
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 step wedge for plates</i>								<i>21 May / 70</i>	

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	E	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. WK
3:50	E	14 34 E	+25 33	2	8.66	G8 III	4-4-4 4-4-4	S.S.V	800/300	" "	FINE
4:50	C	04 02 W	+58 35	3	7.5	K5	4-4-4 4-4-4	STD. VEL.	800/300	Mag Nova Aquilae too faint ~ 11-12 mag very red looking	FINE
			40 from 40-R				5-5	10 filter			SL. CENTRE TO RED
										- DAWN	
2:45:30		2x WP-2 / 9.0 min @ 60°F / 2400 159									

Dome Temp. 60°F H62%

Transparency Conditions ... very hazy ... with the occasional clouds

Focus 40-R

clouded over 00:30

Dome Temp. 59°F H67%

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	8	24 27 E	+36° 47'	3	5.1	B8n	8/8-8	SPECTROSCOPIC BINARY	400/220		(GUIDING) FINE
01:16		0° 20 E	+01 56	3	5.6	G0	8-8-8	STD VEL	400/260		U.S.L. WK
02:15		04 00	+17 13	2	6.1	G4	8-8-8	STD VEL	400/260	clouds	SL. WK
							5-5	no filter		focus 40 45-R	U.S.L. C. TO RED
										changed from 0 20-R 22 May.	

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

Date SAT/SUN 23/24 1970 Observer 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.	
33174	HD 131861	14 50.9	+45 43	412	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	+4 23	"	"	9L	"	02:47	03:19	A	
33178	β Ari	01 49	+20° 19'	"	"	9L	"	03:32	03:52	C	
33178F	Focus			"	"	9	54°F			B	
# 33178 T1	calibration star wedge for plates 33171 - 33178								25 May 1970		

Dome Temp. 54°F H. 54%

Transparency Conditions EXCELLENT (Well??)

Focus 20-R

cloud at 23:30

Dome Temp. 52°F H 61%

Ending Time EST	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
01:30	A	02 25W	45° 30'	2"	7.64	F3	8-8-8	SPEC. BIN.	800/340		FINE
01:47	B	01 58W	+36° 47'	1.2"	5.1	B38	8-8-8	"	200/100		(GUIDING) SL. STR
02:57	C	00 31E	+38° 16'	"	5.7	B6.7	8-8-8	"	200/100		FINE
03:19	A	00 07E	+14° 34'	2.3"	5.46	A0	8-8-8	COMP. PROG.	300/100		(GUIDING) FINE
03:52	C	06 10E	+20° 48'	8"	2.7	A5	12-12	ECL. BIN.	300/80	Very far over	SL. WR
							5/5	no filter		focus 20-R	GOOD
		new R-2 / 9.0 min @ 60°F / 2400 IS9									

Tues-Wed

Date 26/27 1970 Observer EJM & 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.	
33179	HD 106400	12 09.5	12° 23'	G40	DaO						
33179	HD 106690	12 11.1	41 13	512	DaO	9L	58°F	21:15	23:45	A	
33180	HD 145931	16 08.5	42 38	612	DaO	13S	51°F	23:50	00:48	B	
33181	HD 182955	19 22.1	19 41	"	"	13S	47°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	
33184F	Focus			"	"	9	45°F			B	
# 33184 T	calibration	step wedge for flats 33179 - 33184								27 May 70	

Dome Temp. 53°F H=57%

Transparency Conditions

Scattered cloud
terrible seeing

Focus 20-R

Dome Temp. 43°F H 70%

Meteorites Two Dippers to S.W

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
 			9.7	K0				Seeing too bad	
03 30W	+40° 55'	4-5	7.36	M III	8-8-8	Vis Bin	400/380		VERY WK
00 37W	+42° 31'	"	7.38	K4 II	8-8-8	"	400/210		V. SL. WK
01 08E	+19° 52'	3-4	7.44	M0 III	8-8-8	"	400/270		FINE
01 04E	+16 46'	"	5.36	B9	8-8-8	Comp std	200/90	RA. Reading 19 57.1 ??	FINE
01 33E	+46° 03'	"	4.7	B2	12-12	B std vel	40/18	R Fid Drawn	(GUIDING) FINE
06 20E	+20° 48'	8	2.7	A5	12-12	Ecl Bin	200/90		(GUIDING) FINE
	in in / out out				3/5	no filter			GOOD
mup-2 / 9.0 min @ 65° E / 290 S, 159									

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Date Wed Thurs, May 27-28 Observer H-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.
33185	HD 140913	15 41.1	+28 47	G12	D ₁₀	135	49°	2123	0019	A
33186	149803	16 32.0	29 56	"	"	"	46°	0025	03 42	B
33186F	Focus			"	"	13	49°			B

Dome Temp. 50
Focus 20
Dome Temp. 40

Hour Angle
End

2039N + 2

1312N + 2

1312N + 2

Date THUR-FRI, MAY 28-29 Observer Th-McY Julian Day

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 149803	16 32.0	+29 56	G-12	IIaD	135	51°F	21 14	00 24	A
33188	HD 171232	18 28.5	+25 25	"	"	"		00 34	03 22	B
33189	HD 171391	18 29.5	-11 03	"	"	"	∨	03 26	03 45	C
33189 F	Focus			"	"	13	48°F			B
33189 T1	calibration step wedge for plates								33185 - 33189	29 May 1970

Dome Temp. 52°F H=63%

Transparency Conditions very clear

Focus 20-R

cloud at 01:30

Dome Temp. 49°F H=67%

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
00 03E	+29° 53'	1.2"	8.90	F7V	4-4-4 4-4-4	SSV	800/300		FINE
01 00W	+25° 33'	"	8.66	G8II	4-4-4 4-4-4	"	800/300	cupped due to cloud for 20 min	FINE
01 21W	+11° 09'	2"-3"	5.2	9G7	8-8-8	std vel	200/80		FINE
	in in / out out				5/5	no filter			GOOD
								Note* These plates & yesterdays can all be developed as JFH desires for Air SSV, including the std vel # 22189 ✓	
MWP-2/15 min @ 68°F / 2400, 57									

291 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 ₂₀	135	58°F	21:42	00:42	A	00 45 E
33191	HD 145001	16 03.6	+17 19	"	"	"	57°F	00:48	01:04	B	01 10 W
33192	HD 139892	15 35.6	+36 58	"	"	9L	"	01:10	01:26	C	02 00 W
33193	HD 176318	18 54.6	+38° 07'	"	"	9L	"	01:30	02:00	A	00 46 E
33194	HD 182422	19 19.5	+20° 04'	"	"	"	56°F	02:05	02:49	B	00 21 E
33195	HD 183914	19 26.7	+27° 40'	"	"	"	"	02:56	03:08	C	11 09 E
33196	HD 183227	19 23.4	+02 43'	"	"	"	"	03:14	03:42	A	10 20 W
33196 F	Focus Test			"	"	9	56°F			B	

Dome Temp. 57
Focus 20
Dome Temp. 53

Hour Angle
End
00 45 E
01 10 W
02 00 W
00 46 E
00 21 E
11 09 E
10 20 W

Dome Temp. 57°F H=65%

Transparency Conditions very clear

Focus 20-2

Dome Temp. 53°F H=70%

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
00 45E	+29° 40'	2-3"	9.04	G8III	4-4-4	SSV	800/300*	Fld Drawn] bad seeing after 23 ^h	FINE
01 10W	+17° 12'	2"	6.1	G4	8-8-8	std vel	200/80*		FINE
02 00W	+36° 49'	2"	5.1	B8n	8-8-8	sp Bin	200/90		FINE
00 46E	+38° 17'	"	5.7	B6-7	8-8-8	sp Bin	200/100		FINE
00 21E	+20° 16'	"	6.47	A0	8-8-8	comp std	200/100	Fld drawn	FINE
00 09E	+27° 58'	1.2"	5.34	B9	12-12	"	200/90		FINE
00 28W	+02° 56'	2"	5.92	B9	8-8-8	"	200/100		FINE
	min / out				5/5	no filter			GOOD
<div style="border: 1px solid black; padding: 5px; display: inline-block; margin: 10px auto;"> *extra depth for SSV. </div>									
FOR 15 MINUTES DEE, THE PLATE FOR ←							PLEASE BEAR IN MIND THAT IT'S NOT REALLY POSSIBLE TO SQUEEZE NONEXISTENT INFORMATION OUT OF THESE PLATES.		

293 VISITORS: Dy, Gi, 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	IIao	13S	60°F	22:56	01:37	A
33198	HD 139892	15 35.6	+36 58	"	"	9L	"	01:47	02:10	C
33199	HD 176315	18 54.6	+38 07	"	"					
33198 T1	calibration	step	wedge	for	plates	33192 - 33198			1 June/70	
T2	"	"	"	"	"	33190, 33191			"	

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
02:49 W	+36° 48'	1-2"	B8m	5.1	8-8-8	"	200/50	cloud at 02 ^h	WEAK
			B67	5.7		"	2, 100		
								closed 02:15	
2x W.P. - 2/ ^{7.0} 7.0 min @ 68°F / 2400-159								cloud	
" 15 min @ 68°F "									
								* Last two nights' plates in one box in order	

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NEWTONIAN

Mon - Tues June 1-2 Some 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 - Gillespie
 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 ³⁰	21 47 ³⁰	2	01 53 E
33200	" 5053	13 14.9	+17 51	"	"			22 00	22 10	1	02 27 W
33200T ₁	—	—	-5°	"	"			22 26 ³⁰	22 36 ³⁰	2	02 17 W
33201	5053	13 14.9	+17 51					22 51 ²⁵	23 01	1	02 19 W
33202	5634	14 28.0	-05 51					23 22	23 36	2	01 31 W
33203	6171	16 30.8	-12 58					00 01 ⁴⁰	00 11 ⁴⁰	1	00 13 W
33204	M 57	18 52.5	+33 00					00 26	00 36	2	01 27 E
33205	"	"	"					00 42	00 57	1	01 23 E
33206	NGC 6171	16 30.8	-12 58					01 10	01 20	2	01 21 W
33207	6366	17 26.1	-05 02					01 32	01 42	1	00 46 E
33208	M 16	18 17.2	-13 48					01 54	02 02	2	01 17 W
33209	M 11	18 49.5	-06 19					02 10 ⁴⁵	02 15	1	01 09
33210	"	"	"					02 18 ⁰⁵	02 20	2	00 54 W
33211	NGC 6171	16 30.8	-12 58					02 34	02 44	1	01 15 W
33212	" 6356	17 21.8	-17 47					02 52 ⁵⁰	03 00 ⁵⁰	2	02 14 W
33213	" 6366	17 26.1	-05 02					03 09	03 19	1	02 22 W

Dome Temp. $+57^{\circ}\text{F}$ 52%Transparency Conditions *scattered cloud*

Focus

*cloudy at the beginning of the night
after 23^h 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
00:57	2	00 58E	+0208			2 ^m	—			UNGUIDED	
01:21	1	01 27W	+1749			10 ^m					
01:33	2	00 17W	-0503			10 ^m		<i>clouds in the south</i>		<i>primary mirror closed - test plate to find how much light on the object</i>	<i>DENSITY ~1.3!</i>
01:30	1	02 18W	+1748.5			10 ^m					
01:33	2	01 39W				14 ^m				K ₅	
01:41	1	00 13W	-13° 02'			10				Focus * 50ph.	
01:46	2	01 45E	+3256			10				K ₆	
01:57	1	01 23E	"			15				K ₆	
01:20	2	01 20W	-1301			10					
01:42	1	00 48E	-0504			10					
02:02	2	00 17W	-1351			8				K ₆	
02:15	1	00 00	-0623			5				K ₆	
02:20	2	00 04W	" "			2				K ₆	
02:49	1	02 45W	-1302			10					
03:00	2	02 11W	-1758			8					
03:27	1	02 25W	-0505			10					

Newtonian
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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.
33214	M 63	13 14.4	+42° 11'	Newt	103A0			21 35 ⁵⁰	21 39 ⁵⁰	1
33215	M 51	13 28.6	+47° 21'	"	"			21 54 ²⁰	21 58 ²⁰	2
33216	NGC 5053	13 14.9	+17° 51'	"	"			22 16 ²⁵	22 25	1
33217	" 6205	16 40.6	+36° 31'	"	"			22 46	22 49	2
33218	" 5904	15 17.1	+02° 12'	"	"			23 10 ¹⁵	23 15 ¹⁵	1
33219	" "	"	"	"	"			23 22 ¹⁵	23 29 ¹⁵	2
33220	"	"	"	"	"			23 32 ³⁰	23 35	1
33221	"	"	"	"	"			23 38 ¹⁵	23 40 ⁴⁵	2
33222	"	"	"	"	"			23 43 ⁰⁵	23 45 ³⁵	1
33222T	Test of background light			"	"			00 02 ⁴⁰	00 12 ⁴⁰	2
33223	NGC 6535	18 02.3	-0° 18'	"	"			00 34	00 34	1
33224	" 6366	17 26.1	-05° 02'	"	"			00 59 ⁰⁵	01 09 ⁰⁵	2
33225	M 27	19 58.2	+22° 38'	"	"			01 35 ¹⁰	01 45	1
33226	NGC 6960	20 44.4	+30° 36'	"	"			01 55 ⁴⁰	02 00 ⁴⁰	2
33227	NGC 6356	17 21.8	-17° 47'	"	"			02 18 ²⁵	02 26	1
33228	" 6366	17 26.1	-05° 02'	"	"			02 34 ⁵⁵	02 44 ⁵⁵	2

Dome Temp.

Focu

Dome Temp.

Hour Angle
End

01 02 W

01 06 W

01 09 W

01 13 W

01 18 W

01 25 W

01 31 W

01 35 W

01 39 W

01 45 W

01 50 W

01 55 W

02 00 W

02 06 E

02 08 E

02 12 W

02 16 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 ₀
01 06 W	+47° 18'		622	4	-				K ₀
01 48 W	+17° 48'		640	9" 10"	-				
01 13 E	+36° 28'		658	3	-				K ₀
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 exposed plate box Rest disp in D19, standard disp.		} Develop in MWP-2 for 8 min. } Develop in MWP-2 for 8 min.	
01 00 W	"		694	2 1/2					
01 05 W	"		697	2 1/2					
01 35 W	+05° 00'		714	10				Develop in D19 Prime mirror closed focus not changed	K ₀
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 ₀
02 06 E	+30° 33'		790	5				some haze. seeing very good	K ₀
01 42 W	-17° 50'		807	8					
01 56 W	-05° 04'		814	10				new box opened	

Dome Temp.

Transparency Conditions

Focus

Dome Temp.

Ending Time
EST

PH
07 07 |

Hour Angle End	Declination	Seeing	Ptg. Mag.	Ex Sp. Time	Comp.	Program	Exp. Mtr.	REMARKS	Quality
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	
								EST was \approx 2:30 slow; S. CL. \approx 2 MIN FAST	
								+ calculate Julian dates accordingly	

CAS. SECONDARY RE-ALUMINIZED.
(Primary had been done May 13-14)

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

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
01 ^h 45 ^m W	+27° 20'	3.4"	9.03	KOIII	4-4-4 4-4-4	S.S.V	900/100	very fast ???	FINE
01 ^h 45 ^m W	+36° 47'	2.3"	5.1	B8 _n	8-8-8	Spect bin	400/100	Ex. pod ↑	SL; STRONG (GUIDING) FINE
00 ^h 54 ^m E	+38° 15'	"	5.7	B6-7	8-8-8	Spect Bin	400/200		(GUIDING) FINE
00 05 E	+20° 15'	"	2.7	A0	8-8-8	Comp Sld	400/200		(GUIDING) FINE
06 12 E	+20° 45'	10"	2.7	A5	12-12	Ecl Bin	40/200		FINE
05 57 E	"	"	"	"	12-12	"	400/200		FINE
05 48 E	"	"	"	"	12-12	"	40/18		(GUIDING) FINE
	in in / out out				5/5	no filter			GOOD
								*Ex. meter, bad x1 & x2 gains 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	F3	8-8-8	SPEC-BIN.	400/150		FINE
01:08W	36° 48'	"	5.1	B8	12-12	"	40/20		SL. STR
01:53E	38° 17'	"	5.7	B6-7	8-8-8	"	40/20		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
01:27E	-5° 33'	~3"	5.45	B8	12-12	COMP. PROG.	40/20	TELESCOPE IN EXCELLENT	FINE
						5/5 no filter		CONDITIONS: ABOUT 3 TIMES	U. SL. CONTR TO 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)									

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Date *Sun-Mon, June 7/8 1970* Observer *Ed-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.
33248	HD 131861	14 50.9	+45° 43'	G12	Ilford	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 strip emulsions for plates				33 237-33240, 33244-33253				
	T2	"				33230 - 33232, 33241 - 33247				
	T3	"				33233 - 33236				

Dome Temp. 60°F H = 69%

Transparency Conditions very good, some haze

Focus 20-R

Dome Temp. 58°F H = 80%

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
2:53 A 00 46W	+45° 29'	1"3"	7.64	F3	8-8-8	Spect Bin	400/150	haze	FINE
3:09 B 00 18W	+36° 48'	1"2"	5.1	B8n	12-12	"	40/18		FINE
2:15 C 02 28W	+29° 51'	1"	8.90	F7V	4-4-4 4-4-4	S. SV.	800/300	(excellent seeing)	FINE V-SL-WK
2:42 A 00 33W	+38° 17'	2"3"	5.7	B67	12+2	Spect Bin	40/20		(GOODING) FINE
3:10 B 00 08W	+10° 24'	2"	5.8	F8	12-12	SVV01	40/25		FINE
2:49 C 05 36E	+20° 46'	3"4"	2.7	A5	12-12	ec/Bin	40/20		V-SL-WK
B	in in/out/out				5/5	no filter			GOOD
3:20 pm new P-2 / 9.0 min @ 68°F / 2400, 1.59 " "									

39x

Date Mon-Tues, June 8/9 Observer McU, 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.	
33254	HD 140913	15 41.1	+28 47	G12	Ilco	13s	74°F	21 00	22:28	A	
33255	HD 149803	16 32.0	+29 56	"	"	"	74°F	22 36	00:46	C	
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			K	
33260 T1	calibration	step wedge for plates 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

Hour	Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
00:22 A	25E	+28° 37'	1-2"	8.81	G0V	4-4-4 4-4-4	S.S.V.	800/350	(Develop normally please)	FINE
00:46	01 02W	+29° 52'	"	8.90	F7V	4-4-4 4-4-4	"	800/350	omit, forgot Dark slide	---
01:57 C	00 17W	+25° 32'	2"	8.66	G8III	4-4-4 4-4-4	"	800/350	DEVELOP NORMALLY PLEASE	FINE
02:00 A	00 37W	-10° 54'	2"-3"	5.2	g67	8-8-8	std Vel	40/17		SL. WK
02:36 C	00 12W	+14° 37'	1-2"	5.46	AD	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 - 250% MORE	
									2) THERE APPEARS TO BE GRIT OF DIRT	
									LYING ACROSS THE SLIT	

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Date Tues-Wed, June 9/10 Observer 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.
33261	HD 106690	12 11.1	41 13	G12	D ₁₀₀	9L	76°F	20:55	22:00	B
33262	HD 106400	12 09.3	+12° 23'	G40	D ₁₀₀	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 195234	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/40	
T2	"	"	"	checked D ₁₀₀	(16 H @ 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	400/400		** FINE
03:08	03:50 W	+12°04'	2"-3"	9.7	K0	3-3-2	Spect Bin	500/28	setting 40" very bad I know	VERY WEAK
03:21	02:07 W		2"	4.97	B9p	7 sec	"	40/5		FINE
03:16	01:23 E	+05°00'	"	7.89	K0 III	2-3-3	"	400/100		FINE
03:15		-11°38'	2"-3"	7.68	A2	3-2-2	"	400/50	very hazy seeing bad now	* FINE
03:26	00:22 E		2"	4.15	K3 II	8	std vel	40/10		FINE
03:11	00:38 E	+34°20'	"	6.37	K3 III	10-10-10	vis bin	40/35		** SC. WK
03:22	01:25 E	+09°50'	1"-2"	3.98	K2 Ib	10-10-10	"	40/35		** FINE
						5/5	NO FILTER		* PECULIAR FOG (AGE?)	GOOD
	21 W 2/	9.0 min @ 6d E	2.90 c	1.59					** Fe lamp is still weak	
	"	"	"	"			Anson +1) I think weak iron arc was due		(TRY +50%)	
							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.			

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.	
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	
33270	HD 139892	15 35.6	+36 58	"	"	9L	76°F	00:21	00:37	B	
33271	HD 176318	18 54.6	+38 07	"	"	9L	"	00:45	01:15	C	
33272	HD 186122	19 37.5	+11 58	"	"	9L	74°F	01:25	02:33	A	
33273	HD 189090	19 53.2	+16 31	"	"	9L	"	02:37	03:03	B	
33274	HD 186791	19 41.5	+10° 22'	"	"	9L	73°F	03:07	03:13	C	
33275	B Au	01 49.0	+20° 19'	"	"	9L	"	03:22	03:42	A	
33275 F	Focus			"	"	"	73°F			B	
33275 T1	calibration slip wedge for plates 33269-33275									11 June 1970	

Dome Temp. 74°F H=639
 Focus no-R
 Dome Temp. 70°F H=7270

Transparency Conditions VERY HAZY
scattered cloud

Hour	Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
									<u>FLEXURE</u>	
02:20	W	+45 29	1.3"	7.64	F3	12-12-12	SPEC. BIN.	800/300		FINE
02:00	W	+36 47	1.2"	5.1	B8m	18-18	"	40/20		FINE
00:40	E	+38 15	"	5.7	B6-7	12-12-12	"	200/100		FINE
00:08	E	+12° 11'	"	6.24	B9	12-12-12	COMP. PRGT.	200/100		FINE
00:06	W	+16° 45'	"	5.36	B9	12-12-12	"	200/100		FINE
00:28	W	+10° 36'	"	4.15	K3II	18-18	STD. VEL.	40/32		V. SC. WK
05:10	E	+20 43	4"	2.7	A5	18-18	ECL. BIN.	40/20		SL. WK
										SL. CENTRE TO 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?										

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Date Fri - Sat June 12/13 Observer She - 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.
33276	HD 140913	15 41.1	+28° 47'	G12	IIaD-6	13c	68°F	21:03	25:14	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	01:26	B
33280	HD 196426	19 32.2	-00 15	"	"	9L	62°F	02:08	03:42	C
33280F	Focus			"	"	9	62°F			B
		19 32.4	-00 22							
	3801									
		19 30.1	-0 27.5							

Dome Temp. 68°F H=50%

Transparency Conditions Excellent Trans. but bad seeing

3/4

Focus

Dome Temp. 60°F H=50%

Hour	Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
A	01:07 W	+28° 37'	2-4"	8.81	60V	5-5-6- 6-5-5	S.S.V.	800/300		SL-STR
B	07:40 W	+36° 48'	2-3"	5.1	88 ₂	12-12-12	Spat. Bin.	40/20		SL-STR
C	00:50 E	+38° 16'	3"	5.7	86-7	12-12-12	"	200/100		(GUIDING) U.SL-WK
C	00:58 E	+12° 13'	"	6.74	89	12-12-12	Comp. Proj.	200/100	(She wrote on plate)	FINE
C	01:14 W	-00° 07'	2-3"	6.11	88	12-12-12	"	200/70	(was very slow actually HD 155090) very slow field	
	in in/out out				↑	7/7	no filter			GOOD
				7.6	↑	?				check fld again
					A	?				

Dome Temp. 60°F H=5270
 Focus 20-R
 Dome Temp. 56°F H=5370

Transparency Conditions Excellent

Hour	Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
00	40W	+36° 48'	2"	5.1	B8a	12-24	Spect Bin	40/20		FINE
00	23E	+25° 32'	"	8.66	G8II	6-6-6	SSV	800/300	(maybe fogged)	SL-STR
00	38E	+28° 12'	"	9.06	G8III	6-6-6	SSV	800/300	IT SEEMS WE CAN DEGRATE THIS TO 7.570	U.SL-STR
00	16W	+10° 26'	2-3'	5.8	F8	12-12-12	Std Vel	200/90	NORMAL WHEN USING BAKED PLATES	SL-STR.
01	16W	+02° 56'	2"	5.92	B9	12-12-12	Comp Prog	200/100		FINE
						7/7	hot filter			GOOD
									Anson - I think more	
33284,		33285				15 June 1970	MWP-2	9.0 mi @ 60° E (179)	612 unbaked plates need cutting.	
						"	"	"		
									TIM: 1) FORGET ALL PREVIOUS NOTES & JUST KEEP (EXPOSED) BAKED PLATES SEPARATE FROM (EXP.) UNBAKED PLATES.	
									Could you also prepare & check 640 plates for Waterloo for Tuesday next please. I just saw them but will need more in future.	
									If you have time Tuesday, it might be good to test 640 focus. If I may play with it Monday if cloudy. Tim	
									2) WOULD YOU LEAVE A NOTE IN THE BOOK WHENEVER YOU EMPTY A PLATE BOX (I DIDN'T FIND THE EMPTY UNTIL LATE REE; TOO LATE TO CUT PLATES)	

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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	ϵ Leo	11 ^h 8 ^m 47 ^s	+21° 4'	G12	D-10	9L	55°F	21:19	21:23	A
33291	θ Leo	11 ^h 9 ^m 0 ^s	+15° 59'	G12	D-10	9L	"	21:27	21:32	B
33292	β Leo	11 ^h 43 ^m 58 ^s	+15° 8'	G12	"	"	"	21:36	21:39	C
33293	δ Vir	12 ^h 36 ^m 36 ^s	-0° 54'	"	"	"	"	21:45	21:51	A
33294	ϵ Boo	14 ^h 30 ^m 20 ^s	+30° 11'	"	"	"	"	22:00	22:13	B
33295	ζ Boo	14 ^h 28 ^m 3 ^s	+38° 45'	"	"	"	"	22:18	22:21	C
33296	45 Boo	15 ^h 2 ^m 55 ^s	+25° 16'	"	"	"	53°F	22:27	22:58	A
33297	HD 145389	16 05.6	+45 12	G12	D-10	9L		23:05	23:17	B
33298	δ Her	16 17.3 ^s	+19 23	"	"	"	51°F	23:21	23:28	C
33299	HD 175744	18 51.7	+17 52	"	"	"	"	23:37	23:53	A
33298 F1	focus test	01 01 / min		G12	D-10	9	49°F			B
33299	39 Dra	18 ^h 22 ^m 27 ^s	+56° 45'	"	"	9L	"	1:52	02:04	A
33300	ζ Del	20 ^h 35 ^m 0 ^s	+15° 34'	"	"	"	46°F	02:13	02:18	B
33301	ϵ Cap	20 ^h 11 ^m 21 ^s	+56 33	"	"	"	"	02:34	02:47	C
33302	HD 175744	18 51.7	+17 52	"	"	"	"	02:56	03:02	A

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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.
33305	HD 139592 5 Cr Bra	15 35.6	+36 58	G-12	IIaD	9L		21 07	21: 14	A
33306	HD 160952	17 37.7	+29 39	G-12	IIaD	13S		21 24	22: 43	B
33307	AG 10133	19 31.0	+28 52	G-12	IIaD-B	13S	58°F	22.51	01: 57	C
33308	HD 213747	22 29.9	+26 05	G-12	IIaD-B	13S	57°F	02: 07	03: 04	
33309 F	focus test			G-12	IIaD	9	57°F			B
33309 T1	calibration step wedge				IIaD			for plates 33290 - 33299		
T2	"	"	"		IIaD		"	"		
T3	"	"	"		IIaD-b		"	33303, 4, 33307, 8		

Dome Temp. 55

Focus M

Dome Temp. 55

Hour Angle
End

22 June 1937

Ri-McU

Dome Temp. 58°F 63%
 Focus 20-R (612)
 Dome Temp. 54°F 64%

Transparency Conditions *4 transient thin cloud*

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
04 43E	+36° 47	2	5.1	B8n	12-12-12	SPECT. BIN.	80/40		SL. STR
1 ^H 16E	+29° 40	2	9.04	G8II	6-6-6 6-6-6	SSV	800/300		FINE
04 05W	+29° 04	2-3	9.55	F7I	6-6-6 6-6-6	SSV	800/300	(field drawn) BAKED PLATE	SL. STR
1 ⁿ 47E	+26 32	3	8.93	K4III	6-6-6 6-6-6	S.S.U	800/302	} right and if exposed BAKED PLATE	FINE
					7-7	no field		clouded over	GOOD
22 June 1970 / NW 1.2 / 9.0 min @ 68°F / 2 to 5.19									
22 June 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.
33310	HD 131861	14 50.9	+45 43	G12	IIaO	13S	68°F	21:02	2:38	A
33311	" 149803	16 32.0	+29 56	G12	IIaO	13S	68°F	21:45	2:35	B
33312	AG 10133	19 31.0	+28 52	"	"	13S	67°	23:30	02:22	C
33313	HD 200340	20 57.8	-01 19	"	"	9L	63°F	02:29	03:04	A
33314	HD 198667	20 46.8	-05 52	"	"	"	62°F	03:10	03:27	B
33314F1	focus test	out of focus		"	"	9	62°F			
33314 T1	calibration	step wedge	for plates			33310 - 33314			23 June / 70	

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
0030W	+45° 29	2	7.64	F3	6-6-6 6-6-6	Speed. B.W.	400/150		(GUIDING) FINE
0028W	+29° 53	2-3	8.90	F7II	6-6-6 6-6-6	S.S.V	800/300		FINE
00435W	+29° 06	3	9.55	F7IV	6-6-6 6-6-6	SSV	800/300	POSSIBLY SOME FLEXURE	FINE
0010E	-00 58	3	6.26	B9	12-12-12	Comp. Prog.	200/100		FINE
0024W	-05 35	3	5.45	B8	12-12-12		200/100		FINE
					7-7 no filter			Dawn	V.V. SL. CENTRE TO RED
NWP-2 / 9.0 min @ 68°F (2400179)									
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).									

Dome Temp. 66°F H 65%

Transparency Conditions clear - some haze

Focus

Dome Temp. 61°F H 70%

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
01400W	+02° 37	2"	4.77	B9	5-10 G10 filter	Speed Bin.	80/5	setting 38.8 } used during	* STRONG
02426E	+05° 00	2	7.84	K0 III	5-5-5 G10 filter	Speed Bin.	800/200	" } filter	* STRONG
00432E	+39° 47		10.8	Em	10-5 G10 filter	F+	800/70	field as I 32353	
01436W	-11° 35		7.68	A2	5-5-5 G10 filter	Speed Bin.	800/110	setting 37.7	FINE
00437W	+03° 25	2	7.74	K2 III	-5-5- 7-7 G10 filter	" "	800/150		FINE CENTRE TO VIOLET
MCP-2/9.0 min @ 68°F/270cc/59									
* WRONG FILTER CUTOFF FOR COMA?									

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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.
33320	HD 131361	14 50.9	+45° 43'	G12	IIaB	9L	71°F			
				CLOSED	UP	AT	23:00			
				OPENED	AT		00 ^h :00			
33320	HD 139892	15 35.6	+36 58	G12	IIaB	9L	67°F	00:14	00:31	A
33321	HD 176318	18 54.6	+38 07	"	"	9L	65°F	00:37	01:29	B
33322	HD 186122	19 37.5	+11 58	"	"	9L				
				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.

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

Dome Temp. 60°F H 57%

Transparency Conditions *very foggy*

Focus 22 - Red

Dome Temp. 55°F H 62%

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
W 2 09	+ 45° 28'	4"	7.64	F3	12-12-12	SPECT. BIN-12	400/200	Much Li cloud	SL-STRONG
W 40	- 06° 04'	3"	7.01-7.83	F816-6376	12-24	CEPHEID	400/57	Thickened night up	WEAK
					7-7	no filter			GOOD
26 June / 70 / MWP-2 / 9.0 mi @ 48°F / 2 AD C-179								cloud up at 02:00	
								baked plates left side of box,	
								unbaked (frontal) right.	

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 ^h 03 ^m 5 W	+15° 53'	3.5	7.08	A3	12-12-12	Ap (Gis)	1100/200		FINE
1 ^h 40 W	+42° 58	"	7.20	A0	12-19-19	Ap (Gu)	400/200	4.0 2.0 gain comparison	FINE
2 ^h 02 ^m W	+47° 35	"	6.95	A2	17-17-17	Ap (GL)	400/200	" " "	FINE
2 ^h 40 ^m W	+44 14	"	7.00	A2	17-	Ap (Gu)	400/200	" " "	(SC. GUIDING) FINE
					7-7	no filter			GOOD

Dome Temp. 62°F H=54%

Transparency Conditions *cloudy*

Focus *20-R red*

Dome Temp. 60°F H=54%

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
01 23W	+36°48'	1.2"	5.1	B8 _n	18-18	Spect B.6	200/90		(GUIDING) FINE
			5.7	B6.7			200/100		
SKY COMPLETELY COVERED AT 00:00									
<i>MWP-2/9.0 min @ 61°E/240C159</i>									

Dome Temp. 68° H=7676

Transparency Conditions hazy, some cloud

Focus

windy, ∴ lowered coil

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

humidity rising rapidly

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Exp. Comp.	Filter Program	Exp. Mtr.	REMARKS	Quality
	+06° 36'				1				
20 31 W	+02° 16'	0766	606		4 min				
02 46 W	+17° 55'		619		5 min	should be 10 min		cloud	
03 30 W	"		643		10			NGC 5897 too low (too much absorption)	
02 48 W	-05° 46'		665		12				
04 23 W	+17° 55'		680		9	cloud		bad guiding. due to 'coil' effect in RA at least we were by cloud & check for clouds	
01 57 W	-05 02		754		8				
03 19 W	-12 57		772		10			guiding for some - RA move by large amounts during set - marked	
	+09 48								
00 52 E	+12 06		803		11	B		Humidity 97% ∴ closed up Water starting to condense	
<p><u>SOME OF THE PLATES HAVE</u> <u>TOO MANY DUST MARKS</u></p>									
<p>We had to remove the cloth ∴ of the wind Could it be put on again? - not sure - maybe not if it is</p>									

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① Newtonian Tues-Wed

Date June 30 - July 1 1970

Observer C. T. K. 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.
		1900	1970	1900	1970							
Focus star	Arcturus	14	14.3	+19°	20'		103a0					
33337	NGC 5904	15	17.1	+02	12'		↓			21:27 ⁰⁵	21:31 ²⁰	1
33338	5053	13	14.9	+17	51'					21:41 ⁵⁰	21:51	2
33339	5904	15	17.1	+02	12					22:20 ⁴⁵	22:24	1
33340	Test Plate									23:15 ¹⁵	23:25 ¹⁰	2
33341	"									23:29 ³⁵	23:39	1
33342	NGC 5053	13	14.9	+17	51					23:56 ³⁰	00:06	2
33343	M 17	18	19.1	-16	12					00:18 ⁴⁰	00:22	1
33344	NGC 6366	17	26.1	-05	02					00:39 ⁰⁵	00:44	2
33345	" 6356	17	21.8	-17	47					00:55 ¹⁵	01:03	1
33346	M 16	18	17.2	-13	48					01:12 ³⁰	01:16	2
Focus	E Peg A	21	42.7	+09	45							
33347	NGC 7078	21	28.6	+12	01					01:44 ²⁰	01:53 ²⁰	1
33348	"	"	"	"	"		103aD			01:58 ¹⁰	02:09 ²⁰	2
33349	NGC 6656	18	34.5	-23	58		103a0			02:20 ⁴⁰	02:24 ¹⁰	1
33350	NGC 6626	18	32.3	-24	34		↓			02:33 ¹⁵	02:37	2

Dome Temp. 68°F H=72%

Transparency Conditions clear

Focus

Dome Temp.

add 4 min to DEC

Ending Time EST

Hour	Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Exp Comp.	Filter Program	Exp. Mtr.	REMARKS	Quality
		+19° 24'								
00	31W	+02 16'	0767	604		4 min ^{15 sec}			K5	
02	54W	+17 55'		616		10 min				
01	25W	+02 13'		641		4 min			If fogged, we ^{house light} saw why also	
00	08W	-05° 00'		681		10 min			D ~ 0.3 - 0.5	MUCH BETTER
01	39W	-05° 00'		691		10 min			"	"
05	09W	+17 55'		709		10 min				
00	21W	-16° 06'		723		4 min			K6	
01	35W	-05° 04'		735		10 min				
01	58W	-17 44'		749		8 min				
01	17W	-13 44'		759		4 min			K6	INTERESTING
01	15E	+12 06'		784		9 min	R Filter			
01	00E	"		794		11 min ^{10 sec}	V Filter			
02	08W	-23 51'		808		4 min	no filter			
02	32W	-24 48'		816		4 min				

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July 1-2

heavy cloud - waited until 6⁰⁰ EST

NEW ORLEANS

Hours - F. 41

Date July 2-3, 70 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	4 Ser	15 42.8	+06 31							
33353	NGC 5904	15 17.1	+02 12		103.0			22:02 ¹³	22:06	2
33354	" 5053	13 14.9	+17 51'		"			22:13 ¹⁵	22:23	1
33355	" 5904	15 17.1	+02 12		"			22:35 ⁷	22:37	2
33356	" 7076	21 28.6	+12 01		"			01:37 ⁴⁰	01:41	1
33357	"	"	"		103.0D			01:50 ³⁵	02:01	2
33358	"	"	"		103.0			02:04 ³⁰	02:13	1
33360	"	"	"		103.0D			02:16 ⁰	02:27	2
33359	"	"	"		103.0			02:29 ¹⁶	02:38	1
33361	"	"	"		103.0D			02:41 ³⁴	02:50	2

Dome Temp. 58°F H=83%

Transparency Conditions scattered clouds

Focus

fog lightning in distance

Dome Temp. 63°F H=85%

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Filter Program	Exp. Mtr.	REMARKS	Quality
	+06 36								
21 14W	+02 16	0769	628		4min				
03 33W	+17 55		638		9min				
01 47W	+02 16		650		2min			not recorded	
01 16 E	+12 06		779		9min	B		clouds for 3 hours	
01 02 E	"		789		11min	V			
00 48 E	"		798		9min	B			
00 36 E	"		806		11min	V			
00 24 E	"		815		7min	B			
00 12 E	"		824		7min	V			
<p>du. 4.0 min @ 60° in 2-19 // 3 July 70</p> <p>CHANGED BACK TO CASSETTE REWIN FOR FRIDAY NIGHT.</p>									

Dome Temp. 63°F H=79%

Transparency Conditions very good

Focus 20.0 real

scattered cloud

Dome Temp. 60°F H=82%

Ending Time
EST.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
1 57 W	+36° 47'	2-3"	5.1	B8a	12-12-12	Spec. Bin	200/60	cloud	STRONG
2 04 W	+38° 15'	3"	5.7	B6-7	12-12-12	Spec. Bin	200/63	cut short, cloud again	(GUIDING) FINE
					7/7				GOOD
1 10 10 W	+16° 46'	2-3"	5.7	B9	12-12-12	comp prog	200/86	clear by 1:10, cloud again	FINE
			4.3	B5		24/17	40/17		

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Mon - Tues

Faubert

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 ₀₀	9L	73°F	21:00	21:08	A
33373	HD 131861	14 50.9	+45° 43	"	D ₀₀	13S		21:44 ⁵⁶	22:40	B
33374	AG 10133	19 31.0	+28° 52	"	D _{00b}	13S		23:01	23:52	C
33375	HD 194071	20 18.5	+27 55	"	D _{00b}	"		00:23	01:31	A
33376	HD 213947	22 29.9	+26 05	"	D _{00b}	"	66°F	01:55	02:43	C
33377	HD 212943	22 22.8	+04 12	"	D ₀₀	13S	"	02:50	03:02	A
33378	HD 213998	22 30.2	+00 38	"	D ₀₀	9L		03:10	03:14	A
33379	HD 212097	22 16.7	+27 50	"	D ₀₀	9L	64°F	03:19	03:25	C
33379F	Focus			"	D ₀₀	9	64°F			B
33379T1	calibration w/ tip and edge				D ₀₀			plates 33372 - 33374		
	"	"	"		D _{00b}			" 33374 - 33376		

Dome Temp. 68°F H=56%

Transparency Conditions Excellent

Focus 22-R

Dome Temp. 62°F H=68%

Hour	Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
00	11 W	+36° 47'	2"	5.1	B8n	12-12-12	Spect Bin	200/85		STRONG
02	27 W	+45° 29'	1"-2"	7.64	F3	12-12-12	"	400/150		(GUIDING) FINE
07	00 E	+29° 08'	"	9.55	F7	6-6-6 6-6-6	SSV	800/300	Wrong start, Fld down	FINE
00	08 E	+28° 12'	"	9.06	68 III	6-6-6 6-6-6	SSV	800/300		FINE
01	08 E	+26° 30'	2"	8.97	K9 III	6-6-6 6-6-6	SSV	800/300		FINE
00	43 E	+09° 37'	"	5.9	K0	12-12-12	Std vel	200/80		FINE
00	37 E	+00° 12'	"	9.08	B8	12-18	Comp SW	40/17		FINE
00	13 E	+28° 14'	"	4.83	B8	18-18	"	40/17		FINE
		on air / wind out				7/7	no filter			GOOD
333	77, 333	79				2000-2/9.0	min @ 60°F / 2900-59 / 7 July 1980			
							"			

Dome Temp. 70°F H=58%

Transparency Conditions ... Scattered cloud

Focus

Dome Temp. 67°F H=62%

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
0202W	+19 53	2"-3"	7.44	MOTW	10-12-12	Vis Pin	400/400		U.S.C. WK
		up in foot out			7/7			(Dec won't unclamp) I tried moving it by hand.	
								gave up	

MWP-2/9.0 min @ 68°F / 290 C 159 (9 July 170)

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Ending Time
E.S.T.

P.

[Faint, illegible handwriting in red ink]

754

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HANDBOUND
AT THE



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