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5

Cont from last Book

Date Nov. 13-14/84 Observers XBT - Tm

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
	HD 24760	03 51.1	+39 43	03 05	3 15	2 37W	+	FeNe Clear	3
	HD 46150	06 26.6	+5 00	03 30	5 24	W	+4 59	"	3-3
	HD 24760	03 51.1	+39 43	05 33	5 56	W	+	"	3-3
	"	"	"	05 59	6 08	5 30W	T	"	3
	Flat Fld					00	"	Tung Clear	King

Spectr. Te

Focus

Spectr. T

Exp. Mtr.

4/146

40/104

4/88

4/33

Note

Log

Spectr. Temp.

Dome Temp./Hum.

Transparency Conditions ... Fine ... Co.

Focus

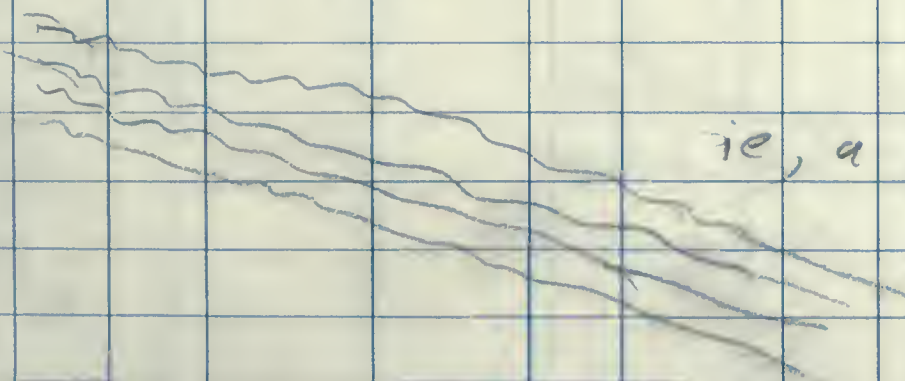
Spectr. Temp.

Dome Temp./Hum. +27.7 / H=58%

Comparison Type/Filter	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
FeNe Clear 3-	9/146	3"	2.71	B0711	BC	1800/430	250/3	Retican		E Pers prog		
" 3-	40/104	3"	6.86	06f7e	"	"	"	"		MK std	Fld drawn (looks OK)	
" 3-	4/88	4"	2.71	B0711	"	"	"	"		E Pers	(1st Comp Labelled same as for last star)	
" 5	4/33	"	"	"	"	"	"	"		"	(Saturated) Fine	
Tung Clear 5-					"	"	"	"				

Note why was this exp saturated & the others were not?

Last Flat Fld looked like following



ie, a slope, but straight, normal Plank distribution

7

Date Nov 14-15/84 Wed-Thurs Observers ... Bt...Tz.....

Emulsion Batches:

8ⁿ 68°

IIa.O.F...19103-05114

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison	
								Type/Filter	Exp.
48713	HD 217312	22 54.8	+62 32	17 40	19 59	0 21W	+63 03	Fe/-	8-8-8
48713T	Spot Calc for 48713-14.			15min	15U	D4 D3 D2 3900 4300 4810			
48714	HD 19058	2 58.8	+38 27	20 03	21 03	2 40E	+38 47	Fe/-	8-8-8
48714F1	Focus test					0	+15°	"	20-20
48714F2	" "					0	"	"	20-20
48714F3	" "					0	"	"	"
48714F4	" "					0	"	"	"
48714F5	" "					0	"	"	"
48714F6	" "					0	"	"	"

Spectr.

Focus

Spectr.

Exp. Mtr.

40/14

40/170

Spectr. Temp. ... 70°F

Dome Temp./Hum. ... 74°F / 60%

Transparency Conditions ... cloudy in 8

Focus ... 51.3

Spectr. Temp. ... 40.5°F

Dome Temp./Hum. ... 73°F / 60%

Comparison Type/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe-85-8	40/147	1"	7.2	B01W +B01W	BC	1200/50.7	BS	IIa0-E	A	Ly prog	* Some uncertainty in comp exp.	Fine
							"	"				
Fe-88-8	40/170	1"	5.04	Multist	BC	1200/50.7	BS	"	B	Pj prog	some cloud	Fine
" 20-20	} 40.5°F				"	"	"	"	A	set 513	label is "14" only	cent red
" 20-20					"	"	"	"	B	set 513	"14" F2	right on
" "					"	"	"	"	A	set 509	F3	cent sl blue
" "					"	"	"	"	B	" 509	F4	cent blue
" "					"	"	"	"	B	"	F5	cent blue
" "					"	"	"	"	A	"	F6	cent blue
<p>Note, Fe are gap too wide, but close to center for F1 thru F4. Gap narrowed by moving North electrode South for <u>F5 & F6</u></p>												

Spectr. Temp. ... +38°F

Dome Temp./Hum. +35°F/60%

Transparency Conditions *part cloudy* 10

Focus ... 512

Spectr. Temp. ... 37.5°F

Dome Temp./Hum. 73°F/70%

Companson Type/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/- 6-16	20/170	2.3"	4.63	A3m	BC	1200/50.7	BS	IIaJ-E	A	Asm Sp		fine
								IIaJ-E				
Fe/- 6-16	20/173	3.5"	5.36	B11Ep	BC	1200/50.7	BS	IIaJ-E	A	He Rich-Pl	Some cloud	fe sl/wk v sl/wk
" 8-5	40/19	3"	6.08	091II	"	"	"	IIaO-E	B	Ly prog	" " set 513	wk
" 8-5					"	"	"	IIaO	A		37.5°F set 513	sl/red
	↓ I kept this anyway, even though prob very wk.											

Spectr. Temp. $+38^{\circ}\text{F}$ Dome Temp./Hum. $+29^{\circ}\text{F}/65\%$ Transparency Conditions *clear by 01:30 12*Focus *513*Spectr. Temp. $+27.5^{\circ}\text{F}$ Dome Temp./Hum. $+17^{\circ}\text{F}/70\%$

Comparison type/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe-1-88	20/48	3 ²⁴ "	5.04	MAD-M	BC	1200/50.7	BS	II40-E	B	Py prog	cloud ended exp.	
	*Also for the wk plate; #48717 of last night.							II40-E				
666					BC	1200/50.7	BS	"	B	Set 513 T=37.5 ^o F		OK
666	30/240	4"	6.70	B2Vp	BC	830/40.2	BS	"	B	He-rich	Set 517 T=35 ^o F	
666	40/118	4"	6.32	B2Vp	"	"	"	"	A	"		
666	40/50	4 ²⁶ "	2.75	G0	"	"	"	"	B	Asm Sp	Set 519 T=30 ^o F	slwk
507					"	"	"	"	A	"	T=27.5 ^o F	OK

13

mon - Tues

Emulsion Batches:

8^m 68° ... II & O - E 19103 - 15114

Date Nov. 19-20/84 ... Observers Bt - Tr ... some Carbody

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
48721F2	Focus test					2 0 W	+ 10°	Fel-	15-15
	10 Loc								EST T ₁₂₁₀
	8 And								
	α Cas.								
	α Tri								2042
	o Psc								
	δ And H								0 ^h 10
48721F3	Focus test					0 0	+ 7°	Fel-	10-10
48722	HD 37776	05 35.9	-01 32	01 33	03 02	1 02 W	-1 31	Fel-	6-6 &
48722	T Spot Cal'n for 48722-26				15 min	015V	¹²⁴ 3900 ⁰³ 4300 ⁰² 4810		
48723	HD 37479	05 33.7	-2 39	03 04	03 55	1 54 W	-2 32	Fel-	6-6-6
48724	"	"	"	03 56	05 06	3 10 W	"	"	6-6-6
48725	HD 76151	08 49.4	-5 04	05 10	06 14	1 01 W	-5 20	"	6-6-6
48726	HD 81797	09 22.7	-8 14	06 16	06 21	0 34 W	-8 32	"	8-8
48726F	Focus					"	"	"	15-15

-15114

Spectr. Temp. $+30^{\circ}\text{F}$

Dome Temp./Hum. $+25^{\circ}\text{F}/55\%$

Transparency Conditions *Clear, then cloudy... 14...
Then clear*

Focus *set 522*

Spectr. Temp. 23°F

Dome Temp./Hum. $+17^{\circ}\text{F}/95\%$

Comparison Type/Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe-15					BC	150/235 ⁰	BS	IIa0-E	A		Set 522 T=30 ^o F	cont slt blue
7-1	Dome temp				Packet spectrograph						Other records kept	
											Note All pocket plates developed in "MS" for 15 mins.	
	20 ^o F											
	18 ^o F											
Fe-15					BC	150/235 ⁰	BS	IIa0-E	A		Set 524 T=24.5 ^o F	OK
Fe-66	40/115	3-5"	6183	B2V	BC	830/40 ^o	"	IIa0-E	A	He rich	Set 521 T=24 ^o F	fine insular fine
								IIa0-E				
Fe-66	40/97	4-2"	6.32	B2Vp	BC	830/40.2	BS	"	B	He rich	some cloud	fine insular
"	40/115	2"	"	"	"	"	"	"	A	"		fine
"	40/119	2"	6.67	G3	"	"	"	"	B	Asm Sp Kk	23 ^o F	fine
"	4/9	"	2.2	K3V-III	"	"	"	"	A	st/vel	23	fine insular
"					"	"	"	"	B		23 ^o F Sol 5-21	cont blue

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Tues - Wed

Date Nov. 20. 21. 184... Observers B.T. - Tr.....

Emulsion Batches:

8" 68" D10-E 19103 -15114
5" 68" D10-E 31083 -07114

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.	Exp. Mtr.
	α Tri	1 47.4	+29 06	19 48	19 55	0 40 W				
	δ And	0 34.0	+30 19	22 55	22 59	2 05 W				
	γ Cas	0 34.8	+55 59	23 07	23 11	2 16 W				
	\circ Psc	1 40.1	+8 39	23 22	23 34	1 33 W				
	γ And A	1 57.7	+41 51	23 48	23 52	W				
	α Ari			00 01	00 03	W				
	κ Per			00 14	00 23	W				
20	HD 26015 & others									
48727	HD 19056	2 58.8	+38 27	01 25	01 45	02 26 W	+38 51	Fel-	12-12	40/170
48728	HD 21699	3 25.1	+47 41	01 50	03 53	04 06 W	+48 01	Fel-	22-2	20/214
48727	Spot Cal'n	For 48727, 30		15 min @ 15V		D4 3900	D3 4300	D2 4810		
48728	Spot Cal'n	For 48728-29, 31		15 min @ D4		17.5V 3900	15V 4300	15V 4810		
48729	HD 76644	8 52.4	+48 26	04 02	04 19	054 E		Fel-	22-2	20/170
48730	HD 66751	7 59.9	+70 0	04 27	05 53	1 28 W	+69 49	"	8-8	40/2
48731	HD 56986	7 14.1	+22 10	05 57	06 18	2 44 W	+22 04	"	22-2	20/2

75114
07114

Spectr. Temp. 25°F

Dome Temp./Hum. +23°F/90%

Transparency Conditions 5/14/29 16..

Focus 5.14

Spectr. Temp.

Dome Temp./Hum. +18°F/95%

Comparison
Type/Filter Exp.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
		390	F67V	Pocket Spectrograph			IIaO			Separate records kept	
		4.52	K3111				"				
		3.40	K0149				"				
		5.22	G811				"				
		3.31	K3116				"				
Feb-22	40/170	2"	5.04 M+IHL	BC	1200/50	FBS	IIaO-E	A	P _y Prog	set 514	fe sl/st fine
Feb-22	20/211	2-3"	5.36 B811p	"	"	"	IIaJ-E	B	Herick	cloud	Fe wk vs/wk
							IIaO-E				
							IIaJ-E				
Feb-22	20/176	2"	3.32 A5	BC	1200/50	FBS	IIaJ-E	A	Am sp		Fe sl/wk vs/st
" 88	40/20	2-3"	2.7 AFS	"	"	"	IIaO-E B	"	"		-fine
" 22-2	20/155	2"	3.9 F0TV	"	"	"	IIaJ-E	A	"		fe sl/wk fine

unclear handwritten notes

1/19

Date Nov 21-22 1934 Observers Boj Ri

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp. Mr. Kod.
48	HD 224926	23 56.7	-03° 35	21:39	22:18			Fe 10E WR66	1
	comp								35E
	FLAT FIELD	90 SEC		23:55					
	"	"		23:57					
	"	"		00:00					
	"	"		00:04					
	FLATFIELD	90 SEC WITH ND.6							
	"	60 SEC WITH ND.6							
	"	" NO FILTER		00:20					
	"	45 SEC	"	"					
	"	45 SEC	"	00:29					
	"	45 SEC WITH ND		00:32					
	"	30 SEC	"	00:35					
	"	30 SEC NO FILTER		00:39					
	"	15 SEC	"	00:42					

Spectr. Tem

Focus

Spectr. Tem

Exp. Mr.

Kod.

42/30

23

Date Nov. 24-25/44 Observers BT-RiEmulsion Batches:
8^m 68° Fin-E 19103-20114

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.	Exp. Mtr.
* 33 48732	HD181276	19 14.8	+53 11	17 20	17 43	2 45W	+53 22	Fel-	8-8-8	20/15
34 48733	HD 185144	19 32.6	+69 29	17 47	18 34	3 00W	+69 42	Fel-	8-8-8	20/150
35 48734	HD 194317	20 19.9	+31 52	18 38	20 29	4 04W	+32 10	Fel-	8-8-8	20/200
48734T1	SPOT CALN'S FOR PLATES 48732-48737				15 MIN @ 1500 HRS	3900	4300	4010		
36 48735	HD 19058	2 58.8	+38 27	20 37	20 58	2 07E	+38 50	Fel-	8-8-8	20/80
37 48736	HD 13611	2 07.7	+8 23	21 02	21 31	0 41E	+8 48	Fel-	8-8-8	20/80
38 48737	HD 22484	3 31.8	+0 05	21 34	21 52	1 44E	+0 20	Fel-	8-8-8	8-32
48737F	FOCUS TEST							Fel-	2020	
* relabelled T _n (plates done correctly)										

Spectr. Temp. 42°FDome Temp./Hum 4°C .../80%Transparency Conditions *thickening fog*..... 24.

Focus 510

Spectr. Temp.

Dome Temp./Hum 1°C .../99%

Comparison Type/Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/-	8-8-8	20/150	1"-2"	4.73	G9TII	BC	1200/50.7	B5	IIaO-E	A	Archive		sl/str
Fe/-	8-8-8	20/150	"	5.47	KoV	BC	1200/50.7	B5	IIaO-E	B	Archive		sl/str
Fe/-	8-8-8	20/200	2"-3"	5.76	K3TII	BC	1200/50.7	B5	IIaO-E	A	Archive	$T = 42^{\circ}\text{F}$ fog	str
	③ D2 4010								IIaO-E				
Fe/-	8-8-8	20/80	2"-3"	5.04	M4TII	BC	1200/50.7	B5	IIaO-E	B	P _y Prog.		fine
Fe/-	8-8-8	20/80	2"-3"	5.26	G6T-III CN-2	BC	1200/50.7	B5	IIaO-E	A	Archive		fine
Fe/-	8-8-8	8/32	3"	4.4	F8V	BC	1200/50.7	B5	IIaO-E	B	Std Vel	CLOSED UP	fine
Fe/-	20-8									A	$T = 40^{\circ}\text{F}$	DUE TO FOG + HUMIDITY	no middle exp discards

25

Thurs - Fri

Date Nov. 29-30, 1964 ... Observers K.T. - T.L. - Boj.

Emulsion Batches:

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Plate No.	Object	R.A.	Declination	Starting Time	Ending Time	Hour Angle End	Declination	Comparison	
		1900	1900	E.S.T.	E.S.T.			Type/Filter	Exp.
48739	o And	22 57.3	+41 47	20 58	21 03			Wt 66 Fe-Ne	5
	"			21 11	21 22			"	"
	29 Pi And	00 36.0 ⁽³⁴⁾	+33 38	21 34	22 05			"	"
	35 Ari	02 42.6 ⁽³⁴⁾	+27 39	22 17	22 46 ²			"	"
	HD 21699	03 31.0	+47 58	22 58	00 00		+48 01	"	"
	HD 37042	05 34.4	-5 26	00 14	02 50		-5 23	"	"
	F1+ Fld			40 sec			ND 0.6		
	F1+ Fld			40 sec			Clear		
	F1+ Fld			25 sec			Clear		
	" "			25 sec			Clear		

Spectr. T.

Focus.

Spectr. T.

Exp. Mtr.

20/200

30/250

30/250

30/250

30/250

30/130

T-270

T-200

T-170

29

Date 1984 Dec 13/14 Observers KIK - Ri

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
48740	HD 217675	22 57.3	+ 41 47	19 56	20:28			FeNe Wr 66	1 ^s
	HD 12533	1 57.7	+ 41 51	20 40	20 50			"	"
	HD 12533	"	"	20 53	21 15			FeNe Wr 66	2 ^{sec}
	Flat fields	Low gain	75 ^{sec}						
	"	repeat							
	"	High gain	40 ^{sec}						
	"	"	"						
	"	"	"						
	"	"	"						
	"	High Gain	20 ^{SEC}						
	"	"	"						
	"	"	"						
	"	High Gain	10 ^{SEC}						
	"	"	"						
	"	High Gain	4 ^{SEC}						
	"	"	"						

Spectr.

Focu

Spectr.

Exp. Mtr

yellow

25002

401088

1201052

yellow

Spectr. Temp. 47.°F Dome Temp./Hum. 38.°F / 95% Transparency Conditions poor 34

Focus 510

Spectr. Temp. Dome Temp./Hum. 35°F / 99%

Comparison Type/Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	<u>GAIN 2500</u>											
<u>Fe/ 8-8-</u>	<u>12006</u>	<u>3"</u>	<u>6.52</u>	<u>M₂ III</u>	<u>BC</u>	<u>1200/507</u>	<u>BS</u>	<u>IIaOE</u>	<u>A</u>	<u>Archive</u>	<u>RATE READING 3 UNITS</u>	<u>fine</u>
<u>" 8-8-</u> <u>D2</u> <u>4816</u>	<u>9092</u>		<u>5.04</u>	<u>M₄ II-III</u>	<u>"</u>	<u>"</u>	<u>"</u>	<u>"</u>	<u>B</u>	<u>Py Prog</u>	<u>T=43°F F=511</u>	<u>fine</u>
<u>Fe/ 20-20</u>					<u>B.C.</u>	<u>1200/507</u>	<u>B.S.</u>	<u>"</u>	<u>A</u>		<u>Clouds, high humidity</u> <u>T=43°F F=511</u>	<u>OK</u>



New exposure meter electronics, capacitance increased 10x from last observing night ⇒ gain 0.1 x

37
1

Date Sun. Mon. Dec. 30-31/84 Observers K. Ly. - T. N.

Emulsion Batches:
Ri TAN 3 8 MIN 068° F DIR II 20-E 19103 -17124
Ri TAN 4 45 MIN 068° F DIR III 20-E 31083 -07114

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp
48743	Vulp Nova Collins	20 22.8	+27 30	17 36	18 40	04 34W	+27 52	Fe/-	9-9
48743F	Focus	- First	+	17 33		03 30W	+27 52	"	20-21
48744	HD 217782	22 58	+42 13	18 47	19 04	02 23W	+42 42	"	13-13
48744T	Spot Colln for	48743-44, 46, 48, 52-53		15 min 15V	3900 4300	4810			
48745	HD 219080	23 08.0	+48 51	19 09	19 44	02 53W	+49 53	Fe/-	26-26
48745I	Spot Colln for	48745, 47-48, 50, 51, 54, 55		15 min D4	3900	4300 4810			
48746	HD 6582	1 01.6	+54 26	19 48	20 15	01 28W	+54 54	Fe/-	13-13
48747	HD 6461	1 05.0	+54 37	20 18	20 39	01 50W	+55 06	"	26-26
48748	HD 29316	4 32.0	+53 17	20 42	22 17	00 00W	+53 29	"	26-26
48749	HD 66751	7 59.9	+70 00	22 22	00 38	01 10E	+69 51	"	99-99
48750	HD 47105	6 31.9	+16 29	00 43	00 46	00 31W	+16 26	"	25-25
48751	HD 56986	7 14.1	+22 70	00 49	01 02	00 05W	+22 05	"	25-25
48752	HD 71974	8 25.2	+35 18	01 06	04 08	01 59W	+35 04	"	99-99
48753	HD 76095	8 49.0	+26 36	04 12	06 25	03 53W	+26 17	"	99-99
48754	HD 76644	8 52.4	+48 26	06 31	06 42	04 07W	+48 07	"	25-25

Spectr. Ter.
Focus...
Spectr. Te.Exp. Mir.
2500

6053

6179

72165

6498

20972

20119

5119

15573

15443

3505

6050

20718

-17/24
-07/14

Spectr. Temp. $38^{\circ}F$
Focus 51.3
Spectr. Temp. $28^{\circ}F$

Dome Temp./Hum. $33^{\circ}F/62\%$
Dome Temp./Hum. $27^{\circ}F/100.2$

Transparency Conditions $good - cloudy - sl. hazy$

Comparison Type/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/- 7	6053	2'-3"	~ 6.5 V	$\sim A$	BC	1200/50.7	BS	IIa0-E	B	Nova		
" 2					"	1200/50.7	"	IIa0	A		Fld drawn: checked OK on BD	
" 3	6179	2-3"	5.17	AZ	"	"	"	IIa0-E	A	KK Asm Sp		fine
Fe/- 2	2165	2-3"	4.90	F0IV	BC	1200/50.7	BS	IIIaJ-E	B	KK Asm Sp	2.4V on Rate	fine
Fe/- 5	6498	2-3"	5.81	G5IV	BC	1200/50.7	BS	IIa0-E	A	KK Asm Sp	0.9V on Rate	fine
" 7	0992	2"	4.50	A7II	"	"	"	IIIaJ-E	B	"		fine
" 8	20119	2"	5.36	A5n	"	"	"	IIIaJ-E	A	"	Broken 2 pcs 0.9V on Rate cloud	fine 1/2 slit 5/16 slit
" 9	5119	3"	6.48	dF8	"	"	"	IIa0-E	B	"	T=33 \circ set 515	fine 1/2 slit
" 5	15574	3"	1.9	A0IV	"	"	"	IIa0-E	A	"		fine but uneven
" 2	15443	2-3"	3.9	F0IV	"	"	"	"	B	"	3.3V on Rate	good - could be stronger
" 9	3505	3-2"	~ 7.5	G5	"	"	"	IIa0-E	A	"	3 hrs	good
" 9	6050	2"	~ 7.1	G0	"	"	"	"	B	"	set 516 T-29 \circ F	fine
" 25	0718	"	3.32	A5	"	"	"	IIIaJ-E	A	"		good

OVER

Spectr. Temp. Dome Temp./Hum. Transparency Conditions 40

Focus

Spectr. Temp. Dome Temp./Hum.

Comparison Type/Filter	Exp. Mtr. Eq	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fel-25-28	12124	2"	5.3	FGIV	BC	1200/ 50°7	BS	IIIaj-E	B	STDVEL	dawn	sl. weak
<p><u>Note</u> - KK - There are no more IIIaj in Dome, I noticed some in hall frig.</p>												

41

Thurs-Fri - Archiv - get Nova Collins

Rij Jan 4 8.00 639 F D 19

Emulsion Batches:

AgO E 19103-17124

Date Jan 3-4/85..... Observers B.R.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp
48756	Vul Nova Collins	20 22.8	+27 30	17 33	19 14	5 25W	+27 52	Fel/-	9.9-9
48757	HD 23862	3 43.2	+23 50	19 21	19 51	1 19E	+24 08	"	9.9-9
48758	HD 17915	2 47.6	+16 5	19 56	23 17	3 03W	+16 27	"	9.9-9
48758	SPOT CHECK FOR PLATES 48756-					15 MIN @ 15 DAYS	3900 4200 4810		
48759	HD 37776	5 35.9	-1 32	23 26	01 06	2 04W	-1 27	Fel-	7.7-9
48760	HD 66751	7 59.9	+70 0	01 15	04 00	2 30W	+69 50	"	9.9-9
48761	HD 102212	11 40.7	+7 5	04 08	04 55	0 11E	+6 38	"	9.9-9
48762	HD 112769	12 53.9	+17 57	04 59	06 20	0 01W	+17 32	"	9.9-9
48763	HD 111812	12 46.8	+28 5	06 24	06 52	0 40W	+27 39	"	9.9-9
48764	HD 137909	15 23.7	+29 27	06 58	07 05	1 42E	+29 13	"	9.1-9
48764	FOCUS TEST							Fel-	20-30

Spectr. Temp. 29°f Dome Temp./Hum. $22^{\circ}\text{f}/65\%$ Transparency Conditions OK 42...

Focus 5.15

Spectr. Temp. Dome Temp./Hum. $-110^{\circ}\text{C} / 97\%$

Comparison Type/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	<i>GAIN</i> 2500											
Feb-90	6000	3"			BC	1200/507	BS	TAOE	A	Nova	Rate TEL LIMIT .3	comp on stellar
" 90	10002		5.01	B8	"	"	"	"	B	Gry Pgm	Rate Set=516 1.3	
" 90	11003		6.31	F5 III	"	"	"	"	A	Archive	Rate .3	fine
								TAOE				
Feb-90	8000	3"	6.83	B2 V	BC	830/40.2	BS	TAOE	B	Blng He Rich	Rate T=240f Set=517	flexure? fine
" 90	7000		6.48	dFs	"	1200/507	"	"	A	KK Asm Sp	Rate T=230f Set=518	fine
" 90	12000		5.54	M. III	"	"	"	"	B	Archive	Rate	S1 str
" 90	120143-4	3-4"	6.34	M. III	"	"	"	"	A	Archive	Rate .5	S1 str
" 90	10005		4.61	G0 III	"	"	"	"	B	Archive	Rate 1.5	fine
" 90	10435		3.93	Fop	"	"	"	"	A	KK Asm Sp	Rate 5	fine
Feb-90					"	"	"	"	B		T=200f SET 518	OK

43 Tues-Wed

hand agitated 8" 69°

Emulsion Batches:

Date Jan 8-9/55 Observers B+R

ITa Q.E. 1910.3-31124
 W.F. Feb. 31083-06015
 D.I. Feb. 1910.3-06015

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
48765T1	Focus							Fel-	20-20
48765T2	Focus							Fel-	20-20
48765	Vul Nova Collins	20 22.8	+27°30	17:40	18 55	05 ^m 26W	+27°52	Fel-	7-7-7
48766	HD 21699	3 25.1	+47 41	19 10	20 31	0 03E	+48 02	Fel-	17-17-5
48766F1	SPOT CAL FOR PLATES 48765				15 MIN @ 15 VOLTS	0 D4 3900	② P3 4810	③ D2 4810	
48767	HD 23862	3 43.2	+23 50	20 36	20 59	0 07W	+24 08	Fel-	9-9-9
48768	HD 37776	5 35.9	-1 32	21 06	23 08	0 26N	-01°27	"	7-7-7
48768T	SPOT CAL FOR PLATES 48766				15 MIN @ D4	0 12.5V 3900	③ 15V 4300	③ 15V 4810	
48769	HD 37017	5 30.4	-4 34	23 13	00 46	2 09W	-4 27	Fel-	7-7-7
48770	HD 66751	7 59.9	+70 00	00 56	03 25	2 14W	+69 53	"	9-9-9
48770T	SPOT CAL FOR PLATES 48770-72				15 MIN @ 15 VOLTS	0 D4 3900	② D3 4300	③ D2 4810	
48771	HD 92125	10 33.1	+32 30	03 33	04 06	0 27W	+32 07	Fel-	9-9-9
48772	HD 112264	12 50.4	+47 44	04 13	06 52	0 57W	+47 47	"	9-9-9
48773	HD 137909	15 23.7	+29 27	06 58	07 16	1 11 E	+29 12	"	25
48773F	Focus Test							"	20-20

49 Tues-Wed

Date Jan 15-16, 1955 Observers B-T-Tn

Emulsion Batches:

8^m 68° Tri-O-E 19103 - 090155^m 68° Tri-O-E 31083 - 06015

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.	Em. Mtr.
48774	Vel Nova Coll	20 22.8	+27 30	17 52	18 24	5 23W	+27 53	Fel-	7-9	81
48775	HD 21699	3 25.1	+47 41	18 38	22 32	2 24W	+47 59	Fel-	17-21	5590
48776	Spot Col ⁶	for 48774, 80-85.			15 min @ 15V	3900	4300	4810		
48775	Spot Col ⁶	for 48775-79			15 min @ 15V	3900	4300	4800		
48776	HD 37043	5 30.5	-5 59	22 38	22 50	0 40W	-5 52	Fel-	17-11	20110
48777	HD 47105	6 31.9	+16 29	22 56	23 05	0 06E	+16 30	"	25-2	20110
48778	HD 56986	7 14.1	+22 10	23 09	00 23	0 29W	+22 6	"	17-17	5251
48779	HD 76644	8 52.4	+48 26	00 27	00 58	0 34E	+48 10	"	17-17	20060
48780	HD 99028	11 18.7	+11 5	01 06	02 18	1 38E	+10 37	"	13-13	10000
48781	HD 98262	11 13.1	+33 38	02 24	03 41	0 11E	+46 48	"	8-88	10092
48782	HD 109358	12 28.9	+41 54	03 46	04 20	0 48E	+41 31	"	8-8-8	10092
48783	HD 137909	15 23.7	+29 27	04 26	04 44	3 17E	+29 11	"	8-8-8	10092
48784	HD 127665	14 27.5	+30 49	04 48	06 12	0 53E	+30 31	"	13-13	9508
48785	HD 124897	14 11.1	+19 42	06 15	06 44	0 04W		"	13-15	2134
48785	Focus					"	"	"	20-20	

Spectr. Temp. -16°FDome Temp./Hum. $8^{\circ}\text{F}/70\%$Transparency Conditions *sl. hazy + some cloud*.....Focus 523Spectr. Temp. $+3.5^{\circ}\text{F}$Dome Temp./Hum. $-1^{\circ}\text{F}/85\%$

Comparison Type/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	<i>W=2500</i>											
Fel-7	81	5-10"			BC	830 140.2	BS	IIaO-E	A	Nova		vv wk
Fel-7a	5590	5-10"	3.6	B8IIIp	BC	1200 50.7	BS	IIaT-E	B	Bln Hc Rich F=521		wk
								IIaO-E		<u>Note - Lubellet 74</u>		
								IIaO-E				
Fel-17	20110	210"	2.76	09III	BC	1200 50.7	BS	IIaT-E	A	Ly Prog		sl wk
" 25	20,000	"	1.9	A0IV	"	"	"	"	B	KK Asm Sp		fine
" 175	5251	"	3.9	F0IV	"	"	"	"	A	KK Asm Sp		fine
" 1-4	20 000	"	3.32	A5	"	"	"	"	B	KK Asm Sp		fine res/str
" 12	10 000	✓	4.34	F2IV	"	"	"	IIaO-E	A	KK Asm Sp		fine res/str
" 88	10092	8-4"	4.88	K3III	"	"	"	"	B	Archive	T = +5°F set +523	sl/str
" 88	10062	3-5"	4.85	G0V	"	"	"	"	A	Archive		fine
" 18	10180	3"	3.93	F0p	"	"	"	"	B	KK Asm Sp		fine
" 3	9508	3-5"	4.88	K3III	"	"	"	"	A	Archive	cloud	fine
" 13	2134	3"	1.29	K2IIIp	"	"	"	"	B	Std Vel	near cloud	sl wk
" 2					"	"	"	IIaO	B		set +523 T +3.5°F	cont Red

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Sat-Sun

Date Jan. 26-27/85 Observers BT-R.

Emulsion Batches:

8⁶⁸⁰ I.D.F. 19103-18015

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
48789	HD6582	1 01.6	+54 26	17 53	18 11			Fel-	8
48789	HD6582	1 01.6	+54 26	18 15	18 59	1 58W	+54 54	Fel-	8-8-8
48790	HD18884	2 57.1	+3 42	19 04	19 21	0 27W	+4 04	"	8-8-8
48790T	SPOT CALN' FOR PLATES			48789-92,		15MIN @ 15VOLTS	3900 4300 4810		
48791	HD23862	3 43.2	+23 50	19 26	19 55	0 15W	+24 08	Fel-	8-8-8
48792	HD22484	3 31.8	+0 05	20 10	20 41	1 12W	+0 23	"	8-8-8
48792T	Focus TEST							Fel-	2020

Spectr. Temp. 21°F Dome Temp./Hum. $-9^{\circ}\text{C}/63\%$ Transparency Conditions CITRUS + CLOUDS 5/6

Focus 5/6

Spectr. Temp. Dome Temp./Hum.

Comparison Type/Filter Ex	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Feb-8			5.8	G5Vp	BC	1200 150.7	BC	TAOE	A	KK Asm Sp	Wrong Star	
Feb-8	8002	3"	5.8	G5Vp	BC	1200 150.7	BC	TAOE	A	KK Asm Sp		re fine Fine
" 88	10049	"	2.8	M-5TH	"	"	"	"	B	Std Vel	$T=21^{\circ}\text{F}$ $F=518$	Resist slut
								TAOE				
Feb-8	9186	3"	5.0	B8	BC	1200 150.7	BC	TAOE	A	Gry Pam	$T=21^{\circ}\text{F}$ $F=516$	FOOK Fine
" 88	4880	"	4.4	F&V	"	"	"	"	B	Std Vel	$T=20^{\circ}\text{F}$ $F=518$	Resist slut
Feb-20					"	"	"	"	A		$T=19^{\circ}\text{F}$ $F=518$	center slut
											CLOUDS IN	

57

Date MON TUES JAN 28-29 1985 Observers BT - Ri

Emulsion Batches:
8" 6" F10-E 19103-18015
Dated 31083-06015

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.	Exp. Mtr. G.M. = 256
48793#	Focus TEST							F/-	M-20	
48793	HD 6130	00 ^h 57.4	+60° 32	17:50	18:52	2 06W	+61° 03	F/-	8-8-8	10005
48794 ✓	HD 11188	1 44.9	+46 58	18:57	21 37	4 04W	+47 22	"	8-8-8	6917
48794 T	SPOT CALN FOR PLATES 48793					15 MIN @ 1500AS	3900 4300 4810			
48795	HD 47105	6 31.9	+16 29	23 09	23 12	0 52W	+16 25	F/-	25-25	20032
48796 ✓	HD 66751	7 59.9	+70 0	23 21	02 19	2 26W	+69 48	"	8-8-8	6000
48796 T	SPOT CALN FOR PLATES 48796-97.					15 MIN @ 1500AS	3900 4300 4810			
48797	HD 113139	12 56.4	+56 54	02 25	03 22	1 21E	+56 28	F/-	8-8-8	6284

Spectr. Temp. 27°FDome Temp./Hum. $-6^{\circ}\text{C}/80\%$ Transparency Conditions 700L 58Focus $514\frac{1}{2}$

clouds on and off

Spectr. Temp.

Dome Temp./Hum. $-9^{\circ}\text{C}/98\%$

Comparison Type/Filter	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe-	10005	2-3	641	FOLI	B.C.	1200/50.7	B.S.	IIaO	A	ARCHIVE	T=27°F F=514½	OK
Fe-	6917	7.1	LB	"	"	"	"	IIaO-E	A	Ly=5B	T=27°F F=514.5 CLOUDS	Exp fine
Fe-	20032	1.9	A0IV	BC	"	1200/50.7	B.S.	IIaJ-E	A	KK Asm Sp	T=25°F F=514	Fine
Fe-	6000	6.48	dFB	"	"	"	"	IIaO-E	B	KK Asm Sp	T=24°F F=517 CIRRUS CLOUDS	Fine
Fe-	284	4-5	5.29	F2V	BC	1200/50.7	B.S.	IIaO-E	A	Archive	T=27°F F=516 CLOSED UP ACCT. CLOUD	Fe OK Fine
<p>Note All IIaO emulsions from this night are peeling, particularly #48794. Even unevacuated IIaO for focus discussions. Same batch previous night is OK though. Is there something different in development? In Jan 30 → Next night I checked this batch & found them peeling at edges</p>												

Spectr. Temp. 28.0°F Dome Temp./Hum. $-9^{\circ}\text{C}/75\%$ Transparency Conditions *part cloudy* 60.

Focus 515

Spectr. Temp. $+16.5^{\circ}\text{F}$ Dome Temp./Hum. $-15^{\circ}\text{C}/80\%$

Comparison Type/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe-8-8 D7 4810	9000	6"	5.01	B8	BC	$1200/50.7$	BS	IIaOe	A	Gry Pgm.		fine
Fe-8-8	9008	4-6"	4.40	B.IV	BC	$1200/50.7$	BS	IIaOe	B	Archive	(correct) West of palm 5.5" in ultra	fine
" 8-8	7715	4-6"	6.16	K1.5 II 6	"	"	"	"	A	Archive	some cloud	Fine
K 8-8	6490		2.2	K3	"	"	"	"	B	std vel	set 518 T = $+18^{\circ}\text{F}$	fine
K 8-8					"	"	"	IIaO	B	"	set 518 T = $+17^{\circ}\text{F}$	center red
" 4-6	3100	5"	2.2	K3	"	$150/23.5^{\circ}$	BS	IIaOe	A	std vel	set 528	sl. strong
" 8		5"	$8.3-9$		"	"	"	"	B		cloud - attempt	
K 6/6					"	"	"	IIaO	A		set 528 - T = $+16.5^{\circ}\text{F}$	cont s/blue

2015

Spectr. Temp. +17°F

Dome Temp./Hum. +6°F/70%

Transparency Conditions hazy 62

Focus 523 - 520

Spectr. Temp. +11°F

Dome Temp./Hum. 13°F/80%

Comparison Type/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe-13-5 15- 420	15000	4"	5.22	B ₄ IV	BC	830/40.2	BS	IIIaJ-E	A	B/n SB		Fine
								IIIaJ-E				
Fe-13-13	16120	4"	5.28	B ₈	BC	830/40.2	BS	IIIaJ-E	B	B/n Shell		Fast wk Fine
" 17-1	20177	4"	4.10	B ₇ III	"	1200/50.7	"	"	A	B/n Be	T=+12°F set 520	Fine
" 17-2	20152	3"	3.93	F ₀ p	"	"	"	"	B	KK Asm Sp	T=+11°F	Fe Fuzzy Fine
" 17-3	10238	4-5	5.19	B ₃ IV	"	"	"	"	A	B/n SB		wk

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Date Sun-Mon./Feb. 3-4./85 Observers Kly./Tn./BT-Tn

Emulsion Batches:
5^m 68° IIIA-E 31083-12015
8^m 68° IIa-E 19103-28015

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.	Exp. Mtr.
48808	HD 209790	22 ^h 00 ^m .9	+64 08	18 08	18 38	05 15 W	+64° 34'	Fe/-	7-17-1	20279
48808T ✓	Spot Cal'n for 48808-11, 15				15 min @	D4	1715U 15U 3900 4300	15U 4810		
48809	HD 6582	1 01.6	+54 26	18 45	20 20	3 52W	+54° 50'	Fe/-	17-17-1	85
48810	HD 6961	1 05.0	+54 37	20 25	20 56	04 25 W	+55° 05'	"	25-25	20820
48811	HD 29316	4 32.0	+53 17	21 01	22 29	02 30 W	+53 26	"	25-25	25100
48812	HD 66751	7 59.9	+70 00	22 35	00 47	1 18 W	+69 58	"	8-8-8	8109
48812T ✓	Spot Cal'n for 48812-19				15 min @	D4 D3	15U 3900 4300	D3 4810		
48813	HD 65041	7 51.7	+43 47	00 52	03 33	4 17W	+43 34	Fe/-	8-8-8	7240
48814	HD 94118	10 46.7	+46 20	03 38	05 52	3 42W	+45 58	"	8-8-8	5436
48815	HD 164852	17 58.1	+20 50	06 06	06 50	3 28 ^X E	+20 52	"	17-17-1	14745
48815F	Focus test					"	"	"		

Spectr. Temp. ... 18° F

Dome Temp./Hum. +13°/65%

Transparency Conditions sl. hozy..... 64

Focus 518

Spectr. Temp. ... 11

Dome Temp./Hum. +5°/70%

Comparison Type/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
17-1	20279	2-1"	4.63	A3m	BC	1200/50.7	BS	IIIa _j -E	A	KK A5mSP	Reversed	fine
15V 480								III+I-E				
Fe- 17-2	25000	1"	5.81	G5P	BC	1200/50.7	BS	"	B	KK A5mSP	Reversed	fine
" 25-2	20,600	2"	4.50	A7V	"	"	"	"	A	"	"	good/fine
" 3-3	5,160	2"	5.36	A5n	"	"	"	"	B	"	" T=15°f	fine
" 3-8	8109	1-3"	6.48	A7E	"	"	"	IIa0-E	A	"	"	fine
" 4-20								IIa0-E				
Fe- 4-8	7240	2"	6.87	B2V	BC	1200/50.7	BS	IIa0-E	B	Ly Pgm	Reversed	vs/wk
" 5-4	5436	1-2"	7.13	A2	"	"	"	"	A	Ly Pgm	" T=13°f	sl/wk
" 11-12	14745	3"	5.19	B3IV	"	"	"	IIIa _j -E	B	B/n SB	telescope in set 520 normal position T=11°f	sl/wk
							"	IIa0	A		set 520 T=11°f	cont sl/wk
								KK more IIa0 = IIIa _j needed presently 8 IIa0s + 14x5)				
								6 IIa0 (9x5)				
								Jim - There were two boxes of cut IIa0 in foreground, why not look there? KK				

65

Mon-Tues

Date Feb 4-5/85 Observers B+R

Emulsion Batches:

TIP-E 19103-28015

Dujice 31083-12015

Dujice 19103-09025

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
48816F	Focus Test							Fel-	20-20
✓ 48816	HD 18884	2 57.1	+3 42	17 55	18 03	0 15E	+4 03	Fel-	17-17
48817	HD 11188	1 44.9	+46 58	18 10	19 48	2 41W	+47° 23	"	8-8-8
48817T	SPOT CAL FOR PLATES 48816-23.			15 MIN @ 15 VOLTS		⊙ D4 3900	⊙ D3 4300	⊙ D2 4810	
48818	HD 23475	3 40.4	+65 13	19 53	21 49	2 45W	+65 31	Fel-	8-8-8
48819	HD 47105	6 31.9	+16 29	21 55	21 58	0 06W	+16 26	"	17-17
48820	HD 56986	7 14.1	+22 10	22 02	22 20	0 14E	+22 05	"	8-8-8
✓ 48821	HD 62509	7 39.2	+28 16	22 24	22 27	0 32E	+28 07	"	17-17
48822	HD 89449	10 14.3	+19 59	22 33	23 24	2 10E	+19 35	"	8-8-8
48823	HD 62285	7 38.0	+26 01	23 32	01 05	2 06W	+25 50	"	8-8-8
48824	HD 86360	9 52.9	+12 55	01 10	01 45	0 17W	+12 17	"	17-17
48824T	SPOT CAL FOR PLATES 48824			15 MIN @ D4		⊙ 17.5V 3900	⊙ 15V 4300	⊙ 15V 4810	
48825	HD 118216	13 30.3	+37 42	01 50	03:00	1 51E	+37 16	Fel-	8-8-8
48825T	SPOT CAL FOR PLATE 48825			15 MIN @ 15 VOLTS		⊙ D4 3900	⊙ D3 4300	⊙ D2 4810	
48825F	Focus Test							Fel-	20 20

Spectr. Temp. 19°F Dome Temp./Hum. $-10^{\circ}\text{C}/62\%$ Transparency Conditions *Cirrus clouds* 60.
 Focus 51.8
 Spectr. Temp. Dome Temp./Hum. $-14^{\circ}\text{C}/61\%$ *Good after Mid W 1945*
for a couple hrs

Comparison Type/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe-20	-				B.C.	$1200/50.7$	B.S.	Ilao	A		T=19°F F=516	OK
Fe-7	8000		2.8	M.5TV	BC	$1200/50.7$	B.S.	Ilao-E	B	Std Vel	T=19°F F=518	Festr fine
" 8	7000	2"	7.1	B8	"	"	"	"	A	Ly SB	T=19°F F=516	fine
Fe-88	10007		6.35	M.2TV	BC	$1200/50.7$	B.S.	Ilao-E	B	Archive	T=18°F F=519	C Fine
" 17	10007		1.9	A0V	"	"	"	"	A	KK Asm Sp	T=16°F F=517.5	L Fine
" 8-88	10018	3"	3.9	F0TV	"	"	"	"	B	KK Asm Sp	T=16°F F=519.5	U Fine Festr
" 17	10093		2.15	K0III	"	"	"	"	A	Std Vel	T=16°F F=517.5	D Fine
" 8-88	8006		5.3	F0TV	"	"	"	"	B	Std Vel	T=16°F F=519.5	S fine
" 8-88	10005		6.85	K4-5TV	"	"	"	"	B	Archive		fine
" 17	70000		5.22	B9TV	"	"	"	Ilao-E	A	Bln SB	T=14°F F=518	Festr fine
Fe-88	14346		5.3	F2TV	BC	$1200/50.7$	B.S.	Ilao-E*	B	Ly SB	T=14°F F=520 clouds in	fine
Fe-20								Ilao	B		T=14°F F=520	NO stellar discussed

67

Thurs - Fri

Date Feb 7 - 8 / 55 Observers B.T. - Tr.....

Emulsion Batches:
8^m68^o II.0.E...19103-04025
5^m68^o III.0.E...31083-12015

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
48826F	Focus Test					0 20E	+10°	Fel-	15-1
48826	HD22484	3 31.8	+0 05	18 12	18 31	0 09E	+0° 24	"	9-9
48827	HD36485	5 26.9	-0 22	18 54	21 03	0 27W	-0 16	"	6-6
48827T	Spot Calc for 48826-30				15min @ 15V	3900	4200 4810		
48828	HD37776	5 35.9	-1 32	21 15	23 56	3 13W	-1 26	Fel-	6-6
48829	HD65041	7 51.7	+43 47	00 07	03 07	4 07W	+43 36	"	6-12
48830	HD118216	13 30.3	+37 42	03 15	04 16	0 22E	+37 16	"	8-8
48831	HD138749	15 28.9	+31 42	04 20	04 44	1 52E	+31 28	"	17-17
48832	HD137909	15 23.7	+29 27	04 46	05 02	1 29E	+29 11	"	25-25
48833	HD164852	17 58.1	+20 50	05 07	06 40	2 25E	+20 52	"	17-17
48833T	Spot Calc for 48831-33				15min @ 15V	3900	4300 4810		

Spectr. Temp.

Focus... 52

Spectr. Temp.

Exp. Mtr. Se

5278

6234

1691

2296

2026

11598

Spectr. Temp. 19°F

Dome Temp./Hum. +9°F/66%

Transparency Conditions Fine - sl cloudy 68%

Focus 522

Spectr. Temp. +7°F

Dome Temp./Hum. +2°F/68%

gusty

Comparison Type/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Feb-5					BC	830/40.2	BS	IIaO-E	A			cent frs/dup
" 9-9	5005	3"	4.4	F2V	BC	830/40.2	BS	IIaO-E	A	Std Vel	PAUSE TO ALLOW ALL SNOW TO BLOW OFF DOME	fine
" 8-8	6677	3'	6.7	B2V	"	"	"	IIaO-E	B	Bln Hc-Rich		fine
								IIaO-E				
Feb-6	5278	4"	6.83	B2V	BC	830/40.2	BS	IIaO-E	A	Bln Hc-Rich	Maybe sl fogged T=+13°F F=525 RA oscillate 4" W	fine
" 6-6	6804	3-6"	6.87	B2V	"	1200/50.7	"	"	B	Ly Pgm	T=10°F F=521	sl wk
" 8-8	16901	5-2'	5.3	F2V	"	"	"	"	A	Ly SB	T=+7°F	fine
" 7-7	2978	2-3"	4.1	B7m	"	"	"	IIIaJ-E	B	Bln Bc		Fine
" 8-8	20261	"	3.93	F0p	"	"	"	"	A	KK Arm F		Fine
" 7-7	11595	3"	5.19	B3V	"	"	"	"	B	Bln SB	set 522 T=+6°F cloud	sl wk
Feb-7								IIIaJ-E				

69

Fri-Sat

Date Feb 8-9/55 Observers Bt-Tn/Tn.....

Emulsion Batches: *newer batch
5^m 68° T11aT-E 2911A - 06025

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
48834	HD 47105	6 31.9	+16 29	21 58	22 05	0 29W	+16 26	Fe/- 26-	20946
48835	HD 56986	7 14.1	+22 10	22 08	22 27	0 08W	+22 02	" 26-26	25153
48836	HD 86360	9 52.9	+12 55	22 33	00 01	0 58E	+12 33	" 13-17	2140
48837	HD 81797	9 22.7	-8 14	00 06	00 44	0 18W	-8 32	" 18-18	14700
48837	TJ Spot Caln for 48834-37			15 min @ D4		17.5V 3900	15V 4300	15V 4810	
48837	F Focus test					0 20W	-8 32	Fe/- 20-20	

Spectr. Temp. 14°FDome Temp./Hum. $7^{\circ}\text{F}/67\%$ Transparency Conditions ... *semi-d cloudy* \rightarrow 70 Focus 5.19Spectr. Temp. 12°fDome Temp./Hum. $49/67\%$ *Looked at Orion Nebula & Blw Tr
+ guest*

Comparison Type/Filter	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Feb 16	20946	2"	1.9	A0TV	BC	1200/50.7	BS	IIIa J-E	A	KK Asm Sp	cloud	Fine
" 21	25153		3.9	F0TV	"	"	"	"	B	KK Asm Sp	cloud	Fine
" 21	21650	2-3"	5.22	B9TV	"	830/40.2	"	"	A	Blw SB	<i>some cloud</i> $T=130^{\circ}\text{F}$ $F=524$	Fine
" 21	14,900	3"	2.2	K3	"	"	"	"	B	std vel	cloud	Fine
" 21								"			<i>Looked at δ Vir AB @ 01 ^{hr} after Lunar grazing</i>	
" 21					BC	830/40.2	BS	IIa O	B	$T=12^{\circ}\text{F}$ & 524	<i>placed in next night's Eplex</i>	<i>centr s/red</i>

-0425

Spectr. Temp. 19°F Dome Temp./Hum. $14^{\circ}\text{F}/64\%$ Transparency Conditions *Fine* - some cloud 72

Focus 51.7

Spectr. Temp. Dome Temp./Hum. 1

Comparison Type/Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/2025					BC	1200/50.7	B5	IIaD-E	B			Contr Red
" 848	10077	1.2"	5.01	B8	"	"	"	"	A	Gry Pgm		Fine
" 848	6195	"	7.1	B8	"	"	"	"	B	Ly. SB	T= $+19^{\circ}\text{F}$ F=519	
" 848	7674	2"	6.48	df8	"	"	"	"	A	KK Asm. Sp	some cloud	Fine
V 151 C 480								II a0-L				

73

8^m 67°

Emulsion Batches:

Ilaq. Fe 19103-06025

20 176

Date Tue-Wed. Feb. 19-20/85 Observers ... Kly. - ... /Ri...

5^m 68°

Ilaq. Fe 29114-06025

16 26'

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp
48841	HD 6582	1 ^h 01 ^m .6	+54° 26'	18 34	20 36	0511 W	+54° 52'	Fe/-	17-17
	*	5 ^h 18.8		20 44					
48842	HD 32147	4 ^h 55.1	-5 52	21 00	22 25	312 W	-5 43	Fe/-	8-8
48843	HD 47105	6 31.9	+16 29	22 31	22 39	145 W	+16 29	"	25-25
48843TI	SPOT CALN FOR PLATES 48841, 43, 44				15 MIN @ 04	0 17 50 @ 0 15 0	0 15 0	0 15 0	4010
48844	HD 56986	7 14.1	+22 10	22 45	23 20	145 W	+22 04	Fe/-	17-17
48844TI	SPOT CALN FOR PLATE 48842				15 MIN @ 04	0 14 @ 0 13 00	0 13 00	0 13 00	4010
48844FI	Focus TEST							Fe/-	20-20

* Stars in pair are now N-S not E-W!

Spectr. Temp. 32°

Dome Temp./Hum. 23°F/70%

Transparency Conditions → hazy → cloud 74

Focus 5.13.5

Spectr. Temp.

Dome Temp./Hum.

Comparison Type/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/- 7-7	19000	3-4"	5.81	G5Vp	BC	1200/50.7	BS	IIIaJ-eb ^{fg}	A	KK AsmSp		Fe slwk ✓ slwk
ABORT												
Fe/- 8-7	13000	3"	7.27	K3V	BC	1200/50.7	BS	IIa0-e	B	KK AsmSp	T=28° Set 5/6	OK, but slwk
" 15-25	20000	3"	1.9	A0IV	"	"	"	IIIaJ-eb ^{fg}	A	"	T=25° " 5/5	Fe slwk fine
② NV 4910								IIIaJ-eb ^{fg}			T=25°	
Fe/- 17-7	10890	5"	3.9	F0IV	BC	1200/50.7	BS	"	B	KK AsmSp	T=25° Clouds Set = 5/6-5	slwk
03 77 2300 600								IIa0E				
Fe/- 22-20								IIa0E	B			cent red

75

Wed-Thurs

8^m 67°

Emulsion Batches:

11a.O.E. 1910.3-.06.025

Date Feb. 20-21/85 Observers Bt-Tn.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.	Exp. Mtr.
48845	HD 23862	3 43.2	+23 50	22 37	23 00	4 58W	+24 08	Fel-	8-8-8	9012
48846	HD 65041	7 51.7	+43 47	23 06	00 17	2 07W	+43 36	"	8-8-8	8862
✓ 48847	HD 89449	10 14.3	+19 59	00 21	00 34	0 04W	+19 35	"	11-11	9405
48847T	SPOT CAL'N for 48845-50				15 min @ D4		17.5V 15V 15V	3900 4300 4510		
48848	HD 65041	7 51.7	+43 47	00 38	02 13	4 03W	+43 34	Fel-	8-8-8	8072
48849	HD 118216	13 30.3	+37 42	02 17	03 18	0 29E	+37 12	"	8-8-8	1852
48850	HD 113996	13 2.4	+28 10	03 22	03 34				8	70
48850	HD 137759	15 22.7	+59 19	03 40	04 10	1 27E	+59 03	Fel-	9-11	8400
48850 F	Focus test							Fel-	20-20	

025

Spectr. Temp. 32°F Dome Temp./Hum. $72.5^{\circ}\text{F}/60\%$? Transparency Conditions *Sl. hazy - cloudy* 76
 Focus 5.14 \rightarrow it seems humid, inside reads 95%
 Spectr. Temp. 129°F Dome Temp./Hum. $122^{\circ}\text{F}/90\%$ suddenly

Comparison Type/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fel- 8-8	9072	1.2"	5.01	B8	BC	1200/50.7	BS	IIaO-E	A	Gry Pgm	T=32°F F=514	Fast str Fine
" 8-8	8862	0.5"	6.87	B2V	"	"	"	"	B	Ly Pgm	"	Fine
" 11-"	9405	1.2"	5.3	F6IV	"	"	"	"	A	Std Vel	some cloud	Fine
V 15V 3 45/10								IIaO-E				
Fel- 8-8	8072	1"	6.87	B2V	BC	1200/50.7	BS	IIaO-E	B	Ly Pgm	RA 05:10 @ 3 ^h 50 W T=30°F F=516	slw/str Fast/str
" 8-8	8152	1"	5.3	F2IV	"	"	"	"	A	Ly Pgm	some cloud	sl/str
" 8-8	710	6.28	K5III	"	"	"	"	"	B	Archive	too much cloud for 6.3 mag star	
Fel- 11-1	8400	2"	4.45	K2III	BC	1200/50.7	BS	IIaO-E	A	Archive	cloud	Fine
Fel- 10-2								IIaO	B		Set 516 T=29	cent red
							4					

77

Wed-Thurs

Date Feb 27-28/85 Observers BT-Tn

Emulsion Batches:

8^m8^o

II 0-E 19103 -06025

5^m6^o

III 1-E 29114 -12025

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.	Exp. Mtr.
48851F1	Focus Test		PHA vs PHB			0 20W	+25 ^o	Fel-	2020	
48851F2	" "					" "	"	"	2020	
48851	HD 36512	5 27.1	-7 23	18:32	19 18	0 01W	-7 18 ^o	Fel-	11-11	8551
48852	HD 23862	3 43.2	+23 50	19 24	20 06	2 31W	+24 10	"	12-12	8673
48853	HD 47105	6 31.9	+16 29	21 31	21 37	1 15 W	+16 26	"	20-20	20140
48854	HD 65041	7 51.7	+43 47	21 53	01 06	3 24W	+43 35	"	8-8-8	6152
48853T	Spot Caln for 48853, 55-56, 58, 59.				15V @ D4	17.5V 3400	15V 4800	15V 4810		
48854T	Spot Caln for 48851-52, 54, 57.				15min @ 15V	D4 3900	D3 4300	D2 4810		
48855	HD 86360	9 52.9	+12 55	01 14	02 29	2 40W	+12 32	Fel-	13-17-1	19272
48856	HD 112028	12 48.3	+83 58	02 36	03 46	1 10 W	+83 32	"	15-15-E	19472
48857	HD 118216	13 30.3	+37 42	03 54	04 48	1 29 W	+37 16	"	12-12	16062
Observed recurrent nova RS Oph V _{mag} ≈ 8. Beautiful sight in visitors eyespec										
48858	HD 138749	15 28.9	+31 42	05 06	05 36	0 19 W	+31 28	Fel-	23-23	40426
48859	HD 164852	17 58.1	+20 50	05 42	06 28	1 18 E	+20 53	"	17-204	19733

Spectr. Temp. 52°F

Dome Temp./Hum. 21°F/69%

Transparency Conditions Fine 78

Focus ... 51.3-51.4 etc 516

Spectr. Temp. 51.7

Dome Temp./Hum. 13°F/97%

Good Aurora
Hillsview Visitors Bln 01hr

Comparison Type/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
F-50					BC	1200/50.7	BS	II ₀ O	A		Set 513 T=30.5°C	vis blue
"								II ₀ O	B		Set 513 T=30.5°F	red
Fel-1-1	8551	3"	4.36	B0V	BC	1200/50.7	BS	II ₀ O-E	A	Archive	Set 514	Fest slt fine
" 12-1	8673	4"	5.01	B8	"	"	"	II ₀ O-E	B	Gry Pgm		Fine
" 22-	70140		1.9	A0IV	"	"	"	III ₀ S-E	A	KK Asm Sp	Set 516 T=23°F	Fest slt Fine
" 2-2	6152	5"-6"	6.87	B0V	"	"	"	II ₀ O-E	B	Ly Pgm		Exp slt slt
151								III ₀ S-E				
130								II ₀ O-E				
12												
42												
Fel-134	19272	3"	5.22	B9IV	BC	830/40.2	"	III ₀ S-E	A	Bln-SB	T=19°F Set 522	GROSS! ARC DISPLACED EXPOK
" 12-5	18172	3"	5.28	B8	"	"	"	"	B	Bln-Skell	South one	Fest slt Fine
" 6-	16062	3"	5.3	F2IV	"	1200/50.7	"	II ₀ O-E	A	Ly SB	T=18°F Set 516	Fine
vis	eyepiece, but too faint; too much haze present to obtain a plate (Look: a sharp "Ha" Em type of Red)											
Fel-23-2	40426	7-3	4.10	B7III	BC	1200/50.7	BS	III ₀ S-E	B	Bln-Be	T=17°F set 514	Fest slt Fine
" 17-2	19733	3"	5.19	B3IV	"	"	"	III ₀ S-E	A	SB Bln	T=17° Fe Gap reset Set 516	Fest slt Fine sl wt

(Note: There was a big Temp gradient during exp)

79

Sat-Sun
Date Mar. 2-3, 1985..... Observers KK-TM.....

Emulsion Batches:

8^m 68° II: O-E 19103 - 22025
4 1/2 68° II: G

Plate No.	Object	R.A.		Declination		Starting Time		Ending Time		Hour Angle End	Declination	Comparison	
		1900	1980	1900	1980	E.S.T.	E.S.T.	Type/Filter	Exp.				
48860	HD 35317	05	18.8	-0	58	18:51	20 00	01 00W	-0 49	Fel-	8-8-85		1400
48860F1	Focus test							"	"	"	0-20		
48860F2	" "							"	"	"	"		
48861	θ UMa	09	¹⁹⁸⁰ 31.5	+51	¹⁹⁸⁰ 46	22 55?	23 04	00 02E	+51 48				05
48862	ζ 1321	09	¹⁹⁰⁰ 07.8	+53	¹⁹⁰⁰ 07	23 11 15	23 21	0 33W	+52 49				63
	θ UMa	09	¹⁹⁸⁰ 31.5	+51	¹⁹⁸⁰ 46	23 27 25	23 29 30		+51 44				
48863	Pr oscope, M44	08	¹⁹⁸⁰ 39.0	+20	¹⁹⁸⁰ 04	23 41	23 49	1 35W					63, 16
48864	HD 66751	07	59.9	+70	00	00 06	01 59	^{Reversed} 4 18 W	+69 46	Fel-	8-8-85		7, 700
48864T	Spot Colls for	48860,	64					^{DA} 15V 3400	^{D3} 4300	^{D2} 4800			

Spectr. Temp. 27°FDome Temp./Hum. $18^{\circ}\text{F}/67\%$ Transparency Conditions OK - ^{some} thin cloud..... 82Focus 570Spectr. Temp. 18°Dome Temp./Hum. $43^{\circ}/88\%$

Comparison Type/Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/ 15-2	20153	3-4"	5.22	B9TV	BC	830/40.2	BS	IIIaJ-E	A	B/n SB		
								IIIaJ-E				
Fe/ 8-8	6290	3-4"	6.23	A0V	BC	1200/50.7	BS	IIa0-E	B	Ly Pgm	T=25 $^{\circ}$ F Set 512	v sl. str labeled 67T
								IIa0-E				
Fe/ 8-4	17242	3-5"	5.3	F2TV	BC	1200/50.7	BS	IIa0-E	A	Ly Pgm	T=23 $^{\circ}$ F Set 516 ^{thin cloud}	OK 51T
" 8-3	40043	3"	4.10	B7nn	"	"	"	IIIaJ-E	B	B/n-B	T=22 $^{\circ}$ F Set 513	sl. stray
" 8-3	20506	3"	3.93	F0p	"	"	"	IIIaJ-E	A	KK Asm. Sp	T=20 $^{\circ}$ F Set 517	fine
			*								vsl brighter than nearby South *	
Fe/ 12-1	6718	3-4"	3.9	K2III	BC	1200/50.7	BS	IIa0-E	A	Std Vel		
" 17-1	27332	3"	5.19	B3TV	"	"	"	IIIaJ-E	B	B/n SB	T=19 $^{\circ}$ F Set 513	fine sl. str

Spectr. Temp. $+28^{\circ}\text{F}$ Dome Temp./Hum. -05°C 47%Transparency Conditions *By smaller until 8th the cloud come*

Focus

Spectr. Temp.

Dome Temp./Hum.

Comparison Type/Filter Ex	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fel-666	8000	1-2	6.83	B2I	B.C.	830/40.2	BS	Ilad-E	A	Bln-HeRen*	F=519	Fine
								Ilad-E				
Fel-666	8000	2	6.7	B2I	BC	830/40.2	B.S.	Ilad-E	B	Bln/4e Rich*	9=28°F F=519	Fe 51 str Fine
Fel-666	8000	2	6.4	B2I	"	"	"	"	A	VB-Bln	9=28°F F=519	Fine
Fel-666					"	"	"	Ilad-E	B		9=57 F=519	centered
Fel-900	8001	2-3	6.43	dFB	B.C.	1200/50.7	B.S.	Ilad-E	A	KK Tom Sp	9=27°F F=515	fine
								Ilad-E				
Fel-900	1755		6.30	Mallab Ba07	BC	1200/50.7	BS	Ilad-E	B	Archive	9=27°F F=511	slw k
Fel-900									B		9=26°F	slblue

85

Fri-Sat

Date Mar 8-9/85

Observers

Bt-Ri

Emulsion Batches:

R. area 45 min @ 68°F in D19 Ila J.E. 29114-12025
 R. area 18 min @ 68°F in D9 Ia Q.E. 19103-03035

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp	Spectr. Ter	Focus...	Spectr. Te	Exp. Mtr.
48877	HD 86360	9 52.9	+12 55	23 09	23 59	0 52W	+12 32	Fel-	17-17				20002
48877TV	SPOT CALN FOR PLATES 48877-				15 min @ 24	0 17.5V @ 15V 3900 4300 4810							
48878	HD 118216	13 30.3	+37 42	00 05	01 09	1 35E	+37 17	Fel-	9-9				20000
48878T	SPOT CALN FOR PLATES 48878-				15 min @ 15V x 15	0 04 @ 23 @ 02 3900 4300 4810							
48879	HD 119228	13 36.9	+55 11	01 15	02 14	0 36E	+54 48	Fel-	9-9-9				10002
48880	HD 137909	15 23.7	+29 27	02 19	02 34	2 02E	+29 11	"	25-2				10001
48881	HD 138749	15 28.9	+31 42	02 39	02 52	1 49E	+31 27	"	25-2				20019
48882	HD 141992	15 46.9	+21 17	02 56	04 02	0 58E	+21 04	"	9-9				10000
48883	HD 164852	17 58.1	+20 50	04 07	05 27*	1 49E	+20 54	"	18-36				30005
48884	HD 156014	17 10.1	+14 30	05 48	06 01	0 21E	+14 27	"	14-14				10014
48885	HD 146051	16 9.1	-3 26	06 05	06 16	0 54W	-3 35	"	14				10012
48885F	Focus 9 EST							Fel-	20-20				

2025
23035
.....

Spectr. Temp. Dome Temp./Hum. 0°C / 89% Transparency Conditions good 86
 Focus
 Spectr. Temp. Dome Temp./Hum. -4°C / 86%

Comparison Type/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fel-17	20002	5"	5.22	B9IV	BC	1200/50.7	B5	IIIaJ-E IIIaJef	A	B/n SB	T=40°F F=511	
Fel-9-9	20000		5.3	F2IV	B.C.	1200/50.7	B.S.	IIIaJ-E IIIaJ-E	B	Ly SB	T=39°F F=508 38mm 2 pieces	
Fel-9-1	10002	4-5"	6.30	Mellab B20.7	BC	1200/50.7	B5	IIIaJ-E	A	Archive	T=38°F F=512	Fine
" 2-2	20001	3-4"	3.93	Fop	"	"	"	IIIaJ-E	B	KK Asm Sp	T=37°F F=508	Fine
" 2-2	20019		4.10	B7nn	"	"	"	IIIaJ-E	A	B/n Be	T=36°F F=512	
" 9-1	10000		6.30	K4.5II	"	"	"	IIIaJ-E	B	Archive	T=36°F F=509	Fe vs/str Fine
" 11-1	20005	3-4"	5.19	B3IV	"	"	"	IIIaJ-E	A	B/n SB	T=35° F=512	
" 11-1	10014		4.92	M57B-II	"	"	"	IIIaJ-E	B	Archive	T=33°F F=509	Fine Res/str
" 11-1	10012		3.32	M0.5II	"	"	"	"	A	Archive	T=33°F F=513	Fine
Fel-2-2								"	B		T=" F="	cent/str

* Fe arc problem delayed final comparison until 05 42

Spectr. Temp.

Dome Temp./Hum. $+10.2^{\circ}\text{C}/57\%$ Transparency Conditions *hazy WITH SOME* 88

Focus

PASSING CLOUDS

Spectr. Temp.

Dome Temp./Hum. $-2^{\circ}\text{C}/94.9\%$

Comparison Type/Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/	9.9	10046	2-3	5.01	B8	BC	1200/50.7	BS	IIaD-E	A	Gry Pgm	T=37°F F=512	Fine
"	9.9	8040	3-4	6.87	B2V	"	"	"	"	B	Ly Pgm	T=37°F F=508	
P2	8.0								IIcD-E				
Fe/	9.9	8001		5.3	F6IV	B.C.	1200/50.7	B.S.	IIaD-E	A	Std Vel	SOME CLOUDS T=36°F F=512	
"	9.9	10002		6.28	K5III	"	"	"	"	B	Archive	SOME CLOUDS T=36°F F=509	Feslwk Fine
"	9.9	20000	2-3	5.3	F2IV	-	"	"	"	A	Ly SB	T=35.5°F F=512	
"	9.9	10000		6.39	M3III Ca-1	"	"	"	"	B	Archive	T=35°F F=509	Fine
"	9.9	10000	2-3	7.03	M0III	"	"	"	"	A	Archive	T=34°F F=513	
"	9.9	10001		6.31	K4III Ca0.5	"	"	"	"	B	Archive	T=34°F F=509	Fine
"	14	10000		4.3	M0.5III	"	"	"	"	A	Std Vel	T=33°F F=513	
"	25.6					"	"	"	"	A		"	* discarded

89

Date Sun. Mon. MAR. 10-11/35 Observers ... Kly. - R. / B. - R.

Emulsion Batches:

R. MAR 11 8min @ 68°F Jno. F. 19103 - 08035 11 180
 R. MAR 11 4min @ 68°F Jno. F. 29114 - 72025 20 275
 R. MAR 11 8min @ 68°F Jno. E. 19103 - 10035 20 160

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp
48895F	Focus TEST							Fel-	25-25
48895	HD 35410	05 19.4	-0° 59	18:45	19 20	00 53W	-00° 52'	Fel-	9-9-1
48896	HD 29316	4 32.0	+53 17	19:26	19 49	20 7W	+53 31	"	8-8-2
48896T	SPOT CALN' FOR PLATES 48895, 96, 99				15 MIN @ 15 VOLTS	3900	4300	4810	
48897	HD 47105	6 31.9	+16 25	19 53	19 56	00 16W	+16 27	Fel-	25-25
48898	HD 56986	7 14.1	+22 10	20 01	20 13	00 10E	+22 03	"	25-25
48899	HD 66751	7 59.9	+70 00	20 18	21 42	00 30W	+69 48	"	8-8-
48899T	SPOT CALN' FOR PLATES 48897-98				15 MIN @ 15 VOLTS	3900	4300	4810	
48900	HD 76644	8 52.4	+48 26	21 46	21 54	00 07E	+48 08	"	25-25
48901	HD 76095	8 49.0	+26 36	22 58	00 57	3 01W	+26 17	Fel-	8-8-
48901T	SPOT CALN' FOR PLATES 48901				15 MIN @ 15 VOLTS	3900	4300	4810	
48902	HD 137909	15 23.7	+29 27	01 04			+29 11	Fel-	25
Unable to complete exposure due to clouds									

Spectr. Temp. 41°F

Dome Temp./Hum. 104°C / 58%

Transparency Conditions Sl. hazy. thin clouds. 90.

Focus 5.11

Spectr. Temp.

Dome Temp./Hum. 102°C / 80%

Comparison Type/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/- 25-28					B.C.	1200/50.7	B.S.	IIaO-E	A		T=41°F F=511	OK
Fe/- 9-2	7000	3	5.2	KOIII	B.C.	1200/50.7	B.S.	IIaO-E	A	STDVEL	" "	
" 8-2	8000	2	^{v=} 5.36	A5n	"	"	"	IIaO-E	B	KKAsmSp	T=42°F F=507	1051wk Fine
								IIaO-E			T=42	
Fe/- 25-28	25000	2	1.9	A0IV	BC	200/56.7	BS	IIIaj-EB	A	KKAsmSp	T=42 F=511	revslwk Fine
" 8-2	5000	1-2"	3.9	F0IV	BC	"	BS	"	B	"	T=42 F=507	revslwk Fine
" 8-2	9000	1-2"	^{v=} 6.48	dF8	"	"	"	IIaO-E	A	"	" SOME CLOUDS F=511	Fine
								IIIaTeF				
" 25-28	20000	2"	3.32	A5	B.C.	1200/50.7	B.S.	"	B	KKAsmSp	T=42 F=507	revslwk Fine
Fe/- 8-2	6093	2-3-5	^{v=} 7.1	G0	BC	"	"	IIaO-E	A	"	" 511	slwk
								IIaO-E				
Fe/- 25-28		5"	3.93	Fap	BC	1200/50.7	BS	IIIaJE	B	KKAsmSp	T=45°F F=507	

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Tues-Wed

T_n Dev. 8 mi - 268° Mar 14

Emulsion Batches:

No. E. 19103-10035

Date Mar 12-13/85 Observers Bt-Ri

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
48902	HD 118216	13 30.3	+37 42	00 13	01 18	1 10 E	+37 20	Fel-	8-8-8
48902J	SPOT CALN FOR PLATES 48902-06				15 MIN @ 15 VOLTS		3900 4300 4310		
48903	HD 141477	15 44.2	+18 27	01 23	02 27	2 14 E	+18 13	Fel-	8-8-8
48904	HD 148783	16 25.4	+42 06	02 32	03 54	1 27 E	+41 57	"	8-8-8
48905	HD 149161	16 27.9	+11 42	03 58	05 32	0 06 W	+11 34	"	8-8-8
48906	HD 163917	17 53.5	-9 46	05 36	05 59	0 54 E	-9 42	"	8-8-8
48906F1	Focus test							Fel-	25-25
Focus test done Mar 14/Tn				Dome Temp +34°F					
48906F2	with shim between PH's			Yoke		0 0	-2° 0	Fel-	25-20
48906F3	"	"	"	"		"	"	"	25-20
48906F4	Normal					"	"	"	25-20
48906F5	"					"	"	"	25-20

2235

Spectr. Temp.

Dome Temp./Hum. $0^{\circ}\text{C}/84\%$

Transparency Conditions

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Focus

Spectr. Temp.

Dome Temp./Hum. $-1^{\circ}\text{C}/82\%$

Companson Type/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/- 89 2 Bio	20001	3"-4"	5.3	F2IV	BC	1200/ 50.7	BS	IIaO-E	A	Ly 5B	T=38°F F=512	Fine
								IIaO-E				
Fe/- 88	10000		5.71	MosTlab	BC	1200/ 50.7	BS	IIaO-E	B	Archive	T=37°F F=508	Fine
" 88	10001		6.56	M6III	"	"	"	"	A	Archive	T=37°F F=512	Fine
" 88	10000	3"-5"	6.33	K7III	"	"	"	"	B	Archive	T=36°F F=509	Fine
" 88	10004		3.66	KOTTI aCN-1	"	"	"	"	A	Archive	T=35°F F=512	Fine
Fe/- 25-1					"	"	"	"	A		T=35°F F=512	OK
Fe/- 25-1					BC	1200/50.7	BS	IIaO	A		T=40°F Set 510	blue
" 25-1								"	B		" "	✓ blue
" 25-1								"	A		" "	sl blue
" 25-1								"	B		" "	red

Spectr. Temp. 33°F Dome Temp./Hum. $-2^{\circ}\text{C}/60\%$ Transparency Conditions *Fine - s/d cloudy -> cloudy 94*Focus 514 Spectr. Temp. 24°F Dome Temp./Hum. $-6^{\circ}\text{C}/90\%$

Comparison Type/Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
$\text{Fe}/-8-$	1550	5"	6.9	B2V	BC	1200/50.7	BS	IIaOE	A	SB-Ly		
$\text{Fe}/-11-6$	4737	4.5"	~6	FTJab	"	"	"	"	B	Bin Ceph	31°F set 511	
D2 480								"			Extreme oscillation @ 03 35W	
$\text{Fe}/-8-8$	8445	3"	6.2	A0V	BC	1200/50.7	BS	"	A	SB-Ly	28°F set 514	
" 2020	30005	2"	5.22	B9IV	"	"	"	IIIaJ-E	B	SB Blm	26°F 512	good
" 8-6	18268	2.3"	5.3	F2IV	"	"	BS	IIaOE	A	SB Ly	Some cloud 25° 515	
" 22-2	9658	2"	4.10	B7III	"	"	"	IIIaJ-E	B	Be Blm	25°F set 512 cloud	
15V 4810								IIIaJ-E				

85

Date Sun-Mon. Mar. 17-18/88 Observers Kly - Tn. // BT - Tn

Emulsion Batches:
5^m 68° III. 9-Eb. 29014 - 22025
8^m 68° II. 0-E... 1910.3 - 10035A

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.	Exp. Mtr.
48913	HD 29316	4 32.0	+53 17	19 04	20 47	0334W	+53°30'	Fel-	20-20-2	2000
48914	MD 47105	6 31.9	+16 29	20 52	20 55	1 44W	+16 30	"	27-7	2000
48915	HD 56986	7 14.1	+22 10	21 00	21 16	1 22W	+22 06	"	30-30	2000
48915T	Spot Calc	for 48913-15			15 min @ 04	17.5V 15V 15V 3900 4300 4810				
48916	MD 66751	7 59.9	+70°0'	21 21	23 25	2 41W	+69 52	Fel-	8-8-8	6000
48916T	Spot Calc	for 48916-18,			15 min @ 15V	D4 D3 D2 3900 4300 4810				
48917	HD 95735	10 57.9	+36 38	23 32	00 04	W+		Fel-6-		
48917	HD 139862	15 35.4	+12 23	00 08	03 11	1 02 E	+12.07	Fel-	6-8-	6050
48918	HD 148349	16 22.3	-7 22	03 17	05 50	0 50W	-7.30	"	6-8-	6507
48918F	Focus					0 0	"	"	20-20	

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Mon-Tues

Date Mar. 12, 1955..... Observers Bt-Tu.....

Emulsion Batches:

8^m 68° H.40-E... 19103-10035 "A"
5^m 68° IIIA-E 29014-22025

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
48919	HD 20902	3 17.3	+49 30	19 15	19 18	3 24W	+49 53	Fel-	11-11
48920	HD 21770	3 25.5	+45 43	19 23	19 53	3 52 W	+46 04	"	6-12-
48920TV	Spot Calc for 48919	-23			15 min @ 15V	D4 3900	D3 4300 D2 4810		
48921	HD 23862	3 43.2	+23 50	20 02	20 14	3 54W	+24 07	Fel-	12-12
48922	HD 58009	10 3.7	+19 01	20 21	23 04	0 26W	+18 38	"	8-8-
48923	HD 95735	10 57.9	+36 38	23 14	00 45	1 12W	+36 08	"	6-6-
48924	HD 138749	15 28.9	+31 42	02 30	03 27	0 35E	+31 26	"	19-20-
48925	HD 137909	15 23.7	+29 27	03 34	03 44	0 13E	+29 11	"	30-30
48926	HD 164852	17 58.1	+20 50	03 49	04 43	1 38E	+20 52	"	20-20
48926TV	Spot Calc for 48924-26.				15 min @ D4	17.5V 3900	15V 4300 15V 4810		
48927	HD 167006	18 8.1	+31 23	04 47	05 38	1 03E	+31 27	Fel-	8-8-
48928	HD 161096	17 38.5	+4 37	05 42	05 47	0 25E	+4 34	Fel-	11-11

Spectr. Temp. ... 28°F Dome Temp./Hum. -5° / 55% Transparency Conditions . Fine cloudy 98 .
 Focus was colder at 0hrs
 Spectr. Temp. ... 26°F Dome Temp./Hum. -5° / 90%

Comparison Type/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	AIN=2500											
Fel- 11	12046	1"	2.27	F3TB	BC	1200/50.7	# 150μ	IIIaO-E	A	also std vel. rG Pgm	* Longest length 19=1.2m? slit optics in F514	vsl str arc str
" 6.7	12075	1"	5.71	F4TTA	"	"	"	"	A	rG Pgm	F515	vsl str arc str
								"		had to cut slice off to make fit		
Fel- 12	8494	1"	5.01	B8	BC	1200/50.7	BS	IIIaO-E	A	Gry Pgm	T=26°F F=515	fine str
" 8.8	8034	.5"	7.89	V G8TTA CNi	"	"	"	"	A	Archive	25°F "	fine
" 6.5	1654	.5"	7.60	Mb	"	830/40.2	"	"	A	KK Asm Sp	T=24°F F=520 cloud ended it.	good
" 19.5	45355	.5"	4.10	B7nn	"	1200/50.7	"	IIIaJ-E	A	Bln Be	T=25°F F=515 cloud	sl. str. fine
" 30.5	27398	.5"	3.93	F0p	"	"	"	IIIaJ-E	A	KK Asm Sp	" "	fine comp sl. etc
" 26.5	40253	.5"	5.19	B3TV	"	"	"	"	A	Bln SB	" "	
								IIIaJ-E				
Fel- 8	9512		6.62	M3TTA	BC	1200/50.7	BS	IIIaO-E	A	Archive		fine
Fel- 11	8511		3.9	K2TTA	"	"	"	"	A	std vel		

Note - These IIIaJs are too narrow. They flop in box.

99 *Tues-Wed*Date *Mar. 19-20/55* Observers *Bt-Tn*

Emulsion Batches:

8^m 68^u *II 90-E 19103 -18035*
5^m 68^u *III 91-E 29014 -22025*

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Ex
✓ 48929	HD 44131	6 15.0	-2 54	19 06	20 03	1 17 W	-2 54	Fel/-	11-1
48930	HD 65041	7 51.7	+43 47	20 09	21 55	1 30 W	+43 36	"	8-8
48930 TV	Spot Colln	* for 48929-31, 34, 36, 37			15 min @ 15V		D4 D3 D2 3900 4300 4810		
48931	HD 72359	8 27.2	+10 24	22 00	22 55	1 56 W	+10 09	Fel/-	8-8
48932	HD 86360	9 52.9	+12 55	22 59	00 15	1 51 W	+12 33	"	20-20
48933	HD 112028	12 48.3	+83 58	00 26	01 46	0 29 W	+83 32	"	20-20
48933 TV	Spot Colln	for 48932-33, 35			15 min @ 15V	17.5V 15V 15V D4 3900 4300 4810			
48934	HD 118216	13 30.3	+37 42	01 54	02 23	0 22 W	+37 12	Fel/-	8-8
48935	HD 137909	15 23.7	+29 27	02 36	02 49	1 05 E	+29 11	"	30-30
48936	HD 154143	16 58.5	+14 14	02 53	04 04	1 24 E	+14 08	"	8-8
Observed Nova Collins and planned to obtain its spectrum but threa									
48937	HD 192713	20 11.2	+23 12	04 26	05 41	3 00 E	+23 31	Fel/-	6-6

Spectr. Temp. Dome Temp./Hum. $34^{\circ}\text{F}/82\%$ Transparency Conditions *hazy* 100

Focus

Spectr. Temp. ... 35.1 Dome Temp./Hum. $130^{\circ}\text{F}/98\%$

1st plate broken 1pc saved

Comparison Type/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fel. 27025	4003	1"	5.2	gM1	BC	1200/50.7	BS	IIaO-E	A	Std Vel	$T=39^{\circ}\text{F}$ $F=512$	sl wk
" 88	8339	1"	6.87	B2V	"	"	"	"	A	Ly Pgm	"	fine
								IIaO-E				
Fel. 88	6971	1"	6.2	A0V	BC	1200/50.7	BS	IIaO-E	A	Ly Pgm	$T=38^{\circ}\text{F}$ $F=512$	fine
" 202	300358	<1"	5.22	B9IV	"	1200/50.7	"	IIIaJE	A	Bln SB		fine
" 202	35109	2"	5.28	B8	"	1200/48	"	"	A	Bln Shell		fine
								IIIaJE				
Fel. 88	16066	<1"	5.3	F2IV	BC	1200/50.7	BS	IIaO-E	A	Ly SB	$T=35^{\circ}\text{F}$ $F=513$	fine
" 202	25532	1"	3.93	F0p	"	"	"	IIIaJE	A	KK Asm Sp		fine
" 88	9625	1"	6.58	M3III	"	"	"	IIaO-E	A	Archive		fine
<i>but thinning clouds would make the exposure too, too slow.</i>												
Fel. 88	8642	2"	6.2	G3IbII	BC	830/40.2	BS	IIaO-E	A	Fe Pgm	22 Vel <i>thin</i> cloud <i>thick</i> cloud at end	fine

Spectr. Temp.

Dome Temp./Hum. $26^{\circ}\text{F}/60\%$ Transparency Conditions Fine 102

Focus

Spectr. Temp. 26°C Dome Temp./Hum. $22^{\circ}\text{F}/80\%$

Comparison Type/Filter	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe-40					BC	1200/50.7	B5	IIaJ	A		$T=30^{\circ}\text{F}$ $F=513$	v sl wtk
Fe-80	2005	3"-4"	6.41	F3V	BC	1200/50.7	B5	IIaO-E	A	Archive	oscillate & 3"40W	v sl wtk
"	3077		6.60	O6Ve	"	"	"	"	A	Archive		fine
"	3024	2"-3"	6.87	B2V	"	"	"	"	A	Ly SB	$T=30^{\circ}\text{F}$ $F=514$	v sl wtk
"	3010	2"-3"	7.20	G8V	"	"	"	"	A	KK Asm Sp	"	te sl wtk fine
								"				
Fe-14	4011	2"	8.54	V s109 +960	BC	830/40.2	B5	IIaO-E	A	Ly SB	cannot see on TV $T=27^{\circ}\text{F}$ $F=520$	few wtk sl wtk
"	8760	1"-2"	5.84	K2III	"	"	"	"	A	Archive	$T=26^{\circ}\text{F}$	few wtk fine

20035
26035

Spectr. Temp. 34°F

Dome Temp./Hum. +30°F/54%

Transparency Conditions 5/4024 104

Focus 513

Spectr. Temp.

Dome Temp./Hum. +22°F/90%

Comparison
Type/Filter Exp

Fe/- 8
02
300
Fe/- 8
n 8
" 8
" 8
" 8
Fe/- 8
Fe/- 8

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
6015	1-2"	6	F7I b	BC	1200/50.7	BS	IIaO-E	A	Bi Cop-Ly		fine
							IIaO-E				
9134	1-2"	6.9	B2IV	BC	1200/50.7	BS	IIaO-E	A	SB-Ly	T=33°F Set 513	fine
8100	"	6.2	H0V	"	"	"	IIaO-E	A	SB-Ly	T=32°F Set 514	fine
3200	"	5.2	B9IV	"	"	"	IIaJoly	A	SB-Bln.	"	fine
16720	1"	5.3	F2IV	"	"	"	IIaO-E	A	SB-Ly	T=31°F "	str & OK
4125	1"	8.5	04190	"	830/40.2	"	IIaD-E	A	SB-Ly	T=30°F Set 518	51 wt
2480	1-2"	9.5	Em	"	"	"	"	A	Novo	* no Exp meter filter T=28°F Set 519.	Wk 4 emission only

105 Fm / Sat

Date Mar 22/23 1955 Observers Ly. Tu / B. Tu

Emulsion Batches:
8^m 68^o II-O-E 19103-20025
II-O-E 29079 06035

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp	Exp. Mtr.
48951	HD39743	05 49.4	+49 01	19:31	21 21	03 09 W	+49 05	Fel-	8-88	6669
48951T	Spot Cal'n for	48951-56, 58			15 min @ 15V	3900	4300	D7 4810		
48952	HD47105	06 31.9	+16 29	21:25	21:28	02 34 W		Fel-	11-11	8110
48953	HD65041	07 51.7	+43 47	21:33	22 42	02 30 W	+43 35	Fel-	8-9-	9053
48954	HD72359	08 27.2	+10 24	22:46	23 47	3 00 W	+10 11	Fel-	8-10-	8053
48955	HD122742	13 58.6	+11 16	23 52	02 43	0 25 W	+10 56	"	8-8-	8011
48956	HD137909	15 23.7	+29 27	02 46	02 57	1 16 E	+29 12	"	12-1	8503
48957	HD159561	17 30.3	+12 38	03 02	03 17	2 31 E	-12 36	"	28-2	25836
48957T	Spot Cal'n for	48957, 47, 65,			15 min @ 17.5V	3900	2300	15V 4810		
48958	HD161096	17 38.5	+4 37	03 24	03 49	2 07 E	+4 38	Fel-	12-	7626

Spectr. Temp. ... 37°F

Dome Temp./Hum. 32°F / 50%

Transparency Conditions ... light ... 106

Focus ... 514

Spectr. Temp. ... 32°F

Dome Temp./Hum. 32°F / 55%

Do 157482

Comparison Type/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
- 383	6969	<1	6.8	G2II	BC	1200/50.7	BS	IIaDe	A	A+K-Ly	some cloud	fine
		"						IIaDe				
Fel-11-	8140	1"	1.9	A0IV	BC	1200/50.7	BS	IIaDe	A	Asm sp KK	cloud	fine
Fel-2-	9053	1"	6.9	B2U	"	"	"	"	A	SB-Ly	some cloud	fine
Fel-3-	8053	1-2	6.2	A0V	"	"	"	"	A	SB-Ly		fine
" 11-	8011	1"	6.8	G8V	"	"	"	"	A	KK Asm Sp	cloud	fine
" 12-	8503	"	3.93	F0p	"	"	"	"	A	KK Asm Sp		fine
" 28-	25836	"	2.2	A5III	"	"	"	IIaJ-E	A	KK Asm Sp		fine
15V 4810								IIaJ-E				
Fel-12-	7626	2"	3.9	K2III	"	"	"	IIaJ-E	A	Std Vel	cloud	fine

22035

Spectr. Temp. 39°F

Dome Temp./Hum. +34°/60%

Transparency Conditions hazy - cloudy 108

Focus 511.5

Spectr. Temp.

Dome Temp./Hum. +30°/60%

Comparison Type/Filter Exp.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
4330	1-2	6.8	G811	BC	1200/50.7	BS	Ilad-e	A	H+K-Ly	hazy - RA osc. l. dead	good
3974	1-3"	7.2	A2	BC	1200/50.7	BS	Ilad-e	A	SB-0/3	cloudy 0" → 01" EST 1000 after 3000 before	good
8100	2	3.9	Fop	"	"	"	"	A	Asm - KK	35°F set 513	fine

109 Mon-Tues

Date Mar. 25-26/55 Observers B.T. Tn.....

Emulsion Batches:

The O-E 19103 - 22035
 5^m 68 The J-E 29014 - 06035

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.	Exp. Mtr.
48962	HD 23862	3 43.2	+23 50	19 08	19 23	3 32W	+24 09	Fel-	8-8-8	8162
48963	HD 40535	5 54.3	-9 23	19 29	20 59	2 58W	-9 21	"	8-8-8	8019
48963	TV Spot Caln for 48962-64, 66-69					15 ^m 15U 3900	D4 D3 4300	D4 +810		
48964	HD 66751	7 59.9	+70 0	21 06	22 51	2 38W	+69 52	Fel-	8-8-8	8019
48965	HD 86360	9 52.9	+12 55	22 57	00 26	2 27W	+12 35	"	20-20-26	25166
48966	HD 103095	11 47.2	+38 26	00 31	02 26	2 32W	+37 52	"	8-8-8	8402
48967	HD 157482	17 18.5	+40 04	02 31	04 11	1 12E	+40 03	"	8-8-8	16090
48968	HD 168720	18 16.1	+21 55	04 15	05 15	1 0E	+22 02	"	12-12	9000
48969	HD 161096	17 38.5	+4 37	05 20	05 26	0 17E	+4 38	"	12-12	9613
48969	F					0 0	"		20-70	

Spectr. Temp. $+37^{\circ}\text{F}$Dome Temp./Hum. $30^{\circ}\text{F}/57\%$ Transparency Conditions *Fine... - thin, cloudy... 110.*Focus *513*.....Spectr. Temp. 30°FDome Temp./Hum. $25^{\circ}\text{F}/70\%$

Companso type/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe- 2-8-8	8162	2"	5.01	B8	BC	1200/ 507	BS	IIaO-E	A	Gry Pgm		Positiv Fine
" 8-8-8	8019	2"	6.41	F2IV	"	"	"	"	A	Archive		Fine
" 8-8-8	8019	2-3"	6.48	dF8	BC	1200/ 507	BS	IIaO-E	A	KK Asm Sp	T=35°	
" 8-8-8	35166	2-4"	5.22	B9IV	"	"	"	IIaJ-E	A	Bln SB	T=32° F=514	fine
" 8-8-8	8402	2-3"	7.20	G8VI	"	"	"	IIaO-E	A	KK Asm Sp		
" 8-8-8	16090	2"	6.22	dF8	"	"	"	"	A	Bln SB	getting hazy	fine
" 12-8-8	9000	1-2"	6.54	MIII	"	"	"	"	A	Archive	T=30°	fine
" 12-8-8	9623		3.9	K2III	"	"	"	"	A	Std Vel		
" 12-8-8					"	"	"	IIaO	A		T=30° set 514	
					KK-	Do both III aJ Exp boxes together, as one box has only 1 strip & no 4x5 from Mar 21-22 Tn <i>done</i>						

111

Tues-Wed

Date Mar 26-27, 1955 Observers Kly-Tr // BT-Tr

Emulsion Batches:

8^m 68° II 40-E 19103-220354^{1/2} m 68° II 41-E 29014 -06035

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.	Exp. Mtr.
48970	HD 47105	6 31.9	+16 29	19 ^h 11 ^m	19 14	0 37W	~	F/Wr6	25-25	26
48971	HD 66751	7 59.9	+70° 0'	19 24	20 35	00 26W	+69 48	"	6-8	8200
48970T	✓ Spot Calc for 48970, 75-79				15 min @ D4	17.5V 3900	15V 4300	15V 4810		
48972	HD 76095	8 49.0	+26 36	20 46	22 25	1 32W	+26 17	Fe/Wr6	6-8	8000
48972T	✓ Spot Calc for 48971-74				15 min @ 15V	D4 3900	D3 4300	D2 4810		
48973	HD 103095	11 47.2	+38 26	22 32	23 34	0 17E	+37 52	Fe/Wr6	6-8-E	4541
48974	HD 122742	13 58.6	+11 16	00 43	02 44	0 16E ^x	+10 54	"	8-8-8	8040
48975	HD 138749	15 28.9	+31 42	02 48	03 15	0 15E	+31 28	"	17-17-17	45158
48976	HD 164852	17 58.1	+20 50	03 19	04 35	1 25E	+20 52	"	17-17-17	35897
48977	HD 137909	15 23.7	+29 27	04 40	04 56	1 31W	+	"	25-25	25708
48978	HD 159561	17 30.3	+12 38	05 00	05 04	0 29E		"	25-25	25551
✓ 48979	HD 161096	17 38.5	+4 37	05 08	05 31	0 09E		"	25-25	9479

Spectr. Temp. 30°F Dome Temp./Hum. 0°C ... 73% Transparency Conditions 114

Focus 512

Spectr. Temp. Dome Temp./Hum. -3°C ... 73%

Comparison Type/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe- 8-8	AIN 2500 5211	3"	7	GEN	BC	1200/50.7	BS	Ilade	A	H+k-Ly	ARC PROBLEMS	
Fe- 8-8	8000	3"	6.2	AO	"	"	"	"	"	SB-Ly		
Fe- 20-2	35000		5.22	B9IV	"	"	"	Ilade	A	SB-B/n	T=34°F F=513 cloud	fine fo s/str
20-2	7473		4.10	B7III	"	"	"	Ilade	A	Be B/n		fo s/str slw
								"				
Fe- 20-2								Deo	A		T=33°F F=513	

-25035

Spectr. Temp. 34°F

Dome Temp./Hum. 73°F/92%

Transparency Conditions hazy-cloudy 116

Focus 5.3

Spectr. Temp. 33°F

Dome Temp./Hum. 74°F/100%

Comparison Type/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/100	6480	2"	5.3	F2V	BC	1200/50.7	BS	IIc0-E	A	Ly-5B	* Fe air fired manually Fe/wrb	
Fe/100	8668	2-4"	6.8	G8V	BC	1200/50.7	BS	IIc0-E	A	KK Asm Sp	* some cloud	

-06035
-25035

Spectr. Temp. 42°F

Dome Temp./Hum 39°F/64%

Transparency Conditions Fine - hazy - cloudy 118

Focus 5.11

Spectr. Temp. 40°F

Dome Temp./Hum 43°F/70%

Comparison Type/Filter, Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/2	35152	1"	5.22	BATV	BC	1200/50.7	BS	III-E	A	B/n-SB	* wr b @ done manually	Fine
Fe/2	1471	1-2"	4.60	FB	BC	1200/50.7	BS	II-E	A	KK Asm Sp.	some cloud (OK but wk)	Fe/2 wk
											KK - maybe you might "push" this one in 0	

119

Mon-Tues

Date Apr. 8-9/55... Observers B-T

Emulsion Batches:

IIIaJ-E 29014 - 22035

IIIaQ-E 19003 - 25035

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
48988	HD 47105	6 31.9	+16 29	19 20	19 24	1 38W	+16 26	Fe/2	27-27
48988T	Spot Calc'n for 48988				15 min	17.5V 15V 15V 17.5V 19 3900	15V 4300	4810	
48989	HD 39743	5 49.4	+49 01	19 29	21 42	4 37W	+49 06	Fe/2	8-8-8
Attempted to observe Supernova Nec Staples in NGC 3359									
48990	HD 103095	11 47.2	+38 26	22 09	00 18	1 18W	+37 51	Fe/2	8-8-8
48990T	Spot Calc'n for 48989-91				15 min	15V 17.5V 19 3900	15V 4300	4810	
48991	HD 122742	13 58.6	+11 16	00 25	02 36	1 26W	+10 53	Fe/2	8-8-8

-22035
25035

Spectr. Temp. ... 39°F Dome Temp./Hum 30°F/62% Transparency Conditions Fine - sl/hazy 120
 Focus 511
 Spectr. Temp. Dome Temp./Hum. 22°F/70%

Comparison
Type/Filter Exp.
Fe/2 27-
5V
480
Fe/2 88-
9
Fe/2 8-2
V2
480
Fe/2 8-6-8

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
22243	3"	1.9	AOTV	BC	1200/50.7	BS	TTaJE	A	KK Asm Sp		Fine
							TTaJ-E				
5027	3"	6.2	G8TII	BC	1200/50.7	BS	TTaJE	A	Ly Pgm.	set 511 T=36°F (maybe indoor exposure) (@ 4300cnts - chair badly placed to half occul/stop)	slwk
										(couldn't find it)	
8015	3"	7.20	G8VI	BC	1200/50.7	BS	TTaJ-E	A	Asm Sp	set 513 T=32°F	Few slwk
							TTaJ-E				
8114	3"	6.8	G8V	BC	1200/50.7	BS	TTaJ-E	A	KK Asm Sp	cloud set 514 28°F	Fine

121

Tues-wed

Emulsion Batches:

Date Apr 9-10, 1925 Observers Gry - In some kks family
(date UT)

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time	Ending Time	Hour Angle End	Declination	Comparison	
				EST.	EST.			Type/Filter	Exp.
48992	HD 80081	9 12.6	+37 14	01 20	01 28			FeNe	2-2
48993	"	"	"	01 33	01 49			"	"
48994	HD 85795	9 49.2	+50 18	02 16	03 15			"	"
48995	HD 97633	11 9.0	+15 59	03 29	03 35			"	"
48996	HD 107966	12 ⁿ 19.3	26° 39'	03 46	04 32			"	"
48997	HD 106591	12 10.5	+57 35	04 40	04 49			"	"
48998	HD 137422	15 20.9	+72 11	05 01	05 08			"	"
48999	HD 141003	15 41.6	+15 44	05 22	05 38			"	"
49000	HD 143894	15 58.0	+23 05	06 31	07 06			"	"
49001	HD 145607	16 6.7	-8 17	07 15	08 53		-8 30	"	"
49002	HD 170073	18 22.4	+58 45	09 05	09 52		+58 53	"	"
	4 Flat Flds -		90 secs	with kks gerry rig					
			120 secs						
			120 secs	(better centering of light)					

Spectr. Te

Focus ...

Spectr. T

Exp. Mtr.

2-2 Feet

11,197

25205

27782

29139

28663

30527

30370

31512

29928

28089

30132

123

Wed-Thurs

Emulsion Batches:

Date Apr 10-11, 1985 Observers ... G.F.G. - T.M.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.	Emulsion Cuts
	Dark 1min	All covered	incl slit	01 38 00	01 39 00	0 0	Vertical			
	" "			01 40 30	01 41 30					-2
	" 5 min			01 43 30	01 48 30					10
	" 15 min			01 51 00	02 06 00					21
	" 60 min			02 08 00	03 08 00					26
	Flat Flds (2 min T = -149.7, 2513 cts, had),				#1 (2 mins T = -149.6		heater to 10V, 15 mins to cure waister		3490 cts	OK
49003	HD 102647	11 43.9	+15 08	05 29	05 36		W	FeNi-	2-2	3964
49004	HD 108382	12 22.0	+27 23	05 48	05 50		+27 55	"	2-2	39473
	Flat Flds & dark (1.5 min T = -149.4 3042 cts), (1.5 min 2915 cts), (1.5 min 2817 cts)									

Spectr. Temp. Dome Temp./Hum. $+36^{\circ}\text{F}/55\%$ Transparency Conditions *cloudy clear* 124

Focus

Spectr. Temp. Dome Temp./Hum. $+34^{\circ}\text{F}/91\%$

Comparison Type/Filter Exp.	Exp. Mtr. Cnts	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
											T = -150.1 heater on	
	-2										T = -149.8 " "	
	10										T = -149.8 " "	
	21										T = -149.6 " "	
	26											
mins e 3450 Fe/Ag - 0.2	<p>K), (#2 1.5 mins T-149.6, 2552 cts) (#3 Heaters set to 5V 1.5 mins T-149.5, 2523 cts) (#4 1.5 mins 239 cts)</p>											
" 2-	31964	3"	2.73	A3V	BC	1800/42.3	250/7	2641	4200	Giy Reticon	T = -149.3°C	
	29473	3"	5.08	A3	"	"	"	"	"	"	" fog on entrance cloud window	
	(1.5 min 2804 cts)											

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Page #1

Thurs-Fri

Emulsion Batches:

Date Apr. 11-12, 1955..... Observers ..Gry. Th.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
	Focus Tests (It seems that increasing Temp requires a CCW correction) also, there seems to be fluctuations.								
	FH Flds + dark (90sec T-1458 3511cnts) (70sec T806) (90sec 2259cnts)								
49005	HD 80081	9 12.6	+37 14	20 24	20 41			FeNe/-	2-2
49006	HD 70313	8 16.2	+53 33	20 53	22 02			"	2-2
49007	HD 97633	11 9.0	+15 59	22 11	22 20			"	2-2
49008	HD 102647	11 43.9	+15 08	22 27	22 31			"	2-2
49009	HD 106591	12 10.5	+57 35	22 40	22 49			"	2-2
49010	HD 108382	12 22.0	+27 23	23 00	23 43			"	2-2
49011	HD 110411	12 36.8	+10 47	23 50	00 29	0 52W		"	2-2
49012	HD 116706	13 20.3	+24 23	00 39	01 54	W	+24 00	"	2-2
49013	HD 122408	13 56.6	+2° 02	02 01	02 27	1 29W	+1 39	"	2-2
49014	HD 137422	15 20.9	+72 11	02 35	02 42	0 27W		"	2-2
49015	HD 125162	14 12.6	+46 33	02 51	03 13			"	2-2
49015	HD 141003	15 41.6	+15 44	03 23	03 36	0 56W		"	2-2
49016	HD 156164	17 10.9	+24 57	03 43	03 50			"	2-2

Spectr. Temp. Dome Temp./Hum. ^{135.7}/_{56.7} Transparency Conditions ^{Fire} 126

Focus

Spectr. Temp. Dome Temp./Hum. /

Comparison Type/Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion Peticon Cnts	P.H.	Program	Remarks	Quality
10/1/4	rotating	CCW			BC	1800/423	250/7			T=43°F	Rotate + CW OK	
	(90secs	2255	cnts)			"	"					
Fenel-2-2	31263	3"	3.88	A3V	BC	1800/423	250/7	2449		Peticon-Gry		
h 22	28186	3"	5.51	A3V	"	"	"	2241		"		
" 27	30082	"	3.33	A2V	"	"	"	2447		"	T=146.0	
1 2	31165	"	2.23	A3V	"	"	"	2649		"		
1 2	30976	"	3.39	A3V	"	"	"	2399		"		
1 2	30047	"	5.08	A1V	"	"	"	2387		"		
1 22	30034	"	4.97	A0V	"	"	"	2475		"	T=-146	
1 22	30180	"	5.24	A3V	"	"	"	2461		"		
h 22	30083	"	4.36	A3V	"	"	"	2540		"	Topped up N ²	
h 27	31026	2'	3.10	A3V-CC	"	"	"	2415		"	T=-145.9	
1 2	30595	2'	4.26	A0p	"	"	"	2468		"		
1 22	30270	"	3.73	A2V	"	"	"	2446		"		
1 22	30174	"	3.22	A3V	"	"	"	2364		"		

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#2

Emulsion Batches:

Date Apr 11-12 cont. Observers

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
49017	HD 156729	17 14.2	+37 24	03 56	04 19	W		FeNeL	2-2
49018	HD 170296	18 23.5	-14 38	04 27	05 06			n	2-2
Flat Fields (90sec T -1463 2297 cts) (90sec 2200 cts) (90sec 2271 cts)									
Focus test Spectrograph Temp = +33°F Suggests Roll no of 51 °CW									
				APR 12	08:05	LN ₂ TOPPED	-145.1 °C		
Apr 12 - Gry dido recorded a series of Dark exps 1min → 90mins									

129

#1
Mon-Tues

Pocket Spectrograph

Emulsion Batches:

Date Apr. 15-16. 1955... Observers Bt.-Tn.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
MK 31	HD 47839	6 35.5	+9 59	19 44	19 48	2 27W	+9 58		15 sec
	HD 69267	8 11.1	+9 30	19 54	19 59	1 01W	+9 15		
	HD 70272	8 15.9	+43 31	20 03	20 10	1 06W	+		
	HD 74395	8 38.8	-6 52	20 15	20 25	1 00W			
	HD 77912	9 00.2	+38 51	20 31	20 39	0 52W	+38 32		
	HD 82210	9 25.6	+70 49	20 49	20 59	0 45W	+69 58		
MK 32	HD 90537	10 22.1	+37 13	21 08	21 19	0 09W			
	HD 92125	10 33.1	+32 30	21 23	21 34	0 14W	+32 05		
	HD 98262	11 13.1	+33 38	21 39	21 51	0 09E	+33 14		
	Spot Culin	15 min @ 15V	D3,	4300A					
	HD 102212	11 40.7	+7 05	21 59	22 29	0 06W			
MK 33	HD 102870	11 45.5	+2 20	22 54	23 05	0 31W			
	HD 109358	12 28.9	+41 54	23 10	23 23	0 08W			
	HD 111812	12 46.8	+28 05	23 29	23 40	0 08W	+27 38		
	HD 113139	12 56.4	+56 54	23 46	00 09	0 27W			

1-22035 Spectr. Temp. 55.5°F Dome Temp./Hum. 43°F/52% Transparency Conditions Good... gusty... 134...
 3-25035 Focus 507-509 Dome Temp./Hum. 28°F/52% Cloud at end

Companson Type/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
								IIIaJ	A			
24000	5"	1.9	AOTV	BC	1200/50.7	BS	IIIaJ-E	A	KK AsmSp		(discarded in) too weak, fogged, scratched etc.	vsl. strong
5000	"	6.5	dFB	"	"	"	IIaD-E	A	"	* (mid Fe) didn't move decker stopped due to pier	instead exp OK	
							IIaD-E					
2000	1.6"	5.6	F4V	BC	1200/52.7	BC	"	A	KK AsmSp		* West Limit of Hs de Set 509 T=48°F	fine
3000	3-5"	7.2	G8V	"	"	"	"	A	"		Set 510 T=45°F	fine
							IIIaJ-E					
2000	3-5"	6.8	G8V	BC	1200/50.7	BC	IIaD-E	A	KK AsmSp		Set 511.5 T=40°F	Fe sl wk Fine
0700	"	3.93	Fop	"	"	"	IIIaJ-E	"	"		" T=38°F cloud	fine

KK There are no more IIIaJ in dome. Just last 4x5, & some strip broke, so suddenly there are none. In batch started in vacuum A/17

135

TOUR 138 PLATE

Date SAT. SUN APRIL 20-21/85 Observers Kiy - Ri

Emulsion Batches:

4 1/2" 68 III-Fe 1911A-19045

Ivory-E 19103-07045

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
49025	HD 86360	9 52.9	+12° 55'	22:55	00:30	4h 13m W	+12° 33'	Fe/2	17-17
49025T	SPOT CALN FOR PLATES 49025-27				15 MIN	04	3000 4300	① 15V ② 15V ③ 15V 4810	
49026	HD 137909	15 23.7	+29 27	0037	101	0047E	+29 14'	Fe/W2	17-17
49027	HD 138749	15 28.9	+31 42	1 19	150	002E	+31 27'	"	17-17
49028	HD 144287	16 0.0	+25 30	01:58	04:41	216 W	+25° 20'	"	8-8
49028T	SPOT CALN FOR PLATE 49028				15 MIN	REVOLUT	3000 4300 4810	① 02 ② 03 ③ 02	
49028F	FOCUS TEST							Fe/W6	20-20

Spectr. Temp. Dome Temp./Hum. 79c 87% Transparency Conditions HAZY SCATTERED CLOUDS 136
 Focus Very bright, pulsating aurora
 Spectr. Temp. Dome Temp./Hum. 80c 87% streams 10° south of zenith 02:00 hrs
 SILENT HILL

Comparison Type/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe ^{1/2} A-7 3-15 68	17700	3"	5.22	B9IV	BC	1200/ 50.7	B.S.	IIIaTef	A	SB-B1K	JUST HAD FORGET TO REMOVE T= 520°F F= 509 FILE TIME	slightly weak
Fe ^{1/2} F-7	25000	3"	3.93	F0p	B.C.	1200/ 50.7	B.S.	IIIaTef	A	KK AsmSp		fine *
" 7-7	45246	3"	4.1	B7III	"	"	"	"	A	" "	T= 500°F F= 509 cloud	fine
" 8-8	440	3"	7.6	G8IV	"	"	"	IIa0-E	A	" "	cloudy	Fe 51/wk 51/wk
3 5-2 3 3-10 Fe ^{1/2} 20					B.C.	1200/ 50.7	B.S.	IIa0-E	A		T= 490°F F= 509	OK
* red comparison lines are sharp for a change - why?												

137

Sun - Mon

4 1/2" 68°

Emulsion Batches:

Kodak 29114-19045

Date Apr. 21-22/85 Observers BT-Ri

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
49029	HD 138749	15 28.9	+31 42	22:49	23:28	2 ^h 21 ^m E	+31 27	Fe/2	1717
49029T	SPOT CALN FOR PLATE 49029				15 MIN @ D4	0750 @ 150			
49029F	FOCUS TEST							Fe/WR 6	3535
	POCKET SPECT - C4CY6			23:50	03:47				

Spectr. T

Focus...

Spectr. T

Exp. Mtr.

45004

Spectr. Temp. *70°F*Dome Temp./Hum. *18°C/66%*Transparency Conditions *138*Focus *503**opened shutters at 19:30 to
air out dome 100% of first clear 88%*

Spectr. Temp.

Dome Temp./Hum.

Comparison Type/Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
<i>Fe/2 17/12</i>		<i>45004</i>		<i>4.10</i>	<i>B7m</i>	<i>BC</i>	<i>1200/ 50.7</i>	<i>B5</i>	<i>IIIaT-E</i>	<i>A</i>	<i>B/n Be</i>	<i>Highest priority * in B/n pgm</i>	<i>reslwr fine</i>
<i>Fe/6 75/28</i>						<i>B.C.</i>	<i>1200/ 50.7</i>	<i>B.5</i>	<i>IIIaT-E</i>	<i>A</i>		<i>T=70°F F=503 conts/dve</i>	
												<i>CLOUDED 12</i>	

141

Date ~~Tue - Wed~~ April 23-24/85 Observers .. Bt - RiEmulsion Batches:
4³/4 70° ~~III~~ Fe 29.114-19.045

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
	POCKET SPECTROGRAPH			19:55	22:00				
49030	HD138749	15 28.9	+31 42	22:09	01:08	00 ^h 34 ^m E	+31°26'	Fe/2 ^{w/6}	17-17-17
49030T	SPOT CALIB FOR PLATE 49030			15 MIN @ 17:50	3900	15V	15V		
49030F	Focus TEST					4300	4010	Fe/w/6	35-35
	POCKET SPECTROGRAPH			01:41	02:40				

Spectr. Te

Focus ...

Spectr. Te

Exp. Mtr.

30,000

Spectr. Temp. ... 66°F

Dome Temp./Hum. ... 16°C ... 80%

Transparency Conditions *dry* ... WITH SOME CLOUDS ... 142

Focus ... 504

VERY POOR SEEING

Spectr. Temp.

Dome Temp./Hum. ... 12°C ... 75%

Comparison
Type/Filter Exp

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
5/2/77-17-17	SEEING GROSS	4.10	B7mm	B.C.	1200/50.7	B.S.	Ilartef	A	Bln Be	Highest priority in Bln pgm CLOUDS fine For 1/2 hr	
5/2/76-35-#				B.C.	1200/50.7	B.S.	Ilartef	A		T=60°F F=504 center blue	
										CLOUDS IN	

Spectr. Temp. 64°F Dome Temp./Hum. $62^{\circ}\text{F}/83\%$ Transparency Conditions *fine - cloudy* 144

Focus 505.5

Spectr. Temp. 60.5°F Dome Temp./Hum. $55^{\circ}\text{F}/88\%$

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe ^{#2} 20-20-20 15V 480	35060	1"	5.2	B912	1 BC	1200/507	BS	IIIa S-E	A	SB-Blu	fine
							IIIa S-L				
Fe ^{#2} 9-9-9	5300	1-3"	7.1	A2	BC	1200/507	BS	IIIa Dc	A	SB-Ly	grainy \Rightarrow Thickly so st. weak grainy st. flexure

07045
25045

Spectr. Temp. 55°F
Focus 507
Spectr. Temp.

Dome Temp./Hum. $+48^{\circ}\text{F}/80\%$
Dome Temp./Hum. $+38^{\circ}\text{F}/98\%$

Transparency Conditions $\text{clear by } 20^{\circ}$ 145
first plate scrubbed. still capped

Comparison
Type/Filter Exp

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
2730D	5-8"	5.22	B9IV	BC	1200/50.7	BS	IIIa Jcfy IIIa Jcfy	A	SB-Blu		Rayne faint
45266	5-8"	4.1	B7nn	BC	1200/50.7	BS	IIIa Jcfy	A	B0-Blu	T=50°F set 509	Fest w/k Exp Fine
11300	"	6.2	F8+G8	"	"	"	IIa De Ia De	A	Sp Blu - Blu	T=48°F set 509	fine
7050	4-6	6.2	G3Ib	BC	1200/50.7	BS	IIa De	A	EB-Ly	T=43°F set 511	fine

147

Sun-Plan

Date Apr. 28/29... 1985 Observers Kly.-Tn. / Hly.-Tn.

Emulsion Batches:

5^m68^o III.S.-efg. 29114-25045

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
49037	Polaris A HD 8890A	1 22.6	+88 46	20 10	20 17	08 30 W	+89 11	Fel-	27-27
49037T	Spot Calc for		49037						
	Pocket Spectrograph of Polaris region								
	Note - We can only use PS from 12 hrs East "Unreversed" to ~ 8 hrs E.								
	+88 142	¹⁹⁸⁵ 23 53	¹⁹⁸⁵ +89 22	21 55	00 30	9 30 E	+89 23		
	+88 2	00 33.8	+89 22	00 33	02 21	E	+89 21		
	+88 9	03 23.2	+89 03	02 28	03 21	E	+89 02		
	+88 11	03 06.3	+88 37	03 28	04 27	8 37 E	+88 36		

149

Mon-Tues

Emulsion Batches:
4^m 69° 098-E

-25045

Date Apr. 29/30/45. Observers Bt.-Tn.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp
MK 36	HD 108849	12 25.3	+4 58	02 55	01 04	2 48 W	+		
-	HD 18217 ⁹	19 21.9	+50 02	01 40	02 45	2 24 E	+50 16		
49038	HD 18217 ⁹	19 21.9	+50 02	03 05	03 55	1 14 E	+50 18	Fel- 12-12 Nel- 12-12	35 K No filter 46903
49038 TV	Spot Calc for		49038-39		15 min @	150,03 9810	7VDI H	7VDI 5950	
49039	HD 18217 ⁹	19 21.9	+50 02	04 01	04 30	0 39 E		Fel- 12-12 Nel- 12-12	11662
49039F	Focus test					"	"	Fel- 25-25 Nel- 25-25	

-25045

Spectr. Temp.

Dome Temp./Hum. ^{58°F} / 53%

Transparency Conditions *hazy → Fine* 148

Focus

*Much difficulty starting due to unsolved
finders thought problems were worse @
wasted time*

Spectr. Temp.

Dome Temp./Hum. ^{50°F} / 60%

Comparison
Type/Filter Ex

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
		✓ 833	MTA	Packet			11a0			OK vs T...	
		218	MP	"			"		CH Cyg		
25 K no filter											
Fe-2 10903	1" ✓	8	mb	BC	1200/41.5	BS	098-E	A	Obs CH Cyg	Set 508 T=54°F	fine comp sl/str
7V11 5-50							"				
Fe1-2 21262	1-2"	"	"	"	"	BS	098-E	A	Obs		comp sl/str good w/pt for emission
Fe1-2 21262				"	"	"	098-E	A		Set 508 T=52.5°F	comp sl/str v sl blue

Spectr. Temp. Dome Temp./Hum. *54°F / 50%* Transparency Conditions *Semi cloudy* *154*

Focus

Spectr. Temp. Dome Temp./Hum. *142°C / 60%*

Comparison Type/Filter Etc.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
			450	G800g	<i>pocket spectrograph</i>			IIcD				
			214	K000b				"				
			531	G200b				"				
<i>very bright object</i>			$\frac{V2}{8}$	Mb	<i>pocket</i>			IIcD		CHcyg		

155

Fri-Sat

Date

May 3-4/85

Observers

Bt-Tn/Ly Tn

Emulsion Batches:

4 1/2 18° III 9J-c fg. 29114 -07055

8 1/2 69° II 40-E 19103 -07045

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.	Exp. Mtr. 25K gain
49040	HD 86360	9 52.9	+12 55	21:00	22:54	3 27W	+12 38	Fe/2	20-40	35097
49040T	Spot Caln	for 49040-42			15 min @ DA		17.5V 15V 3900 4300	15V 4810		
49041	HD 138749	15 28.9	+31 42	23:01	23:34	1 27E	+31 28	Fe/2	20-20-20	45111
49042	HD ^{11 20 14} 142028	12 48.3	+83 58	23:44	01:58	8 41W	+83 27	"	20-20-20	36900
49043	HD 182917	19 21.9	+50 02	02 11	04:19	0 34E	+50 18	"	8-8-8	2100
49043T	Spot Caln for 49043				15 min @		DA D2 15V 3900 4300	D2 4810		

-02655
-07045

Spectr. Temp. ... 56°F Dome Temp./Hum. /45% Transparency Conditions *Fine* 150
 Focus ... 508
 Spectr. Temp. ... 50 Dome Temp./Hum. ... 40% /50%

Comparison Type/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	25 K gain											
Fel/20.0 151 480	35097	2"	5.22	B9IV	BC	1200 1200/50.7	B5	IIIa Jefg	A	5B Bln		same tilt as 41 fine
Fel/2 20.0	45111	2'3"	4.10	B7III	BC	1200 1200/50.7	B5	IIIa Jefg	A	Be Bln	Exp OK	SI wrong tilt
" 20.0	36900	3"	5.28	B8	"	1200/48	"	"	A	wrong one still photo	reversed	fine
" 8-8	2100	2"	8.4	M6	"	1200/50.7	"	IIa De	A	Obs. Pam.	T=51° broken 2 pps	blue Em
D2 4810								IIa De				

-25045

Spectr. Temp. 54.7.....

Dome Temp./Hum. 40.7/80.7.....

Transparency Conditions semi cloudy..... 158

Focus 508.....

Spectr. Temp. 4.7.....

Dome Temp./Hum. 47/.....

Comparison
Type/Filter Exp

Fe/ - 10-1
N/ - 10-1
7v D
5-50
Fe/ - 10-0
No - 10-2

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
36200	5" \approx 7	M6	BC	1200/41	BS	098	A	Obs ^{CHGS}	50°F. set 508		good
						098					
585	5" \approx 9	Em	BC	1200/41	BS	"	A	Nov 1984 ^{Vol #2}	50°F. set 509	Fld drawn in Fld. book	only it's
										should change tilt to 40.5	

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Date WED THURS MAY 8-9/85 Observers Lx - Ri

Emulsion Batches:

F140-E 19103-04055
Intel 29114-02055

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.	Exp. Mtr.
49046F	Focus TEST					2 ^h 10 ^m W	+10	Fe/2	20-20	
49046	HD 72359	8 27.2	+10 24	20 03	20 55	3 14 W	+10 13	"	8-8-8	6000
49047	HD 86360	9 52.9	+12 55	21 00	22 24	3 16 W	+12 37	"	20-20-2	32000
49047TI	SPOT CAL FOR PLATE 49046			15 MIN @ 1500A		0 24 @ 0 23 @ 0 22 3900 4300 4810				
49048	HD 138749	15 28.9	+31 42	22 29	22 58	01 44 E	+31 30	Fe/2	20-20-2	40225
49048TI	SPOT CAL FOR PLATES 49047-			15 MIN @ 1500A		0 24 @ 0 23 @ 0 22 3900 4300 4810				
49049	HD 136202	15 14.2	+2 09	23 02	23 25	01 04 E	+1 55	Fe/2	8-8-8	547
49050	HD 8890	01 22.6	+88 46	23 37	23 47	12 08 E	+89 15	Fe/2	30-30	32260
49051	HD 182917	19 21.9	+50 02	23 58	03:28	01 05 E	+50 16	Fe/2	8-8-8	5515
49052	HD 178574	19 4.0	+1 12	03 36	04:20	00 02 W	+1 24	Fe/2	8-8-	1000
49052F	FOCUS TEST					00 02 W	+1 24	Fe/2	20-20	

Spectr. Temp. 52°F Dome Temp./Hum. $46^{\circ}\text{F}/46\%$ Transparency Conditions *hazy* 160
+ some curv. *early in long exp.*Focus 508

Spectr. Temp.

Dome Temp./Hum. $+54^{\circ}\text{C}/52\%$

Companson Type/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/2 20-25					B.C.	1200/50.7	B.S.	IIaD	A		52°F SET 508	OK
" 8-8	6000	3-4	6.2	A0m	"	"	"	IIaD-E	A	SB-Ly		OK
" 20-25	32000	"	5.2	B9IV	"	"	"	IIIaJef IIaD-E	A	SB-Blu.	51°F SET 508	OK
Fe/2 20-25	40225	3	4.1	B7m	BC	1200/50.7	BS	IIIaJef IIaJef	A	Be-Blu.	50°F SET 508	OK
Fe/2 8-8	6047	3	5.6	F8IV	BC	1200/50.7	BS	IIaDe	A	Std Vel.	48°F SET 509	Fe str fine
Fe/2 30-35	32260	3	2		"	"	"	IIIaJef	A	Asm-KIC		
Fe/2 8-8	2515	"	~8.5	M6	"	"	"	IIaDe	A	Okepsan.	47°F (CHCYG)	OK
Fe/2 8-8	1000	2-3	7.9	FS	"	"	"	IIaDe IIaD	A	ly bym.	45°F SET 510	w/ center sl Red
Fe/2 20-25											45°F SET 510	

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1985

8^h 6^m

Emulsion Batches:

III-E 19103-04055.....

III-F 29114-02055.....

Date May 10-11, Fri-Sat... Observers Kly - Ri.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
49053	VESTA	1985, May 13 45.1	11, 0 ^h UT +1° 39'	21:42	23:35	00 49 W	+01° 46'	Fe/2	8-8-83
49054	HD 8890A	1 22.6	+88 46	23:45	23:54	11 39 E	+89° 16'	"	30-30
49055	HD 122742	13 58.6	+11 16	00:02	02:20	34 15 W	+10° 57'	"	8-8-83
49055 ₁	SPOT CAL FOR PLATES 49054			15 MIN	17.5V 3900	15V 4300	15V 4810		
49055 ₂	SPOT CAL FOR PLATES 49053			15 MIN	15 VOLTS 3900	15 VOLTS 4300	15 VOLTS 4810		
49056	HD 138749	15 28.9	+31 42	2:26	03:03	24 30 W	+31 30	Fe/2	20-20
49057	HD 137909	15 23.7	+29° 27'	03:08	4 01	3 31 W	+29° 17'	Fe/2	20-20
49057F	FOCUS TEST					"	"	"	20-20

Spectr. Tem

Focus.....

Spectr. Tem

Exp. Mr.

6000

20891

6040

4507

506

Spectr. Temp. Dome Temp./Hum. ... 19°C ... 56% Transparency Conditions hazy / scattered clouds ¹⁶⁴

Focus Dome Temp./Hum. ... 16°C ... 75% complete cloud

Spectr. Temp. Dome Temp./Hum. ... 16°C ... 75%

Comparison Type/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/2 8-9-4	6000	4"	6.5	G0V	BC	1200/ 50°7	BS	IIa0E	A	STDVEL	Cloud T=72°F SEP 503	good
" 8-30	20891	4"	2	F	"	"	"	IIIa1ef	A	KKHsmSp	T=70°F " 503	fin
" 1-6-4	6040	3"	6.8	G8V	"	"	"	IIa0-E	A	"	some cloud	good
								IIIa1ef				
								IIa0-E				
Fe/2 23-10	45017	3	4.1	B7nn	BC	1200/ 50°7	BS	IIIa1ef	A	Be-Bln	T=68°F SEP 504	fine
Fe/2 20-	5306	?"	3.93	F0T	BC	1200/ 50°7	B.S.	IIIa1ef	A	kh Asm Sp	^{CLOUDED} T=67°F SEP 504	wk
" 7-10								IIa0	A		T=66°F SEP 504	not blue sh
											CLOUDED IN	
											centre v sl blue	Th

Spectr. Temp. Dome Temp./Hum. ... 20°C ... 83% Transparency Conditions ... HAZY 168

Focus — Cirrus .

Spectr. Temp. Dome Temp./Hum.

Comparison Type/Filter Exp	Exp. Mir.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/W26 20-25					B.C.	1200/50.7	B.S.	IIAD	A		T=72°F SET 503	OK
Fe/W26 20-25	11820	4.5	5.22	B9	B.C.	1200/50.7	B.S.	IIAD	A	SB-Bln	Cirrus	wk
Fe/W26 20-25	25000	3	3.9	Fop	"	"	"	"	A	Asm-KK	T=68°F set 504	fine
Fe/W26 20-25	25055		~2	F	"	"	"	"	A	Asm-KK		fine
Fe/W26 3-8	2241			Fe IV	"	"	"	"	A	std vol	T=67°F cloud.	weak

Spectr. Temp. 72°FDome Temp./Hum. 18°C ... 72% Transparency Conditions *good with cirrus*..... 170Focus *503*.....*MOVING AT 1000*Spectr. Temp. 60°FDome Temp./Hum. 13°C ... 88%

Companion Type/Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/wr6 15-6	32121	4.5	5.2	B9IV	BC	1200/50.7	BS	IIIaJef	A	SB-Blu	T=72°F set 503 aborted too slow	fine
Fe/wr6 15-6	200			M	"	"	"	IIaOc	A	Obs Pgm.	T=67°F set 505	blank
Fe/wr6 16-6	16005		6.2	df8+G	"	"	"	"	A	SB3-Ly		fine
Fe/wr6 20-6	21580		2	F	"	"	"	IIIaJef	A	Asm-KIC	T=62°F set 501	fine
Fe/wr6 16-6	7861	4.5	6.2	G3Ib	"	"	"	IbIc	A	EB-Ly	CIRROS CLOUDS BROKEN 4 PAGES T=60°F	mostly blurred
lodged at RX Boo est 900 counts in 3 hours.												

171

Date Tues. Wed. 14-15 May 85 Observers Ly - R.

Emulsion Batches:

Plate 29114-02055Plate 29611-10055Door 19103-04055

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.	Exp. Mtr.
49067	HD138749	15 28.9	+3 1 42	20:42	22:29	01 ^h 50 ^m E	+31°30'	Fe/ WR6	15-15-1	45013
49067T	✓ SPOT CAL FOR PLATES 49062, 63, 67-69				15 MIN @ 4	3900	4300	4810		
49068	HD164852	17 58.1	+20 50	22:38	00:59	01 ^h 48 ^m E	+20°56'	Fe/ WR6	15-15-1	35004
49069	HD8890	01 22.6	+88 46	01:10	01:18	09 ^h 58 ^m E	+89°15'	Fe/ WR6	25-25	25232
49040	HD178574	19 4.0	+ 1 12	01:29	03:18	00 36 E	+01°26'	Fe/ WR6	6-6	1019
	Focus					00 00	+01 26		25-25	

Spectr. Temp. 64°F Dome Temp./Hum. 13°C 96% Transparency Conditions *cirrus around* 172
*all night*Focus 505 Spectr. Temp. 54°F Dome Temp./Hum. 10°C 99%

Comparison Type/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/wk 15-5	45013	8"	4.1	B7nn	Bc	1200/50.7	B5	IIIa Jfg	A	Bc - Bl.	T=66°F SET 505	fine
Fe/wk 15-5	55004	4-5	5.2	B3IV	Bc	1200/50.7	B5	IIIa Jfg	A	B3 - Bl.	T=61°F set 506	fine nice dbl
Fe/wk 25-2	25232		2	F	"	"	"	"	A	Asm - KK	T=56°F set 507	fine
Fe/wk 6-6	1019	3-4	7.9	F5	"	"	"	Ude	A	Ly Pgm.	cloud T=54°F - 507	weak

175

Sat-Sun

Date MAY. 18-19 1955..... Observers B.T.-Tn.....

Emulsion Batches:

. D.J. e. f. g. 261A -10055
 . D.O. E. 19103 -04035

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
	Pocket Spectrograph - 20:15 - 00:35								
49071	HD138749	15 28.9	+31 42	00 55	01 36	1 38 W	+31 31	Fe/W	15-15-15
49071 T	Spot Cal'n for 49071				15 min @ D4	17.5V 3900	15V 4300	15V 4810	
49072	HD5890	1 22.6	+88 46	01 54	02 08	8 55 E		Fe/W	22-22
49073	HD162917	19 21.9	+50 02	02 26	03 16	0 36 E	+50 15	"	8-12
49073 T	Spot Cal'n for 49073				15 min @ 15V	D4 3900	D3 4300	D2 4810	

-10055
-04035

Spectr. Temp. $+46.0^{\circ}\text{F}$ Dome Temp./Hum. $+47^{\circ}\text{F}/62.7\%$ Transparency Conditions *mostly clear* 176
 Focus 510
 Spectr. Temp. Dome Temp./Hum. $+38^{\circ}\text{F}/96.6$

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
40895	2-3" 4.10	B7mm		BC	1200/50.7	B5 IIIa Jefg	A		Bln Be	Light cloud	sl str.
						IIIa Jefg					✓
29528	3-5"	2	F	BC	1200/50.7	B5 IIIa Jefg	A		KK Asm (Obs)		vs sl str
265	"	2/8.4	M/b	"	"	"	IIIa DE	A	Obs Pgm	Thru cloud - too thick	vv wk Some Em
						IIIa DE					
										Las's have high background	

04055

Spectr. Temp. ... +61°F

Dome Temp./Hum. ... 60.5 / 70%

Transparency Conditions ... hazy + cloud ... 178

Focus ... set 506

Spectr. Temp.

Dome Temp./Hum. ... 61.9 / 83%

Comparison
Type/Filter Exp

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
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brighter

Fe/2888

5428	3'-5"	6.8	G8V	BC	1200/ 50.8	BS IIa0-E	A	KKAsmSp	some cloud	placed in previous night's Exp Box	good
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179

Mon-Tues

Date May 20-21/85 Observers B-T

Emulsion Batches:

5^m 68° Kodak 2614-100558^m 68° Kodak 19103-04055

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
49075	HD 8890	1 22.6	+88 46	23: 31	23: 43	11 11 E	+89° 16	Fe/2	22-22
49076	HD 182917	19 21.9	+50 02	23: 54	03 57	0 11 W	+50° 18	"	8-8-

Spectr. Tem

Focus 54

Spectr. Ter

Exp. Mtr.

2473

1672

-10055

Spectr. Temp. *76.0°F*.....

Dome Temp./Hum. *75.2°F/70%*

Transparency Conditions *part cloudy*..... *182*

Focus *50.7*.....

1st use of new mirror

Spectr. Temp. *75.8°F*.....

Dome Temp./Hum. *75.1°F/80%*

Comparison Type/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
<i>Fe/2 1585</i>	<i>40257</i>	<i>3"</i>	<i>4.1</i>	<i>B7m</i>	<i>BC</i>	<i>1200/50.7</i>	<i>BS</i>	<i>IIIaJefg</i>	<i>A</i>	<i>Be-B1₄</i>		<i>fine</i>
<i>Fe/2 1585</i>	<i>32173</i>	<i>3-1"</i>	<i>5.2</i>	<i>B3IV</i>	<i>BC</i>	<i>1200/</i>	<i>BS</i>	<i>IIIaJefg</i>	<i>A</i>	<i>S B3-B1₄</i>	<i>some cloud</i>	<i>vsl EWK</i>

3 43

*11 42
13 12*

183

Thurs-Fri

Pocket work

Emulsion Batches:

Ilco-F 19103 -04055

Date May 23-24/85... Observers Bt-Tn.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
	Pocket	20:26	→	01:34					
49079	HD190390	19 59.6	-11 53	01 52	03 56	0 17 4	-11 31	Fe/2	444
49079 ^T	Spot C ₄ for 49079				15 min @ 15V	D4 3900	D3 9300	D2 4810	

Spectr. T

Focus

Spectr. T

Exp. Mtr.

25K

6074

-04055

Spectr. Temp. $62^{\circ}F$

Dome Temp./Hum. $62^{\circ}F/52\%$

Transparency Conditions *Fine*..... 184.1

Focus 507

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

Dome Temp./Hum. $57^{\circ}F/67\%$

Comparison
Type/Filter Exp.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
25 K											
K/2 44-074	$3''6''$	6.86	F1111	BC	$1200/50.7$	150μ	IIaO-E A IIaO-E		G/Fe Pgm	* Longest slit Length All slit optics in ↓	Fes/str slut ✓
										Note (Comp should be $\approx 1/3$ of slicer comp)	
										Try 3-3-3	

185

Fri - Sat

Date May 24-25, 1985 Observers Lgt. - Tn. - Klg.

Emulsion Batches:

IIIaJ-eg. 26114 -10055

IIc00 19103 -14055

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.	Exp. Mtr.
49080	HD 86360	9 52.9	+12 55	20 29	21 29	323 W	+12 36	Fe/2	12-16	30-70
49080 TV	Spot Col'n for	49080	-81,84-85	15 min @ D4	3900	4300	4810			
49081	HD 137909	15 23.7	+29 27	21 33	21 48	145 E	+29 18	Fe/2	22-22	54-70
49082	HD 122742	13 58.6	+11 16	21 53	23 00	0050 W	+10 57	"	8-8	5950
49082 TV	Spot Col'n for	49082	-83,86-88	15 min @ D4	15V 3900	D3 4300	D2 4810			
49083	HD 140538	15 39.1	+2 50	23 08	0053*	003 W	+2 39	Fe/2	8-8	62-74
49084	HD 159561	17 30.3	+12 38	0056*	0001	0140 E	+12 41	"	22-	8580
49085	HD 8890A	1 22.6	+88 46	0007	0015	1034 E	+89 18	"	22-	542
49086	HD 165908	18 03.2	+30 33	0020	0047	127 E	+30 39	"	88	12
?49087	HD 161391	17 38.5	+4 37	00 50	00 57	0054 E	+4 40	"	12-12	73
49088	HD 144287	16 0.0	+25 30	01 05	03 43	332 W	+25 23	"	88-8	050
49088 F	Focus test					00	"	"	20-20	
* Mr Lgt must have meant 23h instead of 00h or else we went thru a time warp!										
Tn										

Spectr. Temp. ... +72°F

Dome Temp./Hum. 66°F/50%

Transparency Conditions OK - sl/daily 186

Focus ... 5.04

Spectr. Temp. +63°F

Dome Temp./Hum. 60°F/70%

Companson Type/Filter Exp	Exp. Mir.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Feb 2 12V	30070	1-2"	5.2	69 IV	BC	1200/50.7	BS	IIaJ-efg IIaJ-efg	A	SB-Bln	* NO Features on any plates due to misplaced filter wheel pos.	fine
Feb 2 12V	24921	2"	3.93	Fop	BC	1200/50.7	BS	IIaJ-efg	A	Asm Sp KK		fine
"	5950	1"	6.8	68 V	"	"	"	IIaO-e IIaO-e	A	"		slwk ✓
Feb 2 12V	6334	1-2"	6.55	d65	BC	1200/50.7	BS	IIaO-e	A	Asm Sp KK	broken 2 pcs	slwk
"	25800	"	2.2	A5 III	"	"	"	IIIaJ-efg	A	"		fine
"	5468	2-3"	2	F	"	"	"	"	A	"		sl/str
"	412	2"	5.5	FIV	"	"	"	IIaO-e	A	"	some cloud	v slwk
"	7134	2"	3.9	K2 III	"	"	"	"	A	std vel		fine
"	7050	2"	7.6	68 V	"	"	"	"	A	KK Asm Sp	T=66°F Set 505.5	slwk
"					"	"	"	IIaO	A	Set 505.5	Cloud at end	
										T=63°F		blank discarded

Spectr. Temp. +63.0°F Dome Temp./Hum. +60°/63% Transparency Conditions *Fine* 188

Focus ... 505.5

Spectr. Temp. +53.0°F Dome Temp./Hum. +47°/76%

Comparison Type/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/2 26-28	X25 Kgain				BC	1200/50.7	BS	IIaO	A			OK
Fe/2 8-8	8032	3"	5.29	F2V	BC	1200/50.7	BS	IIaO-E	A	Archive		fine
Fe/2 88	6521	2-3'	7.39	M5III	"	"	"	IIaO-E	A	Archive	are doubled in blue	slatua
								IIaO-E				
Fe/2 3-3	6297	10-4"	6.86	F1III	BC	1200/50.7	150μ	IIaO-E	A	G/Fe Pgm	* Comp. sl 3 sec set 509 T=54°F	good, sl. unconv
" 10-1					"	"	"	IIaO	A		set 509 T=53°F	ok
" 15-1					"	"	"	IIaO	B		"	sl red

189

Emulsion Batches:

Date May 29-30/85 Observers Lot - Ri - KK

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
49092	MOON			22:18					
	MOON					1 ^h 53 W			
	HD 123782	14 04.6	+49° 56	22:38	23:33	1 ^h 42 W	+49° 50	Fe/Ne ^{WR 66+DP10} 1/SEC	60599
	HD 158633	17 25.3	+67° 24	23:53	00:24	0 ^h 48 E	+67° 23	Fe/Ne ^{WR 66+DP10} 1/SEC	6000
	HD 201091	21 02.4	+38° 15	00:40	00:58	3 ^h 55 E	+38° 44	" "	6001
	HD 201091	21 02.4	+38° 15	01:04	01:25	3 ^h 28 E	+38° 44	" "	3660
	FLAT FIELD 10 SEC								
	FLAT FIELD 8 SEC								
	FLAT FIELD 7 SEC								
	FLAT FIELD 7 SEC								
	DARK 60 MIN.			01:50	02:50				
	DARK 60 MIN.			02:53	03:53				

193

Emulsion Batches:

Date May 30-31/85 Observers Lt - Ri

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
	FLAT FIELD (9 sec)								
	DARK (15 min.)			23:57	00:12				
	DARK (1 min.)			00:15	00:16				
	DARK (1 min.)			00:15	00:16				
	FOCUS TEST (4 sec)								
	HD 159561	17 ^h 30.3	+12° 38'	00:33	00:37	0 ^h 40E	+12° 39	Fe _{Ne} WR 66-top 10	/sec 10016
	"	"	"	00:41 ⁰⁰	00:41 43	0 ^h 37E	+12° 39	"	" 1024
	FLAT FIELD (15 sec)								
	FLAT FIELD (15 sec)								
	FLAT FIELD (15 sec)								
	FLAT FIELD (15 sec)								
	HD 201091	21 02.4	+38° 15	01:06.5	01:54	2 ^h 55E	+38 45	"	" 25 395
	DARK (50 min)			02:02.5	02:52.				
	DARK (50 min)			02:55	03:45				

Spectr. Temp. Dome Temp./Hum. Transparency Conditions 194.....

Focus

Spectr. Temp. Dome Temp./Hum.

Comparison
Type/Filter Exp.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				RETICON							1916
				"							24
				"							1
				"	1200/42.5	250/5					
HA				"							
10016	3"	B=2.2	A5III	"	"	"			Asm-Sp/KK		2477
1024	3"	"	"	"	"	"			"		258
											2046
											2067
											2137
											2119
25 395	3"	V=5.19	K5V	"	1200/50.6	250/5			Asm-Sp/KK	-stopped - clouds + lightning	1507
				"							316
				"							14

197 Mon-Tues

Date June 3-4/85 Observers B+Ri

Emulsion Batches:

7^m 69°

IIa.O.E. 19103-26055

5^m 68°

IIIa.J. 26114-10055

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp
49095F	Focus Test							Fe/2	25-25
49095	HD 86360	9 52.9	+12 55	20:30	21:31	4 06W	+12 34	Fe/2	20-20 8003
49096	HD 138749	15 28.9	+31 42	21:36	22:17	0 43E	+31 31	"	20-20 7003
49097	HD 148783	16 25.4	+42 06	22:21	23 58	0 03W	+41 58	"	8-8 8000
49097T	SPOT CAL FOR PLATES 49095+96				15 MIN @ 17.5V 3900				
49098	HD 182917	19 21.9	+50 02	00 06	02 11	0 40E	+50° 16'	Fe/2	8-8 896
49098T	SPOT CAL FOR PLATES 49097+98				15 MIN @ 15V @ 15V @ 15V 3900 4300 4810				
49099	HD 186155	19 37.8	+45 17	02 17	02 50	0 17E	+45 34	Fe/2	8-8 8002
49100	HD 188947	19 52.5	+34 49	02 53	03 16	0 06W	+35 08	"	8-8 8000
49101	HD 182572	19 20.2	+11 44	03 23	03 53	1 01W	+12 03	"	8-8 6000
49101F	Focus Test							Fe/-	25-2

Spectr. Temp. 640 F Dome Temp./Hum. 14°C / 67% Transparency Conditions good 198.

Focus 506

Spectr. Temp.

Dome Temp./Hum. 8°C / 85%

Comparison Type/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
5/2-28					BC	¹²⁰⁰ / _{50.7}	BS	IIaO-E	A		Discarded →	NO Comp Wash Arc
Feb 20	30003	3"-4"	5.22	B9IV	"	"	"	IIIaT-E	A	Bln SB	TELESCOPE LIMIT	good but uneven background
"	30003		4.10	B7III	"	"	"	"	A	Bln SB	T=61°F F=506	sl str.
"	8000	4-5	6.6	M6III	"	"	"	IIaO-E	A	Obs Pgm	30 Mer: std for CH Cyg T=60°F F=506	fine
Feb 28	896		^V 8.4	M6	BC	¹²⁰⁰ / _{50.7}	BS	IIaO-E	A	Obs Pgm	CH Cyg T=56°F F=507	continuation very weak
Feb 8	8002	~5"	5.46	F37I-III	BC	¹²⁰⁰ / _{50.7}	BS	IIaO-E	A	Archive	T=53°F F=508	fine
"	8000		4.91	K0III	"	"	"	"	A	Archive	T=52°F F=508	fine
"	4000		5.2	G8IV	"	"	"	"	A	Std Vel		slwk
Feb-8									A		T= F=508	

199

Wed-Thurs

Date June 5-6, 1955..... Observers Lgt.-Tr.....

Emulsion Batches:

5^m 68^o IIIaJ-E₁ 26/14 -17055
IIaO-E 19/10.3 -26055

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
49102	HD 137909	15 23.7	+29 27	00:00	00:28	1 ^h 41 W	+29° 17	Fe/2	15-15/5
49102T	Spot Cal'n for 49102					15 min D4			
49103	HD 159561	17 30.3	+12 38	00:37	00:43	00 ^h 10 E	+12° 40	Fe/2	22-22
49104	HD 8890	1 ^h 22.6	+88 46	00:56	01:06	8 ^h 47 E	+89° 18	Fe/2	22-22
49105	HD 165908	18 ^h 03.2	+30° 33	01:21	01:49	0 ^h 24 W	+30° 39	Fe/2	12-12
49105T	Spot Cal'n for 49105								
49106	HD 196524	20 ^h 32.9	+14° 15	01:56	02:23	1 ^h 32 E	+14 39	Fe/2	15-15-15
49107	HD 209790	22 ^h 00.9	+64° 08	02:32	03:29	1 ^h 53 E	+64° 39	"	22-22
49108	HD 186791	17 ^h 38.5	+10 ^h 22	03:38	03:46	0 ^h 41 W		"	12-12
49108F1						0	+10°	"	20-20
49108F2						0	"	"	20-20

Spectr. T.

Focus

Spectr. T.

Exp. Mtr.

25685

26805

25963

7164

27617

30966

6244

Spectr. Temp. 63.0°F

Dome Temp./Hum. 155°F/90%

Transparency Conditions Semi-cloudy 200

Focus 50.7

Spectr. Temp. 56.5°F

Dome Temp./Hum. 150°F/97%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
5685	2.4"	3.93	FOP	BC	1200/507	BS	IIaJ-Eg	A	Asm Sp Kk	some cloud	fine
26805	2-3	2.2	ASII	BC	1200/507	BS	IIIaJ-Eg	A	Asm Sp Kk		fine
25963	"	2	F	"	"	"	IIIaJ-Eg	A	"		fine
7164	2-3	5.5	FIV	"	"	"	IIaO-E	A	"	T=62°F	fine
27617	2-3	3.78	FSIV	BC	1200/507	BS	IIIaJ-Eg	A	Asm Sp Kk		fine
30966	2"	4.63	A3m	"	"	"	IIIaJ-Eg	A	"		fine
6244	3"	4.7	KSTII	"	"	"	IIaO-E	A	std vel		fine
				"	"	"	IIaO	A		set 507 T=56.5°F	right on
				"	"	"	"	B			centered
<p>Kk - You may be surprised that I did a IIaO spot that was prob not needed by you. It was also the last 4x5 from a box of several remaining strips. I'm including this Unex box in vacuum to continue using if you hold on the IIaO developments. I evacuated a full IIaO box tonight.</p>											

28055

Spectr. Temp. 64°F.....

Dome Temp./Hum 61°F/70%

Transparency Conditions Fine - slazy..... 202

Focus 506.....

Spectr. Temp. 57°F.....

Dome Temp./Hum 52°F/94%

Companson Type/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/2 20					BC	1200/50.7	BS	IIaD	A		set 596	car, slazy
Fe/2 10	5079	~1.2"	5.0	M ₂ III	BC	1200/ 50.7	BS	IIaD-E	A	Std Vel		Fine
" 50	3122	1.3"	6.56	M ₆ III	"	"	"	"	A	Obs Pgm		Fine
" 80	4020	1.3"	8.4	M ₆	"	"	"	"	A	Obs Pgm		good

905 Sun-Mon

Date June 9-10/85 Observers B-T

Emulsion Batches:

7^m 68 Ia. D.F. 19103-06065

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.	Exp. Mtr.
49113F1	Focus Test					0 00	+32 52	Fe/2	20-20	
49113F2	Focus Test					"	"	"	20-20	
49113	HD188119	19 48.5	+70 01	20 45	21 16	5 36 E	+70 18	"	12-12	8147
49114	HD8890	1 22.6	+88 46	21 24	21 29	12 06 F	+89 17	"	12-12	7623
49115	HD188119	19 48.5	+70 01	21 34	22 01	4 52 E	+70 18		12-12	8566
49115T	Spot Cal'n for 49113-20			15 min @ 15V		04 3900	03 4300	02 4810		
49116	HD196379	20 31.9	+51 31	22 08	00 14	3 24 E	+51 53	Fe/2	8-8-8	8084
49117	HD161096	17 38.5	+4 37	00 24	00 35	0 11 E	+4 39	"	12-12	7490
49118	HD204724	21 25.4	+23 12	00 40	01 55	2 36 E	+23 41	"	12-12	8069
49119	HD165908	18 03.2	+30 33	02 00	02 26	1 16 W	+30 39	"	12-12	7861
49120	HD206330	21 36.3	+42 49	02 30	03 50	0 53 E	+43 18	"	8-8-8	6084

05065

Spectr. Temp. 72.5°F Dome Temp./Hum $65^{\circ}\text{F}/66\%$

Transparency Conditions *Hazy..... Fine..... 206*

Focus 504

good Aurora thru haze by 22^h

Spectr. Temp. 61°F Dome Temp./Hum $54^{\circ}\text{F}/85\%$

Comparison Type/Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/2 20-2								Ilao	A			cvsl red
" 20-2								"	B			c. Red
" 12-12	8147	3"4"	4.726	7 III B	BC	1200/50.7	B5	Ilao-E	A	Archive	Fe arc on stellar	Exp OK
" 12-12	7623	"	2	F	"	"	"	"	A	KK Asm		fine
" 12-12	8566	3"4"	6.72	6 III B	"	"	"	"	A	Archive		fine
52 420								"				
Fe/2 8-8	8084	3"6"	6.52	A9 III	BC	1200/50.7	B5	Ilao-E	A	Archive	some cloud	vs/wk
" 12-12	7490		3.9	K2 III	"	"	"	"	A	Sld Vel	T=66°F F=505	fine
" 12-12	8069		6.19	M III	"	"	"	"	A	Archive		fine
" 12-12	7861	2"3"	5.5	F7 V	"	"	"	"	A	KK Asm		fine
" 8-8	6084	2"6"	6.71	M III B	"	"	"	"	A	Archive	Set 506 T=62°F	fine

209 Fri Sat

Emulsion Batches:
6^m 68.490-E 06114 - 10065

Date June 14-15/85... Observers ... Tn - Kly

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
49123	HD 66751	7 ^h 59 ^m .9	+70° 0'	20:48	21:56	703 W	+69° 40'	Fe/	8-8-8
49124T	Spot Calc for 49123-24					15 min @ 15V	D4 3900	D3 4300	D2 4810
49124	HD 8890A	122.6	+88 46	22:03	22:05	1110E	+89 11	Fe/	12-12
Packet	C1 ^{BD} +88° 20' 3.2	01 3.2	+89 25	23 58	01 27		+89 25		
	C4 +88° 9'	03 42.5		1 39	02 27		+89 06		
	The real C4 ?	04 07.8		2 37	03 27		+88 55		
<p>KK Note - Check field's posns, as I believe that C4 on polaroid field is actually BD+88° 11 C4 is the one I circled.</p> <p>Note Polaris at dawn $1^{\text{h}} 33.3 \overset{\text{Tn}}{\text{L}} + 89 11$</p>									
RS	1200/415 focus. test (with revised RS) set 505 T=62.5°f								

Spectr. Ten
Focus....
Spectr. Ter

Exp. Mtr.

125c

7478

Tn/

211 Tues - Wed

Date June 18-19/85... Observers KK-Tn.....

Emulsion Batches:

4 68 III₀F..... - 18065

4 68 098-02E..... - 12065

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison	
								Type/Filter	Exp.
49125	BS 5264	13 56.6	+2 02	20 21	21 00	0 30 W			
49126	HD 13900 6	15 30.5	+27 03	22 15	22 22	0 20 W		Fe/- 20-26 Ne/- 20-26	100000
49127	"	"	"	22 27	22 37	0 35 W		Fe/- 10-10 Ne/- 10-10	00915
49128	HD 182917	19 21.9	+50 02	23 00	00 35	E		Fe/- 7-7 Ne/- 7-7	41000
49127T	Spot Calc for	49125-27			15 min e	15V D4 4810	7V D2 Hx	7V D2 5450	
49128T	Spot Calc for	49128			15 min e	15V D3 4810	7V D1 Hx	7V D2 5450	

213

Date ~~WED~~ THURS JUNE 17-20/8 Observers Gry - Ri

Emulsion Batches:

Triact 26114-17055.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp
49129F	Focus TEST							Fe/WR6	25-28
49129	HD 127762	14 28.1	+38°45'	20:40	20:49	0 ^h 07 ^m E	+38°26'	"	15-15- 3000
49130	HD 124675	14 9.9	+52°15'	20:56	21:27	0 ^h 59 ^m W	+52°00'	"	15-15- 3000
49130T ✓	SPOT CAL FOR PLATES 49129-49138				15 MIN @ 24	3900 4300 4910			
49131	HD 125161	14 12.6	+51°50'	22:00	22:48	00 ^h 07 ^m W	+51°32'	Fe/WR6	15-15- 3000
49132	HD 129502	14 37.8	-05°13'	22 56	23:54	00 ^h 46 ^m W	-05 30	Fe/WR6	15-15- 3000
49133	HD 142547	16 17.5	+19°23'	00:01	00:27	01 ^h 40 ^m W	+19°20'	"	15-15- 3000
49134	HD 175639	18 51.3	+04°04'	00:33	01:56	00 ^h 36 ^m W	+04°17'	"	15-15- 3000
49135	HD 175638	18 51.2	+04°04'	02:00	02:54	01 ^h 35 ^m W	+04°17'	"	15-15- 3000
49136	HD 187642	19 45.9	+08°36'	03:02	03:04	00 ^h 50 ^m W		"	22-2- 30251
49137	HD 182640	19 20.5	+02°55'	03:09	03:35	01 ^h 46 ^m W	+03°14'	"	15-15- 3002
49138	HD 203280	21 16.2	+62°10'	03:42	03:48	00 ^h 05 ^m W	+62°35'	"	22-2- 3192

Spectr. Temp. ... 65°F

Dome Temp./Hum. ... 17°C 67%

Transparency Conditions ... SOME CLOUDS AROUND ... 2/4

Focus ... 505 - 506

Spectr. Temp. ... 59°F

Dome Temp./Hum. ... 12°C 82%

Comparison Type/Filter	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/258					B.C.	1200/50.7	B.S.	IIa0	A		T=65°F SAT=505	
" 506	30000		3.22	A7III	B.C.	1200/50.7	B.S.	IIIaTe4	A	A* Gray		fine
" 506	30000	2-3	4.74	A8IV	BC	1200/50.7	B.S.	IIIaTe4	A	"		fine
								IIIaTe4			CLOUDS	
Fe/26	30000		4.95	A9I	B.C.	1200/50.7	B.S.	IIIaTe4	A	A* Gray		exp fine dust on plate
Fe/26	30000	3	4.26	F3III	"	"	"	"	A	"	T=63°F S=506	fine
" 506	30000		4.02	A9III	"	"	"	"	A	"		fine
" 1506	30000	3-4	5.18	A5Vh	"	"	"	"	A	"		"
" 1506	30000		4.79	A5	"	"	"	"	A	"		"
" 72	30251		0.99	A7V	"	"	"	"	A	"		ST
" 1506	30102		3.68	F3IV	"	"	"	"	A	"		fine
" 72	31192		2.66	A7V	"	"	"	"	A	"	T=59°F SAT=506	fine

25

Date THURS-FRI JUN 20-21/85 Observers GAY-Ri.....

Emulsion Batches:

5^m 68^o ~~WATER~~ 26114-07065

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.	Exp. Nr.
49139F	Focus TEST							Fe/WR6	25-25	
49139	HD 137391	15 20.7	+37° 44'	20:44	21:00	00 ^m 35E	+37° 32'	Fe/WR6	15-15	35023
49140	HD 113139	12 56.4	+56° 54'	21:16	22:12	02 ^m 50W	+56° 31'	Fe/WR6	15-15	35186
49141	HD 138749	15 28.9	+31° 42'	22:18	22:38	00 ^m 45W	+31° 30'	Fe/WR6	15-15	35031
49142 ✓	HD 147449	16 17.0	+01° 16'	22:44	23:52	01 ^m 10W	+01° 13'	Fe/WR6	15-15	35001
49142T	SPOT CAL FOR PLATES 49139-				15 MIN @ 24 3900	① 15V ② 15V ③ 15V 4300 4910				
49143	HD 164259	17 55.2	+63° 41'	23:59	01:15	00 ^m 55W	-03° 37'	Fe/WR6	15-15	35080
49144	HD 173648	18 41.3	+37° 30'	01:26	01:51	00 ^m 46W	+37° 41'	Fe/WR6	22-22	35087
49145	HD 181333	19 15.0	+12° 11'	01:55	03:26	01 ^m 47W	+12° 27'	Fe/WR6	15-15	35139
49146	HD 202444	21 10.9	+37° 37'	03:32	03:49	00 ^m 15W	+38 08	Fe/WR6	22-22	35139

Spectr. Temp. ... 65°F Dome Temp./Hum. ... 16°C ... 78% Transparency Conditions ... EXCELLENT 216

Focus ... 505 - 506

Spectr. Temp. ... 60°F Dome Temp./Hum. ... 13°C ... 74%

Comparison Type/Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/w26	15-15					B.C.	1200/50.7	B.S.	IIa0	A		T = 65°F F = 505	
Fe/w26	15-15	35023	2	4.62	F0V	B.C.	1200/50.7	B.S.	IIIaTe f	A	Gray ProA		Fe sl/wk fine
Fe/w26	15-15	35186		5.29	F2V	B.C.	1200/50.7	B.S.	IIIaTe f	A	"		Fe sl/wk fine
Fe/w26	15-15	35031		4.10	B2nn	B.C.	1200/50.7	B.S.	IIIaTe f	A	Be - Bl	T = 63°F F = 506	Fe sl/wk fine
Fe/w26	15-15	35001	2-3	5.16	F0I	B.C.	1200/50.7	B.S.	IIIaTe f	A	Gray ProA		Fe sl/wk fine
									IIIaTe f				
Fe/w26	15-15	35080	2-3	5.00	F2IV	B.C.	1200/50.7	B.S.	IIIaTe f	A	Gray - ProA	T = 62°F	fine
Fe/w26	22-22	35087	2	4.55	Am	B.C.	1200/50.7	B.S.	IIIaTe f	A	"		Fe sl/wk Exp Fine
Fe/w26	15-15	35139		5.79	F0III	B.C.	1200/50.7	B.S.	IIIaTe f	A	"	T = 61°F	fine
Fe/w26	22-22	35139	2	4.11	F2IV	B.C.	1200/50.7	B.S.	IIIaTe f	A	"	T = 60°F	fine

217

Date FRI / SAT JUNE 21/22⁸⁵ Observers Lgt - Ri

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
49147	FOCUS TEST	1 sec,	1 sec., 2 sec.	2 sec.	2 sec., 2	sec., 3 sec.	3 sec.	(best), 3 sec, 3	sec, 3 sec
	HD 136202	15 ^h 14.2	+2° 09'	22:02	22:29	0 ^h 54 W	+1° 56'	Fe WR 6 1 sec Ne +ND1.0	3517
	HD 159561	17 ^h 30.3	+12° 38'	22:40	22:44	1 ^h 07 E	+12° 43'	" 1 sec	10052
	HD 159561	"	"	22:49	22:50	1 ^h 00 E	+12° 43'	" 2 sec	1030
	HD 182640	19 ^h 20.5	+2° 55'	23:03	23:14	2 ^h 27 E	+3° 13'	" 2 sec	707
	FLAT FIELD (15 SEC)								
	FLAT FIELD (15 SEC)								
	FLAT FIELD (10 SEC)								
	FLAT FIELD (10 SEC)								
	FLAT FIELD (10 SEC)								
	FLAT FIELD (10 SEC)								
	DARK (60 minutes)			23:40	00:40				
	DARK (60 min.)			00:43	01:43				
	DARK (1 min.)			01:45:30	01:46:30				
	DARK (1 min.)			01:47:30	01:48:30				
	FOCUS TEST	3 sec,	5 sec, 5 sec,	3 sec,	3 sec,				

Spectr. Temp. 73 Dome Temp./Hum. 70°F/66% Transparency Conditions *Some cloud, cooler with fairing down except windy*

Focus 504
 Spectr. Temp. Dome Temp./Hum.

Comparison Type/Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/WR 6 25								IIaO	A			ok
" 12-	7709	3-4"	2	F	BC	1200/50.7	BS	IIaOe	A	osm-sp/10K		fine
" 12-12	7530	"	"	"	"	"	"	"	A	"	broken clouds during exposure	fine
" 6-10	3299	"	6.8	G8V	"	"	"	"	A	"	cloud	sl weak
								IIaOe				L

Spectr. Temp. ... 67°F Dome Temp./Hum. 17°C / 53% Transparency Conditions ... good 222
 Focus ... 505 - 506
 Spectr. Temp. Dome Temp./Hum. 13°C / 67%

Comparison Type/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/WRL6 25-25					B.C.	1200/50.7	B.S.	IIco-E	A		T=67°F F=505	cont. streak
Fe/WRL6 3-30	7002	3	5.6	F8 II-II	B.C.	1200/50.7	B.S.	IIco-E	A	STD. VEL		
Fe/WRL6 15-15	40045	3	4.10	B7nn	B.C.	1200/50.7	B.S.	IIIartef	A	Bc-B1n	T=66°F	fine
DISV 4810								IIIartef				✓
Fe/WRL6 15-15	35006	34	5.19	B3IV	B.C.	1200/50.7	B.S.	IIIartef	A	SB-B1n		fine d61
Fe/WRL6 15-15	30025	34	3.93	F0p	B.C.	1200/50.7	B.S.	IIIartef	A	Asn 5p/4K	LIGHT STRUCK T=63°F F=506	indeed

73 Tues-Wed

Date June 25-26/85 Observers B.R.

Emulsion Batches:

Had. E. 06114 = 10065
 4*65 098-02E 093-12065
 Had. E*06114-25065

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.	Exp. Mtr.
49155F	Focus Test					0 00		Fe/Wr 25-25		
49155	HD125019	14 11.8	+53 00	20 41	21 47	1 31W	+52 42	Fe/Wr 6 8-8-8		8000
49155T	SPOT CAL FOR PLATES 49155-					15MIN	3900 4300 4810	① D1 ② D3 ③ D2		
49156	HD148783	16 25.4	+42 06	21 58	22 07	0 21E	+42 00	Fe/- 7-7-7 Ne/- 7-7-7		41176
49157	"	"	"	22 12	22 37	0 07W	"	Fe/Wr 6 8-8-8		2501
49157T	SPOT CAL FOR PLATES 49156, 58					15MIN	4810 5450	① D3, 15U ② D1, 7U ③ D2, 7V		
49158	HD182917	19 21.9	+50 02	22 44	23 55	1 28E	+50° 21'	Fe/- 7-7-7 Ne/- 7-7-7		41179
49158F	FOCUS TEST							Fe/- 20-20 Ne/- 20-20		
	CH Cyg with GS at 50.7 ⁺¹⁴ is unobtainable tonight on T.O									
49159	HD198026	20 42.5	-5 24	00 21	01 58	0 49E	-4 58	Fe/Wr 6 8-8-8		8000
49160	HD201251	21 03.2	+47 15	02 06	02 53	0 12E	+47 40	" 8-8-8		8000
49161	HD8890	1 22.6	+88 46	03 05	03 07	5 27E	+89 18	" 12-12		8248
49162	"	"	"	03 12	03 15	5 20E	"	" 12-12		8225
49163	HD212943	22 22.8	+4 12	03 37	04 01	0 26E	+4 44	" 8-8-8		3500

Spectr. Temp. 67°F.....

Dome Temp./Hum. 15°C/60%

Transparency Conditions high cloud..... 224

Focus... 505... 506.....

Spectr. Temp. ... 58°F.....

Dome Temp./Hum. 11°C/90%

Companson Type/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/W26 8-8												rs/red
Fe/W26 8-8	8000		6.68	A4D	BC	1200/50.7	BS	IIaO-E	A	Archive-B5		fine
302 4910								IIaO-E				✓
Fe/W26 8-8	41176		6.56	M6III	B.C.	1200/40.5	B.S	098-02E	A	OBSERV PROG	T=65°F F=507	fine
Fe/W26 8-8	4501	3	"	"	B.C.	1200/50.7	B.S.	IIaO-E	A	"	T=65°F F=505	fine
50								098-02E				✓
Fe/W26 8-8	41019	34	8.4	M6	B.C.	1200/40.5	B.S.	098-02E	A	OBSERV PROG	T=65°F F=507	fine
Fe/W26 8-8					"	"	"	"	A		T=63°F F=507	
Fe/W26 8-8											T=63°F F=506	
Fe/W26 8-8	8000	34	6.41	K5III	BC	1200/50.7	BS	IIaO-E	A	Archive		fine
" 8-8	8000	3	6.12	K4III	"	"	"	"	A	Archive	T=61°F	fine
" 11-8	8248		4.2	F	"	"	"	IIaO-E*	A	KK Arm Sp		fine
" 11-8	8225		"	"	"	"	"	"	A	KK Arm Sp		fine
" 8-8	8500	3-4	5.9	K0III	"	"	"	IIaO-E*	A	SK Vel	T=58°F	slwk

225 Wed-Thurs

Date June 26-27/85 Observers BT-Tn

7^m 680
4^m 680

Emulsion Batches:

IIa-D-E 06114 -25065
098-02E 093 -12065

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
49164	HD147266	16 15.7	+21 22	20 39	21 44	0 32E	+21 16	Fe/ur6	8-8-8
49164T	Spot Calc for	49164,67-68				15min @ 15V 3900 4300 4810 D4 D3 D2			
49165	HD182917	19 21.9	+50 02	21 52	00 10	1 11E	+50 19	Fe/ - Ne/ -	7-7-7 7-7-7
49165T	Spot Calc For	49165,66				15min @ 4810 Hx 15V D3 7VD1 7VD2			
49166	HD148783	16 25.4	+42 06	00 14	00 21	1 56W	+42 00	Ne/ -	7-7-7
49167	HD 5890	1 22.6	+88 46	00 30	00 33	7 58E	+89 17	Fe/Or6	11-11
49168	"	"	"	00 37	00 39	7 53E	"	"	11-11

Spectr. Te
Focus 5
Spectr. Te

Exp. Mtr.

8004

1170

43275

8042

8118

25065
2065

Spectr. Temp. 66°F..... Dome Temp./Hum 65°F./60% Transparency Conditions *Some cloud from East 226*
 Focus 50.5.....
 Spectr. Temp. 65°F..... Dome Temp./Hum 60°F./80%

Comparison
Type/Filter Exp

Feb-8-88

Feb-7-7
Mar-7-7

Feb-7-7
Mar-7-7

Feb-1-1

" 11-1

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
8004	1"	6.99	G7 MB	BC	1200/50.7	BS	IIaD-E	A	Archive-BS		fine ✓
4170	1-2"	8.4	MB	BC	1200/40.5	BS	098-02E	A	Obs Pgm cloud 22:15-23:38	(Flexure) ✓	comp str Exp OK ✓
43275	1	6.56	M6 MB	BC	1100/40.5	BS	09802E	A	Obs Pgm		Comp str S/STI
8042	1-2	~2	F	"	1200/50.7	"	IIaD-E	A	KK Asm Sp		fine
8118	2	"	"	"	"	"	"	A	KK Asm Sp cloud		fine
KK Only 2 098 strip: 1 exp. 10 min. Jan 9.											
T _u											

-25065
-07085

Spectr. Temp. 70°F

Dome Temp./Hum. $66^{\circ}\text{F}/61\%$

Transparency Conditions *periods of slight clouds* 228

Focus 505

*Noticed a few very slow moving meteors
last night & tonight - moving from South
or SW Th*

Spectr. Temp. 62.5

Dome Temp./Hum. $58^{\circ}\text{F}/88\%$

Comparison Type/Filter Exp	Exp. Mir.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/63-8-7	6018	2-3"	7.2	G8VI	B.C.	1200/50.7	BS	IIaO-E	A	asm-sp/KK	04/18W severe RH asclof.	Feststr vs/whk
								IIaO-E			One corner missing	v
Fe/63-8-8	5326	2-3"	6.55	d65	B.C.	1200/50.7	BS	IIaO-E	A	asm-sp/KK		Feststr vs/whk
" 11-	6030	3"	3.93	F0p	"	"	"	IIaO-E	A	"		fine
" 11-	5995	2"	5.5	F7V	"	"	"	IIaO-E	A	"		fine
4 81-2	29596	2"	2.2	A5III	"	"	"	IIaJ-E	A	"		slstr
81-	35500	2"	3.68	F0IV	"	"	"	IIaJ-E	A	"		fine
								IIIaJ-E				r
" 11-	6046	2"	2	F	"	"	"	IIaO-E	A	"	65°F	fine
" 11-	6320	"	"	"	"	"	"	"	"	"		fine
" 11-	6000	"	3.7	60IV	"	"	"	"	A	STD VEL		fine
" 11-	6193	"	$v=3.7$	F5IV	"	"	"	"	"	asm-sp/KK		
"					"	"	"	IIIaJ-E	A		set 505 T 62.5°	round vs/blue

229

Sat - Sun

July 2 05^m @ 68^f

Emulsion Batches:

25065

Was-F

09802E 15103 - 28065

Date July 29-30-185 Observers Tm

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp
49179	HD 138749	15 28.9	+31 42	20 43	21 27	0 9 W	+31 29	Felur 6	21-2
49179T	Spot Calc for	49179-80		15 min @ 04		17.5V 3900	15V 4300	15V 4810	
49180	HD 164852	17 58.1	+20 50	21 33	23 27	0 20 E	+20 58	Felur 6	4-177
49181	HD 182917	19 21.9	+50 02	23 35	00 52	0 16 E	+50 21	Fel- Nel-	7-7 7-7
49181T	Spot Calc for	49181-82,85		15 min @		15V D3 4810	7V D1 H+	7V D2 5450	
49182	HD 148783	16 25.4	+42 06	00 58	01 09	2 57 W	+42 01	Fel- Nel-	10 10 10 10

25065
-28065Spectr. Temp. 6.7°FDome Temp./Hum. $+64^{\circ}\text{F}/89.7\%$ Transparency Conditions *some cloud*..... 230Focus 505Spectr. Temp. 6.9°FDome Temp./Hum. $+60/97.6$

Comparison Type/Filter Exp	Exp. Mtr. <i>None</i>	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Feb 6 2-3 150 4810		2-3"	410	B7 _{in}	BC	1200/50.7	BS	1710J-E 1710J-E	A	Be-Ph	(OK for Blk)	sl/st
Feb 6 4-7 Fe-7 No-7		2"	519	B3 _{IV}	BC	1200/50.7	BS	1710J-E	A	BB _h		fine
		2-3"	9	M _b	"	1200/40.5	BS	098-02E 098-02E	A	Obs p _{9m}		Fine
Feb 10 No 10		2"	656	M6 _{TI}	BC	1200/40.5	BS	098-02E	A	Obs ^{std} p _{9m}		fine
Note 1710J-E 098s sl fogged.												

231

Sun - Mon

Date June 30 - July 1, 1955 Observers B. T. H.

Emulsion Batches:

July 2/55 -7^m @ 68°f T160.E...06114.-2:7065
 -4^m @ 68°f O98.02E.15103.-28065

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
49183	HD 8890	1 22.6	+88 46	20:45	20:48	11 26E	+89 20	Fe/K _v	11-11
49184	"	"	"	20:51	20:55	11 20E	"	"	11-11
49185	HD 182917	19 21.9	+50 02	21 03	22 08	2 57E	+50 18	Fe/K _v	7-7-7
49185	Spot Cal'n for 49183-84, 86-88				15 min @ 15V	3900	9300 4810		
49186	HD 172380	18 34.8	+39 35	22 13	00 21	0 02E	+39 46	Fe/K _v	8-8-8
49187	HD 207089	21 41.5	+22 29	00 27	01 32	1 54E	+22 58	"	8-8-
49188	HD 186776	19 41.4	+40 29	01 38	03 42	2 16W	+40 52	"	8-8-

2.7065
2.8065

Spectr. Temp. 72°F Dome Temp./Hum. $65^{\circ}\text{F}/62\%$ Transparency Conditions *Fine* 232
 Focus 504
 Spectr. Temp. 64°F Dome Temp./Hum. $62^{\circ}\text{F}/82\%$

Comparison Type/Filter	Exp	Exp. Nr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/22	11-11		1"	~2	F	BC	1200/50.7	B5	TaO-E	A	KK Am Sp		Fine
"	11-11		"	"	"	"	"	"	"	A	KK Am Sp		Fine
Fe/	-7-7												
Ne/	-7-7		1-2"	8.4	M3	"	1200/40.5	"	O48-O2E	A	Obs Pam	std on plate 49182 (developed together)	typ OK severe flexure
									II40-E				
Fe/22	8-8		1"	7.69	M45T	BC	1200/50.7	B5	TaO-E	A	Archive		Fine
"	8-8		1"	6.70	K6TB	H50.5	"	"	"	A	Archive	SET 505 T=67F	"
"	8-8		1-2"	7.98	M3T	"	"	"	"	A	Archive		s/wk

233 Wed. Thurs

Date July 3/4 1985

Observers

Lgt - Tn

IIIa J. July 6 5m @ 62°

Emulsion Batches:

IIIa J-E

-25065

(Lost Last 4x5)

IIIa O-E 06.114

-27065

∴ no Spot for nights IIa Os

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp
49189	HD 137909	15 ^h 23.7	+29° 27'	22:16	22:46	1 ^h 51 W		Fe/wRG	15-30
49190	HD 158633	17 ^h 25.3	+67° 24'	22:58	00:20	1 ^h 27 W	67° 27'	"	7-7
49190T	Spot Calc for	49189, 93, 95, 96			15min @ D4	1750 150 3900 4300	150 4810		
49191	HD 8890	1 ^h 22.6	+88° 46'	00:31	00:34	7 ^h 29 E	89° 19'	"	11-1
49192	"	"	"	00:40	00:43	7 ^h 20 E	"	"	11-11
49193	HD 159561	17 ^h 30.3	+12° 38'	00:54	01:01	2 ^h 00 W	—	"	22-2
49194	HD 165908	18 ^h 03.2	+30° 33'	01:06	01:32	1 ^h 58 W	+30 40	"	11-1
49195	HD 182640	19 ^h 20.5	+2° 55'	01:38	02:21	1 ^h 28 W	+3° 14'	"	15-5
49196	HD 209790	22 ^h 00.9	+64° 08'	02:27	03:38	0 ^h 07 W	+64 38	"	15-5-1
49197	HD 204867	21 263	-6 01	03:44	03:50	0 ^h 51 W	-5 30	"	11-11
49197T	Focus test					"	"	"	20-20

-25085
Spectr. Temp. ... 73°F

Dome Temp./Hum. 68°F/70%

Transparency Conditions ... very good 234

Focus ... 50.5

Spectr. Temp. ... 68°F

Dome Temp./Hum. 63°F/85%

Comparison Type/Filter Exp	Exp. Mtr. <small>ST WORKING</small>	Seeing	Ptg. Mag:	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
F/50 5-30		1"	3.93	Fop	BC	1200/50.7	BS	IIIaJ-E	A	asm-sp/KK		s/str
" 7-7		1"	7.09	dk G9V	"	830/40.2	BS	IIaO-E	A	asm-sp/KK	set 505 T-72%	fine
								IIIaJ-E				
11-		2"	~2	F	"	1200/50.7	BS	IIaO-E	A	asm-sp/KK		fine
" 11-		"	"	"	"	"	"	"	A	"		"
12-2		"	2.2	A5III	"	1200/50.7	"	IIIaJ-E	A	"		s/str
" 11-		"	5.5	F7V	"	"	"	IIaO-E	A	"		v s/str
" 15-		"	3.68	F0IV	"	"	"	IIIaJ-E	"	"		str
" 15-		"	4.63	A3m	"	"	"	IIIaJ-E	"	"	Brf one of pair	s/str
" 11-		"	3.7	G016	"	"	"	IIaO-E	"	"		fine
" 20-					"	"	"	IIaO-E	"		set 505	v s/red

-25065

Spectr. Temp. ... $+77.7^{\circ}F$ Dome Temp./Hum. $70^{\circ}F/83\%$

Transparency Conditions $5/100\% - cloudy$... 240...

Focus ... 503

Spectr. Temp. Dome Temp./Hum. $+65^{\circ}/90\%$

Comparison Type/Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
FeI ^{wt} 21-2	30,300	1.2"	3.93	Fop	BC	1200/507	BS	IIIaJ-E	A	Asm sp kK		fine
								IIIaJ-E				
FeI ^{wt} 15-15	44,900	1.2"	4.10	B7 _{nn}	BC	1200/507	BS	II.	A	Be-B/n		5/str
" 15-15	13,555	2'	5.19	B3IV	"	"	"	"	A	SB-B/n	cloud	slwk.
											high fog	

241 Wed- Thurs

Date July 10-11/85 Observers KK / Lgt, R.

3³/₄ 71°

Emulsion Batches:

M2.F. 098 15103-28065

IAD.F. 06114-09075

H.C. Jet 29114-10075 22HR

4¹/₂ 71°

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
49203	HD 124897	14 11.1	+19 42	19 21	19 22			sky	
49204	sky			19 28	19 32?				
49205	sky			19 38	19 40				
49206	HD 127762	14 28.0	+38 45	19 50	19 55				
49208	HD 8890	1 ^h 22.6	+88° 46'	20:47	20:49	10 ^h 44 E	89° 17'	Fe/wrb	11-11
49209	"	"	"	20:52 ⁴⁰	20:54 ²⁰	10 ^h 38 E	"	"	11-11
49210	HD 137909	15 ^h 23.7	+29° 27'	21:03	21:24	0 ^h 56 W	+29° 18'	"	15-15-1
49211	HD 140538	15 ^h 39.1	+2° 50'	21:34	22:39	1 ^h 55 W	+2° 42'	"	8-8-8
49212	HD 159561	17 ^h 30.3	+12° 38'	22:46	22:54	0 ^h 18 W	+12° 40'	"	15-15-
49213	HD 165908	18 ^h 03.2	+30° 33'	23:00	00:45	1 ^h 38 W	+30° 43'	"	8-8-8
49213T	SPOT CALIBRATION PLATES 49210, 12, 14.					0 17.5U 15 MIN @ 4 3900	0 15U 4300	0 15U 4810	
49214	HD 182640	19 ^h 20.5	+2° 55'	00:51	01:15	0 ^h 49 W	+3° 14'	"	15-15-1
49215	HD 186791	19 ^h 41.5	+10° 22'	01:21	01:29	0 ^h 42 W		"	8-
49215F	FOCUS TEST (25, 25)							Fe/wr	25-2

Spectr. Temp. 72° Dome Temp./Hum. $64^{\circ}\text{F}/53\%$ Transparency Conditions \dots fair by good 242Focus 505 Spectr. Temp. \dots Dome Temp./Hum. $58^{\circ}\text{F}/60\%$ \checkmark by end - intermittent
(mostly) cloud.

Comparison Type/Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
sky	clear 250000	2"	V=0	K2 IIIp	BC	1200/40.5	RS	III 2F	A	TEST	majority of counts from d Bw	
	clear 300000	N/A	N/A	G2V	"	"	"	"	"	"		
	clear 150000	"	"	"	"	"	"	"	"	"		
	clear 162000	"	3.03	A7 III	"	"	"	098-02	"	"		
Feb 80 11-11	6126	2-3"	2	F	"	1200/50.7	BS	IIaO-E	"	asm. sp/kk	!! no plate number 49207 !!	fine
" 11-11	6668	"	2	F	"	"	"	"	"	"		
" 15-15-80	30012	"	3.93	F0p	"	"	"	IIIaJ-E	"	"		fine
" 8-8-80	7028	"	6.5	dG5	"	"	"	IIaO-E	"	"	problems firing middle comparison cloud at 5300: 55	
" 15-15-80	26038	"	2.2	A5 III	"	"	"	IIIaJ-E	"	"	cloud at 5600	fine
" 8-8-80	7001	"	5.5	F7V	"	"	"	IIaO-E	"	"	cloud at 1200 - much intermittent cloud	fine
3/15/80 480								IIIcTe f				\checkmark
" 15-15-80	30246	"	3.68	F0 IV	"	"	"	IIIaJ-E	"	"		fine
" 8-8-80	486	"	4.1	K3 II	"	"	"	IIaO-E	"	STDVEL	CLOUD!	wk
Feb 82 25-25								IIaO-E	"		T=640F F=505	good

Spectr. Temp. 75°F Dome Temp./Hum. $67^{\circ}\text{F}/60\%$ Transparency Conditions *fairly good* 244
 Focus 503
 Spectr. Temp. Dome Temp./Hum.

Comparison Type/Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/WG 25-28								IIaO-E	A			ok
" 12-12	6289	3"	2	F	BC	1200/50.7	BS	"	"	asm-sp/KK		fine
" 12-12	6007	"	"		"	"	"	"	"	"		fine
" 15-5	30011	"	3.93	Fop	"	"	"	IIIaJ-E	"	"		fine
" 7-7	4520	"	7.09	dKI or 69V	"	830/40.2	"	IIaO-E	"	"	T=73°F F=505	fine comp sl. weak
" 3-3	2023	"	7.3	A2	"	830/40.2	150/3	IIaO-E	A	ASM-SP/HK		fine comp uneven
3 002 4010								IIaO-E				✓
" 3-3	187	"	8.1	A2?	"	"	"	IIaO-E	A	ASM-SP/KK	T=67°F F=507	v. weak
25-28							150/7				T=67°F F=507 CLOUDED IN	sl. blue

245

Fri-Sat

Variable Star Cont. tour
looked at 8 Vir & M13

Emulsion Batches:

Date July 12-13/85

Observers B. Ri.

7^m 68°

HD-F. 06114-09.07.5

4^m 68°

098-22R. 15103-28065

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
49222	HD150450	16.360	+49 07	21 55	22 53	1° 21' W	+49.05	Fe/W	8-88
49222T	SPOT CAL FOR PLATES 49222, 25					15MIN @ 15 VOLTS	3900 4300 4810		
49223	HD145783	16.25.4	+42 06	23 00	23 06	1° 49' W	+42 00	Fe/-	7-77
49224	HD182917	19.21.9	+50 02	23 12	00 15	0 01 E	+50 21	Fe/-	7-77
49224T	SPOT CALN FOR PLATES 49223, 24					15MIN	① 315V 4810 ② D17 Hd ③ D27V 5450		
49225	HD182917	19.21.9	+50 02	00 20	04:02	3 45W	+50 21	Fe/W	8-88

Spectr. Ten

Focus: 50

Spectr. Ten

Exp. Mtr.

5" 1500

003

105 F128

400/6

"

4000

3" F128

2500

Spectr. Temp. 69.0 F

Dome Temp./Hum. 18°C / 91.9%

Transparency Conditions high cloud; low haze

Focus 50.4

Spectr. Temp. 64.4 F

Dome Temp./Hum. 16°C / 97%

Comparison Type/Filter	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/W 8.8	8003		6.4	M _{2.5} Tab	BC	1200/ 50.7	BS	Ilad-E	A	Archive BS		fine
53 0.02								Ilad-E				✓
350 48.0												
Fe/- 7.7	ND FILTER					1200/ 40.5	BS	098-02E	A	Obs Pgm	T=68°F F=506	fine *
Ne/- 7.7	40016	2-3"	6.56	M ₆ III	BC							
Fe/- 7.7	"		5.4	M ₆	"	"	"	"	A	Obs Pgm		good *
Ne/- 7.7	40003							098-02E				✓
Fe/W 8.8	B FILTER		8.4	M ₆	BC	1200/ 50.7	BS	Ilad-E	A	Obs Pgm	T=67°F F=505	wt
	2500											
											* high age fog	

247

Mon-Tues

Peel Region Summer School tour
looked at M13

Emulsion Batches:

9th 68^o

IAD-E. 0.6114-0.9075

098-D2E.15103-28065..

Date July 15-16/85 Observers J.H.-Ri.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
49226	HD148783	16 25.4	+42 06	21 51	22 11	1 01W	+42 03	Fe/L/6	8-8-8
49227	HD182917	19 21.9	+50 02	22 19	23 33	0 34E	+50 19	Ne/-	7-7-7
49227+	SPOT CAL FOR PLATES 49227-				15MIN @ 4810		Hd	① D3 15VOLTS ② D1 7VOLTS ③ D2 7VOLTS ASD	
49228	HD182917	19 21.9	+50 02	23 41	04:04	3 59W	+50 19	Fe/L/6	8-8-8
49228+	SPOT CAL FOR PLATES 49226, 28				15MIN @ 15VOLTS 3900			① P4 ② D3 ③ D2 4300 4810	

Spectr. Te

Focus...

Spectr. Te

Exp. Mtr.

B⁷ Filter

5035

No Filter

50005

B⁷ Filter

2800

Spectr. Temp. 74°F Dome Temp./Hum. $21^{\circ}\text{C}/85\%$ Transparency Conditions *good* 248

Focus 503

Spectr. Temp. Dome Temp./Hum. $16^{\circ}\text{C}/80\%$

Comparison
Type/Filter Exp
6/2/74
Feb-7-74
Feb-7-74
DL 7-0-74
8-74
Feb 16-8
8
8-10

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
B FILTER					1200/						
5035		6.56	M ₆ TH	BC	150.7	BS	TaO-E	A	Obs Pgm		good
16 Filter		✓			1200/						
50005		8.4	M ₆	BC	405	BS	O98-02E	A	Obs Pgm	T=73°F F=505	good
							O98-02E				✓
3 Filter		✓			1200/						
2800	3"	8.4	M ₆	BC	150.7	BS	TaO-E	A	Obs Pgm	T=72°F F=504	weak
							TaO-E				✓

249

Tues/Wed.

Date 1985 July 16/17 Observers Blu-R1

Emulsion Batches:

5⁶⁸ ~~Harvard~~ 29114-10075...7⁶⁸ ~~Harvard~~ 29114-10075...

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
49229	HD138749	15 ^h 28 ^m .9	+31° 42'	20:32	20:55	00:45 W	+31° 30'	Fe/WRG	15-15-2
49229 ¹²	Focus 988Y								25-25
49230	HD138749	15 ^h 28 ^m .9	+31° 42'	20:59	21:32	01:21 W	+31° 30'	Fe/WRG	7-7-
49230 ^T	SPOT CANN FOR PLATES 49229-31				15 MIN @ 4	0 17.5V 3900	0 15V 4300	0 15V 4810	
49231	HD 164582	17 ^h 53 ^m .1	+20° 50'	21:37	22:43	00:103 W	+20° 57'	Fe/WRG	15-15-15
49232	HD 191567	20 ^h 05 ^m .5	+35° 11'	22:50	00:52	00:106 W	+35° 34'	Fe/WRG	7-7-7
49232 ^T	SPOT CANN FOR PLATES 49232-35				15 MIN @ 15 VOLTS	0 P4 3900	0 D3 4300	0 P2 4810	
49233	HD 217312	22 ^h 54 ^m .8	+62° 32'	01:00	02:41	00:55 E	+63° 06'	Fe/WRG	7-7-
49234	HD 220057	23 ^h 15 ^m .7	+60° 37'	02:46	03:28	00:29 E	+61° 09'	Fe/WRG	7-7-
49235	HD 217311	22 ^h 58 ^m .2	+43° 31'	03:33	04:00	00:20 W	+44° 05'	Fe/WRG	7-7-
49235 ^F	Focus 988T							Fe/WRG	25-2

Spectr. Temp. 71°F

Dome Temp./Hum. 78°C / 54%

Transparency Conditions Excellent 250

Focus

Spectr. Temp. 63°F

Dome Temp./Hum. 14°C / 96%

Comparison Type/Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/WK 15	E Filter 4000	2-3	4.10	B7nn	BC	1200/50.7	BS	IIIa-JEF	A	B _e -Blu		v. sl. weak ok
							BS	IIa-0	A		T=71°F	↓
Fe/WK 15 810	B Filter 35022	3	4.10	B7nn	BC	1200/50.7	150.7	IIIa-JEF	A	B _e -Blu		fin
								IIIa-JEF				v
Fe/WK 15	B Filter 35000	3-4	5.19	B3IV	BC	1200/50.7	BS	IIIa-JEF	A	S13-Blu	T=70°F	sl. weak fine
Fe/WK 15	R Filter 5000		7.26	B0.5IV	BC	830/40.2	BS	IIa-0E	A	Runaway *	T=68°F F=507	weak slwk
								IIa-0E				v
Fe/WK 15	E Filter 5000		7.2	B0IV	BC	830/40.2	BS	IIa-0E	A	S3-Blu/Ly		weak slwk
Fe/WK 15	B Filter 5005	3	6.94	B2IV	BC	830/40.2	BS	IIa-0E	A	Runaway *		weak slwk
Fe/WK 15	B Filter 5000		6.38	B2V	BC	830/40.2	BS	IIa-0E	A	Blu-He *	T=63°F F=508	sl. weak fine
Fe/WK 15						830/40.2	B.S.	IIa-0	A		T=63°F F=508	v sl blue

'251 wed/Thurs.

Date 1985 July 17/18 Observers ... Lot - Tr. (KK - fol AM)

Emulsion Batches:

7th 68 II. a. O. 06114 - 12075
 5th 68 III. a. E. 29114 - 10075

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
49236	HD 8890	1 ^h 22.6	+88° 46'	22:04	22:06	9 ^h 03 E	89° 16'	Fe/wr6	11-11
49237	"	"	"	22:10	22:13	8 ^h 57 E	"	"	11-11
49238	HD 144287	16 ^h 0 ^m 0	+25° 30'	22:29	00:08	3 ^h 31 W	+25° 24'	"	7-7-7
49238T	Spot Calc for	49236	-4, 4, 46		15 min @ 15V	D4 3900	D3 4300	D2 4810	
49239	HD 8890	1 ^h 22.6	+88° 46'	00:20	00:23	6 ^h 47 E	+89° 17'	Fe/wr6	11-11
49240	"	"	"	00:26	00:27	6 ^h 43 E	"	"	11-11
49241	HD 165908	18 ^h 03.2	+30° 33'	00:37	00:52	2 ^h 11 W	+30° 40'	"	11-11
49242	HD 159561	17 ^h 30.3	+12° 38'	00:58	01:03	2 ^h 54 W	+12° 40'	"	21-21
49243	HD 182640	19 ^h 20.5	+2° 55'	01:07	01:22	1 ^h 23 W	+3° 13'	"	21-21
49244	HD 66751	7 ^h 59.9	+70° 00'	01:35	03:10	9 ^h 33 E	+69° 53'	"	8-8-8
49244T	Spot Calc for	49242, 43 + 49218 + 49245			15 min @ D4	17.5V 3900	15V 4300	15V 4810	
49245	HD 209790 (A)	22 ^h 00.9	+64° 08'	03:16	03:44	1 ^h 08 W	+64° 37'	"	21-21
49246	HD 222368	23 ^h 34.8	+5° 05'	03:51	03:59	0 ^h 13 E	+5° 38'	"	11-11
49247	sky					0			
49248	sky					0			

Spectr. Te.
Focus.
Spectr. T

Exp. Mtr.

668

6597

4523

6308

631R

6447

39874

30008

6013

34932

6+31

blue film

40000

yellow film

253

Thurs/Fri.

Date 85 July 18/19 Observers Lgt. - Tr.

17160

5^h 68^m7^h 68^m

Emulsion Batches:

L.I. Cal. - E. G. 29114 - 10075

H. A. E. - 18075

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
49249	HD 159561	17 ^h 30.3	+12° 38'	00:10	00:16	2 ^h 11 W	+12° 42'	Fe/Wr6	21-21
49250	HD 182640	19 ^h 20.5	+2° 55'	00:24	00:41	0 ^h 47 W	+3° 11'	"	21-21
49250T	Spot Cal'n for 49249-51				15 min @ D4	17.5V 3900	15V 4300	15V 4810	
49251	HD 196524	20 ^h 32.9	+14° 15'	00:46	01:09	0 ^h 02 W	+14° 38'	Fe/Wr6	21-21
49252	HD 165908	18 ^h 03.2	+30° 33'	01:16	01:33	2 ^h 57 W	+30° 42'	"	11-11
49253	HD 8890	1 ^h 22.6	+88° 46'	01:43	01:45	5 ^h 19 E	+89° 17'	"	11-11
49254	HD 158633	17 ^h 25.3	+67° 24'	02:01	03:31	5 ^h 36 W	+67° 13'	"	7-9-7
✓49254T	Spot Cal'n for 49252-54, 55-58				15 min @ 15V	D4 3900	D3 4300	D2 4810	

Spectr. T.

Focus.

Spectr. T.

Exp. Mtr.

25045

2988

27531

6460

6420

5060

Spectr. Temp. 72°FDome Temp./Hum. $66^{\circ}\text{F}/92\%$Transparency Conditions *occasional cloud, haze 254*
*mostly clear.*Focus 504Spectr. Temp. 69°FDome Temp./Hum. $65^{\circ}\text{F}/94\%$

Comparison Type/Filter/ Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
10075 -18075	25045	2-3"	2.2	A5III	BC	1200/50.7	BS	IIaJ-G	A	asm sp/1CK		Fest/wk fine
"	29887	2-3'	3.68	F0IV	"	"	"	"	"	"		Fest/wk fine
15V 4810								"				
Fe/w/6	27531	"	$v=$ 3.78	F5IV	"	"	"	"	"	"	bit of cloud during exposure	Fest/wk fine
"	6460	"	5.5	F7V	"	"	"	IIaO-E	"	"		fine
"	6420	"	2	F	"	"	"	"	"	"		vsl str
"	5060	"	7.09	dK1 or G9V	"	830/40.2	"	"	"	"	Reversal - T = 70°F F = 506	fine
D2 4810								"			cloud at end 1/2 unit	

259

Mon-Tues

back to 8^h 68° Emulsion Batches:
...II.O.F. 06114... -18075Date July 22-23/85..... Observers B.T.-T_n.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.	Exp. Mtr.
49259F	Focus test					0 0	+7 35	Fe/wr6	50-50	
49259	HD 161096	17 38.5	+4 37	20 27	20 34	1 23 E	+4 42	Fe/D16		6416
49260	HD 130705	14 44.6	+10 28	20 40			+10 15	" 8		
49260	HD 138852	15 29.5	+64 33	20 55	22 40	2 53 W	+64 21	Fe/D16	8-8-8	6976
49261	HD 168270	18 13.7	+18 06	22 45	22 55	1 ^x 24 W	+18 12	"	8-8-8	8049
49261T	Spot Caln	for 49259-64			15 min	D4 153 D2 4810 15V 3900 4300				
49262	HD 175824	18 52.1	+48 44	23 59	01 06	1 58 W	+48 56	Fe/D16	8-8-8	8071
49263	HD 216228	22 46.1	+65 40	01 11	01 28	2 ^x 25 E	+66 13	"	11-71	8091
49264	HD 216946	22 52.0	+49 12	01 32	03 35	0 26 W	+49 46	"	8-8-8	8042

-18075 Spectr. Temp. ... 69°F

Dome Temp./Hum. 69°F / 69%

Transparency Conditions . Fine - some cloud . 260 ..

Focus ... 504

Spectr. Temp. ... 60°F

Dome Temp./Hum. 52°F / 98%

Comparison Type/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/6 F-50					BC	1200/50.7	B5	IIIa J	A			OK
Fe/	6416	3"	3.9	K5 III	BC	1200/50.7	B5	IIIa J	A	St Vel		fine
			6.7	K3 IIIb	"	"	"	"	A	Archive	too faint for sky condition	
Fe/6 F-8	6956	3"	6.75	K0 III	BC	1200/50.7	B5	IIIa J	A	Archive B5	* at Limit T=67°F set 505	fine
" 887	8049	3-4"	6.02	B9 V	"	"	"	"	A	"	T=65°F set 505	slwk
" 810								"				
Fe/6 F-8	8071	3-4"	6.2	F3 III	BC	1200/50.7	B5	IIIa J	A	Archive	T=63°F set 506	slwk
" 11-	8091	"	4.57	K0 III	"	"	"	"	A	Archive		fine
" 84	8042	2-5"	6.73	K5 III	"	"	"	"	A	Archive		fine

261

Emulsion Batches:

7¹/₄ 69° II 00 E 0611A -21075
 5^m 68° III 05 E 0611A -17075

Date 1985 July 23/24 Observers Bl. - Tr.
 TUE/WED

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Ex
49265	HD 138749	15 ^h 28 ^m .9	+31° 42'	20:20	20:50	01:06 W	+31 33	Fe/WRG 15-15	
49266	HD 157482	17 ^h 18 ^m .5	+40° 04'	20:54	21 48	00 15 W	+40 05	Fe/WRG 38-	
49267	HD 164852	17 ^h 58 ^m .1	+20° 50'	21:51	22:43	00:43 W X	+20 56	Fe/WRG 15-15	
49267T	Spot Calc for 49265, 66, 69-74, 81			15 min @ D4		17.5V 3900	15V 4300	15V 4810	
49268	HD 191567	20 ^h 05 ^m .5	+35° 11'	22:54	01:47	01:28 W D4	+35 34	Fe/WRG 8-8	
49268T	Spot Calc for 49266, 68, 75-80			15 min @ 15V		3900	D3 4300	D3 4810	
49269	HD 19356	03 ^h 01 ^m .7	+40° 34'	01:56	02:13	05:05 E	+41° 01'	Fe/WRG 21-	
49270	HD 19356	03 ^h 01 ^m .7	+40° 34'	02:17	02:26	04:52 E	+41° 01'	Fe/WRG 21-2	
49271	HD 19356	03 ^h 01 ^m .7	+40° 34'	02:29	02:35	04:43 E	+41° 01'	Fe/WRG 21-	
49272	HD 19356	03 ^h 01 ^m .7	+40° 34'	02:38	02:42	04:36 E	+41° 01'	Fe/WRG 21-	
49273	HD 19356	03 ^h 01 ^m .7	+40° 34'	02:45	02:48	04:30 E	+41° 01'	Fe/WRG 21-	
49274	HD 19356	03 ^h 01 ^m .7	+40° 34'	02:51	02:53	04:25 E	+41° 01'	Fe/WRG 21-2	
49275	HD 19356	03 ^h 01 ^m .7	+40° 34'	02:56	03:00	04:17 E	+41° 01'	Fe/WRG 11-11	
49276	HD 19356	03 ^h 01 ^m .7	+40° 34'	03:03	03:05	04:12 E	+41° 01'	Fe/WRG 11-11	
49277	HD 19356	03 ^h 01 ^m .7	+40° 34'	03:09	03:10	04:07 E	+41° 01'	Fe/WRG 11-1	
49278	HD 19356	03 ^h 01 ^m .7	+40° 34'	03:13	03:15	04:03	+41° 01'	Fe/WRG 11-11	

Spectr. Temp. 69°F

Dome Temp./Hum. 66°F/62%

Transparency Conditions sl. hazy 262

Focus 50.5

Spectr. Temp.

Dome Temp./Hum.

Comparison Type/Filter	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
B Filter	50049	1-2	4.10	B7 _{nm}	BC	1200/50.7	BS	III _a -JEF _g	A	Be-Blu	T=69°F F=505	fine
B Filter	6050	1"	6.22	4F8 6 th	BC	1200/50.7	BS	II _a -OE	A	SB-Blu/Ly		fine
B Filter	10178	2"	5.19	B3 _{IV}	1 BC	1200/50.7	BS	III _a -JEF _g	A	SB-Blu	Possible slight stellar exposure overlapping comp.	Fe sl wt fine db
								III _a -J-Ef _g				✓
B Filter	10149	1.3"	7.26	B05 _{IV}	BC	1200/50.7	BS	II _a -OE	A	Runaway*		sl wt
								II _a -OE				L
B Filter	10145	2	2.2	B8 _V	BC	1200/50.7	BS	III _a -J-Ef _g	A	EB-Blu	T=63°F F=506	v str
B Filter	75739	2	2.2	B8 _V	BC	1200/50.7	BS	III _a -JEF _g	A	EB-Blu		str
B Filter	50659	2	2.2	B8 _V	BC	1200/50.7	BS	III _a -JEF _g	A	EB-Blu		sl str
B Filter	33108	2	2.2	B8 _V	BC	1200/50.7	BS	III _a -JEF _g	A	EB-Blu		fine
B Filter	22015	2	2.2	B3 _V	BC	1200/50.7	BS	III _a -JEF _g	A	EB-Blu		v sl wt
B Filter	14000	2	2	B8 _I	BC	1200/50.7	BS	III _a -JEF _g	A	EB-Blu		sl wt
B Filter	30080		2.2	B8 _I	BC	1200/50.7	BS	II _a -OE	A	EB-Blu		sl str
B Filter	20011		2.2	B8 _V	BC	1200/50.7	BS	II _a -OE	A	EB-Blu		v sl str
B Filter	12974		2.2	B8 _V	BC	1200/50.7	BS	II _a -OE	A	EB-Blu		fine
B Filter	102		2.2	B8 _V	BC	1200/50.7	BS	II _a -OE	A	EB-Blu		v sl wt

Spectr. Temp. Dome Temp./Hum. Transparency Conditions 264 ...

Focus ... 506

Spectr. Temp. 63°F

Dome Temp./Hum. 45.7°/96%

Comparison Type/Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe W/1	1-	B Filter 6176		2.2	B8V	BC	1200/50.7	BS	IIa-OE	A	EB-Bln		s/wk
Fe W/1	1-	L.F. Her 4043		2.2	B8V	BC	1200/50.7	BS	IIa-OE	A	EB-Bln		wk
Fe W/1	2-	B Filter 25022	3"	5.34	B2V	BC	1200/50.7	BS	IIIa-JEG	A	EB-Bln		v s/wk
<p><u>kk</u> Now there are 6 IIIa strips in dome + 3 (4x5s) OK on IIaO though</p>													

265

Fri-Sat

Date July 26-27/85 Observers Bt-Tn.....

Emulsion Batches:

Ito. P-E... 06/14... -2) 075

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp
49282	HD 166045	18 03.8	+26 05	20 23	21 33	0 33E	+26 15	Fe/W16	11-11
49283	HD 206936	21 40.4	+58 19	21 38	22 55	2 47E	+58 50	"	8-8
49283T	Spot Col'n for	49282-86,		15 min @ 15V		D4 3900	D3 4300	D2 4810	
49284	HD 201616	21 05.7	+9 38	23 00	00 19	0 49E	+10 06	Fe/W16	8-8
49285	HD 223173	23 42.1	+56 54	00 28	03 40	0 04E	+57 28	"	8-8
49286	HD 222368	23 34.8	+5 05	03 44	04 00	0 22W	+5 41	"	11-11

Spectr. Te

Focus.

Spectr. Te

Exp. Mtr.

8-11 exp

12046

10017

12054

10011

10362

-21075

Spectr. Temp. ... $+73^{\circ}\text{F}$ Dome Temp./Hum $69^{\circ}\text{F}/62\%$ Transparency Conditions *sl. hazy* 264

Focus 504

Spectr. Temp. 67°F Dome Temp./Hum $62^{\circ}\text{F}/62\%$

Comparison Type/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/ W/6 11-1	B. filter 2046	3"	5.98	A3V	BC	1200/ 507	BS	T60-E A		Archive-BS		vslwk
" 8-8	0017	2-4"	6.43	M2Iae	"	"	"	"	A	Archive		fine
D2 4810 Fe/ W/6 8-8	2054	2"	6.09	A2Vs	BC	1200/ 507	BS	T60-E A		Archive-BS		fine
" 8-8	0011	2-4"	7.16	K3IIb	"	"	"	"	A	Archive		fine
" 11-1	0362		4.6	F7V	"	"	"	"	A	Std Vel		fine

-24075

Spectr. Temp. 67°F..... Dome Temp./Hum. 60°F/53% Transparency Conditions Fine..... 268

Focus 504.....

Spectr. Temp. 63°F..... Dome Temp./Hum. 57°F/54%

Comparison Type/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/100888 62 9810	B E/100					1200/ 507	BS	IIaO-E IIcO-E	A	Archive	but not too bad	with ✓
	3195	2-4	8.63	KO0-Ta	BC							
<p>*Note - I would have thought this should go faster than this. Conditions were OK enough.</p> <p>Exp meter balance & behavior was OK though, T_n</p>												

269

Sun - Mon

Date July 28-29/85 Observers Bt + Tn

Emulsion Batches:

IIa0-E 06114 - 24075

098-D1E - 20075

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
49288F1	Focus test					0 0	+42 -	Fe/D6	25-25
49288F2	Focus Test					0.0	"	Fe/- Ne/-	25-25 25-25
49288	HD148783	16 25.4	+42 06	20 25	20 33	0 13W	+42 02	Fe/- Ne/-	7-7 7-7
49289	HD182917	19 21.9	+50 02	20 38	21 37	1 37 E	+50 18	Fe/- Ne/-	7-7 7-7
49289J	Spot Cal'n For	49288-	89,	15 min @	4210	15V03 TVD1 Hd	TV02 5450		
49290	HD207978	21 48.0	+28 20	21 44	22 47	2 55 E	+28 49	Fe/ D16	8-8-8
49291	HD203206	21 15.7	+21 36	22 51	00 10	0 59 E	+22 04	"	8-8-8
49292	HD8890	1 22.6	+88 46	00 18	00 35	5 53 E	+89 17	"	11-11

Spectr. T

Focus

Spectr. T

Exp. Mtr.

BLUE FILTER

NO FILTER
8 min 1 inNO FILTER
8 min 1 in

50690

NO FILTER
8 min 1 in

50316

BLUE FILTER

12071

6

12465

BLUE FILTER

10022

2075
2075

Spectr. Temp. 73.5°.....

Dome Temp./Hum 72°F / 64%

Transparency Conditions Fine - s/Cloudy..... 270

Focus 504.....

Spectr. Temp. 73°.....

Dome Temp./Hum 68°F / 73%

Comparison Type/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/D 6-25-75	BLUE FILTER				BC	1200/50.7	BS	II ₀ O-E	A			center sl red
Fe/- 25-75	NO FILTER & blank in				BC	1200/40.5	BS	O98-02E	A			center vs red
Ne/- 25-75	NO FILTER & blank in				BC	1200/40.5	BS	O98-02E	A			center vs red
Fe/- 7-7	NO FILTER & blank in				BC	1200/40.5	BS	O98-02E	A	Obs Pgm	(ie down to 30's then to 40's)	fine
Ne/- 7-7	50690	~1"	6.56	M ₆ III	BC	1200/40.5	BS	O98-02E	A	Obs Pgm		fine
Fe/- 7-7	NO FILTER & blank in				"	"	"	"	A	"		fine
Ne/- 7-7	50316	1-2"	8.4	M ₆	"	"	"	"	A	"		fine
								O98-02E				
Fe/D 6-8-8	BLUE FILTER				BC	1200/50.7	BS	II ₀ O-E	A	Archive-BS	Final setting of tilt change with tilt increasing	vs slwk
" 8-8	2071	2"	5.95	F ₆ IV	BC	1200/50.7	BS	II ₀ O-E	A	Archive-BS	cloud	vs slwk
" 8-8	2465	2"	6.21	B ₆ IV	"	"	"	"	A	Archive-BS	73°F set 504 still	vs slwk
" 11-11	BLUE FILTER				"	"	"	"	A	KK Asm Sp	cloud	fine
	0022	2-3"	2	F	"	"	"	"	A	KK Asm Sp	cloud	fine

271

Wed-Thurs

Date July 31 - August 1/85 Observers Bt - Ri

Emulsion Batches:

8^m 680 J120-E 06114-21075
 4^m 680 298-02 15013-20075
 J120-E 06114-24075

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
49293	HD 8890	1 22.6	+88 46	21 20	21 22	8 51E	+89 18	Fe/ Wrg	11-11
49294	"	"	"	21 27	21 29	8 44E	"	"	11-11
49295	HD 182917	19 21.9	+50 02	21 41	22 55	0 07E	+50 20	Fe/- Ne/-	7-7- 7-7-
49295 ₁	SPOT CAL FOR PLATES 49293-94, 96,			15MIN @ 150VOLTS		3900	4300	4810	
49295 ₂	SPOT CAL FOR PLATES 49295+97			15MIN		4810	HJ	5450	
49296	HD 190390	19 59.6	-11 53	23 07	02 28	2 46W	-11 30	Fe/ Wrg	3-3-3
49297	HD 207076	21 41.4	-2 40	02 40	03 36	2 14W	-2 10	Fe/- Ne/-	7-7- 7-77
49297F	Focus Test							Fe/- Ne/-	25-25 25-25
	1 st attempt to locate P/Halley (1982i)								
49298	HD 9138	1 24.9	5 38	04 09	04:33	0 34E	+6 12	Fe/ Wrg	7-14
49298F	Focus Test							Fe/wrg	25-25

Spectr. Temp. 66°FDome Temp./Hum. $17^{\circ}\text{C}/94\%$ Transparency Conditions ... *Good* 272

Focus 505.....

Spectr. Temp. 61°FDome Temp./Hum. $14^{\circ}\text{C}/98\%$

Comparison Type/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/ W/6 11-11	BLUE FILTER 10007	3"	2	F	BC	1200/ 50.7	BS	TI ₂ O-E	A	KK Asm Sp		fine
" 11-11	BLUE FILTER 10010	"	"	"	"	"	"	"	A	KK Asm Sp		
Fe/- W/- 7-7	NO FILTER 50001	V 8.4	MB		BC	1200/ 40.5	BS	098-02E	A	Obs Pgm		sl. weak
								TI ₂ O-E				
								098-02E				
Fe/ W/6 3-3	BLUE FILTER 5502	4	6.86	F/TT	BC	1200/ 50.7	150u 11.0	TI ₂ O-E	A	Fe/r G Pgm	T=65°F F=505	sl. weak
Fe/- W/- 7-7	NO FILTER 50001	7.89	M-7/TT		BC	1200/ 40.5	BS	098-02E	A	Obs Pgm	T=62°F F=506	sl. weak
Fe/- W/- 25-25					B.C.	1200/ 40.5	B.S.	098-02E			T=62°F F=506	
Fe/ W/6 7-7	BLUE FILTER 4000	5.1	K4/TT		BC	1200/ 50.7	BS	TI ₂ O-E	A	Std Vel		good
Fe/ W/6 25-25					B.C.	1200/ 50.7	B.S.	TI ₂ O-E	A		T=61°F F=506	

273 Thurs - Fri

Date August 1-2/85. Observers Bt-Ri

Emulsion Batches:

TRU-F. 06114-24075...

A^m68° CR8-GR. 15013-20075...

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
49299F	Focus Test					0 00		Fel/16	25-25
49299	HD8890	1 22.6	+88 46	20 21	20 23	9 46E	+89 17	Fel/16	11-11
49300	"	"	"	20 25	20 27	9 42E	"	"	11-11
49301	HD190390	19 59.6	-11 53	20 43	01 05	1 26W	-11 32	Fel/16	3-3-3
49301TV	SPOT CALN FOR PLATES 49299-49301, 0A				15MIN @ 15 Volts	3900	4300	4810	
49302	HD182917	19 21.9	+50 02	01 16	02 28	3 30W	+50 22	Fel-	7-7-7
49302TV	SPOT CALN FOR PLATES 49302+303				15MIN	4810	H+	5450	
49303	HD207076	21 41.4	-2 40	02 34	03 16	1 56W	-2 10	Fel-	7-7
49303F	Focus TEST							Fel-	20-20
	2 nd attempt to locate comet P/Halley (1982 i)								
49304	HD222368	23 34.8	+5 05	03 58	04 10	0 57W	+5 40	Fel/16	11-11

Spectr. Ter

Focus...

Spectr. Ter

Exp. Mtr.

BLUE FILTER

2031

BLUE FILTER

10019

BLUE FILTER

2001

NO FILTER

50002

NO FILTER

49999

BLUE FILTER

16005

Spectr. Temp. 71°F Dome Temp./Hum. 20°C/72% Transparency Conditions PHOTOMETRIC 274

Focus 504

Spectr. Temp. Dome Temp./Hum. 14°C/86%

Comparison Type/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/ W/6 25-25					BC	1200/ 50.7	B5	TaO-E	A			cont's/red
Fe/ W/6 11-11	BLUE FILTER 10031		2	F	BC	1200/ 50.7	B5	TaO-E	A	KK Asm Sp.		Fine
" 11-11	BLUE FILTER 10019		"	"	"	"	"	"	A	KK Asm Sp.		
Fe/ W/6 3-3	BLUE FILTER 12001	3-4	6.86	F7III	BC	1200/ 50.7	150u 1.0	TaO-E	A	Fe/6 Pgm		fine
802 480								TaO-E				
Fe/- 7-7 W/- 7-7	10 FILTER 50002		V 8.4	M6	BC	1200/ 40.5	B5	09802E	A	Obs Pgm	T=67°F F=505	good
								09802E				
Fe/- 7-7 W/- 7-7	10 FILTER 49999		7.89	M7III	BC	1200/ 40.5	B5	09802E	A	Obs Pgm		good
Fe/- 20-20 W/- 20-20					B.C.	1200/ 40.5	B.S.	098-02E	A		9=64°F F=505	
Fe/ W/6 11-11	BLUE FILTER 10005	3"	4.6	F7V	BC	1200/ 50.7	B5	TaO-E	A	Std Vel	9=63°F F=506	Fine

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Date 1985/08/2-3 Observers Blu-Ri

FRI-SAT

Emulsion Batches:

8^m 68^o

H.A. 29114 - 17075

H.A. 06114 - 01085

E^m 68^o

H.A. 29114 - 25075 A1

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp
49305	HD138749	15 ^h 28 ^m .9	+31° 42'	20:04	20:21	01 26 W	+31° 33'	Fe/WRG	21-2
49305F	Focus Test					00 05 W		Fe/WRG	25-2
49306	HD164852	17 ^h 58 ^m .1	+20° 50'	20:25	21:02	00 31 E	+20° 59'	Fe/WRG	14-14
49306T	✓ SPOT CALN FOR PLATES 49305-06				15 MIN @ 4	① 17.5V 3900	② 15V 4300	③ 15V 4810	
49307	HD157482	17 ^h 18 ^m .5	+40° 04'	21:07	22:16	01:23 W	+40° 06'	Fe/WRG	7-7
49307T	✓ SPOT CALN FOR PLATES 49307-8, 11-13, 15-17, 19-21, 23-25, 27, 29				5 MIN @ 15 VOLTS	① 24 3900	② 03 4300	③ 02 4810	
49308	HD217319	22 ^h 54 ^m .8	+62° 32'	22:23	23:57	02:33 E	+63° 05'	Fe/WRG	7-7
49309	HD 19356	03 ^h 01 ^m .7	+40° 34'	00:06	00:19	06:19 E	+40° 01'	Fe/WRG	21-2
49310	"	"	"	00:27	00:43	05:56 E	"	"	5-5
49311	"	"	"	00:48	00:51	05:47 E	"	"	11-11
49312	"	"	"	00:53	00:56	05:42 E	"	"	11-11
49313	"	"	"	00:58	01:01	05:37 E	"	"	11-11
49314	"	"	"	01:04	01:14	05:24 E	"	"	21-2
49315	"	"	"	01:16	01:19	05:19 E	"	"	11-11
49316	"	"	"	01:21	01:24	05:14 E	"	"	11-11
49317	"	"	"	01:26	01:28	05:10 E	"	"	11-11

Spectr. Temp. 72°F

Dome Temp./Hum. 68°F/57%

Transparency Conditions Lt. Cirrus 276

Focus 504

Spectr. Temp.

Dome Temp./Hum.

Comparison Type/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/WRC 2-	3 Filter 50009	1-2	4.10	B7m	BC	1200/50.7	BS	IIa-Jfg	A	Be-Blu		
Fe/WRC 2-						1200/50.7	BS	IIa-OE	A		T=72°F Focus=504	
Fe/WRC 4-	3 Filter 50000		5.19	B3IV	BC	1200/50.7	BS	IIIa-Jfg IIa-Jfg	A	SB-Blu		fine
Fe/WRC 7-7	3 Filter 24001		6.22	IF8 GG	BC	1200/50.7	BS	IIa-OE IIa-OE	A	SB-Blu/Ly		
Fe/WRC 7-2	3 F. Her 6447		7.2	B0IV	BC	1200/50.7	BS	IIa-OE	A	SB-Blu/Ly	T=72°F	
Fe/WRC 2-5	3 Filter 75033		2.1-32	B8IV	BC	1200/50.7	BS	IIIa-Jfg	A	EB-Blu	T=71°F	
" 5-5	3 Filter 66512		"	"	"	"	150/07	IIIa-Jfg	A	"		
" -	3 Filter 20012		"	"	"	"	BS	IIa-OE	A	"		
" -	3 Filter 20027		"	"	"	"	"	IIa-OE	A	"		
" 11-	3 Filter 20013		"	"	"	"	"	IIa-OE	A	"		
" 2-	3 Filter 77629		"	"	"	"	"	IIIa-Jfg	A	"	T=68°F	
" 1-	3 Filter 20043		"	"	"	"	"	IIa-OE	A	"		
" 1-	3 Filter 19988		"	"	"	"	"	IIa-OE	A	"		
" 1-	3 Filter 20039		"	"	"	"	"	IIa-OE	A	"		

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Emulsion Batches:

Date 1985/08/2-3 Observers
 Fri-Sat

.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exposure
49317T	SPOT CALN FOR PLATES	49309-10, 14, 18, 22, 26, 30, 34, 38, 42				15 MIN @ 04	017.5V @ 15V @ 15V 3900 4300 4810		
49318	HD19356	03 ^h 01 ^m .7	+40° 34'	01:30	01:39	04:59E	+41° 01'	Fe/WRG6	21-21
49319	"	"	"	01:42	01:44	04:54E	"	"	11-11
49320	"	"	"	01:46	01:49	04:49E	"	"	11-11
49321	"	"	"	01:51	01:53	04:45E	"	"	11-11
49321T	SPOT CALN FOR PLATES	49309-10, 14, 18, 22, 26, 30, 34, 38, 42				15 MIN @ 04	017.5V @ 15V @ 15V 3900 4300 4810		
49322	HD19356	03 ^h 01 ^m .7	+40° 34'	01:55	02:05	04:33E	+41° 01'	Fe/WRG6	21-21
49323	"	"	"	02:07	02:10	04:28E	"	"	11-11
49324	"	"	"	02:12	02:15	04:23E	"	"	11-11
49325	"	"	"	02:18	02:21	04:17E	"	"	11-11
49326	"	"	"	02:26	02:37	04:01E	"	"	21-22
49327	"	"	"	02:41	02:44	03:54E	"	"	11-11
49328	"	"	"	02:48	02:50	03:48E	"	"	11-11
49329	"	"	"	02:53	02:56	03:42E	"	"	11-11
49329T	SPOT CALN FOR PLATES	49307-8, 11-13, 15-3, 19-21, 23-25, 27-29				15 MIN @ 15VOLTS	004 @ 03 @ 02 3900 4300 4810		
49330	HD19356	03 ^h 01 ^m .7	+40° 34'	02:58	03:11	03:07E	+41° 01'	Fe/WRG6	21-22

Spectr. Temp. Dome Temp./Hum. Transparency Conditions 278.

Focus

Spectr. Temp. Dome Temp./Hum.

Comparison Type/Filter Ex	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
SV 0.5V 00 48.0								IIa-DE				
Fe/WK 2	3 Filter 75027		2.1- 3.2	B8V	BC	1200/50.7	BS	IIIa-Jfg	A	EB-Blu		
" "	BF Her 20033		"	"	"	"	"	IIa-DE	A	"	T=67°F F=505	
" "	BF Her 19981		"	"	"	"	"	"	A	"		
" "	BF Her 20046		"	"	"	"	"	"	A	"		
SV 0.5V 00 48.0								IIIa-DE				
Fe/WK 2	BF Her 75026		2.1- 3.2	B8V	BC	1200/50.7	BS	IIIa-Jfg	A	EB-Blu		
" "	BF Her 20032		"	"	"	"	"	IIa-DE	A	"		
" "	BF Her 20033		"	"	"	"	"	"	A	"		
" "	BF Her 20025	2"	"	"	"	"	"	"	A	"		
" "	BF Her 75026		"	"	"	"	"	IIIa-Jfg	A	"	T=67°F	
" "	BF Her 20048		"	"	"	"	"	IIa-DE	A	"		
" "	BF Her 20025		"	"	"	"	"	"	A	"		
" "	BF Her 20028		"	"	"	"	"	"	A	"		
SV 0.5V 00 48.0								IIa-DE				
Fe/WK 2	BF Her 75016		2.1- 3.2	B8V	BC	1200/50.7	BS	IIIa-Jfg	A	EB-Blu	Ladder jammed against Spectrograph during exposure	

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Page 3 cont.

8-68 Emulsion Batches:
W20-E 0614-31075.....

Date 1985/08/23..... Observers

Fri - Sat

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
49331	HD 19 356	03 ^h 01 ^m .7	+40° 34'	03:13	03:17	03:21E	+40° 01'	F ₀ /WR6	11-11
49332	"	"	"	03:20	03:23	03:15E	"	"	11-11
49333	"	"	"	03:25	03:29	03:09E	"	"	11-11
49334	"	"	"	03:32	03:43	02:54E	"	"	21-21
49335	"	"	"	03:45	03:48	02:49E	"	"	11-11
49336	"	"	"	03:50	03:54	02:43E	"	"	11-11
49337	"	"	"	03:56	04:00	02:37E	"	"	11-11
49337T	✓ SPOT CAL'N FOR PLATES 49331-33, 35-37, 39-41					15 MIN @ 15 VOLTS	024 @ P3 @ D2 3900 4300 4810		
49338	HD 19 356	03 ^h 01 ^m .7	+40° 34'	04:02	04:15	02:22E	+40° 01'	F ₀ /WR6	21-21
49339	"	"	"	04:17	04:22	02:15E	"	"	11-11
49340	"	"	"	04:24	04:28	02:09E	"	"	11-11
49341	"	"	"	04:30	04:35	02:04E	"	"	11-11
49341T	✓ SPOT CAL'N FOR PLATES 49331-33, 35-37, 39-41					15 MIN @ 15 VOLTS	024 @ D3 @ P2 3900 4300 4810		
49342	HD 19 356	03 ^h 01 ^m .7	+40° 34'	04:37	04:52	01:45E	+40° 01'	F ₀ /WR6	21-21

Spectr. Temp.

Dome Temp./Hum.

Transparency Conditions

280

Focus 585Spectr. Temp. 66°FDome Temp./Hum. 16°C / 86%

Comparison Type/Filter	Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
F/100	1-	B Filter 20007		2.1- 3.2	B8V	BC	1200/50.7	BS	IIa-OE	A	EB-Blu		
"	1-	B Filter 20025		"	"	"	"	"	"	A	"		
"	-	B Filter 20004		"	"	"	"	"	"	A	"		
"	2-2	B Filter 74999		"	"	"	"	"	IIIa-Jfg	A	"	T=66°F	
"	1-	B Filter 20012		"	"	"	"	"	IIa-OE	A	"		
"	1-	B Filter 20026		"	"	"	"	"	"	A	"		
"	-	B Filter 20026		"	"	"	"	"	"	A	"		
F/100 300 480									IIa-OE				
F/100	2-	B Filter 75006		2.1- 3.2	B8V	BC	1200/50.7	BS	IIIa-Jfg	A	EB-Blu		
"	-	B Filter 20005		"	"	"	"	"	IIa-OE	A	"		
"	-	B Filter 20013		"	"	"	"	"	"	A	"		
"	-	B Filter 20016		"	"	"	"	"	"	A	"		
F/100 110									IIa-OE				
F/100	2-	B Filter 75030		2.1- 3.2	B8V	BC	1200/50.7	BS	IIIa-Jfg	A	EB-Blu		

Spectr. Temp. 75°F.....

Dome Temp./Hum. 71°F/57%

Transparency Conditions Lt. Altocumulus at ²⁶² short

Focus 503.....

Spectr. Temp.

Dome Temp./Hum. 17°C/80%

Comparison Type/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/WRC 2-2					BC	1200/50.7	BS	IIa-OE	A		T=75°F F=503	
3 F Filter												
Fe/WRC 2-2	50010	1-2	4.10	B37m	BC	1200/50.7	BS	IIIa-Jfg	A	B2-Bln		v sl str
3 F Filter												
Fe/WRC 4-4	10095		5.20	B3IV	BC	1200/50.7	BS	IIIa-Jfg	A	SB-Bln		
3 F Filter								IIIa-Jfg				
Fe/WRC 7-7	24001		6.22	LF8 + G8	BC	1200/50.7	BS	IIa-OE	A	SB-Bln/Ly	SOME CLOUDS	
3 F Filter								IIa-OE				
Fe/WRC 7-7	12000	2	7.2	B0IV	BC	1200/50.7	BS	IIa-OE	A	SB-Bln/Ly	T=72°F F=504	vs/wk
3 F Filter												
Fe/WRC 7-7	16001		6.38	B2V	BC	1200/50.7	BS	IIa-OE	A	SB-Bln	T=70°F	
3 F Filter												
Fe/WRC 7-7	17000		5.34	B2V	BC	1200/50.7	BS	IIIa-Jfg	A	SB-Bln	T=68°F	

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Date 1985/05/4-5 Observers Lgt - Ri

SUN - MON

Emulsion Batches:

5^m 680 IIIaDs 29114-17075
IIIaDs 29114-25075
8^m 680 IIaD-E 06114-02085

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
49349	HD 8890	1 ^h 22.6	+88° 46'	20:08	20:11	9 ^h 46 ^m E	89° 16'	Fe/wr6	11-11
49349F	Focus TEST							"	25-25
49350	HD 8890	"	"	20:14	20:17	9 ^h 41 ^m E	89° 16'	"	11-11
49351	HD 137909	15 ^h 23.7	+29° 27'	20:33	21:06	2 ^h 16 ^m W	29° 15'	"	21-21
49352	HD 159561	17 ^h 30.3	+12° 38'	21:12	21:18	0 ^h 21 ^m W	12° 42'	"	21-21
49353	HD 183912	19 ^h 26.7	+27° 45'	21:33	22:07	0 ^h 46 ^m E	28° 02'	FeNe/ wr6	8-8-8
49354	HD 202109	21 ^h 8.7	+29° 49'	22:13	22:48	1 ^h 47 ^m E	30° 16'	"	8-8-8
49354T	SAT CALN FOR PLATES 49351				15 MIN @ 3900	017.5V @ 15V	3900 4300 4810		
49355	HD 215182	22 ^h 38.3	+29° 42'	22:54	23:22	2 ^h 43 E	30° 15'	FeNe/ wr6+NB6	8-8-8
49355T	SAT CALN FOR PLATES 49353-59				15 MIN @ 15 VOLTS	017.5V @ 15V	3600 3900 4300		
49356	HD 182640	19 ^h 20.5	+2° 55'	23:33	00:02	1 ^h 15 ^m W	+3° 12'	Fe/wr6	21-21
49357	HD 165908	18 ^h 03.2	+30° 33'	00:08	00:47	3 ^h 18 ^m W	30° 40'	"	7-7-
49357T	SAT CALN FOR PLATES 49352, 56, 58				15 MIN @ 15 VOLTS	017.5V @ 15V	3500 4300 4810		
49358	HD 196524	20 ^h 32.9	+14° 15'	00:53	01:23	1 ^h 23 ^m W	14° 40'	Fe/wr6	21-21
49359	HD 3712	0 ^h 34.8	+55° 59'	01:36	02:00	2 ^h 02 ^m E	56° 32'	FeNe/ wr6+NB6	12-1
49360	HD 8538	1 ^h 19.3	+59° 43'	02:10	02:27	2 ^h 19 ^m E	+60° 15'	"	12-1

Spectr. Temp. 76°F

Dome Temp./Hum. 71°F/65%

Transparency Conditions haze heavy at first 284

Focus 503

Dome Temp./Hum. 63°F/97%

no cloud

Spectr. Temp. 68°F

New D-19 for IIcO's

Comparison Type/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/uv 11-	10017	3"	2	F	BC	1200/50.7	BS	IIaO-e	A	asm-sp/kk		feclstr fine
" 35-					"	"	"	"	"			centers/Red
" 11-	10000	"	"	"	"	"	"	"	"	asm-sp/kk		fine
" 21-	30006	"	3.93	F0p	"	"	"	IIIaJfg	"	"		
" 21-	27935	"	2.2	A5III	"	"	"	IIIaJfg	"	"		fine
Fe/uv 8-8	20065	"	4.2	K5II	"	1200/47.0	150/5	IIaO-e	"	KK/UV	75°F 503	fine
" 8-8	20011	"	4.2	G8II	"	"	"	"	"	KK/UV 7Pg Std		
Fe/uv 8-8	20070	"	3.8	G8II	"	"	"	IIIaJfg	"	KK/UV	plate broken in 2 pieces.	
Fe/uv 21-	30038	"	3.68	F0IV	"	1200/50.7	BS	IIIaJfg	"	asm-sp/kk	72°F 504	fine
" 7-7	10003	"	5.5	F7V	"	"	"	IIaO-E	"	"		
Fe/uv 21-	30186	"	v=3.78	F5IV	"	"	"	IIIaJfg	"	"		fine
Fe/uv 12-	20070	"	3.42	K0II	"	1200/47.0	150/5	IIaO-E	"	KK/UV 7Pg Std		good
" 12-	20086	"	2.81	A5V	"	"	"	"	"	KK/UV Std	scattered clouds	fine

785 CONT #2

Date 1985/08/4-5 Observers Lgt - R
 SUN-MON

8th 68 Emulsion Batches:
 JED-E 1D5-04085

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
49360T	SPOT CALN FOR PLATES 49360-62.					15MIN @ 15VOLTS	0 P4 0 P2 3600 3900		
49361	HD 17878	2 ^h 47.2	+52° 21'	02:35	04:03	2 ^h 12 ^m E	+52° 48'	FeNe/ WR67ND6	12-12
49362	HD 18925	2 ^h 57.6	+53° 07'	04:08	04:41	1 ^h 45 ^m E	+53° 33'	"	12-15
MON AUG 5									
49362T	TEST SPOT PLATE FOR NEW BATCH 1D5					15MIN @ 15VOLTS	0 P4 0 P3 3900 4300		P2 4800

Spectr. Temp. Dome Temp./Hum. Transparency Conditions

Focus

Spectr. Temp. Dome Temp./Hum.

Comparison
Type/Filter Exp
P2
800
Fe/16
12-12
12-12

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
							II-E				
20 007	3"	V=309	G5III +A5	BC	1200/470	150/.5	"	A	KK/UV	69°F 504	good
17 003	"	B=363	G8III +A3V	"	"	"	"	"	"	9=68°F	
							II-E				usk

03
4m
P2
4m

25075
-04085

Spectr. Temp. 74°F

Dome Temp./Hum. 70°/97%

Transparency Conditions hazy - Fine 288

Focus 504

Spectr. Temp. 70°F

Dome Temp./Hum. 65°/95%

Comparison Type/Filter E	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/Wt 150-1	B Filter 40022	2"	3.93	H5V _n	BC	1200/50.7	BS	III J-Efg	A	A star		Fine
" 144	B Filter 40116	2"	4.92	A5III _n	"	"	"	"	A	"	N star in close fld	
150 4810								"				Flawed v
Fe/Wt 144	B Filter 40139	2-4"	4.77	A5V	BC	1200/50.7	BS	"	A	H star pgn	T=73°F	
" 21-2	B Filter 40,000	"	4.00	A5V	"	"	"	III J-Efg	H	"		fine v
Fe/Wt 144	B Filter 40789	2"	3.14	H5III	BC	1200/50.7	BS	"	A	A star pgn		Fine
" 21-2	B Filter 37823	2-3"	2.77	A5V	"	"	"	"	H	"		
" 21-2	B Filter 39465	"	2.81	A5III	"	"	"	"	A	"		

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Date 1985/08/18-9 Observers Bln - Tu
THUR-FRIEmulsion Batches:
5^m 68° II 105-fg -04085
8^m 68° II 105-F 105 -04085^①

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
49370	HD 138749	15 ^h 28 ^m .9	+31° 42'	20:05	20 45	2 05 W	+31 31	Fe/WRG	21-21
49370	Spot Calc for	49370-72	82-89		15 min @ D4	175V 3900	15V 4300	15V 4810	
49371	HD 164852	17 ^h 58 ^m .1	+20° 50'	21:24	22 23	01 13 W	+20 56	Fe/WRG	14-14
49372	HD 19356	03 ^h 01 ^m .7	+40° 34'	22 32	23:08	07 06 E	+40 59	Fe/WRG	21-2
49372T	2nd Spot Calc for	49370-72	82-89		15 min @ D4	175V 3900	15V 4300	15V 4810	
49373	HD 19356	03 ^h 01 ^m .7	+40° 34'	23:11	23:30	06:45 E	+40' 59'	Fe/WRG	11-1
49373T	Spot Calc for	49373-81			15 min @ 15V	D4 3900	D3 4300	D2 4810	
49374	HD 19356	03 ^h 01 ^m .7	+40° 34'	23:33	23:45	06:30 E		Fe/WRG	11-11
49375	"	"	"	23:48	24:00	06:15 E		"	11-11
49376	"	"	"	00:03	00:12	06:03 E		"	11-
49377	"	"	"	00:15	00:23	05:52 E	+40° 58'	"	11-
49378	"	"	"	00:25	00:34	05:41 E		"	11-11
49379	"	"	"	00:36	00:46	05:29 E		"	11-11
49380	"	"	"	00:50	00:58	05:17 E		"	11-11
49381	"	"	"	01:01	01:08	05:07 E		"	11-11
49382	"	"	"	01:11	01:27	04:48 E		"	21-2

04085
04085

Spectr. Temp. 76°F Dome Temp./Hum. $74^{\circ}\text{F}/60\%$.. Transparency Conditions *thin cloud* 290
 Focus 503
 Spectr. Temp. Dome Temp./Hum. /

Comparison Type/Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/WRS 21-2 15V 4810	B Filter 50622	2"	4.10	B7m	BC	1200/50.7	BS	IIIa-Jfg IIIc-Jfg	A	Bc - Blu	T = 76°F F = 503	s/str Fine
Fe/WRS 19-4	B Filter 40113	2"	5.19	B3IV	BC	1200/50.7	BS	IIIa-Jfg	A	SB - Blu	T = 76°F	fine
Fe/WRS 21-4 15V 4810	B Filter 20290	5"	2.1- 3.2	B8V	BC	1200/50.7	BS	IIIa-Jfg IIIc-Jfg	A	EB - Blu		
Fe/WRS 1-	B Filter 20207		2.1- 3.2	B8V	BC	1200/50.7	BS	IIa-OE IIc-OE	A	EB - Blu		
Fe/WRS 11-	B Filter 20071		2.1- 3.2	B8V	BC	1200/50.7	BS	IIa-OE	A	EB - Blu		str ✓
" -	B Filter 20919	3"	"	"	"	"	"	IIa-OE	A	EB - Blu	T = 74°F	✓
" 1-	B Filter 20100		"	"	"	"	"	"	A	"		to s/str str ✓
" 11-	B Filter 20188		"	"	"	"	"	"	"	"		✓
" 11-	B Filter 21887		"	"	"	"	"	"	"	"	T = 74°F	✓
" -	B Filter 20207		"	"	"	"	"	"	"	"		✓
" 1-	B Filter 20614		"	"	"	"	"	"	"	"		✓
" -	B Filter 20489		"	"	"	"	"	"	"	"		
" 2-	B Filter 20160		"	"	"	"	"	IIIa-Jfg	"	"		strong ✓

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Page 2

Date 1985/08/08-9 Observers Blm-Tm
THUR-FRI

Emulsion Batches:

* III-10-19 08085

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
49383	HD 19356	03 ^h 01 ^m .7	+40°34'	01:29	01:43	04:32E	+40°59'	Fe/WRG	21-21
49384	"	"	"	01:46	01:59	04:16E	"	"	21-21
49385	HD 19356	"	"	02:01	02:12	04:03E	"	"	21-21
49386	"	"	"	02:14	02:24	03:51E	"	"	21-21
49387	"	"	"	02:27	02:36	03:39E	"	"	21-21
49388	"	"	"	02:38	02:48	03:27E	"	"	21-21
49389	"	"	"	02:51	03:01	03:14E	"	"	21-21
49390	"	"	"	03:04	03:13	03:02E	"	"	21-21
49390T	Spot Col'n for	49390-93		15 min @ DA		175V 15V 3900 4300	18V 4810		
49391	HD 19356	03 ^h 01 ^m .7	+40°34'	03:16	03:31	02:44E	+40°59'	Fe/WRG	21-21
49392	"	"	"	03:35	03:54	02:21E	"	"	21-21
49392T	2nd Spot Col'n for	49390-93		15 min @ DA		175V 15V 3900 4300	18V 4810		
49393	HD 19356	03 ^h 01 ^m .7	+40°34'	04:07	04:34	01:41E	+40°59'	Fe/WRG	21-21

Spectr. Temp.

Dome Temp./Hum.

Transparency Conditions *same as last* 292

Focus

Spectr. Temp. 71° F

Dome Temp./Hum. T=65° F/90%

Comparison Type/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	<u>B Filter</u>		2.1-									
Fe/W/2-7	70087		3.2	B8V	BC	1200/50.7	BS	III d-J fg	A	EB-Blu		Fe/str strong ✓
" 2-2	<u>B F. Her</u> 70069		"	"	"	"	"	"	"	"	T=73° F	✓
" 2-2	<u>B F. Her</u> 70081	2"	"	"	"	"	"	"	"	"	T=73° F	✓
" 2-2	<u>B F. Her</u> 70174		"	"	"	"	"	"	"	"		str ✓
" 2-2	<u>B F. Her</u> 70182	2-3"	"	"	"	"	"	"	"	"		✓
" 2-2	<u>B Filter</u> 70064		"	"	"	"	"	"	"	"		✓
" 2-2	<u>B F. Her</u> 70095		"	"	"	"	"	"	"	"	T=72° F F=504 Maybe fogged slightly	✓
" 2-2	<u>B Filter</u> 70113		"	"	"	"	"	III d-J fg * III d-J fg *	"	"		strong * ✓
Fe/W/2-2	<u>B Filter</u> 70003		2.1- 3.2	B8V	BC	1200/50.7	BS	III d-J fg	A	EB-Blu		
" 2-2	<u>B F. Her</u> 69962		"	"	"	"	"	"	"	"		✓ ✓
Fe/W/2-2	<u>B Filter</u> 69970		2.1- 3.2	B8V	BC	1200/50.7	BS	"	A	EB-Blu	T=71° F	
* This plate was not completely immersed in first fixer - may not be reliable												

293

Fri-Sat

Date 1985/08/19-20..... Observers ...Gry...T.M.....

Emulsion Batches:

...Dial-fg.....-08085

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp
49 394	HD 159561	17 30.3	12° 38'	19 59	20 05	0 35" E		Fe/wrb	19-20
49 395	HD 154029	17 1.0 16 57.9 _{Tu}	33° 35' +33 43 _{Tu}	20 11	21 47	1 42" W	+33 43	n	14-14
49 395T	Spot Col'n for	49 394 - 96	+ 49 396 (not night)	15 min	17.5V 15V 15V 3900	4300	4810		
49 396	HD 165777	18 6.6 18 0.6 _{Tu}	90 34' + 9 33 _{Tu}	21 52	22 32	1 22" W	+9 39	Fe/wrb	20-14

Spectr. Temp. 80°F

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

Transparency Conditions *slightly - foggy* 294

Focus 502

Spectr. Temp. 77°F

Dome Temp./Hum. $72^{\circ}\text{F} / 98\%$

Comparison Type/Filter	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
B filter Feb/16 20-21 40907	2"	2.2	A5III	BC	1200/50.7	BS	III-1-fg	A	Aster pgm			fine
B filter n 40220	2-3"	5.27	A3IV	n	"	"	"	A	"			fine -L
B filter Feb/16 20-21 39987	23	3.85	A4IV	BC	1200/50.7	BS	"	A	Aster pgm			fine

295

Sat-Sun

Date August 10:11/85 Observers Bt-Tn.....

Emulsion Batches:

..09802E.....20075

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
49397	HD182917	19 21.9	+50 02	23:49	03 24	5 02 W	+50.21	Fe/ - No 1 -	7-7-7 14-7
49397T	Spot Coln for	49397, 49401 (next night)			15 min @	D315V 4810	D17V Hd	D27V 5450	
3 rd attempt to locate P/Halley (1982i). Used new eyepiece									
49398	HD12929	2 01.5	+22 59	04 14	04 35	0 29 E	+23 29	Fe/wr6	2020

Spectr. Temp. 76°F

Dome Temp./Hum 66°F/96.9%

Transparency Conditions Clearing 296

Focus 503

Milky way clear

Spectr. Temp. 67°F

Dome Temp./Hum 61°F/99%

+ some Perseids.

Comparison Type/Filter	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/1-17-77	NO FILTER	"	✓			1200*					* tilt set with increasing angle	
1/6-1-14-77	39836	4-10"	84	M6	BC	40.5	BS	098-02E	A	Obs Pgm	very bad seeing	
D276								098-02E				✓
5450											<u>* Shuttered - 3 pressed</u>	
piece												
Fe/w/6 202	BLUE FILTER	5"	2.2	K2	BC	100/50.7	BS	LT10J-rg A		std/vel		fine

297

Sun - Mon

Date August 11-12/85 Observers BT-Tn

Emulsion Batches:

H.O.E. 04085

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
49399	HD 8890	1 22.6	+88 46	19 58	20 04	9 26E	+89 16	Fe/D16	11-11
49399F	Focus Test					0 W+		Fe/D16	240-40
49400	HD 8890	1 22.6	+88 46	20 08	20 13	9 17E	+89 16	"	11-11
49401	HD 182917	19 21.9	+50 02	20 22	23 51	1 31W	+50 18	Fe/-	7-7-7
49401T	Spot Coll for 49399, 49400, 03, 04, 05, 08, 09				15 min e 15V	^{D4} 3900	^{D3} 4300	^{D2} 4810	7-7-7
49402	HD 207076	21 41.4	-2 40	23 57	02 00	1 20W	-2 10	Fe/-	7-7-7
49403	HD 224427	23 52.7	+24 35	02 06	03 18	0 25W	+25 09	Fe/D16	8-8-8
4th attempt to locate Comet Halley - no luck									

04085

Spectr. Temp. 71°F Dome Temp./Hum 65°F/83% Transparency Conditions Fine 298
 Focus 50.4
 Spectr. Temp. 61°F Dome Temp./Hum 57°F/99%

Comparison Type/Filter E	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/Orig 11-	0514	4"	2	F	BC	1200/50.7	BS	IIa0-E	A	KK Asm Sp		fine center vs red
Fe/Orig 216					"	"	"	BS IIIa1-E _{sq}	A			
" 11-	0306		2	F	"	"	"	IIa0-E	A	KK Asm Sp		fine
Fe/7-7-7	3899	3-4"	8.4	Mb	"	1200/405	"	IIa0-E	A	Obs Pgm	* 5 Black filter holder in T=70°F F=504	fine
D2 4810								IIa0-E			broken 2 pieces	✓
Fe/7-7-7	33523	3-4.5"	7.89	M7III	"	1200/405	"	IIa0-E	A	Obs Pgm	set 507 T=63°F	slwk
Fe/Orig 216	3490	3"	6.25	M3III	"	1200/50.7	"	IIa0-E	A	Archive	507 T=61°F	fine
	But Finder field of area was OK											

299

Mon-Tues

Date August 12-13/85 Observers BT-Tn / J. Dickenson

Emulsion Batches:

IaQ-E 105 - 04085

098 - 20075

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
49404	HD 8890	1 27.6	+88 46	20 18	20 23	9 04E	+89 16	Fe/ Wig	11-11
49405	"	"	"	20 27	20 29	8 57E	"	"	11-11
49406	HD 182917	19 21.9	+50 02	20 40	22 00	0 16E	+50 19	Fe/- Ne/-	7-7-7 7-7-7
49407	HD 207076	21 41.4	-2 40	22 05	23 05	1 31E	-2 11	Fe/- Ne/-	7-7 7-7
49408	HD 190390	19 59.6	-11 53	23 23	01 54	2 57W	-11 33	Fe/ Wig	3-3-3
49409	HD 222368	23 34.8	+5 05	02 02	02 12	0 17E	+5 38	Fe/ Wig	11-11
<p>looked at NGC 7331 and near by galaxies in same region</p> <p>looked at Stefan's quintet</p> <p>→ test objects for P/Halley (1982i)</p> <p>conditions too poor to make an attempt to locate comet</p>									

Spectr. Ter

Focus...

Spectr. Ter

Exp. Mtr.

BLUE FILTER

10077

BLUE FILTER

10013

NO FILTER

50051

NO FILTER

50141

BLUE FILTER

3400

BLUE FILTER

6315

Spectr. Temp. 67°F

Dome Temp./Hum. $64^{\circ}\text{F}/76\%$

Transparency Conditions *cloudy* 200
Some Aurora

Focus 505

Spectr. Temp. 63°F

Dome Temp./Hum. $58^{\circ}\text{F}/99\%$

Comparison Type/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/ W/6 11-	BLUE FILTER 0077	2"	2	F	BC	1200/ 307	BS	T1a0-E	A	KK Am Sp		fine
" 11-1	BLUE FILTER 0013	2"	"	"	"	"	"	"	A	KK Am Sp		fine
Fe/- 7-7	NO FILTER 50051	2"	V 8.4	M ₆	"	1200/405	"	098	A	Obs Pgm	Blank filter in. no spot plate for this	fine
Fe/- 7-7	NO FILTER 50141	3"	7.89	M7/II	"	"	"	"	A	Obs Pgm	cloud	fine
Fe/ W/6 3-	BLUE FILTER 3400	3"	6.86	F1/II	"	1200/ 307	150μ 1.0	T1a0-E	A	Fe/IG Pgm	hazy	star weak - comp. strong
Fe/ W/6 11-1	BLUE FILTER 6315	3-5	4.6	F7V	"	"	BS	"	A	Std Vel		fine exp comp str.
											Then too cloudy	

201

Fri-Sat

Date August 16-17, 1985 Observers B.H. Taylor, T. J. Dickinson

Emulsion Batches:

... H.G.F. - 04085

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
49410	HD 8890	1 22.6	+88 46	19 46	19 48	9 22E	+89 16	Fe/Wig	11-11
49411	"	"	"	19 53	19 55	9 15E	"	"	11-11
49412	HD 190390	19 59.6	-11 53	20 14	01 35	2 56W	-11 31	Fe/Wig	22-2
49412T	Spot Coll for 49410				15 min @	15V	3900 4300	D4 D3 D2 4810	
49413	HD 222368	23 34.8	+5 05	01 41	01 57	0 16E	+5 39	Fe/Wig	3-3
49415T	Focus Test							"	10-10
5 th attempt to locate P/Halley (1982i) No luck - correct fld found but sky getting too brt.									

Spectr. Te

Focus...

Spectr. Te

Exp. Mtr.

SCALE FILTER

10123

SCALE FILTER

10104

SCALE FILTER

8445

SCALE FILTER

8115

Spectr. Temp. 74°F Dome Temp./Hum. $70^{\circ}\text{F}/57\%$ Transparency Conditions *Fine* 302

Focus 503

Spectr. Temp. Dome Temp./Hum. $460^{\circ}\text{F}/80\%$

Comparison Type/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/Wg 11-1	BLUE FILTER 0123	1"-2"	2	F	BC	1200/ 50.7	B5	Il ₀ D-E	A	KK Asm Sp		
" 11-1	BLUE FILTER 0204	"	"	"	"	"	"	"	A	KK Asm Sp		
Fe/Wg 22-1 B2 480	BLUE FILTER 8445	2-3"	686	F1/III	"	"	150μ 1.0	Il ₀ D-E	A	Fe/rG Pgm Comp fld lenses in		
Fe/Wg 33	BLUE FILTER 8115	2"	4.6	F7V	BC	1200/ 30.7	150μ 1.0	Il ₀ D-E	A	Std Vel	T=68°F F=505	
" 10"					"	"	"	Il ₀ D-E	A		T=67.5°F "	

Plates discarded because grating cover
discovered to have been left on all night!

303

Sat-Sun

Date August 17-18/85 Observers BT-Ri

Emulsion Batches:

Opa... 15.03-15.085.

IlaO... 105-04085.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
49410	HD 182917	19 21.9	+50 02	22 46	00 21	2 25W Th 2 25E	+50 19	Fel- Nel-	7-7- 7-7-
49411	HD 207076	21 41.4	-2 40	00 29	01 31	1 14W	-2 10	Fel- Nel-	7-7- 7-7-
49411T	SPOT PLATE FOR PLATE 49410/11			15MIN	4810	OP3 15V H2	⊙ DI 7V ⊙ D2 7V 5450		
49411F	Focus Test							Fel- Nel-	20-20 20-20
49412	HD 9138	1 24.9	+5 38	01 43	02 51	1 10E	+06° 09	Fel/W26	7-7-7
49413	HD 219576	23 11.7	-8 16	02 58	03 55	2 07W	-7 42	"	7-1-
6 th attempt to locate P/Halley (1952i). 100% sure field is correct									

Spectr. Temp. 73°F.....

Dome Temp./Hum. 17°C/90%

Transparency Conditions..... 201

Focus ... 505.....

Spectr. Temp.

Dome Temp./Hum. 16°C/95%

Comparison Type/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/- 7-7	NO FILTER		V			1200						
Ne/- 7-7	49999	2"3"	8.4	M6	BC	1200/40.5	BS	04802E	A	Obs Pgm		Fine
Fe/- 7-7	NO FILTER											
Ne/- 7-7	50031	3"4"	7.89	M3TT	"	"	"	"	A	Obs Pgm	T=70°F F=505	fine
Fe/- 20-						1200						UV
Ne/- 20-					BC	1200/40.5	BS	04802E	A		T=68°F F=505	OK
Fe/102 7-7	5" FILTER 8000	4"	5.1	K4TT	BC	1200/30.7	BS	T10-E	A	Std Vel	T=68°F F=304	Fine
" 7-	BLUE FILTER 2805		6.66	M3TT	"	"	"	"	A	Archive-BS	CUT SHORT, NOT ENOUGH TIME TO GET FULL EXP.	sl w h

305

Emulsion Batches:

Date Tues. Wed. Aug 27-28 Observers Lt. Ri

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter Exp.	
49414	HD 190390	19 59.6	-11° 53	21:00	22:46	00 SWW	-11° 28	-	-
<p><u>Fri-Sat</u> <u>August 30-31/85</u> <u>BT-Ri</u></p> <p>sky cleared at 1:00 est but dome too wet and humidity too high for observing</p>									

307

Sat-Sun

Emulsion Batches:

Date August 31 - Sept 1/85 Observers BT-Ri

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp
	Pocket Spectrograph			19:31	00:30				
SUN MON	SEPT 1, 1985		KK-Ri						
49414T1	COMPARISON TEST					#1 Fe Ne	COMP/ STALCAR	40/2	
49414T2	"					#2 Fe A	COMP/ STALCAR	150/15	
49414T3	"			20:10		#2 Fe A	STALCAR	4MI	
49414T4	"					#3 Fe Ne	COMP/ STALCAR	405/405	
	Sept 3, 1985	KL							
49414T5	comp. test					#1 Fe Ne	comp only	20	

Spectr. Temp. Dome Temp./Hum.

Transparency Conditions 308

Focus

Spectr. Temp. Dome Temp./Hum.

Comparison Type/Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
											CLOUDS	
comp STALCAMP 1					B.C.	1200/50.7	BS	IIc0	A		T=650 F F=505	sl. strong uneven
comp STALCAMP 2					"	"	150 ₂	IIc0	A		.	sl weak
STALCAMP 3						1200/40.5	150 ₂	098	A			weak
comp STALCAMP 4						"	BS	"	A			Ne ok
comp only 20						1200/50.7	BS	IIc0	A			exy ok still uneven need to try comp focus next

309

Mon-Tues

Emulsion Batches:

Date Sept. 23/35 Observers BT-Tn

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp
<u>Paket Spectrograph 19:41 - 22:30</u>									
+ test TV camera focus 20:20 - 20:50									
with HD176411 V=4.02 B=5.10 focus normal									
and HD185663 V=7.7 B=8.9 " "									
<u>Sept 6-7</u> II									
49414T7	Comparison Test						#1	FeNe	20
49414F1	Focus test	1200	50.7				#1	FeNe	20/20
49414T8	Comp test	1200	40.5				#1	FeNe	4
F2	Focus	"					#1	FeNe	4/4
T9	Comp test						"	"	20'
F3	Focus						"	"	20/20
T10	Comparison						"	"	2
— Telescope pushed out of the way									

Spectr. Temp. *63.9*.....

Dome Temp./Hum. *+60°/60%*.....

Transparency Conditions *clearing to 314*.....

Focus *506*.....

very bad seeing

Spectr. Temp. *61*.....

Dome Temp./Hum. *52°/60%*.....

Comparison Type/Filter	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
<i>7-1</i>	<i>353</i>	<i>4"</i>	<i>37</i>	<i>60I6</i>	<i>BC</i>	<i>1200/507</i>	<i>BS</i>	<i>II₂O-E</i>	<i>A</i>	<i>std vel</i>	<i>somedud</i>	<i>OK</i>
<i>5-</i>	<i>250</i>	<i>4-70"</i>	<i>5.9</i>	<i>K0</i>	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>	<i>A</i>	<i>"</i>	<i>more cloud</i>	<i>Exp OK comp in std</i>
<i>6-</i>	<i>845</i>	<i>4"</i>	<i>2.2</i>	<i>K2</i>	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>	<i>A</i>	<i>n</i>		<i>OK</i>
<i>11</i>					<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>	<i>A</i>		<i>set 506 T 61 f</i>	<i>cent/red</i>

Spectr. Temp.

Dome Temp./Hum. . 11.0°C 61%

Transparency Conditions 3/10...

Focus

Spectr. Temp. ... 52.0°F

Dome Temp./Hum.

Compansor Type/Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
						B.C.	1200/40.5	B.S.	098-02	A		T=60°F F=508	OK
		NO FILTER	5	V=5.04	M6III	B.C.	1200/40.5	B.S.	098-02	A	CH CYR STD	Some Comp	Exp OK is stellar
		50107	5+	V=8.4	M7III	B.C.	1200/40.5	B.S.	098-02	A	CH CYR OBS PRG.	Em str	Comp str cont OK
		5005							098-02				✓
		3 FILTER	5+	2.2	M2II	B.C.	1200/50.7	B.S.	IIa0-E	A	STD VEL	T=55°F F=508	strong comp wk
		10169											sl weak
		4500		5.7	B8III	B.C.	1200/50.7	B.S.	IIa0-E	A	Ly PRG		comp wk / is stellar
		2854		7.1	B8	B.C.	1200/50.7	B.S.	IIa0-E	A	" "	cloud	sl weak comp wk

317

Thurs - Fri

Date Sept. 12-13/25. Observers Bt. R.

Emulsion Batches:

4^w 098-02...15093-07095

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
49423	HD 187917	19 21.9	+50 02	19 32	21 18	1 05W	+50 21	FeNe #3 d. Filter	10-10-1
49423T	SPOT CAL FOR PLATES 49423-24					015UD3 07 15M10 4810	07 JDI 037 HD 5450		
49424	HD 207076	21 41.4	-2 40	21 25	22 22	0 11E	-2 07	FeNe #3 d. Filter	10-10-1
49424F	FOCUS TEST							FeNe #3 DIFFUSER	40-40
				Pocket Spectrograph 22:30 - 05:05					

Spectr. Temp. $+55^{\circ}\text{F}$Dome Temp./Hum: $+14^{\circ}\text{C}/52\%$ Transparency Conditions *fine*..... 318...

Focus..... 509.....

Spectr. Temp. $+52^{\circ}\text{F}$Dome Temp./Hum: $+6^{\circ}\text{C}/92\%$

Comparison Type/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
10 FILTER 50007	5	✓ 8.4	M6	BC	1200/ 40.5	B5	098-02EA	Obs Pgm			<u>Em str</u> Continuum	comp str fine
16 FILTER 50001		7.89	M7III	BC	1200/ 40.5	B5	098-02E A	Obs Pgm			T=52°F F=51#	comp str fine
					1200/ 40.5	B5	098-02	A			T=52°F F=51I	OK

321

Sat-Sun

Date Sept. 14-15/85 Observers Bl-Ri

Emulsion Batches:

4^m 69° 098-22 15893-07095

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
49425	CH CY6 HD 182917	19 21.9	+50° 02	19:35	20 38	0 33W	+50 23	FeNe ^{#3} W Diffuser	10-10
49426	HD 207076	21 41.4	-2 40	20 44	21 33	0 54E	-2 07	FeNe ^{#3} W Diffuser	10-10
49426T	SPOT CAL FOR PLATES 49425, 26			15 MIN	4810	0 15V43 0 70V1 HD	0 70, 02 5450		
49426F	- Focus TEST							FeNe ^{#3} W DIFFUSER	40-40
				Pocket Spectrograph 21:45 - 05:30					

Spectr. Ten

Focus

Spectr. Ten

Exp. Mr.

50012

50013

Spectr. Temp. ... 62°F.....

Dome Temp./Hum. 99.75%

Transparency Conditions 322

Focus 507

Spectr. Temp.

Dome Temp./Hum. 90% / 82%

Comparison per/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
No 3 10-11	50 FILTER 50002	3"	8.4	Mb	B.C.	1200/40.5	B.S.	098-02E	A	Obs Pgm		fine
No 3 10-11	50 FILTER 50013	3	7.89	M7TH	"	"	"	"	A	Obs Pgm	one edge light	fine struck ok
No 3 10-11					B.C.	1200/40.5	B.S.	098-02E	A		9 = 60°F F = 507	ok

327 Fri-Sat

Date Sept 20-21, 1955 Observers Kk-Tn-Mki-Kwi

Emulsion Batches:

IIIa-S-F
.....
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
49431	HD 137909	15 23.7	+29 27	19 24	20 22	4 36W	+ —	Fen ^{#1} no diffuser	10-10
Entry	Sept 24/25	- VCR Recordings		#1 - V faint star 3.5' NW of Ring Nebula					
#2	Ring Nebula - (not visible obviously)			#2	2 sec → 2	40/60	3 secs too saturated.		
#3	M15 (Looks OK)			2 1/3 sec					
Reticon	ADS 183912			20 48	21 08			#1 Fen/Ne	1 sec

329

Fri-Sat

Date Sept 27-28, 1985... Observers Flh-Ju - K. et.

Emulsion Batches:

Dewar topped at 19:45, 00:20.
T: -149.9°C

Plate No.	Object	R.A.		Declination		Starting Time		Ending Time		Hour Angle End	Declination	Comparison	
		1985	1900	1985	1900	E.S.T.	E.S.T.	Type/Filter	Exp.				
49432	HD 191610 28 Cyg	20 ^h 05 ^m 43 ^s	36 33	+36 48	21 29	22 08			W			Diffuser Fe-He	80
	28 Cyg	"	"	"	22 20	23 06			W			"	"
	28 Cyg	"	"	"	23 16	00 04			W			"	"
	HD 24912 3 Per	3 ^h 52 ^m 28 ^s	+35 30	+35 45	00:43	01:11						Diffuser Fe-He	60
	3 Per	"	"	"	01:29	02:00			148 E			"	"
	HD 24398 3 Per	3 ^h 47 ^m 51 ^s	+31 35	+31 50	02:13	02:25			E			"	"
	FLAT - 5 ^{sec}												
	3 Per	3 ^h 58 ^m 0	+35 45'		02:45	03:15			033 E	+35 54		Diffuser Fe-He	60
	3 Per	"	"		03:22	4:03						"	"
	FLAT FLDS												
	Data in SEPT 27 85 A. DAT (up to blank page) } concatenated to SEPT 27 85. DAT												
	SEPT 27 85 B. DAT (after blank page) } Flh Oct 2/85												

Spectr. Temp.

Dome Temp./Hum. 163°F / 65%

Transparency Conditions . Fine 330

Focus

R_g Tour looked at Jupiter

Spectr. Temp.

Dome Temp./Hum. /

Comparison Type/Filter	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	30,076	5"	4.8	B25V	Reticon	1800/43.2	250μ			Flu-Beta	+2 Flat Flds (10, 5, 20)	
	35,050	"	"	"	"	" / "	"			Flu-Beta		
	30,150	"	"	"	"	" / "	"			Flu-Beta	2 Flat Flds (10 + 15 sec)	
	35,079		4.04	07.5II	"	1800/50.3	"	NOTE: header information says slit = 51.3 incorrect		Flu O-Star	2 Flat Flds (3 and 5 sec)	
	40,890		"	"	"	" / "	"		Flu O-Star	Telluric STD for 3 Per	Bombed twice after hitting "4" in data entry mode during integration.	
	45,115		2.8	B1Ib	"	" / "	"					
					"	1800/50.3	"					
	42,987		4.09	07.5II	"	1800/51.0	"			Flu O-Star	2 Flat Flds (5 and 3 sec)	
	9,343		"	"	"	" / "	"			"	CLOUD!	
					"	" / "	"				5 sec x 2 ; 3 sec x 2	

331

Emulsion Batches:

Date Sept 29-30, 1985 Observers Flu - TrSunday - Monday "The keyboard just blew ----"

Plate No.	Object	R.A. 1985 1900 ⁺	Declination 1985 1900 ⁻	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
	FLAT FIELD								
	FLAT FIELD								
	Comp Fe-Ar							Diffuser Fe-Ar	95 sec
49433	28 Cygni	20 ^h 08. ^m 9	+36° 48'	20:47	20:46	0 50W			
	Comp Fe-Ar							Diffuser Fe-Ar	40
	28 Cyg	20 ^h 08. ^m 9	+36° 48'	21:51	22 59	3 03W			
	Comp Fe-Ar		26 units = 14					Diffuser Fe-Ar	270
	28 Cyg	20 08 9	+36 48	23 04	00 02	4 06W			
	Comp Fe-Ar		19 units = 15						70
	Flat Field								
	Flat Field								
	Dark								
	Dark								

Spectr. Ter

Focus...

Spectr. Ter

Exp. Mtr.

-205

2800

530

Spectr. Temp.

Dome Temp./Hum. ^{165°/55%}Transparency Conditions *Fin. R.* 332

Focus

Spectr. Temp.

Dome Temp./Hum. [/]*Note - we had to use VT100 "A" which prevented use of graphics*

Comparison Type/Filter	Exp. Mtr.	Seeing	Pig. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
					Retican	1800/43.2	250 μ				15 sec.	
					"	" / "	"				10 sec	
Diffuser R-Ar 90°					"	" / "	"				95 sec	
	40005	1-3"	4.8	B2.5Ve	"	" / "	"			Be-Flu		
Diffuser Fo-Ar 0°					"	" / "	"				~60 sec	
	38000	2-3"	4.8	B2.5Ve	"	" / "	"			Be-Flu		
Diffuser Fo-Ar 0°					"	" / "	"			Reset 2x	before this exp	
	32600	2-3"	4.8	B2.5Ve	"	" / "	"			Be-Flu	getting foggy	
					"	" / "	"				15 sec	
					"	" / "	"				10 sec	
					"	" / "	"				1 min	
					"	" / "	"				2 min	

333 *12*

Emulsion Batches:

Date *Oct. 2/3, 1985* Observers *Flu - Ri*
Wed - Thurs.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
	FLAT FIELD							TUNG	155 SEC
	FLAT FIELD							TUNG	155 SEC
	FLAT FIELD							TUNG	105 SEC
	FLAT FIELD							TUNG	125 SEC
	COMPARISON							Fe AR #2 DIFFUSOR	7. 100 SEC
49434	HD 191610	20 5.7	+36 33	19 05	19:55		+36°56		
	HD 191610	20 5.7	+36° 33	19:57	20:05		+36°56		
	HD 191610	20 5.7	+36 33	20:07	20:48	01°09W	+36°56		
	HD 191610	20 5.7	+36 33	20:51	21:31	02° 53W	+36°56	Fe AR #2 DIFFUSOR	100 SEC
	HD 191610	20 5.7	+36 33	21:38	22:20	02° 41W	+36°56	"	3 MIN
	HD 191610	20 5.7	+36 33	22:31	23:09	03 30 W	+36°56	"	3 MIN
	HD 191610	20 5.7	+36 33	23:19	00:02	04 24 W	+36°56	Fe AR #2 DIFFUSOR	3 MIN
	13 SEC FLATFIELD							TUNG	
	FLAT FIELD	5 SEC 2X	3 SEC 2X					TUNG	
	HD 24912	03 52.5	+35° 30	01:01	01:25	E	+35° 52	Fe No #3 DIFFUSOR	80 SEC

Spectr. Temp. Dome Temp./Hum. 11°C / H=53% Transparency Conditions ... Good 334

Focus

Spectr. Temp. Dome Temp./Hum.

Comparison Exp/Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	155					RETICON	1800/43.2	250μ/.3		-19.8	FLN-Be ⁺	15SEC	4313
	155					RETICON	1800/43.2	250μ/.3		"	FLN-Be ⁺	15SEC	4377
	105					RETICON	1800/43.2	250μ/.3		"	FLN-Be ⁺	10SEC	2452
	125					RETICON	1800/43.2	250μ/.3		"	FLN-Be ⁺	12SEC	2775
Fe AR 2 DIFFUSER	100					RETICON	1800/43.2	250μ/.3		"	FLN-Be ⁺		62
		38000		4.82	B3Ic	RETICON	1800/43.2	250μ/.3		"	FLN-Be ⁺		FIVECCS 3171
		8,500		4.82	B3Ic	RETICON	1800/43.2	250μ/.3		"	FLN-Be ⁺	ADJUSTED GRATING +TILT A LITTLE	864
		40019		4.82	B3Ic	RETICON	1800/43.1	250μ/.3		"	FLN-Be ⁺		(5) 3293
Fe AR 2 DIFFUSER	100	40026		4.82	B3Ic	RETICON	1800/43.1	250μ/.3		"	FLN-Be ⁺	COMP 20	(1) 3281
"	30	40009		4.82	B3Ic	RETICON	1800/43.1	250μ/.3		"	FLN-Be ⁺	COMP 38	(9) 3267
"	30	40019	3	4.89	B3Ic	RETICON	1800/43.1	250μ/.3		-19.8°C	FLN-Be ⁺	TOPPED UP DEWAR (38)	(4.5) 3258
Fe AR 2 DIFFUSER	30	45018		4.89	B3Ic	RETICON	1800/43.1	250μ/.3		-19.8°C	FLN-Be ⁺	(38)	(4) 3847
TUNG							1800/43.1	250μ/.3			FLN-Be ⁺	5 SEC 6404	3500 3395
TUNG							1800/51.0	250μ/.3		-19.8°C	FLN-OSTAR	5445	2639 2744
Fe AR 2 DIFFUSER	80	40050		4.04	07.5Ic	RETICON	1800/51.0	250μ/.3		-19.8°C	FLN-OSTAR		(3) 3220

335 #2

Date WED.-THURS OCT. 2/3/85 Observers F.L.R. - Ri

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.	Exp. Mtr.
	HD 24912	03 52.5	+35 30	01:32	01:50	1 ^h 36 ^m E	+35° 52'	FeNe#3 DIFFUSER	80 SEC	30000
	HD 24398	03 47.9	+31° 35'	02:07	02:17	1 ^h 05 ^m E		FeNe#3 DIFFUSER	80 SEC	45079
	HD 24912	03 52.5	+35° 30'	02:30	02:52	0 ^h 35 ^m E	+35° 52'	FeNe#3 DIFFUSER	80 SEC	45045
	HD 24912	03 52.5	+35° 30'	02:59	03:19	0 ^h 09 ^m E	+35° 52'	FeNe#3 DIFFUSER	80 SEC	45050
	HD 24398	03 47.9	+31° 35'	03:32	03:40	0 ^h 16 ^m W	+31° 57'	FeNe#3 DIFFUSER	80 SEC	45059
	HD 24912	03 52.5	+35° 30'	03:53	04:15	0 ^h 48 ^m W	+35° 52'	FeNe#3 DIFFUSER	80 SEC	50034
	HD 24912	03 52.5	+35° 30'	04:22	04:42	W	+35° 52'	FeNe#3 DIFFUSER	80 SEC	50153
	HD 24912	03 52.5	+35° 30'	04:45	05:04	0 ^h 37 ^m W	+35° 52'	FeNe#3 DIFFUSER	80 SEC	50034
	HD 24398	03 47.9	+31° 35'	05:19	05:27	0 ^h 05 ^m W	+31° 57'	FeNe#3 DIFFUSER	80 SEC	45142
	HD 24912	03 52.5	+35° 30'	05:39	05:55	0 ^h 28 ^m W	+35° 52'	FeNe#3 DIFFUSER	80 SEC	45150
	FLAT FIELDS							TUNG	45 SEC	

337 Thurs-Fri

Date Oct 3-4/55 Observers Bt-Ri

Emulsion Batches:

4ⁿ 68 098-02.15093-17095...

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
49435F	Focus Test			COMPARISON / STELLAR				FeNe #3 di. Filter	14-14
49435	HD182917	19 21.9	+50 02	18 31	20 16	1 25W	+50 18	FeNe #3 di. Filter	4-4-5
49435T	SPOT PLATE FOR	49435-38			15 MIN	① 15UD3 ② HD1 4B10 Hd	③ 15UD2 SA-50	FeNe #3 di. Filter	4-4-5
49436	HD182917	19 21.9	+50 02	20 20	23 12	4 22W	+50 18	FeNe #3 di. Filter	4-4-5
49437	HD182917	19 21.9	+50 02	23 16	00 08	5 17W	+50 18	FeNe #3 di. Filter	4-8
49438	HD207076	21 41.4	-2 40	00 16	00 38	3 28W	-2 11	FeNe #3 di. Filter	5320
	Pocket Spectrograph				01:00 - 03:45			cloud at end	

Spectr. Temp.

Dome Temp./Hum. $12.0^{\circ}\text{C}/81.9\%$ Transparency Conditions *intermittent cloud*... 338...

Focus

Spectr. Temp.

Dome Temp./Hum. $8.0^{\circ}\text{C}/97.9\%$ Comparison
Type/Filter Exp

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				B.C.	1200 /40.5	B.S.	098-02E A			$T=56^{\circ}\text{F}$ $F_0=508z$	OK
10 FILTER		V			1200					plate broken - 5 easy pees	
10004	3"-4"	8.4	Mb	BC	/40.5	BS	098-02EA		Obs Pgm	no TV guiding	Exp OK dub though VL
							098-02E				
10 FILTER		V			1200						
50004	3"	8.4	Mb	BC	/40.5	BS	098-02E A		Obs Pgm	telescope oscillating at end	OK Em. OK
10 FILTER		V			1200						
10987		8.4	Mb	BC	/40.5	BS	098-02EA		Obs Pgm	$T=52^{\circ}\text{F}$ $F=509.5$	SIWT
10 FILTER					1200						
5320		7.89	M7ITT	BC	/40.5	BS	098-02E A		Obs Pgm		VWT

+ end

339

Fair Sat

Date Oct 11-12/85 Observers B-T

Emulsion Batches:
8m 680 Ha.Q.F. -11095
4m 680 098-02 15073-17095

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp
49439F	Focus Test							Fe Ne #1 no filter	15-15
49439	HD 186791	19 41.5	+10 22	18 39	18 50	0 09 E	+10 42	Fe Ne #1 d. filter	7-7
49440	HD 190390	19 59.6	-11 53	19 03	22 01	3 02 W	-11 28	Fe Ne #3 d. filter	2-2-2
49440T	Spot Colln for	49440-45			15 min @	15V D3 4810	7V D1 H2	7V D2 5450	
49441	HD 432	0 03.8	+58 36	22 08	22 11	0 52 E	+59 08	Fe Ne #3 d. filter	3-3
49442	HD 13174	2 03.7	+25 28	22 23	22 55	2 08 E	+26 00	Fe Ne #3 d. filter	2-2-2
49443	HD 17584	2 44.3	+37 54	22 59	23 16	2 29 E	+38 24	Fe Ne #3 d. filter	3-3
49444	HD 21770	3 25.5	+45 43	23 26	00 03	2 22 E	+46 08	Fe Ne #3 d. filter	2-2-2
49445	HD 20902	3 17.3	+49 30	00 08	00 10	1 08 E	+49 56	Fe Ne #3 d. filter	3-3
49446	HD 432	0 03.8	+58 36	00 26	00 30	1 26 W	+59 10	Fe Ne #3 d. filter	3-3
49447	HD 13174	2 03.7	+25 28	00 36	01 19	0 16 W	+26 00	Fe Ne #3 d. filter	3-3
49448	HD 17584	2 44.3	+37 54	01 24	01 45	0 01 W	+38 23	Fe Ne #3 d. filter	3-3
49448T	Spot Colln	for 49446 - 48 + 49439			15 min @	15V 3900	124 V3 9300	U2 4810	
	02:13 Located and observed P/Halley (19821)						+20 37		

11095
7095

Spectr. Temp. ... 52°F

Dome Temp./Hum. 51°F/56%

Transparency Conditions . Fine - hazy 340

Focus 5.09

Spectr. Temp. ... 45°F

Dome Temp./Hum. 42°F/96%

Comparison
Type/Filter Exp

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	1200/50.7	BS	IIU-E	A			discarded nothing
Fe No 1 no filter					1200						
Fe No 1 no filter	3"	4.1	K3II	BC	1200/50.7	BS	IIU-E	A	Std Vel		NO COMP
Fe No 3 no filter	3 1/4"	6.86	F2III	BC	1200/40.5	150μ	10	098-02E	A	Fe/rG Pgm note: no filter replaced by blank in all cases	Fine ✓
Fe No 3 no filter	2"	7.61	F2III	BC	1200/40.5	150μ	10	098-02E	A	Fe/rG Pgm	Fine
Fe No 3 no filter	2"	5.31	F2III	BC	1200/40.5	150μ	10	098-02E	A	Fe/rG Pgm	"
Fe No 3 no filter		4.57	F2III	BC	1200/40.5	150μ	10	098-02E	A	Fe/rG Pgm	"
Fe No 3 no filter	2"	5.71	F4III	BC	1200/40.5	150μ	10	098-02E	A	Fe/rG Pgm	"
Fe No 3 no filter		2.27	F3Ib	BC	1200/40.5	150μ	10	098-02E	A	Fe/rG Pgm	"
Fe No 3 blue filter		2.61	F2III-IV	BC	1200/50.7	150μ	10	IIU-E	A	Fe/rG Pgm set 510 T=47°f	* Exp OK NO COMP
Fe No 3 blue filter		5.31	F2III	BC	1200/50.7	150μ	10	IIU-E	A	Fe/rG Pgm	* Exp OK NO COMP
Fe No 3 blue filter		4.57	F2III	BC	1200/50.7	150μ	10	IIU-E	A	Fe/rG Pgm * Actually there is some useful comp use Fe H2 at least 40 sec	* Exp OK NO COMP
							IIU-E				
Fog or Cloud coming in from Lake											
Apparent RA				06 06.2		(just a small blob, apparently symmetrical) T _h					

341

Emulsion Batches:

Tues-Wed
 Date .Oct. 15-16. 1955..... Observers .. K.K. - T.A.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp
49449	H0159561	17 30.3	+12 38	18 53	18 57	W		FeNe ^{#3} diffuser	2-2
	'	'	'	19 04	19 08			"	2-2
	Tried unsuccessfully to find Comet Hartley-Good (19851)					not where	194 coordinates	les indicated	
	H0182640	19 20.5	+2 55	20 01	20 31			FeNe ^{#3} " diff	2-2
	Flat Fields	3	1.5 sec	FeNe	#3 w diffuser				
	Dur Ks	2 min							

Spectr. Temp. Dome Temp./Hum. $t \dots / \dots 65.7$ Transparency Conditions $\dots 90 \text{ Hum. cloudy} \dots 342$

Focus

Spectr. Temp. Dome Temp./Hum. \dots / \dots

Comparison Type/Filter	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fo 1673 6/15/22	Fix-filter 20210	2-3	2.2	A5 III	Reticon	1200/42.5	250/13		-157.8	Asm Sp HK		4780
1 6/15/22	20,000											4460
les. in sky	anywhere in area											
Fo 1673 6/15/22	9265	4.6	3.68	Fo IV	Reticon	1200/42.5	250/13		-158	115m Sp HK	cloudy	2285

Spectr. Temp. Dome Temp./Hum. 40°F / 80% Transparency Conditions 344

Focus

Spectr. Temp. Dome Temp./Hum. 37°F / 95%

Comparison Type/Filter	Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
FeA	30 ^s	Ø		7.7		BC	1800/44.2	250/∞	RETICON		-157.6	can see in VISIBLIS eyepiece but not on slit	DATA LOST
FeA	30 ^s	30				BC	1800/46.0	250/∞	RETICON			TV guide & IT eyepiece both etc	"
FeA	20 ^s	148									-157.4		"
<p><u>µ Nova Disk Ø <u>dead</u></u></p> <p>PDD-11 does not execute Dump ever - apparently</p>													

345

Sat-Sun

Date Oct 19-20/85..... Observers T.H.....

Emulsion Batches:

K.O.E.....11095

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
49450	HD 186791	19 41.5	+10 22	18 48	19 15	1 05 W	+10 13	FelNo 1 w/out diff	10-10
49451	HD 204867	21 26.3	-6 01	20 20	20 33	0 39 W	-5 30	FelNo 1 w/out diff	10-10
49452	HD 222368	23 34.8	+5 05	20 42	21 06	0 58 E	+5 41	"	10-10
49453	HD 9138	T 24.9	+5 38	21 12	22 32	1 19 E	+6 13	"	10-10
49453F1	Focus Test					1 hr	"	"	26-26
49453F2	" "					1 hr	"	"	26-26
	888 Peg			22 55	23 00			FelNo 1 w/o diff	10-10

347 Sun-Mon

Date Oct. 20-21, 1955. Observers Bl-Tn.....

Emulsion Batches:
5^m 68° 098-02E... 09085-18105
.. II. 02-E... 20105

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
49454	HD 190390	19 59.6	-11 53	17 59	20 20	1 57 W	-11 29	FeNe #3 diffuser	2-2 2
49454T	Spot Calc for 49454				15 min @	15VD3 4810	7VD1 Hd.	7VD2 3450	
49455	P/Halley (19821)	5 56.4	+21 11	01 54	05 30	1 20 W		FeA #2 diffuser	15-15
KH Note - image intensifier lens came off in my hands doesn't seem to screw back in. I had to hold it up in place each time I looked. It worked well anyway. Is the unit focusable? I had to focus by loosening set screws & running up & down tube to focus point.									
49455T	Spot Calc for 49455				15 min @ 13V	D4 D3 D2 3900 4300 4810			
49455F	Focus test							FeA #2 with Diff	15-15

Spectr. Te.
Focus.
Spectr. Te.Exp. Mtr.
NO FILTER
17680NO FILTER
15-15

Spectr. Temp. 50°FDome Temp./Hum. $44^{\circ}\text{F}/58\%$Transparency Conditions *cloud (clear for Halley)*Focus 509

348

Spectr. Temp. 43°FDome Temp./Hum. $40^{\circ}\text{F}/65\%$

Comparison Type/Filter Ex	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
2/16/83 1/18/83 2:20 TV 62 3450	Blank in 10 FILTER 17680	2"	6.86	F111	BC	1200 /40.5	150 μ /10	098-02E A 098-02E		Fe/H γ Pgm		slwk v v
2/16/83 1/18/83 15:15	15 FILTER 26 da				BC	150 /23.5	250 μ /1.0	II α -E A		Obs Pgm F=518 T=46 $^{\circ}\text{F}$	at 3:45 Halley eclipses a v faint star. Both visible with image intensifier on periscope. OK image with intensifier.	night sky only
											- Halley just barely visible in finder telescope. - Only a round blob in visitor's eyepiece - no tail visible. - another eclipse at F 5130 with a star brighter than Halley	v v
FeA 22 with DR 1/15					BC	150/23.5	250 μ /1.0	II α 0	A		T=43 $^{\circ}\text{F}$ F=518	OK

349 Mon - Tues

Date Oct 21-22/85 Observers T.M.....

Emulsion Batches:

old HaO-E 105-20105
HaJ-E -15085

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
49456F	Focus	test						F/No #1 no diff	26-26
49456	HD 186791	19 41.5	+10 22	18 07	18 13	0 11	W +	"	10-10
49457	HD 174237	18 44.5	+52 53	18 23	18 50	1 47	W +5306	"	10-10
WED Oct 23/85 Ri - Hub									
TRIED TO OBSERVE PUT IN SLOPE DOME OVER 100%									
AV - PIPERS DAMP									

Spectr. T.

Focus...

Spectr. T.

Exp. Mtr.

No. of

50 X

filter

409

Spectr. Temp. ... 51.5°f

Dome Temp./Hum. 148°f / 55%

Transparency Conditions .. Cloudy in from SE

Focus 509

Spectr. Temp.

Dome Temp./Hum. /

350

Comparison
pe/Filter Exp

No. 1
No. 2

No. 1

No. 1

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no filter				BC	1200/50.7	BS	II05-E	A			fine
50 K B filter	2"	41	K3II	"	"	"	II00-E	A	std vel		fine
1409	2"	582	B5e	"	"	"	"	A	Kub pgn	cloud	wk

Spectr. Temp. Dome Temp./Hum. 10°C / 86% Transparency Conditions fine 352.

Focus

Spectr. Temp. Dome Temp./Hum. 8°C / 91%

Comparison
Type/Filter Ext

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
B ¹ FILTER 6000	5"+	4.4	FBI	B.C	1200/30.7	B.S.	IIAO-E	A	STD VEL	T=58°F F=507	Fine
BLUE FILTER 214		6.77	F5V	"	"	"	"	A	Archive	T=56°F F=508	wk
							IIAO-E				VI-
BLUE FILTER 8700	3"-4"	5.87	F0IV BC		1200/30.7	B.S	"	A	Archive	T=51°F F=508	str
										Note Comps too strong by 2x at least	

7

Spectr. Temp.

Dome Temp./Hum. . . 10°C . . . 55%

Transparency Conditions . . . good . . . with . . . some . . . 354

Focus

CLOUDS AFTER MIDNIGHT

Spectr. Temp.

Dome Temp./Hum. . . 7°C . . . 86%

Comparison
pe/Filter Exp

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
							IIc	A		9=55°F F=508	OK
8000	34	4.1	K3II	B.C.	1200/50.7	B.S.	IIaD-E	A	STD VEL		comp too str STR
30006	34	5.14	B3Je	B.C.	1200/50.7	B.S.	IIIaTe4	A	Kub Prog	TELE REVERSED	v strong
24428	4-5	5.14	B3Je	B.C.	1200/50.7	B.S.	IIIaTe4	A	"	9=53°F CLOUDS	v strong
							IIIaTe4				
										Comp too str on all plates cut by at least half	

356

Se + 518 T = +13°f

17754

43769

Dad - 531-7959

357

358.