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1

3

Spectr. Ten

Focus....

Spectr. Ten

Exp. Mir.

Date Nov 5-6/20 Weather Observers Are-Tn

Emulsion Batches:

Emulsion Batches:
5m680 .. 098-02E .. 07/19-23100
H00-e

[illegible]

Spectr. Temp. $+43^{\circ}\text{F}$Dome Temp./Hum. $+35^{\circ}\text{F}/70\%$Transparency Conditions *cloudy... mainly*..... 6Focus *503-507*Spectr. Temp. $+38^{\circ}\text{F}$Dome Temp./Hum. $+31^{\circ}\text{F}/92\%$

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
40/23	3"	4.15	K3IT	BC	1200/1.7	150/4	09802E	A	St. Vol	*"V" pattern	fine
40/22	"	2.87				"		B	Are Prog		uneven guiding
40/22	"					"		A	"		fine
40/22	2"					"		B	Are Prog		fine
40/23	"	2.5	F8Tb			"		A	"		vsl strong uneven
400/178	"	5.75	F2			"		B	"	clouds!	vsl weak
							"			T	
				BC	1200/1.7	150/1.0	098	B		T=40°F Set 503	cont blue
200/128	2"	4.4	FBIap	"	1200/1.7	150/1.5	09802E	B	Are Prog	cloud	fine
40/22	2"	2.94	A8Ta	"	"	"	"	A	"		sqg Arc
200/135	2"	4.95	FOIa	"	"	"	"	B	"	T=38°F more cloud	sqg Fine
				"	830/1.68	RS	098	A		T=38°F Set 507	vsl red

Fri / Sat

Date Nov. 7/8, 1980

Observers Gis-Tn

Emulsion Batches:

..IIaQ-E..13050...01110

[illegible]

Spectr. Temp. +43°F.....

Dome Temp./Hum.

Transparency Conditions . . . Good after rainfall. 18
Intermittent cloud.

[illegible]

Date Nov 8/9, 1940 Observers BAK-Tn

Emulsion Batches:
 T60-e 13050-24100

[illegible]

Spectr. Temp. $+42^{\circ}\text{F}$

Dome Temp./Hum +35°F/70%

Transparency Conditions *cloudy*.....10

Focus 506

Spectr. Temp. 41°F.....

Dome Temp./Hum. 31°/80%

[illegible]

11

Date 10.1 Nov 1988 Observers Frederick

Emulsion Batches:
5^m 68^o 09802E07119 05110

Exp. M

Spectr. Temp. 380°K

Dome Temp./Hum. $+101^{\circ}\text{E}$ 82%

Transparency Conditions 12

Focus 505

Spectr. Temp.

Dome Temp./Hum.

Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
5	90/22		2.87		BC	1200/.7	150/*	098-02E	B	Anc Png.	* "V" filter	v sl str
2-8					B.C.	1200/.7	150/1.0	098-02E	A		BROKEN 1/2" missing	
5-5	40/20		2.87		"	"	"	"	A	"		fine
5-5	400/250		4.99	GOLa	"	"	"	"	B	"		fine
	400/		4.4	FBIp	"	"	"	098-02	A	"	dashed in	
								098-02				

(Nov 14-15)

8-68

Тав-5 13056-0110

[illegible]

Spectr. Temp. 40°F.....

Dome Temp./Hum. 0°C 82%

Transparency Conditions 14

Focus 506

Spectr. Temp.

Dome Temp./Hum.

[illegible]

15

Date Sat. Nov. 15 - 1950
Sun Nov 16Observers ... W.H./R.L./B.R.-R.Emulsion Batches: ThO-E 2p1778thThO-E 13050-011105thThO-E 07115-121105thThO-E 07119-01110

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.
45215F	Focus	—	—	—	—	—	—	Fe/ND	2/2
45215	su cyc. Comp #1 (Erm. Prog)	19 ^h 40 ^m .8	29°01'	18 ^h 15 ^m	18:45	02 ^h 25W	—	Fe/ND	1-1
45216	"	"	"	18 ^h 45 ^m	19 ^h 36 ^m	3 ^h 15 ^m W	—	Fe/ND	1-1
45217F	Focus	—	—	—	—	—	—	He/ND	20/20
45217	HD 214419. ^{CG} Cygn	22 ^h 32.9	+56°23'	20 ^h 04 ^m	20 ^h 52 ^m	1 ^h 45 ^m W	56°50'	He/ND	5-5
45218	"	"	"	21 ^h 00 ^m	21 ^h 48 ^m	2 ^h 35 ^m W	"	He/ND	5-5
45219F	Focus.	—	—	—	—	—	—	He/ND	20/20
45219	HD 211853	22 ^h 15 ^m .0	55°37'	22 ^h 00 ^m	23 ^h 00 ^m	4 ^h 05 ^m W	55°05'	He/ND	5-5
45219T	spot out in plates	45215-45220	—	—	15 min @ 70	D2 5450	D2 5450	D2 5450	—
45220	HD 211853	22 ^h 15 ^m .0	55°37'	23 ^h 02 ^m	23 ^h 55 ^m	5 ^h 00 ^m W	+55°05'	He/ND	5-5
45221	HD 5394	00 50.7	+60°11'	00:13	00:17	02 ^h 46W	+60°40	Fe/ND	8-8
45222	HD 5394	00 50.7	+60°11'	00:20	00:26	02 56W	+60°40	Fe/ND	15-15
45223	HD 33328	05 04.4	-08°53	00:37	00:52	00 ^h 52E	-08°42	Fe/-	7-10-10
45224	HD 41335	05 59.3	-6°42	00:56	01:38	01 01E	-06°39'	Fe/-	10-10-10
45224T	spot out in plates	45222 -	—	—	15 min @	17.50 D4 3900	150 D4 4300	150 D4 4810	—

Spectr. Temp.

Dome Temp./Hum. 0°C 8.2%

Transparency Conditions *Photometric* 1.6.

Focus

Spectr. Temp.

Dome Temp./Hum.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
—	—	—	—	BC+IT	150/.55	150/.6	Ia D-E	1	5. am.	"V" filter in	
800/10		2.11	?	BC+IT	" .55	"	"	2	"	"V" filter out. <i>integrator</i> 50/03	poor focus
800/20		"		"	"	"	"	3	"	"	
	~3"			"	1200/.55	"	"	1	wh. WR.	Hu.	
800/40		8.94	WN7+07	"	"	"	"	2	"	"V" filter in <i>integrator</i> 30/02	ok
800/40		"	"	"	1200/.71	"	"	3	"	"	ok
							"	1	wh. WR	V filter	
800/37	"	9.02	WN6 + B0.I	"	1200/.55	150/.5	"	2	"	"	ok, fuzzy
800/33		9.02	WN6 + B0.I	B.C.+IT	1200/.710	150/.5	Ia D-E	3	wh. WR	"	"
40/111		2.43	B0c	B.C.	1200/.7	150/1.0	09B-02E	A	Be - Blm	33°F 566	sl str uneven
40/122	5	2.13	B0c	B.C.	1200/.025	B5	IIIa-JE	B3	Bc - Blm		sl str weak pressure marks
40/90		4.07	B2Iuc	"	"	"	IIIaJ-E	A		32°F 509	good
40/110		5.16	B2c	"	"	"	"	B	Be - Blm		good
							IIIaJ-E				

17 Ps 2

Date Sun Nov 16 1950 Observers Blair

Emulsion Batches:

8m HAW-E 13050-0110
5m 098-02E 67119-1210
5m HAW-E 07119-0110

[illegible]

Transparency Conditions 18

Dome Temp./Hum.

Spectr. Temp. .. 280° F.

[illegible]

17 19

1930

Dc

Date Sun/Mon Nov 16/17 Observers Rm-Ri // Hk-Ri

Emulsion Batches:

8" 68 T120-E 13050

4" 68 T120 5/60

Plate	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. Mtr.
45	45231	Focus test							Fc/-	12-1
45	45231	HD 195295 = 41 Cyg	20 ^h 25.3	+30° 2	17:22	17:30	00 15W	+30° 20	Fc/ND	12-1
45	45232	HD 136688 = 50 Cyg	19 ^h 40.6	+29° 01	17:34	18:56	2 ^h 46W	+29° 14	Fc/ND	12-1
45	45231	Spot calib for plate 45231			15 min @ 15v		D4 3900	D3 4300	D2 4810	
45	45233	HD 171635 = 45 Dra	18 ^h 30.9	+56° 58	19:01	19:15	4 ^h 10 W	+57 02	Fc/ND	12-1
45	45234	HD 204867 = β Aps	21 ^h 26.3	-6° 1'	19:21	19:27	1 ^h 25W	-5° 40	Fc/ND	18-1
45	45235	HD 209750 = α Aps	22 ^h 00	-0° 48	19:31	19:37	1 ^h 00 W	-0° 25	Fc/ND	18-1
45	45236	HD 144093 = δ Cyg	20 ^h 18.6	+39° 56	19:48	19:50	2 ^h 57W	+40 12	Fc/ND	12-1
45	45237	HD 197572 = χ Cyg	20 ^h 39.5	+35° 13.6	19:55	21:12	3 ^h 57W	+35° 32	Fc/ND	12-1
45	45238	HD 253156 = HR 157	21 ^h 15.4	+37° 49	21:15	21:37	3 ^h 46	+37° 11	Fc/ND	12-1
	45239	HD 3712 = χ Cas	00 ^h 34.8 4 ^h 15.7	+55° 59 +42 16	21:40	21:42	00 ^h 30W	+56° 27	Fc/ND	12-1
	45240	HD 20902 = χ Per	3 ^h 17.2	+44° 30	21:49	21:51	02 ^h 05E	+44 45	Fc/ND	12-1
	45241	HD 17256	2 ^h 47.0	+61° 35	22:02	23:45	00 ^h 20W	+61 55	Fc/ND	12-1
	45242	71 P 26315	3 ^h 11.0	+43 39	23 53	23:58	00 10W	+44 57	Fc/ND	12-1
	45243	GH Pers	3 ^h 24.4	+43° 33.7	00:46	01:16			-	-

pectr. Temp. 32° Dome Temp./Hum. -02°C 83% Transparency Conditions 20

ocus

pectr. Temp. Dome Temp./Hum.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	830/.68	BS	IIaOE	A		Focus 509	v sl red
70		4.43	F5II	BC	830/.68	BS	IIaOE	B	Ceph/Evans		strong
100/700	2"	6.9-7.7	F0-GI	BC	830/.68	BS	IIaOE	A	Ceph/Evans	called "33"	v sl str
								C			
70/70		5.5	F7Ib	BC	830/.68	BS	IIaOE	B	Ceph/Evans	called 33A	sl str
70/80		3.73	G2Ib	BC	830/.68	BS	IIaOE	A	Ceph/Evans		sl str
10/82		3.91	G2Ib	BC	830/.68	BS	IIaOE	B	Ceph/Evans	broken 2 pieces	sl str
20/41		3	F8Ib	BC	830/.68	BS	IIaOE	A	Ceph/Evans		strong
100/700		6.6-8.4	F7Ib	BC	830/.68	BS	IIaOE	B	Ceph/Evans	spectrograph 320F	fine
10/140		5.87	F2	BC	830/.68	BS	IIaOE	A	Ceph/Evans		sl str
10/20		2.2	K0III	BC	830/.68	BS	IIaOE	B	std med		sl str
1/35		2.3	F5II	LC	830/.68	BS	IIaOE	A	Ceph/Evans		strong
100/550		9.0	H2V	BC	830/.68	BS	IIaOE	B	SUCASAR/Ttr, Evans		exp good sl. flex?
40/30		5.41	B I	BC	830/.68	BS	IIaOE	A	Hr std Evans	310F	
				R.C.-IT	120/.550	LPR	IIaD	IT			only some stars

$21 P_3 \pi_2$

Date 8 Nov 17, 1960 Observers At-R

Emulsion Batches:

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[illegible]

Spectr. Temp.

Dome Temp./Hum. - 05°C 85%

Transparency Conditions 22

[illegible]

IIIaJ	10	5	2
098	12	5	3

Emulsion Batches:
8^m 680 Ti-O-E 13050 - 16110

[illegible]

Focus 508

Dome Temp./Hum. / 100% +

[illegible]

25

Rg Tour ≈ 0.5 hrs Observing

Thurs - Fri

Date Nov 20-21 / 80 Observers Tn

Emulsion Batches:

8m68⁰ Π.Ο.-ε 13050-16110 20217

[illegible]

Spectr. Temp. $+40^{\circ}\text{F}$

Dome Temp./Hum. / 90.8.

Transparency Conditions *A mess* 26

Focus 506

Spectr. Temp.

Dome Temp./Hum.

[illegible]

27

pg 41
SAT-SUN

Date Nov 22/23/180. Observers Wh / Tn.....

Emulsion Batches:

...Il-0-e-13050...-20 110

...0982E-.....

...Il-0-e-.....

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.
45256F	Focus	—	—			0	0	Fe/-	13/13
45256	HD 222368	23 34.8	+5° 05	17 ^h 31 ^m	17 ^h 34 ^m	2 13 E	+5° 3 ^m	Fe/ND	15-0
45257	V 1016 Cyg.	19 53.6	+39 34	17 ^h 47 ^m	19 ^h 07 ^m	3 ^h 03 ^m W	+39 47	Fe/ND	8-8-8
45258	" "	"	"	19 ^h 13 ^m	20 ^h 36	4 ^h 30 W	+39° 47'	Fe/ND Ne/-	8- 6-
45258T1	Spot Calc for 45256-57, 65			15 min @ 15V		D4 D3 D2 3900 4300 4810			
45258T2	" " for 45258			15 min @ 4810	15V D3 7V D1 Hd	7V D2 5450			
45259F	Focus	—	—					Fe/-	6-6
45260	HD 3712	0 ^h 34 ^m 8	55° 59 ^m	21 ^h 35 ^m	21 ^h 35 ^m	48 ^m W		Fe/-	3
45261	"	"	"	21 ^h 36 ^m	21 ^h 38 ^m	0 49 ^m W		Fe/-	3
45262	"	"	"	21 ^h 39 ^m	21 ^h 41 ^m	0 51 ^m W		Fe/-	3
45263F	Focus	—	—						
45263	HD 108	0 ^h 0 ^m 9	+63° 7'	22 ^h 46 ^m	23 ^h 12 ^m	2 ^h 56 ^m W	63° 37'	Fe/ND	2-2-2
45264F	Focus	—	—					Fe/-	2-2
45264	HD 26398	4 ^h 5 ^m 4	+16° 23'	23 ^h 33 ^m	0 ^h 25 ^m	0 6 ^m E	+16° 36'	Fe/ND	2-2-2
45265	HD 36576	5 27.7	+18 28	01 06	01 18	0 22 E	+18 33	Fe/ND	13-13-13

Spectr. Temp. 42°F Dome Temp./Hum. $59^{\circ}\text{F}/72\%$ Transparency Conditions *Clear at start* 28
high cirrus ~ 20^h00

Focus... 506

Spectr. Temp.

Dome Temp./Hum.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	530/.68	200 μ */.5	IIaO	A		# 2511Fs ?? NO T=42°F Foc. 506	blue dr red is red
40/17	~5"6"	4.6	F7V	"	"	250/.5	IIo-e	B	std vel	2nd comp mis fired not put on.	fine
800/90	3	10.4	[2]	"	"	250/.5	"	A			emission only
800/60	"	"	"	"	1200/.7	250/.5	09802E	B		Stopped early - cloud. T=42°F Foc 504	Hot for others like
							IIoC				
							09802E				
				IT	150/.500	BS	IIaD	1	—	47a Filter. Developed	
40/1		2.5	K0III	"	"	"	"	2	std vel	"	Wk
40/2		"	"	"	"	"	"	3	and I.T. Test	"	Good
40/4		"	"	"	"	"	"	4	"	"	Strong
				"	150/.550	"	"	1	—		
800/40		7.4	Of _{pec}	"	"	"	"	2	Wh. Prog.		
							"	1			
400/20		7.	B.		150/.550	BS	"	2	Wh		
400/320	2"	5.71	B2II	BC	830/68	BS	IIo-e	B	Runaway	Cloud	sl str

CVR

pg #2

cont

Date Nov 22-23 Observers Tn - Are / Nr - Tg

Emulsion Batches:

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[illegible]

Spectr. Temp. $+40^{\circ}\text{F}$

Dome Temp./Hum.

Dome Temp./Hum. 75.5 / 95.6

Transparency Conditions 30

[illegible]

31

Tues - wed

Date Nov. 25-26, 1900 Observers Arc-Tn.....

D19 5^m 68

Emulsion Batches:

* 098-02 E 07119 -12110
* 098-02 E 07119 -24110

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.
45268F	Focus Test							Fe/-	13-13
45268	HD 186791	19 ^h 41.5	+10 22	17 ^h 18	17 22	1 ^h 39 W		He/- Fe/MD	9-9
45269	HD 164136	17 ^h 59.7	+30° 12'	17 ^h 31 ^m	17.49	3 ^h 53 W	+30° 17	He/- Fe/MD	5-5-5 5-5-5
45270	HD 180583	19 12.0	+27 45	18 ^h 04 ^m	20 48	5 ^h 28 W +		"	5-5-5 5-5-5
45270T	Spot Calc for 45268-78				15 min @ 4810	150 D ₂ 70 D ₁ H ₂	70 D ₂ 54-50		
45271	HD 203156	21 ^h 15.4	+37° 49	20 ^h 52	22 03	4 48 W	38° 14	Fe/MD He/-	5-5-5 5-5-5
45272	HD 217476	22 ^h 55.9	+56° 50	22 ^h 08	22 30	3 35 W	+56° 57		5-5-5 5-5-5
45273	HD 224014	23 ^h 49.4	+56° 37	22 ^h 35	22 55	3 ^h 05 W	+57° 28	"	5-5-5 5-5-5
45274	HD 7927	1 ^h 13.8	+57° 42	22 ^h 59	23 34	2 ^h 20 W	+58 01	"	9-9 9-9
45275	HD 18391	2 52.2	+57 16	23 ^h 41	00 53	2 ^h 00 W	+57 38	"	5-5-5 5-5-5
45276	HD 14662	2 ^h 16.9	+54° 55'	00 ^h 58	2 ^h 29	4 ^h 10 W	+59 11	"	5-5-5 5-5-5
45277	HD 31964	4 54.8	+43 41	2 ^h 35	2 42	1 45 W	+43 50	"	8-8 8-8
45278	HD 8890	1 ^h 22.6	+88 40	3 ^h 56	4 00	5 ^h 57 W	+89° 06	"	8-8
45278T	Spot Calc for 45278-79				15 min @ 4810	150 D ₂ 70 D ₁ H ₂	70 D ₂ 54-50		
45279	HD 41335	5 ^h 59.3	-6° 42'	4 ^h 26	5 23	3 25 W	-6° 37	"	5-5-5 5-5-5

Spectr. Temp. $+36^{\circ}\text{F}$ Dome Temp./Hum. $+30^{\circ}\text{F}/75\%$ Transparency Conditions *Fine* *vs/ haze 32*
*after midday*Focus *506*Spectr. Temp. $+27^{\circ}\text{F}$ Dome Temp./Hum. $+21^{\circ}\text{F}/94\%$

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	3"			BC	1200/.7	*150 μ	098-02	A		*V" filter	
	3"			BC	1200/.7	"	098-02E	B	Std Vel		slightly Fine
40/22	3"	^v 4.48	F2II	BC	1200/.7	*150 μ	098-02E	A	Arc Prag	*V" filter	Fine
200/93	3-8"	5.73	F6J-7B	"	"	"	"	B	"	"	ok?
							"				
400/250	3-4"	5.75	F2	"	"	"	"	A	Arc Prag	T=33°F	Fine
400/250	"	4.99	G0Ia	"	"	"	"	B	"	g for 275	Fine
200/131	"	4.4	F2Ia	"	"	"	"	A	"	T=+30°F Ser 507 9-1-1 115	Fine
200/129	"	4.95	F0Ia	"	"	"	"	B	"		Fine
400/200	3"	7.46	K5	"	"	"	"	A	"	remounted slit because of suspicion of filter posn	Fine
400/250	"	5.4	F7Ib	"	"	"	"	B	"	Lake 73	Fine
40/22	3"	2.99	A8Ia	"	"	"	"	A	"	member ch 30	slightly fine
40/20	"	2.5	F8Ib	"	"	"	098-02E	A	"		slightly Fine
							"				
400/272	"	5.16	B22	"	"	"	"	B	Be-Blu	cloud to	usl. ok

33 Wed Thurs

Date Nov 26-27 198 Observers Rm-Tk/Mr-Tn

Emulsion Batches:
8th 68th IIaD-e 13050-20110

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[illegible]

Spectr. Temp. 35°F..... Dome Temp./Hum. 133°F / 73%

Dome Temp./Hum. *+33°/73%*

Transparency Conditions . . . *fuzzy* 34.

Focus . . . 508

Spectr. Temp. . 33.....

Dome Temp./Hum. 42.4 / 98.7

[illegible]

3 35

Emulsion Batches:

Date Sat-Sun Nov 29-30, 1980 Observers Ri

5m 68° TRAFF. 0719-0110... 20 206
 098-E 0219-2510... 13 233

[illegible]

Spectr. Temp. Dome Temp./Hum. 0°C 87% Transparency Conditions *some cirrus clouds* 36

Focus

Spectr. Temp. Dome Temp./Hum.

Exp. Mir.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	830/.680	B.S.	Ilau-E	A		37°F 507	
400/300	7.27	B54	BC		830/.680	B.S.	Ilau-E	B	RUNAWAY*		Fine
							Ilau-E				
40/120	4.51	B1e	BC		1200/.025	B.S.	Ilau-E	A	Be-B1n	36°F 505	Wt
40/100	4.51	B1e			120/.700	150/.7	098-E	B	Be-B1n	UV/red overlap should use 0613 filter	
							098-02E				
							Ilau-E				

37

Sun Mon

Date Nov 30 - Dec 1 Observers Wh / Tn

Emulsion Batches:

5^m 68^o . I. & P. e.
8^m 68^o . I. & O. e. 13050-20110 1920

[illegible]

Transparency Conditions *Clear* 38

Dome Temp./Hum. 38°F/92

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
								1		probabl exp with star	
800/40	4"	6.5	Ope	BC/IT	150/.485	3S	IIaD-e	2	Wh. Var em		
900/249	4"	7.15	BOV	BC	830/.68	BS	IIa-O E	A	EB-Bln	Cloud lost 30 ^m NW of pair	oxy ok sl. unsharp
							IIaD-e				
							IIa-O-e				
				BC	830/.68	BS	IIaO	A	set 506 T=40%		

39

Emulsion Batches:

Date Observers

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[illegible]

Spectr. Temp. Dome Temp./Hum.

Transparency Conditions 40.

Focus

Spectr. Temp. Dome Temp./Hum.

Dome Temp./Hum.

[illegible]

41

Date Thurs/Fri, Dec. 4/5 Observers Gis-Ri-Schler.....Evacuated 8^h

Emulsion Batches:

... IIaOe 13050-26110* IIaOe 13050-04120

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.
45296F	<i>focus test</i>							Fe/-	18-18
45296	HD 203064	21 ^h 14.7	+43° 31'	17:15	17:22	00 ^h 42W	+43° 53'	Fe/ND	13-13-13
45297	HD 197419	20 38.5	+35° 06'	17:27	17:53	01 ^h 50W	+35° 23'	Fe/ND	13-13-13
45298	HD 201345	21 03.9	+33° 00'	18:08	19:25	02 ^h 56W	+33° 20'	Fe/ND	13-13-13
45298T	<i>optical for plate</i>	45296-45307			15mm @ 1500V	3900	D4 D3 D2 +300 4810		
45299	HD 210839	22 ^h 08.1	+58° 55'	19:38	19:48	02 ^h 16W	+59° 17'	Fe/ND	13-13-13
45300	HD 214930	22 36.6	+23° 19'	19:57	20:42	02 ^h 41W	+23° 46'	Fe/ND	13-13-13
45301	HD 4142	00 38.9	+47° 19'	20:53	21:06	01 ^h 01W	+47° 46'	Fe/ND	13-13-13
45302	HD 11606	01 48.8	+58° 47'	21:11	21:55	00 ^h 40W	+59° 10'	Fe/ND	13-13-13
45303	HD 29866	04 37.3	+40° 36'	22:05	22:23	01 ^h 39 ^m E	+40° 45'	Fe/ND	13-13-13
45304	HD 30650	04 44.4	+43° 24'	22:32	23:20	00 ^h 51 ^m E	+43° 32'	Fe/ND	13-13-13
45305	HD 34078	05 ^h 09.7	+34° 12'	23:23	23:46	00 ^h 50 ^m E	+34° 18'	Fe/ND	13-13-13
45306	HD 36576	05 27.7	+18° 28'	23:49	23:59	00 ^h 54 ^m E	+18° 35'	Fe/ND	13-13-13
45307	HD 37737	05 35.7	+36° 09'	00:03	01:53	00 ^h 51 ^m W	+36° 13'	Fe/ND	13-13-13
45308	HD 37657	05 35.1	+43° 00'	01:59	02:40	01 ^h 38 ^m W	+43° 05'	Fe/ND	13-13-13

Spectr. Temp. ... 26°F

Dome Temp./Hum. ... -06°C ... 72%

Transparency Conditions ... lazy 42

Focus ... 510

Spectr. Temp.

Dome Temp./Hum.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC,	830/.680	B.S.	II ₀₀ -E	A		26°F 510	cent sl red
40/35		4.98	08V	B.C.	830/.680	B.S.	II ₀₀ -E	B	Runaway*		fine
400/303		6.52	B2II _c	B.C.	830/.680	B.S.	II ₀₀ -E	A	"		fine
400/300		7.53	019V	B.C.	830/.680	B.S.	II ₀₀ -E	B	"		fine
							II ₀₀ -E				
400/300	3"	5.29	06f	B.C.	830/.680	B.S.	II ₀₀ -E	A	"	26°F	fine
400/304		7.39	B2IV	B.C.	830/.680	B.S.	II ₀₀ -E	B	"		fine
200/150		5.53	B5V	B.C.	830/.680	B.S.	II ₀₀ -E	A	"	only part of spectrum adjusted acc p.h. clamped one side only?	
400/304		7.08	B2Vne	B.C.	830/.680	B.S.	II ₀₀ -E	B	"		v sl str
200/150		5.87	B8Vn	B.C.	830/.680	B.S.	II ₀₀ -E	A	"	24°F 511	sl sm.
400/300		7.47	B6V	B.C.	830/.680	B.S.	II ₀₀ -E	B	"		sl sm. sl fuzzy
200/150		6.18	09.5I	B.C.	830/.680	B.S.	II ₀₀ -E	A	"		sl sm.
80/60		5.71	B2III ₂	B.C.	830/.680	B.S.	II ₀₀ -E	B	"	23°F	fine
400/300		8.31	09.5III (n)	B.C.	830/.680	B.S.	II ₀₀ -E	A	"		v sl sm.
400/300		7.22	B3Vne	B.C.	830/.680	B.S.	II ₀₀ -E*	B	"	22°F 512	fine

Date Thurs/Fri Dec 4/5 (con't) Observers Gi's - Ri

Emulsion Batches:
*T-6-E 13050-04120 21 2v1

[illegible]

Spectr. Temp.

Dome Temp./Hum.

Transparency Conditions *thin cirrus clouds n.g. off 44*

Focus

Spectr. Temp.

Dome Temp./Hum. *-9°C / 67%*

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
800/600	3	8.01	06.5V _{ne}	B.C.	830/1.680	B.S.	IIa0E*	A	Runaway*	N. component of double	v5/wk
							IIa0-E*				
80/60		5.67	B1V	B.C.	830/1.680	B.S.	IIa0E*	B	"		
400/172		7.29	B6V	B.C.	830/1.680	B.S.	IIa0E*	A	"	Cloud	
200/170		5.3	F6IV	B.C.	830/1.680	B.S.	IIa0E*	B	Std. Velocity		Fine
200/157		5.28	B8	B.C.	830/1.680	B.S.	IIa0E*	A	shell-Blm	21°F lower star in periscope	S/str
200/155		5.28	B8	B.C.	830/1.680	B.S.	IIa0E*	B	"		S/str
200/202		6.1	K1V	B.C.	830/1.680	B.S.	IIa0E*	A	Std. Velocity		v5.5v
				B.C.	830/1.680	B.S.	IIa0-E*	B		21°F 512	central Red

Date Dec 5/6 1980 Fr. Sat Observers Cruz-Ri-Slr

evacuated 12 hrs

Emulsion Batches.

Ther-E	29070-0420	22 209
Ther-E*	29070-0520*	12 205

[illegible]

Spectr. Temp.

Dome Temp./Hum. ... 6°C 7%

Transparency Conditions CLEAR W. SCATTERED 4.6 CLOUD

Focus

Spectr. Temp.

Dome Temp./Hum. ... 5°C 6.8%

THIN CLOUD ALL OVER SKY
AFTER 4 A.M.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				B.C.	830/680	BS	IIaO-E	A		27°F 510	OK
200/300		5.9	KOIII-12	B.C.	830/680	BS	IIaO-E	B	Std. Vel.		fine
400/400	2"	5.0	M50-M90	B.C.	830/680	150/3	IIaO-E	A	Crow Miras	15m (B-V ≈ 1.5)	slurk
200/200		5.3	S7-10?	"	"	"	"	B	Crow Miras	8m (B-V ≈ 1.8)	fine
200/400		5.3	S7-10?	"	"	"	IIaO-E	A	Crow Miras	19m (B-V ≈ 1.8)	fine
400/400		7.7	M2-M6.50	B.C.	830/680	150/3	IIaO-E*	B	Crow Miras	76m tele limit } B-V ≈ 1.5	good
200/301		6.1	M50-M90	B.C.	830/680	150/3	IIaO-E*	A	Crow Miras	24m (B-V ≈ 1.2)	strong
200/680		6.1		"	"	"	"	B	Crow Miras	46m (B-V ≈ 1.2)	strong
400/500		2	N6?	"	"	"	"	A	Crow Miras	88m (assume B-V ≈ 5.3!)	NADA
300/500	1-2	8.0	M60-M8	B.C.	830/680	150/3	IIaO-E*	B	Crow Miras	120m (B-V ≈ 1.5)	slurk, slurred poor red focus
							IIaO-E*				
400/500		7.2	M60-M80	B.C.	830/680	150/3	IIaO-E*	A	Crow Miras	56m (B-V ≈ 1.5)	exp fine red soft
400/265		8.7?	S00-S50?	"	"	"	"	B	should be *(cloud) mpg ~ 9.2	119m (B-V ≈ 1.5)	vsl weak red fuzzy
400/200		8.7?	M42-M60	"	"	"	"	A	should be *(cloud) mpg ~ 8.9	89m (B-V ≈ 1.5)	good
						150/10	IIaO-E	B		27°F 510	vsl red

Spectr. Temp. 26°F

Dome Temp./Hum. 12° F / 93%

Transparency Conditions *clear by 01^h* 48
slightly hazy + occ. clouds. Then 

[illegible]

49

Date _____

8^m 68^o

[illegible]

Spectr. Temp. $\pm 21.5^{\circ}\text{F}$

Dome Temp./Hum^{+17°}...../96%

Transparency Conditions . . . *cloudy* 50

[illegible]

Spectr. Temp. $+30^{\circ}\text{F}$Dome Temp./Hum. $+25^{\circ}\text{F}/72\%$

Transparency Conditions 52

Focus 51.0.....

Spectr. Temp. $\neq$Dome Temp./Hum. $+12^{\circ}/85\%$

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
16/16				BC	830/68	BS	A-0	B			control
40/37	6"	4.6	F7V	BC	830/68	BS	A-0-e	B	std vel		Fine
40/40	4"	5.6	F8	"	"	"	"	A	Water Run		fine
40/40	"	2.0	F8	"	"	"	"	B	"		Fine
200/	5"	7.5	G51	"	"	"	"	A	"		fine
							"			only 2 exposures	

Spectr. Temp. 22 °F.....Dome Temp./Hum. +16°F/72%Transparency Conditions hazy..... 5.4Focus 520.....Spectr. Temp. 18°F.....Dome Temp./Hum. 1.....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	150/485	150/10		A			right on
200/35	4"	5.9	K00-IV	"	"	150/5	098-02E	B	std vel	*Too much comp. only 1st comp.	sl str
200/34	4"	5.1	K4 IV	"	"	"	"	A	"		sl str
20/130?		1.9	A0 IV	"	1200/0.01	BS	III J Feb	A	Asm-Sp/KIC	Spec 18°F F 50.9 40 gain too fast, digit too red	sl str
40/425	3-4	3.9	F0 IV	"	"	"	"	B	"	Radium gives 4 s-1 on 40 gain	fine
200/	"	7.1	EF 8	"	"	"	Boe	A	"	kept for fun	nothing
							III J Feb				
				BC	1200/0.025	BS	II 40	?	set 509		ent red

55 Tues / Wed

JL 94590.5

Date Dec 16/17 1980

Observers Rm-Tn/Bl-Tn

8^m 68^o

Emulsion Batches:

Emulsion Batches:
 ... 100-0 29878-08120
 ... 18 218

[illegible]

Spectr. Temp. $T = 14^{\circ} \text{F}$

Dome Temp./Hum. -3°F / 80%

Transparency Conditions... *Clear → Cloudy → Clear* 56

Exp.	Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
6/E	40/				BC	830/.68	BS	IlaOE	B			sl recd
-3	40/31	5"	4.6	FIV	BC	"	"	"	A	Std Vel		v sl sm
-3	400/3AA		6.9- 7.7	f0- GI	"	"	"	"	B	Ceph/Evans		exp. fine
								"				
3--	400/67	7.8"	7.20	9GS +A2	BC	830/.68	BS	IId-OE		V13-Blu	T = +18°F Set 513	d weak
											wrong grating tilt on all	
											I found till to be exactly 0.58	
											prob set in bad lighting	

198

m. +20°F/80°

Clear, why?

510

+ 25° F

+18°F / 9270

Show

[illegible]

Date Fri/Sat. 19/20 Dec Observers Blu-Tu
1980

Emulsion Batches:

001-E	07119	-	0212014	243
098-E	07119	-	29110	20 186

was labelled 39120 ?

[illegible]

60

Dome Temp./Hum. ✓

Comparison	Exp.
13-13	
12-12-1	
12-12	
12-12	

61

Pg #1

Date SAT/SUN... 20/21 Dec Observers Ly-Tn.....

Emulsion Batches:

...098-02E 07119-29110 ? 19 190
 ...Ma-e 07119 -15120 4 250
 ...Ma-e 29070 -16120 16 198

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.
45349	HD 223 460	23 44.6	+35 53	20:13	21:20	3 13 ✓	+36 18	Fe/ND Ne/-	8-8 8-8
45349T ✓	Spot Calc for 45349-50				15 min @ 15V D3 4810	7 01 Hx	7V 02 5450		
45350	HD 5394	00 50.7	+60 11	21:33	21:38	2 24W	+60 35	Fe/ND Ne/-	12-12
45351	"	"	"	21:49	21:54	2 40W	"	Fe/-	18-18
45351T ✓	Spot Calc for 45351			15 min @ D4	17.5V 3900	15V 4300	15V 4810		
45352	HD 1337	00 12.4	+50 53	22 03	22 39	4 03W	+51 20	E/ND	13-13
45353	"	"	"	22 40	23 13	4 37W	"	"	13-26-13
45353T ✓	Spot Calc for 45352-62			15 min @ 15V	D4 3900	D3 4300	D2 4810	-	
45354	HD 10260	01 35.3	+60 32	23 20	00 20	4 21W	+60 53	Fe/-	4-44
45355	HD 28363	04 23.3	+15 57	00 27	01 24	3 36W	+16 06	Fe/-	4-4-4
45356	HD 28226	04 22.1	+21 24	01 33	02 00	3 13 W	+21 36	Fe/-	4-4-4
45357	HD 28911	04 28.2	+13 02	02 04	02 55	4 02 W	+13 11	Fe/-	4-4-4
45358	HD 41335	05 59.4	-06 42'	02 59	03 21	3 58W	-6 41	Fe/-	4-4-4
45359	HD 47129	06 32.0	+6 13	03 25	04 15	3 19 W	+6 08	Fe/-	4-4-4
45360	HD 94118	10 46.7	+46 20	04 22	05 52	0 41 W	+45 50	Fe/-	4-4

Spectr. Temp. 20°FDome Temp./Hum. $+10^{\circ}\text{F}/85\%$Transparency Conditions $\text{Clear by } 19^{\text{h}}$ 62.Focus 5.09

Spectr. Temp.

Dome Temp./Hum.

Delay at beginning due
to shutter problem.
cloudy for near 10 minutes

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
200/205	3"	5.9	G5IV	BC	1200/0.7	150/5	048-02E	B	Flare	10V filter used	.
							"				
40/60	3"	2.43	B0e	BC	1200/0.7	150/9	"	A	Be - Blu	V filter taped over slit	eight struck
40/160	3"	"	"	BC	1200/-0.025	BS	II01-e	B	"		unknown? Slit
							II01-e				
200/220	3"	6.08	09III	BC	1200/-0.025	BS	II00e	A	MSB - Ly		1/5 slit
200/220	"	"	"	"	"	"	II00e	B	"		"
							"			not labelled (under sized)	
200/220	2"	5.5	B8	BC	1200/-0.025	BS	II00e	A	SB - Ly		1/5 slit
200/220	2"	7.1	F7V	BC	"	"	"	B	Hyack - Tur.	16°F F=510	1/5 slit
200/200	2"	6.0	Am	"	"	"	"	A	Hyack - Tur		1/5 slit
200/150	2"	7.0	F5V	"	"	"	"	B	Hyack - Tur		1/5 slit
200/206	3"	5.2	B2e	"	"	"	"	A	Be - Blu		1/5 slit
200/260	2"	6.1	08	"	"	"	"	B	MSB - Ly	T. 15°F	1/5 slit
200/193	2"	7.1	A2	"	"	"	"	A	SB - Ly		1/5 slit

Focus 570

Spectr. Temp. 495-

Dome Temp./Hum. / ...%

Transparency Conditions *good* 6.4

[illegible]

65

pg #1

Date Dec 21/22 /80 Observers Wln/TN

Emulsion Batches:

DuD-e - 20120
32, 158

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.
45363F	Focus	—	—	—	—	—	—	Fe/HD	2/2
63	HD 212943	22 ^h 22 ^m .8	+4° 12'	17:35	17:37	0 54 ^m W	—	"	1/1
64	"	"	"	17:37	17:39	0 56 ^m W	—	"	1/1
65	Comparison To Success	19 40.8	+29 01	17:45	17:55	3 54 ^m W	—	"	1/0
45366F	Focus	—	—	—	—	—	—	"	2/2
66	HD 9138	1 ^h 24.9	+5° 38'	19 ^h 13 ^m	19 ^h 15 ^m	0 27 ^m E	—	"	1/1
67	" "	"	"	19 ^h 16 ^m	19 ^h 20 ^m	0 22 ^m E	—	"	1/1
45368	HD 4004	0 ^h 37 ^m .5	+64° 14'	19 ^h 31 ^m	20 ^h 07 ^m	1 ^h 10 ^m E	—	"	1/1
45369F	Focus	—	—	—	—	—	—	—	2/2
45369	HD 9974	1 ^h 32 ^m .4	+57° 39'	20 ^h 24 ^m	—	—	—	—	1
45369	HD 9974	1 ^h 32 ^m .4	+57° 39'	20 ^h 40 ^m	22 ^h 01 ^m	2 ^h 9 ^m W	—	"	1/1
45370F	Focus	—	—	—	—	—	—	—	2/2
45370	HD 17638	2 ^h 44.8	+56° 31'	22 ^h 22 ^m	23 ^h 06 ^m	2 01 W	—	"	1/1
45371	HD 16523	2 ^h 33.9	+56° 18'	23 ^h 20 ^m	00 ^h 1 ^m	3 08 W	—	"	1/1
71F	Focus	—	—	—	—	—	—	—	2/2
71I	Spot Calc	for 45363	-72.	15min @ D2	—	—	—	—	—

Spectr. Temp.

Dome Temp./Hum.

+14°F/80%

Transparency Conditions

excellent at start
scattered cloud later 66

Focus

Spectr. Temp.

Dome Temp./Hum.

/

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
2 1/2	2"							1			
1/1	200/5	2"	5.9	KOIII	IFBC	150/.480	150/.5	IIaD	2	STD Vel.	many overlaps...
1/1	11	"	5.9	"	"	"	"	3	" "	compare with 45357	
1/2	800/2	~11	?		"	"	"	4	Evans capth.	stopped by cloud	
2 1/2	—				"		"	1		refocused - IT.	
1/1	200/5		5.1	K4III	"	"	"	2	STD Vel.	compare with 45339	str.
1/1	200/7		"	"	"	"	"	3	"		str.
1/1	800/30		10.5	WN	"	"	"	4	wh WR		
2 1/2								1			
1/1	-800/	2"	10.7	WN.	"	"	"	2	wh WR.	Exposure stopped wrong #.	
1/1	800/24		10.7	WN	"	"	"	3	wh WR		ok
2 1/2								1			
1/1	800/35	1"	11.0	WCC6	"	"	"	2	wh-WR.		* bubble focus
1/1	800/32	1"	10.5	WCC6	"	"	"	1	wh-WR	Discarded wh.	* bad focus
2 1/2	—							2	" "		

Pg 42

Emulsion Batches:
 ... PaO e 29070 - 20120 ...
 ... 15 18/6 ...

Date Observers KK-Ts

[illegible]

71 ^y Spot Calc for 45364 -72.

15th July 1920

Transparency Conditions *haze* *68*

Focus 509

Spectr. Temp. 16°

Dome Temp./Hum. ... 10° / 92%

	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
-	—	"-2"			BC/IT	830/.40 LPR.	I ₂ D	IT	PN/KK		Strong at 507 near Full Moon, unfortunately fog?	Dark & faded
4-	400/440	2"	7.0	dF8	BC	1200/-025 BS	TiO ₂ e	A	Asm Sp / KK	T=18° F=50°	(fell apart)	exp good sl little streak
6+	200/245	2'	G.67	dG3	"	"	"	B	"	RH = 100%		fine
M-	200/260	2'	5.5	K2 III	BC	1200/-025	BS	"	A	Srd Vel		good
6-	40/42	2"	4.34	F2 IV	"	"	"	"	B	Asm Sp 1st		fine
4+	400/440	2"	6.95	G8 V	"	"	"	"	A	"		good
b	40/42	2"	2.8	G0	"	"	"	"	B	'	cloud + 100% H	good
72					"	"	"	"	A		old broken off	can't see blue
8					"	"	RS	"	B			
											* plates loaded backwards? (only the last 3 plates have this problem) It may be due to that loose clamp I noted on last exposure. I didn't put all last 3 plates in backwash,	

69

Date Dec 26/27 Fri/Sat 1980 Observers Tnr-Ri

Emulsion Batches: 7^m 68.5 29070-20120 17 205

[illegible]

Transparency Conditions *Partly cloudy* 72.

Dome Temp./Hum. - 10°C 97%

Spectr. Temp. 20°

Dome Temp./Hum. - 10°C 97%

1373

71

Date Dec. 29/30 Mon/Tue 1980 Observers Thr-Ri.....

Emulsion Batches:

IIAE 29070-20120 18 197

exam 14th Dec E 29030-30120 16 186

[illegible]

Spectr. Temp. ... 35

Dome Temp./Hum. -06°C 10%

Transparency Conditions clear but very windy... 72

Focus ... 506

Spectr. Temp.

Dome Temp./Hum. -14°C 85%

Comparison
Exp

4-4-4

2

8-10

4-4-4

4-4-4

17-17

13-13

13-13

13-13

0

3-3

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
400/180	3"-4"	7.12	F7V	BC	1200/-0.025	BS	Ilford	A	Tnr-Hyd. Bin	1/3 exposure only	OK
							Ilford				
400/262	"	6.08	O8 III	"	"	"	"	B	Lg. Prog.	1/2 exposure, clouds 32°F 506	OK
40/74	"	1.29	K2 IIIp	"	"	"	"	A	Std. Vel.	clouds	s/str Fine
					"			B		28°F 506	cent vs/red
20/20	"	1.29	K2 IIIp	"	830/-680	"	"	A	Std. Velocity	28°F SET 510	s/str
400/300	4-5	6.31	F7V	"	"	"	"	B	Tnr-U Ma		Fine
400/300	"	7.42	G1V	"	"	"	Ilford*	A	Tnr-U Ma	26°F SET 511	Fine
							Ilford-E*				
							Ilford-F*	B		21°F SET 511	OK

73

Date Dec. 30/31 80 Observers Ly-Ri
Tues/Wed

Emulsion Batches:

7th 68th Two-E 29070-30120 16 190

[illegible]

Spectr. Temp. ... 20

Dome Temp./Hum. -120C/78%

Transparency Conditions ... lots of cirrus ... 74

Focus ... 509

Spectr. Temp.

Dome Temp./Hum. -15C/50%

Poor all night.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
400/328	>5	6.1	KOB	B.C.	1200/.025	BS	ITAD-E	A	H+K - Ly.	clouds.	wt
800/347	>5	7.4	F8V	BC	1200/.025	BS	ITAD-E	A	Hyades - Thr	16° 509 clouds	wt
40/50		1.9	A0IV	"	"	"	"	B	Asm - KK	14° F 510	s/str
40/58	BAA	0.7	F5IV	"	"	"	"	A	SDU.	α CMi	s/str
			-3E	"	"	"	"	B		14° F 510 Cirrus 4	cont s/str
										horrendous seeing.	

Spectr. Temp. $+1.5^{\circ} \text{ F}$

Dome Temp./Hum. +2°F / 75%

Dome Temp./Hum. - 9°F / 80%

Transparency Conditions Hazy - part cloudy 76

[illegible]

77

Date Sat-Sun Jan 3/4 Observers Bob-Tn

Emulsion Batches:

7⁶⁸ ...II. O. C. 29070-30120 15 190

[illegible]

Spectr. Temp. +4° F.....Dome Temp./Hum. -4°F / 70%

Transparency Conditions *Sl. hazy - cloudy - snow.*

Focus 518

Spectr. Temp. -6°F

Dome Temp./Hum. ^{-20° F.} / ^{80%}

[illegible]

79

Pg #1

Emulsion Batches:

..H₀-e... 13050 - 31120 (16) (18)
 ..H₀p-e..... 3A 138

Date ..Wed..Thurs..Jan 7-8/81 Observers T₇... W_h / T₇.....

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.
45401F	Focus Test					2 30W	+50°	Fe/-	15-15
45401	HD 222368	23 34.8	+5 05	17 46	17 58	1 10 W	+5 37	Fe/-	5-5
45402	HD 212943	22 ^h 22 ^m .8	+4°36'	18 ^h 25	18 ^h 36	3 08 W		Fe/ND Ne/-	4-4
45403	HD 212943	22 ^h 22 ^m .8	+4°36'	18 ^h 44 ^m	18 ^h 52 ^m	3 ^h 24 ^m W	+4°40'	Fe/ND Ne/-	4-4
45404F	Focus Test	—	—	17				Fe/ND Ne/-	3-3
45404	HD 4004	0 ^h 37 ^m .5	+64°14'	19 42	20 ^h 25 ^m	2 ^h 40 W	+64 43.7	Fe/ND Ne/ND	1-1
45405F	Focus Test	—	—						
45405	HD 9974	1 ^h 32 ^m .4	+57°39'	21 ^h 28 ^m	22 55	4 ^h 08 W	+55°10.7	Fe/ND Ne/-	1-1
45405T	Spot Calc for 45404 - 06			15 min @ 7V D2		5450, 5450, 5450			
45406F	Focus Test	—	—						
45406V	HD 17638	2 ^h 44.8	+56°31'	23 ^h 13 ^m	00 25	4 37 W	+56 55	Fe/ND Ne/-	1-1
45407	HD 88021/2	10 03.8	+20 49	00 52	02 29	0 46 E	+20 30	Fe/-	3-3-3
45407T	Spot Calc for 45401, 45407 - 11			15 min @ 15V		D9 3900	D3 4300	D2 4810	
45408	HD 97991	11 11.1	-2 55	02 36	04 52	0 31 W	-3 17	Fe/-	3-3-3
45409	HD 112028	12 48.3	+83 58	05 02	05 21	0 34 E		Fe/-	5-5

Spectr. Temp.

Dome Temp./Hum. ... 4°F / 70%

Dome Temp./Hum. /

Transparency Conditions . . . *s/ hazy* . . . 80

Some aural activity
in north (wh)

[illegible]

Py #2

Emulsion Batches:

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.....

.....

[illegible]

Transparency Conditions 82

[illegible]

83

Fri - Sat

Date Jan. 9-10, 181 Observers Tn.....

Emulsion Batches:

Итого 13050 - 31120

17 156

[illegible]

Transparency Conditions *sl haze* 84[illegible]

Sat-Sun

Date JAN 10-11/81..... Observers BK-Tn.....

Emulsion Batches:

...Hq. Co. 13050-07011

16 180

[illegible]

Spectr. Temp. $+9^{\circ}\text{F}$Dome Temp./Hum. ... $+1^{\circ}\text{F}/7/2$...

Transparency Conditions... *Fine - 5/here often* ⁸⁶

Focus 516

Spectr. Temp. -30°F.....

Dome Temp./Hum. 10° / 90% ..

5 17 ST
1 18

Windy

7' 05"

[illegible]

87

#1

Date 11/12 JAN. 1981

Observers

Blair / Tn

SUN / MON

Emulsion Batches:

D-10-2 13050 - 07011 10 197
 D-10-2 07119 - 07011 10 161
 D-10-2 07119 - 15120 10 223

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.
45420F	Focus Test							Fe/-	11-17
45420	HD 200 120	20 56.4	+47° 08'	17 33	17 42	03 52W	+47° 32'	Fe/-	4-44
45421	HD 200 120	20 56.4	+47° 08'	17 51	18 32	04 43W	"	Fe/- No/-	9-4- 12-12-
45422	HD 5394	00 50.7	+60° 11'	18 39	18 43	00 55W	+60° 42'	Fe/- No/-	6- 14-
45422T	Spot Cal'n for 45420, 23	24, 30		15 min @ 15V		D4 3400	D3 4300	D2 4810	
45423	HD 20902	03 17.2	+49° 30'	18 52	19 00	01 15E	+49° 52'	Fe/-	12-2
45424	HD 19356	03 01.7	+40 34	19 06	19 13	00 45E	+40° 57'	Fe/-	12-12
45425	HD 5394	00 50.7	+60° 11'	19 23	19 30	01 42W	+60° 42'	Fe/-	2-24
45426	HD 41335	05 59.4	-6° 42'	19 47	21 30	01 24E	-6° 38'	Fe/- No/-	4-4- 12-12-
45426T1	Spot Cal'n for 45421, 22, 26			15 min @	15V D3 1810	7V D1 Hx	7V D2 5450		
45426T2	Spot Cal'n for 45425, 27-29			15 min @ D4	17.5V 3900	15V 4300	15V 4810		
45427	HD 41335	05 59.4	-6° 42	21 38	22 44	00 11E	-6° 38	Fe/-	12-12
45428	HD 33328	05 04.4	-8° 53'	22 48	23 12	01 14W	-8 42	Fe/-	12-12-12
45429	HD 37468	05 33.7	-2° 39'	23 18	23 35	01 05W		"	12-12-12
45430	HD 43112	06 09.5	+13° 53'	23 42	23 52	00 17W	+13° 52'	"	6-6

Spectr. Temp. 73°F Dome Temp./Hum. $-9^{\circ}\text{F}/74\%$ Transparency Conditions *Fine* 88

Focus 5.19

Spectr. Temp. Dome Temp./Hum.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	830/68	BS	IIa-0	A			central test/str fine
40/30	4.5	4.51	B1e	BC	830/68	BS	IIa-0E	B	Be-Bln		fine
80/70	3"	4.51	B1e	BC	1200/.7	150/.7	098-02E	A	Be-Bln	$F=513-T=+2^{\circ}\text{F}$	s/wk
80/70	3"	2.43	B0e	BC	1200/.7	150/.7	098-02E	B	Be-Bln		s/wk
							IIa-0E				
40/240	3	2.27	F5IIb	BC	1200/.6	150/.7	IIa-0E	A	Test-Bln		
40/130		2.2-3.3	B8V	BC	1200/.6	150/.7	IIa-0E	B	Test-Bln		
40/200		2.43	B0e	BC	1200/.225	BS	IIIa-JE	A	Be-Bln		fast s/wk
200/500	4"	5.16	B2e	BC	1200/.7	150/.7	098-02E	B	Be-Bln	$T=0^{\circ}$ T.H. $\approx 0.3?$	exp fine
							098-02E				
no 4810 Exp due to missed defocus stop. (blank in mid spot)							IIIa-JE			$T=-2^{\circ}\text{F}$ $F=520$	
40/120	2-4"	5.16	B2e	BC	830/68	BS	IIIa-JE	A	Be-Bln		fine
40/161	3"	4.07	B2IIc	BC	830/68	BS	IIIa-JE	B	Be-Bln		fine
40/164		3.51	0.95V	"	"	"	"	A	SB-Bln	$T=-2^{\circ}\text{F}$	fine
80/60	3"	5.67	B1V	BC	830/68	BS	IIa-0E	B	Runaway		fine
										OVER $\rightarrow$	

五二

Emulsion Batches:

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[illegible]

Spectr. Temp.

Dome Temp./Hum.

Transparency Conditions 90

Focus . . . : 520

Spectr. Temp. -5°FDome Temp./Hum. 27 / 90%[illegible]

91.

Date 17/18 JAN 1981 SAT/SUN Observers Bly-Ri

Emulsion Batches:

Fluo-E 13030-11014 16 194

[illegible]

Spectr. Temp. 18°F

Dome Temp./Hum. 11°F/65%

Transparency Conditions 92

Focus 513

Spectr. Temp.

Dome Temp./Hum.

[illegible]

93

Mon - Tues

Date Jan. 19-20 1981

Observers Ly-R.

Emulsion Batches:

Emulsion Batches:
7th 68°F - IIR-E 3050-11011 19 203

[illegible]

Tues-Wed

7th 680

IIAD-E* 13050-11011 19 170
IIAD-F 13050-17011 19 200

[illegible]

Spectr. Temp. 32°F

Dome Temp./Hum. -05°C 70%

Transparency Conditions ... good 96

Focus 509

Spectr. Temp.

Dome Temp./Hum. -10°C 100%

parison
Exp

Exp. Mir.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	830/68	BS	IaOE*	A		T=32 F=509	OK
40/40		4.6	F7V	"	"	"	"*	B	std vel		Testr str
400/400		5.9	F2	"	"	"	IaO-E	A	Ceph/Evans		fine
400/800		7.0	F7Ib	"	"	"	"	B	Bin Ceph/Evans		sl str
							IaO-E*			in J Box	
20/40		2.27	F5Ib	"	"	"	IaO-E	A	Bin Ceph/Evans		sl str
80/160		~6.0	G0Ib	"	"	"	"	B	Bin Ceph/Evans		v sl str.
							IaO-E				
40/80		4.2	F5II	"	"	"	"	A	Bin Ceph/Evans	T=29	strong
400/800	3-3"	~7.2	~F5II	"	"	"	"	B	Bin Ceph/Evans		sl strong
400/800		~6.7	~F7Ib	"	"	"	"	A	Bin Ceph/Evans		sl strong
400/400		~6.0	~G0Ib	"	"	"	"	B	Bin Ceph/Evans	T=26 Focus=511	strong
400/162		~7.6	~G0I	"	"	"	"	A	Bin Ceph/Evans		v sl strong sl. flex on focus?
				"	"	"	"	B		T=24°	cont sl str
									frost forming on back of the photostat		comparison slightly strong in all

Transparency Conditions ... *circus* 98

80% out.

Dome Temp./Hum. /

Comparison
Exp.

THURS - FRI

Date JAN 22-23 / 1981...

Observers GIS-T_n

Emulsion Batches:

g^m 67^u

Emulsion Batches:
 DaO.c... 13050-17011 21 213

[illegible]

Transparency Conditions: cloud 100

Spectr. Temp. ... 31° F.

Dome Temp./Hum.

Companson
ter Ex

101

9

Date ~~Tues/Wed~~, JAN, 27/28. 1981 Observers ... ~~Tnr~~ - ~~Tn~~

9m 68°

Emulsion Batches:

IIa0-e 13050 -17011 22 19A

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
45456	HD 12929	02 01.5	+22 59	18 07	18 10	0 14W	.	Fe/-	5-5
45456F1	Focus Tests	(Pairs)	A & B Tests	of Plate holder diffs		0 22W	+42°	Fe/-	15-15
F2	"	"	"			"	+42°	"	"
45457	HD 16893	02 37.4	+67 23	18 56	20 57	2 23 W	+67 49.2	Fe/-	4-4
45457F1	616 Focus Tests, checking possible variation of focus					0 0	+14°	Fe/-	18-18
F2	with East-west posn of grating in brackets					"	"	"	"
F3						"	"	"	"
F4						"	"	"	"
F5	68 Focus Tests - At this tilt, grating (uncamped) cannot move					"	"	Fe/-	14-14
F6	East-west very much.					"	"	"	"
45457V	Spot Calc for 45456-				15 min @ 15V	04 3900	03 4300	D2 4890	

Transparency Conditions ... *poor* 102

Dome Temp./Hum. /

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
15-5	40/40	4"	2.2	K2L14b	BC	830/1.68	BS	IIa0-e	A	std vel	v sl str
15-5				"	"	"	IIa0	A		T=33.5°F	
				"	"	"	"	B		T=33.5°F	
4-4	30/70	4-6"	8.92	A2V	BC	830/1.68	BS	IIa0-e	B	SO Cao Assoc. clouds Thr Hydr Br. <u>Push please</u> Set 509	wz
18-8				"	1200/1.7	"	O9802e	A	T=27.5°F set 507	Grating far East }	
				"	"	"	"	B	" "	in brackets. }	
				"	"	"	"	A	"	Grating West in brackets }	
7-7				"	"	"	"	B	"		Strong
14-4				"	1200/-0.25	"	IIa0	A	"	Full East in brackets	
				"	"	"	"	B	"	"	
							IIa0-e				
							exposed O98			should be separate from exposed IIa0	

103

Date Thurs. Fri. Jan 29-30, 1980 Observers Tar-R.

Emulsion Batches:

Doc-E 13050-20011

[illegible]

Spectr. Temp. ... 26°F

Dome Temp./Hum. -10°C 70%

Transparency Conditions ... expected ... except for ... 104

Focus ... 508

Spectr. Temp.

Dome Temp./Hum. -15°C 97%

two hours at beginning
of the night because of snow

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
14-16					1200/-0.025	B.S.	IIa0-E	B		T26°F F508	
4-44	40/55	4.4	F8V	BC	1200/-0.025	BS	IIa0-e	A	Std. Vel.	ARC NOT FIRING PROPERLY	vsl str
4-44	400/550 2"	7.7	F7V	"	"	"	"	B	Tnr-Hyades Std.	SNOW, STOP AT 19 52 * RESTART 21 52	(dirty) fine
4-44	200/253	1-2"	6.8	F7V	"	"	"	A	Tnr-Hyad. Bin.	T22°F tile limit	fine
4-44	200/230	2"	6.08	08 III	"	"	"	B	Ly.-Plaskett's Star	"	vsl str
4-44	800/700	1-2"	9.06	K2 V	BC	830/.68	BS	IIa0-e	Tnr-UMa	T17°F 512	good
4-44				"	"	B.S.	IIa0	B		T14°F 512	
										snow & clouds	

105

Fri - Sat

Date Jan. 30-31 / 81 Observers Tnr-Tn

7 1/2 68° Emulsion Batches:
...Tt40-e. 13050-20011

[illegible]

Spectr. Temp. $+18^{\circ}\text{F}$Dome Temp./Hum. $+12^{\circ}\text{F}/70\%$ Transparency Conditions *Fine* 106

Focus . . . 512-513

Good meteor shower. (Slow & brt)

Spectr. Temp. 416 °F.....Dome Temp./Hum. 40°F / 100% +

♂ Leonids ?

[illegible]

107

Date Sat. / Sun
Jan. 31 / Feb 1, 1981 Observers GIS - Ri

7 1/2" 68° Emulsion Batches:
IIaO-e 13050-29011 18 204

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.
45471F	FOCUS TEST					0 ^h	+24	Fe/-	14-#
45471	HD 3712	0 ^h 34 ^m .8	+55° 59'	18:00	18:01	1 ^h 48 ^m W	+56° 27'	Fe/-	6-6
45472	HD 4142	0 ^h 38 ^m .9	+47° 19'	18:05	18:15	1 ^h 59 ^m W	+47° 46'	Fe/-	4-4-4
45473	HD 11606	1 48.8	+58 47	18:21	18:55	1 ^h 27 ^m W	+59° 10'	Fe/-	4-4-4
45474	HD 14220	2 12.8	+52 07	18:59	19:52	2 ^h 01 W	+52° 28'	Fe/-	4-4-4
45474T	spotted & plates	45471-			15 min @ 1500	D4 3900	D3 4300	D2 4810	
45475	HD 29866	4 37.3	+40° 36'	19:57	20:20	0 ^h 05 ^m W	+40° 46'	Fe/-	4-4-4
45476	HD 34078	5 09.7	+34° 12'	20:24	20:47	0 ^h 01 ^m E	+34° 17'	Fe/-	4-4-4
45477	HD 36576	5 27.7	+18° 28'	20:51	21:09	0 ^h 04 ^m W	+18° 33'	Fe/-	4-4-4
45478	HD 37657	5 35.1	+43° 00'	21:13	22:28	1 ^h 15 ^m W	+43° 03'	Fe/-	4-4-4
45479	HD 43112	6 09.5	+13° 53'	22:32	23:25	1 ^h 40 ^m W	+13° 52'	Fe/-	4-4-4
45480	HD 45995	6 25.6	+11° 19'	23:29	00:07	2 ^h 05 ^m W	+11° 16'	Fe/-	4-4-4
	HD 44172	6 15.3	+14° 45'			W	+14° 45'	Fe/-	4-
45481	HD 97991	11 11.1	-2° 55'	00:23	02:12	0 ^h 35 ^m E	-3° 21'	Fe/-	4-4-4
45481T ₁	UV test							Fe Ne Wr 66	90 sec
45481T ₂	UV test							Fe Ne Wr 66	90 sec

Spectr. Temp. $+25^{\circ}\text{F}$ Dome Temp./Hum. $+23^{\circ}\text{F}/60\%$ Transparency Conditions *Good at first then the 100*Focus 510 Spectr. Temp. $+24^{\circ}\text{F}$ Dome Temp./Hum. $+17^{\circ}\text{F}/100\%$ *haze slowly getting thicker*
** short plates developed in "broken plate"*

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	830/068	BS	IIaD-e	B		T=25°F F=510	sl red
40/40	2"	2.5	KO IIIa	"	"	"	"	A	Std Velocity		sl strong
200/175		5.53	B5V	"	"	"	"	B	Runaway *		strong
200/175		7.02	B2Vne	"	"	"	"	A	Runaway *		sl strong
200/175 400/250		7.01	B2V	"	"	"	"	B	Runaway +	<i>hazy more in focus</i> 1st 75 counts at 200	
							IIaD-E				
200/175		5.87	B8Vne	"	"	"	"	A	Runaway *	T=26°F	strong
400/385		6.12	O95V	"	"	"	"	B	Runaway *		
200/175	1-2	5.71	B2Vne	"	"	"	"	A	Runaway *		
400/350		7.22	B3Vne	"	"	"	"	B	Runaway *		* sl str
400/353		5.67	B1V	"	"	"	"	A	Runaway *	T=25°F	* sl str
400/350		6.04	B2Vne	"	"	"	"	B	Runaway *		
400/		7.29	B6V	"	"	"	"	A	Runaway *	T=24°F	
800/470		7.12	B2V	"	"	"	"	A	Runaway *	<i>haze - slit short</i>	* sl str
				"	830/950	150μ	"	A	uv test	<i>with lens as slit out</i> maximum tilt	
				"	1200/.600	150μ	"	B	"	<i>with lens as slit in</i>	

109

Mon-Tues

Date Feb 2-3 1931

Observers Rm-Bts

7 1/2" 68"

Emulsion Batches:

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[illegible]

Spectr. Temp.

Dome Temp./Hum.

Transparency Conditions 110

9.

Date FEB 4/5 81 Observers Ly-Ri/Gu-Ri
WED/THURS

Emulsion Batches:
7th W H.W.F. 13050-31011... 18197
9th W H.F.

[illegible]

Spectr. Temp. $+14^{\circ}\text{F}$ Dome Temp./Hum. $9^{\circ}\text{F} / 70\%$ Transparency Conditions *good* 1/12Focus *509*

Spectr. Temp.

Dome Temp./Hum. $-22^{\circ}\text{C} / 80\%$ Harrison
Exp.

4-4-

4-4-

4-4-

132

480

4-4-

6-

2-

2-30

2-30

2-

310

14-

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
400/480	4-5	5.6	B8	BC	1200/-0.25	BS	Indoc.	A	Sp Bin-Ly		fine comp wks
400/480	3-4	6.0	Am.	"	"	"	"	B	Sp Bin-Tur	80°F S10	fine
400/305	3	7.4	F6V	"	"	"	"	A	Hyoob Std-Tur	60°F S10	good
							Indoc				
				BC	1200/-0.25	BS	Indoc	B		20°F S10	sl blue
20/27	3	2.2	K3II	"	"	"	"	A	Std Vel.		fine
7/500	4	3.9	ceph	"	830/.9	150μ/.5	HIE	B	IR CEPH	T=10°F 518 baked "V" FILTER strip	weak
40/350	4	2.0	F8JB	B.C.	830/.9	150/.5	HIE	A	IR CEPH	* Filter turned at end of baked strip	weak
40/250	4	"	"	"	"	"	"	B	"	* Filter wheel turned during baked strip	weak
60/143	"	3.9	ceph	"	"	"	"	A	"	baked strip cloudy	v. weak
				B.C.	830/.9	150	Indoc	A		terminated by clouds at 5:45	
				B.C.	830/.68	150/5	Indoc	B		T-030°F	
										* tile removed 518	

113

Date Feb 7 81 5a9 Observers R.

Emulsion Batches:

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[illegible]

Spectr.

Focus.

Spectr.

Exp. Mus.

Transparency Conditions 114

Spectr. Temp.

Dome Temp./Hum.

[illegible]

115.

Monday

Date .. February 9, 1981

Observers GIS - R1

7/12/69 - Emulsion Batches: 1100-0 290

Emulsion Batches:
II-0-e-29070-00021 21 207

[illegible]

Transparency Conditions 116

Dome Temp./Hum. *+12°F / 89%*

14.6

117

Mon-Tues

Date Feb 9-10 1981 Observers Rm-Ri//Ly-Ri

8^m 680

Emulsion Batches:

Emulsion Batches:

Two-E 29070-0202.1...	20267
Two-E* 29070-0702.1...	20199

[illegible]

Spectr. Temp. 25°F Dome Temp./Hum. $18^{\circ}\text{F}/95\%$ Transparency Conditions *fair* $1/18$ Focus 510 Spectr. Temp. 21°F Dome Temp./Hum. $15^{\circ}\text{F}/100\%$ *increasing haze*

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
4-44 500/800		6.3	F7IIb	BC	830/.68	BS	IIaO	B	Bin Ceph/Evans	Focus 510°	
4-44 40/80		4.2	FSII	"	"	"	IIaO	A	Bin Ceph/Evans		strong
4-44 800/367	2-3"	7.9-8.8	F6-G1	"	"	"	IIaO	B	Ceph/Evans	$T = 29^{\circ}\text{F}$ spectrograph	sl str
4-44 200/130	2-3	5.89	B0III	BC	1200/.025	BS	IIaO* IIaO-e	A	Tur Pgm	$T = 22^{\circ}\text{F}$ $F = 508$	fine
4-44 400/410	3	6.9	AO	"	"	"	" IIaO-e	B	Sp Bin - Ly		fine
4-44				BC	1200/.015	BS	"	A		$T = 21^{\circ}\text{F}$ $F = 508$	

119.

Date Feb 11/12/81 Observers Gu-Ku

Emulsion Batches:

Emulsion Batches:
H.I.E. baked 1 1/2 hr. 60°C

[illegible]

Spectr. Temp. 240° F.....

Dome Temp./Hum.-14°C/80%

Transparency Conditions *clear very windy* /20

Focus 511

Dome Temp./Hum. -15°C/80%

Spectr. Temp. $10^{\circ}F$ [illegible]

121

Tour from Scarborough ~ 50 students
looked at moon 1/2 hours

Date 12/13 Feb 1981

Thurs Fr.

Observers Bln - R. / Gu - R.

8^m 69° HIE film - unbaked
Emulsion Batches:

8^m 69° Ilford-F. 25070-07021 21 203

5^m 68° Ilford-F. 07119-05011

5^m 68° 098-02E 07119-07011 20 201

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.
45505F	Focus Test							Fe/He/Wrb	10-10
45505	HD 19356	03 ^h 01 ^m 7	+40° 34'	18 19	18 30	00 37W	+40° 55'	Fe/He/Wrb	4-4
45506	HD 20902	03 ^h 17 ^m 3	+49° 30'	18 33	18 45	00 37W	+49° 50'	Fe/He/Wrb	4-4
45507	HD 5394	00 ^h 50 ^m 7	+60° 11'	18 52	19 01	03 20W	+60° 39'	Fe/-	4-4-4
45508	HD 5394	00 ^h 50 ^m 7	+60° 11'	19 07	19 15	03 34W	+60° 39'	Fe/-	24-24
45509	HD 41335	05 ^h 59 ^m 4	-6° 42'	19 22	20 37	00 11E	-6° 39'	He/-	12-12-12
45509T	optical fn plates	45505+06				15min @ 150 D3	04 D3	3900	4810
45509T2	optical fn plates	45507+09				15min 150 D3	70 D1	70 D2	
						4810	HD	5450	
45510	HD 33328	05 ^h 04 ^m 4	-8° 53'	21 11	21 39	01 45W	-8° 45'	Fe/-	18-18
45511	HD 37468	05 ^h 33 ^m 7	-2° 39'	21 41	22 01	01 38W	-2° 34'	Fe/-	18-18
45512	HD 41335	05 ^h 59 ^m 4	-6° 42'	22 04	23 55	03 40W	-6° 38'	Fe/-	12-12-12
45512T	optical fn plates	45508, 10-12				15min 17.50 D4	150 D4	150 D4	
						3900	4300	4810	
45512F	focus test							Fe/	14-14
45513	HD 8890A	01 22.4	+88° 46'	03 00	03 48	11 40SW	+89° 10'	He/-	30-30-3
45513T	spot calibr ⁿ for plates	45513-14				7 1/2 V	D4 10min	D3 30min	
							7680	8464	

Spectr. Temp. $15^{\circ}F$ Dome Temp./Hum. $-12^{\circ}C/75\%$ Transparency Conditions 100

Focus... 511

Spectr. Temp. Dome Temp./Hum.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	1200/.6	150/.7	IIa-OE	A		$T=15^{\circ}F$ $F=511$	
40/299	4	2.2-3.3	B8V	BC	1200/.6	150/.7	IIa-OE	B	UV Test		
40/357	4	2.27	F5IB	BC	1200/.6	150/.7	IIa-OE	A	UV Test		
40/56	4	2.43	B0e	BC	1200/.7	150/1.0	098-02E	B	Bc-Bln	Fe may have been w/ ND on 1st 2 exp. Fe not Ne	sl str.
40/244	4	2.43	B0e	BC	1200/.025	BS	IIIa-JEb	A	Bc-Bln		str
80/200	4	5.16	B2c	BC	1200/.7	150/.7	098-02E	B	Bc-Bln		fine
							IIa-OE				
							098-02E				
40/180	4	4.07	B2IVe	BC	830/.68	BS	IIIa-JEb	B	Bc-Bln	$T=14^{\circ}$ $F=513$	v sl str
40/171		3.51	09.5V	BC	830/.68	BS	IIIa-JEb	A	SB-Bln		v sl str
40/125		5.16	B2c	BC	830/.68	BS	IIIa-JEb	B	Bc-Bln	Cloud	fine
							IIIa-JEb				
				B.C.	830/.68	BS	IIa-OE	A			
40/300	3-4	2.0	ceph	B.C.	830/.900	150/.3	HIE	A	IR Ceph.	v filter telescope reversed	fine

Date Feb 13 1981 Observers Gu-R.

Emulsion Batches;

Emulsion Batches:
HIE film unlabeled

[illegible]

Focus 513

Spectr. Temp. ... *140° F.*

Dome Temp./Hum. = 14°C / 82%

Transparency Conditions .. *good except for clouds at 12:00* 124

[illegible]

125

Date Sat/Sun 12/6/10 Observers DL-JM

HLE-unbaked - G4143 031 02

Emulsion Batches:

44De 29070-0702, 19 180

...III.4.1-e..... 2 258

...HIE...G4A3-033-03 exp 11/128)

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.
45515F	Focus Test							Fe/Ne	15-15
45515	HD 18925	2 57.6	+53 07	18:18	18:49	1 08 W	+53 33	Fe/Ne	4-2-4
45516	HD 32147	4 55.9	-5 52	19 15	20 36	0 58 W	-	Fe/-	4-4-4
45516T	Spot Calc for 45515-17			(approx 25 min)	15V D4 3900	D4 3900			
45517	HD 47105 -	6 31.9	+16 29	20 41	20 45	0 29 E		Fe/-	6-6
45518	HD 66751	7 59.9	+70 0	21 21	23 03	0 18 W	+69 53	Fe/-	4-4-4
45518T	Spot cal. (test)			① 8464 D3	7 1/2 V 30 min				
45519	HD 76644	8 52.4	+48 26	23 08	23 33	0 58 W		Fe/-	1A-1A-
45520	HD 81797	9 22.7	- 8 14	23 42	0 11	0 06 W		Fe/-	6-6
45521	HD 8890A	01 22.4	-18 46	00 33		W		Fe/-	30-
45521T1									
45521T2	Spot Calc for 45519.-520			15 min @ D4	17.5V 3900	15V 4300	15V 4810		

Focus 505

Spectr. Temp. ... 30°

Dome Temp./Hum. 27°F / 60%^{OUT} Tra

Dome Temp./Hum. 20°F / 100%

Transparency Conditions *slight haze - very hazy*

126

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
15-18				BC	1200/.2	150μ	Ilco	A			sl blue
4-2-4	40/300	2=3	3.4	G8IV +A3V	BC	"	"	B	Asm Sp/KK	Radium test 40/37	strong
4-4-4	400/465		7.27	K3V	"	1200/.025	BS	"	A	"	blue end saved shattered 1 pc saved & weak
							"				
6-6	40/45	2"	1.9	H0IV	BC	1200/.025	BS	"	B	Asm Sp KK	moonlight almost unstar Red end broken off
4-4-4	400/400	2"	7.1	df8	"	830/.680	BS	"	A	Asm Sp KK	F=50f HAZE vsl str focus? ch focus?
							HIE				
4-4-4	40/150		3.3	A5	BC	830/.68	BS	III ₂ Te	A	Asm Sp KK	fine
6-6	40/46	2"	2.2	K3	"	"	"	II ₂ 0.e	B	Std Vel	good
3-3	40/10	"	2.0	eph	"	830/.7	150μ/.3	HIE	A	IR eph	v' filter unbaked HIE 0.31 0.2 Too cloudy
							III ₂ 0.e				

127

Date 15/16 February 1981 Observers Bl-Tn / Gu-Tn...

Emulsion Batches:

Emulsion Batches:

8m 68 .. ~~ITC~~ 29070 - 12020^{18 194}
 .. HIF 94143.03102 unbaked

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.
45521	HD 45995	6 ^h 25 ^m .6	+11° 19'	22:52	00 19	03 16 W	+11° 18'	Fe/-	44-4
45522T	Spot calib for 45521				15 min 15V 3900	D4 D3 4300	D2 4810		
45522	HD 8890A	01 22.4	+88 46	00:30	01:18	08 45 W	+89 11	Ne/-	30-30-30
45523T	Spot calib for 45522-23				7 1/2 V	D4 10 min 7680	D3 30 min 8464		
45523	HD 8890A	01 22.4	+88 46	01:21	02:20	09 44 W	+89 11	Ne/-	30-30-30
45523F1	Focus test							FeNe/ Wr66	10-10
F2	"							FeNe/ Wr66	20-20
F3								Ne/-	20-20
F4								"	30-30
45523T2	Spot calib (test)		③ 8464	D3 30 min	7 1/2 V				

Spectr. Temp. 36°F Dome Temp./Hum. $33^{\circ}\text{F}/71\%$ Transparency Conditions *Hazy + cirrus*Focus 507 Spectr. Temp. 38°F Dome Temp./Hum. $34/73\%$ Hanson
Exp.

44-

20-30

25-30

10-1

20-20

20-20

30-30

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
200/175	3"	6.04	B2V _{unc}	BC	830/68	BS	IIa-Oe	A	Runaway		1.5hr
							"				
40/302	3"	2.0	ceph	"	830/.9	150 μ 1.3	HIE	B	IR ceph	'V' filter	fogged
4/300	4"	2.0	"	"	"	"	"	A	"	cloud	fine
				RC	830/.9	150 μ 1.0	098	A	} F should be 499.	40°F F = 505	red
				"	"	"	"	B			red
				"	"	RS	"	A	} F should be 500		
				"	"	"	"	B			
							HIE (H ₂ inc)	8%	forming gas	soaked 25°C 18 hr	

129

Date Wed. House Feb. 25-26 Observers Ly-Ri / Gu-Ri

Emulsion Batches:
 8 68 (new D19) *Tav-E 21070-12020 23 211*
 " *HIF..G4143..031.02.unbatched*

[illegible]

Spectr. Temp.

Dome Temp./Hum. 30°F / 96%

Transparency Conditions . . . *ok... but windy* . . . 1/30

new D 12

131.

Date ~~Thy/Fri~~ 26/27 Feb 1981

Observers Blu-Ri / Gu-Ri.....

Emulsion Batches:

8 ^{gm} HIE G4143 031 025 ⁰⁹¹⁰²	098-025 7119-12021	22 208
.... HIE* sensitized 5 ^{gm}	IIa 5c b 7119-01051	20 263
- 1% H ₂ O ² from IIIaF chamber 8 ^{gm}	IIa 0-E 29070-12020	23 216

[illegible]

Spectr. Temp. $T = 37^{\circ}\text{F}$ Dome Temp./Hum. $30^{\circ}\text{F} / 89\%$

Transparency Conditions 132

Focus 50.7

Spectr. Temp.

Dome Temp./Hum.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
40/60	6	2.43	B0e	BC	1200/.7	^{V Filter} 150/1.0	098-02E	A	B _e - B ₁	9 37° 507	strong
40/160	6	2.43	B0e	BC	830/.68	BS	IIIa-Jeb	B	B _e - B ₁	9 37° 507	strong
40/180	4-6	4.07	B2IV	BC	830/.68	BS	IIIa-Jeb	A	B _e - B ₁		sl str.
40/180		3.51	09.5V	BC	830/.68	BS	IIIa-Jeb	B	SB - B ₁		strong
40/200		5.16	B2c	BC	830/.68	BS	IIIa-Jeb	B A	SB - B ₁		v sl str.
							098-02E				
							IIIa-Jeb				
40/100	5	5.16	B2c	B.C.	1200/.7	150/.7	098-02E	B	B _e - B ₁		strong
400/400	5	7.20	⁹⁶⁵ H ⁺ 2	B.C.	830/.68	BS	IIa-0E	A	VB - B ₁	T = 34°F F = 508	v sl str.
80/507	"	4.0	ceph	"	830/.7	150w/.3	HIE	B	IR ceph	'V' filter	good
							Doo-E				
/300	3-4	2.0	"	"	"	"	HIE	A	"		fine
							HIE				
/700	3-4	4.0		"	"	"		B	"	T = 32°F F = 509	good
							HIE*				light struck
				"	"	150	HIE*	B		T = 30°F F = 509	

133

Date Thurs / Fri 26/27 Feb Observers Gu-Ri

Emulsion Batches:

.....

.....

.....

[illegible]

Spectr. Temp. ... 3.0° F

Dome Temp./Hum. 26°F/96%

164

Spectr. Temp. Dome Temp./Hum.

Transparency Conditions .. *THIN CLOUD ALL 136*
OVER SKY (SUNSET)

ANSON
Exp.

137

Mon/Tues

Date Mar 2/3 Observers Rm - B+s

Emulsion Batches:

.....

.....

.....

[illegible]

Spectr. Temp.

Dome Temp./Hum.

Transparency Conditions 138

radium spot 37/min

[illegible]

139

Date March 3/4 Observers Bts/Ave

Emulsion Batches:

Emulsion Batches.

5m	098
8m	420

[illegible]

Spectr. Temp. 28 °F

Focus . . . 510

Spectr. Temp.

Dome Temp./Hum. 23°F/80%

Dome Temp./Hum.

Transparency Conditions .. clear, scattered cloud ..

Iridium Test 41 counts

[illegible]

Spectr. Temp. 32°F /Dome Temp./Hum $27^{\circ}\text{F}/95\%$ outTransparency Conditions ... 50.50 140 Focus ... 506 Spectr. Temp. 29.5°F Dome Temp./Hum $21^{\circ}\text{F}/95\%$

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
40/190	2"	4/10	B7 _{Am}	BC	1200/1.025	BS	III _u J-e	A	Be-B _{1/4}		fine
							III _u J-e				
40/200	3"-5"	3.50	A0 _V	BC	1200/1.025	BS	III _u J-e	B	SB B _{1/4}	cloud	good
40/160	5"	2.58	09.5 _V	"	"	BS	III _u J-e	A	Be-B _{1/4}		good
40/55	3"	"	"	"	1200/1.7	^{v filter} 150/1.7	098-02E	A	"	* Slicer Comp feed filter Left in for all 1200/1.7 exps	sl str
40/40	3"	3.50	A0 _V	"	"	"	"	B	SB B _{1/4}	T=32°F set 508 (Brace & Lense in however)	fine
40/50	3"	4/10	B7 _{Am}	"	"	"	"	A	Be B _{1/4}		fine
							"				
40/42	3"	3.9	K2 III	BC	1200/1.7	^{v filter} 150/1.7	"	B	std vel		fine
				"	"	^{v filter} 150/1.0	098	A		T=29.5 set 508	OK

143

Date Mar 6/7 Observers Arce-Th

Emulsion Batches:

5 1/4" 69° ... 098-02 E ... 07119-27021

098*02E.....

Watch?

[illegible]

Spectr. Temp. $+27^{\circ}\text{F}$

Dome Temp./Hum. +21°/70%

SE cirrus
Transparency Conditions *cloudy* 144

[illegible]

Spectr. Temp. +29°F.....

Dome Temp./Hum. *+32°F / 80%*

Transparency Conditions *Bad* 146.

Focus506.....

Spectr. Temp. $+38^{\circ}\text{F}$

Dome Temp./Hum. *+30. / 90%*

[illegible]

Date Mar 9/10 1981 Observers R.M. T.

8ⁿ 680

Emulsion Batches:

...~~File 29070~~ 06031

.....

.....

[illegible]

Transparency Conditions ... *hazy - cloudy* ... 148

Spectr. Temp.

Dome Temp./Hum. /

[illegible]

11-12

Emulsion Batches:
8^m68^o .. It-o-e .. 29070 - 06031

Emulsion Batches:

...И.О.Е. 29070 - 06031

Spectr.

Focus.

Spectr.

Exp. Mtr

45 / 3

Transparency Conditions . . . *Cloudy* 150

Dome Temp./Hum. ^{425°} / 86%

[illegible]

151

Date MAR 12/13 Observers Ly-Tn/Tn
THURS. FRI

Emulsion Batches:
8^m 69^c ... II-0-e 29070-06031

Emulsion Batches:

[illegible]

Spectr. Temp. ... 39°F

Dome Temp./Hum. 35° / 86%Transparency Conditions . . . *Fine* 150

Focus 504

Spectr. Temp. 36.....

Dome Temp./Hum. *+30°F/100%*

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
400/380	2-3	6.8	F7V	BC	1200/-025	BS	IIaDe	A	Hyades - Trv		vsl wh
							IIc0-e				
400/350	12"	7.13	A2	BC	1200/-025	BS	IIc0-e	B	SB - Ly		fine
400/280	3-1"	6.87	HU	BC	830/-68	BS	"	A	"	38°F F=526	fine
800/540	1-2	9.5	KS	"	"	"	"	B	H+K - Ly	38°F intermittent cloud	vsl wh
200/185	2"	3.9	K2 III	"	"	"	"	H	std vel		fine
				"	"	"	IIc0	B	Set 506	T 36°F	ok

153

Date MAR 13-14/81 Observers Cow-Tn

Emulsion Batches:

...Doc-e 29070-06031...

[illegible]

Spectr. Temp. 30 F

Dome Temp./Hum. +20°F/89%Transparency Conditions . . . *MOSTLY CLEAR* . . . 154

Focus 509

Fine Aurora visible after 4^h

Spectr. Temp. 23°F.....Dome Temp./Hum. *41.2°F / 90%*

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
55-400/400	4"	8 1/4	M6-M7c	BC	830/0.68	150/0.3	TI00-E	A	CW-MIRAS	(155m)	exp good sl. flow?
55-400/390	5"	7.5	M4M	"	"	"	"	B	"	Set 511 T=24°F	fine
1-13			"	"	"	"	TI00	A		(68m)	good
										upper & lower comparison unequal	

Spectr. Temp. $+30^{\circ}\text{F}$Dome Temp./Hum. $+29^{\circ}\text{F}/72\%$ Transparency Conditions *hazy - to good*... 156Focus *509*.....Spectr. Temp. $+33^{\circ}\text{F}$Dome Temp./Hum. $+27^{\circ}\text{F}/90\%$

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
5-5-5 400/340	23	7.18	A3	BC	830/68	BS	Il00-e	A	Wat prog		v sl str
5-5-5 400/350	2"	8.2	G0	"	"	"	"	B	"		good
5-5-5 400/350	3"	6.6	F5	BC	830/68	BS	Il00-e	A	"		fine
5-5-5 400/350	3"	6.9	F8	"	"	"	"	B	"		fine
5-5-5 400/320	4"	6.61	F0	"	"	"	"	A	"		fine
7-7 40/28	5"	4.6	A8	"	"	"	"	B	"	$T=133^{\circ}\text{F}$	v sl str
5-5-5 400/320	5"	6.2	F8	"	"	"	"	A	"		fine
5-5-5 400/350	5-2"	7.1	G5	"	"	"	"	B	"		fine
5-5-5 200/175	2	6.2	F8	"	"	"	"	A	"		v sl str.
7-7 40/40	2	3.9	K2	"	"	"	"	B	Ad. vel.		fine

1 Mon-Tues
Date Mar 16-17/81 Observers Rm-Tn

Emulsion Batches:

...II-o-e 29070-06031

[illegible]

Spectr. Temp.

Dome Temp./Hum. /

Transparency Conditions *Fine - clouds* 158

[illegible]

154

Date MAR 17/18 81 Observers Ly - Tn.
TUES/WED

Emulsion Batches:
7^m 69° π 0.0 29070 - 06031
 π 0.5 29070 - 16031

[illegible]

Spectr. Temp. 20°FDome Temp./Hum. *11.°F./...77%.*

Transparency Conditions ... good breezy ... 160

Focus 509

Spectr. Temp. 12.5° F.....

Dome Temp./Hum. 68°F / 90%

[illegible]

161

Date Wed./Thurs. MAR. 18/19

098.02 E - 05031 - 06031

Иав-Е 29070-16031

[illegible]

Spectr. Temp. $+25^{\circ}\text{F}$ Dome Temp./Hum. $+19^{\circ}\text{F}/.70\%$ Transparency Conditions *good* 162

Focus

Spectr. Temp.

Dome Temp./Hum. $+06^{\circ}\text{F}/.98\%$

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
40/50	2-3"	3.74	B1Ib	BC	1200/.7	150/1.0	098-02E	A	Blu. Std.	BROKEN 1/2 mirror T=25" V filter F=510	sl strong comparison
							098-02E				
40/30	2-3'	3.74	B1Ib	BC	1200/.025	BS	IIa0-e	B	Blu. Std.	+25°F F=507	fine
400/350	2-3"	5.67	B1I	"	830/.68	"	"	A	Runaway *	+25°F F=511	sl strong
400/350	2-3"	6.04	B2I _{me}	"	"	"	"	B	Runaway X	didn't cap properly	fine
							IIa0-E				
400/350		7.18	B2I	"	"	"	"	A	Runaway *	didn't cap properly	sl strong
400/350		7.76	B0.5I	"	"	"	"	B	Runaway *		fine
400/350		6.42	B2.5II _e	"	"	"	"	A	Runaway *	+20°F F=512	fine
40/350		6.18	B0.5II _p	"	"	"	"	B	Runaway *		fine
400/315		6.52	B2I _e	"	"	"	"	A	Runaway *		sl strong
					830/.68	"	"	B		+19°F F512	high
							IIIaF plain				fy
							IIIaF baled		A ^h in 8% H ₂ at 65°C		

163-

Fri - Sat

Date MAR 20/21 1981... Observers ... Arc - Ri // AK - Ri

5^m 68° Emulsion Batches:

09802F 05031-06031...

8^m 68° IIoo-F 29070-16031...

IIoo-E 29070-18031...

192^A
20 21^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.	
45595	HD 7927	14 13.8	+57° 42	19:20	19:57	6:15W	58 09.2	Fe/-	4-44
45596	HD 19662	24 16.9	+54° 55	20:11	21:13	6:25W	+55° 15'	Fe/-	4-44
45596 ^v	spectral for plate	45595-				15min @ 150V	700 700	Fe/-	700 700
45597	HD 18391	24 52.2	+57 16	21:31	22:35	7:15W	+53° 33'	Fe/-	4-44
45598	HD 31964	44 54.8	+43° 41	22:42	22:46	5:22W	+43° 44.5	Fe/-	6-6
45599	HD 8890A	1 22.5	+88° 46	22:00	23:04	8:14W		Fe/-	6-6
45600	HD 161796	17 42.5	+50 05	23:12	23:59	5:52E	50 09.3	Fe/-	4-44
45600F	focus Test							Fe/-	16-16
45601	HD 122742	13 58.6	+11° 16	00:16	00:38		+10° 57'	Fe/-	6-66
45602	HD 137909 R	15 23.7	+29 27	00:41	00:46			Fe/-	6-66
45603	HD 137909	"	"	00:49	00:53			Fe/-	9-9
45604	HD 103095	11 47.2	+38° 36	00:58	01:37	1:24W	+37° 56	Fe/-	6-66
45604 ^v	spectral for plate	45601-04				15min @ 150V	D4 D3 D2 3900 4300 4810	Fe/-	9-9
45605	HD 124897	14 11.1	+19 42	01:42	01:42	0:54E		Fe/-	9-9
45606	HD 124752	14 10.3	+68 03	01:53	04:25	1:49W	+67° 44	Fe/-	6-6
45606 ^v	spectral for plate	45605-				15min @ 150V	D4 D3 D2 3900 4300 4810	Fe/-	-

Spectr. Temp. 32°F

Dome Temp./Hum. 72%

Transparency Conditions 15.4

Focus 508

Spectr. Temp.

Dome Temp./Hum.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
400/225	3	4.95	FOJa	B.C.	1200/.7	150/*	098-02E	A	Arc Pao	* 10 counts in comparison position take reversed v. file	fine
400/200	3	5.40	F7Ib	B.C.	1200/.7	150/.5	098-02E	B	" "	" "	fine
							098-02F			" "	
300/400		7.46	K5	BC	1200/.7	150/.5	098-02E	A	" "	" "	fine
40/20		2.99	ABJa	BC	1200/.7	150/.5	098-02E	B	" "	" "	vsl str.
40/20		2.5	F8Ib	BC	1200/.7	150/.5	098-02E	A	" "	" "	fine
40/116		7.27	F8	BC	1200/.7	150/.5	098-02E	B	" "	" "	weak
				B.C.	1200/.7	150/1.0	098-02E	A	"	28°F F=508	
400/460		6.80	G8II	B.C.	1200/.025	B.S	100-E*	B	Asm Sp/RL	28°F F=506	weak
40/60		3.73	Fop	BC	"	"	"	A	"		fine
40/45		3.73	Fop	BC	"	"	"	B	"		fine
400/450		7.20	G8II	BC	"	"	"	A	"		fine
							100-0*				
20/25		0	K	BC	1200/.025	B.S	100-E	B	Std Vel.		fine
40/445		7.6	K0	"	850/.68	"	100-E	A	UMC/ICK	27°F F=511	
							100-E		45606F from 64	26°F F=511	

165

Date MAR. 21/22 Sat/Sun Observers Tnr - Ri
1981

Emulsion Batches:
8^m 68° TW-E 29070-19031

[illegible]

Spectr. Temp. Dome Temp./Hum. 30°F 99%

[illegible]

Spectr. Temp. 44°F Dome Temp./Hum. 36°F ... 74% Transparency Conditions ... *Good* /60

Focus *505*

Spectr. Temp. Dome Temp./Hum. 32°F ... 90%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality	
				B.C.	830/.68	B.S.	IIaD-E	A		T = 44°F 505		
5-5	200/150	1-2"	7.44	F8	BC	830/.68	BS	IIaD-e	B	Tnr Hyad. Bin	fine	
5-5	200/160	"	6.77	F7	"	"	"	A	Tnr Hyad. Bin	fine	fine	
5-5	80/60	"	5.89	B0	"	"	"	B	Tnr Prog.	fine	fine	
7-7	20/20	"	2.2	K3	"	"	"	A	Std. Vel.	fine	fine	
5-5	800/800	"	9.1	K2	"	"	"	B	Tnr U.Ma.	emulsion torn blue of H & K T = 41°F 506	exposed fine	
							IIaD-E					
5-5	800/650	1-2"	9.4	K1	BC	830/.68	BS	IIaD-e	A	Tnr UMa	clouds T = 39°F 507	good
16-10				BC	830/.68	B.S.	IIaD-E	B		T = 37°F 508		

169

Town ~ 80 people looked at Jupiter
 Ast 120 40 min. 8" 6" IAD-B 29070-21031

Date MAR 24/25 TUES/WED Observers Tnr - Ri
1981

[illegible]

Spectr. Temp. 43°FDome Temp./Hum. $37^{\circ}\text{F}/94\%$ Transparency Conditions *scattered clouds fr*..... $1/20$
*part of the night*Focus 505Spectr. Temp. 37°FDome Temp./Hum. $30^{\circ}\text{F}/91\%$

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	830/.68	BS	IIaD-e	A			
10/40	$\sim 4''$	2.2	K3	"	"	"	"	B	Std. Vel.		
400/320	"	6.8	F7	"	"	"	"	A	Tnr-Hyad. Bin.	clouds	fine
							IIaD-E				
80/60	"	5.9	B0	"	"	"	"	B	Tnr Prog.		Fine
200/160	$\sim 2''$	6.3	F7	"	"	"	"	A	Tnr UMa	42°F Set 506	v sl str.
400/350	"	7.4	G1	"	"	"	"	B	Tnr UMa	clouds 23:00-1:15	fine
400/350	"	7.4	G1	"	"	"	"	A	Tnr UMa	39°F	v sl str.
200/200	"	6.2	G8	"	"	"	"	B	KK Prog.		v sl str.
300/245	"	7.48	B6 $\frac{IV}{V}$	"	"	"	"	A	Tnr-Sp Bin.	38°F 507	weak

171

Date *Mar. 25/96 Wed/Thu* Observers *Rm-BB/KK-BTs...*

Emulsion Batches:

*Ilode 29070-21031*** 29070-24031*

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.
1-24F	focus							Fe/-	15-15
45624	HD 30282 ^{Aw Per}	04 ^h 41.7	+36° 33'	19:24	21:30	04 41W	+36° 44'	Fe/-	5-5-5
24T	spot cal for	45624-29		15 min 15V	D4 ① 3900	D3 ② 4300	D2 ③ 4810		
45625	HD 52973 = ξ Gem	06 ^h 58.2	+20° 43'	21 36	21:48	02 41W	26 ^h 38	Fe/-	5-5-5
45626	HD 67594 = ζ Mon	08 3.6	-2° 42'	21 53	22 15	02 05W	-2 ^h 53	Fe/-	5-5-5
45627	^R HD 67594 = ζ Mon	08 3.6	-2° 42'	22 18	22 35	02 25W	-2 53	Fe/-	5-5-5
45628	HD 84441 = ϵ Leo	09 40.2	+24° 14'	22 43	22 45	00 59W	+23° 56'	Fe/-	8-8
45629	HD 84441 = 40 Leo	10 ^h 14.3	+14° 54'	22 52	22 58	00 39W	+19 38	Fe/-	5-5-5
45630	HD 111456	12 ^h 44.3	+60 52	23 10	23 32	01 18E	+60 22	Fe/-	5-5-5
45631	HD 124752	14 ^h 11.9	+67° 42'	23 38	02 00	00 10E	+67° 41'	Fe/-	5-5-5
32T	spot cal for	45630-		15 min 15V	D4 ① 3900	D3 ② 4300	D2 ③ 4810		
45632	HD 8890 A	01 22.5	+88 46	02:22	02:23	11 53W		Fe/-	8-8
45633	HD 8890 B	01 22.5	+88 46	02:22	05:03	09 27E	+89 15	Fe/-	5-5-5
45634	HD 136202	15 14.2	+2 09	05:18	05 27	02 08W	+1 53	Fe/-	5-5-5
45635	HD 137909	15 23.7	+29 27	05 32	05 36	2 09W	+29 13	Fe/-	8-8

Spectr. Temp. 46°F

Dome Temp./Hum. 40°F/79%

Transparency Conditions ... v. thin ... layer cloud ... 172

Focus 504

Spectr. Temp.

Dome Temp./Hum.

radium spot 40/min

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
5-5				BC	830/.68	BS	Ilce	A		46°F 504	
5-5	100/300	2"	7.9/8.8	F6/G1	"	"	"	A	Ceph/Evans		good
							"		"		
5-5	40/7		4.4	F7 Ib	"	"	"	B	Bin Ceph/Evans		str
5-5	40/7		5.3	G2 Ib	"	"	"	A	Bin Ceph/Evans		sl strong
5-5	40/60		"	"	"	"	"	B	Bin Ceph/Evans		v sl strong
5-5	40/35		3.8	Gop II	"	"	"	A	Ceph/Evans		v sl strong
5-5	40/35		5.3	F5 II	"	"	"	B'	Ceph/Evans ^{std}		fine
5-5	40/320		6.3	F5 II	"	"	" *	A	Thr UMa	42°F 506	fine
5-5	100/250		9.6	K0	"	"	" *	B	KK UMa		
							"				
8-8	40/50	2-3	~2	F	"	150/7	" *	B	Asm. Sp/KK	40°F 506	
5-5	100/170		8.6	F	"	150/3	" *	A	Asm. Sp/KK		fine exp sl clear
5-5	100/170		5.6	F8	"	"	"	B			
8-8	40/30	1-2	3.9	Fop	"	70/5	"	A			

173

Date Mar. 27/28 Fri/Sat Observers ... Crw ... Bts

8^m 68°

Emulsion Batches:

IIA0e...29070...24031

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.
36F	focus test							Fe/-	20-20
45636	HD 6641	7 ^h 57. ^m 1	+2° 36'	19:22	20 24			Fe/-	5-5-5
45637	TT LEO	9 ^h 54. ^m 9	+8° 31'	20:57	21:42		8° 12'	Fe/-	5-5-5
45638	R VIR	12 ^h 33. ^m 4	+7° 32'	22:20	01:18			Fe/-	5-5-5
38T	spot cal for	45636-		15 min 15V	① 3900	② 4300	③ 4810		
	V C/Vn	13 ^h 15. ^m 1	+46° 00'	01:30	01:40 ABORTED*			Fe/-	5
45639	S VIR	13 ^h 27. ^m 8	-6° 41'	01:49	04 49	3 21W	-7 00	Fe/-	5-5-5
45640	α' HER	17 ^h 10. ^m 1	+14° 30'	05:05	05:10		+14° 31'	Fe/-	8-8
		LST:	HA: RA-LST						

Spectr. Temp. 48°F Dome Temp./Hum. 35°F / 72% Transparency Conditions CLEAR 1.74

Focus 503

Spectr. Temp. 39°F Dome Temp./Hum. 35°F / 70%

radium spot 38/min

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
21-22				BC	830/168	150/1.7	Ilad _e	A		48°F 503	ok?
5-5	400/150	5"	5.5 K2Ti	"	"	150/1.3	"	A	Std Vel		res/str
5-5	400/1000		6.4 M2Ti	"	"	BS	"	B	M-STANDARD		S/str
5-5	400/615		7.2 M3C-M2e	"	"	BS	"	A	CW-MIRAS	Hydrogen Emission	no comp
							"				S/str
5-5	400/35		* (SR) 8.0 M5e	"	"	"	"	B	CW-MIRAS	* MISCLASSIFICATION!	fine
5-5	400/519		7.9 M6-M2e	"	"	"	"	A	CW-MIRAS	Broken 2 pieces	
8-8	40/70		~5.0 M5Ib-II	"	"	"	"	B	M-STANDARD	39°F 506	res/str

175

Sat/Sun

Date March 28 / 29 Observers (142) Waterloo - Bts

8^m 68°

Emulsion Batches:

Trade 29070 - 24031
29070 - 27031

[illegible]

Spectr. Temp. 50°F

Dome Temp./Hum. 48°F/73%

Transparency Conditions ... *hazy... hindoo... 176*

Focus 503

Spectr. Temp. 50° F

Dome Temp./Hum. 49°F/72%

radium soot 38/min

[illegible]

171

Date 31/1 March/April Observers Myd/Tu

Emulsion Batches:

...Дел-е... 29070-2703/

[illegible]

Spectr. Temp. ... 49°F

Dome Temp./Hum. 191°/100% 2+

Transparency Conditions 178

[illegible]

179

Date 2/3 April 1981 Thu/Fri Observers KK-Tn-GuEmulsion Batches:
09802e⁰⁵⁰³¹ - 20031 Il De... 29070 - 27031
HIF... G4143.031.02...
2 1/2 hrs @ 65°C. balanced H₂

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
45647F	Focus Test							Fe/-	15-15
45647	HD 62509	07 39.2	+28 16	19 28 30	19 31.5	00 15W		Fe/-	7-7
45648	HD 62509			19 39	19 40	00 25W		"	"
45649	HD 62509			19 42	19 43	00 28W		"	"
45650	HD 62509			19 46	19 47	00 32 W		"	"
G1	"	Grating illumination test		19 55	20 20				
G2	"	07 39.2	+28 16	Comparison - slit w/ both lenses				Fe/-	120 ^s
G3	"	Star + Slit							
G4				Comparison - Slit				Fe/-	120 ^s
G5	"			21 15					
45651F								Fe/- Ne/-	15-1 15-1
45651	HD 89449	10 14.3	+19 59	21 55	22 04	00 13 W		Fe/- Ne/-	7-7 14-1
45652	HD 89449	"	"	22 09	22:30	00 40 W		Fe/- Ne/-	7- 14-1
45653	"	"	"	22 36	22:47	00 56 W		"	7-7 14-1
45654	HD 84441	09 40.2	+24 14	23 06	00 09	02 53W	+23 53	Ne/-	30-30 -30

Spectr. Temp. 54.5

Dome Temp./Hum. 50°F./62%

Transparency Conditions 51 hazy 180

Focus 502

Spectr. Temp.

Dome Temp./Hum. /

Radium 40/35

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	830/.68	150/10	Il20e	A			Cont. Rev.
40/2507		2.15	KO II	BC	830/.68	150/10	Il50e	A	std vel		Fine
40/37	2-3'	"	"	"	"	BS	Il20e	A		F = 502 1 inch missing	Fine
40/37	"	"	"	"	"	BS	Il20e	A		F = 505	Fine
40/34	"	"	"	"	"	BS	Il20e	A		F = 499	Fine
40/1530	2"	"	"	"	"	BS	Il2F				
		"	"	"	"	250u	Il2F				
40/1600						250u	Il2F				
							Il2F				
							Il2F				
				RC	1200/.7	RS	098-02E	14		T = 53°F set 496	Cont. sl. Ref.
40/25		5.3	FG IV	RC	1200/.7	RS	098-02e	A	Std Vel.	clear - hazy V filter in exp meter	Ha - good exp Fe strong
40/25	3"	"	"	"	"	150/.7	"	A	"	hazy - sl. cloudy	Ha - good exp
40/25	"	"	"	"	"	RS	"	B	"	hazy	Ha - good exp
40/209	3-4'	3.0	GP II	"	830/.9	150/.5	HIEB	B	IR Ceph	'V' filter b = baked	v. sl. wk

181

Date 2/3 April 1981 Thurs Observers Gw-Tw
Fri can't

Emulsion Batches:

HIE b. - see previous sheet

[illegible]

Transparency Conditions 180

Dome Temp./Hum. *143°F / 88%*[illegible]

183

Red Col in:

Date 1981 Apr 5-7 Mon. Observers Ly-Tn/Rm-Th
Tues8^h 6^m

Emulsion Batches:

4^h 6^m4^h 6^m 11

D.R.C. 29070-27031

098-02E 05031-20031

IIal.B. 29070-06041

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.
45655	HD 28205	4 21.9	+15 22	19:30	20:25	4 42W	+15 39	Fe/-	5-5-5
45656	HD 94118	10 46.7	+46 20	20:35	22 20	0 13W	+45 59	Fe/-	5-55
45656T	Spot Calib for 45655-45664			15 min @ 15V		D4 3900	D3 4300	D2 4810	
45657	HD 62044	7 37.1	+29 08	22:24	22:37	03 39W	+29 01	Fe/-	7-7
45658	HD 72208	8 26.5	+10 09	22 42	23:24	03 35W	+10 00	Fe/-	5-55
45659	HD 118216	13 30.3	+37 42	23:30	23:54	00 57E	+37 23	"	5-5-5
45660	"	"	"	23:55	00:11	00 34E	"	"	5-5-5
45661	"	"	"	00:15	00:29	00 19E	"	Fe/- Ne	7-7 10-10
45662	"	"	"	00:30	00 44	00 09E	"	Fe/- N	7 7 10 10
45662F	Focus Test							Fe/-	25-25
45663	HD 115521	13 ^h 12.6	+6° 00	00:57	01 17	00 45W	+5° 42	Fe/-	7-7
45663T	Spot Calib			15 min @	15V D3 4810	7V D1 14	7V D2 5450		
45664	HD 157482	17 ^h 18.4	+40° 04'	01 21	2:07	2 29E	+40 05	Fe/-	5-5-
45665	HD 186688 = SUGs	19 ^h 40.6	+29° 01	02 14	4:38	2 21E	+29° 17	Fe/-	4-4-
45665T	Spot Calib for 45665-67			15 min @ 15V		D4 3900	D3 4300	D2 4810	

Spectr. Temp. 45°F

Dome Temp./Hum. 38°F/66%

Transparency Conditions good 1.84

Focus 503

Spectr. Temp.

Dome Temp./Hum. /

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
100/102	2.3	7.9	F8V	BC	1200/-0.25	BS	IIaD-e	A	Hphs Std - Inv		weak
100/310	"	7.1	A2	"	"	"	"	B	Sp Bin - Ly		fine
							"			Label 65?	
10/68	2"	4.1	K1III	BC	1200/-0.25	BS	IIaD-e	A	Hick - Ly.		fine
400/240	2-3	6.5	A0	"	"	"	"	B	Sp Bin - Ly		sl wk
40/75	3	5.2	F2IV	"	"	"	"	A	RSCVn - Ly	Set 509 T=409	
40/53	"	"	"	"	"	"	"	B	RSCVn - Ly		fine
40/32	"	"	"	BC	1200/.7	RS	098-C	A	RSCVn - Ly	v f. filter (meter) 39°F 506	
9/30	"	"	"	"	"	"	"	B	RSCVn - Ly		sl wk
				"	1200/.7	"	"	A			v sl blue
10/69	2"			"	1200/-0.25	BS	IIaD-e	B	std vol	(clear x meter) 39.5°F 509	fine
							09802E				
200/300	3"				1200/-0.25	BS	IIaD-e	A	Bin		
200/340	3-5	6.9-7.7	F1	"	830/.68	BS	IIaD-e*	B	Ceph/Evans	38°F 506	
							"				

185.

Date Apr 6-7 cont. Observers

Emulsion Batches:

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[illegible]

Dome Temp./Hum.

Focus

Spectr. Temp.

Dome Temp./Hum. 0°F / 77%

[illegible]

Date Apr 7-8 Tue-Wed Observers Gies-Th

...Дел-е... 29070-06041

[illegible]

Transparency Conditions *Five pages* 188

Dome Temp./Hum. 45° F / 71%

* had to be fixed separately
col. no good for this plate

189

- 1 full dev in vac

- 098 only 7 strips in vac

Date Apr 9/10 Thurs Apr 8/1

Observers K.R. / by R.

Emulsion Batches:

4 1/2 68°

IIIaFb

- 08041

29 3+

3^h 65C 8% H₂

IIcDe

29070-07041

5^h 68°

IIIcDe

07119-27021 13270

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.
45673	HD 62509	07 39.2	+28° 16'	19:46	19:47	01° 10W?		Fe/-	7-7
45674	"	"	"	:49	19 51	01 14W		Fe/-	7-7
45675	"	"	"	:53	54	01 17W		Fe/-	7-7
45676	"	"	"	20:07	20:08	01 21W?		Fe/-	7-7
45676F								Fe/-	15-15
G	Grainy illuminator test							Fe/-	120
	Blue star comparison							Ne/-	120
45677	"	"	"	20 29	20:35	01 48W		Fe/-	30-30
45678	"	"	"	20:40	20:45	01 58W		Fe/-	30-30
45679	"	"	"	20:50	20:58	02 11W		Fe/-	30-30
45679F				2.				Fe/-	30-30
45680	HD 66751	7 59.9	+70° 00	21:14	22 16	03 04W	+69° 49'	Fe/-	5-5
45681	HD 122742	13 58.6	+11 16	22 22	23 15	01 49 E	+10° 58	Fe/-	5-5
45682	HD 137909	15 23.7	+29 27	23:21	23:26	03° 04W		Fe/-	7-7
45683	HD 124897	11 11.1	+19 42	23:40	23:42	01 35 E		Fe/-	15-15
45684	"	"	"	23:46	23:48	01 33 E		Fe/-	15-15

Spectr. Temp. 56°F Dome Temp./Hum. 16°C 61% Transparency Conditions 190

Focus

Spectr. Temp. Dome Temp./Hum.

Exp MAR 40/35
TEST

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
40/35		2.15	K ₀ II	BC	830/.68	BS	II ₀₀ -E	A	Std Vel	F500 3	sl str
40/36	4"	"	"	"	"	BS	"	B	"	F500	"
40/35		"	"	"	"	BS	"	A	"	F497	"
40/35		"	"	"	"	BS	"	B	"	F500	sl. strong
						BS	"	A	"		vs' blue
						BS		"			
40/150		"	"	"	1200/.7	BS	III ₂ F _b	A	"	V in meter	strong! compensating too strong!
40/150		"	"	"	"	RS	III ₂ F _b	B	"		
40/150		"	"	"	"	120/.7	III ₂ F _b	A	"		
					1800/.6	120/.0	III ₂ T	B		T 54°F 501	sl blue
40/297		6.48	d#8	B.C.	1200/-.025	BS	II ₀₀ -E	A	Asm Sp/KK	up to clock	good
40/380		6.8	G8V	BC	1200/-.025	BS	II ₂₀ e	B	Asm Sp/KK		.28 vs sl wh
40/35		3.9	F ₀ p	"	1200/-.025	BS	II ₂₀ e	A	Asm Sp/KK		.55
20/60		1.2	K ₂ IIp		1800/.3	BS	III ₂ Te	B	Std Vel	T 51°F 503	sl strong
20/60		"	"		1800/.0	BS	III ₂ F _b	A	Std Vel	V filter in water	strong comp. sl strong

191

Date Apr 9/10 cont. Observers H.R. / Lx-Ri

Emulsion Batches:

412 68° 20.070-070.1 18 205
 098-02.E. 060.31-20.03 132 182
~~112-02.E. 060.31-20.03 132 182~~

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.
45684F	focus test							Fe/-	30-30
45685	HD 118216	13 30.3	+37 42	0:00	00:26	00 11E	+37 20	Fe/-	5-5-5
45685T	spot on plates 45673-76, 80-82, 86-				15min @	15Vults	D4 3900 D3 4300 D2 4810		
45688T	spot on plates 45677-79, 84				15min @	D4 15V 4810	D2 7U Hx	D3 7U 5450	
45686	HD 118216	13 30.3	+37 42	0:27	00:49	00 12W	+37 20	Fe/-	5-5-5
45687	"	"	"	0:55	01:10	00 32W	"	Fe/-	7-7
45688	"	"	"	01:11	01:27	00 49W	"	Ne/-	10 10
45689	HD 143313	15 54.6	+25 52	01:36	05:07	02 06W	+25 41	Fe/-	5-5-5
45689T	spot on plates 45683				15min @	D4 17.5V 3900	D4 15V 4300	D4 15V 4810	
45689T	spot on plates 45687+88				15min @	D3 15V 4810	D1 7U Hx	D2 7U 5450	
45689F	focus test					02 07W	+25 41	Fe/-	15-15

Spectr. Temp. Dome Temp./Hum. Transparency Conditions 192

Focus

Spectr. Temp. Dome Temp./Hum. 40°F 73%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	1800/.0	BS	IIIaFe	B			sl. red
40/75	4	5.3	F2IV	"	1200/-.025	BS	IIaO	A	RSCVn - Ly		
							IIaO-E				
							IIIaFe				
40/81		5.3	F2IV	BC	1200/-.025	BS	IIaOe	B	RSCVn - Ly		
40/30		"	"	"	1200/.7	RS	098e	A	"	V Filter in exp. meter. T=50°F F=503	
40/32		"	"	"	"	RS	098-02e	B	"		
300/450		9.54	45	"	830/.68	BS	IIaOe	A	H.K. - Ly.	T=49°F F=502	sl. wh
							IIaJ-E				
							098-02E	B		T=46°F F=502	

193

Date Apr. 10/11 Observers Cow-Ri

Emulsion Batches:

Emulsion Batches.

[illegible]

Spectr. Temp.

Dome Temp./Hum.

Transparency Conditions... THIN CLOUD COVER 1944

Dome Temp./Hum. 57°F / 55%

[illegible]

195

20:34 - 21:10 tour ~75 people Py looked at Jupiter.

Date Apr 11/12
Sat/Sun

Observers Hy-Ri

Emulsion Batches:

...I₁oe* 29070 - 07041 22 204
 ...I₂oe 02100 - 10041 14 185
 ...098-e 06031 - 20031 42 206

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
45691F	Focus test					00 07W	+16 25	Fe/-	15-15
45691	HD47105	06 36.4	+16 25	19 50	19 52	02 18W	+16 27	Fe/-	7-7
45692	HD61421 ✓ CM.	07 37.1	+5 29	19 56	19 57	01 22W	+05 20	Fe/-	7-7
45693	HD56986	07 14.1	+22 10	20 01	20 12	01 57W	+22 03	Fe/-	7-7
45694	HD99028	11 18.7	+11 05	20 19	20 25	01 55E	+10 40	Fe/-	7-7
45695	HD121370	13 49.9	+18 54	20 30	20:34	04 16E	+18 32	Fe/-	7-7
45696	HD62044	07 37.1	+29 08	21:14	22:25	03 46W	+20 59	Fe/-	5-5
45696TI	✓ optical fn plates 45691-92				15min @ 15 Volts		D4 3900 D3 4300 D2 4900		
45697	HD94118	10 46.7	+46 20	22:32	01:12	03 23W		Fe/-	5-5
45697TI	optical fn plates 45693-45699				15min @ 15 Volts		D4 3900 D3 4300 D2 4810		
45698	HD118216	13 30.3	+37 42	01:16	01:50	01 19W	+37 18	Fe/-	5-5
45699	"	"	"	01:51	02:29	01 57W	"	Fe/-	5-5
45700	"	"	"	02:38	03:04	02 33W	"	Fe/- Ne/-	7-7 10-1
45701	"	"	"	03:06	03:41	03 18W	"	Fe/- Ne-	7-7 10-1
45701F	focus test					03 19W	"	Fe/-	25-25
45701T	✓ optical fn plates 45700 & 45701				15min @	D3 150 4810	D1 70 H2	D2 70 5450	

Spectr. Temp. 62°F Dome Temp./Hum. 56°F 66% Transparency Conditions *light cirrus* 196
 Focus *498*
 Spectr. Temp. Dome Temp./Hum. *bright & active Aurora*

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
15-5				BC	$1200/.025$	BS	IIaOe^*	A.		62°F $F=498$	
7-20/20	3	1.9	A2IV	"	"	"	" *	B	Asm - KK	.80	fine
7-20/20	3	0.8	FSIV	"	"	"	" *	A	Asm-std-KK	.85	fine
7-80/70	3	3.9	F0IV	"	"	"	"	B	Asm - KK	.24	slate
7-80/70	3	4.3	F2IV	"	"	"	"	A	Asm - KK	62°F .25	good
7-40/36	3	3.3	G0	"	"	"	"	B	Asm - KK	.36	good
5-80/150	3-4	5.3	K1III	"	"	"	"	A	H+K - Ly	$60\frac{1}{2}$ set 499	good
							IIaO-E^*				
5-100/250	3	7.1	A2	BC	$1200/.025$	BS	IIaO-E	B	SpBn - Ly	intermittent cloud 59°F 499 <i>aurora</i>	v slate
							IIaO-E				
5-50/77	3-4	5.3	F2IV	BC	$1200/.025$	BS	IIaO-e	A	RSCVn - Ly	55°F set 500	fine
5-50/68	3-4	"	"	"	"	"	"	B	"		fine
7-10/40/30	4	"	"	"	$1200/.7$	RS	098-e	A	"	plate No. 100 53°F set 502	
7-10/40/30	"	"	"	"	"	"	"	B	"	patchy cloud.	
					$1200/.7$	RS	098-e	A			
							098-e				-

#2

Emulsion Batches:

.....

.....

.....

[illegible]

Transparency Conditions UU Poor /98

Dome Temp./Hum. 40°F 75% RH.

Dome Temp./Hum. 40°F 75% RH.

[illegible]

199.

Tues/Wed.

Date _____

April 14/15

Observers

Gis - Ri

8^m 68°

Emulsion Batches:

Tao-E 02100-1004

15 205

[illegible]

Spectr. Temp.

Dome Temp./Hum. $+34^{\circ}\text{F.}/75\%$

Transparency Conditions Intermittent cloud
windy! 2.00

40/38

[illegible]

Spectr. Temp. ... 42°F

Dome Temp./Hum. 37°F / 67% H

Transparency Conditions ... Good - cloudy ... 202

Focus ... 5.05

Spectr. Temp. ... 39°F

Dome Temp./Hum. 30°F / 80% H

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
40/18	3"	^{v=} 2.99	48Ia	BC	1200/.7	150 [*] /.5	098-02E	A	ARE Prog.	# with U.G. filter	good - comp str.
40/22	3"	^v 4.95	FOIa	BC	1200/.7	"	"	B	ARE Prog.		fine - comp str.
40/18	3"	^v 2.5	FOIb	BC	1200/.7	"	"	A	"		fine
				"	"	150/.7	"	H			good
40/24	3"	^{v=} 2.98	G1 Ia b	"	"	150/.7	"	B	std ARE		fine - comp str.
							"				
40/88	4"	7.27	F8	"	"	150 [*] /.5	"	A	ARE Prog	Clouds! prob blank discarded P_{T_4}	blank

203

Date Apr 16/17 Thursday Observers Hy-Tn

Emulsion Batches:
8m 680 1100-E 02100 - 1004/17190

[illegible]

Transparency Conditions circus 804

Focus 501

Dome Temp./Hum.

[illegible]

205

10 098 strips at begin
Lot III and strips " 7

SAT-SUN

Date Apr. 18-19/81..... Observers Ly-Tn./Bk-Tn.....

Emulsion Batches:

8^m II-0-C 02120 - 14014 15 150
 5^m III-J-E 07119 - 0603 (22 88
 098-02-E 05031 - 10041 27 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.
45711F	Focus Test					0	+16°	Fe/-	16-16
45711	HD 81797	9 22.7	-8 14	19 33	19 38	00 18E	-8 34	Fe/-	7-7
45712	HD 62044	7 37.0	+29 07	19 42	20 04	01 52W	+28 56	Fe/-	7-7
45713	HD 66751	7 59.9	+70 00	20 07	21 31	02 53W	+69 47	Fe/-	5-5-5
45713T	Spot Col'n for 45711-15, 19-22				15min @ 15V	DA D3 3900 4300	D2 4810		
45714	HD 118216	13 30.3	+37 42	21 38	22 16	01 46E	+37 16	Fe/-	5-5-5
45715	HD 143313	15 54.6	+25 52	22 22	00 01	02 24E	+25 37	Fe/-	5-5-5
45716	HD 112028	12 48.3	+83 58	00 12	02 23	03 08W	+83 30	Fe/-	12-12-12
45716T	Spot Col'n for 45716			15min @	D4 17.5V 3900	D4 15V 4300	D4 15V 4810		
45717	HD 112028	12 48.3	+83 58	02 33	03 13	03 53W	+83 30	Fe/- Ne/-	4-4-4 9-9-9
45717T	Spot Col'n for 45717-18			15min @	15V D3 4810	70V D1 H2	7V D2 5450		
45718	HD 200120	20 56.4	+47° 08'	03 18	03 46	03 42E	+47° 26'	Fe/- Ne/-	4-4-4 9-9-9
45719	HD 200120	20 56.4	+47° 08'	03 50	04 03	03 23E	"	Fe/-	5-5-5
45720	"	"	"	04 04	04 16	03 10E	"	"	5-5-5
45721	"	"	"	04 17	04 29	02 53E	"	"	7-7
45722	"	"	"	04 30	04 43	02 44E	"	"	7-

Spectr. Temp. ... 48°F

Dome Temp./Hum. ... 41°F/74% ..

Transparency Conditions ... good - cloudy ... 206

Focus ... 502

Spectr. Temp. ... 38°F

Dome Temp./Hum. ... 40°F/94% ..

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	1200/-0.25	BS	II ₀₀	A			right on
1-7	50/35	3	2.2	K3 D-III	"	"	II ₀₀ e	A	std vel		sl/wk ✓
7-10	200/305	3-4	5.0	K1 III	"	"	"	B	H+K - Ly		sl/wk
5-5	200/150	4-5	6.6	dF8	"	"	"	A	Aen - KK		slweak
							"				
5-5	200/390	4-5"	5.0	F1 IV	BC	1200/-0.25	BS	II ₀₀ e	B	RSCVh - Ly	+44°F Set 503
5-5	200/174	4"	9.5	K5	"	830/.68	"	A	HrK - Ly	+43°F Set 505	went ✓
1-7	30/400	5-7"	5.28	B8	BC	830/.68	BS	III ₀₀ -JE	B	Shell - Blm	set 506 Reversed cloud
							III ₀₀ JE				fine ✓
4-10	400/400	5"	5.23	B8	BC	1200/.7	RS	098-02E	A	Shell - Blm	T=40° Set 506
							1	098-02E			GG13 filter? }
4-10	40/40	5"	4.51	B1e	BC	1200/.7	RS	098-02E	B	Be - Blm	cloud
5-5	40/30	3"	4.51	B1e	BC	830/.68	BS	II ₀₀ -OE	A	Be - Blm	set 506 T=38°F
5-5	40/30	3"	"	"	"	"	"	B	"		Fine ✓
7-10	40/35	3	"	"	"	"	"	A	"		Fine ✓
7-10	40/36	1	"	"	"	"	"	B	"		Fine ✓

207 Mon-Tues #1

Date Apr. 20-21/81..... Observers Wlr.-Tn/Ran.-Tn.....

Emulsion Batches:

4^m 68° ... *Ilad* ... 11031-12031 20 177
 10^m 68° ... *Ilad-e* ... 02102-14041 16 203
 4^m 68° ... 2415

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.
45723 ✓	HD 89449	10 ^h 14 ^m .3	19 ^h 59 ^m	20 ^h 48 ^m	20 ^h 52	0 ^h 12 ^m W		Nc/ND	5-5
45724 ✓	HD 92588	10 36.3	- 1 13	21 06	21 18	0 15W		Ne/ND	5-5
45725 ✓	"	"	"	21 ^h 26 ^m	21 ^h 38 ^m	0 35W		Nc/ND	5-
45726 ✓	"	"	"	21 ^h 45 ^m	21 ^h 58 ^m	0 55W		Ne/ND	5-5
27 ✓	HD 102870	11 45.5	+2° 20'	22 ^h 14 ^m	22 ^h 23 ^m	0 10W		Nc/ND	5-5
28 ✓	"	"	"	22 31 ^m	22 ^h 34 ^m	0 21W		Nc/ND	5-5
29 ✓	"	"	"	22 ^h 40 ^m	22 ^h 42 ^m	0 29 W		Nc/ND	5-5
30 ✓	"			23 ^h 00 ^m	23 ^h 01	0 48W		Nc/ND	10-10
31 ✓	"			23 ^h 09	23 ^h 12 ^m	0 59W		Nc/ND	10-10
32 ✓	"			23 ^h 18	23 ^h 25 ^m	1 12W		Nc/ND	10-10
33 ✓	"			23 ^h 35 ^m	23 ^h 40 ^m	1 27W		Nc/ND	20-
45733T	Spot Cal'd for		45723-32	15 min @ 7V		12 5450	122 5450	02 5450	
34	HD 102870	11 45.5	+2 20	23 ^h 50 ^m	00 11			Ne/ND	20-2
45735	HD 163506-89Hr	17 ^h 51.4	+26° 4	00 ^h 37	02 ^h 15	02 04E	+26° 03	Fe/-	5-
45735T	Spot Cal'd for	45735-37		15 min @ 7V		04 3500	03 4300	02 4810	

2017
16 203

Spectr. Temp.

Dome Temp./Hum. ^{130°F}/.....

Transparency Conditions *Photomicro. 208*

Focus

Spectr. Temp.

Dome Temp./Hum.

Comparison
Exp

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
200/10	2"	5.3	F6II	BC+IT	1200/.475	150/5	IIaD	1	STD Vel	"V" filt.	exp fine
200/10	2"	6.4	Sg II	"	"	"	"	1	"	+ Blue vs red coll caliche.	"
200/10+	2	"	"	"	1200/.200	150/.5	"	1	"		
200/10+	2	"	"	"	1200/0.0	"	"	1	"		
200/80	2"	3.61	F8II	"	1200/0.0	"	"	1	1WL1/TEST		strong
200/40	"	"	"	"	1200/.200	"	"	1			
200/20	"	"	"	"	1200/.475	"	"	1			sl strong
200/20	"	"	"	RC+IT	1200/.475	"	"	1			fuzzy sl strong
200/40	"	"	"	"	1200/.200	"	"	1			sl strong fuzzy
200/80	"	"	"	"	1200/.000	"	"	1			sl strong
200/100				"	1200/.475	"	2415 film	1			sl str.
							IIaD				
00/200					"		2415 film	1			strong
200/656		5.7	1215	BC	830/.68	BS	IIaE	A	Ceph/Evan	33°F Focus 508	strong 10K
							IIa0-C				

Spectr. Temp. Dome Temp./Hum. Transparency Conditions 2/10

Focus 508

Spectr. Temp. ... 30°F Dome Temp./Hum.

Exp. Mir.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
400/442	4"-3"	7.7	GI	BC	830/.68	BS	IIaO-e	B	Gph/Evans	T=31°F	Fine
40/48		3.9	K2III	"	"	"	"	A	stable/		Fine
				"	"	"	IIcD	B		F=22°F spectrograph	no cal comp
<u>Note</u> There will be 3 blanks in Exp Box (a safety measure. Ask Ron why)											
										.10 .78	
										.07 .67	
				BC	830/.68	BS	IIaO-e	A		T=41°F = 504	ok
				"	"	150/.5	"	"			ok
				"	1200/	150/.5	IIIaFb	A	"	"	blotchy by under

[illegible]

213

Date Wed - Thru April 29/30 Observers Are - Ri
1981

5th 6th

Emulsion Batches:

098-02E 05031-10041 44 231

[illegible]

Transparency Conditions *skin* *21.4*

Dome Temp./Hum. 40°F 87%

[illegible]

215.

Date April 30 MAY 1 1981 Observers HK-R1 // BL-R1

Emulsion Batches:			
5098-52E	9m	TEDEP 0200-30041	21 216
05031-10041	5m	ITAI-E 02119-06031	47 3+
46 228	9m	ITC-E 02100-21091	22 206

[illegible]

Spectr. Temp.

Dome Temp./Hum. 44°F 58%

Transparency Conditions . Cirrus 216

Focus

40/37

Spectr. Temp.

Dome Temp./Hum. 36°F 88%

216
3
206
an
Exp

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
7-7 40/40		2.2	K3	BC	1800/.65	150/.5	IIaDef	A	Std Vel	54°F 501	Tilt wrong - am not against plunger
15-15 40/100					"	"	"	B		"	sl blue
5-5 40/100					1800/.10	150/.5	IIIaJb	A	Std Vel	green region	sl strong comp sl strong
- 400/55	3"			B.C	1800/.65	40 SLIT	IIIcJb	B			good exp
- 400/12				B.C	"	NO SLIT	IIIaJb	A			sl wk
- 400/				"	"	"	"	B		take reversal	sl wk
							"	A		"	good exp
5-5 800/10		9.6	to	BC/IT	150/.472	150/.5	IIaDe	1	TEST		
							IIa-eF			6h 8% H ₂ 21°C	
5-5 800/34				DC/IT	150/.472	150/.5	2915b		TEST		
							2915b				
5-5 400/600	4	6.22	4F8	B.C	1200/-.025	B.S.	IIaD-E	A	SB-Bln/Ly	46°F 502	fine
							IIaD-E				
100/320		6.1	BBIV	BC	1200/.7	RS	098-02E	12	SB-Bln	44°F 504	
							IIIa-3-Eb				
							098-02E				
				B.C.	1200/7	RS.	098-02F	A		44°F 504	vs. blue

217

Date 22-29 MAY 1-2 1981 Observers Ann-Ki

Emulsion Batches:

UFO-E 02100-01051 22 203
098-02E-09031-18041 38 240

[illegible]

23
240

Spectr. Temp. Dome Temp./Hum. ^(+06°C) 43°F ... 66% Transparency Conditions 2.18
 Focus 40/38
 Spectr. Temp. Dome Temp./Hum. +02°C ... 83%

ranson
Exp

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
40/25		2.99	ABII	BC	820/.680	BS	IIaO-E	A	Ave Phot.	T=51°F F503	fine
40/18		2.99	ABIIa	BC	1200/.7	150*/.5	098-02E	B	//	* T=50°F F503 V Filter on	fine
400/145	3'	5.4	F7IIb	//	//	//	//	A	//	tide removed	fine, Fe sl weak
							IIaO-E				
40/18		2.5	F8II	BC	1200/.7	150*/.5	098-02E	B	//	T=46° F=504	sl str
400/220		4.48	F2II	BC	//	//	//	A	//		sl str
							098-02E				
100/220	2-3	5.47	F2IIa	//	//	//	098-02E	B	//		fine
400/200		5.92	F6IIB	//	//	//	//	A	//	T=44° F=504	fine
400/220		5.75	F2	//	//	//	//	B	//	T=43° F=505	fine
100/200		4.4	F8Ib	//	//	//	//	A	//		fine
100/200		4.44	G0Ib	//	//	//	//	B	//		
				//	//	//	//	A		T=42°F F=505	
30/70		4.44	G0Ia	//	830/.680	BS	IIaO-E	B	//	T=42° F=505	sl wk
30/70		4.4	F8Iap	//	830/.680	BS	IIaO-E	A	//		sl wk
				//	//	//	//	B		T=42° F=505	

Spectr. Temp. Dome Temp./Hum. $+07^{\circ}\text{C}$ 66% Transparency Conditions 220

Focus

Spectr. Temp. Dome Temp./Hum. $+04^{\circ}\text{C}$ 68%

Exp.	Exp. Mir.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
7-7	40/50		3.98	F8	B.C.	830/68	B.S.	IIaD-E	A	Waterloo	T 50°F F 503	
5-5	400/350		6.90	G0	"	"	"	"	B	"		
5-5	200/175	2-3	6.20	FBI	"	"	"	"	A	"		
5-5	200/175		7.31	G1Z	"	"	"	"	B			
								IIaD-E				
5-5	200/175		7.1	G1V	B.C.	830/68	B.S.	IIaD-E	A	Waterloo		v sl str
5-5	40/40		4.6	F0V	"	"	"	"	B	"	T 47°F F 504	v sl str
5-5	200/200		7.0	G8	"	"	"	"	A	"		fine
5-5	400/450	1-2	7.6	R1	"	"	"	"	B	"		fine
5-5	400/400		7.6	KaIV	"	"	"	"	A	"	T = 46°F F = 504	fine
5-1	400/58		6.2	F8	"	"	"	"	B	"	clouds	sl weak
15-5					"	"	"	"	A		T = 44°F F 504 no stellar discarded	

Date Sun-Mon May 3-4 Observers Crow-Li

Trav-E 02100-01051... 21 202
Trav-E* 02100-02051... 21 202

[illegible]

Spectr. Temp. Dome Temp./Hum. ... 08°C 64% Transparency Conditions ... THIN CLOUD COVER
 Focus CLEAR AT 22:00 200
 Spectr. Temp. Dome Temp./Hum. ... 0.5°C 73% 40/38

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
5-5-82	800/800	2"-3"	9.3	M6.50 -M72	B.C.	830/.68	150/.3	TIAD-E	A	Crow-MIRAE (EXP = 158m) T 53°F 502	ok
5-5-82	700/400	"	9.2	M32 -M62	B.C.	830/.68	150/.3	TIAD-E	B	" -5m (EXP = 140m) T = 50°F 503	fine
5-5-82	700/400	3"	8.3	M50 -M72	"	"	"	TIAD-E*	A	" (EXP = 61m) T = 48°F 504	good
5-5-82	700/400	3"-4"	8.3	M77	B.C.	830/.68	150/.3	TIAD-E*	B	M STANDARD (EXP = 64m) T = 47°F 504	ok
7-7-82	40/50	3"	3.9	K2M	"	"	150/.5 150/1.0	TIAD-E TIAD-E	A B	Std. Velocity (EXP = 5m) 1.67 T = 47°F 504	

223.

Date *Mon.-Tues. May 4-5, 1981* Observers *Myd - Ri*.....

Emulsion Batches:

9^m 68^o IIAD-E 02100-02051... 21 204

[illegible]

Transparency Conditions . . . *Lazy* 224

Dome Temp./Hum.

40/37

Exp.	Mir.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
55-8 02 80	200/120	3"	5.3	F6IV	B.C.	830/.68	120/.5	I ^{low} E	A	SOLAR	T 60°F F 500	1.04
55-9	100/480	3"	8.0	G2			"	"	B	Solar Types	BROKEN & missing	.40
55-10								I ^{low} -E				
55-11	100/240	3"	6.2	G2	B.C.	830/.68	120/.5	I ^{low} E	A	Solar Types		.47
55-12	100/86	✓	6.4	G2				"	B	" "	clouds/clouded out.	.17
55-13							120/1.0	I ^{low} E	A		T 56°F 500	

225. HAO-E 1 1/2 Boxes
 IIIaJ-EK 1 full BOX
 098 34x5 5 STRIPS

Date .. Wed. Thurs. May 6-7 Observers .. Gies. - Th.

Emulsion Batches:
 9m 68" IIaJ-E 02100 - 02051 21 201
 9m 68" IIaJ-Ef

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.
45791F	Focus Test					0	0°	Fe/-	15-15
45791	HD 81797	09 22.7	-8 14	19 59	20 03	1 18 W	-8 34	Fe/-	7-7
45792	HD 97991	11 11.1	-2 55	20 08	23 17	2 46 W	-3 20	"	5-5-5
45792T	spot cal'n for plates 45791-96				15 min @ 15V	D4 (1) 3900	D3 (2) 4300	D2 (3) 4800	20
45793	HD 149363	16 29.1	-5 56	23 24	02 54	1 02 W	-6 05	Fe/-	5-5-0
45794	HD 188439	19 50.1	+47 33	03 06	03 46	1 23 E	+47 45	"	5-5-5
45795	HD 203064 ⁽⁶⁸⁾ ₍₄₉₎	21 14.7	+43 31	03 50	04 07	2 29 E	+43 52	"	5-5-5
45796	HD 210839 (λcp)	22 08.1	+58 55	04 10	04 26	3 02 E	+59 20	"	7-7
Exposure tests using tungsten lamp in slit viewer, blue filter in exp. motor									
T1					~3m			Fe/-	10
T2								Fe/-	10
T3								Fe/-	10
T4								Fe/-	10
T5								Fe/-	10
T6	Strip cal for above		90°						

Spectr. Temp. 52.5°F Dome Temp./Hum. $+47^{\circ}\text{F}/62\%$ Transparency Conditions *fine*.....226Focus 502 Spectr. Temp. 43°F Dome Temp./Hum. $+37^{\circ}\text{F}/88\%$

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	830/.68	BS	II ₄₀ -e	A			
40/40	3"			"	"	"	"	B	std Vel		.62
400/350	3"	7.18	B2V	"	"	"	"	A	Runaway *		
							II ₄₀ -e			#3 overexposed	
400/300		7.76	B0.5I	BC	830/.68	BS	"	B	Runaway *	T=49°F F=503	
400/351	2"	6.18	B0.5I _p	"	"	"	"	A	Runaway *	46° 504	
400/172	2"	4.98	08I	"	"	"	"	B	Runaway *		
400/165	2"	5.29	06f	"	"	"	"	A	Runaway *		
400/50				BC	830/.68	BS	II ₄₀ -e	A		T=50° F=503	
400/37				"	400/.38	"	"	B			
400/75				"	1200/-.025	"	"	A			
400/15				"	150/.5	"	"	B			
400/55				"	1200/.65	"	"	A			
							"				

almost
no
stallion

227

22

Date May 7.8. Wed-Thurs Observers Are-Tn

Emulsion Batches:

4 1/2 68° 098-02 E 05031 - 1804/5
* 098-02 E 05031 - 0605/26

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.
45797	HD 31964	4 54.8	43° 41'	20 ^h 02	20 07	5 ^h 50W	43° 49.7	Fel - 12-1	5- 12-1
45798	HD 8390A	1 22.6	88° 46'	20 ^h 17	20 19	8 0 W	+89° 13.0	"	"
45799	HD 161796	17 42.5	+50 05	20 33	22 55	3 ^h 57 E	50° 00.8	Fel - Net -	4-4 8-8
45799T	Spot C. 1/2 for	45797 - 45802		15 min @	15V D3 4810	7V D1 H2	7V D2 5450		
45800	HD 163506	17 ^h 51.4	+26° 04'	23 ^h 07	00 01	3 04 E	+26 01.8	Fel - Net -	4-4 8-8
45801	HD 169136	17 51.7	+30 12	00 07	00 27	2 39 E	+30 11	Fel - Net -	4-4 8-8
45802	HD 180583	19 12.0	+27 45	00 31	01 53	2 35 E	+27 52	"	4-4 8-8
45803	HD 203156	21 19.4	+37 49	02 00	03 12	3 20 E	+38 09	"	4-4 8-8
45803T	Spot C. 1/2 for	45803 - 5.		15 min @	15V D3 4810	7V D1 H2	7V D2 5450		
45804	HD 217476	22 55.9	+56 25	03 17	03 37	4 35 E	+56 48	Fel - Net -	6-6 12-1
45805	HD 224014	23 49.4	+56 57	03 43	03 56	5 09 E	+57 23	"	6-6 12-1
45805F	Focus Test					"	"	Fel -	30-30

Spectr. Temp. $+55^{\circ}\text{F}$ Dome Temp./Hum. $50^{\circ}\text{F}/60\%$ Transparency Conditions $\text{Fine} - \text{sl. hazy}$ 228Focus $502-503$ Spectr. Temp. $+50^{\circ}\text{F}$ Dome Temp./Hum. $45^{\circ}\text{F}/70\%$

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
40/18	2"	≈ 2	AB1a	B.C.	1200/.7	150 [*] /.5	008-02E	A	Are-Prog.	* "V" filter taped on. Periscopes in sl. case pos'n	sl unconv exp ch
40/19	"	≈ 2.5	F81b	"	"	"	"	A	"	" " "	sl Fine
400/200	2"	≈ 2.7	F8	"	"	"	"	B	"	corrected periscopes at half time	sl w/ k fogged
							"				
200/106	2"	≈ 4.7	F21a	BC	1200/.7	150/.5	"	A	Are Prog		
200/107	1-2"	≈ 4.8	F211	"	"	"	"	B	"		
200/100	2-3"	≈ 5.93	F81- 1b	"	"	"	"	A	"		
200/100	3"	≈ 5.75	F2	"	"	"	098-02E [*]	B	"	51°F Set 503	
							"				
200/107	2-1"	≈ 4.99	G01a	BC	1200/.7	150/.5	"	A	Are Prog	brighter*?	999 Fine
40/21	2"	4.4	F81sp	"	"	"	"	B	"		999 Fine
				"	"	"	"	A	Set 503	T: 50°F prob good	cal sl blue
										example of focus	
										unclearly when Dome T.	
										is close to spec T.	

Lovely

Date 14.5 - Wed Mar 14/13 Observers R. H. 111

Emulsion Batches: U-0-e 02100 -0505125206

Spectr.
Focus.
Spectr.

Exp. Mtr.

15226

Spectr. Temp. 50°F Dome Temp./Hum. $+40^{\circ}\text{F}/90\%$ Transparency Conditions *some cloud* 230Focus 503 MAY 9-10 *Lovely Aurora seen thru cloud on Fri ~ 23^h EST*Spectr. Temp. $+2.5^{\circ}$ Dome Temp./Hum. $+33^{\circ}\text{F}/99\%$ *Red & Green to South of Zenith*

Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
7-1	40/36	4"	3.8	GO II	BC	830/.68	BS	IIa OE	A	Ceph/Evans	T=50° Focus 503	.68
7-2	200/175	4"	5.3	FSI	"	"	"	"	B	Star Vel Ceph/Evans		vsl str.
7-3	40/69		2.50	F2Ib-	BC	830/.68	BS	"	A	Ceph/Evans		strong
	40/35	4"	"	"	"	"	"	"	B	"		sl strong
	40/55		"	"	"	"	"	"	A	"		sl strong
	200/400		5.8	F2Ia	"	"	"	"	B	"		sl strong
5-1	400/336	5"	6.8-7.7	FO-GI	"	"	"	"	A	"	T=46°F Focus 45	fine
										In second box "alone"		
									B	42.5°F Set 504		vsl red

231

Date Wed-Thurs, May 13/14 Observers Gis - Tn

Emulsion Batches:
9^m 68°F IaO-E 02100-05051 23 196

[illegible]

Spectr. Temp.

Dome Temp./Hum. $+37^{\circ}\text{F}/95\%$

Transparency Conditions . . . *Five* 232

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
15-15								B		T = +51°F F = 503	
4-7	40/38	3'	2.2	K3 II-III	BC	830/.68	BS	IIaO-E	A	Stk. Velocity	.76
5-5	400/350	2"	7.18	B2 I	"	"	"	"	B	Runaway * cloud	
							"				
5-5	400/300	2.2"	7.76	B05 I	BC	830/.68	BS	"	A	Runaway * T = 50°F	
5-5	200/161	3"	6.18	B05 I	"	"	"	"	B	Runaway * F = 504	
5-5	200/162	4"	6.52	B2 Ie	"	"	"	"	A	Runaway *	

233

Date 16/17 May '81 Sat/Sun Observers Blu-Tn

Emulsion Batches:

5^m 67^o II₁-e 07119 - 2404/603.4
098-02.e 05031 - 0605/31213
9^m 68^o II₂-e 02102 - 05051

[illegible]

Transparency Conditions . . . *sl. busy* 284

Dome Temp./Hum. 37°F. / 87%

Dome Temp./Hum. 37°F. / 87%

Spot plates This night very difficult
to identify — nos. missing or wrong
all. III & J high fog 3 wk seems to be limit
for storage of gas hypoxed plates

235

Date 17/18 May 1981 Sun/Mon Observers Blu-Tu.....

Emulsion Batches:

9 th 68°	II. 4.0.e. 02100	- 13051	21 208
5 th 67°	III. 5.1.e. 03719	- 24041	
5 th 68°	098-02E	05031	- 06051 20 207

[illegible]

Transparency Conditions Citrus 236

Focus . . . 502

Spectr. Temp. 44°F.....

Dome Temp./Hum. 42°F / 60%

Dome Temp./Hum. 34°F / 75%

Transparency Conditions Citrus 236

Aurora with Red splashes again.
Near Full moon very good by
01 EST

[illegible]

237 only 6 098 strips left.

Date 18/19 May 1981 Mon/Tues Observers ... Gl's - Tn.....

Emulsion Batches:
9^m 68^o II a O - E 22100 - 13057 21 204

[illegible]

Spectr. Temp. 153°F

Dome Temp./Hum. *+49°/58%*

Transparency Conditions . . . *Some cloud* 238

Focus .. 502

Spectr. Temp. 470° F.

Dome Temp./Hum. 59°F / 70%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
5-15				BC	830/68	BS	IIaO-E	A			stellar very weak
7-7	40/38	2-3"	2.2	k3II-III	BC	"	"	B	Std. Velocity		.57
5-5	200/129	"	7.18	B2II	"	"	"	B	Runaway *	maybe fog (manually exposed)	fine
5-5	200/175		6.18	B05IIp	"	"	"	A	Runaway *	T=50°F F=503	fine
5-5	200/164	4"	6.52	B2IIe	"	"	"	B	Runaway *	(1 inch missing)	
5-5	200/172	2"	5.29	O6f	"	"	"	A	Runaway *	T=47°F F=504	fine
5-5	200/160	3"	6.42	B25IIe	"	"	"	B	Runaway *		
7-7	200/183	2"	4.98	O8II	"	"	"	A	"		vsl str.
									all companions slightly weak		
KT									make sure you get all plates from the large exp IIaU box.		

239

Emulsion Batches:
9th 68th II 90-e 02100 - 13051 21 201

Date MAY 19-20/61 Tues-Wed Observers Rm-T7

[illegible]

Transparency Conditions *5/1029* *240*

Dome Temp./Hum. 96°/60%

Another Huron in North of EST

* plate marked 39 is <u>not</u> broken	
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241

Date 20/21 May / 81 Wed-Thurs Observers Gis - Ri

Emulsion Batches:
8^{1/2} 68° IIQ-E 02100-18051 20212

[illegible]

Spectr. Temp. 66°F Focus $498 - 499$ Spectr. Temp. 160°F Dome Temp./Hum. $163^{\circ}\text{F} / 50\%$ Dome Temp./Hum. $54^{\circ}\text{F} / 61\%$ Transparency Conditions *clear, cloud patches, 242*
giving way

40/34

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	830/.68	BS	IIaO-E	A		T = 66°F F = 498	
20/19	3"	2.2	K3 II-III	"	"	"	"	B	Std. Velocity	.86	fine
100/350		7.18	B2 V	"	"	"	"	A	Runaway *	.66	fine
100/300		7.76	B0.5 V	"	"	"	"	B	Runaway *	.49	fine
							IIaO-E			1 min at D4 for 4300	
100/175		6.18	B0.5 IIp	BC	830/.68	BS	IIaO-E	A	Runaway *	T = 63°F F = 499	vs/srv.
100/175		6.52	B2 Vc	"	"	"	"	B	Runaway *	.86	vs/srv.
80/70		5.29	O6 F	"	"	"	"	A	Runaway *	.62	fine
							HIK		G 4143-033-03		

Spectr. Temp. 70°F

Dome Temp./Hum. 19°C/.51%

Transparency Conditions good 244

Focus 497

Spectr. Temp.

Dome Temp./Hum. 16°C/.56%

40/34

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				B.C.	1200/.7	150/* 1.0	098-02E	A	Ans prog	*"V" filter on	sl red
40/20	2"	2.98	G101b	B.C.	1200/.7	150/.5	098-02E	B	Std vel	guiding problems.	fine
100/200	3-4"	5.47	F2Ia	"	"	150/.5	"	A	Ans Prog		fine
100/200		4.48	F2II	"	"	"	"	B	"		fine
							098-02E	"			
40/18		2.5	F8Ib	"	"	"	"	A	"		v sl str
100/200		5.93	F6I-II	"	"	"	"	B	"		fine
100/200		5.75	F2	"	"	"	098-02E*	A	"	T 68°F F498	fine
							098-02F*				
100/200		4.4	F8Iap	"	"	"	"	B	"		fine
100/200		4.95	F0Ia	"	"	"	"	A	"	T 66°F F498	fine

245

Date ^{May} 22/23 Fri-Sat Observers Rm - Rj

8 1/2 m 68° Emulsion Batches:
Duo-E 02100-18051 23 200

[illegible]

Spectr. Temp. 72°F

Dome Temp./Hum. 66°F 62%

Transparency Conditions 246

Focus 4.96

Spectr. Temp.

Dome Temp./Hum. 58°F 82%

40/33

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
7-7				13C	830/.68	13S	IIaO	A		72°F Spectrograph 496 focus	blue blue red red
7-7	40/70	2-3	3.8	GOP II	"	13S	IIaO	B	Ceph/Evano	No 52 1.42	fine uneven, fine exp
7-7	40/70	2-3	5.3	FS II	"	"	"	A	Std Vel	1.74	fine exp
7-7	40/675	2-4	7.6	FS IIb	"	"	"	B	Bin Ceph/Evano	Exposure meter fell back sometime 1.14	sl strong
5-55	400/350	3-4	6.7	FO	"	"	"	A	Ceph/Evano	T=66°F focus 498	fine
5-55	400/700	2-3	6.7	FLI II	"	"	"	B	Bin Ceph/Evano	T=65°F 1.24	sl str.
5-55	40/70	2-3	4.43	FS II	"	"	"	A	Bin Ceph/Evano	T=63°F focus 499 1.65	sl strong
7-7	40/70		4.1	FS IIb	"	"	"	B	Bin Ceph/Evano	1.60	sl strong

Spectr. Temp. 66°F Dome Temp./Hum. $16^{\circ}\text{C}/66\%$ Transparency Conditions fazy 24.8 Focus 498

Spectr. Temp.

Dome Temp./Hum. $15^{\circ}\text{C} 69\%$ $40/33.5$

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
0/125	2"-3"	1.29	KaIIIp	B.C.	830/.9	150/.5	HIE	A	Std. Vel.	'V' filter	fine
10/500	"	2.9	GpII	"	"	"	"	B	IR Cephe		v slow
							HIE				
0/300	"	3.9	cepI	"	"	150/.3	"	A	"	66°F	sl wke
0/300	"	2.24	FBIb	B.C.	830/.9	150/.3	HIE	B	IR Cep		v sl wke
				B.C.	830/.9	150/.10	HIE	A		64°F F498	ok
										comparisons are weak	

249

Date 25/26 May Mon-Tues Observers Gu-Ri

Emulsion Batches:

HTF 64143-033-03

HIE b. baked 3 1/2 hrs

65°C - forming gas

[illegible]

Transparency Conditions .. *very hazy and! 25:00*
cloudy.
40/32

Dome Temp./Hum. 15°C 92%

40/32

[illegible]

251 Dav-E FULL BOX ITAT UNKNOWN

098-02 4 STRIPS LEFT
Fri-Sat

Fri - Sat

Date MAY 29-30/81 Observers Are-Tu

Emulsion Batches:

Emulsion Batches:
5th 680 098-02E 05031 -18051 57 258

.....

.....

[illegible]

[illegible]

253. 2 Large Tours

Date 1981 May 30/31 Observers KK-FH-Tn

Emulsion Batches:
8th 6th Tube 02100...-22051

[illegible]

Transparency Conditions *broken cloud* *254*

Dome Temp./Hum. / 85%

[illegible]

255.

Date Sun/Mon. May 31/June 1 Observers GIS - Tn

Emulsion Batches:

8th 680 . IIaO-e 02100 - 22051
 IIaO-e 02100 - 31051

[illegible]

Spectr. Temp. 152.....

Dome Temp./Hum. 146° / 80%

Transparency Conditions *Photometric* 256[illegible]

257.

Emulsion Batches:

Date Mon-Tues June 1/2 Observers Are-Ty

Emulsion Batches:
5^m 6^o 098-02E 05031 - 2805138217

[illegible]

Focus 498

Spectr. Temp. ... $+56^{\circ}\text{F}$...Dome Temp./Hum. +58°F / 60%

Dome Temp./Hum. 149°F / 70%

Transparency Conditions *170 - sl cloudy* 25.8

[illegible]

: 25A

Date Thes-Wed June 2-3 1981 Observers Rm-Th

Emulsion Batches:

IT90-e 02100 - 31051

[illegible]

Transparency Conditions . . . *very hazy - cloudy* . . . 260

Focus . . . 498

Spectr. Temp. 64°F.....

Dome Temp./Hum. 59° / 99%

[illegible]

261.

New mirror surface!

Date _____

Thurs - Fri, June 4-5 / 81

Observers

G15 - Th

Emulsion Batches:

#a0-e 07100-31051

[illegible]

Spectr. Temp. $+69^{\circ} F$

Focus . . . 498-

Spectr. Temp. $+67^{\circ}\text{F}$

Dome Temp./Hum. +65°F / 90%

Dome Temp./Hum. +60°F / 100%

Transparency Conditions *Hazy*, *damp*.....262

[illegible]

Spectr. Temp. $+74^{\circ}\text{F}$

Focus 495

Spectr. Temp.

Dome Temp./Hum. $+72^{\circ}\text{F}/69\%$

Dome Temp./Hum. /

Transparency Conditions . . . PATCHES OF CLOUD . . .

264

[illegible]

265. 2 Lg Tours

Date Sat-Sun June 6-7/81 Observers Are. In

Emulsion Batches:

8 ^m 68°	II-0-e 02100	- 04061
4 ^m 68°	098-02E 05031	- 2805142200

[illegible]

Spectr. Temp. 67°F

Dome Temp./Hum. +59°F/80%

Transparency Conditions .. *Fine - cloudy* 266

Focus 497

Spectr. Temp. 62.5°

Dome Temp./Hum. $+56^{\circ}\text{F}/90\%$

ft Aurora seen

[illegible]

267

Date Sun-Mon June 7-8/81 Observers CW-Tr

Emulsion Batches:
8^m 6^{yo} ... IT-0-e 02100-04061

[illegible]

Spectr. Temp.

Dome Temp./Hum. 152°F / 82%

Note Previous Night's spot caln
must apply for this night's plates.

KK check trouble sheet

269

Date Wed-Thurs Observers Gu-Ri
June 10/11/81

D19 8^m 68°

Emulsion Batches:

HE 64143-033-03
baked 3 hrs @ 650C
forming gap

[illegible]

Spectr. Temp. 63°F....499....

Dome Temp./Hum. . 11°C . . . 85%

Transparency Conditions .. clear 270
$$40/2.9$$

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
0/70	3"-4"	1.29	k2 III p	BC	230/.9	150/.5	HIE/bfg	A	Std Vel	'V' filter glass backing broken	no comp. exp fine
190	6-7"	4.22	G5 II	"	"	150/.3	"	B	IR Ceph	changed decker .5-7.3 1st 16 acts, 5 - then, 3	sl wk slightly light struck
150	Explo- ding	4.3	ceph	"	"	"	"	A	IR Ceph		sl weak
				"	"	150/1.0	"	B		T = 60°F F 499	sl blue

271.

Date Thurs-Fri Observers Gu-Ri

Emulsion Batches:

HEF G4143-033-03
balanced, 3 1/2 hrs. e. 65°C
forming 500

[illegible]

Transparency Conditions . mostly clear 272

Focus 497

Spectr. Temp. 6000 ± 498

Dome Temp./Hum. *16°C*.....

40/29 73%

Exp.	Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
60-62	50	2-3"	1.29	K2III p	BC	830/1.9	150/1.5	HIE 68g	A	Std Vel	'V' filter ^{glass backing broken}	fine
60-62	75	"	~4.2	ceph	"	"	150/1.3	"	B	IR Ceph	terminated by clouds	weak
								IR 3eb				
								IR 3eb				
60-62	200	2"	2.24	F8Ib	BC	830/1.9	150/1.3	HIE 68g	A	IR Ceph	T=66°F F498	exp. fine but smudged
60-62	180	"	~3.7	ceph	"	"	"	"	B	"		vs! w/le
60-62					"	"	150/1.0	"	A		T=66°F F498	sl blue.

273

Fri - SAT

Date JUNE 12-13, 1981 Observers ARE - R.

Emulsion Batches:

4th 68th

Emulsion Batches:

098-02E	05031-28051	A1 160
098-02E	05031-07061	38 186

[illegible]

Transparency Conditions . . . SCATTERED . . . CLOUDS . . . 274

Dome Temp./Hum. 15°C 100%

40/29

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				B.C.	1200/.7	150/1.0	09802E*	A	ARE PROG.		day
00/200	2-3	5.47	F2Ia	B.C.	1200/.7	150*/.5	09802-E*	B	"	* " V" FILTER USED ON	fine str comp.
							098-02-E*				
30/40		4.48	F2II	B.C.	1200/.7	150*/.5	098-02 E*	A	ARE PROG		fine streaked
00/200		5.9	F5	B.C.	1200/.7	150*/.5	098-02 E*	B	"		fine
00/200		5.93	F6I-IIb	B.C.	1200/.7	150*/.5	098-02 E	A	"		fine
							098-02 E				
00/200		5.75	F2	B.C.	1200/.7	150*/.5	098-02 E	B	ARE PROG		fine
0/18		2.5	F8Ib	B.C.	1200/.7	150*/.5	098-02 E	A	"		str
0/200		4.95	F0Ia	B.C.	1200/.7	150*/.5	098-02 E	B	"		good
0/70		5.40	F2Ib	B.C.	1200/.7	150*/.5	098-02 E	A	"		sl weak

275.

Date Mon - Tues.
June 15-16, 1981 Observers Gris - Ri

8ⁿ 680

Emulsion Batches:

HaO-e 02100-08061.....

[illegible]

Spectr. Temp. $+83^{\circ}\text{F}$ Dome Temp./Hum. $+80^{\circ}\text{F}/83\%$ Transparency Conditions *Hazy, windy* 276Focus $493 - 494$ Spectr. Temp. $+81^{\circ}\text{F}$ Dome Temp./Hum. $+77^{\circ}\text{F}/89\%$

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	830/68	BS	IIaO-c	A		BROKEN $\frac{1}{2}$ " MISSING T=83° F=493	okay
400/370	2"	6.18	B05III _p	"	"	"	"	B	Runaway*		fine
400/203		6.42	B25II ₂	"	"	"	"	A	Runaway*	cloud Exp. meter acting up.	wk
							IIaO-E				
400/350	3"	6.52	B2Ve	BC	830/68	BS	IIaO-c	B	Runaway*		fine
400/76		7.27	B5V	"	"	"	"	A	Runaway*	T=81° cloud. F=494	wk
							IIaSe6				
							IIaSe6				

277

Date 17/18 June, 1981 Wed/Thurs Observers Blu - Tu

Emulsion Batches:

Disposal Batches.

Π41-e	07119	-1606/30	257
Π40-e	02100	-08061	
09802e	05031	-0706/57	225

[illegible]

279

Date 18/19 June 1981 Thurs/Fri Observers KK-Tn & Ford

Emulsion Batches:

Il20e 02100-08061

IVa-e. 07119-16061

[illegible]

Spectr. Temp. 72°FDome Temp./Hum. $+59^{\circ}\text{F}/69\%$ Transparency Conditions *good - hazy*.....280Focus 49.7Dome Temp./Hum. $63^{\circ}\text{F}/90\%$

Radium dot 27/min

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
11-11 40/50	1"	2.8	G0	BC	1200/-0.025	BS	II20c	A	Asm Sp/KK		fine
11-11 40/50	1"	3.93	F0p	"	"	"	"	B	"		fine
7-7 40/650	1"	6.8	G8V	"	"	"	"	A	"		sl wk
11- 40/50	2"	2±	F	"	"	"	"	B	"		fine
							"				not seen
5-2-8 40/265	2"	8.6	F	BC	830/.68	250/.3	"	A	Asm Sp/KK	focus left at 497	not seen wk uneven v. str comp
11-11 40/210		2.2	G8III	"	1200/-0.025	BS	III4J-e	B	"		str
11-11 40/195		0.0	A0V	"	"	"	"	A	"	T = 70°F	v str
11-11 40/51		5.17	A2	"	"	"	II40e	B	"		fine
							III4J-e				fine
11-11 40/49	2-3"	3.6	B6p	"	"	"	II40e	A	Asm Sp/KK		fine
7-7 40/94	"	7.38	A2	"	830/.68	150/.3	"	B	"	hard to resolve	fine v. str comp

281. Friday-Saturday

Date 19/20 June 1981 Observers Gis - Th

Emulsion Batches:

IIAO-E 02100-08051

[illegible]

Transparency Conditions *Clear by 01^h* 282

Spectr. Temp. ... 61°F

Spectr. Temp. 61°F Dome Temp./Hum. 153°F/71%

[illegible]

Transparency Conditions . . . *Cloudy sort of* 28.4

Dome Temp./Hum. . 60°F / 46.8%

Dome Temp./Hum. . 60°F / 46.8%

IIaTe Dev	June 24	D19	8min	@ 68°F	Bts
IIIaTe Dev	June 24	D19	5min	@ 68°F	Bts

285.

JD 44782.4

Emulsion Batches:

Fri - Sat

Παο-ε 02100 - 24061

Date June 26-27, 1981 Observers Rm-Tn

[illegible]

287.

Sat-Sun

1 Large Reg Sat Night Tour

Emulsion Batches:

...D.O. - 07100 - 24051

Date June 27/28, 1981 Observers PK-Tn

[illegible]

Transparency Conditions Clear 288

Dome Temp./Hum. 60°F / 77%

Dome Temp./Hum. 60°F / 77%

[illegible]

289

Mon/Tues.

Date 29-30 June 1981 Observers Gis-Tn

Emulsion Batches:

IIa O-E 02100 - 24061

[illegible]

Focus 4.96

Spectr. Temp.

Dome Temp./Hum. 76° / 79%

Dome Temp./Hum. /

Transparency Conditions *hazy-cloudy* 290

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
7-40/40	1"	3.9	K2III	BC	830/68	BS	D ₂ O	A			
5-100/44	1"	6.18	B0.5III _b	"	"	"	"	B	Runaway*	Labelled 58 Labelled 59 cut short by cloud.	
Note number changes when identifying plates											
I _a De	Dev	July 2	DA	8min	@ 68°F	Bls					

291

Date Thurs. July 2, 1981 Observers Gis - Ri

Emulsion Batches:

ИАО-Е 00100-2406

[illegible]

Transparency Conditions . *Some cloud* 292

Dome Temp./Hum. 69°F / 96%

Dome Temp./Hum. 69°F / 96%

Transparency Conditions . *Some cloud* 292

Trade Date July 2 019 8 min @ 68°F Bts

- 293

Date Sun-Mon. JUL 5/6, 1981 Observers Fla-Ri.....

Emulsion Batches:

8^m 68^o I.O.-E. 02.100-27061

$A^m 70^\circ .098-02E .05031 .-18061$ A8 165

[illegible]

Transparency Conditions. Hazy, V. humid, 294

Dome Temp./Hum. 66°F / 90%

Dome Temp./Hum. 66°F / 90%

Exo mtr test 40/29

[illegible]

Spectr. Temp. 80°FDome Temp./Hum. $74^{\circ}\text{F}/\text{H}=89\%$ Transparency Conditions *V. good*..... 2.96

Focus... 494.....

Spectr. Temp. 73°FDome Temp./Hum. $67^{\circ}\text{F}/\text{H}=84\%$

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
5-5-00/500	3"-4"	B=7.30	B2Vp	BC	830/.68	BS	IIaO-E	A	Bln-He*		
							IIaO-E				
				"	"	"	IIaO-E	B		F=494; T=77°F	
7-4-8-5-00/450	3"-4"	B=7.30	B2Vp	"	830/.9	GG13 150/.5	098-02E	A	Bln-He*	F=495	foggy but oth. fine
							098-02E				
				"	830/.9	150/1.0	"	B		F=495, T=73°F	

Spectr. Temp. ... 82°F

Dome Temp./Hum. ... 78°F 80%

Transparency Conditions ... muggy-clear 298

Focus ... 494

Spectr. Temp. ... 78°

Dome Temp./Hum. ... 72°F 85%

40/27.5

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
25-2				BC	1200/-0.025	BS	Ilaoe	A		T = 80°F F = 494	too red
40/50	2"	3.9	F0p	BC	"	"	"	B	Asm Sp/KK		v sl str
70/800		6	dG2	B.C.	1200/-0.025	B.S	Ilaoe	A	"		fine
80/31		4.4	M5D	"	830/.68	150/3	"	B	Std Vel.	T = 82°F F = 493	
800/225		10.6	dM5	"	830/.68	150/3	"	A	Asm-Sp/KK	<u>Σ2398B</u> sl. flex?	weak, but measurable
40/201		2.2	A5III	BC	830/.68	B.S.	Ilaoe-Eb	B	Asm-Sp/KK	T = 78°F F = 494	v sl strong
0/122		0.0	A0V	BC	1200/-0.025	BS	Ilaoe	A	Fernie	F = 495	strong
0/149		"	"	"	"	"	"	B	"		v. strong
				"	"	"	"				cents/Red

299.

Date Wed/Thurs. JUL. 8/9. 1981 Observers Fl'n.-Tn.

Emulsion Batches:

...IIa0-e...02100-27061

[illegible]

Spectr. Temp. 80° F.

Dome Temp./Hum. 75°F / H=95%

Transparency Conditions *Hazy* 300

[illegible]

301

Date Thurs.-Fri. JUL 9/10, 1981 Observers F. In. - Tn.....

Emulsion Batches:

10^m 68° IIaO-E..02100-270615^m 68° IIaO-E* 02100-08071

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.
45975E	Focus TEST					00 ^h 16 ^m W	+15° 17'	Fe/-	12-12
45975	HD 161096	17 ^h 38.5 ^m	04° 37'	20:47	20:52	01 ^h 5 ^m E	+4° 34'	Fe/ND	7-7-
45976	HDE 226868 = CYGX-1	19 ^h 54.6 ^m	+34° 56'	21:10	01:20	00 ^h 18 ^m W	+35° 07'	Fe/ND	7-7-
45976T	Spot Cal'n for	45975-77		15 min @	15V 3900	D4 D3 4300	D3 D3 4810		
45977	HD 184927	19 ^h 31.6 ^m	+31° 04'	01:30	03:51	03 ^h 12 ^m W	+31° 14'	Fe/-	5-5-5
45977T1	Exposure test	7 1/2" lamp + diffuser & blue filter						FeNe/Wrb	10
T2	"	exposures ~ 1 min						"	10
F	Focus							"	20-2
T3	Exposure test							"	10
T4	"							"	10
T5	"							"	10
T6	Cal'n spot	3900 DA 4300 D3 4810 D2 15" @ 15V							

Spectr. Temp. 72 °F.....Dome Temp./Hum. 65°F / H = 80%

Transparency Conditions . . . *Thin . . . cloud . . . Thin . . . clear . . .* 300

[illegible]

303

G8 in Slit spaces in

Date Fri-Sat JUL 10/11, 1981 Observers Fln.-Tn.....

Emulsion Batches:

Emulsion Batches:

5m 670	ΠαΟ-E	02100-	06071
da D19	098-02E	03051-	09071

[illegible]

Focus . . . 492

Dome Temp./Hum. 76°F / H=65%

Transparency Conditions *Fine* 304

Spectr. Temp. 730°K

Dome Temp./Hum. 68°F / H=71%[illegible]

305.

Emulsion Batches:

Π.Ο.Ε. 02100-06071

Date MON.-TUES., JUL 13/14, 1981 Observers Flu.-Tu

[illegible]

Spectr. Temp. 73°F.....

Dome Temp./Hum. 67°F./1480%

Transparency Conditions . . . *Some class* 306[illegible]

: 307

Emulsion Batches:

Ποο-Ε 02100 - 13071

Date Tues. Wed. July 14/15/81 Observers Crow-Tn

[illegible]

Spectr. Temp. ... 66°F

Dome Temp./Hum. 46.1°F / 4=97%

Transparency Conditions . . . CIRRUS/CLEAR . . . 1308

[illegible]

309

JS 44801-7

8^m 68^o

Emulsion Batches:

...Π40-E...02100-13071

Date Wed-Thurs July 15-16 Observers Rm / Tr

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.....

[illegible]

Spectr. Temp. 75°FDome Temp./Hum. $+68^{\circ}\text{F}/69\%$ Transparency Conditions *Fine - sl. hazy* 310Focus 495Spectr. Temp. 67Dome Temp./Hum. $+61/90\%$

NEW D19

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
15-40/40	2"	3.9	39	BC	830/-68	BS	I ₂ O	A		T = 75°F Focus 495	
40/1300	1-2"	7.0	F8Ib	"	"	"	"	A	Ceph/Evans		
							I ₂ O E				
40/700	1-2"	6.9	F0	"	830/-68	BS	"	B	Ceph/Evans	T = 72°F	
40/61		5.5	F7Ib	"	"	"	"	A	Ceph/Evans		
40/8		4.4	F5I	"	"	"	"	B	Ceph/Evans	T = 70°	
40/70	1-2"	5.9	F5Ib	"	"	"	"	A	Ceph/Evans		
40/175		6.7	F6Ib	"	"	"	"	B	Ceph/Evans		fine
40/68	1-2"	6.4	F2	"	"	"	"	A	Ceph/Evans		sl. str.

311

Emulsion Batches:
Jm 850 II A - O - E 02/00 - 65071

Date Thurs-Fri, July 16/17 Observers 'Tn' - Fd

[illegible]

Transparency Conditions . *Fine - occasional cloud* . 312

Dome Temp./Hum. +63°F / 89%

At 3:30 AM, very brt rapidly varying, concentrated thursts
against a brt sky

Dome Temp./Hum. +63°F / 89%

exp. uneven
red end poor four

Spectr. Temp. Dome Temp./Hum. $+65^{\circ}\text{F}/90\%$ Transparency Conditions *Fine* 314

Focus was 99%

Spectr. Temp. Dome Temp./Hum. $+55^{\circ}\text{F}/93\%$

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
5m -160" doubling	8-10" poor?	2.23	5sec	$\rightarrow$ 160sec series exposures (doubling each exp)						65°F	80 sec good exp.
5m -160" doubling	5"						IIa-O		5 10 20 40 80 160		
5m 1-8 trails	6"			2min 20sec $\rightarrow$	18min 40sec		"		Preliminary Tests	should have been ~40"	
5m 4" 40s 37"	6"-8"	~5.1	G1				"			some thin cloud	18.40 mag
5m 9 20" 18 40"	8"	3.7	G0				"			transparency down to at least 1/2 mag loss	4.40 right
5m 100s 220"	10"	3.91	G2Jb				"				
5m 100s 220"	8"-10"	5.5	G5				"			cleared off. photometric?	close

315

P. ①

Date *Wol-Taurus July 22-23* Observers *HN - Ri - B1*

1981

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.
46009	HD 150680	16 37.5	+31° 47'	20:56:38 ¹⁰	20:56:47	"	+31° 42'	Ne	1m
"	"	"	"	20:56:42 ²⁰	20:57:07	"	"		
"	"	"	"	20:57:02 ⁴⁰	20:57:47	"	"		
"	"	"	"	20:57:47 ⁸⁰	20:59:07	"	"		
"	"	"	"	20:59:07 ¹⁶⁰	21:02:47	00° 10 W	"		
"	"	"	"	21:04:44	21:07:17	"	"		
"	"	"	"	21:07:59	21:13:59	"	"		
"	HD 157999	17 21.5	+04° 14'	21:20:41 ^{20m}	21:42:09	00° 02 W	+04 12'		
"	HD 160365	17 34.4	+13° 23'	21:46:53 ³⁰	22:16:00	00° 24 W	+13° 23'		
"	companion							Ne	1m
46010	HD 161096	17 38.5	+04° 37'	22:38:10	22:50:38	00° 54	+04 38'	Ne	1m
"	HD 161797	17 42.5	+27° 47'	22:54:40	23:07:24	01° 07 W	+27° 47'		
"	HD 165760	18 02.5	+08° 43'	23:23:30	23:38:46	01° 18 W	+08 47'		
"	HD 169414	18 19.4	+21° 43'	23:42:00	23:57:12	01° 20 W	+21° 48'		
"	HD 173764	18 41.9	-04 51'	00:04:10	00:18:37	01° 18 W	-04° 41'		

Spectr. Temp. Dome Temp./Hum. ... 64°F 79% Transparency Conditions good 316

Focus

Spectr. Temp. Dome Temp./Hum.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1m	6"	3.48	G0 II	NEWTON Spectr.	1200/4.10	50μ 1.2m	Ilao		MK-Std. A	F = 3-4	
	"	"	"	"	"	"	"		"		
	"	"	"	"	"	"	"		"		
	"	"	"	"	"	"	"		"		
	"	"	"	"	"	"	"		"		
	"	"	"	"	"	"	"		"		
	"	"	"	"	"	"	"		"		
	6"	5.8	K2 II	"	"	"	Ilao				
	5	6.8	K6 III	"	"	50μ 1.2m	Ilao				
							Ilao				
1m 60-80/1605	6	3.93	K2 III	NEWTON SPECTR.	1200/4.10	50μ 1.2	Ilao				
1m 60-80/1605		4.20	G5 IV	"	1200/4.10	50μ 1.2	Ilao				
1m 15mm		5.44	G8 III	"	"	"	"				
15mm	6	5.02	K2.5 IIIab	"	"	"	"				
14mm		5.32	G4 II CN 1	"	"	"	"				

317 Pg. 2

Date Thurs July 23, 1981 Observers 128-R

Emulsion Batches:

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[illegible]

Spectr. Temp.

Dome Temp./Hum.

Transparency Conditions *Good* *3.18*

Focus

Spectr. Temp.

Dome Temp./Hum. *55°F 93%*

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
<i>29 min</i>	<i>6"</i>	<i>5.60</i>	<i>H3 IIb</i>	<i>NEWTON SPECTR.</i>	<i>1200/4.10</i>	<i>50u/1.2</i>	<i>I₂0</i>		<i>MK 57128</i>	<i>F=3-4</i>	
<i>14 min</i>	<i>"</i>	<i>5.17</i>	<i>G1 II</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>		<i>"</i>		
<i>14 min</i>	<i>"</i>	<i>5.17</i>	<i>G9 IIc CN2</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>		<i>"</i>		
<i>8 min</i>	<i>"</i>	<i>4.23</i>	<i>H3 II</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>		<i>"</i>		
<i>8 min</i>	<i>"</i>	<i>4.57</i>	<i>G8 IV</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>		<i>"</i>		
<i>1 min 58 min</i>	<i>"</i>	<i>6.67</i>	<i>G3p Ib-II</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>		<i>"</i>		
<i>1 min 14 min</i>		<i>5.19</i>	<i>K1 III</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>		<i>"</i>		
<i>7 min</i>	<i>10</i>	<i>3.91</i>	<i>G2 Ib</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>		<i>"</i>		
<i>8 min</i>	<i>"</i>	<i>4.41</i>	<i>G8 III</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>		<i>"</i>		
<i>8 min</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>1200/4.15</i>	<i>"</i>	<i>"</i>		<i>"</i>		
<i>7 1/2 min</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>		<i>"</i>	<i>F=6-4</i>	
<i>8 min</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>		<i>"</i>	<i>F=9-4</i>	
<i>1 min</i>				<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>		<i>"</i>	<i>"</i>	

319

Date Thurs Fri July 23-24 Observers C. A. R.

Emulsion Batches:

[illegible]

Spectr. Temp. Dome Temp./Hum. 64°F 75% Transparency Conditions .. *cirrus* 320

Focus

Spectr. Temp. Dome Temp./Hum. 60°F 73%

Exp. Mr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
5 min	3	5.44	G8III	NEWTON SPECTR	1200/4.15	50u/120	ITao		MR-SD n 1	F9-4	
10 min	2	6.4	G1V	"	-	-	-		Hardop Star	cirrus cloud	
10 min		5.8	G5IV	"	-	-	-		"		
10 sec		3.73	G0IB	"	-	-	-		MR SD n 1		
10 sec		3.98	K2IB	"	-	-	-		"		
10 sec	3	5.54	G5IB	"	-	-	-		"		
10 sec		6.70	K0IB	"	-	-	-		"		
10 sec		6.2	G4V	"	-	-	-		Hardop n 1		
10 sec		4.20	F5V	"	-	-	-		MR SD n 1		
10 sec	4-5	3.57	B8V	"	-	-	-		"		
10 sec	5	4.64	F7D	"	-	-	-		"		
10 sec	3	6.70	K0V	"	-	-	-		"		

321-

'81

Date Fri-Sat July 24-25 Observers Rm-Ri

Emulsion Batches:

120 ... 05031 - 13071...... 05031 - 15071...

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.
46019F								Fe/-	15-15
46014	HD 161096	19 ^h 38.5	+40° 37	20 23	20 27	01 ^h 22E	+40° 35	Fe/-	7-7
46015	HD 180583=HR 7308	19 ^h 12.0	+27° 45	20 32	21 35	01 46E	+27 54	Fe/-	5-5
46015T✓	Spot Calib for	46014 -	46017		15 min @ 15v	D4 3900	D3 4300	D2 4810	
46016	HD 186688=5UCy8	19 ^h 40.8	+29° 01	21 ^h 41	00 : 57	01 ^h 08W	+29° 14	Fe/-	5-5
46017	HD 187929=7A ₂ g	19 ^h 47.4	+00° 44.9	01 : 11	01 : 16	01 ^h 19W	+00° 58	Fe/-	7-7
46018←	HD 187929=7A ₂ g	19 ^h 47.4	+00° 44.9	01 : 17	01 28	01 30W	+00° 58	Fe/-	7-7
46018T✓	Spot calib. for	46018-		15 min @ 15v		D4 3900	D3 4300	D2 4810	
46018←	HD 195295=91Cy8	20 ^h 25.3	+30° 2	01:31	01 34	01 : 00W	+30° 18	Fe/-	7-7
46019	HD 201867=β A ₂ g	21 ^h 26.3	-6° 1'	01 37	01 41	00 : 05W	-05° 39	Fe/-	7-7
46020	HD 209750=χ A ₂ g	22 ^h 0.6	-0° 48	01 : 43	01 47	00 39E	-00 24	Fe/-	7-7
46021	HD 198726=TVu	20 ^h 47.2	+27° 52	01 : 50	02 37	01 41W	+28° 12	Fe/-	5-5
46022	HD 203156=HR 8157	21 ^h 15.4	+37° 49	02 : 40	03 : 27	02 ^h 03W	+38° 09	Fe/-	5-5
46023	HD 180583=HR 7308	19 ^h 12.0	+27° 45	03 : 30	03 40		+27° 54	Fe/-	5

Spectr. Temp. 71°F

Dome Temp./Hum. 66°F./86%

Transparency Conditions ... cirrus & haze 322

Focus

Spectr. Temp. 66°F. F498

Dome Temp./Hum. 62°F./100%

40/28

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
13-				BC	830/.68	BS	IIaGE	B		T71°F F 496	
7-20/35		3.9	KZIII	BC	830/.68	BS	IIaOE	A	Std VCI		
5-20/360	3	6.7	FLIIT	BC	"	"	"	B	Ceph/Evans		
							"				
5-20/700	3	27.0	2G0	B.C	830/.68	BS	"	A	Ceph/Evans	some cirrus	
7-20/25		4.1-54	FLIIT G4Ib	"	"	"	"	B	Ceph/Evans	T67°F F 497	
7-20/50		"	"	"	"	"	"	A	Ceph/Evans	T67°F F 498	
7-20/20		4A	FSII	"	"	"	"	B	Ceph/Evans		
7-20/30		3.7	G2Ib	"	"	"	"	A	Ceph/Evans		
7-20/30		3.9	G2Ib	"	"	"	"	B	Ceph/Evans		
6-20/700		5.9-1.9	FSIb- G0	"	"	"	"	A	Ceph/Evans		
5-20/250		5.9	F2	"	"	"	"	B	Ceph/Evans		
5-20/10		6.7	FLIIT	"	"	"	"	A	Ceph/Evans	discovered clouds probably back	

323

Date July 25/26 Observers Whi/Ri

Emulsion Batches:

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[illegible]

Transparency Conditions Fog: 324

Spectr. Temp.

Dome Temp./Hum.

did not open - test exposure only -

[illegible]

325

Date Sun. Mon. July 26-27 Observers Gw - R.

8m 65v

Emulsion Batches:

Two-E 05031 - 15071

H.R. 94143 - 033 - 03..

[illegible]

Spectr. Temp. 73°K

Focus.....496.....

Spectr. Temp.

Dome Temp./Hum. 68°F 95%

Dome Temp./Hum. 60°F 94%

40/27

[illegible]

327.

Date Two Week July 28-29 Observers Wh-R

Emulsion Batches:

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.....

[illegible]

Transparency Conditions ... *same* J2P

Spectr. Temp. Dome Temp./Hum.

[illegible]

329

Date 1981 July 29/30 Observers KK-Ri

Emulsion Batches:

II 002 05031:-25071 26 201
 III 006 09061:-14071 56 3+
 098-02E 05031:-07071 71 226

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.
46026F	focus test								
46026	HD 137909	15 23.7	+ 29 27	20:20	20:26	01° 12W	+ 29 09	Fe/-	11-11
46027	HD 159561	17 30.3	+ 12° 38	20:29	20:36	00 44E		Fe/-	12-11
46028	HD 172167	18 33.5	+ 38 41	20:40	20:41	01° 41E		Fe/-	18-18
46029	HD 172167	"	"	20:42	20:43	01 39E		Fe/-	18-18
46030	HD 173740	18 41.7 (41.8)	+ 59° 29	20:59	00:59	02 30W	+ 59° 35	Fe/- Hc/-	3-3- 7-7-
46030T1	apical for plate 46026	31-39		15mic @ 1500		① 2P 3900	② P3 4300	③ 2C 4810	
46030T2	apical for plate 46027	29		15mic @ 1500		① 17.5U 3900	② 15U 4300	③ 15U 4810	
46030T3	apical for plate 46030			15mic @ 1500		① 15U D3 4810	② 7U D1 HX	③ 7U D2 5450	
46031	HD 202109	21 8.7	+ 29 49	01:08	01:30	00 32W	+ 30° 08	Fe/- Hc/-	11-10
46032	HD 215182	22 38.3	+ 29 42	01:32	01:49	00 38E	+ 30° 06	Fe/- Hc/-	10-10
46033	HD 3712	0 34.8	+ 55 59	01:58	01:59	02 25E	+ 56° 26	Fe/-	11-11
46034	HD 6582	1 01.6	+ 54 26	02:03	02:34	02 18E	+ 54° 49	Fe/-	7-7-
46035	HD 6961	1 05.0	+ 54 37	02:37	02:47	02 08E		Fe/-	11-11
46036	HD 18925	2 57.6	+ 53 25 + 53 07	02:50	02:55	03 54E	+ 53 25	Fe/-	11-11

Spectr. Temp. 68° Dome Temp./Hum. $69^{\circ}\text{F}(18^{\circ}\text{C})70\%$ Transparency Conditions $v. \text{ clear}$ 330
 Focus 497
 Spectr. Temp. Dome Temp./Hum. $40/27$

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	1200/-,025	BS	II ₂ De	A		v sl	red
10/50	2"	3.93	Fop	"	"	"	II ₂ De	B	Asm-Sp/KK		fine
10/200		2.2	AS II	"	"	"	III ₂ Te b	A	Asm-Sp/KK		sl. strong
10/60		0.0	A0V	"	"	"	III ₂ Te b	B	Fem'ie		strong
10/61		"	"	"	"	"	III ₂ Te b	A	"		strong
100/280		V=9.69	dm5		1200/.70	250/.3	098-02	B	Asm Sp KK	F=498 T=670F	
							II ₂ 0-E				
							III ₂ aTe b				
							098-02				
10/200			G8 II	B.C.	1200/.200	150/.5	II ₂ 0-E	A	Spec Std.	F=498 T=650F	fine
10/200		3.8	G8 II? + F?	"	"	"	"	B	Asm Spec/KK		fine
10/60		2.5	KU III	"	1200/-,025	BS	"	A	Std Vel.		
100/300		5.81	G5Vp	"	"	"	"	B	Asm Spec/KK		v sl str
10/50		4.50	A7V	"	"	"	"	A	Asm Spec/KK		
10/60		3.5	G8 III+ A3V	"	"	"	"	B	Asm Spec/KK		

331

Date 1981 July 29/30 (cont) Observers Kik-Ri

Emulsion Batches:

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.....

[illegible]

Spectr. Temp.

Dome Temp./Hum.

Transparency Conditions still very clear 332

Focus

Spectr. Temp.

Dome Temp./Hum. ... 60°F ... 78%

[illegible]

333

Date 1981 July 30/31 Observers Gu-Ri

Emulsion Batches:

8 ^m 65 ^v	HIE 5443-033-03	13	79
	batched in forming sds		
	3 1/2 hrs @ 65°C		

[illegible]

Spectr. Temp. 74°F

Dome Temp./Hum. 70°F... 76%

Transparency Conditions ... good with some clouds around midnight 334

Focus 496

Spectr. Temp. 68°F

Dome Temp./Hum. 62°F... 85%

40/27

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
0/70	2-3"	1.29	K2IIp	BC	830/90	150/.3	HIEbfg	A	Std Vel.	"V" filter	strong
1/160	2"	4.1	ceph	"	"	"	"	B	IR Ceph		sl weak
0/381	2"	4.0	F5II	"	"	"	"	A	IR Ceph	some cloud begins	sl weak
1/320	1-2"	4.3	G5Ib	"	"	"	"	B	IR Ceph	more cloud	sl weak
1/170	"	2.9	G0Ib	"	"	"	"	A	IR Ceph	F=498 T=71°F	good
1/160	"	2.9	G2Ib	"	"	"	"	B	IR Ceph	F=497 T=70°F	good

335

Fri/Sat.
 Date July 31 / Aug. 1, 1981 Observers Wh / R

Emulsion Batches:
 8^m 68° Had-E. 05031-25071. 20188
 4^m 68° 098-02-E. 05031-29071. 31176
 4^m 68° 29156... 5° 35° C...

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.
46046F	Focus	—	—					Fe/-	15-15
46046	V1016 Cyg	19 ^h 53 ^m .6	+39° 33'.2	20 ^h 44 ^m	22 ^h 16 ^m			Fe/ND	7-7-
46047	" "	"	"	22 ^h 25 ^m	00:00	00 ^h 25 ^m W	+39° 46'	Fe/- ne/-	3-3- 7-77
46047T1	optical in plate	46046		15min @ 1500	3900	① D4 ② D3 ③ D2		4010	
46047T2	optical in plate	46047		15min @	4010	① D3 ② D1 ③ D2		7000 5050	
46048	"SU Cyg" faint comparison #1	19 40.6	+29° 01'	0 ^h 38 ^m	01 ^h 38 ^m	2 ^h 15 ^m W	+29° 13'	Ne/ND	10-9-
46048F	focused							Ne/ND	10-10
46049	HD 212 943	22 ^h 22 ^m .9	+4° 12'	1 ^h 50 ^m	2 ^h 00 ^m	0 ^h 5 ^m E	+04° 36'	Ne/ND	12-12
"	HD 223311	23 ^h 43.4	-6° 56'	2 ^h 06 ^m	2 ^h 45 ^m	1 ^h 20 ^m E	-06° 28'	Ne/ND	12-12
"	focus test							Ne/ND	20-20
46050	HD 222368	23 ^h 34.8	+5° 05'	2 ^h 57 ^m	3 ^h 04 ^m	0 ^h 15 ^m E	+05° 32'	Ne/ND	12-12
"	"	"	"	3 ^h 05 ^m	3 ^h 08 ^m			Ne/ND	12-12
"	"	"	"	3 ^h 09 ^m	3 ^h 11 ^m			Ne/ND	12/1
	Focus.	—	—						

Spectr. Temp. 76°F Dome Temp./Hum. 74°F. 60% Transparency Conditions Clear 336.
 Focus 495 Seeing is excellent!
 Spectr. Temp. 79°F Dome Temp./Hum. Winds calm.

40/26

Exp. Mir.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
—				BC.	880/.68	150/1.0	IIaDc	A			
200/63	1-2	10.4	[e]	"	"	250/.5	"	B		Timed exposure 1 hr - 30 min.	} emission only
200/46		"	"	"	1200/1.700	250/.5	09802F	A		"	
							IIaD-E				
							098-02E				
200/25	1-2	~11	?	BC + I.T.	1200/.475	150/.5	2415b.	2	faint * Test + Rm Prog.	.025 sh on east side timed exposure - 1 hr.	Weak comp on stellar
				"	"	"	"	1			
200/75	1-2	5.9	KOIII-IV	"	1200/.475	150/.5	2415b	1	STD Velocity.	I.T Test	sl sm
200/75		6.3	gK4	"	"	"	"	2	"	"	sl str
		"	"	"	"	"	"	3		"	
200/75		4.6	F7II	"	"	"	"	1	std Vel	Developed by wls 4m	sl strong
200/38		"	"	"	"	"	"	2	"	Hx Too close to edge sh on moved spectrum.	fine
200/19		"	"	"	"	"	"	3	"		good
								4			

337.

Date July 31 / Aug 1 Observers Wh / Ri

Emulsion Batches:

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[illegible]

Dome Temp./Hum.

Focus

Dome Temp./Hum. *67°/80%*

Spectr. Temp.

seeing still excellent.
wind calm.

[illegible]

339.

Date Sat-Sun. AUG. 1/2. 1981. Observers Flm-Bts

Emulsion Batches:

$8^m 68^\circ$	II _{0.0} -E. 05031.-25071.	21	183
	II _{0.0} -E. 05031.-27071.		
$4^m 68^\circ$	.098-02E. 05031.-29071.	36	

[illegible]

Spectr. Temp. 77°FDome Temp./Hum. $74^{\circ}\text{F}/\text{H}=6.7\%$ Transparency Conditions *Same high cirrus, sl. hazy*..... **340**
sky bright.Focus **495**.....Spectr. Temp. 70°FDome Temp./Hum. $65^{\circ}\text{F}/\text{H}=91\%$

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
154				BC	830/.68	BS	Ilac	A		F=495, T=77°F	
55-400/550	2"	B=7.30	B2VP	"	" / "	"	"	A	Bln-He*	(27071) new box of plates	v sl str
00/153*	3-4	B=7.30	B2VP	BC	830/.9	GG13 150/.5	Ilac O9802e	B	Bln-He*	broken (2 pcs) *counts prob. not too meaningful F=495, T=75°F;	star good comp strong
40/35		B=5.29	06f	BC	830/.68	BS	Ilac	A	RUNAWAY*	F=496, T=72°F	star good fine

341

Date Aug. 3/4 Mon Fair Observers Ri-Are

Emulsion Batches:
8^m 68° Dec 05031-23071... to 189

[illegible]

343

Date *Aug 5-6. Wed Thurs* Observers *Are - Ri*8^m 6^h

Emulsion Batches:

Ilao-E 05031-03081 21 195

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.
46060F	<i>focus test</i>							Fe/-	15-15
46060	<i>(SUCys)</i> HD 186688	19 40.6	+29° 01	20:15	21:56	1 ^h 06 ^m E	+29° 12	Fe/-	5-5-
46060T	<i>apertical for plate</i>	46060-		15min @	15Volts	0.2L @ P3 3980	0.2L @ P3 4300	0.2L @ P2 4810	
46061	HD 176155	18 53.8	+17° 19'	21:59	22:24	0 ^h 07 W	+17° 18.4	Fe/-	5-5-
46062	HD 179315	19 7.0	+4 11	22:29	23:05	0 ^h 35 W	4 17.9	Fe/-	5-10
46063	HD 180583	19 ^h 12.0	+27° 45	23:09	23:56	0 ^h 22 W	+27 53.8	Fe/-	5-5-
46064	HD 201078	21 ^h 02.3	+30° 47	00:00	00:30	00 ^h 05 W	+31 04.1	Fe/-	5-5-
46065	HD 203156	21 15.4	+37° 49	00:38	01:12	00 ^h 35 W	+38 07.3	Fe/-	5-5-
46066	HD 204867	21 26.3	-06 01	01:16	01:20	00 ^h 31 W	-5° 40.5	Fe/-	7-7
46067	HD 206778	21 39.3	+9 25	01:23	01:25	00 ^h 23 W	+9° 46.0	Fe/-	7-7
46068	HD 217476	22 ^h 55.9	+56° 25	01:31	01:47	00 ^h 30 E	+56° 49.4	Fe/-	5-5-
46069	HD 224014	23 ^h 49.4	56 57	01:51	02:01	01 ^h 16 E	+57° 22.3	Fe/-	5-5-
46070	HD 7927	1 ^h 13.7	57° 42	02:06	02:18	02 ^h 19 E	58 04.8	Fe/-	5-5-
46071	HD 14662	2 16.9	54 55	02:22	03:13	02 27 E	55 13.6	Fe/-	5-5-
46072	HD 8890	1 22.6	88° 46	03:22	03:23	02 13 E	+88° 08.1	Fe/-	7-7
46073	HD 203156	21 15.4	+37° 49	03:34	04:28	03 52 W	+38° 08.0	Fe/-	5-5-

Spectr. Temp. 76°F

Dome Temp./Hum. ... 70°F 75%

Transparency Conditions ... good with some cirrus around

Focus 49.5

w dr south

344

Spectr. Temp. 68°F

Dome Temp./Hum. ... 62°F 94%

40/26

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				B.C.	830/.680	B.S.	IIaO-E	A			
5-5 400/360	3-4	6.9 7.7	FO-G1	B.C.	830/.680	B.S.	IIaO-E	B	Evans		
							IIaO-E				
5-5 200/180		5.4	F5	B.C.	830/.680	B.S.	IIaO-E	A	Arc Prog		fine
5-5 200/118		7.69	K2	B.C.	830/.680	BS	IIaO-E	B	Arc Prog	adjusted the arc	weak
5-5 400/360		5.93	F6IIb	B.C.	830/.680	BS	IIaO-E	A	Arc Prog	T=74°F broken 2 pieces F=496	
5-5 400/360		5.8	F55I-II	B.C.	830/.680	B.S.	IIaO-E	B	Arc Prog		vsl str.
5-5 200/180	3	5.75	F2	B.C.	830/.680	BS	IIaO-E	A	Arc Prog	T=72°F F=496	vsl str.
7- 40/36		3.7	G0Ib	B.C.	830/.680	BS	IIaO-E	B	Std Vel		fine
7- 40/36		2.39	K2Ib	B.C.	830/.680	BS	IIaO-E	A	Std Vel		fine
5-5 200/180		4.99	G0Ia	B.C.	830/.680	BS	IIaO-E	B	Arc Prog	T=70°F F=497	fine
5-5 30/72		4.4	F8Iap	B.C.	830/.680	BS	IIaO-E	A	Arc Prog	↓ ↓	good
5-5 30/72		4.95	F0Ia	BC	830/.680	BS	IIaO-E	B	Arc Prog		fine
5-5 200/180		5.4	F7Ib	BC	830/.680	BS	IIaO-E	A	Arc Prog		vsl str.
7- 40/37		2.5	F8Ib	B.C.	830/.680	BS	IIaO-E	B	Arc Prog		fine
5-5 400/360		5.75	F2	B.C.	830/.680	BS	IIaO-E	A	Arc Prog		

345

Date Aug 6-7 9 hrs Fri Observers Bu-Ri

Emulsion Batches:

IIAO-E.05031-03081 17 171

[illegible]

346

Dome Temp./Hum.

5.5.

347

Date Aug 7-8 Fri Sat 1981 Observers KK-R

Emulsion Batches:

Emulsion Batches.

ITaw-E	05031-06081	17	165
ITaTel	09061-19671	59	34

[illegible]

Spectr. Temp. Dome Temp./Hum. 70°F 93% Transparency Conditions scattered clouds page 348
 Focus
 Spectr. Temp. Dome Temp./Hum.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
11-40/60	5	3.93	Fop	B.C.	1200/-0.025	B.S	IIco-E	A	Asm-Sp/KK	T=76°F F495	fine
							IIao-E				
12-40/119		0.0	A0V	BC	1200/-0.025	BS	IIIJeb	B	Fenic		
13-20/71		"	"	-	-	-	-	A			sl strong
14-20/50		"	"	-	-	-	-	B			fine
15-20/50		"	"	-	"	"	"	A			
							IIIaJeb				
18-20/50		0.0	A0V	B.C.	1200/-0.025	B.S	IIaJeb	B			
19-20/50		"	"	-	"	"	-	A			
				B.C.	1200/-0.025	B.S	IIao-E	B		T:74°F F495	
				B.C.	1200/-0.025	B.S	IIao	A			
				-	-	-	"	B		pushing arm west	

349

Date Aug 9/10/81 Sun-Mon Observers Gu - Bts 2nd in

18-N
2nd in 10-4 AgNO₃
with N₂ burst every
10 s, drained with
Photoflo & air-dried
18

Emulsion Batches:

.HIK..64143-033-03 27 73
 .baked in forming gas...
 @ 65°C ~3 hrs (baked on Aug 6/81)

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.
46082	HD 187922 (49 gal)	19 47.4	+00 45	20:58	22:43	00 13 E	+00 55	Ne/-	60-60 60
46082T	spot allow for plates 46082-87				@ 7 1/2 V	10 min D4 7680	30 min D3 8464		
46083	HD 8890A (WUM, A)	01 22.6	+88 46	23:00	23:30	05 52 E	+89 06	Ne/-	60-60 60
46084	HD 8890A	01 22.6	+88 46	23:38	00:01	05 19 E	+89 06	FeNe/-	10-10- 10
46084T	test spot calibr for 46084				@ 7 1/2 V	15 min D3 7080	15 min D3 7680	15 min D3 8464	
46085	HD 213307 (S, G)	22 25.5	+57 54	00:11	03:08	01 37 W	+58 15	Ne/-	60-60 60
46086	HD 8890A	01 22.4	+88 46	03:20	03:48	01 32 E	+89 05	Ne/-	60-60 60
46087	HD 20902 (W, R)	03 17.2	+49 30	03:56	04:21	02 05 E	+49 43	Ne/-	60-60 60
46087F	focus test							Ne/-	200- 200
87T1	comparison tests - IR							FeNe/-	30
T2								FeNe/ ND 0.6	30
T3								FeNe/ Wr 66 + ND 1.0	30

Focus 495

Dome Temp./Hum. 197%

Transparency Conditions hazy 350

Spectr. Temp.

Dome Temp./Hum. 65°F / 97%

[illegible]

Spectr. Temp. ... 73°F

Dome Temp./Hum. ... 68°F/100%

Transparency Conditions ... clear ... 352

Focus ... 49.6

Spectr. Temp. ... 63°F

Dome Temp./Hum. ... 63°F/93%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
60-100	1-2"	1.29	K2III	BC	830/.9	150/.3	HIEbfg	A	Std Vel.	some cloud	v slow
60-100	"	2.9	G2II	"	"	"	"	B	IR Ceph		fine
60-100	"	4.3	G1II	"	"	"	"	A	IR Ceph		v slow
60-100	"	4.0	F5II	"	"	"	HIEbfg	B	IR Ceph		v slow
60-100	"	~2.0	ceph	"	"	"	"	A	IR Ceph	68°F F=497	fine
60-100	"	3.2	G8II	"	"	"	"	B	IR Ceph		

253

Date 12/13 Aug. Wed-Thurs. Observers Gis - Ri
1981.

Emulsion Batches:
8th 68^o .IIaO-E.05031-06081 22 193

[illegible]

Spectr. Temp. ... 69°F

Dome Temp./Hum. 70°F / 75%

Dome Temp./Hum. 66°F/100%

Transparency Conditions . . . *Hazy - very* 354

the very very lazy

40/27

[illegible]

355

• Emulsion Batches:

Date Observers

.....

.....

.....

[illegible]

356.
'611' 45683 -1

mpanson
er Exp

Typical counts/minute, unity gain, 0.0 B, BS, "photometric" conditions

		seeing estimate
80 Nov 15	6.8	3"-5"
81 Jan 30	6.8	2".5 (1-8!)
Mar 18	8.3	2.5 (2-3)
Mar 23	8.3	1.5 (1-2)
Apr 6	6.8	2 (1-5)
81 May 6	5.0	2.5 (2-3)

1 11

$\underline{7} \Rightarrow 14^{\text{min}} \text{ for } 100/1000 \quad 5.0^{\text{m}}$
 $24^{\text{hr}} \quad 10.0$