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1

3

spectr. Temp. ..

FOCUS

Spectr. Temp. . .

ap. Mtr. Seeing

Transparency Conditions

Spectr. Temp.

Dome Temp./Hum.

Transparency Conditions

[illegible]

Date *Sat-Sun* *July 31-Aug 1* Observers *Cnw-Ri*

8568 Emulsion Batches:
 Dev-F. 20012-29072 23 178

[illegible]

Spectr. Temp.

Transparency Conditions HAZY 6

Focus 506

Spectr. Temp.

Dome Temp./Hum. 59°F 105%

Comparison	
Filter	Exp

Comparison Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
-	5-5	80/90	3"-4"	3.9	K2 III	B.C.	820/68	150/1.0	IIao-E	A			good red end fuzz
-	5-5	400/400	"	8.2	M50 -M92	B.C.	"	150/.3	IIao-E	A	CW-MIRAS	EXP=39 ^m 13 DOHFO 2 PAGES EXP=242 ^m lost in dew. tank	black discarded
-	5-5	400/250	3"	8.0	M7 III	"	"	"	"	B	M STANDARD	EXP=118 ^m FOCUS=507 T=68°F	weak
-	5-5	200/200	"	5.8	M50 -M92	"	"	"	"	A	CW-MIRAS	FOCUS=507 T=66°F T=66°F F 507	
-	15-1				"	"	"	150/1.0	"	B		EXP=27 ^m	
												comparisons all strong	

Date FRI-SAT AUG 6-7 1982 Observers ... Bln-Ri

How-E 20012-29072

Πω-Ε. 20012-31032

Spectr. Temp

Focus

Spectr. Temp

Exp. Mtr. | S

Spectr. Temp. 75°F

Dome Temp./Hum. 70°F 87%

Transparency Conditions Hazy w/ thick
cirrus late. Moderate strength
dissipate most of the night

Focus 505

Spectr. Temp.

Dome Temp./Hum. 64°F 100%

Comparison
Filter Exp.

Comparison Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
10-10					B.C.	830/.68	B.S.	IIW-E*	A			very sl. red
4-4	40/40	3	3.9	10 III	B.C.	830/.680	B.S.	IIW-E*	B	STD VEL		sl str
3-3-3	200/180	3-4	5.2	48 IV	B.C.	830/.680	B.S.	IIW-E*	A	STD VEL		sl str
								IIW-E*				
3-3-3	400/500	3	7.3	80 V	B.C.	830/.680	B.S.	IIW-E	B	Bl - H ₂	T = 73°F F = 506	sl str
								IIW-E				
3-3-3	400/258	3	7.85	131.5 V	B.C.	830/.680	B.S.	IIW-OE	A	Runway +	SOME CIRRUS CLOUDS 70°F FOR 1 HR	fine
10-10					B.C.	830/.68	B.S.	IIW-E	B		T = 68°F F = 506	very sl blue

Date SAT. SUN. AUG 7-8 1982 Observers KK-R

Emulsion Batches:

Dao-E. 20022-31072.

Spectr. Temp.

Focus

Spectr. Tem

[illegible]

Exp. Mtr.

40/120

70/260

Spectr. Temp. ... 27°K

Dome Temp./Hum. 70%.....94%

Transparency Conditions *clouds about* 10

Focus 503

Spectr. Temp. Dome Temp./Hum.

[illegible]

Date Mon-Tues, Aug 9/10 Observers Gis-R.

DAO:E. 2002-31072.

Spectr. Tem.

[illegible]

Spectr. Temp. ... 64°

Dome Temp./Hum. *58°F 100%*

Transparency Conditions 12

12

[illegible]

13

Date Tues-Wed., Aug 10/11 Observers Gis - Ri

Emulsion Batches:

Emulsion Batches:
 .IIoU-E.2001.2-00082 22 188

Spectr. Tem

Focus

Spectr. Terr

[illegible]

Spectr. Temp. ... 65°F

Dome Temp./Hum. 60°F ... 78%

Transparency Conditions . good with the occassional clouds going by

Focus 508

Spectr. Temp. ... 57°F

Dome Temp./Hum. ... 53°F ... 100%

RADIUM CHECK 40/16 60SEC

Comparison
Filter Exp.

Comparison Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
10-10					B.C.	830/.68	BS	IIaO	A		T=65°F F=508	
4-4	40/35	4	3.9	K2 III	"	"	"	IIaO-E	B	Std. Velocity		
3-3-3	400/300	4	7.27	B5 II	"	"	"	"	A	Runaway X		
								IIaO-E				
3-3-3	100/300	3-4	7.83	B0 III	BC.	830/.68	BS	IIaO-E	B	Runaway X	T=63° F=509	
3-3-3	400/300	3	7.39	B2 II	"	"	"	IIaO-E	A	Runaway X	T=60° clouds F=510	
3-3-3	200/175	3	6.94	B2 IV	"	"	"	IIaO-E	B	Runaway X	T=58° clouds F=510	
10-10					B.C.	830/.68	BS	IIaO-E	A		T=57 F=510	

15

Date Aug 11-12, 1982 Observers Rm - Tu

Emulsion Batches:

8768 ...H.O.E. 20012...-08082

Spectr. Tem

FOCUS

Spectr. Terr

[illegible]

082

Spectr. Temp. 65°F.....

Dome Temp./Hum. 62°F/70%

Transparency Conditions Fine. 4/11 0245

16

Focus 510.....

Spectr. Temp. 58°F.....

Dome Temp./Hum. 52°F/97%

Comparison
Filter Exp.

Comparison Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
- 1-6				1	BC	830/68	BS	IIaOE	B		65°F	red
- 4	40/35	2"	3.9	K2III	"	"	"	"	B	Std Vel		exp fine
- 3-3-3	200/100 80/220	3"	~7.0	~GO	"	"	"	"	A	Ceph/Evans		comp. strong
								IIaOE				slowing
- 1-2-6	80/80	2-3"	~8.2	~GO	BC	830/68	BS	"	B	Ceph/Evans	63°F	
- 2-2-3	80/80	2-3"	~6.8	F2	"	"	"	IIaOE	A	Bix/Evans	63°F saturation really showed cloud at end	good
- 3-3-3	80/104	3"	~7.0	~GO	"	"	"	"	B	Ceph/Evans	61°F cloud!	good
- 3-3-3	80/68	3-4"	6.2	F2	"	"	"	"	A	Ceph/Evans	cloud; piece broken off at 5"	fine

Date Fri-Sat Aug 13-14, 1982 Observers Flin-Tn

Emulsion Batches:
IIaO-E 20012 - 10082

[illegible]

10082
21/182

Spectr. Temp. 69°F

Dome Temp./Hum. $65^{\circ}\text{F}/85\%$

Transparency Conditions *Fine where clear*..... 18

Focus... 507

Spectr. Temp. 66°F

Dome Temp./Hum. $60^{\circ}\text{F}/91\%$

Comparison Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
- 3-3-3	80/90	2"	^B =7.30	B2Ip	BC	830/.68	BS	IIaO-E	A	Bin - He*	cloud at start	Fes/stp Fine
- 3-3-3	40/36	2	^B =6.17	FZ	BC	830/.68	BS	IIaO-E	B	Ceph/Evans		Fes/stp Fine
- 4-4	40/40	2"	4.1	F3U	"	" / "	"	"	A	STDVEL		Fine
- 4-4					"	" / "	"	IIaO	B		T=66°F, F=507 Thick cloud moving from N. to S.	car w/ sl blue

2 Large Tours

Emulsion Batches:

Date Sat-Sun Aug 14/15 Observers KK-Tn

Emulsion Batches:
 . II20C...2.0012...10082₂₁ 152

[illegible]

Spectr. Temp. ... 70°FDome Temp./Hum. 66°F / 88%Transparency Conditions Hazy 20Focus ... 508Spectr. Temp. ... 66°Dome Temp./Hum. 61° / 90%

Comparison of Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
6-66	40/140	1-2"	4.2	K5D-B	BC	1200/4.2	150/1.3	U20-E	A	Asm-Sp/KK		
6-66	40/179	2"	3.8	G8II? +F?	"	"	"	"	B	Asm-Sp/ICK		
6-66	400/100	1-2"	8.1	?	"	830/68	"	"	A	"	Fainter comp = upper	
								"			4100 sl weak, use 15"	
400/100	2"	7.3	A2	BC	830/68	150/1.3	"	"	B	Asm-Sp	Brighter = lower in periscop	
								"				
6-66	40/120	2-3"	4.7	G500 -AS	BC	1200/1.2	150/1.3	"	A	Asm Sp		
9-9	40/70		2.8	ASV	"	"	"	"	B	Asm Sp - Standard	8 Cas	Comp strong sl strong
20-20					"	"	150/1.0	"	A		F=508 66°F	vsl blue

Date Sun-Mon Aug 15-16 Observers CW-Tx

Emulsion Batches:

..... 20175

[illegible]

5082
20 175

Spectr. Temp. ... 74°F

Dome Temp./Hum. ... $70^{\circ}\text{F}/76\%$

Transparency Conditions ... *PARTLY cloudy* 22

Focus ... 507

Spectr. Temp. ... 69°F

Dome Temp./Hum. ... $64^{\circ}\text{F}/90\%$

Comanson
e/Filter Exp.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
IND 555 200/200	<1"	8.7	MSE-MIRAS	BC	830/68	150/.3	IIa-OE	A	Crow-MIRAS	EXP = 151 ^m spectacular seeing!	Em OK S/wk
IND 555 80/100	"	7.4	5646 (MSE)	"	"	"	"	B	"	EXP = 54 ^m	Em good S/wk
IND 555 80/105	1.3"	7.7	M111	"	"	"	"	B	M STANDARD	EXP = 76 ^m	Fine
IND 555 80/98	"	7.8	M48-MIRAS	"	"	"	"	A	Crow-MIRAS	somewhat EXP = 79 ^m	Fine
IND 555 80/100	2"	7.4	M6111	"	"	"	"	B	M STANDARD	EXP = 56 ^m	Fine
IND 555 40/40	2"	5.7	MSE-MIRAS	"	"	"	"	A	Crow-MIRAS	EXP = 12 ^m	Fine
IND 555 40/40	"	"	"	"	"	150/10	IIa-O	B	Set 507	69°F	OK

* Some fog at red end of plates

23

Date Mon.-Tues., Aug. 16-17/82 Observers ... Gis.-Tr.

Emulsion Batches:

IIa.O.-E... 20012-... 15082

.....

[illegible]

Spectr. Temp

Focus. 505

Spectr. Temp

Exp. Mtr.

S

Spectr. Temp. 76.5°F.....

Dome Temp./Hum. 74°F/82%

Transparency Conditions . . . *very hazy - cloudy* 24

Focus . 505

Spectr. Temp. 72°F.....

Dome Temp./Hum. 67°F/92%

[illegible]

Date Tues.-Wed., Aug. 17-18/82 Observers Gus - Tr.

Emulsion Batches:

Evacuation Dates:

Same batch	H ₂ O ₂ E 20017	unaccounted
	H ₂ O ₂ E 20012	17082 (4 hrs evacuated)

[illegible]

Spectr. Temp. 72°FDome Temp./Hum. $67^{\circ}/78\%$ Transparency Conditions *Fine*.....

26

Focus...506.....

Spectr. Temp. 64°FDome Temp./Hum. $61^{\circ}/90\%$ Comparison
e/Filter Exp.

Comparison e/Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1- 9-9					B.C.	830/68	BS	IIa0	B			Cent s/Red
ND-6-9-9	40/36		3.9	K2 III	"	"	"	IIa0-E*	B	Std. Velocity		Fe s/wk Fine
ND-6-6-6	400/400	3"-4"	7.83	B0 III	"	"	"	" *	A	Runaway*		Fine
								" *				
ND-6-6-6	200/112	3"-4"	7.53	0N9 II	B.C.	830/68	B.S.	IIa0-E	B	Runaway*	T=67°F F=508	Fe s/wk Fine
								IIa0-E				
ND-6-6-6	200/150	2"	7.05	B1 III	B.C.	830/68	BS	IIa0-E	A	Runaway*	T=65°F	xx vs/wk xx
ND-6-8-8	40/32	2"	4.33	09.5 Ia	"	"	"	"	B	Runaway*		Fine
ND-6-8-8	40/34	1-2	4.04	07	"	"	"	"	A	Runaway*		xx Fine
											** Fe s/wk	

27

Date Wed.-Thurs., Aug 18-19/82 Observers Gis. Tm.

Emulsion Batches:

8m 680

IIA.O.E. 20012-17082

Spectr. Temp

Focus... 50.

Spectr. Temp

[illegible]

Exp. Mtr.

Exp. Mtr.	S
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40/32

4x/256

15

4/32

200/1:3

2082

Spectr. Temp. 71.5°

Dome Temp./Hum. $69^{\circ}\text{F}/65\%$

Transparency Conditions *some cloud* 22

Focus 507

Spectr. Temp. 69°

Dome Temp./Hum. $64^{\circ}\text{F}/80\%$

Comp. Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	9-9					B.C.	830/.68	B.S.	II60E	A			cart 3/red ok
106	9-9	40/32	2"	3.9	K2III	"	"	"	"	A	Std. Velocity		fine
N.C.	9-9	400/256	2.5"	8.16	80.5II	"	"	"	"	B	Runaway *	some cloud	fine
D	9-9								"				
106	9-9	200/150	1"	6.94	B2II	BC	830/.68	BS	"	A	Runaway *	cloud	vsl sm
106	9-9	40/32	1"	5.29	06f	"	"	"	"	B	Runaway *	light struck - red end	vsl sm
106	9-9	200/112	1"	7.01	B0.5II	"	"	"	"	A	"	cloud.	light struck - red end fine

Date Aug. 20-21, 1982..... Observers Fla-Tn.....
Fri-Sat.

Emulsion Batches:

IIaO-E...20012-...15082

Spectr. Tem

Focus...50

Spectr. Tem

[illegible]

Exp. Mtr.

200/12.9

200/12

2007 33

80/45

182

Comparison	
Filter	Exp
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100	100

NA-8-

8-5-1

16-8

A 5-11

1

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	830/.68	BS	IIaO-E	A		F=507	cen vs/red
200/129	3-4" = 1.5	B	09.5 II	"	" / "	"	IIaO-E	B	Var Bin/Flu	Telescope reversed; cloud.	Fine
200/121	3-4"	"	"	"	" / "	"	"	A	"		Fine
200/33	"	"	"	"	" / "	"	"	B	"	some cloud gain; clouded out!	wh
80/45	"	B = 2.5	KO IIIa:	"	" / "	"	"	A	STDVEL	unreversed Cloud; waited for hole. Redo	Fine
							"				

Dome Temp./Hum. *+46°F / 95%*[illegible]

33

Date Mon-Tues., Aug 23-24/82 Observers Gris-Tn

Emulsion Batches:

Emulsion Batches:
DAO:E 20012 - 19082

Spectr. Tem

Focus...50

Spectr. Tem

[illegible]

1087

Transparency Conditions *part cloudy*.....4

Spectr. Temp. 63°F.....

Dome Temp./Hum. 1577 / 96.6

Comparison Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
D6 10-1	40/36	2"	3.9	K2III	B.C.	830/.68	BS	IIaO-E	A	Std. Velocity		Fast Fine
D6 8-2-8	200/165	2"	6.42	B2.5IIc	"	"	"	"	B	Runaway*	cloud	Fast Fine
2								"				right on
9-2					B.C.	830/.68	BS	IIaO	B		T=64°F F=509	
N6 11-1	40/31	1"	4.98	08II	"	"	"	IIaO-E	A	Runaway*	adjusted focus	Fast/wk Fine
11-1	40/30	1.2"	5.29	06F	"	"	"	"	B	"		Fast/wk Fine
D6 11-1	80/49	2"	5.53	B5II	"	"	"	"	A	"	cloud at end	Fast Fine

35

Date Wed-Thurs Aug 25/66 Observers Wh/Ri

Emulsion Batches:
 680 JND-E 20012-19082
 500 098 05031-23082

[illegible]

Spectr. Temp. 67°F

Dome Temp./Hum. 62°F 65%

Transparency Conditions . EXCELLENT

36

Focus 508

Spectr. Temp.

Dome Temp./Hum. 54°F 99%

40/21½

Comparison
Type/Filter Exp.

Fe/- 9-9

Fe/- 11-11

Fe/NB 3-3

Fe/NB 3-3

Fe/NB 7-7

Fe/NB 7-7

Fe/NB 7-7

Fe/- 9-9

Fe/NB 8-8

Fe/NB 8-8

Fe/NB 8-8

Fe/- 9-9

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				B.C.	830/.68	B.S.		A		ADJUSTED IRON ARC	Cont's/Red
400/360	3-4	5.2	QB-12	BC	830/.68	B.S.	IIaDE	B	STD Vel.		comp Fine
500/22		10.4(?)	[e]	BC	830/.68	250/.5	IIaDE	A	Wly P/H	1hr 30m Timed.	Fine Em
300/32					1200/.7	250/.5	098-02E	B		T=65°F.	Strong Hx
						99.13	IIaDE				
							098-02E				
				B.C.	1200/.7	250/.5	098-02E	A		T=63°F F=508	OK?
400/202	4-5	6.17	F2	B.C.	830/.68	B.S.	IIaDE	B	Cipled/E vomo	T=63°F F=509	comp str Fine
400/350	3-4	7.39	B2V	B.C.	830/.68	B.S.	IIaDE	A	Runway*	T=62°F F=510	comp too str Fine
400/350	"	7.01	B2V	B.C.	830/.680	B.S.	IIaDE	B	"		comp str Fine
				B.C.	830/.680	B.S.	IIaDE	A		T=59°F F=510	OK

Spectr. Temp. + 70°F

Dome Temp./Hum. 66°F/92%

Transparency Conditions

38

Focus 506

Spectr. Temp.

Dome Temp./Hum. 65°F/99%

Occasional high cirrus
general haze

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
4/ND 3-3 4/ND 7-7		10.4	[e]	BC	1200 .7	250 6-1.5	098e	A	Wb PN	45 min Timed	4x OK
4/ND 3-3 4/ND 7-7		"	"	"	"	"	"	B	"		slr 4x
4/ND 3-3 4/ND 7-7 B27 450	80/40	2	5.2	48U	B.C.	1200/.7	250/.5 6-1.5	098e	A	std 2ul	Fine
4/ND 4-4 4/ND 8-8	400/280	2	5.2	48U	B.C.	1200/.7	150/.7 6-1.5	09802E	B	std 2ul	images! Fine Fuzzy
4/ND 4-4 4/ND 10-10	400/280	"	"	"	B.C.	1200/.7	R.S.	09802E	A	RS vs Slit. 07 min	sl w k
Fe/-				B.C.	1200/.7	R.S.	Ind	B		T=68°F F=506	cent vs blue
4/ND 0-0 400	700/209	3	7.27	B5U	B.C.	830/.680	B.S.	Ind-E	A	clouded in T=68°F F=508	sl w k
4/ND 0-0 400							Ind-E				
4/ND 0-0 400				B.C.	830/.68	B.S.	Ind	B		T=67°F F=508	OK Fine

Emulsion Batches:

Trav-E 20012-25082

Date Fri-Sat Aug 27/28 1982 Observers Fla-Ri.....

[illegible]

Spectr. Temp. 65°FDome Temp./Hum. 58°F / 75%Transparency Conditions Good 40Focus 509Spectr. Temp. 52°FDome Temp./Hum. 46°F / 82%

40/21 1/2

Comparison of Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1- 9-9					B.C.	830/68	B.S.	IIAD-E	A			
N 8-8	400/300	3-4	6.15	01.5 III	"	" / "	"	"	B	Var Bln/Flu	Telescope reversed	
" 8-8	400/300		"	"	"	" / "	"	"	A	"	"	comp w/ Fine
52								IIAD-E				
N 8-8	400/300		6.15	09.5 III	B.C.	830/680	B.S.	IIAD-E	B	"	"	comp w/
8-8	400/241		"	"	"	"	"	"	A	"	"	comp v. w/
" 8-8	400/156	5-6	"	"	"	" / "	"	"	B	"	"	comp v. w/
N 8-8	400/352	3-4	6.94	B2 IV	"	" / "	"	"	A	RUNAWAY*	Telescope unreversed. T=57°F, F=512	
" 8-8	400/300	4-5	7.01	B05 III	"	" / "	"	"	B	RUNAWAY*		US/wk
" 8-8	80/80		5.1	K4 III	"	" / "	"	"	A	STDVEL	T=52°F, F=513.	comp slwk
9-9					"	- / -	"	"	B		T=52°F, F=513	cont's/Rel

2 LARGE YOURS

Tao E20012-49082

Date 28-29 Aug 82 Observers WINTERLICO - R.

Spectr. Temp

Focus

Spectr. Temp.

[illegible]

Spectr. Temp. 53°F

Dome Temp./Hum. 42°F 93%

Transparency Conditions .. good

42

Focus 512

Spectr. Temp. 44°F

Dome Temp./Hum. 44°F 96%

Lost 1/2 due to broken coupling to
the focusing motor

Comparison pe/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
4/ND 11-16	20/18	2	2.9	F81b	B.C.	830/.68	B.S.	IIad-E	A			s/str
4/ND 33	400/450	2-3	7.1	K0IV	B.C.	830/.68	B.S.	IIad-E	B			Fine
3 100								IIad-E				
4/ND 338	20/400	3	6.6	H2III	B.C.	830/.68	B.S.	IIad-E	A		T=520°F F=513	Fine
4/ND 338	400/400	3	7.7	K0II	B.C.	830/.68	B.S.	IIad-E	B		T=500°F T=514	"
4/ND 338	40/40	3	4.6	F7V	B.C.	830/.68	B.S.	IIad-E	A			"
4/ND 338	40/45	3	5.4	K3Ib	B.C.	830/.68	B.S.	IIad-E	B			"
4/ND 11-16	20/24	3	2.2	K2IIab	B.C.	830/.68	B.S.	IIad-E	A			consist Fine
4/- 11-16								IIad	B		T=49°F T=514	Blue OK consist Red

43

Date Thurs-Fri, Sept. 2-3/82 Observers GIS-Tn 8

* All may be slightly fogged * Emulsion Batches:
 30 H100-E 20012 - 27082
 * also maybe ** H100-E 20012 - 28082

[illegible]

45

Date Fri-Sat., 3-4 Sept. '82 Observers Blu-Tn.....

Emulsion Batches:

DOE... 20012... -28082

• • • • •

.....

[illegible]

Spectr. Temp. ... 62°F

Dome Temp./Hum. 57° F. / 89%

Transparency Conditions *some cloud* 45

Focus 510

Spectr. Temp. 57°F.....

Dome Temp./Hum. 54°F/97%

[illegible]

Spectr. Temp. 65°F

Dome Temp./Hum. 58°F / 85%

Transparency Conditions. *Fine but s/hazy "dust"? 48*

Focus 510

Spectr. Temp. 57°F

Dome Temp./Hum. *51° / 99%*

Comparison Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1/10	12-12	40/43	1"	4.20	G5 IV	BC	830/68	BS	II ₄ OE	A	Wet Prog		
1	10-10	400/400	2"	7.73	G1 V	"	"	"	"	B	"		
2								"			"		
1/10	12-12	40/35	2"	2.9	F8 Ib	BC	830/68	BS	"	A	"		
1	10-10	200/250	2-1"	8.0	K2 I	"	"	"	"	B	"		
1	10-10	80/160	1-3"	6.6	m2 III	"	"	"	"	A	"	T=61°F	
1	10-10	200/300	2"	7.7	K0 III	"	"	"	"	B	"		
1	10-10	200/225	1-2"	7.46	F2	"	"	"	"	A	"	Set 511 T=61°F	
1	10-10	80/95	1"	6.7	F3 IV	"	"	"	"	B	"		
1	10-10	40/35	"	2.2	K20.6	"	"	"	"	A	std vel		

Date Sun-Mon 5/6 Sept. '82 Observers Blu-Tu

Emulsion Batches:

... ПАОЕ ... 20012 ... - 03092

Spectr. Ten

Focus . . . 52

Spectr. Ten

[illegible]

Spectr. Temp. ... 48° F.

Dome Temp./Hum. 66°F/74%

Transparency Conditions $Haze$, scattered cirrus, 50
and worse

Focus ..508.....

Spectr. Temp. 67° F

Dome Temp./Hum. 65°F/-.....

Bright aurora low in N @ $\approx 19:45$

[illegible]

51

Sept 8 R: 8 min 68°F Emulsion Batches: IlaO-E 20012 - 05092

Date Tues-Wed., Sept. 7-8/82 Observers Gis-Tn

[illegible]

Spectr. Temp. ... 52°F

Dome Temp./Hum. 58°F./77%.

Dome Temp./Hum. 47°/100%

Transparency Conditions *Fine*.....52

Strange "Hauru Liko" phenomenon seen in SE around 22hrs.
Gone for awhile, to reappear at 23hrs from under up
in D of Peg. 2 lobes, some fluctuate.
more below.

[illegible]

Emulsion Batches:
SEPT 9 Ri 8mne68°F IIAO-E 20012 - 05092

Date Wed.-Thurs, Sept. 8-9/82 Observers Gis.-Th

Emulsion Batches:

[illegible]

Spectr. Temp.

Focus... 5K

Spectr. Temp.

Exp. Mtr.

05092

Spectr. Temp. 62°F Dome Temp./Hum. $59^{\circ}\text{F}/65\%$ Transparency Conditions *Hazy*Focus 510 Spectr. Temp. 56°F Dome Temp./Hum. $52^{\circ}\text{F}/97\%$ *Good Aurora by 21130 - good 1 ed
gone shortly after splatdy*

Comparison Type/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
<i>Fe/1-1</i>	—				B.C.	830/.68	BS	IIa0	B		T = 62°F F = 510	
<i>Fe/ND6 1-1</i>	40/35	1"	3.9	K2III	"	"	"	IIa0E	B	std. vel.		
<i>Fe/ND6 1-1</i>	200/172	1.2"	7.26	B0.5IV	"	"	"	"	A	Runaway*	thick cloud	
<i>D2 4811</i>								IIa0E				
<i>Fe/ND6 1-1</i>	400/200	1.2"	8.3	B2?	B.C.	830/.68	BS	"	B	Runaway*	T = 61°F	slwk
<i>Fe/ND6 1-1</i>	80/72	2"	6.94	B2IV	"	"	"	"	A	Runaway*	T = 57°F F = 512	Fine
<i>Fe/ND6 1-1</i>	80/72	2-3"	7.05	B1III	"	"	"	"	B	Runaway*		
<i>Fe/ND6 1-1</i>	80/71	1"	7.01	B2V	"	"	"	"	A	Runaway*		
<i>Fe/ND6 1-1</i>	40/36	1"	5.87	B2IVn	"	"	"	"	B	Runaway*		
<i>n 1-1</i>	40/38	1"	4.04	09	"	"	"	"	A	"		

55

Emulsion Batches:
SEPTIOR; 8HW@68°F IAO E 20012 - 08092

Date Thurs. - Fri., Sept. 9-10, 1982 Observers Gris. - Th.

Emulsion Batches:

[illegible]

56

Focus . . . 508

Spectr. Temp. 63°F.....

Dome Temp./Hum. 59° F / 62° F

[illegible]

Date Fri-Sat Observers Crow-Tm
Sept 10-11/82

Emulsion Batches:

R: SEPT 13 8 min @ 68°F II-A-DE 20012-05092

II-A-DE 20012-08092

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.	Exp. Mtr.
47093F	Focus Test						+4 36	Fe/ND	14-14	
47093	HD 161096	17 38.5	+9 37	19 04	19 08	0h 27m W	+4 36	Fe/ND	14-14	40/37
47094	EP AQR (K2P 5468)	21h 41.3 ^m	-2° 40'	19:18	21 18	1 26 E	-2 17	Fe/ND	10-10-10	40/35
47095	R AQL (HD 17794)	19h 01.5 ^m	+8° 05'	21:27	00:04	4h 00 W	+8 12	Fe/ND	10-10	40/38
47095T	Spot Cal'n for 47093	99		15 min @ 15V	3900	04 03 02	4300 4810			
47096	R AND (HD 1967)	0h 18.7 ^m	+38° 01'	00:09	00 46	0 35 E	+38° 28'	Fe/ND	10-10-10	80/80
47097	R TRI (HD 16210)	2h 31.0 ^m	+33° 50'	00 52	02 01	1 33 E	+34° 11'	"	10-10-10	80/80
47098	45 RZ ARI (HD 1819)	2h 50.2 ^m	+17° 56'	02:07	03 05	0 47 E	+18° 15'	"	14-14	40/40
47099	O CET (HD 14386)	2h 14.3 ^m	-3° 26'	03:09	03 19	0.03 W	-3° 04'	Fe/	14-14	40/40

Spectr. Temp. 72.5°FDome Temp./Hum. $71^{\circ}\text{F}/69\%$ Transparency Conditions $5/100\%$

58

Focus 5.07Spectr. Temp. 67°FDome Temp./Hum. $63^{\circ}\text{F}/94\%$ Companion
De/Filter Exp.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
14-12				BC	830/68	150/10	II^*OE	A			
ND 14-12	40/37	$<1''$	3.9 K2 III	BC	830/68	150/5	II^*OE	A	std Uel		
N 10-10	200/250	"	8.2 MT III	BC	830/68	150/3	II^*OE	A	M STANDARD	prob $\approx 200/200$ } EXP=120 ^m	weak
ND 14-12	400/238	$<1.5''$	9.0 MSE	"	"	"	"	B	CON-MARAS	EXP=157 ^m	weak
							"	(NO #3)		T=69°F, F=507	
ND 14-12	80/80	1"-2"	7.4 ^{56.60} MT III	BC	830/68	150/3	II^*OE	A		EXP=37 ^m /CORR=58 ^m	comp OK fine
" 10-10	80/80	2"	7.6 ^{MT II} MSE	"	"	"	"	B		EXP=69 ^m	fine
" 14-12	40/40	2"	7.4 ^{MT III} MSE	"	"	"	"	A		EXP=58 ^m	fine
" 14-12	40/40	2"	6.0 ^{MSE} MSE	"	"	"	"	B		EXP=10 ^m	weak

2 Large Tours
Sat-Sun

Emulsion Batches:
Ri SEPT 13 8 41 AM '68 P II-O-E 20012-08092

Date Sept 11/12, 1982 Observers BJE-TN

Emulsion Batches:

Pa-O-E 20012-08092

[illegible]

Spectr. Temp. ... 68°F

Dome Temp./Hum. 65°F./90%

Transparency Conditions *19.4.4.3* 60

60

Focus 507

Spectr. Temp. ... 67° F

Dome Temp./Hum. 63°F/100%

Comparison e/Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1/10	10-10-68	200/200	2"	5.5	F5 II	BC	830/68	BS	II-DE	A	Waterloo		
1	10-10-68	80/80	"	5.5	K2 III	"	"	"	"	B	"		
1	10-10-68	80/80	1 1/2"	6.5	M0 III	"	"	"	"	A	"		
2	10-10-68	200/		7.3	K1 III	BC	830/68	BS	"	B	Waterloo	too faint	
1/10	10-10-68	80/80	2"	6.7	K5 III	BC	830/68	BS	II-DE	A	Waterloo		comp wk sl wk
1/10	10-10-68	200/200	1 1/2"	6.9	F1 IV	"	"	"	"	B	"		wk comp Fine
1	10-10-68	80/80	2"	2.2	K2 III	"	"	"	"	A	Std. Vol.		comp sl wk Fine

Date Sun-Mon 12/13 Sept... Observers Blu-Tr-Ellis...
1982

Emulsion Batches:
Rt SEPT. 13 BnW @ 68°F II. DE. 20012-08092

[illegible]

92

Spectr. Temp. 75°F.....

Dome Temp./Hum. 74°F/80%

Transparency Conditions Very Hazy.....

62

Focus 506.....

Spectr. Temp. 74°F.....

Dome Temp./Hum. 67°F/100%

Comparison
Filter Exp.

1/19-N

IND. K-K

1 K-K

0-0-3

0

0

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	830/68	BS	IIa-O	A		T=75°F too wk to goal measure	OK wk
40/39	2-3	3.9	K2III	BC	830/68	BS	IIa-OE	A	Std. Vel.		wk comp Fine
40/45	2-3	4.59	B3V	"	"	"	IIa-OE	B	SB-B/n		wk comp Fine Exp
40/45	3+	5.35	B5Vp	"	"	"	"	A	SB B/n		wk comp
							IIa-OE				

63

Sept 14 R. Ennebe

Emulsion Batches:

ΠαΟΕ 20012 - 10092

*HOF 20012 - 13092

Date Mon: Tues., Sept. 13-14/82 Observers Gus - Tr

[illegible]

0092
092

64

Transparency Conditions *Hazy-foggy*..... 64

292

9

41

Slicer Comp Illumination $\frac{1}{2}$ looked centered for both 1 & 2

[illegible]

65

Emulsion Batches:

Da-OE 20012-13092

Date Sept 14 Observers JL[illegible]

Spectr. Temp. Dome Temp./Hum.

[illegible]

Emulsion Batches:

Emulsion Batches:
SEPT 20 R18mw@68°F IIoF. 20012-13092...

Date SAT SUN SEPT 18-19 Observers BK - K1

[illegible]

Spectr. Temp. ... 61°F

Dome Temp./Hum. 53°F... 63%

Transparency Conditions ... good

68

Focus ... 510

Spectr. Temp.

Dome Temp./Hum. 44°F... 95%

40/25

Compans ype/Filtet Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/- 19-2					B.C.	830/.68	B.S.	IIAD-E	A			cent fairly Red
Fe/ND 10-0	80/80	3-4	5.2	G8V	B.C.	830/.68	B.S.	IIAD-E	B	STD VEL		Fine
Fe/ND 10-0	200/200	4	6.17	K2	B.C.	830/.68	B.S.	IIAD-E	A	CFP/EUNUS		Fine
								IIAD-E				
Fe/ND 10-0	200/200		5.6	F8	B.C.	830/.68	B.S.	IIAD-E	B	Waterloo	T=57°F F=512	Fine
Fe/ND 10-0	400/500	3	7.3	K2	B.C.	830/.68	B.S.	IIAD-E	A	-11-		Fine
Fe/ND 10-0	400/500		7.3	K1	B.C.	830/.68	B.S.	IIAD-E	B	-11-	T=54°F	Fine
Fe/ND 10-0	400/400		7.5	F2	B.C.	830/.68	B.S.	IIAD-E	A	-11-	T=52°F F=513	Fine
Fe/ND 10-0	40/50		5.4	K3	B.C.	830/.68	B.S.	IIAD-E	B	-11-	T=50°F F=514	Fine
Fe/ND 10-0	40/40		4.6	F7	B.C.	830/.68	B.S.	IIAD-E	A	-11-	T=49.5°F F=514	cent fairly Red
Fe/- 11-6								IIAD-E	B			

70

Dome Temp./Hum. 59°F / 99%

40/26

4810

Emulsion Batches:

Date Mon-Tues 20-21 ^{Sept} Observers Rm - Ri ^{SEPT}

Trak E 20021-18092...

[illegible]

Spectr. Temp. 59°FDome Temp./Hum. 56°F 75%

Transparency Conditions

72

Focus 510

Spectr. Temp.

Dome Temp./Hum. 54°F 93%

45233

Comparison
pe/Filter Exp.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
-44		-	-	13C	830/.68	135	IIaOE	A			central
209/200	2-3	6.2	F2	"	"	"		B	Ceph/Evans		Fine
900/333		7.9	FSI-II	"	"	"	IIaOE	A		CLOUDS	Fine

73

Sept 23/24

Date Thurs/Fri..... Observers Ly-Tn-Stagg & wife

8^m 68° *IL-DE 20012...18092
 DE-DE 20012-20092
 DE-DE 09061-04092

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.	Exp. Mtr.
47130 ✓	HD157482	17 18.6	+40° 04'	19:51	21:23	03 55W	+40 00	Fe/-	6-6	200/265
47130 I	Spot Coll for 47131-35,			15min 15V H ₂	3900	D4	D3	D2		
47131	HD1337	00 12.4	+50 53	22:20	23:18	01 06E	+51 21	Fe/-	6-6	80/102
47132	"	"	"	23:19	00 05	00 19E	"	"	6-6	80/112
47133	HD 6582	01 01.6	+54 26	00 08	00 43	00 31E	+54 49	"	6-4	40/60
47134	HD352 (5 Ceti)	00 03.1	-03 00	00 49	03 39	03 25W	-02 31	"	4-4	40/180
47134 F	focus					00 02W	-02 31	"	14-14	
47135	HD33328	05 04.4	-08 53	03 50	04 37	00 36E	-8 45	"	8-8	40/93
47135 I ✓	Spot Coll for 47135-			15min @	D4 3900	17.5V 15V	15V	15V		
						4300	4810			

Spectr. Temp. 60°F Dome Temp./Hum. $58^{\circ}\text{F}/85\%$

Transparency Conditions ... Hazy ... some cloud

Focus 508 Spectr. Temp. 56°F Dome Temp./Hum. $110/76$

humid

74

Comparison
pe/Filter Exp.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
- 666 200/265	2	6.2	df8	Bc	1200/-0.025	B5	IIaOE^*	A	SB-Ly.	No spot C/ for this set 508.	comp str s/wk
							IIaOE			Pause to repair DFC drive.	comp s/wk
- 666 80/102	2	6.1	09III	Bc	1200/-0.025	B5	IIaOE	A	MSB-Ly.		
" 666 80/112	2-3"	"	"	"	"	"	"	B	"	* Note KK red end missing C1*	vs/wk
" 64 40/60	1-2"	5.8	65Up	"	"	"	"	A	KK p.m.	T=58°F set 509	s/wk
" 444 80/180	2	7.3	gK2	"	"	"	"	B	SB-Ly.	cloud	u/wk
" 144				Be.	1200/-0.025	B5	IIaOE^*	A		T=56.5°F	comp vs/blue
" 88 40/93	2"	4.3	B2IV	"	830/.68	B8	IIIg-JE	B	Be-Bln.	set 512 cloud	comp str s/wk
							"			general fog	

75

Date Wed-Thurs, Sept. 29-30/82 Observers Gis.-Tn.-Renss.-Bois.

Emulsion Batches:

II a-QE... 20092 - 20092

.....

.....

[illegible]

Spectr. Temp. $+61^{\circ}\text{F}$

Dome Temp./Hum. 58°F/87%

Transparency Conditions *Hazy to foggy*.....

76

Focus ... 510

Spectr. Temp. 4590° F.....

Dome Temp./Hum. 54°F / >100%

Comparison	
e/Filter	Exp.

— 100 —

210 A-

1710 10-10.

02

211

[illegible]

77

Date Thurs. - Fri. Sept. 30 - Oct. 1 / 82 Observers Gis. Th. Anderson

Emulsion Batches:

H&O.E. 20012 - 20092

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.	Exp. Mtr.
47138F	Focus test					0 ^h 05 ^m W	+4° 34'	Fe/-	14-14	
47138	HD 161096	17 ^h 38 ^m .5	+4° 37'	18:38	18:43	1 20 W	+4° 35'	Fe/ND6	14-14	40/43
47139	HD 189957	19 57.6	+41 43	18:50	21:04	1 19 W	+41° 57'	Fe/ND.6	10-10-10	400/350
47139T	Spot Cal. for	47138 -	45		15 min @ 15V	04 3900	D3 4300	D2 4810		
47140	HD 201910	21 ^h 07 ^m .5	+40° 47'	21:10	22:37	1 46 W	+41° 06'	Fe/ND6	10-10-10	400/360
47141	HD 203064	21 14.7	+43 31	22:45	22:55	1 58 W	+43° 52'	Fe/ND.6	14-14	40/35
47142	HD 210839	22 08.1	+58 55	23:00	23:13	1 23 W	+59 19	Fe/ND6	14-14	40/35
47143	HD 4142	00 38.9	+47 19	23:16	23:37	0 45 E	+47 46	Fe/ND.6	14-14	40/35
47144	HD 220057	23 15.7	+60 37	23:41	01:26	2 27 W	+61 03	Fe/ND.6	10-10-10	1/175
47145	HD 24912	3 52.5	+35 30	01:32	01:38	1 59 E	+35 44	Fe/ND.6	14-14	40/39

Spectr. Temp. 63.5°F

Dome Temp./Hum. 63°F / 81%

Transparency Conditions / Hazy - cloudy - foggy

78

Focus 509

Spectr. Temp. 62°F

Dome Temp./Hum. 57°F / 100%+

Comparison
/Filter Exp.

1- 14-1-

/NO.6 1-1-

NO.6 1-1-

2

10

NO.6 1-1-

NO.6 1-1-

NO.6 1-1-

/NO.6 1-1-

NO.6 1-1-

NO.6 1-1-

NO.6 1-1-

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC.	830/68	BS	IIaO	A			right on
40/43	1"	3.9	K2III	"	"	"	IIaO-E	A	Std. Velocity		fine
400/350	1"	7.83	B0II	"	"	"	"	B	Runaway*		good
							"				
400/360	1"	7.27	B5I	BC	830/68	BS	"	A	Runaway*	T=63°F	fine
40/35		4.98	O8I	"	"	"	"	B	Runaway*		fine
40/35	2"	5.29	O6f	"	"	"	"	A	Runaway*		fine
40/35	2	5.53	B5I	"	"	"	"	B	Runaway*		
200/175	2	6.94	B2II	"	"	"	"	A	Runaway*		good, but bgd uneven v sl smog
40/39	1-2"	4.04	O7	"	"	"	"	B	Runaway*		

Emulsion Batches:

१६४

ИАОЕ 2002-24092

Date Fri.-Sat., Oct 1-2 /82. Observers Gis-Tn-Oates

Spectr. Ten

Focus \$

Spectr. Ten

[illegible]

992

Spectr. Temp. 63°F

Dome Temp./Hum. $61^{\circ}\text{F}/83\%$

Transparency Conditions *Fine... some cloud*

80

Focus 5.10

Spectr. Temp. 50°F

Dome Temp./Hum. $43^{\circ}\text{F}/94\%$

Comparison
Filter Exp.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				B.C.	830/.68	BS	IIaO	B			no stellar
40/46	3"	3.9	K2 III	"	"	"	IIaO E	B	Std. Velocity		fine
400/350	3.2"	7.93	O5f	"	"	"	"	A	Runaway*		good but fingerprints
							"				
400/325	3"-4"	7.85	B1.5V ₂	B.C.	830/.68	BS	"	B	Runaway*	T=60°F F=511	fine
400/355	3"	7.01	B2V	"	"	"	"	A	Runaway*	T=55°F <i>* broken (1 pc sound)</i>	many marks
400/350	3.2"	7.47	B6V	"	"	"	"	B	Runaway*		fine
400/175	2.3"	6.18	O9.5 I	"	"	"	"	A	"	T=51°F F=512	v st strong
20/100	"	5.71	B2 II-III	"	"	"	"	B	Runaway*		v st strong

Emulsion Batches:

8th 68th ... IInd E... 20012-24092

Date Sat-Sun Oct 2-3/82 Observers Crw-Tn

[illegible]

Sun - Mon

Emulsion Batches:

5^m 68°
8^m 68°

IIIes 2 1/2° 8% H₂ 20°C
 Jir. DE. 20012 - 03102

Spectr. Temp.

Focus

Spectr. Temp

[illegible]

Exp. Mtr.



450

10/10/20

1

08/07

501

18)

43/97

406

100

and

170

40/10

Spectr. Temp. ...59°F.....

Dome Temp./Hum. 51°F / 90%

Very wet indoors
It dried out nicely in a few hours

84

Comparison	
Type/Filter	Exp.

MR 900R ~ 80 people looked @ M15

Date Wed.-Thurs. Oct 6-7 / 82 Observers Gis - Ri

8th 6th Emulsion Batches:
HaOE 20012-03102... 20 1.70

[illegible]

Spectr. Temp. 69°F Dome Temp./Hum. $61^{\circ}\text{F}/84\%$ Transparency Conditions *MALY AND GETTING TALLER*Focus *509*Spectr. Temp. 61°F Dome Temp./Hum. $56^{\circ}\text{F}/98\%$ *40/32*

Comp. anson pe/Filte Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
<i>12-2</i>					BC.	830/.68	BS	Π_{00}	A			
<i>15-10</i>	40/42*	3"	4.1	K3 II	"	"	"	$\Pi_{00}E$	B	Std. Velocity	* On radium dot	sl weak
<i>15-10</i>	80/70		4.98	08 I	"	"	"	"	A	Runaway*		fine
<i>15-10</i>	80/70		5.29	06 f	"	"	"	"	B	Runaway*		good
<i>D2 +910</i>								$\Pi_{00}-E$				
<i>15-10</i>	400/300	3-4	7.27	B5 II	B.S.	830/.68	B.S.	$\Pi_{00}-E$	A	Runway*	BROKEN 2 PIECES $\frac{1}{2}"$	good
<i>15-10</i>	400/350		5.53	B5 II	"	"	"	"	B	Runaway*	T=62° F=510	fine
<i>15-10</i>	80/90		5.34	B2 II	"	"	"	"	A	SB-Bln	Cloud	fine
<i>15-10</i>					"	"	"	"	B		had plate T=61°F F=510	

87

Date Fri-Sat, Oct. 8-9 / 82 Observers Gus - Ri - Anderson

Emulsion Batches:

8th 6th

IIa O.E. 2002-06102.

[illegible]

Spectr. Temp. 63°F Dome Temp./Hum. $57^{\circ}\text{F}/89\%$

Transparency Conditions . OCCASIONALLY . CLOUDS

88

Focus 510 Spectr. Temp. 53°F Dome Temp./Hum. $48^{\circ}\text{F}/100\%$ Comparison
Filter Exp.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
400/350	4"	7.39	B2 IV	BC.	830/68	BS	IIaO-E IIaO-E	A	Runaway*		fine
400/350	5"	7.01	B0.5 III	B.C	830/68	BS	"	B	Runaway*	ADJUSTED Fc ARC T=58°F F=511	fine
400/350	4"	7.05	B1 III	"	"	"	"	A	Runaway*	T=56°F F=512	fine
400/350		7.47	B6 V	"	"	"	"	B	Runaway*	T=54°F	fine
200/133	3-4"	7.22	B3 IVe	"	"	"	"	A	Runaway*	T=53°F Cloud	fine
				"	"	"	"	B		T=53°F F=512	sl ned

89

Ri ?

Date Sun. Mon. 10-11 Oct. Observers W. Webber, C. P. YANT

8+68

Emulsion Batches:

Has F 2002-08102... 22 1.83

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.
47174	HD 210839	22 08.1	+58° 55'	23:01	23:10	02' 00 W	+59° 20'	Fe/ND.6 1000	30/70
47175	HD 217811	22 58.2	+43° 31'	23:23	23:48	01 45 W	+43° 57'	Fe/ND.6 1020	200/50
47175F	Focus Test							Fe/- 14-14	
47175T	SPOT CALN FOR PLATES 47174-475			15 MIN @ 1500 LYS		0 04 0 03 0 02 3500 4300 4010			

Dome Temp./Hum. 52°F 93%

Transparency Conditions

Focus 512

Spectr. Temp.

Dome Temp./Hum.

Comparison	
Type/Filter	Exp.

[illegible]

91

Date Wed-Thurs 13-14 Observers Crow-Tn + Steggs

8^m 68°

Emulsion Batches:

Doc. OE 20012 - 38102

• • • • •

.....

[illegible]

Spectr. Temp. ... 57°F

Dome Temp./Hum. 52°F/90%

Transparency Conditions ... partly clear 92

Focus 5.1

Spectr. Temp. ... 50°F

Dome Temp./Hum. 42°F/100%

(New 019)

so so Aurora most of night

Companion
e/Filt. Exp.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
400/420	4"?	7.8	56,6e Mre	BC	830/.68	150/.3	Tao-E	A	Crw-MRAS	EXP = 9.5m ^{cloud}	sl weak
400/405	3-4"	8.6	M4e Mre	"	"	"	"	B	"	EXP = 189m	good
200/260	3"	7.3	M6e Mre	"	"	"	"	A	"	F=513, T=52°F EXP = 80m	fine
1-12"				"	"	150/10	"	B		F=513 T=50	v sl. red

Oci 15-16 1782

Date Fri-Sat Observers Rm-Tn

Emulsion Batches:

Emulsion Batches:
T.O.E. 20012 - 13102.22

[illegible]

3.02 22 1/2

Spectr. Temp. 52°F

Dome Temp./Hum. 48°F/80%

Transparency Conditions cloudy & clear

94

Focus 515

Spectr. Temp.

Dome Temp./Hum.

Comparison
Filter Exp.

* 10-0

810

ND 10-0-10

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
30/20	4	6.2	F2	BC	830/68	BS	II-0E	A	Ceph/EVANS	* mistakenly strong Fe ✓	st-FC good
200/58	4" ~9	G3	BC	830/68	BS	"	"	B	Ceph/EVANS	cloud	wt

95

Sat-Sun

Date 1982/10/16-17 Observers BIn-Tn/KK-Tn

Emulsion Batches:

..... 87. H₂ 2Aⁿ 21°C

Spectr. Ten

Focus...5

Spectr. Ter

[illegible]

Spectr. Temp. 44°FDome Temp./Hum. $35^{\circ}\text{F}/86\%$ inside Transparency Conditions $\text{Fine} \dots \text{cloudy}$ 96
outside off scale 100%+
all nightFocus 512Spectr. Temp. 39.5°FDome Temp./Hum. $32^{\circ}\text{F}/92\%$

Front Aurora seen

Comparison
e/Filter Exp.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
40/90	5"	5.81	GSV	BC	1200/-0.025	BS	IIa-OE	A	Asm Sp/KK		fine
							IIa-OE				
40/70	4"	4.50	A7V	BC	1200/-0.025	BS	IIa-e	B	Asm Sp/KK		vsl str
40/70		5.5	A5m	BC	1200/-0.025	BS	IIa-e	A	Asm Sp/KK		fine
				"	"	"	IIa-O	B		T=40.5 F 512 some cloud	
40/130	3"	4.07	B2IVe	BC	830/.68	BS	IIIa-J	A	Be / Blu	Set 516 T=40.5 * both seemed abit foggy at time.	fine
							"				
40/90	3"	1.9	A0IV	BC	830/.68	BS	"	B	11547 Sp / KK	fing prints	vsl str. good
40/184	2.3"	7.27	K3V	"	"	"	IIa-OE	A	Asm Sp / KK	Clouds	good
				"	"	"	IIa-O	B			

6102

Spectr. Temp. 79°F Dome Temp./Hum. $38^{\circ}\text{F}/83\%$ Transparency Conditions *Some cloud* 98Focus 516 Spectr. Temp. 72.5°F Dome Temp./Hum. $73^{\circ}\text{F}/95\%$ Comparison
e/Filter Exp.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
400/400	1"-2"	7.8	56,6e M7C	BC	830/.68	150/.3	II40-E	A	CMW-MIRAS	EXP=125 cloud @ 160 (21-2)	5/4K
400/200	"	8.6	M7C -M8C	BC	830/.68	150/.3	"	B	Erw MIRAS	cloud EXP=130 ^m	5/4K
				"	"	150/10	II40	B			

Date Oct 18-19 1882 Observers W. L. - T. L.

Emulsion Batches:

Emulsion Batches:

4 ^{pm}	IV-OE	20012-16102	21	1.88
5 ^{pm}	III-Lob	09061-03102	1.84	3+
	89.1M23.6 ^h	21°C		

[illegible]

Spectr. Temp. $+150.5^{\circ}\text{F} \dots\dots$

Dome Temp./Hum. + 50°F / 88%

Dome Temp./Hum. 147°/93%

Transparency Conditions *Hazy - cloudy* 100

Companson pe/Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1/10	12-15	200/200	1"	6.17	F2	BC	830/68	BS	IIa-OE	A	Leph-Rm		Fine
									"				
1/10	12-15	40/120	2"	4.07	B2e	BC	830/68	BS	IIaJ-cb	B	Be Bln	*If important, weight towards cloud gain and exp	high fog over- exposed
									"				
1/10	12-15	40/78	1"	1.9	A012	BC	830/68	BS	"	A	Asm SpA		
1/10	12-15	200/	1"			"	"	"	IIa-OE	A			
1/10	12-15								IIaO	A		Set 512	Fine

Date 1982/10/19-20 Tues/Wed Observers Bl-Tu

Emulsion Batches:
8th 6th... IJa-OE... 20012... 79102... 152
21

[illegible]

Spectr. Terr
Focus... 5.
Spectr. Terr

Exp. Mtr.

Spectr. Temp. 57°F.....

Dome Temp./Hum. 54°F/91%.

Dome Temp./Hum. 53°F/88%

Transparency Conditions *buzz* 102

[illegible]

Date Sat-Sun., Oct. 23-24/82 Observers Gis-Tn

Emulsion Batches:
8th II.O.E. 20012-19102 n 198

[illegible]

2 2 1-98

Spectr. Temp. 47°F

Dome Temp./Hum. 45°F/68%

Transparency Conditions Photometric almost 100

Focus 513

Spectr. Temp. 41°F

Dome Temp./Hum. 37°F/97%

Comparison
Type/Filter Exp

Fe 1- 12-2

Fe 1- 1-1-1

11 1-1-1

D2
4810

Fe 1- 1-1-1

Fe 1- 1-1-1

Fe 1- 1-1-1

Fe 1- 1-1-1

Fe 1- 1-1-1

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC.	830/68	BS	IIaO	A			
40/40	2"	4.1	K3II	"	"	"	IIaO E	A	std vel		Fine
200/175	2.3"	7.83	B0III	"	"	"	"	B	Runaway *		Fine
							IIaOE				
200/175	2.3"	7.93	05F	BC	830/68	BS	"	B	Runaway *	T=47°F	sl wkt
200/178	"	6.94	B2II	"	"	"	"	A	Runaway *	T=44°F F=514	Fine
200/175	"	8.29	095II	"	"	"	"	B	Runaway *		vs wkt
200/175	2"	8.31	095II	"	"	"	"	A	Runaway *		fine
200/140	"	7.61	09II	"	"	"	"	B	Runaway *	T=41°F F=515	fine

Date 1982/10/24-25..... Observers Blu-Tn/
SUN/MON

Emulsion Batches:

8^m 8^m . IIu-OE. 20012...1910.2

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.	Exp. Mtr.
47200F	Focus TEST					00 ^h 05 ^m W	+29° 20'	Fe/-	12-12	
47200	HD 184927	19 ^h 31 ^m .6	+31° 04'	17 51	21:19	03 ^h 34 ^m W	+31 13	Fe/ND	10-10-10	200/254
47200T	Spot Calc for 47200-201				15 min @ 15V	D9 3900	D3 4300	D2 4810		
47201	HD 203516	21 ^h 15 ^m .4	+37° 49'	21 22	22 08	02 44 W	+38° 07'	Fe/ND	10-10-10	200/202

Spectr. Temp. 47.5°F

Dome Temp./Hum. 46/64%

Transparency Conditions *Cirrus (general)* 106
rapid humidity rise 1st half

Focus 5.13

Spectr. Temp. 46°F

Dome Temp./Hum. 40°F/100+%

Comparison
Type/Filter Exp.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				13C	830/68	135	IIa-OE	13		T = 47.5°F	sl recd
200/254	1.4	7.30	132Vp	13C	830/68	135	IIa-OE	13	He-12ich*	^{note} broken 2 pcs saved	Fine
							IIa-OE			T = 46°F	
200/202	2.3	6.17	F2	BC	830/68	135	IIa-OE	A	Capheid-Rm		fine

Mon-Tues

Date 1982 Oct 25-26 Observers W.R.-T.H.

 8^m 6^s Emulsion Batches:
 IIa-0E 20012-19102
 A^{1/2} 6^s IIIa-10B 09061-06102

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.	Exp. Mtr.
47202	HD 186791	19 41.5	+10 22	17 48	17 58	0 11W	+10 34	Fe/ND	12-12	40/40
47203	HD 187567	19 45.4	+7 39	17 59	19 32	1 42W	+7 49	"	12-12-10	200/182
47203T	Spot Calc for 47202-08,10,12			15 min @ 15V		D4 3900	D3 4300	D7 4810		
47204	HD 197419	20 38.5	+35 06	19 36	20 17	1 34W	+35 22	Fe/ND	10-10-10	200/175
47205	HD 217811	22 58.2	+43 31	20 19	20 54	0 09E	+43 56	"	10-10-10	40/50
47206	HD 214930	20 36.6	+23 19	20 58	22 46	2 04W	+23 44	"	10-10-10	200/180
47207	HD 3950	0 37.0	+51 48	22 49	23 28	0 ^h 40W	+52° 13'	"	10-10-10	80/77
47208	HD 11606	1 48.8	+58 47	23 27	00 05	0 10W	+59 09	"	10-10-10	80/72
47209	HD 33328	5 4.4	-8 53	00 12	00 53	2 16E	-8 47	Fe/-	10-10-10	40/125
47209T	Spot Calc for 47209, 11, 13			15 min @ D4	17.15V 3900	15V 4300	15V 4810			
47210	HD 25799	4 00.3	+32 06	00 57	01 57	0 09E	+32 18	Fe/ND	10-10-10	80/100
47211	HD 33328	5 4.4	-8 53	02 01	02 28	0 41E	-8 47	Fe/-	13-13	40/125
47212	HD 37017	5 30.4	-4 34	02 31	03 25	0 09E	-4 31	Fe/ND	13-13	1/100
47213	HD 33328	5 4.4	-8 53	03 28	03 58	0 50W	-8 47	Fe/-	13-13	40/129
47213F	Focus Test					1	"	"	13-13	

Spectr. Temp. ... 50°F

Dome Temp./Hum. 50°F/50%

Transparency Conditions ... Cloudy, sort of 108

Focus ... 5.12

Spectr. Temp. ... 47°F

Dome Temp./Hum. 47°F/100%

Then Fine,
Very good Aurora seen, Red splashes

Comparison pe/Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
2-12	40/40	2"			BC	830/68	BS	II-0E	A	std vel		Fine
2-12	200/182	2"	6.42	B25V	BC	"	"	"	B	Runaway		Fine
2-12	200/175	1.3"	6.52	B2V	BC	830/68	BS	"	A	Runaway		Fine
2-12	40/50	"	6.38	B2V	"	"	"	"	B	He-Bln		Fast Fine
2-12	200/180	"	7.39	B2V	"	"	"	"	A	Runaway		Fast Fine
2-12	80/77	"	7.05	B1V	"	"	"	"	B	Runaway	50°F	Fine
2-12	80/72	"	7.08	B2V	"	"	"	"	A	"		slow
2-12	40/125	2.3"	4.07	B2V	"	"	"	III-0E	B	Be-Bln	48°F	fine
2-12	80/100	1.3"	7.11	B2V	BC	830/68	BS	II-0E	A	SB Bln	broken 1 pc seal	Fast Fine
2-12	40/125	2"	4.07	B2V	"	"	"	III-0E	B	Be-Bln		fine
2-12	80/100	2"	6.42	B2V	"	"	"	II-0E	A	B2Vp		Fine
2-12	40/134	3"	4.07	B2V	"	"	"	III-0E	B	Be-Bln		fine
2-12					"	"	"	II-0E	A			

Date Tues-Wed., Oct. 26-27/82 Observers Gris-Tn

8^m 68°

Emulsion Batches:

Ил-О.Е. 20012-26102 23 181

Spectr. Ter

Focus . . . 5

Spectr. Ten

[illegible]

102 23 81

Spectr. Temp. 54° Dome Temp./Hum. $+52^{\circ}\text{F}/62\%$ Transparency Conditions *sl. hazy*

L10

Focus *511*Spectr. Temp. 49°F Dome Temp./Hum. $+42^{\circ}\text{F}/99\%$ Comparison
e/Filter Exp.

- 13-12

102 23 81

102 23 81

102 23 81

102 23 81

102 23 81

102 23 81

102 23 81

102 23 81

102 23 81

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	830/68	BS	IIa-0	A			
40/44	1"	4.1	K3II	"	"	"	IIo-0E	A	Std. Velocity	some length still end broke in ragged fashion.	* Fine
200/175	1"	7.93	05F	"	"	"	"	B	Runaway*		vs 1 wk
200/175	1"	7.26	B05IV	BC	830/68	BS	"	A	Runaway*		Few wk sl wk
200/178	1"	7.01	B05III	"	"	"	"	B	"	* Possibly 400 grain	sl wk
40/37	1"	6.94	B2IV	"	"	"	"	A	"		Fe sl wk Fine
80/72	1"	7.01	B2I	"	"	"	"	B	"		Fe sl wk Fine
200/175	1"	8.29	095III	"	"	"	"	A	"	bad Label - It's the one T = 53°F with 1" off blue	sl wk
200/175	<1"	8.31	095IIIn	"	"	"	"	B	"		Fine
200/205	2"	7.22	B5IIne	"	"	"	"	A	"	T = 51°F	Fe 512 Fine

(* All Fe Are Comps at least)
sl wk

Date Wed-Thurs Oct 27-28/80 Observers KK-RJ

9^m 67° Emulsion Batches:
TaoE 20012-27102 21 188

[illegible]

2 21 188

Spectr. Temp. 55°F

Dome Temp./Hum. 50°F ... 81%

Transparency Conditions ... cirrus streaks 112

Focus 510

Spectr. Temp. 53°F

Dome Temp./Hum. 46°F ... 100%

Companion
de/Filter Exp.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
40/30	1"	4.4	MSI-E	BC	830/.68	150/3	IIa0-E	A	Std Vel.	d'Hen, tried to keep comp of slit	fine
800/55		10	MSV	-	-	-	-	B	Asm-Sp/ICK	aborted - too slow	vv weak
							IIa0-E				
800/604	1"	8.07	MI-E	BC	830/.68	150/3	IIa0-E	A	Asm-Sp/KIC		good v si flex
						150/1.0	IIa0-E	B		too hurried	v sl blue

Date Fri/Sat Oct 29/30 Observers Wh/Ra

Emulsion Batches:
 $3^m 65^o$ Two-E 20012-27102
 $4\frac{1}{2}^m 60^o$ Two-Eb - 26102

21 186

19200

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.
47226	HD 203156	21 ^h 15 ^m .4	+37° 49'	21 ^h 41 ^m	22:25	34 21 W	+38° 09'	Fe/ND6	10-10-10
47226T	SPOT CALN' FOR PLATES 47226-27.					15 MIN @ 1500 LTS	D4 @ D3 D2 3900 4300 9810		
47227	HD 220057	23 15.7	+60° 37'	22:31	23:29	02425 W	+61° 03'	Fe/ND6	10-10-10
47228	HD 33328	05 ^h 04 ^m .4	-8° 53'	23:38	00:45	02408 E	-08 47'	Fe/-	10-10-10
47228T	SPOT CALN' FOR PLATE 47228				15 MIN @ D4	D 17.5U 3900	D 15U 4300	D 15U 4810	
47228F	FOCUS TEST							Fe/-	13-13
47228T2	SPOT CALN' NEW II20 batch					4300 15 ^m 1500 LTS	D3		

Spectr. Temp. ... 55° F.

Dome Temp./Hum. $52^{\circ}\text{F.} / > 100\%$

Transparency Conditions . . . *Hazy + Cirrus* 114

114

Comparison Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
N2 - 10-11- D 2 710	200/200	2-3"	B =6.17	F2	BC	830/.680	BS	IlaOe	A	Rm - Ceph.		* Fine
								IlaO-E			* Fe Arc s/wk	
UO - 10-11- L - 10-10- 15- 4910	200/175		6.94	B2IV	B.C.	830/.680	B.S.	IlaO-E	B	Runway		* Fine
	80/250	3-4	B =4.07	B2 IV	B.C.	830/.680	"	IIIaJ-eB	A	Blu - Be		s/wk
								IIaJ - eb			only B stars	
Fe - 13-3								IlaO-E	B		Humidity too high. to work	Oat vs blue

New Unexp D40 box

put in vacuum

2. 6 Maj strips

26102

in new

• Emulsion Batches:

Emulsion Batches:

Date Sun.-Mon, Nov. 7-8/82 Observers GIS - Tn

[illegible]

Spectr. Temp.

Dome Temp./Hum. 47°F/.....

Transparency Conditions . . . *Hazy . . . cloudy . . . gusty . . .* 116

116

[illegible]

Mon-Tues

Date Nov. 8-9/82 Observers .. MG-Tn

Emulsion Batches:

... Dia-0E... 20012-27102 23²⁰⁰
 * Dia-0E... 20012-07112

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.	Exp. Mtr.
47233	HD 206 901	21 40.1	+25 11	19.20	20 12	1 22 W	+25 32	Fe/-	5-5	20/163
47234	HD 221 264	23 25.5	+30 18	20 20	22 50	2 14 W	+30 44	Fe/ND	15-15	20/103
47234T	Spot C/L	for 47233-39		15min @ 15V		DA 3900	D3 4300	D2 4810		
47234F	Focus Test					2 18W	+30 44	Fe/-	10-10	
47235	HD 6582	01 01.6	+54 26	23 28	23 57	1 45 W	+54 49	Fe/-	6-6	20/70
47236	HD 6961	01 05.0	+54 37	00 02	00 21	1 51 ^x W	+55 02	"	6-6	20/62
47237	HD 29316	04 32.0	+53 17	00 25	00 59	0 45 E	+53 25	"	6-6	20/69
47238	HD 47105 ^{8 Gen}	06 31.9	+16 29	01 04	01 07	2 35 E	+16 25	"	6-6	20/60
47239	HD 56986 ^{8 Gen}	07 14.1	+22 10	01 15	01 24	3 00 E	+22 01	"	6-6	20/71
47240	HD 35317	05 18.8	-00 58	01 36	03 59	1 32 W	-00 50	Fe/ND	15-15	200/256
47240T	Spot C/L	for 47240		15min @ 15V		DA 3900	D3 4300	D2 4810		
	HD 74874	08 41.5	+06 47	04 03			+06 30			40/

Spectr. Temp. 43.....

Dome Temp./Hum. 54°F / 75%

Dome Temp./Hum. 37°/92%

Transparency Conditions *SI Hazy - cloudy*.....

118

[illegible]

119

Tues-Wed

Date Nov 9-10 / 1982 Observers Rm-Th / MG-Th

8^m 60^o

Emulsion Batches:

...Do OE 20012-07112

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.
47241	4520318=48Y157	21 15.4	+37° 49	18 127	19 48	1 28 W	+38 08	Fe/ND	-12 12
47241 T	For 47241-46	15 min @ 15V		D4 3900	D3 4300	D2 4810			
47242	HD 16907=TWQCS	22 37.6	+65° 18	20 44	20 02	00 15 W	+65 39	Fe/ND	13-15-13
47243	HD 217282=2 And	22 58.0	+42 13	00 12	01 04	05 00 W	+42 37	Fe/ND	5-15?
47244	HD 217475=0 And	22 57.3	+41 47	01 06	01 35	05 32 W	+42 12	Fe/ND	6-18
47245	HD 56986	7 14.1	+22 10	01 42	02 18	02 03 E	+22 00	Fe/-	7-7
47246	HD 42105	6 31.9	+16 29	02 20	02 27	01 11 E	+16 23	"	5-6
47247	HD 66751	7 59.9	+70 0	02 33			+69 45	"	4
47246F	Focus Test					0		Fe/-	7-7

Spectr. Temp. 143°F

Dome Temp./Hum. 138°F/86%

Transparency Conditions Semi cloudy - cirrus 120

Focus 514

Spectr. Temp. 135°F

Dome Temp./Hum. 130°F/90%

Comparison
pe/Filter Exp

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
220/220	3"	6.2	F2.1	BC	830/.68	BS	LoOE	B	Apk/Evano		Fine
							LoOE				
400/245	3"-2"	8.4	B9+G	"	"	"	"	B	Rm	* Comp timer allowing ore to fire longer cloud	vs/ltk ut Fe Fine
30/130	3"	5.17	A2	"	1200/-0.25	"	"	A	ASH Sp KR		Fine
30/76	3"	3.6	B6p	"	"	"	"	B	"	cloud	Sl/ltk
30/150	3"	3.9	FOIV	"	"	"	"	A	"		Fine
48/71	2"	1.9	A0IV	"	"	"	"	B	"		Fine
400/											
				BC	1200/-0.25	BS	LoOE	B		soaked in set 514 T=35°F	* but OK
										* Hartman must probably faulty (do not use this fans test)	

Man-Tues

Date Nov. 15/16, 92 Observers Are - T4.....

Emulsion Batches:

A12 098-02E 05031 - 15112

..... 29 192

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.	Exp. Mtr.
47247	HD 179315	19 ^h 7 ^m 0	+4° 11	17:53	19:54	4 ^h 06 W		Fe/- 3-6 Ne/- 6-10		400/99
47247T	Spot Col'd for 47247-50				15 min @ 4810	15V D3 7V D1 H2	7V D2 5450			
47248	HD 201078	21 ^h 02.3	+30° 47	20:07	21:40	3 ^h 56 W	+31 05	Fe/- 4-4-4 Ne/- 8-8-8		200/110
47249	HD 9250	1 ^h 25.9	+63° 04	21:45	01:27	3 18 W	+63 30	Fe/- 4-4-4 Ne/- 8-8-8		200/77
47250	HD 31964	4 54.8	+43° 41	1:32	1:55	0 16 W	+43° 46	Fe/- 6-6-6 Ne/- 11-11		40/21

Transparency Conditions *5/ hazy - cloudy*.....

Spectr. Temp. 32°

Dome Temp./Hum. *+27°F / 92%*[illegible]

Date Nov. 16-17/82 Observers Kan-14-Schmitt

8-4 Emulsion Batches:
II-O-E... 20012-10/12 22 185

[illegible]

[illegible]

Emulsion Batches:

8W

IIa-0E 22012-10112 21 196

Date Wed.-Thurs. Nov. 17-18/82 Observers Gis-Ri

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.	Spectr. T.
47253F	Focus Test					0 ^h 06 ^m W	+10° 30'	Fe/-	15-15	Focus..
47253	HD 186791	19 ^h 41.5	+10° 22'	17:20	17:23	1 06 W	+10° 33'	Fe/ND.6	18-18	Spectr. T.
47254	HD 189957	19 57.6	+41 43	17:28	19:30	2 59 W	+41° 57'	Fe/ND.6	12-12-12	
47254T	SPOT CML FOR PLATES 47253-60,					15 MIN @ 150 VOLTS	3900	4300	4800	
47255	HD 214930	22 ^h 36.6	+23° 19'	19:34	21:17	2 ^h 05 ^m W	+23° 44'	Fe/ND.6	12-12-12	
47256	HD 3950	0 37.0	+51 48	21:21	22:18	1 06 W	+52° 13'	Fe/ND.6	12-12-12	
47257	HD 14220	2 12.8	+52 07	22:22	23:35	0 45 W	+52° 28'	Fe/ND.6	12-12-12	
47258	HD 37737	5 35.7	+36 09	23:42	2:16	0 04 W	+36° 10'	Fe/ND.6	12-12-12	
47259	HD 39680	5 49.0	+13 49	2:19	5:01	2 38 W	+13° 50'	Fe/ND.6	12-12-12	
47260	HD 37657	5 35.1	+43 00	5:05	6:44	4 34 W	+43° 02'	Fe/ND.6	12-12-12	
47260F	Focus Test							Fe/-	15-15	

Spectr. Temp. 42°F Dome Temp./Hum. $40^{\circ}\text{F}/64\%$

Transparency Conditions

Focus 514 Spectr. Temp. 38°F Dome Temp./Hum. $34^{\circ}\text{F}/100\%$ $40/36$ Comparison
e/Filter Exp.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
- 15-5				BC	830/.68	BS	IIa0	A			OK
ND-6 18-18	40/45	2"	4.1	K3II	"	"	IIa-0E	B	Std. Vebuty		Fine
ND-6 12-12 D3 02 30 40.0	400/350	2-3	7.83	B0III	"	"	"	A	Runaway*		fine
							IIa-0E				
ND-6 12-12	400/350		7.39	B2II	BC.	830/.68	BS	B	Runaway*	T=42°F	fine
ND-6 12-12	200/175		7.05	B1III	"	"	"	A	Runaway*	T=41°F	fine
ND-6 2-12	200/178		7.01	B2V	"	"	"	B	Runaway*	T=40°F F=515	Fine
ND-6 12-12	400/350	3	8.31	095Ihe	"	"	"	A	Runaway*	T=39°F	fine
ND-6 12-12	400/350	3	8.01	065Ihe	"	"	"	B	Runaway*	T=38°F F=516	fine
ND-6 2-12	400/335		7.22	B3Ihe	"	"	"	A	Runaway*	T=38°F	fine
- 15-5				"	"	"	IIa0	B		T=38°F F=516	vs blue

Date THURS-FRI Nov 18-19 Observers ARE-P./Blh.-Ri.

Emulsion Batches:
 $4\frac{1}{2}$ "-08 098-02E-05031-15112 33 190
 $4\frac{1}{2}$ "-68 09061-09112 221
 $8\frac{1}{2}$ "-E 20012-16112.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.	Exp. Mtr.
47261F	FOCUS TEST							Fe/-	15-15	
47261	HD179315	19 ^h 7.0 ^m	+4° 11'	17 ^h 30 ^m	19 ^h 44 ^m	04 ^h 06W	+04 19'	Fe/- Nd/-	3 6 7 14	800/135
47261F	SPOT CALIB' FOR PLATES 47261-47266			15 MIN	15003 4010	70 DI Hx	70 D2 5450			
47262	HD9250	1 ^h 25.9 ^m	+63° 04 ^m	19 ^h 54 ^m	22 ^h 15 ^m	00 ^h 16W	+63° 28'	Fe/- Nd/-	3-3-3 7-7-7	400/286
47263	HD217476	22 ^h 55.9 ^m	+56° 25'	22 ^h 22	22 ^h 45	3 ^h 20W	+56° 50'	Fe/- Nd/-	3-3-3 7-7-7	80/40
47264	HD224014	23 ^h 44.4 ^m	+56° 57'	22 ^h 57	23 ^h 07	2 ^h 47W	+56° 23'	Fe/- Nd/-	3-3-3 7-7-7	80/40
47265	HD7927	1 ^h 13.8 ^m	+57° 42'	23 ^h 12	23 ^h 27	1 ^h 42 W	+58° 07'	Fe/- Nd/-	3-3-3 7-7-7	80/40
47266	HD 31964	4 ^h 54.8 ^m	+43° 41'	23 ^h 32	23 ^h 40	1 ^h 46 E	+43° 45'	Fe/- Nd/-	3-6 7-14	40/20
47267	HD 33328	05 ^h 04.4 ^m	-8° 53'	23:53	00:20	1 15 E	-8° 46'	Fe/-	13-13	40/151
47268	HD 25799	04 ^h 00.3 ^m	+32° 06'	00:27	01:45	1 14 W	+32° 20'	Fe/ND	12-12-12	220/250
47268T1	SPOT CALIB' FOR PLATES 47267-70, 72.				15 MIN @ 04	0 17.5V 3900	0 150 4300	0 150 4810		
47268T2	SPOT CALIB' FOR PLATES 47268-69, 72.				15 MIN @ 15 VOLTS	0 04 3900	0 03 4300	0 02 4810		
47269	HD 37017	05 ^h 30.4 ^m	-4° 34'	06:49	02:55	00:54 W	-4° 31'	Fe/ND	12-12-1	80/100
47270	HD 33328	05 ^h 04.4 ^m	-8° 53'	02:58	03:40	02:06 W	-8° 48'	Fe/-	13-13	40/150
47271	HD 37468	05 ^h 33.7 ^m	-2° 39'	03:45	04:03	01:59 W	-2° 37'	Fe/-	13-13	40/132
47272	HD 37776	05 ^h 35.9 ^m	-1° 32'	04:06	04:55	02:50 W	-1° 32'	Fe/ND	12-12-1	220/55

Spectr. Temp. 43°F Dome Temp./Hum. 40°F 88%

Transparency Conditions

*Lazy & some
scattered clouds*

128

Focus 513 Spectr. Temp. 42°F Dome Temp./Hum. $36^{\circ}\text{F}/100\%+$

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				B.C.	1200/.70	150/.10	098-02	A		BROKEN 2 PIECES	OK
800/185		7.69	G2Ib	"	"	150/.10	098-02	B	Are Prog	REMOVED FILTER HALFWAY THROUGH EXPOSURE	WK
							098-02				
400/286	2-3	7.3	G0Ib	"	1200/.700	150/.5	098-02	A	"	NO FILTER	Fine
80/40		4.99	G0Ia	"	1200/.700	150/.5	098-02	B	"	V FILTER ON <i>clouds</i>	Fine
80/40		4.95	F8Ia	"	1200/.700	150/.5	098-02	A	"	V FILTER ON	Fine
80/40		4.95	F0Ia	"	1200/.700	150/.5	098-02	B	"	"	gng Fine
40/20		2.99	F0Ia	"	1200/.700	150/.5	098-02	A	"	"	fine
40/15	2	4.07	B2IVe	BC	830/.68	BS	IIIa-Jeb	A	Be-Bln	T = 42°F F = 514	sl strong
200/250		7.11	B2V	BC	830/.68	BS	IIa-Oe	B	SB-Bln		sl strong dust?
							IIIa-Jeb				
							IIa-Oe				
80/100		6.42	B2Vp	BC	830/.68	BS	IIa-Oe	A	He-Rich	T = 42°F	Fine
40/150		4.07	B2IV	BC	830/.68	BS	IIIa-JEB	B	Be-Bln		Fine
40/132		3.51	095V	BC	830/.68	BS	IIIa-JEB	A	SB-Bln		sl. strong dust? wide, unob.
200/55		6.83	B2V	BC	830/.68	BS	IIa-Oe	B	He-Rich*		WK

129

Emulsion Batches:

Date Observers

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[illegible]

Date Fri.-Sat., Nov. 19-20/82. Observers GJS.-Ri.

8^m68^o Emulsion Batches: Π a-OE20012-16112...22 195

[illegible]

Dome Temp./Hum. 44°F / 93%

Transparency Conditions *Hazy & rather clear*

Dome Temp./Hum. 42°F / 100%

Spectr. Temp. 46°F

Dome Temp./Hum. 42°F / 100%

Comparison Type/Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/ND-6 18-19	40/35	3"	4.98	08V	BC	830/.68	BS	IIa-OE	A	Runaway*		fine
Fe/ND-6 18-19 ③ D	80/72		5.29	06f	"	"	"	"	B	Runaway*		fine
								IIa-O-E				
Fe/ND-6 12-14	200/175		6.52	B2Ve	BC	830/.68	BS	"	A	Runaway*		Fine
Fe/ND-6 12-14	200/175		5.53	B5V	"	"	"	"	B	Runaway*		Fine
Fe/ND-6 12-14	40/37		4.33	09.5Ia	"	"	"	"	A	Runaway*	T=47°F	fine
Fe/ND-6 12-14	200/175		5.87	B8IVn	"	"	"	"	B	Runaway*		fine
Fe/ND-6 18-19	40/35		4.04	07	"	"	"	"	A	Runaway*		fine
Fe/ND-6 12-14	200/175	3.4	6.18	09.5V	"	"	"	"	B	Runaway*	T=47°F Some clouds	Fine
Fe/ND-6 12-14	200/190*	"	5.71	B2IV-Fe	"	"	"	"	A	Runaway*		fine
Fe/ND-6 12-14	200/28*		4.4	F8V	"	"	"	"	B	Std. Velocity	Too cloudy	OK
Fe/- 18-19								IIa-O	A		T=46°F F=513	OK
* Counter skipped "9"; actually ~10% less										still clear on slicer?		

Emulsion Batches:

Emulsion Batches:
098-02.05031-22112...32 1.84

Date MON. 9.05.23 Observers ARE-R1

[illegible]

Spectr. Te

Focus . . .

Spectr. Te

Exp. Mtr.

400/200

Eco/40

Spectr. Temp. 480F Dome Temp./Hum. 480F 59% Transparency Conditions 134

Focus 512

Spectr. Temp. Dome Temp./Hum. 460F 82%

Comparison
Type/Filter Exp

Fe/- 3-3-3
Fe/- 7-7-7
D 22-10
Fe/- 3-6
Fe/- 10-10
Fe/- 10-10
Fe/-
Fe/-

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
400/200		^v 5.8	F5.5	B.C.	1200/.7	150/ GC13	098-02E	A		'V' FILTER ON	Free
							098-02E				
800/40		^v 9.0	FB	"	830/.95	250/.5 GC13	098-02E	B		T=47 513	comp str V wh
					4	250/ GC13		A		45 513	
					900/.38	150/ GC13	098-02	B		9450F F. 516	
					"	"	"	A		no 8470 F=518	
					"	"	"	B		8473 F=520	

Date Wed-Thurs., Nov. 24-25 /82 Observers Gris-Tn

8^m 69^o Emulsion Batches: IIa-OE 20012 - 19112

[illegible]

19/112

Spectr. Temp. $36\frac{1}{2}^{\circ}\text{F}$

Dome Temp./Hum. $29^{\circ}\text{F}/74\%$

Transparency Conditions *Some cloud* 136

Focus 5.16

Spectr. Temp. 31°F

Dome Temp./Hum. $26^{\circ}\text{F}/90\%$

good Aurora 2nd half - flashing

Co
type/Filter
Exp.

Fe/ND 12-2

Fe/ND 12-2

810

Fe/ND 12-2

Fe/ND 12-2

Fe/ND 12-2

Fe/ND 12-2

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
40/45	4"	4.1	K3II	BC	830/.68	BS	IIa-OE	A	Std. Velocity		fine
200/43	5"	7.27	B5V	"	"	"	"	B	Runaway *	cloud	wt
				BC	830/.68	BS	"	A		T=32.5F F=516	
40/35	3"	5.71	B2II-2	"	"	"	"	A	Runaway *	T=32° F=518	fine
200/175	3.4"	7.29	B6V	"	"	"	"	B	Runaway *		fine
200/70	3"	6.04	B2Vme	"	"	"	"	A	Runaway *	cloud	5/4 wt

Date Thurs-Fri, Nov. 25-26, Observers Gis-Th
182

Emulsion Batches:
8th 9th IIa-DE...20012...19/12.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.	Exp. Mr.
47290	HD 29866	4 ^h 37.3	+40° 36'	22:25	23:07	1 ^h 36 ^m E	+40° 45'	Fe/NO.6	17-17	200/17
47291	HD 34078	5 09.7	+34 12	23:11	23:50	1 24 E	+34 16	Fe/NO.6	12-12-12	200/175
47292	HD 37657	5 35.1	+43 00	23:53	1:00	0 40 E	+43 02	Fe/NO.6	12-12-12	200/76
47292T	Spot Coll for 47290-92				15 min @ 15V	D4 D3 3900 4300	D2 4810			

Spectr. Temp. ... 35°F

Dome Temp./Hum. 31°F / 91%

Dome Temp./Hum. *27° F* / *92%*

Transparency Conditions *bazy*..... 158

138

[illegible]

Date Sat.-Sun., Nov. 27-28 / 82 Observers Gis - Tn

Emulsion Batches: 8^m 69^o I.O.E. 20012 - 25112

[illegible]

Focus ..

Spectr. T.

Exp. Mtr.

80/30

200/108

200/175

1

7/11/17

24/176

20/250

Spectr. Temp. 29°F.....

Dome Temp./Hum. 27°F / 94%

Dome Temp./Hum. 23°F/98%

Transparency Conditions .. *cloudy, overcast*

then just hazy

140

[illegible]

41

Date Sat-Sun Dec 4-5/82 Observers Wor-Tn

Emulsion Batches:

...ITg-OE... 20012-25112

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[illegible]

Spectr. Temp. 53°F.....1....

Dome Temp./Hum 74.5°F/86%

Transparency Conditions . . . *getting progressively cloudy* 142

Focus 512

Spectr. Temp. 48°F.....Dome Temp./Hum. 73.98/100.2

Comparison	
Type/Filter	Exp.

9/- 12-12

2/NO 127-12

02

218

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
400/303	3-8"	7.30	B2Vp	BC	830/68	BS	IIa-O	A			OK
				"	"	"	IIa-OE	A	He+Ph	blotter 2 pcs Loosy seeing - then cloud	sl/wk
					"		"				OK

Date Mon-Tues. Dec 6-7.1982 Observers M.G.-Tm/ Bln-Tm.....

Emulsion Batches:

8m 68° ... IIa-0E.20012-25112
 4 1/2" 69° ... III.9-J.Eb.09.081-08112
 * IIa-0E...20012-04122

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.
47299	HD 215182	22 38.3	+29 42	17 31	18 15	00 18 W	+30 07	Fe/WR6	6-6-6
47299T	Spot Cals for 47299-47305			15min @ 15V @ D4	3600	3900	4100		
47300	HD 202109	21 08.7	+29 49	18 19	19 28	03 00 W	+30 08	Fe/WR6	6-6-6
47301	HD 5448	00 51.2	+37 57	19 32	19 55	00 16 E	+38 23	Fe/WR6	6-6-6
47302	HD 17878	02 47.2	+52 21	20 32	22 21	00 14 W	+52 40	"	9-9
47303	HD 8538 ^{Cross}	01 19.3	+59 43	20 24	22 38	01 57 W	+60 06	"	9-9
47304	HD 18925	02 57.6	+53 07	22 42	23 15	00 56 W	+53 24	"	9-9
47305	HD 37017	05 ^h 30.4	-4° 34'	23:27	01:30	00 40 W	-4° 31'	Fe/HD	12-12-12
47306	HD 33328	05 04.4	-8° 53'	01:33	02:13	01 50 W	-8° 47'	Fe/-	12-12
47307	HD 37776	05 35.9	-1° 32'	02:16	04:24	03 30 W	-1° 32'	Fe/ND	12-12-12
47307T1	Spot Cals for 47306			15min @ D4	17.5V	15V	15V		
47307T2	Spot Cals for 47307			15min @ 15V	3900	4300	4810		
					D4	12B	122		
					3900	4300	4810		
47307F	HD 38021/2	10^h 05.3	+20° 49'	04 27				Fe/ND	12-
47307F	Focus Test					00 28 E	+20 25	Fe/-	12

5112
8112
422

Dome Temp./Hum. 39° F. / 72%

Transparency Conditions *Clearing - some clay*
Heavy crans at end

Focus ... 5.12

Spectr. Temp. 37° F.....

Dome Temp./Hum. 34°F/81%

* All FeNe comps Too strong. There is some overlap in stellar area

[illegible]

145

Date Tues.-Wed., Dec. 7-8/82 Observers Gis-Tn

Emulsion Batches:
8th 6th IIa-OE.20012-0912.2

[illegible]

12.2

Dome Temp./Hum. +32°F / 68%

146

Spectr. Temp. 32°F.....

Dome Temp./Hum. ~~+25°F/68%~~

Comparison	
Type/Filter	Exp.

Date Thurs-Fri Dec. 9-10/82 Observers Gris-Ri

8m 68⁺

IIa-OE.0810.2.08122

[illegible]

Spectr. Temp. 25.5° Dome Temp./Hum. $17^{\circ}\text{F}/66\%$

Transparency Conditions

Focus .. 520

Spectr. Temp. 19°F Dome Temp./Hum. $11^{\circ}\text{F}/66\%$ Comparison
Type/Filter Exp

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
12-12				B.C.	830/1.68	B5	IIo-0	A			very sl. red
12-12	40/40	>5"	4.6	F7E	"	"	II20-E	B	Std. Velocity		fine
12-12	400/350	>5"	6.52	B2Fe	"	"	"	A	Runaway *		Fine
12-12							II20-E				
12-12	200/175	3-4"	5.53	B5V	BC	830/1.68	B5	B	Runaway *	T=21°F F=521	v sl str
12-12				"	"	"	"	A		T=19°F F=521	v, very sl. red
12-12	80/51	2-3"	5.67	B1E	"	"	"	A	Runaway *		Fine

Date Sat.-Sun., Dec. 11-12, 1982. Observers G. & R.

Emulsion Batches:
8th 6th IIa:OE..08102-08122

[illegible]

150

Focus 519.....

Spectr. Temp. 22°F

Dome Temp./Hum. 16°F / 98%

[illegible]

Date Sun.-Mon., Dec. 12-13./82 Observers Gis. - Ri.

Emulsion Batches:

8^m 68° IIa-DE 20012-49122.
 45^m 68° IIIa-JEB 0906-08112

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.	Exp. Mtr.
47325F	Focus test					0 ^h 05 ^m W	+5° 33'	Fe/-	12-12	
47325	HD 222368	23 ^h 34 ^m .8	+5° 05'	17:10	17:30	1 01 E	+5° 35'	Fe/ND.6	17-17	80/90
47326	HD 203064	21 14.7	+43 31	17:34	17:56	1 46 W	+43 55	Fe/ND.6	17-17	80/90
47327	HD 210839	22 08.1	+58 55	18:00	18:24	1 20 W	+59 23	Fe/ND.6	17-17	80/90
47327T	SPOT CALN FOR PLATES 47325-				15 MIN @ 150 VOLTS					
47328	HD 219188	23 ^h 08 ^m .9	+4° 27'	18:30	21:15	3 10 W	+4° 57'	Fe/ND.6	12-12-12	40/28
47329	HD 29866	4 37.3	+40 36	21:22	22:25	1 10 E	+40 48	Fe/ND.6	12-12-12	20/175
47330	HD 33328	5 04.4	-8 53	22:32	23:31	0 29 E	-8 43	Fe/-	12-12	80/300
47330T	SPOT CALN FOR PLATES 47330-				15 MIN @ 129					
47331	HD 36576	5 ^h 27 ^m .7	+18° 28'	23:36	0:27	0 04 W	+18° 35'	Fe/ND.6	17-17	200/17
47332	HD 33328	5 04.4	-8 53	0:31	1:32	1 33 W	-8 43	Fe/-	12-12	80/300
47333	HD 43112	6 09.5	+13 53	1:37	2:36	1 30 W	+13 54	Fe/ND.6	17-17	20/175
47334	HD 45995	6 25.6	+11 19	2:39	3:51	2 30 W	+11 18	Fe/ND.6	17-17	200/17
47335	HD 76095	8 49.0	+26 36	3:56	5:53	2 08 W	+26 19	Fe/ND.6	12-12-12	40/30
47335F	Focus test					2 08 W	+26 19	Fe/-	12-12	

Spectr. Temp. 23°F Dome Temp./Hum. $19^{\circ}\text{F}/72\%$ Transparency Conditions *Mostly very clear and good* 152Focus 520 Spectr. Temp. 9°F Dome Temp./Hum. $102^{\circ}\text{F}/96\%$

Comparison Type/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe - 12-12					BC.	830/68	BS.	IIa-O	A			very sl. red
Fe - 17-7	80/80	4"	4.6	F7V	"	"	"	IIa-OE	B	Std. Velocity		fine
Fe - 17-12	80/70		4.98	08V	"	"	"	"	A	Runaway *	T = 23°F	fine
Fe - 17-12	80/70		5.29	06F	"	"	"	"	B	Runaway *	T = $22\frac{1}{2}^{\circ}\text{F}$	fine
								IIa-O-E				
Fe - 12-12	400/250	4-5"	7.01	B05II	BC	830/68	BS	"	A	Runaway *	T = 22°F Some Cloud F = 521	good
Fe - 12-12	200/175	5-6"	5.87	B2IV	"	"	"	"	B	Runaway *	T = 17°F F = 522	fine
Fe - 12-12	80/300		4.07	B2IIc	"	"	"	IIIa-JEb	A	Be-Bln	T = 16°F	sl strong
								IIIa-JEb				
Fe - 12-12	200/175		5.71	B2IV	BC	830/68	BS	IIa-OE	B	Runaway *	T = 15°F F = 523	fine
Fe - 12-12	80/300	4'	4.07	B2IVc	"	"	"	IIIa-JEb	A	Be-Bln	T = 14°F	sl strong
Fe - 17-7	200/175		5.67	B1V	"	"	"	IIa-OE	B	Runaway *	T = 13°F	fine
Fe - 17-7	200/175		6.04	B2IV	"	"	"	"	A	Runaway *	T = 12°F F = 524	fine
Fe - 12-12	400/308		6.67	G0	"	"	"	"	B	Asm. Sp-KK	T = 10°F Some cloud.	fine
Fe - 12-12					"	"	"	"	A		T = 9°F F = 524	no stellar discord

434^u 68^u Emulsion Batches:
 111-1-1-09051 - 10122 29 22

Date Thurs-Fri. Dec 16-17/82 Observers Blk-Tn

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.	Exp. Mtr.
47336	HD 33328	05 ^h 04 ^m 4	-8° 53'	21 23	23 11	0 34E	-8° 47'	Fe/-	12-12	40/120
47336T	Spot Calc for 47336			15 min @ 04	17.5V 3900	15V 4300	15V 4810			
47337	HD 33328	05 044	-8 53	23 13	01 04	01 20W	-8 48	Fe/-	12-12	40/120
47338	HD 33328	05 ^h 04 ^m 4	-8° 53'	01 07	02 55	03 12W	"	"	8-8-8	40/120

Spectr. Temp. $+32.5^{\circ}\text{C}$

Dome Temp./Hum. +19°F./90%.

Transparency Conditions Clear by 21st 154

154

Focus 517

Spectr. Temp. 22°F

Dome Temp./Hum. 12°F / 94%

[illegible]

155

Date FRI - SAT DEC 17-18 82 Observers BYT - R. (inner mis-set)

Emulsion Batches:

IIAE-E 20012-09122... 20, 185

[illegible]

... 20, 185

180 F / 65%

156

520

Dome Temp./Hum.

Comparison	
Type/Filter	Exp.

Ref- 12-12

 $\epsilon/10,6 \quad 12-13$

St. Louis

02

100

1	2
3	4

1/11/19	100
2/11/19	100
3/11/19	100
4/11/19	100
5/11/19	100
6/11/19	100
7/11/19	100
8/11/19	100
9/11/19	100
10/11/19	100
11/11/19	100
12/11/19	100
13/11/19	100
14/11/19	100
15/11/19	100
16/11/19	100
17/11/19	100
18/11/19	100
19/11/19	100
20/11/19	100
21/11/19	100
22/11/19	100
23/11/19	100
24/11/19	100
25/11/19	100
26/11/19	100
27/11/19	100
28/11/19	100
29/11/19	100
30/11/19	100
1/12/19	100
2/12/19	100
3/12/19	100
4/12/19	100
5/12/19	100
6/12/19	100
7/12/19	100
8/12/19	100
9/12/19	100
10/12/19	100
11/12/19	100
12/12/19	100
13/12/19	100
14/12/19	100
15/12/19	100
16/12/19	100
17/12/19	100
18/12/19	100
19/12/19	100
20/12/19	100
21/12/19	100
22/12/19	100
23/12/19	100
24/12/19	100
25/12/19	100
26/12/19	100
27/12/19	100
28/12/19	100
29/12/19	100
30/12/19	100
31/12/19	100

This DuO batch gets progressively
more foggy at red cell.
light leak?

157

10122

Sun Mon
Date 1982 Dec. 26-27 Observers Wbr. - Tn.....

Emulsion Batches:

...D+E... 20012 ...13126 19 190
...Jeb... 09061 ...23122 27 308

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.	Exp. Mtr.
47343	HD 217211	22 58.2	+13 31	18 24	20 35	3 36 W	+43 59	Fe/ND	12-12-12	200/250
47343T	Spot C/n for 47343, 50				15 min @ 15V	D4 3400	D3 4300	D2 4810		
47344	HD 33328	05 04.4	-8 53	20 42	21 32	1 32 E	-8 46	Fe/-	10-10	80/240
47344T	Spot C/n for 47344-49,			15 min @	D4	145V 3400	15V 4300	15V 4810		
	04003	132 06	21 40					Fe/ND		400
47345	HD 33328	05 04.4	-8 53	21 47	22 23	0 42 E	-8 46	Fe/-	10-10	80/200
47346	"	"	"	22 24	23 05	0 00	"	Fe/-	10-10	80/240
47347	"	"	"	23 06	00 02	0 57 W	"	"	10-10	80/270
47348	"	"	"	00 03	00 59	1 54 W	"	"	10-10	80/200
47349	HD 37468	05 33.7	-2 39	01 03	01 35	2 01 W		"	10-10	80/240
47350	HD 88021/2	10 03.8	+20 49	01 43	04 19	0 16 W	+20 25	Fe/ND	12-12-12	400/300
47350F	Focus test					"	"	Fe/-	20-20	

Spectr.

Focus.

Spectr.

Exp. Mtr.

n.t.

Ideo

Spectr. Temp. ... $+73^{\circ}\text{F}$ Dome Temp./Hum. $+37^{\circ}\text{F}/\dots 79.2$ Transparency Conditions ... *semi cloudy*
Focus $515-516$
Spectr. Temp. ... $+350^{\circ}\text{F}$ Dome Temp./Hum. $+27^{\circ}\text{F}/100.7$

Comparison pe/Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
13-25 11-14 23127	200/250	3-4"	6.38	B2V	BC	830/68	BS	IIa-OE IIa-OE	A	He-B/h		
10-10	80/240	3"	4.07	B2V	BC	830/68	BS	IIIa-Jeb IIIa-Jeb	B	Be-B/h		Fine
	400/				BC			IIa-O	A		too cloudy	
10-10	80/240	3"	4.07	B2V	BC	830/68	BS	IIIa-Jeb	B	Be-B/h	some cloud	Fine
10-10	80/240	"	"	"	"	"	"	"	A	"	T=39°F	Fine
10-10	80/270	"	"	"	"	"	"	"	B	"		Fine
10-10	80/270	"	"	"	"	"	"	"	A	"	T=37°F set 516	Fine
10-10	80/240	"	3.51	09.5V	"	"	"	"	B	"		Fine
10-10	420/300	2-3"	7.20	965 +AD	"	"	"	IIa-OE * IIIa-Jeb	A B	VB B/h T=35 set 516	some cloud	Fine center/Red

Note. This is, I think, the
Ideal Fe Arc exp for these IIIa-J
Th

* Also a test of the 10122 IIIa-J batch
Note This batch looks OK by this plate.

154

Date Wed-Thurs., Dec. 29-30/82 Observers Gis - Ri

Emulsion Batches:

Emulsion Batches:
Dec 30 Rr 8min @ 68°F IIaOE 20012-13122

[illegible]

Spectr. Temp. 31°F

Dome Temp./Hum. 23° F / 75%

160

[illegible]

JD. 495334.51

Emulsion Batches:

Batch	Emulsion	Batch	Emulsion	Batch	Emulsion
Dec 30 Ri 8 mine 69	Tha E 20012-30122	20	191		
1 4 1/2 AM "	Tha Feb 09061-10122	19	302		

Date Thurs-Fri Dec 30-31 Observers Rm-Li

[illegible]

20 191
2 11 302
Comparison
pe/Filter Exp.
1- 12-12
1/NU 12-12
0 02
48-12
1/NU 12
1- 10-18
0 10
410
1- 15-12

Spectr. Temp. 30..... Dome Temp./Hum. 22°F / 75% Transparency Conditions 162
Focus 518.....
Spectr. Temp. 27°F..... Dome Temp./Hum. 21°F / 72%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				13C	830/-68	BS	IIaO	A			
200/200	3-4	6-2	F2	"	"	"	IIa OE	B	Ceph/Evans		Fine Fe streak
							IIaO-E				
400/								A	Evans	28°F Focus 519	
30/48		4.07	B2 IIa	BC	830/-68	BS	IIIa JEB	A	Be Blu	some clouds	vslak
							IIa-JEB				
				"	"	"	IIa OE	B		CLOUD 70°F	

Spectr. Temp. 33°F

Dome Temp./Hum. 20°F 68%

Transparency Conditions good

164

Focus 517

till 2¹⁰

Spectr. Temp. 20°F

Dome Temp./Hum.

Comparison
Type/Filter Exp.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/M 7-7	20/24	2.8	M15M	BC	830/68	BS	IlaoE	A	Std Vel		Fine
Fe/M 7-10	400/100	3	7.9-8.8 FG-61	"	"	"	"	B	Ceph/Evans	32°F 7.51B	unk
							IlaoE				
Fe/ND 7-4	400/260	7.0	FSV	BC	1200/-0.25	BS	IlaoE	A	Hyades-Ly	24°F F=516	stuck at ave. st. weaker
Fe/- 7-14	80/60	4.5	4.9 F2V	"	"	"	"	B	H+K-Ly	20°F F=517	ave. fine ok.
Fe/- 15-15				"	"	"	"	A		cloud 20°F	extra ble
							098			last 15 min @ 10°/hour.	
							098				

Emulsion Batches:

Emulsion Batches:

Two-E 20012-03013	20	190
Two-E 09061-10122	20	305

Date TUES. WED JAN 4-583 Observers Ly-Ri

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
47357F8	Focus test			17:00					A-A
47358	HD 9746	01 30.3 1 30 20.2	48 13 +48 12.73	20:39	21:50	02 55W	+43° 40'	Fe/-	7-7.7
47358T	SPOT CAL FOR	PLATES 47	358-63, 66	15 MIN @ 1500 LTS		02 55W	+43° 40'	Fe/-	7-7.7
47359	HD 28911	4 28.2	+13 02	21:54	23 40	01 46W	13 13	Fe/-	7-7.7
47360	HD 37043	05 30.5	-05 59	23:45	23 50	00 54W	-05 55	Fe/-	10-10
47361	"	"	"	23:50	23 54	00 59W	"	Fe/-	10-10
47362	HD 36486	05 26.9	-00 22	23:57	00:00	01 08W	-00 17	Fe/-	10-10
47363	"	"	"	00:01	00:04	01 12W	"	Fe/-	10-10
47364	HD 33328	05 04.4	-8° 53'	00:10	01:04	02 35W	-08 44'	Fe/-	10-10
47364T	SPOT CAL FOR	PLATES 47364+65		15 MIN @ D4		02 35W	-08 44'	Fe/-	10-10
47365	HD 37468	05 33.7	-2° 39'	01:09	02:26	03 29W	-02 35'	Fe/-	10-10
47366	HD 62044	07 37.0	+29° 07'	02:33	03:30	02 27W	+28 56'	Fe/-	7-7.7
47366F	Focus test					"	"	Fe/-	14-14

Spectr. Temp. ... 23°F Dome Temp./Hum. ... 25°F ... 87% ... Transparency Conditions 166°
 Focus ... 517 EXP Mtr. 40/35
 Spectr. Temp. ... 32°F Dome Temp./Hum. ... 28°F ... 80% secondary frost over at 2 rat - 2 1/2 hours

Companion Type/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
7-2					B.C.	1200/-0.025	B.S. T100	A			23°F 517	OK
7-1	60/160	2	7.13	SKI	B.C.	1200/-0.025	B.S. T100-E	B	4 *		26°F 517	
7-1							T100-E					
7-1	200/200	3-4	7.0	FSV	Bc	1200/-0.025	B.S. T100-E	A	Hades-L		26°F cirrus	Fine
7-1	20/30	3	2.8	09III	"	"	"	B	MSB-L		28°F	Fine
7-1	20/30	3	"	"	"	"	"	A	"			Fine
7-1	20/30	3	2.2	09.5A	"	"	"	B	"			Fine
7-1	20/30	3	"	"	"	"	"	A	"			Fine
7-1	40/120	3	4.0	B2IV	"	830/.68	"	T100-Jeb	B	Pe-Bln	29°F set 518	Fine
7-1								T100-Jeb				
7-1	40/120	3	3.5	09.5V	Bc	830/.68	B.S. T100-Jeb	A	SB-Bln		30°F cirrus	Fine
7-1	40/90	3	5.4	K1III	Bc	1200/-0.025	"	T100-E	B	H-K-Ly	31°F set 516	Fine
7-1					"	"	"	A			32°F	cont sl/Red

657

Emulsion Batches:

4/12/80	II 9J-EE	09061	-23122	27	3/17
	II 4-DE	20012	-03013	21	186

[illegible]

* Would have discarded
but kept for close ~~up~~
to look for the mystery ~~in~~

Emulsion Batches:

Was - TNU
Date Jan 12-13, 1983 Observers Rm - Tr

Thut Ferry
batch → H.O.E. 20012 - 0501323²⁰²
Wu. Jek... 09061 - 23122

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.	Exp. Mtr.
47371 F	Focus test		plate fully Left in PH with Top at Right		+5 50	0 05W	+5° 46	Fe/ -	25-20	
47371	HD 203156 = HR 8157	21 ^h 15.4	+37° 49	17:37	20:00	5 52 W	+38° 10	Fe/ND	12-12-12	20/19
47371	Spot Cal'n for 47371-72.				15 min @ 15V	D4 3900	D3 4300	D3 4810		
47372	HD 28638 - S2 Cam HD 28639	3 ^h 59.0	+62° 04	20 25	21:48	0 53 W	+62° 18	Fe/ND	12-12-12	20/14

Spectr. Temp. 24° Dome Temp./Hum. $12^{\circ}\text{F}/73\%$ Transparency Conditions $Ok - cloudy$ Focus 520 Spectr. Temp. 19°F Dome Temp./Hum. $10^{\circ}\text{F}/90\%$ Companion
type/Filter Exp

F2 - 252

F2 12/21

F2

F2

F2

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				13C	830/.68	BS	IIIaJ	A		$24^{\circ}\text{F}/520$	Cent's/Red
200/197	5"	6.2	F2	"	"	"	IIaOE	B	Ceph/Evans	thin cloud	Fine
							"				
700/14	8"	7.0	BOIII +BI	"	"	"	"	B	Bin/Evans	cloud checked field carefully	Festwk slwk

PS

I presume they can be just thrown in with the IIaO's for development. It may tell us more if the beastly comas out stronger with extra development.

Note The #2 Exp IIIaJ box in fig has 3 IIIaJs of the "Fungy" batch. One is 47371F and the other 2 are blanks taken straight from box. An inked "R" is on the one taken from the RH side of unexp box. I took these 3 out from L $\rightarrow$ R with gas connection at back of box. In

171

Date Jan 18-19, 1983 Observers Rm-Tn.....

Emulsion Batches:

Emulsion Batches:
Ticof-E 20012-05013

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[illegible]

172

Focus 524

Spectr. Temp.

Dome Temp./Hum ^{45° F}/.....

Comparison Type/Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
5/16	12-27	400/148	3"	G.2	F2	BC	830/.68	BS	T00E	A	Ceph/Evans	slow maybe labeled ZL	vsl weak
								"				labeled 71	
5/16	12-27					BC	830/.68	BS	E+O	A			

173

Date Wed. Thru Jan 5-20 Observers W.H., B.G., S.-R.

Emulsion Batches:

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[illegible]

Spectr. Temp.

Dome Temp./Hum.

Dome Temp./Hum.

Transparency Conditions 174

174

Comparison	
Type/Filter	Exp.

[illegible]

175

Tour 20 people worked at NGC 2392

Emulsion Batches:

Date Thurs. Fri. Jan 20-21 Observers W. L. S., B. J. R. // M. J. - R. - B. J.

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.
26269	2 Gem			18:00					480 m
10	Baroque								480 m
11	Back								1000 m
12	Fe Ne + Wr 66 + ND 10								0 m
13	CM A								100 m
14	"								200 m
15	"								200 m
16	"								200 m
262617	Tungsten			01:12	01:19				200 m
18	"			01:15	01:16				600 m
262619	HD 69243 ^R CNC	8 11	+12°03'	01:36	02:06	01 35W			200 m
262620	HD 89798 ^R low	9 42.2	+11 54'	02:16	02:46	0 113W			800 m
21	dark current			02:47	02:48				
22	Fe/Ne							Fe/Ne Wr 66 + ND 10	
23	Tungsten			02:53	02:54				600 m
24	"			02:57	02:58				600 m

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

Focus

Spectr. Temp. Dome Temp./Hum.

Comparison
pe/Filter Exp.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
480 m				RETICON	1200/.475	250/.7					
480 m											
1300 m											
10 m											
180 "											
240 "											
240 "											
240 "											
120 m											
60 m											
200/96		V= 6.0	gm7c	RETICON	1200/.475	250/.7					
80/77		U 5.0	gm8c	"	"	250/.3					
				"	"						
				"	"						
60 m											
60 m											

Fe/De
265/10/10 10m

Date TP1 SAT JAN 21-22.83 Observers RP

New Dig

Emulsion Batches:

Jiao-E 20012-0501.3

[illegible]

Spectr. Temp.

Dome Temp./Hum.

Transparency Conditions 180

180

[illegible]

Date Thurs-Fri Jan 27-28/83 Observers Tn - Ly..... (New Stop)

New Story

Emulsion Batches:

Emission Dates:

4 1/2 68°	III-J	09061-11013
8" 68°	IIa-VE	20012-05013
4 1/2 68°	098	05031-25013

[illegible]

* Fe s/wk

183

8^m 680

Emulsion Batches:

Do-OF 20012 - 21013

Date Fri.-Sat. Jan 28-29... Observers Flm.-Tn.....

[illegible]

184

Focus . . . 517

Spectr. Temp. $\pm 31^{\circ}\text{F}$

Dome Temp./Hum. +28 F / 99 %

Comparison Type/Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
2 - 12.1 - D ₂		200/172	2"	6.42	B2V _p	BC	830/.68	BS	IIa+OE	A	He-Rich:Bin		* Fine
									"				
2 - 12.1 - D ₂		200/231	1"	6.83	B2V	"	" / "	"	"	B	He-Rich:Bin	Very hazy.	* Fine
												* Fe R ₂ sl wk	

Spectr. Temp. $+20^{\circ}\text{F}$

Focus *set 522*

Spectr. Temp. $\pm 13^{\circ}\text{F}$

Dome Temp./Hum +10°F/95%

Dome Temp./Hum. 42/98

Transparency Conditions *OK - sl. hazu* 186

Very Fine Aurora
most of night.

186

Comparison	
Type/Filter	Exp

[illegible]

187

1147

Emulsion Batches:

8^m 68°F. PAOE... 20012... - 21013

Date Feb 8/9 1963 Observers Rm-Tn / Hy-Tn

[illegible]

21013

Spectr. Temp. -30°F Dome Temp./Hum. $+22^{\circ}\text{F}/60\%$ Transparency Conditions OK sl. haze 188Focus 5.1λ Spectr. Temp. $+16^{\circ}\text{F}$ Dome Temp./Hum. $+9^{\circ}\text{F}/87\%$ Comparison
Type/Filter Exp.21013
10 2101321013
10 2101321013
10 2101321013
10 2101321013
10 2101321013
10 2101321013
10 2101321013
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10 21013

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
400/181	3"	3.4	B9+G	BC	830/.68	BS	IIaOE	A	Bin/Evans	Reversed	good arc weak
							"				
200/84	3-4"	7.9-8.8	F6-G	BC	830/.68	BS	"	B	Ceph/Evans	$T=24^{\circ}\text{F}$ Reversed 520	weak arc weak
200/112	3	6.9	B2V	BC	1200/.025	BS	"	A	SB-Ly	20°F Set 517	good arc sl. strong
80/163	3	5.1	A2V G5III	"	"	"	"	B	H+K-Ly		fine arc sl. strong
80/200	3	4.9	F2LV	"	"	"	"	A	H+K-Ly	$+17^{\circ}\text{F}$ Set 518	fine arc sl. strong
				"	"	"	IIaO	B		$+16^{\circ}\text{F}$ Set 518	OK

arc has been weak on all Tel. reversed plates recently, due to play in comparison feed arm most likely.

189

Date TFB 9-10 1993 Observers Wle-Bor-Sc-Ri-Mki

Emulsion Batches:

.....

.....

.....

[illegible]

190

Spectr. Temp.

Dome Temp./Hum.

191

TOUR E²-LOOKED AT M42 ~60 people

Date ... FEB-10-11/83. Observers ... Cow-Ri

Emulsion Batches:
*TRD-E 20012-21013
TRD-E 08102-09023

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.
47390F,	FOCUS TEST							Fe/-	20-20
47390	R AUR HD 34019	5 09.2	+53°28'	18:30	20:28	0 ^h 15 ^m W	+53°37'	Fe/ND	? 12-12-1
47390T	SPOT CAL FOR PLATES 47390-91			15 MIN @ 15 VOLTS		3900	4810		
47390T2	SPOT CAL FOR DIAJ TEST			15 MIN @ 15 VOLTS @ D4		4300	4300		
47390T3	" " " " " "			" " " " " "		4300	4300		
47391	R CMi HD 109729	7 ^h 03.2 ^m	+10°11'	21:10	23:20	1 ^h 15 ^m W	+10°06'	Fe/ND	12-12-12
47392	T UMa	12 ^h 31.8 ^m	+60°02'	23:30	2:52	0 ^h 40 ^m E	+59°39'	Fe/ND	15-15-
47392T	SPOT CAL FOR PLATES 47392-			15 MIN @ 15 VOLTS		3900	4810		

Spectr. Temp.

Dome Temp./Hum. 100°F 62%

Dome Temp./Hum. *40°F 64%*

Transparency Conditions CLEAR! 192

40/34

[illegible]

Spectr. Temp.

Dome Temp./Hum.

Transparency Conditions 194

194

[illegible]

195

Date SAT-SUN FEB 12-13.

Observers

CRd
WATERLOO - R.8^m 68°F

Emulsion Batches:

JLW-E 08102-09023
*JLW-E 20012-20023

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.	Exp. Mtr.
47393F	FOCUS TEST							Fe/-	17-17	
47393	HD 3627	0 34.0	+30 19	18:10	18:16	2:51 W	+30° 48	Fe/ND	15-15-15	40/50
47394	HD 28023	04 20.4	+21 14	19:23	19:55	0:42 W	+21° 29	Fe/-ND	15-15-15	40/400
47394T	SPOT CAL FOR PLATES 47393-403				15 MIN @ 1500 LTS		3900 4300 4810			
47395	HD 32092	4 55.6	+26 32	20:03	21:03	1:15 W	+26° 42	Fe/ND	13-13-13	20/200
47396	HD 38670	5 42.4	+20° 50	21:07	21:22	0:49 W	+20 55	Fe/ND	13-13-13	40/35
47397	HD 71663	8 23.5	-20 11	21:28	22:12	1:02 E	-02° 25	Fe/ND	13-13-13	80/80
47398	HD 79874	8 41.5	+6° 47	22:18	22:22	0:11 E	+06 33	Fe/ND	19-19	20/20
47399	HD 71153	8 20.7	+24 52	22:27	00:29	1:16 W	+24 39'	Fe/ND	13-13-13	200/200
47400	HD 71152	"	"	00:30	01:07	1:55 W	"	Fe/ND	13-13-13	80/30
47401	HD 87822	10 02.5	+32 06	01:10	01:33	0:39 W	+31° 45	Fe/ND	13-13-13	40/40
47402	HD 101177	11 33.5	+45 40	01:39	02:13	0:11 E	+45° 15	Fe/ND	13-13-13	40/45
47403	HD 109510	12 30.1	+18 56	02:19	02:53	0:28 E	+18° 32'	Fe/ND	13-13-13	40/40
47404	HD 109511	"	"	02:54 1/2	02:10	0:10 E	"	Fe/ND	13-13-13	40/5
47404T	SPOT CAL FOR PLATES 47404-47409				15 MIN @ 1500 LTS		3900 4300 4810			

Spectr. Temp. 20°FDome Temp./Hum. 18°F 52%Transparency Conditions clear 196Focus 521

Spectr. Temp.

Dome Temp./Hum.

40/35

Comparison Type/Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/ND 13-7					B.C.	830/.68	B.S.	IIao	A			rests/blue
Fe/ND 13-5	40/50		4.6	K3 III	B.C.	830/.68	B.S.	IIao-E	B	WIDE VIS BIN		Fine
Fe/ND 13-5.5	400/400	1-2	7.8	F8	B.C.	830/.68	B.S.	IIao-E	A	"		fine
Fe/ND 13-5.2								IIao-E				
Fe/ND 13-3.3	200/200		7.3	F5	B.C.	830/.68	B.S.	IIao-E	B	CLOSE VIS BIN		fine
Fe/ND 13-3.1	40/35		5.92	B9	B.C.	830/.68	B.S.	IIao-E	A	"		fine
Fe/ND 13-1.3	80/80	1-2	6.75	F0	B.C.	830/.68	B.S.	IIao-E	B	"		Fine
Fe/ND 13-1.1	20/20		3.98	F8	B.C.	830/.68	B.S.	IIao-E	A	"		Fine
Fe/ND 13-0.8	200/200		8.2	G	B.C.	830/.68	B.S.	IIao-E	B	"		Fine
Fe/ND 13-0.5	80/70		7.13	A3	B.C.	830/.68	B.S.	IIao-E	A	"		Fine
Fe/ND 13-0.3	40/40		6.6	F5	B.C.	830/.68	B.S.	IIao-E	B	"		Fine
Fe/ND 13-0.1	40/45		6.90	G0	B.C.	830/.68	B.S.	IIao-E	A	"		Fine
Fe/ND 13-0.1	40/40		6.84	F1 V	B.C.	830/.68	B.S.	IIao-E	B	"		Fine
Fe/ND 13-0.1	40/55		6.22	K2 III	B.C.	830/.68	B.S.	IIao-E	A	"		Fine
Fe/ND 13-0.1								IIao-E				

197 ~~2~~ 2

Date FEB 13 1983 Observers CPd-Ri

Emulsion Batches:

Trav-E 20012-12023

[illegible]

Spectr. Temp.

Dome Temp./Hum.

Transparency Conditions . . . *shaded* 198

198

FOCUS

Spectr. Temp.

Dome Temp./Hum. 140°F 86%

[illegible]

199

Date Sat. Mon. FEB 13-14 Observers Pi

Emulsion Batches:

IIaD-E 20012-12023

.....

.....

[illegible]

Spectr. Temp. 29°F

Dome Temp./Hum. 25°F 95%Transparency Conditions Larry 200[illegible]

201

Date Thurs Fri.. Feb/7-18/83 Observers Th... Bois... present

8^m 68°

5m 69°

Emulsion Batches:

Emulsion Batches.
...U.O.E. 20012 - 12023 19218

1425c

[illegible]

12023 1928

Spectr. Temp. ... 37°F

Dome Temp./Hum. 134°F/97%

in Dome 100%+ but going down fast.

Transparency Conditions Fine S. heavy 202

Focus ... 5.16

Spectr. Temp. ... 36°F

Dome Temp./Hum. 128°F/80%

Comparison
Type/Filter Exp.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
100/175?	2"	7.52	A0	BC	830/68	BS	IIaO-E	A	SB-Bln	* Should be +71 +5 4.8V ideal	Comp wk
100/260	2-3"	7.20	965 +42	BC	830/68	BS	IIaO-E	B	VB-Bln	3.3V ideal somewhat	comp. wk
			1A	293			IIIaJ f.g.		(20 ^h 22°C 8% H ₂)		
			09	268	22 800		IIIaJ e				

1983

Emulsion Batches:

Emulsion Batches:
1120c... 08/102... 1.50.23 18 185

[illegible]

Spectr. Temp. ... 37.5

Dome Temp./Hum. /

Transparency Conditions *haze* 204

[illegible]

265

Emulsion Batches:

Date *Fri. - Sat. Feb 25/26/83* Observers *Byt - Tin*

Emulsion Batches:

IIa-OF	08102	-15023
IIIa-JE	09023	-23023

5th 6th 22³⁰⁰

[illegible]

Spectr. Temp. $+30^{\circ}\text{F}$Dome Temp./Humt $+22^{\circ}\text{F}/70\%$Transparency Conditions $S1$ Hazy..... 266Focus 519Spectr. Temp. $+20^{\circ}\text{F}$Dome Temp./Humt $+13^{\circ}\text{F}/90\%$Comparison
Type/Filter Exp.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
200/176	2-3	7.11	B2V	BC	830/68	BS	TI ₀ D-E	A	SB Bln		Fine
							"				
200/87	3"	6.4	B2V	BC	830/68	BS	"	B	VB Bln		Festok 5/ok
200/116	3"	7.52	A0	"	"	"	"	A	SB-Bln	Reversed T=25°F Set 520 *Seems fainter Hazy	Festok Fine
200/258	3"	5.28	B8	"	"	"	"	B	Shell-Bln	Reversed	str
80/123	"	6.22	dF8	"	1200/-0.25	"	"	A	SB-Bln/Ly	unreversed T=21°F Set 517	Fine
40/149	"	3.50	A0V	"	"	"	TI ₀ D-E	B	SB-Bln		Fine
							"				
40/53	2"	4.3	masa	BC	1200/-0.25	BS	TI ₀ D-E	A	Std vel		8/ok
40/36	3	4.79	B2Ve	"	"	"	"	B	Be-Bln		9/ok
				"	"	"	TI ₀ D-E*	A	from old batch		

207

Date Sat-Sun Feb 26-27/83 Observers BK-T

Emulsion Batches:

..IIa-OE 08102-15023

..IIa*-OE 08102-25023

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.	Exp. Mtr.
47424F1	Focus Test					0	0	Fe/-	² 15-15	
47424F2	" "					0	0	Fe/-	² 10-10	
47424	HD 19134	2 59.6	+24 52	18 41	18 56	2 00 W	+25 10	Fe/-	6-4	4/10
47425	HD 36044	5 23.8	+29 29	19 00	20 20	1 00 W	+29 40	"	6-	4/55
47426*	HD 71153	8 20.7	+24 52	20 25	21 59	0 17 E	+24 38	"	6-6	80*
47426	HD 71152	8 20.7	+24 52	22 01	22 46	0 30 W	"	"	6-5	80
47427T	Spot Cal'n	for 47424-26			15 min @ 15V	D4 3900	D3 4300	D2 4810		
47427	HD 74874	18 41.5	+6 47	22 52	22 58	0 20 W	+6 32	Fe/-	6-5	0
47428	HD 87822	10 02.5	+32 06	23 00	23 27	0 32 E	+31 45	Fe/-	6-4	80
47429	HD 106365	12 09.1	+33 20	23 46	01 48	0 16 E	+32 55	"	6-6	2/200
47429T	Spot Cal'n	for 47427-33			15 min @ 15V	D4 3900	D3 4300	D2 4810		
47430	HD 123408	14 02.4	+35 16	01 52	03 43	0 15 E	+34 55	Fe/-	6-6	200/200
47431	HD 149930	16 32.7	+34 01	03 47	05 10	1 15 E	+33 54	"	6-6	100
47432	HD 152863	16 50.9	+25 54	05 14	05 56	0 50 E	+25 47	"	6-6	50
47433	HD 146361	16 10.9	+34 07	06 05	06 28	0 24 W	+33 55	"	6-6	40/45

15023
15023

Spectr. Temp. 29°F

Dome Temp./Hum 28°F/59%

Transparency Conditions .. Sl. Hazy ... Fine @ 208.

Focus

Spectr. Temp. 28

Dome Temp./Hum. 20°F/97%

Comparison
Type/Filter Exp

Fe/- 15.1

Fe/- 10.0

Fe/- 6.4

1 6.1

2 6.1

1 6.1

D2 4.8

Fe/- 1.5

Fe/- 6.1

11 6.1

6.1

5.1 6.1

1 6.1

11 6.1

11 6.1

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	1200/-1025	B5	IIa-O	A		Set 515	
				BC	830/-68	B5	"	B		Set 518	
	40/40	<1"	6.06	B5	BC	"	IIa-OE	A	Waterloo		Fine
	40/85	"	7.94	G5	"	"	"	B	"		Fine
	40/85	"	8.20	"	"	"	"	A	"	problematic too discolored	
	30/75	"	7.18	A3	BC	830/-68	B5	IIa-OE	B	Waterloo	Fine
							"				
	40/40	<1"	3.98	F8	BC	830/-68	B5	IIa-OE	A	Waterloo	T=30°F
	80/80	1"	6.06	F5	"	"	"	B			Fine
	200/200	1.2"	8.0		"	"	"	A	"	T=28°F	
							"				
	200/200	1"	8.1	K0	BC	830/-68	B5	"	B	Waterloo	
	30/100	1.2"	8.0	K5	"	"	"	A	"	T=29°F	
	40/50	1"	7.0	G8	"	"	"	B	"		
	40/45	2"	6.90	F8	"	"	"	A	"		

209

Mon - Tues

Pois for short time

Emulsion Batches:

IIo-OE 08102-25023

ЩО-УБ 09023 - 23023

Date Feb. 28-Mar. 1, 1883 Observers T_n..... W₁R/T_n.....

[illegible]

Spectr. Temp. ...39.5°F.....

Dome Temp./Hum. 39°F / 56%Dome Temp./Hum. 34°F / 55%

Transparency Conditions *Hazy - Cloudy* 210

[illegible]

Tues-Wed

Date Mar 1-2, 1983 Observers Rm-Tn / Tn

Emulsion Batches:

Но-ОЕ 08102 - 28023

[illegible]

Spectr. Temp.44.5.....

Focus 513

Spectr. Temp. 38°F.....

Dome Temp./Hum. 41°F/74%

Dome Temp./Hum. +30°F / 97%

Transparency Conditions some cloud 212

Very Fine Aurora
best and south of Zenith by 02 hr EST

Comparison Type/Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
F/-	12-2					BC	830/.68	BS	IaO	B		Focus S13	
F/-	6-6	40/43	1"	4.4	F8V	"	"	"	IaO-E	A	Std vel		Fine
F/-	7-7	200/157	1-3"	7.0-7.3	B0 III + B1	"	"	"	"	B	Ceph-Rm	Cloud	Fine
D?	8-8								"				
F/-	7-7	80/130	2-4"	4.34	F2 IV	"	1200/-0.25	BS	"	B	KK prog.	* Loke/2/40 40°F Spot S13 cloud	Fine
"	7-7	40/57	"	2.8	G0	"	"	"	"	A	"		
R/-	7-7	80/200	"	5.1	A7 V G5 III	"	"	"	"	B	HK-Ly		
"	7-7	80/200	2"	4.9	F2 IV	"	"	"	"	A	"	13 34 PM 1973	
"	7-7	80/125	2-3"	6.22	F8	"	"	"	"	B	S.R.Bh/Ly	No Observer for test (probably clear to down)	

Date SAT-SUN MAR 5-6 1983 Observers Bxt-Ri

Emulsion Batches:

Tab-E 08102-28023

IIIaJc.b. 090.23.-23023

[illegible]

Spectr. Temp. 450°F

Dome Temp./Hum. 90°F 80%

Transparency Conditions ... *lazy with current 214*
moving w by morning

Focus 513

Spectr. Temp.

Dome Temp./Hum. 370°F 99%

Comparison Type/Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/- 12					B.C.	830/68	B.S.	I ₁ AO-E	A			
Fe/- 12	40/120	4-	4.07	B2IVc	B.C.	830/68	B.S.	IT ₁ AO-E	B	PE-B1 ₁		Fine
Fe/- 12-13	40/110	4-6	-	-	-	-	-	-	A	-		Fine
Fe/- 12-13								IT ₁ AO-E				
Fe/- 12-13	40/600	4-5	72	S ₁ 5 A2	B.C.	830/68	B.S.	I ₁ AO-E	B	UB-B1 ₁		Fine
Fe/- 12-13								I ₁ AO-E				
Fe/- 12-13	40/500		5.28	BB	B.C.	830/68	B.S.	I ₁ AO-E	A	SHELL-B1 ₁	THE DECKER BROKE LAST COMP IN STALLAR POSITION	Fine
Fe/- 12-13	40/50	4	3.50	AOI	B.C.	1200/ -.025	B.S.	IT ₁ AO-E	B	SB-B1 ₁	T430F F512	Fine
Fe/- 12-13	40/320		6.22	dfB	B.C.	1200/ -.025	B.S.	I ₁ AO-E	A	SB-B1 ₁ /Ly		sl wth
Fe/- 12-13					B.C.	1200/ -.025	B.S.	IT ₁ AO-E	B		T = 90°F PAWN	

Transparency Conditions *clearing with wind HP San* ²¹⁶
∴ very bad seeing NW

Dome Temp./Hum. /

[illegible]

Date Sat-Sun.. Mar. 12-13/83 Observers Byt-In.....

Emulsion Batches:

09023-11033

400-E... 08102 - 02033

[illegible]

Spectr. Temp. 32 °F

Dome Temp./Hum. +27°F / 65%

very gusty from N

218

Companion Type/Filter	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe-10					BC	830/66	BS	IIcO	B			
Fe-10	10/120	5"	3.51	09.5V	BC	830/68	BS	IIc-J-E	A	SB-Bln		fine comp. & str
Fe-10								IIc-J-E				
Fe-10	10/133	5"	6.4	B2V	BC	830/68	BS	IIc-O-E	B	VB-Bln		fine are fine
Fe-10	10/300	2-4"	7.20	9.65 A2	"	"	"	"	A	VB-Bln	cloudy 2.2V Threshold 3.5V ideal	fine are fine
Fe-10								"				
Fe-10	10/120	3"	3.50	A0V	RC	1200/0.05	BS	IIc-J-E	B	SB-Bln	Set 517 T=349F	good fine
Fe-10	10/127	2-3"	6.22	dF8	"	"	"	IIc-O-E	A	SB-Bln/Ly	2.2V Threshold 3.5V ideal	fine are fine
Fe-10	10/160	5-8"	6.15	09.5V	"	830/68	"	"	B	Var-Bln	* Too much Fe Arc at beginning T=339F Set 517	fine are strong
Fe-10	10/30	3"	4.82	B3V	"	"	"	"	A	SB-Bln		fine are strong
Fe-10	10/120	4"	9.79	B2V	"	"	"	IIc-J-E	B	Flare Bln		star strong comp v. weak!

Date *Sun-Mon. Mar. 13-14/83* Observers *HK-Tan / CMW-Tan.*

Emulsion Batches:

IIa-E...09023-11033

IIa-DE...08102-02033

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.
47462	HD 33328	05 04.4	-8 53	18 44	19 12	1 11 W	=	Fe/-	12-12
47463	NGC 2392	1880 25.0 7 28.0	+21 18 +20 57	2 19 30	2 20 00	0 20 E	+21 00		
47464	"	"	"	20 18	20 49	0 30 W	"		
47464T	Spot Calc for 47462-64				15min @ D4	17.5V 3900	15V 4300	15V 4810	
47465	HD 66751	7 59.9	+70° 0'	21 00	22:23	1 21 W	+69 47	Fe/-	5-5-5
47466	HD 8890	1 22.6	+88 46	22 34	22 36	7 43 W	89 10	Fe/-	7-7
47466T	Spot Calc for 47465-67.				15min @ 15V	D4 3900	D3 4300	D2 4810	
47467	R 800 HD 128609	14 ^h 32-8	+27° 10'	23:22	03:22	0h 07 ^m E	+26 51	Fe/ND	12-12-12

[illegible]

Date Wed-Thurs. Mar 6-17/83 Observers Tn

Emulsion Batches:

Emulsion Batches:

IIIa-1eb	09023-11033	18 29A
IIa-OE	08102-02033	

Па-ОЕ 08102-02033

[illegible]

11033 W 27
-02033

Transparency Conditions... Fine... vs/boze... 222

11033 W 27
-02033

Dome Temp./Hum. /

Comparison Type/Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/- 7-7-12	40/110	2-3"	3.51	09.5V	BC	830/68	BS	Wu-Jeb	A	S.P.B/h	* Just on slicer!	* Fine
" "								"				
Fe/- 12-12	80/85	3"	6.4	B2V	BC	830/68	BS	Ug-OE	B	VB B/h	arc re wk	fine
" "								"				
Fe/- 12-12	80/120	2"	7.20	9.65 +H2	BC	830/68	BS	"	H	VB B/h	T=75F	arc sl wk fine
Fe/- 10-10	40/120	2-3"	5.28	B8	"	"	"	Ug-E	B	Shell-B/h	Se+5/5 T=42°F	* Fine
" 10-10					"	"	"	Ug-E	B		" T 40.5°f	v. sl. red
											prob 2 2 hrs lost. no 2nd half obs	

TOUR TRIP TO LOOK AT M42
1/2 hr

Ind E08102-11033.

Date 9th Fri Mar 17-18 Observers Bo

[illegible]

Spectr. Temp.

Dome Temp./Hum.

224

3/- 12-2

225

Date SUN MON MAR 20-21 Observers AK-Ri

Emulsion Batches:

Tao-E 08102-11033

[illegible]

Spectr. Ter

Focus

Spectr. Ten

Exp. Mur.

Spectr. Temp. ... 34°

Dome Temp./Hum. 26°F 83%

Transparency Conditions cirrus 226

incoming storm system

Dome Temp./Hum.

Comparison Type/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
F _e /- 20-18	70/50	10	UAR	F	B.C.	1200/-1,025	B.S.	Tao-E	A	AsmSp/KK	tale Peasard	fine sl. strong
F _e /- 12-18	40/41	8	1.9	AOIV	"	"	"	"	B	AsmSp/KK	T=35°F F=5/4	fine
F _e /- 12-	70/43	0.8	F5	"	"	"	"	"	A	Std:		peeled emulsion
F _c /- 10-18				"	"	"	"	Iive	B		34°F	ok
D2 9810								Iiao-E				

8^m 680

Emulsion Batches:

Doc-E.08.102-20033...

Date WED THUR MAR 23-24 1983 Observers Ri

[illegible]

Spectr. Temp.

Dome Temp./Hum. . 190 F

Transparency Conditions *Some thin curves around* 228

	Type/Filte	Exp.	Comparison Type/Filte	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/UO ₄	K-6	9810			400/320	3-4	G42	B2U _b	B.C.	B ³⁰ /68	I.B.S.	IIao-E	A	He-Rich/Bln	TELE LIMIT	fine vs/wk
												IIao-E				
Fe/UO ₄	K-6				400/500	3-4	G45+ A2		B.C.	B ³⁰ /68	I.B.S.	IIao-E	B	VIB-Bln	T = 26°F F = 520	frc vs/wk v sl strong
Fe/	Zn											IIao E	A		T = 23° F = 520	ok

Emulsion Batches:

Emulsion Batches:
Pro-E 08102-20033 18 193

Date THURSDAY, MAR 29, 25 Observers KJ[illegible]

3. 18 193

Spectr. Temp. ... 26°F

Dome Temp./Hum. ... 200°F 54%

Transparency Conditions ... *Good* 236

Focus ... 520

Spectr. Temp.

Dome Temp./Hum. ... 120°F 55%

Comparison
Type/Filter Exp

Comparison Type/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/100 4-4	400/250	4	6.4	B0J	B.C.	830/.68	B.S.	Ilao-E	A	U13-B12	<i>Comp vs/wk</i>	<i>Fine</i>
Fe/100 10								Ilao-E				
Fe/100 14-6	200/300		7.3	M6C M9C	B.C.	820/.68	B.S.	Ilao-E	B	MIRAS Cuv	T = 24°F F = 520	<i>Fine</i>
Fe/100 14-6	400/500		7.2	945 A2	B.C.	830/.68	B.S.	Ilao-E	A	U13 B12	T = 23°F F = 521	<i>Comp vs/wk</i> <i>Fine</i>
Fe/100 4-6	80/30	3	5.6	F80D	B.C.	830/.68	B.S.	Ilao-E	B	STD UCL	T = 20°F F = 521	<i>Comp vs/wk</i> <i>Fine</i>
Fe/100 3-5	80/120		6.22	dFB	B.C.	1200/.015	B.S.	Ilao-E	A	SB-B12/Ly	T = 20°F F = 517	<i>Fine</i>
Fe/100 3-5	80/75		5.9	G0J	B.C.	1200/.015	B.S.	Ilao-E	B	STD UCL	"	<i>Fine</i>
Fe/100 3-5					B.C.	1200/.025	B.S.	Ilao-E	A		T = 19°F F = 517	<i>PAWN</i>

Fri - Sat

Date Mar. 25-26, 193... Observers .. Byt-Tn.....

Emulsion Batches:

5^m 68^m

...Wa-Jeb 09022...-19033

8m 68

...Πα.ΟΕ.08102-25033...

[illegible]

19033
25033

Spectr. Temp. 27°F
Focus 519
Spectr. Temp. 22.5

Dome Temp./Hum. 25°F / 48%
Dome Temp./Hum. 16°F / 48%?

Transparency Conditions Fine sl. hazy 232

Comparison Type/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/- 12-4	40/121	1.3	3.51	09.5V	BC	830/68	BS	IIIa-Job	A	SB-Bln	Fe sl str sl str	
								"				
ND 4-4	200/144	2"	6.4	B2V	BC	830/68	BS	IIa-OE	B	VB-Bln		Fine
								"				
4-14	200/168	2.3	7.52	A0	BC	830/68	BS	"	A	SB-Bln	Reverse	Fine
Fe/- 9-4	* 40/1240	2"	5.28	B8	"	"	"	IIIa-Job	B	Short-Bln	* 2x Normal Exp by mistake T=23°F Set 521	Fe sl str str
Fe/- 1-4	40/121	2"	3.50	A0V	"	1200/.425	"	"	A	SB-Bln	some cloud T=23°F Set 517	Fine
Fe/- 5-5	40/60	2"	6.22	4F8	"	"	"	IIa-O-E	B	SB Bln/Ly	one end broken ragged	Fine
ND 4-4	80/47	3"	6.15	09.5III	"	830/68	"	"	A	Var Bln	Power	Fine
Fe/- 1-4					"	"	"	IIa-O	B	T=22.5°F Set 517		

233

Emulsion Batches:

8^m 68° Dao-E 08102-20033 18 210

Date SAT SUN MAR 26-27 Observers Ri - BR

[illegible]

Spectr. Temp. 320F

Dome Temp./Hum. ... 30°F 45%

Dome Temp./Hum. 26°FTransparency Conditions *curios clauds* 234

Comparison Type/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/- 29-28					B.C.	830/.68	B.S.	ITao-E	A			
Fe/ND 4-78 ① 32 300 480	200/66	3	7.28	F5	B.C.	830/.68	B.S.	ITao-E	B	WATERLOO	Thick cloud	VS/wk
Fe/ND 4-78	40/40		3.98	F8	B.C.	830/.68	B.S.	ITao-E	A	"		Fine
Fe/ND 4-78	200/93		4.1	G8	B.C.	830/.68	B.S.	ITao-E	B	"		sl/wk

235

Date MON TUE MAR 23-29 Observers R.

Emulsion Batches:

5 ^m 68°	IIIa-Je-b. 09023-19033	28	306
8 ^m 68°	IIIa-E. 08102-28033	18	198

[illegible]

Spectr. Temp.

Dome Temp./Hum. 20°F 73%

Transparency Conditions *clearing with stragwail* ²³⁶
for north
poor seeing

[illegible]

237

Tues-Wed

Date _____

Mar. 29-30.

Observers

Cow - Ri / R_i

Emulsion Batches:

8^m 680

TRAQ-E 00102-29033

[illegible]

Spectr. Temp. 300F Dome Temp./Hum. ... 240F 64% ... Transparency Conditions good 238

Focus 518

Spectr. Temp. Dome Temp./Hum. 180F 81% 40/24

Comparison Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1- 24-2					B.C.	830/.68	B.S.	ITAD	A			
1- 4-4 3 3 42 0 480	400/400	3"	8.8	MR-MR	B.C.	830/.68	B.S.	ITAD-E	B	GW-MIRAS	EXP = 183m	Fine
								ITAD-E				
1- 14-14	400/400	3"	8.4	M3e-M6	"	"	"		A	"	T = 28°F F = 519	Fine
1- 8-8	40/80	2-3	5.08	A7U G5TIV	B.C.	1200/-0.025	B.S.	ITAD-E	B	Ly	T = 27°F F = 516	
1- 8-8	40/100	"	4.9	F5I	B.C.	1200/-0.025	B.S.	ITAD-E	A	Ly		Fine
1- 8-8	40/60	"	5.6	F8TIV	B.C.	1200/-0.025	B.S.	ITAD-E	B	SD VJ		Fine
1- 8-8	80/120	"	6.22	dFB	B.C.	1200/-0.025	B.S.	ITAD-E	A	SB Ly/BL		Fine
1- 3-3		"			B.C.	1200/-0.025	B.S.	ITAD-E	B		T = 25°F F = 516	
1- 4-4	80/70	3	6.15	G9.5III	B.C.	830/.68	B.S.	ITAD-E	A		T = 25°F F = 520	Fine
1- 24-2					B.C.	830/.68	B.S.	ITAD	B		T = 25°F F = 520 Too faint discarded	

239

Thurs - Fri

Date Mar. 31 - Apr. 1, 1883

Observers .. *Tn* *Boys in the woodwork*

Emulsion Batches:

IIIa-Jeb 09023-19033³³
IIa O-E 08102-30033

..Ia O-E... 08102... 30033

[illegible]

190227
30033

m. + 32° / 68°

240

Focus 516 . .

Focus 1.6
Spectr. Temp. 34°K

128F/857

Comparison	
oe/Filter	Exp

241

Fri - Sat

Date Apr 1-2 83 Observers Byt-Tn

Emulsion Batches:

Emulsion patches.
 Wa-Lab 09023 - 01043²³

IT.O.E. 08102-29033¹²

[illegible]

Spectr. Temp. ... 37°

Dome Temp./Hum. 134°F / 60%

Dome Temp./Hum. +31°/65%

Transparency Conditions *hazy - cloudy* 242

Comparison	
Pre/Filter	Exp

Comparison e/Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1-16-16		40/128	2.4	3.50	A0V	BC	1200/0.25	BS	IIIa-Jeb	A	SB-B/n	cloud	Fine
									"				
1-16-16		700/317	2"	6.22	4F8	BC	1200/0.25	BS	IIIa-OE	B	SB-B/n-Ly		Fine
									"				
1-16-16		700/161	2"	6.15	09.5 III	BC	830/68	BS	"	A	Var-B/n	138°F Set 5/6	Comp vs 1 str Fine
1-12-16		70/120	2.3	4.82	B3Ve	"	"	"	IIIa-Jeb	B	SB-B/n		comp 1 str str
1-16-16		70/40	2"	3.9	A2 III	"	"	"	IIIa-OE	A	std vel		comp 1 str fine
									---		Reel Cloud by dawn		

243

Emulsion Batches:

Emulsion Batches:

5 th 6 th	Feb 09023-01043	23 306
8 th 6 th	Nov-08102-29033	16 195

Date Fri-Sat APR 8-9 Observers Byt-Ri

[illegible]

4.3 23 2.6
3.3 16 1.5

Spectr. Temp. ... 470°F

Dome Temp./Hum. ... 400°F 89%

Transparency Conditions ... Good ... 244

Focus ... 518

Spectr. Temp. ... 390°F

Dome Temp./Hum. ... 320°F 95%

Comparison
Type/Filted Exp

Fe/- 14 6
150
310

Fe/- 4
340
9810

Fe/- 16
80/120

Fe/- 83
80/120

Fe/- 4
80/55

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
90/73	4-5	3.51	09.10	B.C.	830/.68	B.S	Triateb	A	SB-B/L	tele Reversed	good
							Triateb				
40/226	3-4	7.52	AD	B.C.	830/.68	B.S.	Triate-E	B	SB-B/L	-	flexure
							Triate-E				
40/120		3.50	AD	B.C.	1200/.025	B.S.	Triate-E	A	SB-B/L	T=40°F F=513	
80/120	3	6.2	dFB	B.C.	1200/.025	B.S.	Triate-E	B	SB-B/L/4y		fine
80/55		6.1	B8	B.C.	830/.680	B.S.	Triate-E	A		T=40°F F=515	fine

245

Emulsion Batches:

IIa-OE 08102-29033

Date MON APR 11-12/83 Observers Sch-Tn

[illegible]

Spectr. Temp.

Dome Temp./Hum. 38°F / 90%

Transparency Conditions... *bazy - cloudy* 246

[illegible]

8^m 68

Emulsion Batches:

No. 0E. 08/02 - 11043 19185

Date TUE APR 12-13/83 Observers Sch-Tn

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
47520F	Focus Test					0	+20°	Fel-	
47520	HD 89449	10 14.3	+19 59	19 38	19 57	1 17 E		Fel-	5-5
47521	HD 117362 FO VIR	13 24.7	+1 37	20 44	21 59	2 23 E	+1° 16	Fel-	3-3-3
47521T	Spot C/n for 47520-28			15 ^m 0 15V		^{D4} 3900	^{D3} 4300	^{D2} 4810	
47522	HD 117362	13 24.7	+1 37	22 01	23 01	1 21 E	+1 16	Fel-	3-3-3
47523	"	"	"	23 03	00 02	0 21 E	"	"	3-3-3
47524	"	"	"	00 05	01 06	0 43 W	"	"	3-3-3
47525	"	"	"	01 07	02 46	2 25 W	"	"	3-3-3
47526	HD 137909	15 23.7	+29 27	02 55	03 11	0 50 W	+29 13	"	7-7
47527	HD 8890	01 22.6	+88 46	03 21	03 26	9 48 E	"	"	8-8
47528	HD 203156	21 15.4	+37 49	03 41	05 04	3 08 E	+38 11	"	3-3-3

Spectr. T.

Focus..

Spectr. T.

Exp. Mtr.

40/38

80/49

80/50

80/46

80/42

200/65

4/65

40/63

200/20

1104319

Spectr. Temp. $+48.5^{\circ}\text{F}$ Dome Temp./Hum. $+43^{\circ}\text{F}/63\%$ Transparency Conditions 51 hazy 248Focus 51.3 Spectr. Temp. 4.0 Dome Temp./Hum. $127^{\circ}\text{F}/92\%$ Comparison
Type/Filter Exp.

Comparison Type/Filter Exp.		Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe-						BC	830/68	BS	IIaO.	A			ok
Fe-	5-5	40/38	1.2"	5.3	F6IV	"	"	"	IIaO-E	B	std vel		fine
Fe-	3-3	80/49	2.3"	V= 6.6	A2V	"	"	"	"	A	Var Sch		exp ok dust
D2									"				
10													
Fe-	3-3	80/50	2.3"	V= 6.6	A2V	BC	830/68	BS	"	B	Var Sch	slight haze	good
"	3-3	80/46	3"	"	"	"	"	"	"	A	"	some cloud	good
"	3-3	80/42	4"	"	"	"	"	"	"	B	"		good
"	3-3	00/65	3.4"	"	"	"	"	"	"	A	"	very hazy	sl weak
"	7-7	40/65	3"	3.93	FOp	"	1200/-025	"	"	B	115m Sp HK	+43°F Set 513	
"	8-7	40/65	3"	3.2	F	"	"	"	"	A	"		
"	2-3	200/200?	3"	6.17	FZ	"	830/68	"	"	B	Ceph-Rm		

Emulsion Batches:

Tiao-E 08102-30033

Ita-Jeb 09023 - 01043

Date SAT SUN APR 16-17 Observers Byt-Ri

[illegible]

Spectr. Temp. ... 41°F

Dome Temp./Hum. ... 32°F 64%

Transparency Conditions ... sp. 1.44 250

Focus ... 515

Spectr. Temp. ... 34°F

Dome Temp./Hum. ... 28°F 65%

Comparison Type/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1/- 5- 4810	400/25	3-4	7.52	A0	B.C.	830/68	B.S.	IIao-E	A	SB-B1L		fine
								IIao-E				
1/- 6- 4810	40/35		4.1	B7c	B.C.	830/68	B.S.	IIao-E	B	PERCY *	9 = 35°F F = 517	sl. strong
1/- 16- 4810	40/120	4	3.5	A0V	B.C.	1200/-025	B.S.	IIaTeB	A	SB-B1L	9 = 35°F F = 514	fine
								IIaTeB				
1/- 8-8	30/120	3	6.22	dFB	B.C.	1200/-025	B.S.	IIao-E	B	SB-B1L/Ly		fine
1/- 12	20/40		3.9	K2III	B.C.	1200/-025	B.S.	IIao-E	A	STD-VL		fine
1/- 3-15					B.C.	1200/-025	B.S.	IIao-E	B		9 = 34°F F = 514	vs 18/4e

Emulsion Batches:

Date MON TO FRS APR 18 19 Observers WLF - BOIS - R.

.....

.....

.....

[illegible]

Spectr. Temp.

Dome Temp./Hum.

Transparency Conditions 252

252

[illegible]

253

Thurs - Fri

Date Apr 21-22/83..... Observers Tn - Bois.....

Emulsion Batches:

5 ^m 68°	Pa-Jeb 09023	-13043
8 ^m 68°	Pa-oe 08102	-13043

[illegible]

-13043
-13043Spectr. Temp. ... $+38^{\circ}\text{F}$ Dome Temp./Hum. $+30^{\circ}\text{F}/99\%$ Transparency Conditions *Some cloud again* 254

Focus 514

Spectr. Temp. ... 36°F Dome Temp./Hum. $128/97\%$ Comparison
of Filter Exp

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1-15-74 40/180	2-3"	4.10	B7nn	BC	1200/.025	BS	IIa J-eb	A	Pery *	some cloud	fine
							"				
1-15-74 40/210	2"	3.93	Fop	BC	1200/.025	BS	IIa J-eb	B	Asm sp KK	* 2cm broken off end	exp fine sl. foggy as blue chl
1-15-74 40/150	3"	3.50	A0V	"	"	"	"	A	SB-Bln	T=37°	fine
1-17-74 80/103	1-2'	6.22	dF8	"	"	"	IIa-Oe	B	SB-Bln/Ly		
							IIa-Oe				
1-17-74 40/	3.9	1214	BC	1200/.025	BS	"	A	SD 601	cloud		
1-17-74			BC	1200/.025	BS	IIa-O	B	Set 514	T 36°F		OK

255

Reticon Earlier (part cloudy)

Früher - Satz

Emulsion Batches:
8th 68° .. Pa.O.E. 08102-13043

Date Apr. 22-23/83..... Observers Bois - T^h.....

[illegible]

Spectr. Temp. 75°F

Dome Temp./Hum. 38°F / 60%

Transparency Conditions *semi cloudy - hazy* 256

Focus 514

Spectr. Temp. 40.5° F.....

Dome Temp./Hum. 32°/60%

[illegible]

0.93

42°F / 55℉

hazy - cloudy.

513.

Comparison	
oe/Filter	Exp

2	210
---	-----

259

Sun - Mon

Date Apr 24/25 83

Observers KK-TN

5-680

Emulsion Batches:

IVa Ia 09023 - 13043

8-680

8^m-68° II.40-E.08102...-2.7043

[illegible]

3043
2043

Spectr. Temp. ... 49.5°F

Dome Temp./Hum. 40°F/54.7%

Transparency Conditions some streaks - cloud from 260

Focus ... 512

Spectr. Temp. ... 43°F

Dome Temp./Hum. 40°F/54.7%

SSE unusual

Comparison
type/Filter Exp

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
0-14-40/106	2"	3.3	A5	BC	830/.68	BS	III Jfy	B	AsmSp KK		sl/sr
0-17-12				"	"	"	IIaO	A			OK
0-14-100/160	5"	7.0	df8	"	1200/.025	BS	IIaO-E	A	AsmSp KK	clouds reverse T=48° F=511	good
							IIaO-E				
0-18-80/110		4.3	F2IV	BC	1200/.025	BS	IIaO-E	B	AsmSp KK	cloud	fine
0-18-80/103		var 3	F	BC	"	"	"	B	AsmSp/KK	thru cloud	fine
0-18-80/60		1.24	KO	"	"	"	"	A	std vel	2000	fine

Spectr. Temp. $+75^{\circ}\text{F}$Dome Temp./Hum. 42°/54%

Transparency Conditions *s/ Hery* 262

Focus 514

Spectr. Temp. 4.43.....Dome Temp./Hum. +38°/55%

No 2nd half observer prob day
till dew

[illegible]

263

Wed-Thurs

Date Apr. 27-28/83.

Observers

Tr. (Schia 29" Dure)
Bois for cubik

Photometry 5^m 68
of his star 1

Emulsion Batches:

Emulsion Batches.
 P-0-E 08102 -25043

WAL-E 08023 - 13043

f.g

[illegible]

25043
13043

Spectr. Temp. $+64^{\circ}\text{F}$

Dome Temp./Hum. $60^{\circ}\text{F}/62\%$

Transparency Conditions $sl. hazy - sl. cloudy$ 26A

Focus $507-509$

Spectr. Temp. $+56.5^{\circ}\text{F}$

Dome Temp./Hum. $+49^{\circ}\text{F}/73\%$

Comparison
type/Filter Exp

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe-66 200/60	2.4	~6.5	A2V	BC	830/68	BS	IIaD-E	A	Sch prog		sl w k
1-6 70/45	2.3	"	"	"	"	"	"	B	"	adjusted focus	Fe sl w k v sl w k
1-6 80/45	3.4	"	"	"	"	"	"	A	"		Fe sl w k v sl w k
1-6 80/44	3.7	"	"	"	"	"	"	B	"	T = 63°F	v sl w k
1-6 80/36	3.6	"	"	"	"	"	"	A	"	thin cloud	v sl w k
2 810							"				
Fe-4 40/120	3"	4/10	B7nn	BC	830/68	BS	IIa-L E6	B	Percy Prog	Set 509 T-61 F	sl str
SV 80							"				
1-6 40/167	4"	3.50	A0V	BC	1200 f. 0.25	BS	"	A	SB-Pin	T-60 F Set 509	Fine
1-6 40/42	4"	3.9	K2III	"	"	"	IIaD-E	B	std Vel	cloudy	v sl w k
1-6 00/130	3"	6.17	F2	"	830/68	"	"	A	Ceph-Pm	cloudy	v sl w k
1-6 17				"	"		IIaD	B		Set 509 T = 56.5°F	cent sl blue

265

THRO5-FRI

Date MAY 5-6 1983

Observers

$$B_y + -R_1$$

New D-19

8^m 68

5^m 680

Emulsion Batches:

Tao-E. 68102-25043

Иангел. 09.023.-29.043 20L

[illegible]

Spectr. Temp. 51°FDome Temp./Hum. 42°F 85%Transparency Conditions Good 266Focus 512

Spectr. Temp.

Dome Temp./Hum. 39°F 87%Comparison
Type/Filter Exp

Fe- 44

B2
Fe-10

Fe- A 44

B2
Fe-10

Fe- 44

Fe- 6-6

Fe- 44

Fe- 44

Fe- 6-6

Fe- 44

Fe- 44

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
200/230	4.5	7.20	945 A2	B.C.	830/68	B.S.	IIao-E	A	VB-B1L		flexure
							IIao-E				
40/120	4	4.10	B7L	B.C.	830/68	B.S.	IIaT-Eb	B	PERCY*	T=450F F513	fine
							"				
40/20		3.5	A0J	B.C.	1200/-.025	B.S.	IIaT-Eb	A	SB-B1L	T=450F F512	
200/304	4	6.22	dFB	B.C.	1200/-.025	B.S.	IIao-E	B	SB-B1L/Ly		fine
				B.C.	1200/-.025	B.S.	IIao-E	A		T=430F F=512	
200/200	4	6.17	F2	B.C.	830/68	B.S.	IIao-E	B	CEPH-Rm	T=430F F=514	
20/30		4.1	K3II	B.C.	830/68	B.S.	IIao-E	A	Std U.L		
				B.C.	830/68	B.S.	IIao-E	B		T=410F F514	fine

267

Date Sat. May 8 - 9, 1983 Observers Seay-R5^m 68^o

Emulsion Batches:

Tho-E. 08102-28043Tho-E. 09023-29043 2040

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.	Exp. Mtr.
47569	FO VIR HD 117362	13 27.2	+10° 21.3	20 03	21 13	1 28 E		Fe/-	444	200/80
47569F	FOCUS TEST			21 15				Fe/-	2020	
47570	HD 117362	13 27.2	+10° 21	21 : 15	22 : 15	0 26 E	+10° 12	Fe/	4-44	200/88
47570T	SPOT CAL FOR PLATES 47570 -			15 MIN @ 1500 LTS		0 24 0 23 0 22 0 21 0 20 0 19 0 18 0 17 0 16 0 15 0 14 0 13 0 12 0 11 0 10 0 09 0 08 0 07 0 06 0 05 0 04 0 03 0 02 0 01 0 00				
47571	HD 117362	13 27.2	+10° 21	22 : 17	23 : 10	0 30 W	+10° 12	Fe/-	4-44	200/90
47572	"	"	"	23 : 12	00 : 11	1 30 W	"	Fe/-	44-4	200/70
47573	"	"	"	00 : 12	01 : 19	2 39 W	"	Fe/-	44-4	200/80
47574	HD 138749	15 28.9	+31° 42	01 : 24	01 : 48	1 05 W	+31° 27	Fe/-	44	200/80
47574T	SPOT CAL FOR PLATE 47574			15 MIN @ D4		0 17.5 0 15.0 0 12.5 0 10.0 0 07.5 0 05.0 0 02.5 0 00.0				
47575	HD 161096	17 38.5	+09° 37	01 : 54	02 : 02	0 52 E	+09°	Fe/-	6-6	200/80
47576	HD 203156	21 15.4	+37° 49	02 : 07	03 : 17	03 : 14 E	+38° 12'	Fe/-	4-4-4	200/200
47577	HD 165174	17 59.6	+1° 55	03 : 22	04 : 17	01 00 W	+01° 55	Fe/-	44	200/75
47577F	FOCUS TEST							Fe/-	2020	

Spectr. Temp. 48°F Dome Temp./Hum. 41°F 70% Transparency Conditions good 268

Focus 512

Spectr. Temp. Dome Temp./Hum. 32°F 78% 4/30

Companso e/Filter	Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1- 444	200/80	4-5	6.5	A2I	B.C.	830/.68	B.S.	Ilao E	B	Wnn - Sel			good
1- 3060					B.C.	830/.68	B.S.	Ilao	A				
1- 444	200/88		6.5	A2I	B.C.	830/.68	B.S.	Ilao E	A	Var - Sel	T=47°F F=513		fine
1- 490								Ilao E					
1- 444	200/90		6.5	A2I	B.C.	830/.68	B.S.	Ilao E	B	Une - Sok	T=46°F F=513		fine
1- 444	200/70		-	-	-	-	-	-	A	-	T=45°F F=513		fine
1- 444	200/80		-	-	-	-	-	-	B	-	T=44°F F=513		
1- 444	200/120	3-4	4.10	B7m	B.C.	830/.68	B.S.	Ilao E	A	Percy *	T=43°F F=514		fine
1- 6-6	20/30		3.9	K2III	B.C.	830/.68	B.S.	Ilao E	B	Std Val	T=42°F F=514		fine
1- 444	200/200		6.17	F2	B.C.	830/.68	B.S.	Ilao E	A	Gp/Rm	T=42°F F=514		fine
1- 444	200/175	4	6.15	O9.5TH	B.C.	830/.68	B.S.	Ilao E	B	Var - B/L	T=41°F F=515		
1- 2010					B.C.	830/.68	B.S.	Ilao	A		T=40°F F=515		

269

Date MON. TUE. MAY 9.-10.83 Observers Sch-R.

Emulsion Batches:

~~Thore~~ 08102-28043...

Thore 08102-08053...

Tateb 09023-29043...

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.
47578F	FOCUS TEST							Fe/-	20-20
47578	HD 117362	13 27.2	+01° 21	20:00	20:58	0140 E	+01° 13	Fe/-	4-4-4
47578T	SPOT CAL FOR PLATES 47578-				15 MIN @ 1500 LTS				
47579	HD 117362	13 27.2	+01° 21	20:59	21:59	0 37 E	+01° 13	Fe/-	4-4-4
47580	HD 117362	13 27.2	+01° 21	22:00	23:00	0 24 W	+01° 13	Fe/-	4-4-4
47581	HD 117362	13 27.2	+01° 21	23:02	00:02	01 25 W		Fe/-	4-4-4
47582	HD 117362	13 27.2	+01° 21	00:04	01:04	02 28 W		Fe/-	4-4-4
47583	HD 8890	01 22.6	+88 46	01:21	01:24	10" 03 E	85° 10	Fe/-	9-9
47584	HD 141513	15 44.4	-03° 07	01:38	01:59	1 04 W	-03° 20	Fe/-	17-17
47584T	SPOT CAL FOR PLATES 47584-85				15 MIN @ 104				
47584F								Fe/-	25-25
47585	HD 138749	15 28.9	+31° 42	02:10	02:30	01 51 W	+31° 28	Fe/-	14-14
47586	HD 203156	21 15.4	+37° 49	02:37	03:20	03 06 E	+38° 11	Fe/-	4-4-4
47587	HD 182572	19 20.2	+11° 44	03:26	03:53	00 38 E	+11° 55	Fe/-	4-4-4
47588	HD 182640	19 20.5	+02° 55	03:57	04:15	00 16 W ^x	+03° 07	Fe/-	14-14
47588F	FOCUS TEST							Fe/-	20-20

Spectr. T

Focus...

Spectr. T

Exp. Mtr.

30/60

30/55

30/47

30/35

30/30

30/32

30/30

30/30

30/30

30/30

30/30

30/30

30/30

30/30

30/30

Spectr. Temp. ... 49°F

Dome Temp./Hum. ... 40°F ... 60%

Transparency Conditions ... good ... 270

Focus ... 513

Spectr. Temp.

Dome Temp./Hum. ... 36°F ... 70%

40/32

Comparison Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
- 20-20					B.C.	830/.68	B.S.	IIAD-E [*]	A			
- 4-6-4	80/60	3	6.5	A2V	B.C.	830/.68	B.S.	IIAD-E	B	VAR-SEL		good
③ 72 400								IIAD-E				
- 44-4	80/55	3-4	6.5	A2V	B.C.	830/.68	B.S.	IIAD-E	A	VAR-SEL	} both numbered '79' ids which are marked on the basis of order of density	
- 44-4	80/47	4	6.5	A2V	B.C.	830/.68	B.S.	IIAD-E	B	VAR-Sch		
- 44-4	200/85		6.5	A2V	B.C.	830/.68	B.S.	IIAD-E	A	VAR-SEL		T=450F F=513
- 44-4	200/80		6.5	A2V	B.C.	830/.68	B.S.	IIAD-E	B	VAR-SEL		
- 9-9	20/32	~2	F		B.C.	1200/.025	B.S.	IIAD-E	A	Ceph. - Rm	T=430F F=512	
- 17-17	20/60	3.50	A0V		B.C.	1200/.025	B.S.	IIAD-E	B	SB-BLK		good
								IIAD-E				
- 15-15					B.C.	1200/.025	B.S.	IIAD-E [*]	A		T=420F F=512	
- 14-14	40/120	3-4	4.1	B7A	B.C.	830/.68	B.S.	IIAD-E	B	PERCY *	T=420F F=514	sl strong
- 14-14	80/80	4	6.7	F2	B.C.	830/.68	B.S.	IIAD-E	A	Ceph. - Rm		fine
- 4-4-4	40/40		5.2	G8IV	B.C.	830/.68	B.S.	IIAD-E	B	STD. VEL.		fine
- 14-14	20/65		3.68	F0IV	B.C.	830/.68	B.S.	IIAD-E	A	Asm Sp/TK		fine
- 20-20					B.C.	830/.68	B.S.	IIAD-E	B		T=410F F=514	fine

Date Fri. Wed. May 10-11 '83 Observers Se L - Ri

Emulsion Batches:

8^m 68° Fluor. 0802-08053.
 5^m 68° Fluor. 0802-08053.
098:02

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.
47589F	FOCUS TEST							Fe/-	20-20
47589 ✓	HD 117362	13 27.2	+01° 21'	20:00	21:00	01 34 E	+01° 14'	Fe/-	4-44
47589T	SPOT CAL FOR PLATES 47589-91				15 MIN @ 1500 LTS	3900	4300	4810	
47590	HD 115521	13 12.6	+06° 00'	22:33	22:54	0 33 W	+05° 35'	Fe/-	4-4-4
47591	HD 117362	13 27.2	+01° 21'	22:56	23:45	01 12 W		Fe/-	4-44
47592	HD 117362	13 27.2	01° 21'	00:32	01:32	03 00 W	+01° 12'	Fe/-	4-4-4
47593	HD 8890	01 22.6	+88° 46'	01:44	01:47	09 438 E	+89° 09'	Fe/-	9-9
47594 ✓	HD 157482	17 18.5	+46° 04'	01:55	02:21	00 02 E	+39° 59'	Fe/-	6-6-6
47594T	SPOT CAL FOR PLATES 47592-				15 MIN @ 1500 LTS	3900	4300	4810	
47595	HD 182572	19 20.2	+11° 44'	02:26	02:56	01 32 E	+11° 55'	Fe/-	6-66
47596	HD 203156	21 15.4	+37° 49'	03:04	03:39	02 43 E	+38° 12'	Fe/-	4-4-4
47597	HD 165174	17 59.6	+01° 55'	03:45	04:25	1 17 W	+01° 57'	Fe/-	44-44
47597F	Focus test RC w/ new beam splitter								

Spectr. Temp.

Dome Temp./Hum. 43°F 68% 40/31

Comparison Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1- 20-25					B.C.	830/.68	B.S.	IIao-E	A			
1- 4-4	80/73	3	6.5	A2V	B.C.	830/.68	B.S.	IIao-E	B	Var - Sch	CLOUDS	fine
2- 0								IIao-E				
1- 4-4	80/100		5.0	M2V	B.C.	830/.68	B.S.	IIao-E	A	STD UFL	CLOUDS	
1- 4-4	200/34		6.5	A2V	B.C.	830/.68	B.S.	IIao-E	B	Var - Sch	CLOUDED IN AGAIN T = 520F T = 511	weak
1- 4-4	200/115	3	6.5	A2V	B.C.	830/.68	B.S.	IIao-E	A	Var - Sch	T = 510F T = 512	good
1- 9-4	20/40	2	2.2	F	B.C.	1200/.68	B.S.	IIao-E	B	Ceph - Rm	T = 510F F = 510	fine
1- 6-6	80/120	1-2	6.22	df8	B.C.	1200/.025	B.S.	IIao-E	A	SB - Bl/ky	T = 500F T = 510	fine
								IIao-E				
1- 6-6	80/60	2	5.2	G8II	B.C.	1000/.025	B.S.	IIao-E	B	STD UFL		fine
1- 4-4	80/80		6.17	F2	B.C.	830/.68	B.S.	IIao-E	A	Ceph - Rm	T = 500F F = 512	fine
1- 4-4	200/85		6.15	O9.5II	B.C.	830/.68	B.S.	IIao-E	B	Var - Blr	clouds T = 490F	good
					RC	830/.9	RS	G98	B		T = 510F F = 512	very red

273

Emulsion Batches:

Emulsion Batches.
IIaO-E 08102 - 11053

Date Wed-Thurs May 11-12/83 Observers Sch-74.....

[illegible]

Spectr. Temp. $+57^{\circ}\text{F}$

Dome Temp./Hum. ^{45°F} / 54%

Transparency Conditions . . . 51 4474 274

Focus 510-512

Spectr. Temp. 49°F

Dome Temp./Hum. 41°F / 94%

Comparison e/Fitter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1-6-6	30/50	1 ⁿ	5.0	m2149	BC	830/68	BS	II40E	A	Std Vel			good
								"					
1-6-6	30/50	1-30	6.5	A2V	BC	830/68	BS	"	B	Var Sch			good
1-6-6	30/50	"	"	"	"	"	"	"	A	"			good
1-6-6	30/50	2-3	"	"	"	"	"	"	B	"			good
1-6-6	30/50	3'	"	"	"	"	"	"	A	"	+55°F		
1-6-6	30/46	3-4"	"	"	"	"	"	"	B	"			
1-6-6	30/45	23"	"	"	"	"	"	"	A	"			
1-6-6	00/220	"	7.9- 9.4	F51-II -G3	"	"	"	"	B	Ceph Pm	+50°F set 512 broken	Prob 2 m 8.0	

275

Visitor Group 21 hr Gis - (M3 very good)

8^m 68° Emulsion Batches:
 .. IIaO-E 08102 - 11053
 4^m 70° .. 09802. 05031 - 03053

Date Thurs-Fri May 12-13 Observers Sch-Tn

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
47606	HD 117362	13 ^{24.7} 23.2	+1 ³⁶ 21	21 14	21 49	0 36E	+1 13	Fe/-	4-8
47606T	Spot Calc	for 47606, 08-11		15 min	015V	D4 3900	D3 4300	D3 4810	
47607	HD 114519	13 06.0	+36 28	22 02	02 01	03 57 W	+36 02	Fe/ND Ne/ND	7-6-1 7-6-6
47607T	Spot Calc for 47607			15 min	15V D3 4810	7V D1 Hx	7V D2 5450		
47608F	Focus test					0400 W	+36 02	Fe/- Ne/-	8-8 8-8
47608	HD 157482	17 18.5	+40 04	02 15	02 41	00 25 W	+40 02	Fe/-	8-8
47609	HD 165174	17 59.6	+1 55	02 48	03 11	00 11 W	+1 58	Fe/-	6-6
47610	HD 203156	21 15.4	+37 49	03 14	03 45	02 29 E	+38 12	"	6-6
47611	^{Polaris} HD 8890	1 22.6	+88 46	03 53	03 56	2700 E		"	9-9
				Lost					

0.1053
0.3053

Spectr. Temp. $+57^{\circ}\text{F}$

Dome Temp./Hum. $? = 164/6$

Transparency Conditions $S1 \text{ hazy}$ 276

Focus 510

Spectr. Temp. $+52.9$

Dome Temp./Hum. $+18^{\circ}\text{F}/80\%$

Fair Aurora, Last night too

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
80/53	1"	6.5	A2V	BC	830/68	BS	Il40-E	A	Var Sch		good
							"				
200/200	1-2"	8.4-9.9	F4 IV TKO IV	BC	1200/1.7	RS	098	B	SB Bl	T=55°F Set 510	good some fog
							"				
				BC	1200/1.7	RS	"	A		T=53.5°F Set 510	slightly blue
80/120	1-2"	6.22	d18	BC	1200/1.025	BS	Il40-E	B	SB-Bl/Ly	Set 510	
80/73	1"	6.15	095 II	"	830/68	BS	"	A	Var Bl	Set 511	
80/100	1"	6.17	F2	"	"	"	"	B	Ceph Rem		
20/48	1"	2.2	F	"	1200/1.025	"	"	A		Very rough plate	lost

277

Emulsion Batches:
8^m 68^o DEF 08102 - 09053

Date Fri-Sat May 13-14/83 Observers Tm-Sch-Ots.....

[illegible]

Spectr. Temp. ... + 63°F ...

Dome Temp./Hum. 60°F / 60%

Transparency Conditions 278

278

Focus 508

Spectr. Temp. ... 4.58°K ...

Dome Temp./Hum. 52 / 78%

[illegible]

279

Sun - Mon

Date May 15-16/83 Observers T. J. ...

8^m 68

Emulsion Batches:

H40-E 08102 -13053
 H41-E 09023 -13053

[illegible]

Transparency Conditions . . . *Fine . . . for clarity* . . . 280

Focus 509

Spectr. Temp. 49

Dome Temp./Hum. 40 / 92%

Comparison	
Type/Filter	Exp

Comparison pe/Filter	Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
9-9-55		0/55	3-5	5.0	M20	BC	1200/-025	BS	II-0-E	A	std vel	same cloud	fine
									"				
9-9-55		40/55	5"	2.8	G0	PC	1200/-025	BS	II-0-E	B	Asm Sp KK		fine
6-6-55		200/245	3-6	5.92	d62	"	"	"	"	A	"		fine
12-12-55		20/60	5"	3.50	A0V	"	"	"	II-0-E	B	SB-Pln		
									"				
4-4-55		10/120	5"	4.10	B7nn	BC	830/168	BS	II-0-E	A	Percy prag	T=50°F Set 512	
6-6-55		40/50	5"	5.58	G2V	"	"	"	II-0-E	B	Asm Sp KK		fine

281

Tues-Wed

JD 2445472.7

Emulsion Batches:

Duo-E 08102-13053

09802E 05031-03053²⁵

Date

May 17-18/83

Observers

Rm-Tu

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.
47625F	Focus test							Fe/-	16-16
47625	HD 81797	9 ^h 22.7	-8° 14	20:07	20:11	2 ^h 6 W	-8° 34	Fe/-	6-6
47626	HD 117362 = FOV _r	13 ^h ^{24.7} _{27.2}	10° ³⁶ ₂₁	20:15	21:01	1 ^h 4 E	+0° 12	"	6-6
47627	"	"	"	21:02	21:52	0 13E	"	"	6-6
47628	"	"	"	22:02	22:52	0 47W	"	"	6-6
47628T	Spot for 47625-29,34,35, 15min @ 15,					D4 3900	D3 4300	D2 4810	
47629	HD 8890 = QUM1	1 ^h 22.6	+88° 46	23:07	23:10	11 ^h 42E	+89° 11	Fe/-	6-6
47630	"	"	"	23:21	23:24	11 ^h 36 E	"	Fe/ND	10-10
47631	HD 162714 = YOPh	17 ^h 47.3	-6° 07	23:33	00:41	1 ^h 47 E	-06° 07	Fe/ND	6-6
47631T	Spot caln for 47630-33			15min @	15V D3 4810	7V D1 H2	7V D2 5950		
47632	HD 188727 = SSp	19 51.5	+16 22	00:51	01:21	3 ^h 10 E	+16° 35	Fe/ND	9-9
47633	HD 186688 = SUG _g	19 ^h 40.8	+29° 01	01:25	2:53	1 ^h 26 E	+29° 15	Fe/ND	9-9
47634	HD 18334 = U A _g	19 ^h 24.0	-7° 15	3:00	3:44	0 20 E	-7° 04	Fe/-	9-9
47635	HD 203156 = HR 8157	21 15.4	+37° 49	3:47	4:14	1 41 E	+38 12	Fe/-	9-9

-13053 Spectr. Temp. 52.5°F Dome Temp./Hum. 47°F/60% Transparency Conditions Fine V. sl haze ²⁸²
 -03053 Focus 512
 Spectr. Temp. Dome Temp./Hum. 40/70% 1st use of New Aluminized

Comparison Type/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
					BC	830/.68	BS	II-0E	A			
-6-60/50	40/50	2-3"	2.2	K3L	"	"	"	"	B	std vel		
" 6-60/50	40/50	"	6.5	A2II	"	"	"	"	A	Sch		
" 6-60/50	40/50	2"	"	"	"	"	"	"	B	Sch		
" 6-60/50	40/50	1-2"	"	"	"	"	"	"	A	Sch		
								II-0E				
-6-60/42	40/42	1-2"	FTB F8L	2.5- 2.7	"	1200/ -.05	"	"	B	Ceph/Rm		uneven
" 6-60/80	40/80	1-2"	"	"	"	1200/ .7	RS	098-0E	A	"	(No filter over RS)	good
" 6-60/80	40/80	1-2"	~7.2	FTB	"	"	"	"	B	"	50°F set 512	good
								"				
" 6-60/80	40/80	1"	~6.5	260	BC	1200/.7	RS	"	A	Ceph-Rm		good
" 6-60/80	40/80	2"	7.7	G1	"	"	"	"	B	"		sl
" 6-60/80	40/80	1"	~6.5	2F-II	BC	830/.68	BS	II-0E	A	Ceph/Rm	47°F	fine
" 6-60/80	40/80	1"	6.2	F2	"	"	"	"	B	"		v sl str

283

Wed-Thurs

Date MAY 18-19/82 Observers KK-CK-Tn

Emulsion Batches:

Emulsion Batches:

Π-0-E	08102-17053
III-0-E	09023-13053

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.
47636	HD 137909	15 23.7	+29 27	22 25	22 42	1 18 E		Fe/-	9-9
47637	HD 8890A	1 22.6	+88 46	22 51	22 58	11 51 E		Fe/-	9-9
47638	HD 156014	17 10.1	+14 30	23 13	23 24	2 22 E		Fe/-	9-9
47639	HD 159561	17 30.3	+12 38	23 31	00 8	1 58 E		Fe/-	18-18
47638T	Spot Calc for 47636-38			15 min @ 15V		D4 3900	D3 4300	D2 4810	
47639T	Spot Calc for 47639			15 min @ D4		17.5V 3900	15V 4300	15V 4810	
47639F1	Focus Test					0		Fe/-	20-20
Focus Tests May 20-21 after Exp meter changes.									
47639F2						0	+9° 30	Fe/-	17-17
" F3						0	"	"	"
" F4						0	"	"	20-20

Spectr. Temp. Dome Temp./Hum. 47°F / 70%

Focus 509

Spectr. Temp. 52°F

Dome Temp./Hum. 47° F. / 70%

Dome Temp./Hum. 45°F/75%

Transparency Conditions *cloudy sunset* 284

284

Comparison pe/Filten	Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
9-9	30/2120	1.2"	3.9	Fop	BC	1200/-025	BS	II ₀ -E	A	Asm. Sp/KK			fine
9-9	20/40	"	var	F	"	"	"	"	B	"			
9-9	80/240	"	3.9	M	"	"	"	"	A	std Vel			good
9-9	10/120	1.3"	2.2	H5II	"	"	"	III ₀ -E	B	Asm Sp/KK	cloud		good
								II ₀ -E					
								III ₀ -E					
					BC	1200/-025	BS	II ₀	A				
ie new beam splitter installed May 20													
17-1		T=59.5°F			BC	1200/-025	BS	II ₀ -E	A	Set 514	Telescope Reversed		
"	"	"			"	"	"	"	A	Set 511	(Normal would		
"	"	"			"	"	"	"	A	Set 507	be 508-509)		
<u>T_h</u>													

Sat-Sun

Date MAY 21-22/83 Observers CG-TN

Emulsion Batches:

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[illegible]

Transparency Conditions . . . 4924 - 01 and 9 286

Spectr. Temp.

Dome Temp./Hum. 100/80

Comparison	
e/Filter	Exp

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Cy & Rg have their own record system.											

287

Date May 27-28 Observers Flu - R.
✓ Fri - Sat

Emulsion Batches:

$\Pi_{\alpha}O-E.08102-17053$ 22 192
 $\Pi_{\alpha}O-E.08102-27053$ (EAT 360) 21 171

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.
47640	HD 165174	$17^h 59.6^m$	$+1^{\circ} 55'$	21:39	22:28	$03^h 32^m E$	$+01^{\circ} 57'$	Fe/-	4-4-
47641	HD 165174	$17^h 59.6^m$	$+1^{\circ} 55'$	22:30	23:10	$02^h 51^m E$	$+01^{\circ} 57'$	Fe/-	4-4-
47641	SPOT CAL FOR PLATES 47640-46				15 MIN @ 150 VOLTS		3900	4800	4810
47642	HD 165174	$17^h 59.6^m$	$+1^{\circ} 55'$	23:11	23:41	$2^h 20^m E$	$+01^{\circ} 57'$	Fe/-	4-4-
47643	HD 165174	$17^h 59.6^m$	$+1^{\circ} 55'$	23:43	00:03	$1^h 57^m E$	$+01^{\circ} 57'$	Fe/-	4-4-
47644	HD 165174	$17^h 59.6^m$	$+1^{\circ} 55'$	00:05	00:35	$1^h 25^m E$	$+01^{\circ} 57'$	Fe/-	4-4-
47645	HD 165174	$17^h 59.6^m$	$+1^{\circ} 55'$	00:36	01:07	$0^h 54^m E$	$+01^{\circ} 57'$	Fe/-	4-4-
47646	HD 165174	$17^h 59.6^m$	$+1^{\circ} 55'$	01:09	01:49	$0^h 11^m E$	$+01^{\circ} 57'$	Fe/-	4-4-
47647	HD 165174	$17^h 59.6^m$	$+1^{\circ} 55'$	01:50	02:30	$0^h 30^m W$	$+01^{\circ} 57'$	Fe/-	4-4-
47647	SPOT CAL FOR PLATES 47647-				15 MIN @ 150 VOLTS		3900	4800	4810
47648	HD 165174	$17^h 59.6^m$	$+1^{\circ} 55'$	02:33	03:28	$1^h 27^m W$	$+01^{\circ} 57'$	Fe/-	4-4-
47649	HD 186791	$19^h 41.5^m$	$+10^{\circ} 22'$	03:34	03:49	$0^h 07^m W$	$+10^{\circ} 36'$	Fe/-	5-10
47649F	FOCUS TEST					$0^h 08^m W$	$+10^{\circ} 36'$	Fe/-	16-16

Spectr. Temp. ... 54°F

Dome Temp./Hum. 48°F / 64%

Transparency Conditions

288

Focus ... 5.13

Spectr. Temp. ... 48°F

Dome Temp./Hum. 41°F / 64%

NEW EXP. HTR.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
200/300	3-4	6.15	09.5 II	BC	830/.68	BS	IIaO-E	A	Var - Blw		sl weak
80/245		"	"	"	" / "	"	"	B	"		good +
							IIaO-E				
80/240	2-3	6.15	09.5 II	BC	830/.68	BS	IIaO-E	A	Var - Blw	clouds	fine -
80/182		"	"	"	" / "	"	"	B	"	T=51°F; F=513; some cloud	fine -
80/159		"	"	"	" / "	"	"	A	"		v sl. strong
40/150		"	"	"	" / "	"	"	B	"		v sl strong
40/220	1	"	"	"	" / "	"	"	A	"	T=50°F; F=514	sl strong
40/206		"	"	"	" / "	"	* IIaO-E	B	"	CLOUDS near	v sl strong
							* IIaO-E				
40/128		6.15	09.5 II	BC	830/.68	BS	* IIaO-E	A	Var - Blw	CLOUDS; thick at end	good sl weak
4/34	1-2	4.1	K3 II	"	" / "	"	"	B	STDVEL	Clouds; solid at end.	good
								A		F=514 T=48°F	very slightly red

Date . MAY 30-31, 1983. Observers . B, J - R:

TRAO-E 08102-27053

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[illegible]

Focus

Dome Temp./Hum. . . . 53°F . . . 80%

Transparency Conditions .. *hazy* 290

Spectr. Temp.

Dome Temp./Hum.

[illegible]

291

Emulsion Batches:

II-0-F 08102-30053

Date MAY 31, JUNE 1, 83 Observers Ry + Rj

[illegible]

Spectr. Temp.

Dome Temp./Hum. 50°F 98%

Transparency Conditions. SCATTERED CLOUDS 292

[illegible]

293

Wed-Thurs

Emulsion Batches:

Emulsion Batches:
DAO-E 0802-30053

Date June 1-2/83..... Observers Bgt-Tn.....

[illegible]

-30053

Spectr. Temp. 57.5 F

Dome Temp./Hum. +59°F/72%

Transparency Conditions Fine - s/hazy 294

Focus 512

Spectr. Temp. 53

Dome Temp./Hum. +49°F/83%

Tested 2 filter on IID 89449 before taking Exposure

Comparison Type/Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
6-1	16/6					BC	830/1.68	BS	II40E	A			conts/hazy
"	6-630/69	1-2"	5.3	F6IV	"	"	"	"	"	B	Std URF		strong
									"				
6-1	444	400/262	3-2	6150950	BC	830/1.68	BS	II40E	A		Var - Blm	1st 1/3 Exp slow hazy down here	good +
"	6-630/69	2"	"	"	"	"	"	"	"	B	"		fine
"	6-630/60	2-3	"	"	"	"	"	"	"	A	"		v slant
"	6-630/71	3"	"	"	"	"	"	"	"	B	"	T = 56°F	fine
"	6-630/69	3"	"	"	"	"	"	"	"	A	"		fine
"	6-630/75	2"	"	"	"	"	"	"	"	B	"		fine
"	6-630/87		"	"	"	"	"	"	"	A	"		
"	6-630/69		"	"	"	"	"	"	"	B	"		
"	6-630/50	3"	"	"	"	"	"	"	"	A	"		good +
"	6-630/50	3-5"	"	"	"	"	"	"	"	B	"		slant

285-1

Thurs/Fri

JD 2454850

8^m 68°

Emulsion Batches:

Jno. E. 08102 - 01063

4^m 68°

098-E -25053 A18

Date June 2-3/83 Observers Km-Th

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
47664	Focus Test					0 ^h 0W	-2°	Fe/-	16-16
47664	FO Vir = HD 117362	13 ^h 24.7 27.2	+1° 36 21	20:30	21 19	0 ^h 16W	+1° 12	Fe/-	6-6
47665	"	"	"	21 20	22 16	1 ^h 13W	"	Fe/-	5
47665	Spot Cal for 47669			66	5min	0.5V	D4 D3 D2 5100 4300 4810		
47666	HD 8890 = α UMi	1 ^h 22.6	+88° 46	22:31	22 33	11 ^h 17E	+89° 08	Fe/-	9-13
47667	"	"	"	22:53	22:55	10 ^h 57E	"	Fe/ND	10-10
47668	"	"	"	22:57	23:00	10 ^h 52E	"	Fe/ND	10-10
47669	HD 162714 = γ Oph	17 ^h 47.3	-06° 07	23:10	23:45	1 ^h 40E	-6° 08	Fe/ND	10-10
47669	TI Spot Cal for 47667-74				15min	15V D3 4810	D1 7V H2	D2 7V 5450	
47670	HD 178357 = TT Aps	19 ^h 03.2	+01° 08	23:50	00 53	1 ^h 46E	+1° 16	Fe/ND	10-10
47670	Spot cal for 47664-66			15min	15V	D4 3900	D3 4300	D4 4810	
47671	HD 171635 = 45 Dra	18 ^h 35.9	+56° 58	01° 00	1 ^h 12	0 ^h 54E	+57° 01	Fe/ND	10-10
47672	HD 180583 = η 7308	19 12.0	+27 45	1 ^h 18	1 ^h 50	0 ^h 54E	+27 54	Fe/ND	10-10
47673	HD 17615 = γ 1 C	18 ^h 53.8	+17° 14	1 ^h 56	2.12	1 ^h 19W	17° 22	Fe/ND	10-10
47674	HD 197572 = X 21 C	20 ^h 39.5	+35° 14	2 16	2 48	1 ^h 29E	+35 30	Fe/ND	10 10

063
5053

Spectr. Temp. 66°F

Focus 508

Spectr. Temp.

Dome Temp./Hum. 62°F/62%

Dome Temp./Hum.

Transparency Conditions getting hazy - cloudy

what filters? B for Ilcos
"Clear" for 098s
of course

Comparison Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
- 16-					BC	830/.68	BS	Ilcos	B			used
6-6	30/60	2.3"	~6.5	A2II	"	"	"	Ilcos	A	Sch star		
6-6	10/60	2"	"	"	"	"	"	"	B	"		fine
12								4		spoiled		
6-6	15/20		2.5	F7Ib		1200/.025	"	"	A	Ceph/Evans	T=63°F Focus 510	fine
6-6	20/50	1"	"	"	BC	1200/.7	RS	098E	B	Ceph/Evans	(No filter used over RS. Should have used GG13	fine
6-6	20/80	2"	"	"	"	"	"	"	B	Ceph/Evans	(UV minus) Filter	good
6-6	10/150	2-3"	7.0	F8Ib	"	"	"	"	B	Ceph/Evans		
27V 450								"				
6-6	10/305	3"	7.3	F8	"	"	"	"	A	Ceph/Evans	some color - red missing note = slice missing off end	
6-6								Ilcos				
6-6	10/82	2"	5.5	F7Ib	BC	1200/.7	RS	098E	B	Ceph/Evans	61°F	
6-6	10/160	2"	6.7	F6I- Ib	"	"	"	"	A	"		
6-6	10/160	2"	5.8	FS	"	"	"	"	B	"		good
6-6	10/160	2"	5.5	F7Ib	"	"	"	"	A	"		good

#2

Date _____

June 2-3 contd

Observers

Rem - Thu

Emulsion Batches:

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[illegible]

Spectr. Ten

FOCUS . . .

Spectr. Te

Exp. Mtr.

45/45

Spectr. Temp.

Dome Temp./Hum.

Transparency Conditions

OCUS

pectr. Temp. 58°F.....

Dome Temp./Hum. 50°F/83%

[illegible]

294

Sun-Mon

Date June 5-6-87 Observers Tn

8^m68^o Emulsion Batches:
...II40-E 08102 - 01063

[illegible]

Used "B" filter on Exp. meter

[illegible]

301

Mon-Tues

JD 2445492-6

8^m 68°

Emulsion Batches:

...Du 0-E 08102 - 03063

Date June 6-7, 1883 Observers Rm-Tn

[illegible]

Spectr. Temp.

Dome Temp./Hum. / 100%

Transparency Conditions ⁵¹ Hazy - foggy 302

302

Comparison Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
-6-6	200/111	3	6.5	A2V	BC	830/168	BS	II90-E	A	Sch Star		good
-9								II90-E				
-8					BC	150/.5	RS	098E	B	set 513	[Ufilter on RS clear in exp. meter timing]	ok
NO	/133	3	5.6	F8IV	"	"	"	"	A	Oph/Evans	56.50F Focus 513	v sl sm No wk?
ND					"	"	"	"	B		↓ 78F maybe flawed	OK
-8											Closed due to high Humidity	

363

Tues-Wed

Date June 7-8 / 83... Observers T. H.

Emulsion Batches:
 4^m 69° ... IIIa1-E 09023-13053
 4^m 69° ... IIa0-E 08102-03063
 4^m 69° ... 098-E -04063

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.
47680	HD 138749	15 28.9	+31 42	20 29	20 57	1 49 E	+	Fe/-	17-17
47681	^{B Cr Bor} HD 137909	15 23.7	+29 27	21 05	21 47	0 54 E	+ 29 09	"	20-20
47682	HD 159561	17 30.3	+12 38	21 53	22 02	2 46 E	+	"	20-20
47682F	Focus test					0 20 E	+ 1° 50	"	18-18
47682T	Spot Caln for 47680-82			15 min @ D4		17.5V 3900	15V 4300	15V 4810	
47683	HD 136202	15 14.2	+2 09	22 15	22 45	0 14 W	+1° 52	Fe/-	8-8
47684	"	"	"	22 50	23 09	0 38 W	"	Fe/- Ne/-	4-4 4-4
47684F	Focus test					"	"	Fe/- Ne/-	14-14 14-14
47685	HD 162714	17 47.3	-6 07	23 20	00 31	0 33 E	-6 07	Fe/- Ne/-	3 3 3 3
47685T	Spot Caln for 47684-86			15 min @		15V D3 4810	01 7V Hα	02 7V 5450	
47686	HD 176155	18 53.8	+17 14	00 34	01 12	1 00 E	+17 19	Fe/- Ne/-	4-4 4-4

Transparency Conditions *Fine* 304
 Exp meter "B" filter used for 00s
 Exp meter "Clear", blank holder in for 098s

Comparison Type/Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
el-7-1	80/72	2"	4.1	B7m	BC	830/68	BS	11195-E	A		P _y Prog		
h 20-200	110	2-3"			"	1210/-025	"	"	B		Asn Sp Kk	Set 510 still	
h 20-20	120	3"	2.2	A5111	"	"	"	"	A		"		
h 18					"	"	"	1140	B		Set 510 T=58 °F		red
SV 810								11195-E					
el-8-8	10/19	2-3"	5.6	F8U-E	BC	1200/-025	BS	1140-E	A		std Vel		good
el-4-4	10/65	"	"	"	BC	1200/.7	RS	098-E	B		"	GG13 Filter used for all D98s	v sl want
el-11					"	"	"	"	B		Set 510	T=57 °F	
el-3-3	20/80	3-5"	7.0 [±] 7.8	F8- G3	BC	"	"	"	A		Ceph-Rm	Prob 7.0 mag Set 511	some blotches exp gawl
27V 4-50								"					
el-4-4 RK-4-	20/100	3-5"	5.9 6.4	CF5 CF9	BC	1200/.7	RS ⁺	"	B		Ceph-Rm		No Fe exp gawl
											Closed early due to no data		

Wed. Thurs

Emulsion Batches:

Emulsion Batches:
H.O.-E 08102-03063

Date June 8-9/83..... Observers Tg - Kly.....

[illegible]

Spectr. Temp. + 59

Focus 511

Spectr. Temp. +52.5.....

Dome Temp./Hum. 45.3°F / 58%

Dome Temp./Hum. *+146°F / 83%*

Transparency Conditions... Fine... some thin cloud... 306
Exp meter filter "B" for TiO_2 exps

Comparison pe/Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1/-	6-6	20/22	2"	5.24	Ap	BC	8301-66	BS	400-E	A	Ap & Am		sl strong
"	6-6	20/20	"	5.51	Hp	"	"	"	"	B	"		sl strong
"	6-6	40/42	"	6.97	A7V	"	"	"	"	A	"		fine
"	6-6	40/39	2.3"	6.85	A6V-D	BC	8301-68	BS	"	B	Hp & Am		fine
"	6-6	40/40	3"	6.40	A3/A7 A7	"	"	"	"	A	"		fine
"	4-4	30/80	1.2"	7.59	B6V	"	"	"	"	B	"		fine
"	4-4	40/65	2"	8.07	B6Vp	"	"	"	"	A	"		good
"	4-4	30/40	3"	6.81	Am	"	"	"	"	B	"		fine
"	6-6	30/16	2"	4.1	A3D	"	"	"	"	A	5x/4x/		sl strong
"	6-6	30/16	"	"	"	"	"	"	"	B	"		sl red

Fri - Sat

Emulsion Batches:

Emulsion Batches:
Touf B R 8mm 60000-E 08102 -08063

Date June 10-11/83..... Observers Pok-Tn.....

[illegible]

Spectr. Temp. 70°F.....

Focus 507

Spectr. Temp.60.....

Dome Temp./Hum 66°F / 73%

Dome Temp./Hum. 154° / 86%

Transparency Conditions *Five - vs/4/26* 308

"B" Filter for Exp meter

308

[illegible]

309

Sat-Sun

Date June 11-12, 1983 Observers Th

Emulsion Batches:

Emulsion Dates: 20 June 13 8 min @ 68° F. 0.05... 08/02... 03063

[illegible]

03063

Spectr. Temp. $+71.0^{\circ}\text{F}$Dome Temp./Hum. $+70^{\circ}\text{F}/69\%$ Transparency Conditions Hazy - cloudy ³¹⁰

Focus 507

"B" filter for Exp meter

Spectr. Temp. $+67.5^{\circ}\text{F}$Dome Temp./Hum. $+65^{\circ}\text{F}/88\%$

Comparison Type/Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/- 4810	66	50/46	1"	6.5	A2V	BC	830/68	BS	Ilco-E	A	Var Sch		good
Fe/- 4810	8-30	0/18	<1"	3.93	F0p	BC	1200f.025	BS	Ilco-E	B	Asm Sp KK	T=70°F set 507 still	fine
Fe/- 4810	66	50/58	<1"	6.22	F8	"	"	"	"	A	SL-Bl/Ly		fine
n	44	100/200*	2"	6.17	F2	"	830/68	"	"	B	Ceph-R	cloud Exp meter faulty	fine
n	1/4					"	"	"	Ilco	A			vsl red

Sun-Mon

Emulsion Batches:

Date June 12-13 183 Observers Tn

June 13 Ri # 8 HIL 68 F 110-0-E 09023 -13053
June 13 Ri # 8 HIL 68 F 110-0-E 08102 -03062

[illegible]

Spectr. Temp. ... 79.°F

Dome Temp./Hum. 75°/69%

Dome Temp./Hum. 67°/88%

Transparency Conditions *V. Hertz*..... 312

Spectacular Aurora by 22hrs
visible south of Jupiter E → W

312

Comparison Type/Filter	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
9/- 19-9					BC	1200/-025	BS	II a O	A			red
9/- 19-9	20/130	<1"	3.93	Fop	BC	"	"	III a S-E	B	Asm Sp HK		fine
9/- 19-9	20/95	1"	6.8	G8V	"	"	"	II a O-E	A	"		good
								III a S-E				
9/- 19-9	20/110	<1"	2.2	H5II	BC	1200/-025	BS	III a S-E	B	Asm Sp HK		fine
" 19-9	20/26	1"	3.9	H2II	"	"	"	II a O-E	A	sld vol		fine
D2 48.0								"				
9/- 6-6	20/130	1"-4"	6.22	dF8	BC	1200/-025	BS	"	B	SR-R6/Ky	Seeing half at end v Brt Aurora at Olhi	
" 19-9	20/110	2"-3"	3.68	F0IV	"	"	"	III a S-E	H	Asm Sp HK		good
											remained clear lost no obs	

Mon-Tues

JD 2445499.6

Emulsion Batches:

Date June 13-14/83

Observers

Rm/Tn

JUNE 14R: 8min @ 8°F 08102-08062

JUNE 14R: 4 1/2 min @ 6°F 05031-11063

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp	Exp. Mtr
47714	HD 8890 = α UMi	1 ^h 22.6	+88° 46	20:45	20:53	11 47 W	+89° 10	Fe/-	9-9	20/2
47715	"	"	"	21:02	21:07	11 59 W	"	Fe/- Nd/-	4-4 4-4	20/20
47716	HD 161096	17 ^h 38.5	+4° 37	21:19	21:26	3 ^h 6 E	+4° 35	Fe/- Nd/-	4-4 4-4	20/21
47716F	Focus test					"	"	Fe/- Nd/-	12-12 12-12	
47717F	Focus test						"	Fe/- Nd/-	4-4 4-4	
47717	HD 161096	17 ^h 38.5	+4 37	21:39	21:44	2 47 E	"	Fe/- Nd/-	4-4 4-4	
47718	HD 161096	"	"	21:47	21:49	2 42 E	"	Fe/- Nd/-	4-4 4-4	20/30
47719	HD 162714 = γ Oph	17 ^h 47.3	-06° 07	22:01	23:28	1 ^h 14 E	-06 06	Fe/ND	8-8-8	1/10
47719T	Spot Cal for 47814	4.22	15 min @ 15V		D3 3900	D3 4300	D2 4810	Fe/ND	8-8-8	
47720	HD 187921 = SV Vul	19 ^h 47.4	+27° 12	23:34	01:57	0 ^h 43 E	+27° 27	Fe/ND Nd/ND	8-8-8 8-8-8	40/...
47720T	Spot Cal for 47815-21			15 min @	4810	15V D3 701 142	7V D2 5450	Fe/ND Nd/ND	8-8-8 8-8-8	4/30
47721	HD 185069 = U Vul	19 ^h 32.2	+20° 07	2:02	3:14	0 ^h 49 W	+20 20	Fe/ND Nd/ND	8-8-8 8-8-8	4/30
47722	U 203136 = HE 8157	21 ^h 15.4	+13° 49	3:26	3:55	0 ^h 13 E	+38° 12	Fe/-	6-6	1/29

08063
11063

Spectr. Temp. 82°F
Focus 506
Spectr. Temp. 76°F
Dome Temp./Hum. 78°F/68%

Dome Temp./Hum. 71°F/80%

Transparency Conditions hazy
Exp meter "B" filter for blue plates
" " " " Clear filter for red plates

314

Companson Type/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe - 9-20/26	1"	2.5	F7Ib	BC	1200/-0.25	BS	IIaOE	A	Ceph/Rm			
Fe - 4-0/80	1"	"	"	"	1200/1.7	RS*	09802E	B	"		* GG13 above RS	
Fe - 4-0/81	1"	3.9	K2III	"	"	RS*	098 E	A	Std Vel			
Fe - 12-0/81				"	"	"	098	B				
Fe - 12-0/81				"	150"/-5	RS*	098	B			Focus 506 GG13 above RS	
Fe - 12-0/30	1"	3.9	A2III	"	"	"	"	A			NB not evacuated GG13 over RS	fine
Fe - 12-0/30	1"	"	"	"	"	RS*	098-E	B	Std Vel		V filter over RS	sl strong
Fe - 12-0/160	1"	7.8	G3Ib	"	1200/1.7	RS*	098-E	A	Ceph/Evac		T spectrograph: 81°F	good
Fe - 12-0/160	1-2"	7.9	F7Iab	BC	1200/1.7	RS*	098E	B	Ceph/Evac			
Fe - 12-0/160	1-2"	7.8	F8	BC	1200/1.7	RS*	"	A	Ceph/Evac		77°F	good
Fe - 12-0/29	<1"	6.2	F2	BC	830/168	BS	IIaO-E	B	"		1" broken off	

315

Tues - Wed

Date June 14/15/83..... Observers J.A. - C.R......

Emulsion Batches:

..... Παο-Ε 08102 - 13063 ¹⁸₂₁

[illegible]

Transparency Conditions 316

Focus 506

Focus
Spectr. Temp. 77°F Dome Temp./Hum. +70°F/86%

Dome Temp./Hum. +70°F / 86%

Comparison	
Type/Filter	E

Comparison Type/Filter	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
2/- 16-					BC	830/68	BS	II-O-E	A			
2/- 65- p2 487	00/37	1.2"	7.0? M7e -M9te	"	"	"	"	"	B	Cru prog		V. weak
2/- 44-	00/135	2.3"	8.5? M6e -M7e	"	"	"	"	"	A	"		weak
											no 2nd half obs (lost lost)	

317

Archie - 10 Diads many 4.55
Lots of H₂O - only 1048 strip

Emulsion Batches:

DAOE 08.102-13063 20 182
JW 09023-11063 25 298

Date Thurs. Fri. June 16-17 Observers Alx - R.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
47725F	FOCUS TEST							Fe/-	20-20
47725	HD 136202	15 14.2	+20° 09'	20:50	21:45	20 10E	+01° 50'	Fe/-	9-9-9
47726	HD 122742	13 58.6	+11° 16'	21:54	00:34	3h 54W	+10° 55'	Fe/-	9-9-9
47726 ^x	SPOT CAL FOR PLATES 47725-			15 MIN	150645	① D4 ② D3 ③ D2 3900 4800 4810			
47727	HD 137909	15 23.7	+29° 27'	00:42	00:53	2h 49W	+29° 11'	Fe/-	9-9-9
47728	HD 159561	17 30.3	+12° 38'	00:59	1:13	21 02W	+12° 36'	Fe/-	19-1'
47729	HD 182640	19 20.5	+2° 55'	1:18	2h 20m	① 19W ② 15W ① 17.5W ② 15W 3900 4300 4810	+03° 07'	Fe/-	19-
47729 ^x	SPOT CAL FOR PLATES 47728-				15 MIN	① D4 ② D3 ③ D2 3900 4300 4810			
47730	HD 196524	20 32.8	+14° 15'	2:26	3:00	0h 14E	+14° 33'	Fe/-	19-
47730F	Focus test								25

Spectr. Temp. 83°FDome Temp./Hum. 78°F 74%Transparency Conditions VERY MAZY

318

Focus 506

CLOUDS BY DAWN

Spectr. Temp. 7Dome Temp./Hum. 69°F 97%Comparison
pe/Filter Exp

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
3-20-2					1200/-0.025	B.S.	IIaD	A			red
1-9-9	3	5.6	F8IV	B.C.	1200/-0.025	B.S.	IIaD-E	B	STD UEL.		fine
1-9-9	3-4	6.8	G8I	B.C.	1200/-0.025	B.S.	IIaD-E	A	KK prog		vs/weak
1-9-9							IIaD-E				
1-9-9	3	3.9	F0p	B.C.	1200/-0.025	B.S.	IIaD-E	B	"	T = 77°F (507)	fine
1-9-9	2-3	2.2	PSIII	B.C.	1200/-0.025	B.S.	IIaD-E	A	"	T = 76°F (11)	fine
1-9-9	2-3	3.7	F0IV	B.C.	1200/-0.025	B.S.	IIaD-E	B	"	T = 75°F (11)	fine
1-9-9							IIaD-E				
1-9-9	2-3	3.8	FSIV	B.C.	1200/-0.025	B.S.	IIaD-E	A	"	CLOUDS	weak
1-9-9					1200/-0.025	B.S.	IIaD	B		T = 74° (507)	vs/red

Emulsion Batches:
8th 680 TAO-E. 08102-13063. 21 173

Date FR-SAT JUNE 17-18 83 Observers BK-Ri

[illegible]

Spectr. Temp. 78°F

Dome Temp./Hum. 70°F 80%

Transparency Conditions . fine with some clouds 320
around

Focus 507

Spectr. Temp.

Dome Temp./Hum. 62°F 89%

Comparison Type/Filter	Exp. Mtr	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/- 1/6	/FLTED				B.C.	830/.68	B.S.	IIao-E	A			sl ned
Fe/- 1/4	80/80	3-4	5.86	40	B.C.	830/.68	B.S.	IIao-E	B	Waterford		
Fe/- 1/2								IIao-E				
Fe/- 1/2	50/40		4.65	FOV	B.C.	830/.68	B.S.	IIao-E	A	u		sl strong
Fe/- 1/4	100/300		7.11	G0	B.C.	830/.68	B.S.	IIao-E	B	-	7.75°F 7 = 507	
Fe/- 1/4	40/40	4	4.65	FOV	B.C.	830/.68	B.S.	IIao-E	A	"		
Fe/- 1/4	40/300	3-4	7.0	G5 III	B.C.	830/.68	B.S.	IIao-E	B	"	clouds 9 = 700°F F = 508	
Fe/- 1/4	80/80		5.2	K1 III	B.C.	830/.68	B.S.	IIao-E	A	"		
Fe/- 1/4	20/30	3-4	5.5	K3 III	B.C.	830/.68	B.S.	IIao-E	B	"	clouds	
Fe/- 1/4					B.C.	830/.68	B.S.	IIao-E	A		9 = 64°F F = 508	

Emulsion Batches:

Emulsion Batches.
Ino-E 08102-17063 20 182

Date SAT-SUN JUNE 18-19 80 observers R.

[illegible]

Focus 508

Dome Temp./Hum. 88%

Transparency Conditions *lay + some clouds* 322

[illegible]

323

Emulsion Batches:

1100-E08102-17063 21 184

Date Sun - Mon. Jun 19-20/83 Observers Ri - Kly

[illegible]

Transparency Conditions $\text{thin clouds} \Rightarrow \text{thick}$

FOCUS 506

324

Spectr. Temp. ... 730 F.

Dome Temp./Hum.

[illegible]

Emulsion Batches:

File # 08102-17063

THOT 09023-11063. A 276

Date Mon. - Tue. Jun 20-21/83 Observers .. Kly. - Ri.....

$4\frac{1}{2}^m 68^\circ$

[illegible]

0/63

63. A 216

.....

Spectr. Temp. 79°F

Dome Temp./Hum. ... 75°F ... 59%

Transparency Conditions good with some clouds by dawn 326

Focus 505

Spectr. Temp.

Dome Temp./Hum. ... 69°F ... 71%

Comparison Type/Filter	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/-	B FILTER				B.C.	1200/.025	B.S.	IIa0-E A			T = 79°F	
Fe/-	20/25	2"	~2	F	B.C.	1200/.025	B.S.	IIa0-E B		KK Asm sp		fine comp sl strong
Fe/- A-	300/300	2-3	8.6	F	B.C.	830/.680	250/3	IIa0-E A		KK Asm-sp	T = 79°F F = 503	fine
								IIa0-E				
Fe/-	40/40	2-3	3.9	K	B.C.	830/.680	B.S.	IIa0-E B		Std vel.	T = 76° F = (505)	
Fe/- 9-	40/50	2-3	3.9	F	B.C.	1200/.025	B.S.	IIa0-E A		KK Asm Sp	T = 76° F = (506)	fine
Fe/- 10	50/120	2-3	2.2	ASTII	B.C.	1200/.025	B.S.	IIIaj-EB B		KK Asm Sp		fine
Fe/- 10	50/120	2-3	3.7	FOTV	B.C.	1200/.025	B.S.	IIIaj-eb A		KK Asm Sp	T = 74° "	fine
								IIIaj-eb				
Fe/- 9-	40/50	2-3	3.8	FSIV	B.C.	1200/.025	B.S.	IIa0-E B		KK Asm Sp		fine
Fe/- 9-	40/50	"	4.4	FSIV	B.C.	1200/.025	B.S.	IIa0-E A		KK Asm Sp		
Fe/- 9-	40/50	"	4.1	K3	B.C.	1200/.025	B.S.	IIa0-E B		Std Vel		fine
Fe/- 6-	30/100	3-4	5.2	A	B.C.	1200/.025	B.S.	IIa0-E A		Hk Asm Sp	T = 73° F (507)	fine but fingerprint
Fe/- 4-	50/120	3-4	3.6	B67	B.C.	830/.68	B.S.	IIIaj-eb B		KK Asm Sp	" F (506)	strong
Fe/- 10					B.C.	830/.68	B.S.	IIa0-E A			T = 73° F = 506	very slightly red
										READJUSTED ARC		

Emulsion Batches:

Emulsion Batches:
Hao-E08162-20063 19 183

Date TUES-WED JUNE 21-22 Observers RD

[illegible]

Spectr. Temp.

Dome Temp./Hum. 74°F 65%

Transparency Conditions . . . *Lazy* 328

FOCUS

Spectr. Temp.

Dome Temp./Hum. ... 71°F 75%

Comparison Type/Filter	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
CGY 3A	ON 4 ⁺											
	3 Filter											
Fe/- 4	400/400	2	7.7	B6Tp	B.C.	830/680	13.5	IIAD-E	A	AmvAp-JBL	T=80°F F=503	
③ D2								IIAD-E				
980												
Fe/- 6	10/40	2-3	3.9	K2III	B.C.	830/680	13.5	IIAD-E	B	STD UFL		
					B.C.	830/680	13.5	IIAD-E	A		T = 77°F F = 503	good
Fe/- 16												
											No 2nd left obs	
											clear remainder last	

329

Emulsion Batches:

Пав.-Е 08102-20063

Date WED-THURS JUNE 22-23 Observers Ki

[illegible]

331 Tin

Thurs-Fri

098 - 1 STRIP

... 17.95.06.0903-11063₁₂²

Spectr. Temp.
Focus
Spectr. Temp.

Spectr. Temp. +82°F.....

Dome Temp./Hum. +76°/68%

Transparency Conditions *v.s./haze*..... 532

332

Focus 503

Spectr. Temp. $+77^{\circ}\text{F}$

Dome Temp./Hum. 46.8°/80%

Comparison Type/Filter Ex	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	B Filter											
El- 6-170/186		2.4	4.10	B7nn	BC	830/1.68	BS	IIIa-eb	A	P _g prog	broken 2pc ^{500x}	
								IIIa-eb				
El- 11-120/120		3.5	3.93	Fop	BC	1200/1.025	BS	IIIa-eb	B	Asm SpkK	still set 503	
" 11-120/102		"	2.2	A5III	"	"	"	"	A	"		
" 11-120/120		4-6	3.68	F0IV	"	"	"	"	B	"		
"					"	"	"	IIa0	A			
											rest of clear night/ lost (no observer)	

Fri - Sat

Date June 24-25/83...

Observers .. *Ly-Tn*

Emulsion Batches:

Temp 27.2; 8 mi @ 60°F. D-0-E 08102 - 22063

JUNE 27 Di. 8th 1968 098 05031 - 11063. 112.6

[illegible]

Spectr. Temp. 79.5°FDome Temp./Hum. +73°F/69%Transparency Conditions Good to sl. cloud 3341Focus 503Spectr. Temp. 68°FDome Temp./Hum. +62°F/90%Comparison
Type/Filter Exp

Tel. A.

Tel. 9-10/50

Tel. 6-10/50

Tel. 9-10/26

Tel. 4-10/90

Tel. 4-10/90

Tel. 6-10/47

Tel. 6-10/54

Tel. 4-10/70

Tel. 6-10/25

Tel. 4-10/35

Tel. 6-10/35

Tel. 4-10/35

Tel. 6-10/35

Tel. 4-10/35

Tel. 6-10/35

Tel. 4-10/35

Tel. 6-10/35

Tel. 4-10/35

Tel. 6-10/35

Tel. 4-10/35

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	1200/-0.025	BS	Ilao	B			cast sl. Red
10/50	2-3	4.9	F215	BC	1200/-0.025	BS	Ilao	A	H+K-Ly		
10/50	24	"	"	"	"	"	"	B	"		
10/26	"	2.5	F216	"	"	"	"	A	Polaris		
10/90	"	"	"	"	1200/.7	RS	098C	B	"	74°F set 504 GG13 on 125 Clean filter or Exp meter fogged but fine	
							"		4x5 in 098 were w with the IND PLATES EXPOSED Box cloud		
10/47	3"	4.3	0A8+65	BC	1200/-0.025	BS	Ilao	A	H+K-Ly	set 504 B filter	
							"				
10/54	3"	6.22	dF8	BC	1200/-0.025	BS	"	B	SB-Clu-Ly	72°F set 506 cloud	
10/70	3"	7.5	B8	"	830/.68	"	"	A	SB-Tru	70°F set 506	
10/25	2-3	5.2	B3	"	"	"	"	B	SB-Ly		
10/35		6.2	F2	"	"	"	"	A	Ceph-EV		
					830/.68	BS	"	B		68°F set 506	

Sun - Mon

Emulsion Batches:

June 27... D.O.E... 08102... 22063

Date Jun 25-26 / 83... Observers Kly - Tn.....
26-27

[illegible]

Spectr. Temp. 830

FOCUS 503

Spectr. Temp. 81°F

Dome Temp./Hum. 48.2°/69%

Dome Temp./Hum. *77°F/80%*

Transparency Conditions *hazy-cloudy* 336

[illegible]

337

Emulsion Batches:

JUNE 30 8 MIN @ 680 F.R. HADJ 08102 -24063

Date June 28/29/1983 Observers KM TH

[illegible]

Spectr. Temp. 601

Focus 507

Spectr. Temp. ... 64.5°F.....

Dome Temp./Hum. 60 F. / 87%

Dome Temp./Hum. 59°/88%

Transparency Conditions... *Some. Ingerly. Cloud. 338*

[illegible]

339

Wed - Thurs

Date June 29-30/83

Observers .. Tn-Ly

Emulsion Batches:

JUNE 30 8 MIN @ 680 F R. II 40-E... 08102 - 29063

[illegible]

27063

Spectr. Temp. ... 73°F

Dome Temp./Hum. 70°F / 68%

Transparency Conditions ... 9.4 v. v. v. cloudiness 340

Focus ... 5.06

clear by dawn.

Spectr. Temp. ... 64

Dome Temp./Hum. 58 / 90%

Comparison Type/Filter	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe-9-9	20/51	4 ^h	4.9	F2IV	BC	1200/.025	BS	Ilford-E	A	RSCVn-Ly	cloud	
Fe-9-9	20/27	3	2.2	F	"	"	"	"	A	Asm-1K1K	T=71°F	
Fe-9-9	20/48	2-3	4.3	F+GS	"	"	"	"	B	RSCVn-Ly		
Fe-6-6	10/120	2-4	5.3	G8III	"	"	"	"	A	SpBii-Ly		
								"				
Fe-9-9	/25	2-4	5.2	B3	BC	1200/.025	BS	Ilford-E	B	SB-Ly	T=65° set 507	
Fe-9-9	0/25	2-4	4.1	K3II	"	"	"	"	A	Std Vel.		
Fe-6-6	10/30	2-4	6.2	F2	"	830/.68	"	"	B	Ceph-E0	set 507	
Fe-10-10					"	"	"	"	A	T=64 -	Set 507	

341

Fri-Sat

Emulsion Batches:

.....IIA0-F 0810Z.....30063.....

Date July 1-2 1883 Observers Ly-Ting

[illegible]

Spectr. Temp. 79°F

Dome Temp./Hum. ~~77°/90%~~...

Transparency Conditions . . . *hazy - cloudy* . . . 342

LOCUS 503

Spectr. Temp. 77° F

Dome Temp./Hum. /

[illegible]

Spectr. Temp. ... 74

Dome Temp./Hum. 70°F / 93%

Transparency Conditions 549

Note PH A field curve screws were loose,
This was cause of breakages.

345

Sun-Mon

Date July 31/83..... Observers Kly-Tn.....

Emulsion Batches:

4/2nd 6^{pm} 098-02E 05031-29063

8^m 68° INOE 08102 — 30063

Al₁₂^m 68. ~~Waf-fa~~ 09023 - 23063¹⁹³

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.
47793	HD 8890A	01 ^h 22 ^m .6	+88°46'	20:40	20:59	10 49 E	+89 07	Ne/- Fe/-	4-4 4-4
47794	"	"	"	21:03	21:10	E	"	Fe/-	9-9
47794T	Spot Cal/ for 47794	-98		15 min @ 15V		P4 3900	D3 4300	D2 4810	
47795	HD 124897	14.14.1	+19 42	21:45	21:47	02 ^h 01W	+19 17	Fe/-	9-9
47796	HD 122742	1358.6	+11° 16'	21:56	23:23	0350W	+10 55	Fe/-	4-4
47797	HD 137909	15 23.7	+29 27	23:27	23:37	0210W	+21 11	Fe/-	9-9
47798	HD 158633	17 25.3	+61° 24'	23:48	01:47	0251W	+67 21	Fe/-	4-4
47799	HD 159561	17 30.3	+12 38	01 58	02:15	0310 W	+12 36	"	18-18
47799T	Spot Cal/ for 47799-47800			15 min @	P4 3900	175V 15V 4300	15V 4810		
47800	HD 182640	19 20.5	+255	02:20	03:37	0241W	+3 05	Fe/-	19-19
47800T						1 35W	+19 30	Fe/-	14-14

-24063
-30063
-23063

Spectr. Temp. $+83^{\circ}\text{F}$
Focus 503
Spectr. Temp. $+78^{\circ}\text{F}$

Dome Temp./Hum. $79^{\circ}\text{F}/80\%$
Dome Temp./Hum. $+74^{\circ}\text{F}/95\%$

Transparency Conditions *Hazy - c. Cloudy* 346

This strip put in with last night's 0985

Comp. Mtr. Type/Filter	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe-4	* 1/90	2"	2	F	B.C.	1200/-7	XX R.S.	0985E	A	Ceph-Ev	* Clear Exp meter filter * EG/3 over RS	exp good light distribution odd
Fe-9	00/30	1"	"	"	B.C.	1200/-025	BS	Ilco-E	B	Asm Sp KK	B filter for Explorer	sl strong
Fe-9	0/27	1"	1	K	BC	800/-025	BS	"	A	Std Vel	5.5 min Power factor we just noticed!	strong
Fe-4	00/91	2"	6.8	G8V	"	"	"	"	A	KK Asm Sp	some cloud	weak
Fe-4	00/56	1.5"	8.93	Fop	"	"	"	"	B	"	"	fine
Fe-4	00/368	2"	7.1	K1	"	830/-6.68	"	"	A	"	set 503	
Fe-4	00/217	1"	2.2	A5M	"	1200/-025	"	Ilco-fg	B	"	set 503 T=80F	
Fe-4	00/240	2.3"	3.7	F0V	"	1200/-025	BS	"	A	Asm Sp	cloud	
Fe-4				"	"	"	"	Ilco-E	B	set 503 still T=78F		

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1983

JD 45522.5

8th 68^o

Emulsion Batches:

Enclision Dates:
Nov E 08102-03073.

098-02E 05031-24063

Date Wed/Thurs July 6/7 Observers KM-K1

[illegible]

Spectr. Temp. 68°F Dome Temp./Hum. $62^{\circ}\text{F } 70\%$ Transparency Conditions Good 348Focus 502

Spectr. Temp.

Dome Temp./Hum. $54^{\circ}\text{F } 89\%$ Comparison
pe/Filter Etc.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	$1200/-0.25$	BS	$\text{II} 20$	A		B filter & exposure meter broken in equal parts	
50/150	3.4	~ 7.0	F8Ib	"	"	"	$\text{II} 20 \text{E}$	B	Ceph/Evan		
160		~ 6.4	C F9	BC	$1200/.7$	RS	098E	A	Ceph/Evan	GG13 overexposure $T=64^{\circ}\text{F}$ Focus 509	
							098E				
0/82		5.5	F7Ib	"	"	"	"	B	Ceph/Evan		
1/80		5.23	F2Ib	"	"	"	"	A	"		
0/320		$7.3-4.1$	F8- K0	"	"	"	"	B	"	63°F	
20/80		4.1	F6Ib	"	"	"	"	A	"	61°F focus 510	
20/20		6.4	G0Ib	"	"	"	"	B	"	2" broken off	
1/60		6.2	F2	"	$830/0.68$	BS	$\text{II} 20 \text{E}$	A	"	exposure meter blank filter 60°F focus	
					$830/0.68$	B.S.	$\text{II} 20$	B		$T=510$ $T=60^{\circ}\text{F}$	

Date Jul 7-8, 1983 Observers Kly - Ri

Emulsion Batches:
IAD-E 08102-03073

[illegible]

Spectr. Temp.

Dome Temp./Hum. 61°F. 93%

Transparency Conditions 350

[illegible]

Emulsion Batches:

gm 680

II-00-E 08102-03073

Date Jul 9/10 1985 Observers FLN-Ri

Sat-Sun

[illegible]

Spectr. Temp. ... 71°F

Dome Temp./Hum. 65°F/H=75%

Transparency Conditions ... *skellen* 352

Focus ... 507

Spectr. Temp. ... 64°F

Dome Temp./Hum. 56°F/H=95%

Comparison pe/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
-44	80/80	34	6.15	09.5 III	BC	830/.68	BS	IIao-B	A	Var - Bln		
-44	80/80		"	"	"	" / "	"	"	B	"		
-44	80/80		"	"	"	" / "	"	"	A	"	T=70°F	good
-44	80/80		"	"	"	" / "	"	"	B	"	T=68°F	good
-44	80/80		"	"	"	" / "	"	"	A	"	T=67°F; F=508	
02								IIao-E				
-44	80/77		6.15	09.5 III	BC	830/.68	BS	"	B	Var - Bln		
-44	80/70		"	"	"	" / "	"	"	A	"		
-44	40/50		5.9	KO II-IV	"	" / "	"	"	B	STDVEL	T=65°F	
-23					"	" / "	"	IIao	A		T=64°F F=508	

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Date Jan 10-11/83 Observers Kly-Ri-KK

Emulsion Batches:

5th 69^o

Emulsion Batches.
 WaTel. 09023-23063 Bm 23
 WaTel. 09023-06073 v 27

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.
47822	NOS 10288	16 ^h 55.1	147° 31'	21:09	21:16	00 25 E	+47° 22'		
47823	HD 8890 A	1 ^h 22.6	+88° 46'	21:44	21:53	09 28 E	+89° 08'	Fe/-	20-2
47824 ✓	HD 137909	15 ^h 23.7	+29° 27'	22:02	22:29	01 59 W	+29° 10'	Fe/-	20-
47824T	SPOT CAL FOR PLATES 47823 - 47826					15 MIN @ D4	(1) 17.50 3900	(2) 15U 4300	(3) 15U 4010
47825	HD 159561	17 30.3	+12° 38'	22:34	22:39	00 00 F	+12° 33'	Fe/-	20-
47826	HD 182640	19 20.5	+2° 55' ✓ +3° 41'	22:43	23:02	01 26 E	+03° 04'	Fe/-	20-2
47827	HD 183912	19 26.7	+27° 45'	23:18	01:25	00 52 W	+27° 55'	Fe/NOVA	20-2
47827T	SPOT CAL FOR PLATES 47827 -					15 MIN @ D4	(1) 17.50 3600	(2) 17.50 3900	(3) 15U 4300
47828	HD 196524	20 32.9	+14° 15'	01:34	02:09	00 30 W	+14° 32'	Fe/-	20-2
47829	HD 217782	22 58.0	+42° 13'	02:14	03:49	00 15 E	+42° 40'	Fe/-	20-2
47830	HD 3712	6 39.4 ^x	+56° 26' ^x	03:55	04:06	01 35 E	+56° 25'	Fe/-	20-
47830F	FOCUS TEST	0 34.8 ✓	+55° 59' ✓					Te/-	40-9

Spectr. Temp. 71°

Dome Temp./Hum. 66°/59%

Transparency Conditions excellent... until... 354

Focus 507

THE CIRRUS SHOWED UP

Spectr. Temp. 65°

Dome Temp./Hum. 60°F 82%

Comparison Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	4s	Fair 1 1/2	8.0	K8	Tertiary	Dbl. St. camera		II G		KK- P.S.	10 ^s , 1.2, 4, 8, 16, 32, 128 ^s	4 ^s good
0/-20-	0/126	3	2	F	B.C.	1200/ -.025	B.S.	IIIa-Jeb	A	KK-Asmao		sl. strong
0/-20-	01120	1 1/2	4	FOP	"	"	"	"	B	"	70°	sl strong
0/-20-	4/24	2"	2	ASTV	"	"	"	"	A	"	finger print	fine
0/-20-	8/48	"	3.7	FO IV	"	"	"	"	B	"		fine
0/-20-	0/240	"	4	*54? B+	BC.	1200/ .200	150/5	IIIa-Jeb	A		T: 69°F	Some CIRRUS clouds sl strong
0/-20-					"			IIIa-Jeb			3600 hr	
0/-20-	0/120	1 1/2	4	FSIV	BC	1200/ -.025	B.S.	"	B	"	SOME CIRRUS CLOUDS 67°F (F=508)	sl strong
0/-20-	0/240	1"	5	A2	"	"	"	"	A	"	SOME CIRRUS CLOUDS	fine
0/-20-	0/24	1"	2	KOMI	"	"	"	"	B	Std Vel		sl strong
0/-20-					"	"	"	"	A		9=	F=508 hr

Emulsion Batches:

Date Observers

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[illegible]

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Comparison
Type/Filter En

use of hypo clearing agent discontinued for III & IV's 4/83 — 1^{hr} wash instead