



5 p4#3 of Previous Book

THURS / FRI

Date 1996 Aug 29/30... Observers K.P.S. / T.M.

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CC41510	BIAS (4)			2312					
11	Comp						NO FILTER	FeAr HER 5	2s
12	HD 27022	4 11 16	+64 53 47	23 21 42		6 30 E		FeAr	721
13	Comp							FeAr	2
14	Comp							"	
15	HD 9826	01 39 54	40 54 00	23 46 04		3 30 E			282
16	Comp							"	
17	Comp	12000	from 1996 Astr Almanac					"	2
18	Juno	01 11 17	03 24 00	00 12 20		2 07 E			2070
19	Comp							"	2
20	BIAS (4)								
521-525	Flats x 5							Tung Filter #4	5s
CC41526	Comp						Filter	FeAr #4	2s
27	Juno	01 11 17	03 24 00	01 19 30		0 58 E			2132
528	Comp						Filter	FeAr #4	2s

CCD
Spectr. Temp
Focus
Spectr. Temp

Exp. Mtr.
Probably B
cannot

7400

9800

1400

1560

CCD Spectr. Temp. -100.3°C Dome Temp./Hum. $+17.5^{\circ}\text{C}$ 84% H Transparency Conditions ... Some cloud ... 6

Focus 6.75

Spectr. Temp.

Dome Temp./Hum. $+16.2^{\circ}\text{C}$ 75.5% H

CCO FMT 390 0 50 1024 41 MAX

Comparison Iter Exp.	Exp. Mtr.	Seeing	Mag. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emission	P.H.	Program	Remarks	Quality
	7400 Probably BG39				CASS CCD	1800nlm 44-70	306e	4790 $\pm 5\text{\AA}$	1 27		H β region -	5K
2											cannot access it to see.	
721	7400	4"	5.4	G5TV					28	MK std		7.1K
2									29			5.9K
									30			4.9K
282	9800	4"	4.10	F8V	CASS	1800nlm	306		4	MK std		15K
									5			4.9K
2									6			4.5K
2070	1400	4.25"	8.4	G2V					7	sp. std	megastep position w Rong, 100 Fax East By 1.5 mins	1.2K
2									8			4.7K
									9			11.8K
55									10		Dewar found @ -88°C Had not topped up at sun down I guess	8K
25					CASS CCD	1800nlm A1	306e	4189A				
2122	1560	4"	8.4	G2V					11	Sp std		
23									12			6.3K

pg #47

Emulsion Batches:

Date 1996 Aug 29/30 Observers ... Kek / In

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.
cc41529	Bias (4)								
30	Comp							ReAr	
31	HD 20630	03 14 06	03 00 00	02 07 11	02 18 05	2 44 E			650
32	Comp								
33-35	Flats x 3						no filter	Tung clear	85
36-38	Flats x 3						ND filter 5	"	3
39	Comp						ND filter 5	ReAr	3
40	HD 20630	03 14 07	03 00 13	02 36 52		2 22 E			146
41	Comp						"	"	3
42	Bias (4)								
43	Comp							"	3
44	Tung	01 11 17	03 24 00	02 48 43		0 26 EV			1883
45	Comp							"	3
46	Comp							"	"
47	HD 9826	01 39 54	40 54 00	03 28 57					81
48	Comp							"	3

Exp. Mtr.

Spectr. Temp.

Focus ...

Spectr. Temp.

Exp. Mtr.

R639
Filter
Still Struck in

2500

1400

4400

Spectr. Temp. -100.3°C Dome Temp./Hum. +15.9/77.4% Transparency Conditions Haze P 24 8

Focus 6.75 6.68 For Hd set

Spectr. Temp. Dome Temp./Hum.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800nm 41.2	306	4189A ^o	13			
68	10 700	4"	4.8	G5II				14	MK std		max 2.6K
								15			7.1K
								16			
3	BG39 Filter	Focus	G68	CASS CCD	1800nm 56.2	306	6580A ^o	17			
3	still stuck in							18			12K
146	2500	3"	4.8	G5V				19	MK std.		5.8K
3								20			6.4K
								1			
								20			
1983	1400	3"	8.1	G2V				21	Sp. std		2K
3								22			8K
								23			8K
81	4400		4.1	F8V				24	MK std		max 8000
3								25			

pg #59

Emulsion Batches:

Date 1996 Aug 29/30 Observers ... Kok / 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.
cc41549	Comp						ND#5	rear clear	
50	HD 27022	04 11 18	64 54 00	03 38 04		E			233
51	Comp							"	
cc41552	Comp						ND#5	rear clear	85
53	HD 27022	04 11 18	64 54 00	03 49 39		2 9 E			196
54	Comp							"	85
55	B/H S(4)								
56	Comp							"	85
57	HD 9826	01 30 54	40 54 00	04 02 38		0 45 W			74
58	Comp							"	85
59	Comp							"	85
60	Juno	01 11 17	03 24 00	04 15 19		1 43 W			1300
61	Comp						ND#5	"	85
62	Comp							"	"
603	HD 20630	03 14 07	03 00 13	04 41 34		0 E			128

CCD Spectr. Temp. ... 100°... 5... Dome Temp./Hum. ... 14.4, ... 77.4% Transparency Conditions ... Clear..... 10

Focus ... 6.6.8

Spectr. Temp. Dome Temp./Hum. +

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
BG39?				CASS CCD	1800/nm	306	6560A ²	26		M _n	8.2K
2900	3"	5.4	GSM					27	Mkstd		12.5K
								28			
				CASS CCD	1800/nm 51.8	306	5900A ²	3		NOJD	5.52
3300		5.4	GSM					4	Mkstd		9.4K
3300								5			
								1			
								6			
3200	3"	4.1	FST					7	Mkstd		6.4K
								8			
		8.1	G2V					9	Sp std		
1020	3"	↓	↓					10	Sp std		
								11			
								12			
4900	"	4.8	G5V					13	Mkstd		max 4.4

11
pg #6

Thurs / Fri

Date .19.46. Aug. 29 / 30... Observers K. K. / T. a.....

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison	
								Type/Filter	Exp.
cc41564	Comp							FEAR	8
565-867	Flats x 3						#5 ND	Tung clear	
cc41568	Bias(4)								

CCD
Spectr. Temp.
Focus... 6
Spectr. Temp.

Exp. Mir.

CCD
 Spectr. Temp. -100.5 Dome Temp./Hum. 71.3.6... 78.7% Transparency Conditions ... Fine 12

Focus ... 6.68

Spectr. Temp. Dome Temp./Hum. 390 0 50 1024 41 CCD/FMT

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800h 51.8	306 μ	5900A	14			
								15			11.2K
								1			
All To M: / CCD / CASS & F: / To - CDKOR											

M pg #1

Mon / Tues

Date 1996 Sept 2/3

Observers

WxL / T_n

Emulsion Batches:

Note CCD Newer Top up from Ambient

(We thought BIAS were High for 1st few hours)

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.
CC41569	BIAS(4)			19 46				FEAr # 5ND Filter	
70	Comp								9s
71	HD172167	18 33 33	¹⁹⁰⁰ +38 41 26	19 54 03		0 10E			22
72	Comp							"	9s
73	Comp							"	9s
74	HD 182572	19 20 12	¹⁹⁰⁰ 11 43 49	20 02 40		0 48E			10 2
75	Comp							"	9s
76	Comp							"	9s
77	DK Cyg	21 35 02	⁺²⁰⁰⁰ +34 35 42	20 13 51					900
78	"	"	"	20 30 17					900
79	comp							"	9s
80	BIAS(4)			20 49					
81	Ecomp							"	9s
82	SV Equ	20 57 19	⁵²⁰⁰⁰ +05 18 52	20 55 25		1 18E			673
83	Comp							"	9s

CC4

Spectr. Temp.

Focus...

Spectr. Temp.

Exp. Nr.

No. Filter

Intensity

6K

Exp notes

5K

460

1350

733

^{CCD}
Spectr. Temp. -100.7°C

Dome Temp./Hum. $+23^{\circ}\text{C}$ 60% H

Transparency Conditions Slightly hazy

14

Focus ... 6.62

Spectr. Temp.

Dome Temp./Hum. $+22.2^{\circ}\text{C}$ 63% H

90 cgain

CCDFMT
390 050 1024 + 12 mm x AD4

Exp. Mtr.	Seeing	F ₀ Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
No Filter Definitely				CASS CCD	1800 lines/mm 4705	306	5184A $\pm 1\text{\AA}$ @ Row 512	1			
								3			4.4K
6K		0.04	A0V					4		First guided in Dec	8.3K
Exp meter in		Fine Balance						5			3.2
								6			
5K	2"	5.16	B7IV					7	Std Vel		3.2K
								8			3.4K
								9			4.3K
360	1.2"	10.3	A6V					10	DRL		1300 450V
2350								11		CCDT -100.7°C Star	
								12			
								1			
								13			3.9K
783	1.3"	9	A0					14			1K
								15			2.4K

1599#2

Mon / Tues

Date 1996 Sept 2/3 Observers WxL / Ta

Emulsion Batches:

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Plate No.	Object	R.A.	Declination	Starting Time	Ending Time	Hour Angle End	Declination	Comparison	
		1900	1900	E.S.T.	E.S.T.			Type/Filter	Exp.
CC41584	Comp		2000					FeAr #5 ND	95
85	V417 Agl	19 35 24	05 50 18	21 13 49		00 25 W			900
86	"			21 29 31					900
87	Comp							"	9
88	V417 Agl			21 49 35					900
89	"			22 05 35					900
90	bias (4)			22 21					900
91	Comp							"	95
92	V417 Agl			22 26 15					900
93	"			22 41 41					900
94	Comp							"	950
95	V417 Agl			22 59 33					900
96	Comp							"	950
97	bias (4)			23 = 17					
98	Comp							"	95

cep
Spectr. Temp
Focus...
Spectr. Temp

Exp. Mtr.
S

386

389

395

399

300

323

293

ccd
Spectr. Temp. ... -100.9°C ... Dome Temp./Hum. Transparency Conditions ... slightly hazy ... 16

Focus 6.62

Spectr. Temp. Dome Temp./Hum.
ca

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no filter				CASSECO	1800ln/m 47.05°	306μ	5184Å	16			2.8K
386		11	G2V					17	DRL		
389								18			
								19			
395								20			
359								21			
								1			
								22		after rehousing in \rightarrow box	2.1K
320								23			
323	2"							24		S/N = 45/1	
								25			1.7K
293	2.3"							26			
								27			
								1			
								28			3.4K

179#3

Mon/Tues

Date 1996 Sep 2/3 Observers WxL/Tn

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CC41599	AQ Psc	²⁰⁰⁰ 012104	+73621	232311		3 10 E			900
600	"			233831					701
601	Comp							FeAr #5	9s
602	Comp							"	"
603	HD8779	¹⁷⁰⁰ 1 21 20	-005507	235544		2 53 E			254
604	Comp							"	9s
605	Comp							"	9s
606	AQ Psc	²⁰⁰⁰ 012104	+73621	000711		2 23 E			1060
607	"	"	"	002534					900
608	Comp							"	9s
609	BIAS (4)			00 42					
610	AQ Psc			004349					900
611	"			00 59 34					900
612	comp							"	9s
613	AQ Psc			01 18 43					900

CC
Spectr. Temp
Focus
Spectr. Temp

Exp Mir

1010

1010

2700

1570

1370

1320

1355

14

1415

Spectr. Temp. ^{CD} -100.6°C Dome Temp./Hum. +20.9°C 65%^H Transparency Conditions *Fine* 15

Focus 6.62

Spectr. Temp. -99.7°C Dome Temp./Hum.
CD

Exp. Mtr.	Seeing	Pl. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality	
900	No filter	3"	8.9	F8	CHSSCCD	1800 lines/mm 4705°	306	5184A	29		90/1 S/N	
701	1010							30				
95								31				2K
4								3				2.8K
254	2700	3"	6.4	g10				4	std vel			1.6K
8								5				2.4K
95								6				3.4K
1660	1670	2-3"	8.9	F8				7	Source FeAr on for 1st 5 min	7 100/1 S/N		
900	1350	2-3"						8				
93								9				2K
								1				
900	1320							10				
900	1385							11				
93	14							12				2/K
900	1415	3-4"						13				

1-19 #4 Mon/Tues.

Date Sept 2/3 Observers WXL/Tn

Emulsion Batches:

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Pl:	Plate No.	Object	R.A. 1900	Declination +1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Ex
	CC415/A	AQ Psc	2000 01 21 04	+ 7 36 21	01 34 02		0 51 E			900
	15	Comp							Felk ND45	95
	16	AQ Psc			01 51 58					913
	17	"			02 07 33					✓ 1500
	18	Comp							"	95
	19	B/H S(4)			02 25					
	20	AQ Psc			02 26 55					901 600
	21	"			02 42 35					900
	22	Comp							"	95
	23	AQ Psc			03:00:12					909 1519
	24	Comp							"	95
	25	B/H S(4)			03 20					
	26	Comp			03 23 42				"	95
	27	GZ And	02 12 12	+44 40 00	03 23 42					900 14 2
	28	"			03 39 22					900 301

CCD
 spectr. Temp. -100.7°C Dome Temp./Hum. $+19.4^{\circ}\text{C}$ 74% H Transparency Conditions *Fine* 20

focals 6.62

SCD
 spectr. Temp. -100.15°C Dome Temp./Hum.

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no filter 1448	4"	8.9	F8	CHSS CCD	1800 lines 47.050	306	5/8AII	14		90/1 S/N	
								15			2K
1468	3"							16			
1500								17			
								18			
								19			
1545								20			
								21		Re home mirror → mirror #1	
1519								22			
								23			2K
								1			
								24			3.6K
306	2"	10.9	G5 IV					25		> 40/1 S/N	
301								26			

Wpg#5 Mon/Tues

Emulsion Batches:

Date . Sep. 2/3/196. Observers ... W & L / T.

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.
CC41529	Comp							FeAr #5	9s
30	GZ And		2000						95
		021212	+44 40 00	035636		0 33W			95
31	"	"	"	041200					912
32	"	"	"	042732					948
33	Comp								
34	BIHS(4)								
35	Comp		1900					FeAr #5	9s
36	HD 22484	3 31 46	+00 05 04	045702					55
37	"			045814					49
38	Comp							"	9s
39/43	FLATS x 5					0 4W +1°			9s
44	BIHS(4)								

100 Spectr. Temp.

Focus ... 6.

Spectr. Temp.

Exp. Mir.

270

270

250

3000

2700

CCD Spectr. Temp. -100.5°C Dome Temp./Hum. $+18.5^{\circ}\text{C}$ 82% H Transparency Conditions .. slightly hazy..... 27

Focus 6.62

Spectr. Temp. Dome Temp./Hum.

~ MAXA04

Comparison
Filter Exp

Exp. Mtr.	Seeing	PA Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
070 filter				C455 CCD	1800 l/m 47.05°	306 μ	5184A	27			2K
270	1.2"	109	G5					28		< 40/1 S/N	
270	"							29			
250								30		04:38 EST CCD T = -97.1	
								31			
								1		CCD -95°C	
								3	CCD -100°C	Then Top up.	39K
3000		4.28	F9 IV					4	stave		34K
3700								5			3.6K
								6			3.6K
								2			15K
								1			

279#1

Tues / Wed

Emulsion Batches:

Date 1996 Sep 3/4... Observers Wx L / Jn.....

Using Latest CCD3 interface ... CCD3L.FXE.....

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.
cc41645	BIAS(4)			19 41					
46	Comp							Fe4 ND#5	95
47	HD 187691	19 46 14	10 09 55	19 48 14		1 25 E			90
48	Comp							"	95
49	Comp							"	95
50	SV Egn	20 57 19	+5 48 52	19 56 47		2 09 E			905
51	Comp							"	95
52	Comp							"	95
53	DK Cyg	21 35 02	+34 35 42	20 22 40		2 21 E			900
54	"	"	"	20 38 03					900
55	Comp			20 22				"	95
56	BIAS(4)			20 55					9
57	Comp							"	95
58	SV Egn	20 57 19	+5 48 52	21 04 22		1 01 E			902
59	Comp								95

CCD
Spectr. Temp
Focus
Spectr. Temp

Exp. Mtr.

30-102

374

780

315

350

730

Spectr. Temp. ^{CCD} -100.5°C Dome Temp./Hum. +22.9°C 57%^H Transparency Conditions Partly cloudy 24

Focus 6.62 Spectr. Temp. -100.6°C Dome Temp./Hum. +21.7°C 61.5%^H 90°C^{air} 390 0 50 1024 4 1 CCD/FMT

Exp. Mtr.	Seeing	PV Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no filter				CASS CCD	1800 lines/mm 47.05	306μ	5/8A ^P	1			
								3			2.8K
3.7K	1-2"	5.11	F8.2					4	stl vel	source on during exp	4.9K
								5			2.8K
			A0					6			2.9K
780	1-2"	9.0	A0					7	DRL	7 70/1 S/N	
								8			2K
								9			2.2K
315	1-2"	10.3	A6.2					10		7 40/1 S/N	
350								11			
								12			2.9K
								13			2.8K
730	2-3"	9.0	A0					14		75/1 S/N	
								15			2K

pp#2 Tues/Wed

Emulsion Batches:

Date 1996 Sep 3/4 Observers WxL / T.A.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CC41660	Comp							FEAe I5 ND	9s
61	^{not} DK Egg	21 35 02	+34 35 42	21 26 55					685
62	Comp							"	9s
63	The Real DK Egg	"	"	21 42 34					900
64	comp.								900
65	comp							"	9s
66	SV Equ			22 06 14					900
67	Comp							"	9s
68	BINS (4)			22 23					
69	Comp							"	9s
70	DK Egg			22 30 07					920
71	"			22 46 01					900
72	comp							"	9s
73	BB Peg ^{comp}			23 11 27				"	9s
74	BB Peg			23 11 27					900

Spectr. Temp

Focus

Spectr. Temp

Exp. Mtr

492

400

404

855

421

424

212

CCD Spectr. Temp. $\sim 101.3^{\circ}\text{C}$

Dome Temp./Hum.

Transparency Conditions *hazy* 25

Focus *6.62*

Spectr. Temp.

Dome Temp./Hum.

Comparison
Filter Exp

Exp. Mtr.	Seeing	F _{0.6} Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
<i>no filter</i>				CHSS CCD	1800 ln/mm 4705	306 μm	5184A	16			22K
<i>400</i>	<i>1.2"</i>	<i>10.3</i>	<i>A6 V</i>	<i>19.5 A type</i>				17		<i>no filter. Hazy wrong star STAR 1.5" SOUTH of intended</i>	2K
								18			
<i>404</i>	<i>1.2"</i>	<i>10.3</i>	<i>A6 V</i>					19			
								20			
								21			
<i>855</i>								22			
								23			1.7K
								1		<i>-100.7°C</i>	
								24			3.2K
<i>420</i>	<i>2"</i>	<i>10.3</i>	<i>A6 V</i>					25			
<i>424</i>								26			
								27			
								28			
<i>212</i>	<i>1.2"</i>	<i>10.8</i>	<i>F8</i>					29			

Vp9#3 Tues/Wed

Date ..1996..Sep.3/4..... Observers ..WxL.I.Ts.....

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
cc41675	BB Peg	22 22 56	16 20 00	23 27 40					909
76	Comp							FeA #5	9s
77	BIA 5(4)			23 44 ✓					
78	BB Peg			23 52 08 00 02 41					1003
79	"			error time 00 11 40					978
80	Comp							"	9s
81	BB Peg			00 33 03					901
82	"			00 49 00					900
83	comp							"	9s
84	BIA 5(4)			01 08					
85	Comp							"	9s
86	HP 3765	00 35 18	+39 40 00	01 24 17		0 34 E			319
87	Comp							"	9s
CG806 ⁸⁵ / ₈₆	HP 3765	00 35 18	+39 40					4x	67ms
87/90	DAKs							4x	67ms

Spectr. Temp.

Focus.....

Spectr. Temp.

Exp. Mtr

10/9/96

390

300

308

270

271

1550

Spectr. Temp. Dome Temp./Hum. +21.0°C 63% H Transparency Conditions ... some cloud 28

Focus 6.62

Spectr. Temp. Dome Temp./Hum.
ca

Comparison Filter Exp	Exp. Mtr.	Seeing	P.W. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
909	no filter 240	2"	15.8	F8	CASS CCD	1800 L/mm T=47.05	306 μ	5184K	30	DRL		
8									31			1.8K
									1			
1003	300								1		Rebooted All due to some hang up "Typo Acer Time Reset Drivers	
978	300				Acer Time Reset (ok now)				2		corruption?	
93									3			1.7K
901	270								4			
900	271								5		some clouds in.	
9									6		CCOT -100.98	
									1			
8									7			2K
377	1650	2"	7.36	dk5					8	std vel		1.8K
0									9			2.5K
			"	"	Above 306 μ slit						Seeing Test Dome WSW	
					Default Box centered used						Part Thin cloud, no wind	

V9#4 Tues/Wed

Emulsion Batches:

Date 1996 Sep 3/4 Observers WxL/J.M.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CG806 ^{91/92}	HD3765					0 23E		2x 133 _{ms}	
^{93/94}	DARKS							2x 133 _{ms}	
CC416 ^{88/92}	FLATS x 5							TUNG Filter 5	9s
93	Comp							IZAN FIL 5	9s
94	GZ And	02 12 12	+44 40 00	02 14 39		1 02 E			950
95	Comp							"	9s
96	Comp							"	9s
97	DK Cyg	21 35 02	+34 35 42	02 40 04					900
98	"			02 58 29		4 18W			1000
99	comp							"	9
CC41700	BIHS(4)			03 18					
01	Comp							"	9
02	GZ And	02 12 12	44 40 00	03 22 10					960
03	"			03 39 24					987
04	Comp							"	9s

Spectr. Temp.

Focus...

Spectr. Temp.

Exp. Mr.

320

230

221

204

115

Spectr. Temp. Dome Temp./Hum.

Transparency Conditions ... *part cloudy* ... 30Focus ... *6.62**increasing cloud*

Spectr. Temp. Dome Temp./Hum.

Exp. Mtr.	Seeing	Plg Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality	
		726	AK5			306 _n				Seeing tests continued.		
			All with default box and same								Intensifier settings	
							518	10c			15.7K	
								11			21K	
	220	1-2'						12c		> 30/1 S/N		
								13			2K	
								12				
	230	3"	103	AGV				14		clouds in		
	221							15				
								16			17K	
								1				
								17			22K	
	204	1-2'	711	G5V				18		> 30/1 S/N thin clouds.		
	215							19				
								20		70/1		

M 1905 Tue/Wed

Emulsion Batches:

Date .. 1996 Sep 3/4 Observers .. WxL / 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.
cc41705	GZ And	02 12 12	5000 44 4000	03 56 48					941
06	Comp			04 12 54				FeAr #5	95
07	B/A S (4)								
08	Comp							?	9
09	HD 72484	03 31 46	1900 00 05 04	04 31 58		0 22 E			261
10	Comp								

cc9
Spectr. Temp
Focus
Spectr. Temp

Exp. Mtr
1900

CCD Spectr. Temp. -100.9°C Dome Temp./Hum. $+19.2^{\circ}\text{C}$ 76% Transparency Conditions *part cloudy* 32

Focus *6.62*

Spectr. Temp. Dome Temp./Hum. $+19.0^{\circ}\text{C}$ 76%

Exp. Mtr.	Seeing	Pto Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
<i>No filter</i> 205	2"	<i>n11</i>	<i>G5V</i>	<i>CHSSCCD</i>	<i>1800h</i> <i>47.05°</i>	<i>30μ</i>	<i>5184A</i>	21		<i>3</i>	
								<i>22</i>		<i>cloud now</i>	
								1			
								24			<i>2.6K</i>
1900	3"	<i>428</i>	<i>F9IV-V</i>					25	<i>std uel</i>	<i>cloudy</i>	<i>1.5K</i>
								26			

77#1

Wed / Thurs

Date ..1996.. sept. 4/5. Observers ...Kok. / T.u.....

Emulsion Batches:

.....

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.
CC41711015	BIAS(4)			STellar with (OG560 order sep)				Comparison with NO. 2 + R60 filter	
12	Comp						# 5 Filter	0.5 sec	
13	HD148856	16 25 55	21 42 27	19 50 24		2 0 W		30 sec	
14	"	"	"	19 52 01		2 W		23	
15	Comp						FeAr	0.5 sec	
16	Comp						"	0.5 sec	
17	HD197989	20 42 12	33 36	20 01 54		2 3 E		20	
18	"	"	"	20 02 55		2 2 E		22	
19	Comp						"	0.5 sec	
20	Comp						"	"	
21	HD 204848	21 26 12	-10 11 00	20 10 12		2 30 E		587	
7 22	Comp	"	"	20 21 00		2 17 E	"	747	
23	Comp						"	0.5 sec	
24	Bias(4)			20 36 07					
25	Comp						"		
26	HD 207687	21 45 42	-10 31 07	20 39 48		2 20 E		618	
27	"	"	"	20 50 47		2 5 E		831	

100
Spectr. Temp
Focus...
Spectr. Temp
Exp. Mir.
10 5 1/2
1500
1400
2000
2000
1000
1000
1000
1000

Spectr. Temp. ^{CCD} -100.7 °C Dome Temp./Hum. 22.5 °C 62% H Transparency Conditions ... Hazy ... 34

Focus ... 6.65

Spectr. Temp. ... Dome Temp./Hum. ... 240 0 50 1024 4 1 CCD UNIT

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no f./hr					8314 378	306μ	7900A ± 15A	1c			
								5			8K
1300		2.8	G8III					6	Mk std		8K
1400		11	4					7	"		8K
								8			7.7K
								9			
2400		3.48	K0III					10	Mk std		
2000			L					11	"		15.7
								12			
1200	2"	8	K0III					13			
1700		~	~					14	Carbon pgn		46K
								15	"		46K
								16			
								17			10K
1271		7.88	K0III					18	Carbon pgn		63K
1326		~	~					19	"		

pg # 235

Wed / Thurs

Emulsion Batches:

Date 1996.. Sep. 4/5..... Observers ... Kok / 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	Ex
cc41728	Comp					R60 + ND1.2 →	FeAr	F. filter #5	0.55x
29	Comp						~		~
30	HD 177724	19 00 49	13 42 53	21 12 10	0 48 W	→			28
31	"	~	"	21 13 37	0 50 W	→			30
32	Comp						~		0.75x
33	Comp						~		~
34	HD 9826	01 30 56	40 54 19	21 25 11		5 29 E			79
35	"	"	"	21 27 46		5 E			55
36	Comp						FeAr		0.55x
37-41	Flats x 5			note - (Done with R60 + ND1.2 like FeAr comp)			tung		
42	Bias (4)			21 46					
43	Comp						FeAr		0.55x
44	Juno	01 11 20	02 29 30	21 58 04		4 00 E			1930
45	Comp						FeAr		0.55
46/50	FLATS x 5			with (OG 560 filter + ND 1.2 in)					11
271	"	~	~						

CCD Spectr. Temp. -100.3°C

Dome Temp./Hum. $+22.1^{\circ}\text{C}$ $62.4\% \text{H}$

Transparency Conditions \dots Thick. Haze \dots 36

Focus \dots 6.65

Spectr. Temp. \dots

Dome Temp./Hum. $+20.8^{\circ}\text{C}$ $71\% \text{H}$

90 c gain

240 050 1024 + 1 CCD UNIT

Exp. Mtr.	Seeing	Fig. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
10 filter	using 100 t scale				831 / below 378°	306	7900 Å	20c		OI	10K
								21			
2300		2.99	ADT					22	Telluric st		7.4K
2200		"	"					23	"		"
								24			8.5K
								25			
2750		4.1	F8V					26	14K std		11K
1900		"	"					27	"		12.4K
								28			7.8K
								29		Will do with OG 560 ordered separation letter.	12K
								1			
								30			
1300	3"	8.2	G2V					31	Sp. std	AIR MASS 2.9 Local, moving South 10" / 30 mins or so	11K 3.8K
								32			
								33			11.1K

^{ced}
Spectr. Temp. ... 100.3 °C

Dome Temp./Hum.

Transparency Conditions ... Hazy ... 38

Focus ... 6.68

Spectr. Temp.

Dome Temp./Hum.

Harder 8580A

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no filter				CHSSCED	831 km/h 39.70	306u	8572A	1		CSI Triplet	
		2.8	G8III				I.518	3	mk std.		7.5K
		2.8	G8III				Raw 512	4	u		
								5			
								1			
								6			
								7			
1520	4"	8	Kott					8	Carbon pgn		
								9			8.5K
								10			
1415	3.4"	7.88	Kott					11	Carbon pgn		24K
								12			
								13			
2300		3.48	Kott					14	mk std		12K
								15			
								1			

pg#4 29

Emulsion Batches:

Date ..1996.. Sep 4/5.. Observers ...Kok/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.
cc41767	Comp						Fene		.5s
68	HD 9826	01 30 56	40 54 19	23 56 01		2 50 E			31
69	Comp						"		.5s
70	Comp						"		"
71	HD 27 922	04 11 16	64 53 47	00 04 02		EO E			141
72	Comp						"		.5s
73	Comp								
74	Juno	01 11 20	02 29 30	00 13 27		1 50 E			1.528
75	Comp						Fene		0.5
76	Comp						"		"
77	HD 20 630	03 14 06	03 02 00	00 08		3 50 E			.55
78	Comp						"		"
79	Bias (4)			00 51 03					
780384	Flats x 5						Tung		16s

Spectr. Temp.
Focus...
Spectr. Temp.

Exp. Mir

1700

516

1728

^{LED}
Spectr. Temp. → 109: S.C.

Dome Temp./Hum → 20.3°C, 71.6%RH

Transparency Conditions Hazy → Thick 40

Focus ... 6.6

Spectr. Temp.

Dome Temp./Hum.

Comparison
Filter Exp

Exp. Mtr.	Seeing	Pr. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
							8572	16			
1541		4.1	F8V				8580 in Hand	17	MKstd		3.9K
								18			
								19	Not Tested		
1700		5.4	G5III					20	MKstd		6.7K
								21			
								22			
1516		8.2	G2V					23	Sp Std		3.4K
								24			
								25			8.5K
1728		4.82	G5V					26	Mkstd		6.5K
								27			
								27			10.8K

CCD Spectr. Temp. ... 1.00.5... Dome Temp./Hum. ... +20.5°C, 67% Transparency Conditions .3.7k... Hazy..... 42

Focus 6.65.....

Spectr. Temp. Dome Temp./Hum. +19.8°C..... 240 0 50 1024 4 1 CCD Faint

Exp. Mtr.	Seeing	Pis Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	831/nl ~ 37.8	306 μ	7910A	50		Back to OF.	
1666	4.82		GST					6	Mk std		9K
								7			
								8			
1650	5.4		GST					9	Mk std		12K
								10			
								11			11.7K
								1			
				CASS CCD	1800/nl ~ 46.8	306 μ	5150A	4	400 0 50 1024 4 1 CCD Faint	Mg II Lines -	
10400	4.10		F8V					3	Mk std		8.5K
								4			
								5			3K
7700	1.2'	5.4	GST					6	Mk std		10K
								7			

pg # 6 43

Emulsion Batches:

Date ~~1996~~ Sep. 4/5.. Observers ... K. Ok. / J. T. A.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison	
								Type/Filter	Exp.
cc41801	Camp						Filter #3	FeAR	2
02	HD20630	03 14 06	03 00 00	02 25 39		2 6 E			225
03	Camp							u	2
04	Camp								2
05	Juno	01 11 20	02 29 30	02 36 15					1169
06	Camp							u	2
07-09	Flats x 3							lung	
cc41810	Bias (4)								

Exp. Mtr.

Spectr. Tem.

Focus...

Spectr. Tem.

Exp. Mtr.

no filter

6125

1800

CCD Spectr. Temp. -100...5C... Dome Temp./Hum. +19.8°C., .66.174H Transparency Conditions Hazy..... 40

Focus 6-63.....

Spectr. Temp. Dome Temp./Hum. ... +19.3°C. 76% H
 400 0 50 1024 9 1 CCDFAST

Comparison Filter Exp	Exp. Mtr.	Seeing	Pig Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emission	P.H.	Program	Remarks	Quality
2	no filter				CASS CCD	1800nm 46.8	306u	5150A	8			28K
205	6829	2"	4.8	G5V					9	Wkstd		68K
2									10			
2									11			
169	1800		8.2	G2V					12	Sp. Std		2K
2									13			
									14			
									1			

P9# MK
Thurs / Fri

Date 1996 SEP 5/6 Observers [Blu] / Tn

Emulsion Batches:

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.....

Using CCD36 interface program

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.
CC 41811	Comp						Filter #5	FeAr	55
12	HD 172187	18 3342	+430812	20 0344		0 31 W			1185
13	Comp						"	"	55
14	HD 172187	"	"	20 2421		0 58 W			1266
15	Comp						"	"	55
16	BIAS (A)			20 53					
17	Comp						"	"	55
18	HD 138629	15 2812	+41 1419	20 5700		4 27 W			1022
19	Comp						"	"	55
20	Comp						"	"	55
21	HD 152614	16 4917	+10 1948	21 2235		3 30 W			1022
22	Comp						"	"	5
23	BIAS (A)			21 43					
24	Comp						"	"	5
25	HD 148213	16 2150	+37 3718	21 4729		4 34 W			1628
		(16 2150	+37 3718)						

CO
Spectr. Tem
Focus
Spectr. Tem

Exp. Mtr.

12.2 k

26 k

26 k

1022

1022

19 k

1628

CCD Spectr. Temp. ... -100.7°C ...

Dome Temp./Hum. ... +23.0°C 70%RH

Transparency Conditions ... Hazy to thin, cloudy ... ⁴⁵

Focus ... 6:65 ...

CCD Spectr. Temp. ... -100.7°C ...

Dome Temp./Hum. ...

CCDFMT
420 0 50 1024 9 1 ~ MAX ADU

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
55	no f. filter			CASS CCD	1900 lines	306μ	4462A	4c	That	Hot pixel @ col 26 tonight.	3.8K
185	12.2K	4"	6.40	F0V	TILT = 426°		± 1 Å	5c	Blk SB2	Tele. encoder no analyzed +00, 200/1 SIN	
55					Fe Ar source on 1st 500 sec of exp			6			
166	12.6K	3-4"	"	"				5			4K
55								6			3.4K
								1			
55								7			3.4K
1022	Accumulation failed.	4"	5.09	A5V				8	A-shell Blk	clear here, no spectra	6.6K
55								9			3.1K
55								10			3.6K
1022	BG 39 f. filter.	3-6"	4.30	B8V				11	dbl line SB	~ 260/1 SIN	5.7K
5	14K							12			3.4K
								1			
5								13			3.6K
1628	10.3K							14			4.3K

1948 47

Thomas / Fri

Date 1996 Sep 5/6..... Observers [Blk] / T.a.....

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter Exp.	
CC41826	Comp						Filter #5	FeA	5s
27	Comp						"	"	5s
28	HD 187691	19 4614	+10 09 55	22 19 23		1 21 W			
29	Comp						"	"	5s
30	BIAS (A)			22 29			+1° pec		
31/39	FLATS x 9			22 40		0 0	Filter #3	TUNG	11s

Spectr. Temp.

Focus... 6

Spectr. Temp.

Exp. Mir.

1639

3:3K

Spectr. Temp. Dome Temp./Hum. 12.3°C $75\% \text{H}$ Transparency Conditions ... *increasing cloud* ... 48

Focus ... 6.65

Spectr. Temp. Dome Temp./Hum. $c\lambda$

@ 21 EST Pearson
102.01 Kpaals
and rising
wind SE 6 km/hr

Comparison Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
55	BG 39					1800h	306	4462A	15			30K
55									16			36K
	3.3K	3"	\checkmark 5.11	F8V					17	std vel		
55									18			
									18m			
6 115									19c		14.7 K 14.5 K 14.7 K 14.64 K 14.615 K 14.625 14.700 14.550	

49
p9#1 Tues/Wed

Date 1996 Sep 10/11... Observers KISS, I. Ta.....

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
C 0126 ^{83/84}	Inboard / out board HURTMAN					2 35 W		ThAr	3/2
85	BIAS(4)								
ce12686	Comp HD176155							ThAr	2s
87	FF Agl	18 53 48	+17 13 30	19 44 27		0 19 W			1873
88	Comp							"	2s
89	Comp							"	2s
90	HD184929	19 47 23	+00 44 56	20 23 47		0 19 E			440
91	Comp							"	2s
92	Comp							"	2s
93	HD188727	19 51 29	+16 22 11	20 37 35		0 09 W			1500
94	Comp							"	2s
95	BIAS(4)			21 05					
96	Comp							"	2s
97	HD163506	17 51 23	+26 03 57	21 10 44		2 29 W			720
98	Comp							"	2s

CCD
Specif. Tem
Focus
Spectr. Tem

Exp. Mir.
no. 1 1/2

180

180

64

127

CCD Spectr. Temp. -100.8°C Dome Temp./Hum. $+19.8^{\circ}\text{C}$ 70% H Transparency Conditions ... clearing nicely ... 50

Focus $\rightarrow 4360$ was 2360 90c gain but still slight haze

CCD Spectr. Temp. -100.8°C Dome Temp./Hum. $+19.8^{\circ}\text{C}$ 70% H 0 0 128 1024 81 focus

Exp. Mtr.	Seeing	Pr. Mag.	Sp.	Inst.	Grating/ x Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
3/2				Echelle 19.85	600 lines .3030	60u 600uH	6400A	1/2	focus	used 600H for focus. Should use 400 H height	
								1		[0 0 256 1024 91 CCDFMT]	
						90u = .265 600u H height		3			
1873	2.4	5.18 5.68	F/G					4	Cepheid pgrm		3.4K
								3			1.43K
								3			
440	3.4	3.48 4.39	F-G					5	Cepheid pgrm	~ 250/1 S/N @ center	3.5
								3			
								3			
150	3.4	5.24 6.04	F-G					6	Cepheid	~ 170/1 S/N	
								3			
								1			
								3			
127	3.4	5.5	F-G					7	Cepheid		
								3			

Spectr. Temp. ^{SCP} -101.7°C

Dome Temp./Hum. +17.5°C 78% H

Transparency Conditions .. PuAT Clear .. 52

Focus 123.60

Spectr. Temp.

Dome Temp./Hum.

ci

Exp. Mtr.	Seeing	PV Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Ar 2 100 Filter		5.11	F8V	actello 19-85	0600 In .3030	90u 600uH	6400	3			
783 167	3-4"	5.11	F8V					2	std vel	OK by Recat [AM notes]	
Ar 2 25	5.2"							3			
1000 127	3"	5.8	F/G					4	ceptoid	short period	
25								3			13K
2								1			
163 360		2.99	A0 In					3			
25								2	Telluric Std	AIR mass 1.300	2.7K
25								3			
992 146		5.4	F/G					5	ceptoid		
25								3			
20								3			
140		6.0	F/G					6	ceptoid		
5								3			

pg #3⁵³ Tues/Wed

Date 1956 Sep 10/11

Observers Kiso/Tu

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CE12715	BIAS (4)			2314					
16	Comp							ThAr	2s
17	HD 203156	21 1523	+374855	232540		1 26 W			1034
18	Comp							n	2s
19	Comp							v	2s
20	HD 197572	20 3929	+351338	234921		2 26 W			1073
21	Comp							v	2s
22	Comp							q	2s
23	HD 204867	21 2618	-06 0040	00 1548		1 50 W			198
24	Comp							n	2s
25	Comp							q	2s
26	HD 213307	22 2524	-57 5300	00 2948		1 14 W			638
27	Comp							i	2s
28	BIAS (4)			0043					
29	Comp								

(1) Spectr. Temp.

Focus.....

Spectr. Temp.

Exp. Mtr. | S

No. filter

24 2

180

315

432 2

CCD Spectr. Temp. -100.8°C Dome Temp./Hum. $+17.3^{\circ}\text{C}$ 78% H Transparency Conditions ... slightly hazy ... 54

Focus 2360

Spectr. Temp. Dome Temp./Hum.

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	X Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no filter				Edelle	0600	90uW	6400A	1			
				19.85	1.3030	600u H		3			
1034	2.14	2.3"	F-G					2	cepheid		1.7K
25								3			1.46K
25								3			
1073	180	2.3'	5.9 F-G					4	cepheid		1.7K
25								3			
25								3			
118	365	4"	2.9/GOIB					5	std vel	IAU std notes indicate As a "prob var"	3.9K
25								3			
25								3			
638	482	2.3'	4.3 F-G					6	cepheid	& cep	4.5K
25								3			
								1			
								3			1.56K

55
 4944 Tues/Wed

Emulsion Batches:

Date 1996 Sep 10/11... Observers Kiss/Ta.....

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.
CE12430	HD 201078	21 02 18	30 47 01	00 49 00		3 W			1008
31	Comp							ThA	25
32	Comp							"	"
33	HD 32456	04 58 18	+55 13 00	01 21 54		4 10 E			1905
34	Comp							"	"
35	BIAS(4)			01 55					
36	Comp							"	2
37	SZ Tau	04 31 26	+18 20 30	02 04 52		3 09 E			1221
38	Comp							"	2
39	Comp							"	2
40	HD 22484	3 31 46	00 05 04	02 30 57		1 51 E			709
41	Comp							"	2
42	Comp							"	2
43	HD 45412	17 51 23	+26 03 57	2 48 59		4 21 E			313
44	Comp								
45	BIAS(4)			3 06					

Spectr. Temp.

Focus ...!

CCD

Spectr. Temp.

Exp. Mtr.

no. f. / sec

59

66

112

140

Spectr. Temp. Dome Temp./Hum. 116.2°C 82.3% Transparency Conditions ... Fine 55

Focus 12360

Very light NW Breeze all night

Spectr. Temp. ^{CCD} - 100.7°C

Dome Temp./Hum.

~ MAX

Exp. Mtr.	Seeing	Pt. Mag.	Sp.	Inst.	Grating/ x Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no filter 40	3"	5.8	F16	Eckelro 19.85	0600h 3030	90u = .265 600u H = .205		2	cephid		1.7K
								3			
								3			
59	3"	7.5	F-G					4	cephid		900
								3			
								1			
								3			
66	3	6.6	F-G					5	Cepheid		1.2K
								3			
								3			
112	3"	4.28	F8 V					6	std vel	OK by Recon + TAM notes	3.5K 12.9K
								3			
								3			
140		5.2	F16					7	cephid		
								3			
								1			

py 557

Emulsion Batches:

Date 1996 Sep 10/11 Observers ... Kiss / 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.
ce 12746	Comp							ThAr	2s
47	[HD 52973] not			3 12 34					
48	Comp							"	2s
49	HD 52973	6 5811	20 4302	3 2715		4 22 E			685
50	Comp							"	3
51/57	FLATS x 7					2 50W	+10°	ThAr	2s
58	BIAS (4)								
		1996 Sept 16/17		No observing after All, just focus test					
ce 12759/60	Inbound four round			2 22 20		EST, But Acer Time ahead		ThAr	3/2

Spectr. Temp

Focus... 4

Spectr. Temp

Exp. Mtr.

no file

300

Spectr. Temp. Dome Temp./Hum. Transparency Conditions .. 17.4.74 58

Focus .. ~~4360~~ .. 2360 actually

Spectr. Temp. ^{CCD} -101.80°C Dome Temp./Hum. +15.5°C .. 86% H

Comparison Filter Exp	Exp. Mtr.	Seeing	Pr. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
25	no filter						90 μ	6400A	3			
		4"	8	F-6					2	apland	Star North 2'	
25									3		.014052975	
685	300		4	F-6					4	apland		
3									3			
625							90 μ 800 μ H		3			~11K
									1			
3/2									1/2		CCDFNT 0 01281024 8 1	

T = +15.2°C F = 0.2340

54 pg#1 Tues/Wed

Emulsion Batches:

Date 1996 Sept 17/18. Observers Kiss/Tn

Acen Time Right on Encoder Time 22.43 EST.

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.
C0127 ⁶¹ / ₆₂	Inboard / out Board		HURT MANN			~ 3 W	+30°	ThAr	2/2
63	BIAS(4)			22 3454					
64	Comp							"	2s
65	HD 213307	22 2524	+57 53 00	22 4235		0 08 E			357
66	Comp							"	2s
67	Comp							"	2s
68	HD 163506	17 51 23	+26 03 57	22 5509		4 54 W			1318
69	Comp							"	2s
70	Comp							"	2s
71	HD 177724	19 00 49	+13 42 53	23 2300		3 55 W			277
72	Comp							"	2s
73	BIAS(4)			23 31					
74	Comp							"	2s
75	HD 197572	20 39 29	+35 13 38	23 3606		2 48 W			
76	Comp							"	2s

CCD Spectr. Temp

Focus...

Spectr. Temp

Exp Mtr

no filter

480

41

365

60

CCD Spectr. Temp. -100.7°C Dome Temp./Hum. 15.8°C 80.4% Transparency Conditions PART Cloudy 60

Focus $\dots 2340 \dots$

90cc gain

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

$\text{C}\delta$

Exp. Mtr.	Seeing	✓ Mag.	Sp.	Inst. <i>Echelle</i>	Grating/ x Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
<i>2/2</i>	<i>no filter</i>			<i>19.850</i>	<i>0600 3030</i>	<i>90u W 400u H</i>	<i>6400A</i>	<i>1/2</i>		<i>CCDFMT 0 0 128 1024 8 1</i>	
						<i>90u W 600u H</i>		<i>1</i>		<i>0 0 256 1024 4 1</i>	
<i>2s</i>								<i>3</i>			<i>15K</i>
<i>367</i>	<i>4"</i>	<i>24</i>	<i>F-G</i>					<i>4</i>	<i>Cepheid</i>	<i>S cap</i>	<i>31K</i>
<i>2s</i>								<i>3</i>			<i>151K</i>
<i>2s</i>								<i>3</i>			
<i>138</i>	<i>41</i>	<i>3-6"</i>	<i>5.5</i>	<i>F-G</i>				<i>5</i>	<i>Cepheid.</i>		<i>350 Above 8K level</i>
<i>2s</i>								<i>3</i>			
<i>2s</i>								<i>3</i>			
<i>277</i>	<i>365</i>	<i>5"</i>	<i>2.99</i>	<i>A0Vn</i>				<i>6</i>	<i>Telluric Std</i>	<i>AIR MASS 1.84</i>	
<i>2s</i>								<i>3</i>		<i>one line saturated</i>	
								<i>1</i>			
<i>2s</i>								<i>3</i>			
	<i>60</i>	<i>5"</i>	<i>6.0</i>	<i>F-G</i>				<i>2</i>	<i>Cepheid</i>		
<i>2s</i>								<i>3</i>			

Page #2

Tues/Wed

Emulsion Batches:

Date 1996 Sept 17/18... Observers Kiss/Tm.....

.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CC12777	Comp							ThAr	25
78	HD198726	20 4713	+2752 32	000414		W			970
79	Comp							"	25
80	Comp							"	2
81	HD 222368	23 3448	+5 05 03	002506		0 29 W			657
82	Comp							"	2
83	Comp							"	2
84	HD 201078	21 0218	+304701	004117		3 24 W			780
85	Comp							"	2
86	Comp							"	2
87	HD 203468	21 1718	+6426 52	01 09 48		3 43 W			1156
88	Comp							"	2
89	BIAS(4)			0135					
90	Comp							"	2
91	HD 203156	21 15 23	+3748 55	0140 52		4 12 W			
92	Comp							"	2

150
 Spectr. Temp.
 Focus.....
 Spectr. Temp.

Exp. Mtr
 as filter

245

141

6

CCD Spectr. Temp. ... -101.0 ... °C

Dome Temp./Hum. ... +14.4°C ... 79.6% H

Transparency Conditions ... Mostly clear ... 62

Focus ... +2340 ...

Spectr. Temp. ...

Dome Temp./Hum. ... +14.0°C ... 81.3% H

increasing cloud

MAX ADX

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
25	no filter					90° W 600° H	6400A	3			15.1K
970	4"	5.7	F-G					4	cepheid		1.3K
25								3			
2								3			
657	245	5"	4.13	F 7V				7	Std Vel	OK by recent IAU rates	3.3K
2								3			
2								3			
980	141	5-7"	5.5	F-G				5	cepheid		1.1K
2								3			
2								3			
1150	6"	5.1	Be					6	B. emission cepheid	NICE HK Em Telescope East Side	
2								3			
2								1			
2								3		still East side	15.1
6	4-6"	5.8	F-G					2		~ 60 ADX Have Bias	
2								3			

63 pg#3

Tues/Wed

Emulsion Batches:

Date 1996 Sep 17/8 Observers Kiss / Tg

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.
ce12793	HD203156	21 1523	+374855	020053					671
94	Comp							ThAr	2s
95/801	FLATS x 7							TURK	3s
802	BIAS (4)			0232					
803	Comp							ThAr	2s
804	HD22484	3 31 46	+00 05 04	024059		0 59 E			1394
805	Comp							"	2s
806	BIAS (4) Comp after Topap			BIAS (4)					
	SZ Tag			031944					671

Spectr. Temp.

Focus...

C.C.D.

Spectr. Temp.

Exp. Mtr.

No. of Filter

1

34

Spectr. Temp. Dome Temp./Hum. $+13.7^{\circ}C$ 79.6% Transparency Conditions ... Clear only in Far North 24

Focus ... = 23.40

^{CCD} Spectr. Temp. $-100.7^{\circ}C$ Dome Temp./Hum. c)

Comparison Iter Exp	Exp. Mtr.	Seeing	Pt Mag.	Sp.	Inst. <i>Echelle</i>	Grating/ x Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
67	no filter 1	5"	4.58	F-G	19.85°	0600 13030	90 _u W 606	6400A	4	cap head		
2									3			
3							800 _u H		1			1.21K
									1			
2			4.18	F8V			90 _u 600 _u H		3	std vel	after height change	
1394	34	6"	4.18	F8V					2	std vel	Back	1.2K
2									3			15.8K
									3	1	Top up by 0315 EST	
67									4			

65 py #1

Wed / Thurs

Emulsion Batches:

Date 1996 Sep 18/19 Observers Kiss / 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.
CC 128 ^{07/08}	Inboard / outboard								
	HARTMANN								
09	BIAS (4)			18 54					
10	Comp							ThAr	2sec
11	HD 187929	19 47 23	+00 44 56	19 04 44		1 07 E			355
12	Comp							n	2s
13	Comp								2
14	HD 177724	19 00 49	+13 42 53	19 17 02					275
15	Comp							"	2
16	Comp							"	2
17	HD 163506	17 51 23	+26 03 57	19 26 04		1 23 W			1000
18	Comp							"	2
19	Comp							"	2
20	HD 176155	18 53 48	+17 13 35	19 47 05		0 42 W			1010
21	Comp							n	2
22	BIAS (4)			20 08					

CCO
Spectr. Tem.

Focus...

CCO
Spectr. Tem.

Exp. Mtr.

Exp. Mtr.

365

565

320

386

CCD Spectr. Temp. ... -100.8 °C ... Dome Temp./Hum. ... +17.2 °C 63.7% H ... Transparency Conditions ... Fine ... 65

Focus ... 2340 ... still OK for expected temps ... 90c gain

Spectr. Temp. ... -104.0 °C ... Dome Temp./Hum. ... +15.6 °C 67.6% H

Comparison ter Exp	Exp. Mtr.	Seeing	Mag. ✓	Sp.	Inst.	Grating/ x Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	no filter				Echelle 1985	0600/1mm .3030	90uW 400uH 90uW 600uH	6400 Å	1/2 1 3	Focus test	0 0 1281024 81 CCDPAT 0 0 256 1024 41 CCDPAT	
355	365	4-6"	35	F-G					2 3	cepheid		4-1K
275	565	3"	2.99	AOVn					4 3 3	telluric st.	AIRMASS 1.156	3.6K
1000	320		5.5	F					5 3 3	Semi Regular		2.9K 16-1K
1010	286	4"	5.7	F-G					6 3 1			2.7K

Spectr. Temp. Dome Temp./Hum.

Transparency Conditions *Fine* *65*Focus *2340**very windy from North*Spectr. Temp. *-101.8°C* Dome Temp./Hum.*CD*

Comp. of Filter	Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ X Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	<i>no filter</i>				<i>Echelle</i> <i>19.85</i>	<i>0600h/m</i>	<i>90u</i> <i>60u Height</i>	<i>6400A</i>	<i>3</i>			
	<i>208</i>	<i>4"</i>	<i>5.9</i>	<i>F-G</i>					<i>2</i>	<i>cephid</i>		<i>2.1K</i>
									<i>3</i>			<i>14.8K</i>
									<i>3</i>			
	<i>180</i>	<i>4"</i>	<i>6.0</i>	<i>FG</i>					<i>4</i>	<i>cephid</i>	<i>short period</i>	
									<i>3</i>			
									<i>3</i>			
	<i>373</i>	<i>3-4"</i>	<i>5.1</i>	<i>B</i>					<i>5</i>	<i>Bremior</i>	<i>odd absorption in center</i>	
									<i>2</i>			
									<i>1</i>	<i>After Acer Reboot,</i>		<i>15.9K</i>
	<i>225</i>	<i>3"</i>	<i>5.6</i>	<i>F-G</i>					<i>2</i>	<i>Cephid,</i>	<i>short period</i>	<i>2K</i>
									<i>3</i>			
									<i>1</i>			
									<i>3</i>			
	<i>250</i>		<i>5.11</i>	<i>F8V</i>					<i>4</i>	<i>std vel</i>		
									<i>3</i>			

69
p 3

Emulsion Batches:

Date ... 1996 Sep 18/19 ... Observers ... Kiss / T₆

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.
ce 12839	Comp							Th Ar	2s
40	HD 204867	21 2618	-06 0040	22 1126					173
41	Comp							"	2s
42	Comp							"	2s
43	HD 177724	19 0049	+13 4253	22 1902					172
44	Comp							"	2s
45	Comp							"	2s
46	HD 197572	20 3929	+35 1338	22 2647					1560x
47	Comp							"	2
48	Comp							"	2
49	HD 198726	20 4713	+27 5232	23 0100		2 00 W			871
50	Comp							"	2
51	Comp							"	2
52	HD 203156	21 1523	+37 4855	23 2135		1 56 W			1054
53	Comp							"	2
54	B1A5 (4)			23 41					

Spectr. Temp.

Focus.....

Seco

Soalt. Temp.

Exp. Mtr

12

Field

370

438

135

271

256

Spectr. Temp. Dome Temp./Hum. Transparency Conditions *Fine* 70

Focus

^{ECD} Spectr. Temp. - 101.7 °C Dome Temp./Hum.

Comp. Filter	Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
2s	110 filter				Echelle	0600	90u 800uH	6400A	3			
1B 2s	330	5"	2.91	G0Jb					5	std vel		
2s									3			
2s									3			
1B 2s	478		2.99	A0In					6	telluric Std	Air mass 1.463	
2s									3			
2s									3			
105s 2	135		6.7	F-G					7			1.7K
2									3			
2									3			
87 1	271	4-6"	5.5	F-G					4			1.7K
1									3			
105s 2	256	3-4"	5.8	F-G					5	cephoid		1.7K
2									3			
									1			

Spectr. Temp. Dome Temp./Hum. $+13.6^{\circ}\text{C}$ $61.5\% \text{H}$ Transparency Conditions ... *Fine* 72

Focus ... 2340

Spectr. Temp. -100.8°C Dome Temp./Hum.

Comparison Filter Exp	Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ X Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
					<i>Echelle</i>							
					19.85°	0600A $\cdot 3030$	90°W 600A	6400A	2.5			
	410	3"	3.6	F-G					6.	cephoid		2.8K
									3			
									3			
			7.5	F-G					2	cephoid		
									3			
									3			
	200	5-7"	60	F-G					4	cephoid		
									3			
									3			
	130	5"	5.6	F-G					5	cephoid	2nd exp 0.19H	1K
									3			
									1			
									3			
	62	5"	7.5	F-G					2	cephoid		900
									3			

77905

Emulsion Batches:

Date 1996 Sep 18/19..... Observers Kiss, T. n.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CE12871	Comp							TR Ar	25
72	HD 22484	3 31 46	00 05 04	02 12 56		1 35 E			777
73	Comp							"	25
74	Comp							"	25
75	S 2 Tau	4 31 26	+18 20 30	02 30 04		2 08 E			1358
76	Comp							"	25
77	Comp							"	25
78	HD 40457	5 53 48	+35 19 00	02 57 24		2 57 E			1800
79	Comp							"	25
80	BIDS (4)			03 30					
81	Comp							"	25
82	HD 45412	6 22 08	+30 33 18	03 34 29		2 58 E			1118
83	Comp							"	25
84	Comp							"	25
85	HD 52973	6 58 11	+20 43 02	3 58 03		3 19 E			573

Spectr. Temp. Dome Temp./Hum. $12.6^{\circ}C$ $66.3\%H$ Transparency Conditions *Fine* 70

Focus

seeing getting worse

Spectr. Temp. Dome Temp./Hum.

Comparison Filter Exp	Exp. Mtr.	Seeing	\checkmark Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
2	no filter				Echelle 19.85		90 μ	6400 μ	3i			
77	240	5.7	4.8	F8V					4	st/vel		2.6K
3									3			
3									3			
138	60	6"	6.5	F-G					5	cepheid		900
2									3			
3									3			
180	15	5.8"	7.5	F-G					6	Cepheid	no H α Em	900
2									3			
									1			
3									3			
112	125	7"	5.6						7			
2									3			
2									3			
57	300	7"	4						2			24

X⁴ p₉₂#6

Wed / Thurs

Date 1996 Sep 18/19 Observers Kiss / T_u.....

Emulsion Batches:

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.....
.....

Plate No.	Object	R. A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
ce12886	Comp							T _h Ar	25
87	Comp							*	25
88	HD 203467	21 1718	+64 2652	04 1624		651 W			1004
89	Comp							*	25
90	HD 203467	"	"	04 3609					1002
91	Comp							"	25
92/98	FLATS x 7							TUNG	35
99	BIAS (4)								

Spectr. Temp

Focus.....

Spectr. Temp

Exp. Mtr.

218

193

Spectr. Temp. Dome Temp./Hum. Transparency Conditions ... *Fine* ... *K*

Focus *2340*

Spectr. Temp. Dome Temp./Hum. *+11.4°C 66.3% H* *MAX*

Comparison Filter Exp	Exp. Mtr.	Seeing	P.V. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
<i>3</i>					<i>Echelle</i>	<i>0600</i>	<i>90μ W</i>	<i>6400A</i>	<i>3ci</i>			
<i>25</i>					<i>1985</i>	<i>3030</i>	<i>600μ H</i>		<i>3ci</i>			
<i>100X</i>	<i>218</i>	<i>6"</i>	<i>5.1</i>	<i>Be</i>					<i>4ci</i>		<i>SAME apparent dbl</i>	
<i>25</i>									<i>3ci</i>		<i>@ Hα em</i>	
<i>100X</i>	<i>193</i>								<i>5ci</i>			
<i>3</i>									<i>3ci</i>			
<i>6</i>									<i>1</i>			<i>14K</i>
<i>35</i>									<i>1</i>			

xy
py #1

Thurs / Fri

Date 1996 Sept 19/20 Observers Kiss / Tu

Emulsion Batches:

.....
.....
.....

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.
ce 1290/1	In board / out board							ThAr	2/2
02	Comp							ThAr	2s
03	HD 187929	154723	04454	19 0341					384
04	Comp							ThAr	2s
05	BIAS (4)			19 13					
06	Comp							"	2s
07	HD 163506	17 5123	26 0357	19 1749		1 14 W			730
08	Comp							"	2s
09	Comp							"	2s
10	HD 176155	18 5348	+17 1335	19 3707		0 32 W			870
11	Comp							"	2s
12	Comp							"	2s
13	HD 2207	00 2054	+50 4300	19 5840		4 20 E			1714
14	Comp							"	2s
15	BIAS (4)			20 30					

CCO
Spectr. Temp

Focus

Spectr. Temp

Exp Mtr

.....

420

213

265

28

CCD Spectr. Temp. -100.7°C Dome Temp./Hum. $+16.0^{\circ}\text{C}$ 66% H Transparency Conditions *Five* 76

Focus $\dots 2.330 \dots$ *slight change from previous* 90c gain

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

Comparison Filter Exp	Exp. Mtr.	Seeing	Phot Mag.	Sp.	Inst.	Grating/ X Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
2/2	<i>n filter</i>				<i>Echelle</i>	<i>0600</i>	<i>90u</i>	<i>6400A</i>	<i>8/9</i>	<i>focus test</i>	<i>CCDFMT</i> <i>0 0 128 1024 8 1</i>	
3/3					<i>19.85</i>	<i>.3030</i>	<i>400u</i> <i>90u</i> <i>600u</i>		<i>3</i>		<i>0 0 256 1024 4 1</i>	
384	<i>420</i>	<i>3"</i>							<i>5</i>			<i>4-1K</i>
85									<i>3</i>			
									<i>1</i>			
25									<i>3</i>			
730	<i>213</i>	<i>2"-3"</i>							<i>2</i>			<i>1.7K</i>
21									<i>3</i>			
23									<i>3</i>			
82	<i>265</i>	<i>2"-3"</i>							<i>6</i>			
2									<i>3</i>			
23									<i>3</i>			
17-	<i>28</i>	<i>3"</i>	<i>7.5</i>						<i>7</i>		<i>A 200 0011</i> <i>A 500 0051</i>	<i>500</i>
8									<i>3</i>			
									<i>1</i>			

79
19#2 Thurs / Fri

Emulsion Batches:

Date ... 1996 Sep. 19/20 Observers ... Kiss / T.A.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
ce12916	Comp							ThAr	2s
17	HD17463	2 4303	68 28 27	20 35 58					1000
18	Comp							ThAr	2s
19	Comp							"	"
20	HD203467	21 1718	+64 26 52	20 59 24		0 31 E			600
21	Comp							"	2s
22	Comp							"	2s
23	HD 201078	21 0218	+30 47 01	21 15 55					947
24	Comp							"	2s
25	Comp								20
26	HD188727	19 51 29	16 22 11	21 37 27					900
27	Comp	stack header ✓							20
28	Comp	✓							2s
29	HD 187691	19 4614	10 09 55	21 57 23					666
30	Comp								
31	B/A5 (A)								

Spectr. Temp.

Focus ...

Spectr. Temp.

Exp. Mtr.

S

130

300

186

Exp. mtr.

30

710

Spectr. Temp. Dome Temp./Hum. $+14.1^{\circ}\text{C}$ 71684 Transparency Conditions .. Fine 80.

Focus 2330

Spectr. Temp. Dome Temp./Hum.

Exp. Mtr.	Seeing	Prv Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
					0600 3030	90 ^W 600 ^H	6400	3			
130	8"	5.7	F-G					2	Cepheid	15 00 00 23 25-00 00 06	12K
								3			
								3			
300	3"	5.1	Be					5			
								3			
								3			
186		5.7	F-G					4	Cepheid		
								3			
								3			
	Exp note balanced, was falling slightly							3			
130	2.3"	6.0	F6					6	Cepheid		
								3			
								3			
210		5.1	F8V					7c.	std vel		
								3			
								1			

6) p43

Emulsion Batches:

Date 1946 Sept 19/20.... Observers ... Kiss / T. n.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
(K12932	Comp							TbAr	2sec
33	HD 204867	21 2618	-060040	22 1533					190
34	Comp							TbAr	25e
35	Comp							"	"
36	HD 177724	19 0049	+134253	22 2506					180
37	Comp							TbA	2s
38	Comp							"	"
39	HD 197572	20 3929	+351338	22 3534					1408
40	Comp							"	"
41	Comp							"	"
42	HD 198726	20 4713	+275232	23 0321					853
43	Comp							"	"
44	Comp							"	"
45	HD 203156	21 1523	+374855	23 2119		157 W			916
46	Comp							"	"
47	BIAS (4)			23 38					

Exp. Mtr. S

Spectr. Temp.

Focus....

Spectr. Temp.

Exp. Mtr. S

Spectr. Temp.

Focus....

Spectr. Temp.

Exp. Mtr. S

Spectr. Temp.

Focus....

Spectr. Temp.

Exp. Mtr. S

Spectr. Temp.

Focus....

Spectr. Temp.

Exp. Mtr. S

Spectr. Temp.

Focus....

Spectr. Temp.

Exp. Mtr. S

Spectr. Temp.

Focus....

Spectr. Temp.

Exp. Mtr. S

Spectr. Temp.

Focus....

Spectr. Temp.

Exp. Mtr. S

Spectr. Temp.

Focus....

Spectr. Temp.

Exp. Mtr. S

Spectr. Temp.

Focus....

Spectr. Temp.

Exp. Mtr. S

Spectr. Temp.

Focus....

Spectr. Temp.

^{CD}
 Spectr. Temp. -100.7°C Dome Temp./Hum. $+13.6^{\circ}\text{C}$ $73\% \text{RH}$ Transparency Conditions \dots *Fine* 82

Focus

^{CD}
 Spectr. Temp. -101.9°C Dome Temp./Hum.

Expansion ter Exp	Exp. Mtr.	Seeing	V _s Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
200	100 S ₀ /H ₀				Echelle		90u	6400A	3			
190	333		2.9	GOIL					2	stblue		
250									3			
"									3			
180	400		2.9	ADU _n					4	telluric		2.2K
25									3			
"									3			
145	148	3.4	6.7	F-G					6	ceptrid		1.5K
"									3			
"									3			
85	222	3	5.6	F-G					7	ceptrid.	$\approx 150/1 \text{ SW}$ @ center	1.7K
"									3			
"									3			
96	222	3.4	5.8	F-G					4	ceptrid		1.7K
"									3			
"									1			

Pg 44 ⁶⁷

Thurs/Fri

Emulsion Batches:

Date 1996 Sept. 19/20... Observers H. S. / T. M.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp
(ce) 12948	Comp							ThAr	2s
49	HD 213307	22 25 24	+57 53 00	23 43 06					237
50	Comp							"	2s
51	Comp							"	"
52	HD 32456	4 58 18	+55 13 00	23 52 37					1813
53	Comp							"	20
54	Comp							"	"
55	HD 2207	0 20 34	+50 43 00	00 31 38		0 06W			1227
56	Comp							ThAr	2s
57	Comp								20
58	HD 17463	2 43 03	+68 28 27	00 59 24		1 57E			904
59	Comp								20
60	BIH 5(4)			01 16					
61	Comp							"	2
62	HD 201078	21 02 18	+30 47 01	01 20 52					1069
63	Comp								

CCD
Spectr. Temp.

Focus.....

Spectr. Temp.

Exp Mir

Se

305

82

61

209

145

000 Spectr. Temp. -100.7°C Dome Temp./Hum. Transparency Conditions *Fine* 84

Focus

Spectr. Temp. Dome Temp./Hum. $+12.1^{\circ}\text{C}$ 78% H

Comp. Filter	Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
25					Echelle 19.85	0600 .3030	90 μ	6400A	3			
231	305	2.4							2	ceptral		
2									3			
									3			
82			7.5	F16					4	ceptral		700
									3			
									3			
61		3	7.5	F-G					5	ceptral		
									3			
									3			
209	209	2.3	5.7	F-G					6	ceptral	112 00 00 25 88 +00 01 57	13.7K
									3			
									1			
									2			
145	145	5.8	5.7	F-G					2	ceptral		900
									3			

Spectr. Temp. Dome Temp./Hum. $+11.2^{\circ}\text{C}$ 75.9% Transparency Conditions *mostly clear* 86

Focus *2330*

Spectr. Temp. Dome Temp./Hum. *ca Topup by 0150*

Comparison Filter Exn	Exp. Mtr.	Seeing	P _v Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Ar 23	<i>100 filter</i>				<i>Echelle 1985</i>	<i>0600 m/m</i>	<i>90u W</i>	<i>6400B</i>	3			
718	255	4"	4.18	F8V		<i>.3030</i>	<i>600u H</i>		4	<i>std vel</i>		<i>3.4</i>
23									3			
24									3			
159	100	4"	6.1	F-G					5	<i>cepleid</i>		<i>1K</i>
23									3			
23									1			
23									3			
143	143	4"	6.0	F-G					6	<i>cepleid</i>		<i>1.2K</i>
23									3			
23									3			
150	71	3-4	7.7	F-G					7	<i>cepleid</i>		<i>500</i>
23									3			
23									3			
23			4.1	F-G					2	<i>cepleid</i>		
23									3			

pg# 657

Emulsion Batches:

Date 1996 Sep 19/20..... Observers .. Kiss / J.A.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
(ce) 12980	Comp							ThAr	25
81	HD 203467	21 1718	+642652	034652		6 19 W			630
82	Comp							"	25
83	BIAS(4) Comp							"	25
84	BD+33 1646 B	08 0234	+3306 25	040501		4 01 E			1346
85	Comp							"	25
86	BD+33 1646 A	"	"	043011		3 35 E			1378
87	Comp							"	25
88	BIAS(4)			4 56					
89	Comp							ThAr	2
90	HD 36395	5 2618	-034100	5 0127		0 36 E			791
91	Comp							"	2
92/98	FLATS x 7					3 W		Tung	35
99/13K	Inboard out					"		ThAr	2/2

Spectr. Temp. Dome Temp./Hum. $+10.8^{\circ}\text{C}$ 75% Transparency Conditions ... Mostly clear 88

Focus
 CCD Spectr. Temp. -100.3°C ... Dome Temp./Hum. $+11.3^{\circ}\text{C}$ 79% H increasing cloud

Exp. Mtr.	Seeing	Pis Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emission	P.H.	Program	Remarks	Quality
35				Echelle	0600	90 μ	6400A	3		Telescope East Side	
630	3"	5.1	Be	19.85	.3030	600 μ		4	Be em		
23								3			
95								3			
1348	4	2-3"	12.1	M3				5	Vys H α ppm	fainter SW of pair Off well	
24								3		a bit weak	
1378	9	3-5"	11	M0				6	Em H α	on 30ADU above background, FOR 'B'	
21								3		Continuum = 10ADU above	
								1		Vys 250A H α double	
2								3			
791	15	2-5"	7.97	M1				2	Marcy std vel	some cloud ~ 300	
2								3			
1635						800 μ H		1			13K
102								8/9		CC drift 0 0 128 129 5 1 Still OK, Right on now	

F=11.4 $^{\circ}\text{C}$ F=.2330

Looks fainter

1941⁰⁹ Fri/SAT

Date 1946 Sept 20/21 Observers Kiss/Tn

Emulsion Batches:

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.
CE1300 ^{1/2}	Inboard/out board					3 W	+39°	THA	2/3
3	BIAS(A)			1849					
4	Comp							THA	2s
5	HD 187929	19 4723	00 4456	19 0326					252
6	Comp							"	2s
7	Comp							"	2s
8	HD 163506	17 5123	+26 0357	19 1308					676
9	Comp							"	2s
10	Comp							"	"
11	HD 176155	18 5348	+17 1335	19 2929					499
12	Comp							"	"
13	Comp							"	2
14	HD 188727	19 5129	+16 2211	19 4245					645
15	Comp							"	2
16	Comp							"	2

CCD
Spectr. Temp
Focus
Spectr. Temp

Exp. Mir

242

340

242

263

97

CCD Spectr. Temp. -10.7°C Dome Temp./Hum. $+18.2^{\circ}\text{C}$ 55% H Transparency Conditions ... Part cloudy ... 90

Focus ... 2330 ... no need to change 90cgain

Spectr. Temp. ... Dome Temp./Hum.

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ X Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no filter				Echelle 19.85	0600m 3030	90x 400u	6400A	8/9		set for cooler again	
						90x W 600u H		1			
								3			128K
348	1.2"	3.6	FG					4	cephoid		
								3			
								3			
242	1.2"	5.5	F					2	cephoid	semi Regular	
								3			
								3			
263	1"	5.6	F-G					5		160/1 S/N @ H	2.4K
								3			
								3			
217	1.2"	5.7	F-G					6			2K
								3			14K
								3			

pg 12 01

FA. / Set

Date 1946. Sept. 20/21... Observers Miss. J. T. G.

Emulsion Batches:

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.....
.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
1	ce13017	HD187691	19 46 14	+10 09 55	19 57 11				8 1/2
18	Comp							ThAr	2s
19	BIAS (4)			20 12					1
20	Comp							"	2s
21	HD 204867	21 26 18	-06 00 40	20 17 17				"	172
22	Comp							"	2s
23	Comp							"	2s
24	HD 177724	19 00 49	+13 42 53	20 24 23					165
25	Comp							"	2
26	Comp							"	2
27	HD 203467	21 17 18	+64 26 52	20 37 17					420
28	Comp							"	2
29	Comp								
30	HD 213307	22 25 24	+57 53 00	20 51 17					232
31	Comp								

Exp. Mtr

Spectr. Temp.

Focus

Spectr. Temp.

Exp. Mtr

Spectr. Temp.

Focus

Spectr. Temp.

Exp. Mtr

Spectr. Temp.

Focus

Spectr. Temp.

Exp. Mtr

Spectr. Temp.

Focus

Spectr. Temp.

Exp. Mtr

Spectr. Temp.

Focus

Spectr. Temp.

Exp. Mtr

Spectr. Temp.

Focus

Spectr. Temp.

Exp. Mtr

Spectr. Temp.

Spectr. Temp. ^{CD} -101.7°C Dome Temp./Hum. +17.3°C 57.1% Transparency Conditions *thinly cloudy* 92

Focus 2330

Spectr. Temp. Dome Temp./Hum. ^{CD}

Expansion (mm) Exp	Exp. Mtr.	Seeing	Mag. ✓	Sp.	Inst.	Grating/ x Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
8 1/2	250	1.2	511	F8K	Echelle 19.85	0600m .3030	90u 600u	6400A	3	st/vel		
1 2/3		1.2	511	F8K					3	st/vel		
1									3			
3									3			
1 1/2	350	2'	299	G016					2	st/vel		
3/4									3	st/vel		
3/4									3			
1 1/2	540	1.2	299	A0V					4	telluric st/vel		
2									3			
1 1/2									3			
1 1/2		1"	511	Be					5	Be		2.8k
2									3			
									3			
3 1/2	500								6			
									3			

p9#363

Emulsion Batches:

Date .. 1996 SEP 20/21... Observers ... K.S.S./T.G.....

.....

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.
ce13032	Comp							Th Ar	2s
33	HD 197572	20 3929	+35 1338	21 01 09					1273
34	Comp							"	2s
35	Comp							"	"
36	HD 198726	20 4713	+27 5232	21 2645		0 35W			984
37	Comp							"	"
38	BIAS(+)			21 45					
39	Comp							"	2
40	HD 203156	21 1523	+37 4855	21 4907					746
41	Comp							"	2
42	Comp							"	2
43	HD 201078	21 0218	+30 4701	22 0548					1002
44	Comp							"	2
45	Comp								
46	HD 17463	02 4303	168 2827	22 2946					892
47	Comp							"	2

50
Spectr. Temp
Focus...
Spectr. Temp

Exp. Mtr S

218

260

190

317

270

CCD Spectr. Temp. -100.0° Dome Temp./Hum. $+160^{\circ}\text{C } 60\% \text{H}$ Transparency Conditions 9.4

Focus

Spectr. Temp. Dome Temp./Hum.

Exp. Mtr.	Seeing	Pl [✓] Mag.	Sp.	Inst.	Grating/ x Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				Edelke 19.95	0600m 13030	90u 600u	5400A	3			
1273	218	6.3						7			
								3			
								3			
984	260	1.2	5.7					4			2.4K
								3			
								1			
								3			
746	190	2"	5.9					2	captured		
								3			
								3			
1021	317	1.2	5.7					5			2.2K
								3			
572	920	2"						6			
								3			

89#4 AS

Emulsion Batches:

Date 1996 Sep 20/21 Observers Kiss, J.G.

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Plate No.	Object	R. A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CE13048	Comp							ThAr	2s
49	HD 2207	0 2054	+504300	22 53 43					1811
50	Comp							"	2
51	BIAS(4)			23 26					
52	Comp							"	2
53	HD 32456	4 5818	+551300	23 31 07					1747
54	Comp							"	2
55	HD 32456			00 01 43					2025
56	Comp	"	"					"	2
57	BIAS(4) Comp							"	2
58	HD 29260	4 3124	18 20 00	00 40 50					1692
59	Comp							"	2
60	BIAS(4)			01 10					
61	Comp								2
62	HD 22484	3 3146	+000504	01 14 55					489
63	Comp								2

Spectr. Temp

Focus.....

Spectr. Temp

Exp. Mtr

15
106

106

55

148

210

355

Spectr. Temp. Dome Temp./Hum. $+15.4^{\circ}\text{C}$ 62.28H Transparency Conditions .. *Increasing cloud* 96

Focus 2.330

Specif. Temp. -100.4°C Dome Temp./Hum.

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
3s	NO filter			19.85°	0600	90 100x	6900A	3			
18/1	108	1-2'	7.7					7		some cloud	700
2								3			14K
								1			
2								3			
17/5	55	2'3"	28					2		mostly cloudy	
2								3			
20/5	140	2"						4		clearing	1K
2								3			
2								3			
16/5	210	1-2-3"	6.5					5			
2								3			
								1			
								3			
	335		428 F					6	std vel		3.4K
								3			

pg 5 G7

Emulsion Batches:

Date .1996. Sep. 20/21.... Observers ... Kiss. I. Tm.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CE13064	Comp							ThAr	2s
65	HD 201078	21 0218	+304701	01 2937					849
66	Comp							"	2s
67	Comp							"	2s
68	HD 45412	6 2208	+303318	01 5942					643
69	Comp							"	2s
70	Comp							"	2s
71	HD 40457	5 5348	+351900	02 1511					1717
72	Comp							"	2
73	BIAS (4)			02 46					
74	Comp							"	2s
75	HD 52973	6 5811	204302	2 5031					412
76	Comp							"	2s
77	Comp							"	2s
78	HD 203467	21 1718	+642652	3 0727					601
79	COMP							"	2s

Spectr. Temp

Focus....

Spectr. Temp

Exp Mtr

193

316

90

318

250

Spectr. Temp. Dome Temp./Hum. 14.1°C 70% H Transparency Conditions .. PART cloudy 98.

Focus

Spectr. Temp. Dome Temp./Hum.

Topup by 02EST

Comparison ter Exp	Exp. Mtr.	Seeing	H Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
2					Echelle	600 nm	90u 600u H	6900A	3			
849	193	2"	5.7						2	cephalid		
3									3			
2									3			
645	316	2"							4			2.2K
2									3			
2									3			
171	90	2"							5	cephalid		700
2									3			
2									1			
2									3			12K
412	318	2	4.3						2			
2									3			
2									3			
68	250	2'-3"	5.1						4	Re	Reversed. Δd -00 00 40 Δc -00 01 00	
2									3			

pg# 609

Emulsion Batches:

Date ... 1996 ... Sept. 20/24 Observers ... Kiss, I. T. ...

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.
ce13080	Comp							ThAr	2s
81	HD2207	0 20 54	+50 43 00	3 24 46					1492
82	Comp							"	2s
83	Comp							"	2s
84	HD17463	2 43 03	+68 28 27	3 56 19					380
85	Comp							"	2s
86	BIAS (4)			04 11					
87	Comp							"	2s
88	BD+33 1646B	8 02 34	+33 06 25	04 17 56					1340
89	Comp							"	2s
90	BD+33 1646A			04 41 26					1215
91	Comp							"	2s
92	Comp							"	2s
93	HD 36395	5 26 18	-03 41 00	5 07 10					572
94	Comp							"	2s

Spectr. Temp.
Focus.....
Spectr. Temp.

Exp Mir Se

126 2

300

8-52

18 2

32

Spectr. Temp. Dome Temp./Hum. $+14^{\circ}\text{C}$ 75% H Transparency Conditions *Hazy* (10)

Focus $\cdot 2330$

Spectr. Temp. Dome Temp./Hum.

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ X Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no filter				19.85	0600	90u	6400A	3			
126	2"	7.7						5		Telescope still reversed	
								3			
								3		still east side	
300								6			
								3			
								1			
								3			
8	2"	12.1	M3					4	Vys 250B	nicely dbl or ?? slight haze	
								3			
18	2"	11	M0					5	Vys 250A		
								3			
								3			
32		7.9	M1					6		imaging still vel	
								3			

pg #7B1

Emulsion Batches:

Date ... 1996. Sep 20/21. Observers ... Kiss, J.M.

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.....
.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
ce13095/101	FLATS x 7							TUNG	35
102	BIAS (4)								

Spectr. Temp.
Focus.....
Spectr. Temp.
Exp Mir Se

Spectr. Temp. Dome Temp./Hum. Transparency Conditions ... Haze 102

Focus 2330

²⁰Spectr. Temp. -99.5°C Dome Temp./Hum. +13.7°C 72% H

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				<u>Edele</u>		<u>90u 800uH</u>	<u>6900</u>	<u>1</u>			<u>AK</u>
								<u>1</u>			

103
p947

Mon / Tues

Emulsion Batches:

Date 1996 Sep 23/24 Observers Kiss / Tm

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
ce131 ^{03/64}	Inboard / Outboard		Hartmann			24W	+40°	ThAr	2/2
ce131 05	BIAS(4)			18 44					
06	Comp							ThAr	2
07	HD 187929	19 47 23	+00 44 56	18 56 48					500
08	Comp							"	2
09	Comp							"	2
10	HD 163506	17 51 23	+26 03 57	19 14 39					700
11	Comp							"	2
12	Comp							"	2
13	HD 176155	18 53 48	+17 13 35	19 30 53					804
14	Comp							"	2
15	Comp							"	2s
16	HD 201678	21 02 18	+30 47 01	19 48 49					1013
17	Comp							"	2s
18	BIAS(4)			20 07					

cc0
Spectr. Temp.

Focus ... 75

ccp
Spectr. Temp.

Exp. Mir

C

270

264

224

227

CCD Spectr. Temp. -100.3°C

Dome Temp./Hum. $+14^{\circ}\text{C}$ 57%RH

Transparency Conditions Fine - thin ¹⁰⁰ly. ~~stacks~~

Focus ~~F150~~ 2300

changed from previous

90c gain

Bright near 34

CCP Spectr. Temp. -100.8°C

Dome Temp./Hum.

Tel Focus 2100

Exp. Mtr.	Seeing	P _v Mag.	Sp.	Inst.	Grating/ x Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
212				Echelle 18.95	0600 3030	90 μ W 400 μ H 40 μ W 600 μ H	6400A	8/9	Focus test	CCDFMT 0 0 128 1024 8 1	
								1	$\alpha=61$ Looks clean	CCDFMT 0 0 256 1024 4 1	
2								3			
500	270	4 ^h	4.3	F-6				2	Cepheid		
2								3			
2								3			
70	264	3 ^h	5.5	F-6				4	slim reg. Cepheid		
2								3			
2								3			
80	224	3 ^h	5.6	F-6				5	Cepheid		2K
2								3			
2								3			
113	228		5.6	F-6				6	Cepheid	1 line saturated	16.3K 1.4K
2								3			
								1	$\alpha=1.657$		

105
1946

Mon/Tues

Emulsion Batches:

Date 1946 Sep 23/24 Observers Kiss/Tu

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.....
.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
ce13119	Comp							ThAr	29
20	HD 188727	19 5129	+16 2211	20 1221					869
21	Comp								25
22	Comp								2
23	HD 187690	19 4614	+10 0955	20 3102					680
24	Comp							1	2
25	Comp							7	2
26	HD 204867	21 2618	-06 0040	20 4728					200
27	Comp							7	2
28	Comp							9	2
29	HD 177724	19 00 49	+13 4253	20 5517					116
30	Comp							2	2
31	Comp							7	2
32	HD 203467	21 1718	+64 2652	21 0455					593
33	Comp							2	2
34/35	BHAS(4)	x 2		21 18					

Spectr. Temp
Focus.....
Spectr. Temp

Exp Mir S
No. Filter
252
233
270
275
360

Spectr. Temp. Dome Temp./Hum. Transparency Conditions 106

Focus

Spectr. Temp. Dome Temp./Hum.

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no filter								3			
252		5.6	F-6					2	oplen		2.2K
								3			
								3			
233	3.4"	5.11	F8V					4	std vel		
								3			
								3			
270	4"	2.91	G0 Ib					5	std vel	just north of moon	
								3			14.6K
								3			
375	4"	2.99	A0 Ia					6	Telluric std.		2.3K
								3			
								3			
360								7			
								3		$\sigma = .98$ 1st Bias	
								1		$\sigma = .739$	

Spectr. Temp. Dome Temp./Hum. *110.6°E 60% H* Transparency Conditions *Fine* *105*

Focus *2300*

Spectr. Temp. Dome Temp./Hum.

Comparison Filter Exp	Exp. Mtr.	Seeing	Pl ₀ Mag.	Sp.	Inst.	Grating/ x Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	<i>no filter</i>				<i>Echelle</i>	<i>0600M</i>	<i>90u W</i>					
					<i>19.85°</i>	<i>3030</i>	<i>600u H</i>	<i>64008</i>	<i>3</i>			
<i>178</i>	<i>360</i>	<i>3"</i>	<i>3.5</i>	<i>F-G</i>					<i>2</i>	<i>Cepheid</i>		<i>2.4K</i>
<i>25</i>									<i>3</i>			
<i>75</i>									<i>3</i>			
<i>1202</i>	<i>207</i>		<i>6.5</i>	<i>F-G</i>					<i>4</i>	<i>Cepheid</i>	<i>1st exp</i>	<i>1.5K</i>
<i>25</i>									<i>3</i>			
<i>25</i>									<i>3</i>			
<i>70</i>	<i>260</i>	<i>3"</i>	<i>5.8</i>	<i>F-G</i>					<i>5</i>	<i>Cepheid</i>		<i>1.7K</i>
<i>25</i>									<i>3</i>			
<i>25</i>									<i>3</i>			
<i>84</i>	<i>268</i>	<i>2.3"</i>	<i>5.9</i>	<i>F-G</i>					<i>7</i>	<i>Cepheid</i>		<i>1.7K</i>
<i>25</i>									<i>3</i>			
									<i>1</i>	<i>$\sigma = .718$</i>		
<i>25</i>									<i>3</i>			
<i>182</i>	<i>110</i>	<i>3"</i>	<i>7.5</i>	<i>F-G</i>					<i>2</i>	<i>Cepheid</i>		<i>850</i>
<i>25</i>									<i>3</i>			

Spectr. Temp. Dome Temp./Hum. 7.9°C $62\%RH$ Transparency Conditions Fine 110.

Focus

Spectr. Temp. Dome Temp./Hum.

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ x Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
2s no filter				Echelle 19.85	0600 lines/mm 3030	90u W 600u H	6400A	3c			
8s 330	2"	5.9	F-6					5c	cephid		2.6K
2s								3c			
3s								3			
160 100	2"	7.5	F-6					6	cephid		1.7K
2s								13			
2s								3		Bias(4) 000 = <u>803</u>	
303 550	1.2"	4.1	G0J6					2	Std for metallicity		
2s								3			
2s								3			
63 256	3"	4.28	F9 <u>IV-V</u>					4	stellar		
2s								3			
3s								3			
135 144	2.3"	6.5	F-6					5	cephid		
8s								3			

1985

Date 1996 Sep 23/24 Observers Kiss, T. W.

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
ce13168	Comp							THAr	25
69	HD 5394	0 5040	+601031	01 0659					75
70	Comp							"	25
71	BIAS(4)			01 10					
72	Comp							"	25
73	HD 45412	06 2208	30 3318	01 1612					70
74	Comp							"	25
75/82	comp FLATS x 7							"	75
85	HD 52973 BIAS(4)			01 47					
				01 3019					
77	Comp							"	75

2 47W +7°

Spectr. Temp

Focus ...

cc0

Spectr. Temp

Exp. Mtr

570

70

3

Spectr. Temp. Dome Temp./Hum. $+10.2^{\circ}\text{C}$ 65% H Transparency Conditions *increasing cloud* 112

Focus 0.2300

Spectr. Temp. -102.0°C Dome Temp./Hum.

Comparison Filter Exp	Exp. Mtr.	Seeing	Pg Mag.	Sp.	Inst.	Grating/ x Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
25						0600		6400A	3			
75	570		2	Be					7	Be for comparison		4K
23									3			15K
									1		$\sigma = 0.1075$	
28									3			
Fig	170		5.8	F-6					2	cephid		1.2K
24									3			
26									7			10K
									4	cephid	cloudy $\sigma = 0.957$	
27									3			

All to Emby type, M-DRIVE = F-DRIVE, to 183
~~3-4 4.0 F-6~~

113
p941

Wed / Thurs

Date ... 1996. Sept. 25. / 26 Observers ... Miss. / Tim.

Emulsion Batches:

.....
.....
.....

Plate No.	Object	R.A.		Declination		Starting Time		Ending Time		Hour Angle		Comparison	
		1900	1900	1900	1900	E.S.T.	E.S.T.	E.S.T.	E.S.T.	End	Declination	Type/Filter	Exp.
ce 131 ^{84/90}	FLATS x 7					18 32				2 52W	+30°	Tung	2
94	BIAS(A) (written @ 19:03)					18 47							
91	Comp											ThAr	2
92	HD 187929	19 4723	+00 44 56	18 4954					0 51E				548
93	Comp											"	2
95	Comp											"	2
96	HD 175123	17 5123	12 60357	19 0811									601
97	Comp											"	2s
98	Comp											"	2s
99	HD 176155	18 5348	+17 13 35	19 2325									658
CE-13200	Comp											"	2s
01	Comp											"	2s
02	HD 203467	21 1718	+64 26 52	19 4138									495
03	Comp											"	2s
04	BIAS(A)					19 57				1 25E	65°		

CCD
Spectr. Temp.
Focus...
Spectr. Temp.

Exp. Mtr.

330

290

388

388

388

CCD Spectr. Temp. -101.3 °C Dome Temp./Hum. +13.3°C 67%RH Transparency Conditions .. gradual clearing .. 114

Focus .. 2300 .. unchanged. 40C gain New King Full moon

Spectr. Temp. -100.8 °C Dome Temp./Hum.

0 0 256 1024 41 CCD CONT

Exp. Mtr.	Seeing	PA Mag.	Sp.	Inst.	Grating/ x Tilt	Slit	Emission	P.H.	Program	Remarks	Quality
2	no filter			Echelle 17.850	0.600 in .3030	40u W 800u H 40u W 600u H	6900Å	1			133K
2								1		$\sigma = .735$ (But not pival) STREAK Horizontal	13.6K
548	330	4.5	3.6	F-G				2	Cepheid		6K
2								3			
2								3			
101	250	3"	5.5	F				4	semi-reg.		1.7K
25								3			
26								3			
655	290	3-4"	5.6	F-6				5	Cepheid		2.4K
25								3			
25								3			
407	388	3"	5.1	Be				6	Be ppm		
25								3			13.3K
								1		$\sigma = .835$	

115
 py42 Wed/Thurs

Emulsion Batches:

Date ... 1996... Sep. 25/26 Observers . Kiss / T.

.....

Spectr. Temp.
 Focus...
 Spectr. Temp.

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	Se
ce13205	Comp							Thr	25		
06	HD 213307	22 25 24	+57 53 00	19 57 21				"	209	362	
07	Comp							"	25		
08	Comp							"	25		
09	HD 188727	19 51 29	+16 22 11	20 06 21					900	214	
10	Comp							"	25		
11	Comp							"	25		
12	HD 187691	19 46 14	+10 09 55	20 25 34					577	325	
13	Comp							"	20		
14	Comp							"	25		
15	HD 204867	21 26 18	-06 00 40	20 38 45					185	335	3
16	Comp							"	25		
17	Comp							"	20		
18	HD 177724	19 00 49	+13 42 53	20 46 42					136	580	
19	Comp								20		
20	BIAS(4)			20 50		2 2 W	+14°				

Spectr. Temp. Dome Temp./Hum. $+12.2^{\circ}\text{C}$ 67% H₂O Transparency Conditions ... Fine 116 ..

Focus ... 2300 ..

Spectr. Temp. -100.4°C Dome Temp./Hum.

Exp. Mtr.	Seeing	Pl ^o Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				Echelle	0600 L	90 μ W	6900A	3			
				19.85	.3030	600 μ H					
209	362	3.9	F-6					2	Cepheid		3.1 K
7								3			
8								3			158 K
910	214	5.8	F-6					4	Cepheid		156 K
8								3			
2								3			
572	325	3" 5.11	F8V					5	std. vel.		2.2 K
7								3			
8								3			
185	335	3" 2.91	G0 Ib					6	std vel		
8								3			
7								3			
130	550	2.99	A0V					7	telluric std.		
7								3			
								1			

$\sigma = 0.942$ NO COSMIC RAYS

⁰⁰⁰
 Spectr. Temp. -100.7°C @ 23 EST Dome Temp./Hum. $+11.2^{\circ}\text{C}$ 708/84 Transparency Conditions *Some cloud* 115

Focus 2300

^{CCD}
 Spectr. Temp. -101.7°C Dome Temp./Hum.

then much cloud

Comparison Filter Exp	Exp. Mtr.	Seeing	Pl. Mag.	Sp.	Inst.	Grating/ X Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Ar 2					Echelle	0600	90 μm		3			
160	189	2.3" 5.8			19.85	.3030	600 μm	6400 μm	4		cloud	1.5K
Ar 25									3			
									1		$\sigma = .728$	
3									3			
170	170	3" 5.6		F-6					5	cephalid		1.3K
25									3			
2									3			
000	92	3" 4" 5.9		F-6					8	cephalid	cloud again	700
3									3		Top up done by 0005	
3									3			
39	275	2.3" 4.5		Be					4	Be		1.4K
25									3			
25									5			
60	225	2.3" 4.5		Be					5	60 μm		1.2K
2									3			

Spectr. Temp. Dome Temp./Hum. $+10.2^{\circ}\text{C}$ 76.4% H Transparency Conditions *part cloudy* 120 ..

Focus *2300*

Spectr. Temp. Dome Temp./Hum. $+9.5^{\circ}\text{C}$ 78% H

Exp. Mtr.	Seeing	P _v Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
						90uW 600uH	6400H	3			
65	3"	7.5	F-G					6	cephoid		800
								3			
								1		<i>Jan. 689</i> Lots of cosmic Rays	
								3			
64	3"	7.5	FG					2	cephoid		700
								3			
								3			
300	2"	4.5	Be					4	Be ppm		1.8K
								3			
								3			
62	3"	6.6	F-G					5	cephoid		1.0K
								3			
								3			
163	3"	5.8	F-G					5	cephoid		2K
								3			

191 py#5

well/Thars

Emulsion Batches:

Date 1996 Sep 25/26 Observers Kiss/Ty

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.
ce13253	BIAS(4)			02 55					
54	Comp							ThAr	2s
55	HD 17463	2 43 03	+68 28 27	03 02 18					1292
56	Comp							"	2s
57	Comp							"	"
58	HD 52973	6 58 11	+20 43 02	03 29 45					592
59	Comp							"	"
60	Comp							"	"
61	HD 40457	5 53 48	+35 19 00	03 43 55					1800
62	Comp							"	"
63	Comp							"	"
64	HD 10516	1 37 23	+50 11 06	04 26 47			Dec circle +55 45		
65	Comp						maybe +54 45	ThAr	2s
66	HD 10516	1 37 23	+50 11 06	4 51 23					300
67	Comp								
68	BIAS(4)			4 59					

unknown RA exactly same as for HD 10516

Dec circle
+55 45
maybe
~~+54 45~~

Exp. Mtr. S

338

300

CCD Spectr. Temp. -102.0°

Dome Temp./Hum.

Transparency Conditions *Part cloudy* 22

Focus 12300

Spectr. Temp.

Dome Temp./Hum. $+8.7^{\circ}C$ 80% H

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				<i>Echelle</i>		<i>90u 600u</i>	<i>6400A</i>	1		$\sigma = 1754$	
								3			
<i>1292</i>	<i>160</i>		<i>5.9</i>	<i>F-6</i>				2	<i>cephoid</i>		<i>1.4K</i>
								3			
			<i>4.1</i>	<i>F-6</i>				3	<i>cephoid</i>		
<i>592</i>	<i>338</i>	<i>3"</i>	<i>4.1</i>	<i>F-6</i>				4	<i>cephoid</i>		<i>3.6K</i>
								3			
								3			
	<i>41</i>	<i>2-3-5</i>	<i>7.6</i>	<i>F-6</i>				5	<i>cephoid</i>		<i>500</i>
								3			
								3			
		<i>3'</i>	<i>5.0</i>	<i>Be</i>				6		<i>Encoder Dec error $\Delta\delta = 4.5745$</i>	
								3			
	<i>300</i>							7		<i>$\Delta\delta = 9^{\circ}22'$ correct star now</i>	
								3			
								1		$\sigma = 1733$	

123
pg#1 SAT/Sun after non observing TOURS

Date ... 1996. Sep. 28/29... Observers ... Kiss, I. T.

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
ce 132 ^{69/70}	In board low T BOARD		HARTMANN			~ 3 W	~ +30	TbAr	3/6
ce 13274	BIAS(4) done after 1st star			23 16				TbAr	25
71	Comp								
72	HD 187929	19 4723	+004456	23 0741		3 38 W			413
73	Comp								25
75	Comp								25
76	HD 177724	19 0049	+134253	23 2110		4 35 W			200
77	Comp								25
78	Comp								2
79	HD 204867	21 2618	-060040	23 3052		2 18 W			167
80	Comp								2
81	Comp BIAS(4)			23 41					
82	Comp								25
83	Comp HD 188727		+16 2011	23 48 05					1200
84	Comp	19 5129							25

CCD
Spectr. Temp. -100.8 °C

Dome Temp./Hum. +13.1°C 67.2% RH

Transparency Conditions clearing - cloudy
12.4
0941M

Focus 2300

Spectr. Temp.

Dome Temp./Hum.

CCD FMT
0 0 256 1024 4 1

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ x Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
3/1	no filter T = 13.1°C	F = 2300	unchanged	Echelle 19.85	0600 3030	90uW 400uH 90uW 600uH	6400A	1/2	Focus	20 128 1024 87 for slightly cooler $\alpha = .806$	
23								1			
43	218	6"	3.6	F-G				3			
2								4	copied		1.9K
2								3			
2								3			
200	259	5"	2.99	AOI				2	Telluric Std.		
2								1			
2								3			
157	240	6"	2.91	GOIB				5	std vel		2.2K
9								3			
2								1		$\alpha = .809$	
2								3			
124	125	5" 8"	6.0	F-G				6	copied	cloudy 1st	1K
2								3			

125
1942

SAT/54N

Emulsion Batches:

Date 1946 Sep 28/29 Observers Kiss/Ito

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.
ce13285	Comp							TAr	25
86	HD 197572	20 3929	+3513 38	00 12 35		4 05W			1200
87	Comp							"	25
88	Comp							"	25
89	HD 213307	22 2524	+5753 00	00 38 09		2 29W			267
90	Comp							"	25
91	Comp							"	25
92	HD 32456	04 58 18	55 13 00	00 : 48 : 20		3 46E			658
93	Comp							"	25
94/300	FLATS x 7					2 41W	+10°	TUNG	35
301	BIHS(1)			0126					

Spectr. Temp.

Focus

Spectr. Temp.

Exp. Mtr.

NO 5/42

136

390

15

Spectr. Temp. Dome Temp./Hum. $+11.2^{\circ}\text{C}$ 75% H Transparency Conditions ... clear again ... 125 ..

Focus 2300

Spectr. Temp. Dome Temp./Hum.

Exp. Mtr.	Seeing	Plg. Mag.	Sp.	Inst.	X Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
10 f/2e				Echelle 19.85	0600h .3030	900W 600h	6900h	3			
136	5*	6.2	F-6					7	cephrid		12K
	#							3			
								3			
390	5	3.7	F-6					4	cephrid		26K
								3			
								3			
13	3*	7.5	F-6					5	cephrid		200
								3			
						800xH = .185		1			96K
								1		$\sigma = .801$	

CCD Spectr. Temp. ... -101.8°C

Dome Temp./Hum. +11.0°C 66% H

Transparency Conditions ... clearing, but windy ... } 28
farm west

Focus ... : 2300

CCD Spectr. Temp. ... -100.8°C

Dome Temp./Hum. +9.9°C 64% H

0 0 258 1024 4 1 CCD 477

Expansion Filter Exp	Exp. Mtr.	Seeing	Res. Mag.	Sp.	Inst.	Grating/ x Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	no filter				Echelle 19.85	0600h .3030 v	90u 600u	6900h	1		$\sigma = .973$	
3									3			
1500	211	5.8"	5.5	F					2			1.2K
3									3			
25									3			
900	276		4.0	F-6					4	cephalid		2.3K
25									3			
75									3			
195	320	3.6"	2.99	A0V					5	telluric std.		1.5K
70									3			
25									3			
200	307	6"	2.91	G0 Ib					6	std vel		2.8K
25									3			
25									3			
150	128	4.6"	6.2	F-6					7	cephalid * some faint text		1.2K
25									3			

1952 119

Sun 1 man

Emulsion Batches:

Date 1996 Sep 29/30. Observers Kiss/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.
ce13318	Comp							ThAr	2s
19	HD 188727	19 5129	+162211	22 4632					900
20	Comp							"	2s
21	BIAS(4)			23 03					
22	Comp							"	2s
23	HD 198726	20 4713	+275232	23 0715					1225
24	Comp							"	2s
25	Comp							"	2s
26	HD 32456	04 5818	55 1300	23 3712					1800
27	Comp							"	2s
28	Comp							"	2s
29	HD 20902	03 1711	69 3019	00 1615					157
30	Comp							"	2s
31	Comp							"	2s
32	HD 2207	00 2054	+50 4300	00 3028					1835
33	Comp							"	2s

~~Dec circle~~
+51 23
~~1835~~
near 2

300
Spectr. Temp
Focus...
Spectr. Temp

Exp. Mtr. S

10 2 20

233 4

200 3

51

865

60 5

Spectr. Temp. ^{CCD} -100.8°

Dome Temp./Hum.

Transparency Conditions . Part cloudy 130

Focus 2306

~ 00:25 Bright fireball heading North

Spectr. Temp.

Dome Temp./Hum. + 7.7° 71% H

seen by both of us. we 1st saw it

Bright light on observing floor

Comparison
Star Exp

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ x Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
10 filter				Echelle 19.85	0600m	90m 600u	6400A	3			
233	4"	6	F-6					4	Cepheid	
								3			
								1		$\sigma = 1725$	
								3			
200	3.5"	5.7	F-6					2	Cepheid		1.4K
								3			
								3			
51		7.7	F-6					4	Cepheid		500
								3			
								3			
865	5"	2.0	G16					5	Ceph. comp.		5K
								3			
								3			
60	5"	7.5	F-6					6	Cepheid		480
								3			

Spectr. Temp.

Dome Temp./Hum.

Transparency Conditions *clear* 132Focus *2300*

Spectr. Temp.

Dome Temp./Hum. *76.2° 73.2% H*

Exp. Mtr.	Seeing	Pl. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				Echelle 19.85	X 0600h 3030	90u 600u	6400A	1		$\sigma = .989$	
Ar 3								3			
120	188	5"	5.8	F-G				2	cephid.	$\sigma = .989$	1-1/4
25								3			
25								3			
33	270		40	F-G				4	cephid		
25								3			
3								3			
171	242	5"	4.28	F9 IV-V				5	stavel		
25								3			
25								3			
171	100	5"	6.5	F-G				6	cephid		1K
25								3			
25								3			
163	219	5"						7			47K
25								3			

Pj#4 M³ SUN/mon

Emulsion Batches:

Date ..1996..Sep..29/30.. Observers ..Kiss/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
CC13350	BIAS(4)			03 17 21					
51	Comp							ThAr	2s
52	HD 40457	5 5348	+351900	03 23 24					1812
53	Comp							ThAr	2s
54	Comp							"	2s
55	HD 52973	6 5811	+20 4302	03 59 33					622
56	comp							"	2s
57	Comp							"	2
58	HD 17463	2 4303	+68 2827	04 21 35			Dec circle +68 54		1342
59	Comp							"	2s
60	Comp							"	2s
61	HD 2207	0 2034	+50 4300	04 57 16			Dec circle 51° 18'		1648
62	Comp							"	"
63/69	FLATS x 7					3 27W	±+30°	TUNG	3s
70	BIAS(4)			05 36		"	"		

cc0
Spectr. Temp.
FOCUS.....
cc7
Spectr. Temp.

Exp Mtr Se

67 4

503 5

203 4

61
1648 5

CCD Spectr. Temp. -100.8°C

Dome Temp./Hum. $+5.6^{\circ}\text{C}$ 75% H

Transparency Conditions Fine 1.36

Focus 2300

CCD Spectr. Temp. -101.9°C

Dome Temp./Hum. $+5.2^{\circ}\text{C}$ 75% H

x TRY HD176155 tomorrow? Sept 25/26 ¹⁹ #1 done

Compass
Filter Exp

Exp. Mtr.	Seeing	Pl ^y Mag.	Sp.	Inst.	Grating/ X Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				Edelko 19.85	0600 .3030	90u 600u	6400A	1		$\sigma = .741$	
						900u W=.265		3			
180	67	4.5	7.5 F-6					2	Cephoid		500
								3			
								3			
62	303	5"	4.0 F-6					4	Cephoid		
								3			
								3			
134	203	4.6	6.0 F-6					5	Cephoid	Tel Reversed RA $\Delta = 11 59 17$ in the case Field checks out Brightest in field	
								3			
114	164 61	5"	7.5 F-6					6	Cephoid	Δ RA 11 59 30 Still Reversed, Field checks out,	420
								3			
						800u H		1			143K
								1		$\sigma = \frac{1.122}{0.678}$	

pg#1 145

Tues/Wed

Emulsion Batches:

Date 1996 Oct 1/2... Observers [KK] / J. Bl. Jackson

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.
ce133 ^{7/12}	Inboard/out board					3 07W	+39°	J3Ar	3/8
73	BIAS			23 51				L	3/4
74	Comp							T3Ar	1s
75	HD137909	15 2342	+292701	19 0017		4 03W			29
76	Comp							"	1s
77	Comp							"	1s
78	HD 8890	1 2234	+884626	19 1340		7 02E			41
79	Comp							"	1s
80	HD8890								62
81	Comp							"	1s
82	✓ HD8890			19 1825					
83	Comp							"	1s
✓ 83	HD8890B			19 2555		6 31E			1059
84	Comp							"	1s
85	BIAS (4)			19 4820					

CCD Spectr. Temp.

Focus...

Spectr. Temp.

Exp. Mtr

...

486

550

610

12

CCD Spectr. Temp. - 100.8°C Dome Temp./Hum. +17.0°C 71.5% H Transparency Conditions .. Mostly clear .. 125

Focus 2360 → mostly cloudy

Spectr. Temp. Dome Temp./Hum. 0 0 256 1024 4 1 CCD # 7

Exp. Mtr.	Seeing	Pr. Mag.	Sp.	Inst.	Grating/ x Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no filter				Echelle	0600m	60u = 277	6400A	1/2	focus	Focus CCD # 7 00128 1024 81	
				[19.85° intended]		400u		1		Just sl set for cooler	
				19.99 actual				3		$\sigma = 0.754$	MAX ADU
486	2.3"	3.66	F0p					2	Kk pyg	some cloud.	3.6K
								3			7.5K
550	2.4"	2	F					4			4.4K
								3			
610	1.2"							4			5.7K
								3			
								4			6.6K
								3			5.3K
12	1.2"	9						5	> 40/1 S/N	well 5% cloud tent. but cloudy far east next stage on pair is 1st tag $\sigma = 1.251$	> 150 more FIS
								3			
								1	repeat	$\rightarrow \sigma = 1.141$	

pg #2 ¹²⁷

Tues / wed

Emulsion Batches:

Date 1946 Oct. 1/2. Observers [KK] / 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.
ce13386	Comp							ThA	1s
87	HD1326	0 12 42	+43 27 00	20 01 42		3 11 E			2342
88	Comp							"	1s
89	HD1326B	" "	" "	20 43 35		2 42 E			1602
90	V4585B Comp							"	1s
91	BIAS(4)			21 15					
92	Comp							"	1s
93	HD 186791	19 41 30	+10 22 10	21 22 15		2 05 W			139
94	Comp?							"	1s
95/401	FLATS x 7					2 10 W	+11°	JUNG	3s
402/408	FLATS x 7					2 13 W	"	JUNG	3s
ce13409	Comp							ThA	1s
10	HD 186 791	19 41 30	+10 22 10						192
11	Comp							"	1s
12	BIAS(4)			21 51					

many pixels off.

Spectr. Temp

Focus.....

Spectr. Temp

Exp Mir

Filter

59

2

75

525

Spectr. Temp. Dome Temp./Hum. $+15.9^{\circ}\text{C}$ 77.2% H Transparency Conditions PART cloudy 136.

Focus 2360

Spectr. Temp. Dome Temp./Hum.

Exp. Mtr.	Seeing	Pr. Mag.	Sp.	Inst.	Grating/ x Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
NO Filter				Echelle	0600h	60u W					
59	2"	8.07	M12	CCD	.3030	600u H	6400A	3	Vys 85A	Brighter component	1K
					19.85° intended			6	Murcy Std vel		
					<u>19.99° actually found that way</u>			3			
								7	Vys 85B	faint NE component -	NO
2	2.4"	11?						3		Almost NO H ₂ visible	ARISE
								1			8.6K
								3			
										$\sigma = 1.150$	
525	3"	1.72	K3II					2	std vel		6.7K
								3			
						800u H		1			13.4K
				Echelle	0600h	60u	6300R	1	* Telluric Region		12.4K
				19.00	.3080	800u		3			6.8K
						60u = .277					
						600u = .205					
525	3"	1.72	K3II					4	std vel		5K
								3			
								1			$\sigma = 1.025$

209 #3 Tues / wed

Emulsion Batches:

Date 1996 Oct 1/2 Observers [KT] / JN

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.
C013A13	Comp							Thhr	1s
14	HD 8890	1 2224	+88 46 26	22 08 57					604
15	Comp			23 22				"	1s
16	BIAS(4)			23 25		4 E	89°		
17/18	Inboard low BOARD		HARTMANN			2 40W	44°		3/2

CCO
Spectr. Tem
Focus...
Spectr. Tem

Exp. Mtr

128
604

63

T=150

CCD
Spectr. Temp. -100.7°C.

Dome Temp./Hum. +15.7°C 78% H

Transparency Conditions . Clouding in 140.

Focus 2360

Spectr. Temp.

Dome Temp./Hum. +15.7°C 77.3% H

CD

Exp. Mtr.	Seeing	Filter Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
NO F/140				Echelle 19.00	0600 3080	60x 600x	6300	3c		Δ = 00 1900 20 00 00 00	
63	4"	2	F					4c	hit pgm	Too cloudy	~500 above line
								3			
								1			
								8/9		None closed σ = 1.009	
										AFTER 10 min TO Only the obvious cosmic	
										0 0 12.8 10.24 81 Aug	
										CCDFMT for focus test	

T = +15.7°C

pyr/U | Sun / Mon

Date ..1996 Oct 8/7..... Observers ..WxL/Th.....

Emulsion Batches:

.....

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.
CC41840	Comp						Filter #5	FeAr	3s
41	V 700 Cyg		^{↓2000} 20 31 13 +38 47 42	19 10 54		0 14 E			1200
42	Comp							FeAr	3s
43	BIAS (4)			19 36					
44	Comp						filter #3	FeAr	3s
45	SV Equ		^{↓2000} 20 57 17 +05 48 52	20 07 11					1000
46	Comp							"	3s
47	BIAS (4)			20 28					
48	Comp							"	3s
49	DK Cyg		²⁰⁰⁰ 21 35 02 +34 35 42	20 33 31					700
50	"		" "	20 50 26		0 17 W			901
51	Comp							"	3s
52	Comp							"	3s
53	SV Equ		²⁰⁰⁰ 20 57 19 +05 48 52	21 11 16		1 16 W			900
54	Comp							"	3s

(C) Spectr. Temp.
 Focus...
 Spectr. Temp.

Exp. Mtr.

8639
 11-11-96
 114

336
 446

970

Spectr. Temp. ^{CCD} -100.8°C Dome Temp./Hum. +14°C 60%RH Transparency Conditions ... Part cloudy ... 1.42

Focus ... 6.85 ... -7 (6.75 for 1800ln) 90 cgd/n

Spectr. Temp. ... Dome Temp./Hum. ... CCD FMT 415 0 50 1024 4 1

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
100 filter BG39 filter				C155000	0600ln/mm 25.5°	350u	4200A	3			
114	2" 5/11							4	Durebeck	~ 35/1 S/N	
								5			
								1	Do not use this bias with next setup		
no filter	Focus 6.75 now.				1800ln/mm 47.05	306u	518AA	6		CCD FMT 410 0 50 1024 4 1	3K
690	2-3" 19 A0							7	DRL	770/1 S/N	
								8			2.9K
								1			
								9			2.9K
336		10.3 A6V						10			
446	2"							11			
								12			
								13			
970	2-3" 19 A0							14			
								15			

pg 2 143 sun/mon

Emulsion Batches:

Date 1996 Oct 6/7 Observers VxL/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.
CC 41855	Comp		2000				Filter #3	FeA	3s
56	DK Cyg	21 35 02	+34 35 42	21 31 10					900
57	"			21 46 50					900
58	comp								3
59	BIAS(4)			22 06					
60	Comp							"	3s
61	SV Equ	20 57 19	+5 48 52	22 11 15					900
62	Comp							"	3s
63	Comp							"	3s
64	DK Cyg	21 35 02	+34 35 42	22 34 50					900
65	"	"	"	22 50 26					900
66	Comp								
67	BIAS(4)			23 07					
68	Comp							"	3s
69	SV Equ	20 57 19	+05 48 52	23 13 06					1000
70	Comp							"	3s

CCD Spectr. Temp

Focus

CCD Spectr. Temp

Exp Mtr

S

432

437

835

360

275

420

CCD Spectr. Temp. -100.6°C

Dome Temp./Hum. $+13.0^{\circ}\text{C}$ 62.8H

Transparency Conditions ... OK ... 144

Focus 6.75

To increasing cloud ADM

CCD Spectr. Temp. -100.5°C

Dome Temp./Hum. $+12.4^{\circ}\text{C}$ 63.78H

410 0 50 1024 4 1 MAX

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
								16			2.5K
432		10.3	A6V					17			
437								18		750/1 S/N	
								19		[Typical for this century] $\sigma = 4231$ I guess	
								1			
								20			
835	3"	~9	A0					21			
								22			
								23			
360	2"	10.3	A6V					24		45/1 S/N	
275								25			
								26			
								1		$\sigma = 4250$	
								27			2.3K
420	3.4"	~9	A0					28			
								29			2.0K

WSP9#3 Sun/mon

Emulsion Batches:

Date 1996 Oct 6/7 Observers WxL/TA

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.
Cc+1871	Comp						Filter #3	FeAr	3s
72	HD 204867	21 2618	0600 40	23 3843					33s
73	Comp							FeAr	3s
74	Comp							"	3s
75	EL Agr	23 4719	080504	23 4550					1000
76	"	"	"	00 03 16					1012
77	Comp							"	3
78	EL Agr	"	"	00 23 56					1000
79	Comp							"	3
80	BIAS (4)			00 42					
81	Comp							"	3s
82	HD 2246A	03 31 46 02 36 42	100 0504 +100	00 5041					70s
83	Comp							"	3s
84	Comp							"	3s
85	AQ Psc	01 2104	+7 36 21	00 58 02					902

CCD
Spec. Temp.

Focus...

CCD
Spec. Temp.

Exp. Mtr

3500

92

304

300

2800

1340

CCD Spectr. Temp. ... -99.5°C

Dome Temp./Hum.

Transparency Conditions . PART. Cloudy 146

Focus 6.75

CCD Spectr. Temp. ... -101.8°C

Dome Temp./Hum. +12.3°C 65.6%RH
C?

410 050 1024 +1 CCD F7

Expansion ter Exp.	Exp. Mtr.	Seeing	P ₁ Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
3					CASS CCD	1500 H/mm 47050	306μ	5184	3			
33	3500		2.91	G0Ib					4	std vel		2K
3									5			
3									6			
100	292	2.3"	10.35	F					7			
1012	304								8		thin cloud	
3									9			2K
1000	300								10		clear hole	
3									12			
									1		σ = 4189	
35									13			2K
70	2800		4.28	F9 IV-V					14	std vel		
35									15			
3									16			
900	1740	2.3"	8	F8					17			

147
Py #4 Sun/Mon

Emulsion Batches:

Date 1946 Oct. 6/7..... Observers WxL/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.
CC4986	AQ Psc	01 21 04	+73 21	01 13 24					900
87	Comp					ND	filter #3	FeAr	3s
88	AQ Psc	"	"	01 30 08					900
89	AQ Psc	"	"	01 45 49					900
90	Comp							FeAr	3s
91	AQ Psc	"	"	02 03 52					900
92	AQ Psc	"	"	02 19 35					900
93	Comp							FeAr	3s
94	BILLS (4)			02 37					
95	AQ Psc			02 39 35					860
97/901	96 Comp FLATS x 5					ND	Filter 3	FeAr Tung	3s 4s
902	AQ Psc	01 21 04	+73 21	03 01 50					1200
903	Comp					ND	"	FeAr	3s
904	Comp							"	3s
905	HD 295 87	4 34 30	+15 00						720
906	comp								3s

Spectr. Temp.

Focus.....

Spectr. Temp.

Exp Mtr

Se

1520

994

994

216

350

430

1200

Spectr. Temp. Dome Temp./Hum.

Transparency Conditions *increasing cloud* 148Focus *6:7.5*Spectr. Temp. ... *100.9°C @ 2:37* ... Dome Temp./Hum.*410 0 50 1024 4 1 CDFMT*

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
900	1705	8	F8				5184A	18		170/1 S/N	
3								19			
900	1520	3"						20			
900	994							21		clouds in. OK	
3								22			
900	994							23			
900	716							24		partly cloudy.	
3								25			
								1			
800	350							26		very cloudy	
45								2			
1200	450	3"	8	F8				27		plus ⁴⁰ subtract of minutes from the starting time - see	8.4t
3								28			
3								3			
700	1800	2.3"	729	dG2				4	Std vel		
3								5			

14 Aug #5

Sun / Mon

Emulsion Batches:

Date 1996 Oct 6/7... Observers WxL / 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.
CG 806 ^{95/99}	HD 29587	+ 3430	+41 5700					4 x 67ms	
99/02	DARK							4 x 67m	
703/04	HD 29597							2 x 133	
05/07	DARK					0 01E		3 x 133	
CC41907	Comp						#3 ND filter	FcAr	3s
08	GZ AND	02 12 12	44 40 00	03 59 36					900
09	GZ AND	"	"	04 15 27					500
10	Comp							FcAr	3s
11	B/H/S(4)			4 35					

Exp. Mir. Se
Temp. 6:7
Temp.

CCD Spectr. Temp. ... -100.8°C ... Dome Temp./Hum. +11.7°C 73.4% H Transparency Conditions ... Most Ly. cloudy ... 150

Focus ... 6.75

SSP Spectr. Temp. ... -100.0°C ... Dome Temp./Hum. +11.7°C 76.6% H

410 0 50 1024 4 1 CCD/FMT

Computer Filter Exp	Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
4 x 67ms			7.29	G2		Above 306e slit				Seeing Test	Dome facing west Light south wind	
4 x 67ms			All with default window (x hair center)									
2 x 133			No intensifier change needed between 67ms and 133ms used, integration.									
3 x 33	no filter								6			
900	189	2"	10.8	G5V					7		thin cloud here	
500	107	2"	"	"					8		cloudy	
3									9			
									1		$\sigma = 4.356$	

pg#1 151 Fri/Sat

Emulsion Batches:

Date 1996 Oct 1/12 Observers [Blm] / Tn + David Ballantyne

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.
CC41912	Comp						ND #5	FeA	4s
13	HP 184927	19 31 36	+31 04 00	18 38 50		0 24 W			854
14	Comp							FeAr	4s
15	BIAS (4)			18 57					
16	Comp							"	4s
17	HD 186205	19 37 54	+8 59 00	19 03 44		1 01 W			2053
18	Comp							"	4s
19	Comp								4s
20	HD 235679	21 55 00	+54 00 00	19 45 18		0 44 E			1388
21	Comp							"	4s
22	Comp							"	4s
23	HD 177724	19 00 49	+13 42 53	20 15 48					68s
24	Comp							"	4s
25/44	FLATS x	20				2 30 W	ND #5	TUNG	8s
45	BIAS (4)			20 29					

CCO

Spectr. Temp

Focus... 6

CCO

Spectr. Temp

Exp. Mtr

No. Filter

6.5k

5.2k

3.8k

2.8k

1.8k

0.8k

0.2k

0.1k

0.05k

0.02k

0.01k

0.005k

0.002k

0.001k

0.0005k

0.0002k

0.0001k

0.00005k

0.00002k

0.00001k

0.000005k

0.000002k

0.000001k

CCD Spectr. Temp. -100.8°C Dome Temp./Hum. $+6.3^{\circ}\text{C}$ 67% H Transparency Conditions ... Mostly clear 152

Focus ... 6.83 ... To increasing cloud

CCD Spectr. Temp. $-$ $^{\circ}\text{C}$ Dome Temp./Hum. $+5.3^{\circ}\text{C}$ 70% H
 410 050 1024 41 MAX

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no filter				CASS CCD	1800 μ 5640	306 μ	~6618A @ 5125 EIA	1			5.7K
6.5K	2'	~7	B2					2	Blu pgrm	some cloud	3K
								3			6.3K
								1		$\sigma = 6.316$	
								4			
5.2K	3'-4'	8.43	B2V					5	Blu pgrm	> 200/1 S/N Air mass ≈ 1.23	3.6K
								6			6.5K
								7			6.5K
2.88K	2'-3'	8.86	B2.5Ib					8	Sp Bin Blu		7.2K
								9			
								10			
8.5K		2.99	A0V					11	Telluric Std		5K
								12			
								13			13.8K
								1			

Pg #2 (53)

Emulsion Batches:

Date 1996 Oct 11/12 Observers Hely[?]/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.
CC41946	Comp						ND#3	FeAr	4sec
47	HD177724	19 0049	-134253	20 3820					229
48	"			20 4301					371
49	Comp						ND#3	FeAr	4s
50/52	FLATS x 3						ND#5		8s
53	Comp						ND#3	FeAr	4s
54	HD 201 091	210225	+381527	210211					237
55	"	"	"	210714					
56	HD 201 092			211344					517s
57	"			21 2321					511
* 58	Comp						ND#3	FeAr	4s
59	BIAS (A)								
60/62	FLATS x 3						ND#5	TUNG	8s
63	DARK			214927					180s
64	BIAS (A)			21 5657					

Spectr. Temp.

Dome Temp./Hum.

Transparency Conditions

part cloudy 154

Focus 6.83

Spectr. Temp.

Dome Temp./Hum.

CD

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no filter				C455 CCD	1800/10° 561°	250μ	65638	14c			
25K								15c	Telluric Std	Trailed middle third of slit length	7.5K
33								16c	" "		
								17c			
								18			10K
								19			3.6K
5.5K	2"	5.21	K5V	Fe Ar source on for both these exps				20	Hdy ppm	NW and brighter	8.6K
5.0K										21	
5.1K								22		SE and fainter ones	
5.1								23			8K
								24			3.1
								1			
								25			10K
								26			
								1			

Spectr. Temp. Dome Temp./Hum. $\pm 5.0^{\circ}\text{C}$... 72.5/64 Transparency Conditions ... Mostly cloudy 13

Focus ... 6.95 for 600 l/n/m setup

Spectr. Temp. Dome Temp./Hum.

Expansion Filter Exp	Exp. Mtr.	Seeing	Pl. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1005									27		410 0 50 1024 41	
									1	$\sigma = 6.588$		
35	no filter				CASS CCD	600 l/n/m 25.8°	250 μ	4340Å	3	CCDFMT	440 0 50 1024 41	
152	128	<2"	12	~0					4	Vat. can stop	part clear here for David Ballantyne	
35									5			
125	not open								6			
35									7			10K
									1	-102.0 σ	$\sigma =$	
35									9			
144	1500	4.6"	428	F9 IV-V					10	std vel		
35									11			
16 85									11			10K
4 3					CASS CCD	600C 26.5°	250 μ	4800Å	12			
58	3K			428	F9 IV-V				13	std vel		6.3
3									14			

1574#4

Date 1996 Oct 11/12 Observers dr-b. J.Ta.....

Emulsion Batches:

.....

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.
cc41984	Comp BIAS (4) Comp BIAS (4) Done AFTER FLATS				0116		NO#5	FeAr	3s
	EM+VES 735			004556	no good	too cloudy			1024
cc41985/87	FLATS x3						NO#5	TUNG	8s
88	Comp						NO#5	FeAr	3s
89	EM+VES 735	021245	+603923	012924					
90	Comp						"	"	3s
91	EM+VES 735	"	"	015458					1422
92	Comp								3s
93	BIAS (4)			0155					

CCO
Spectr. Tem

Focus.....

Spectr. Tem

Exp. Mtr

no fill

110

45

closed

LD

CCD Spectr. Temp. -100.5°C

Dome Temp./Hum. $+14.9^{\circ}\text{C}$ 74% H

Transparency Conditions . Part. Cloudy 150

Focus 6.95

Spectr. Temp.

Dome Temp./Hum.

Still 440 0 53 1024 4 1 CCD FWHM

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
3s	no filter			C455 CCD	600C 26.50	250u	4800A	15	1ci		
1024	110	12	0?					16		cloudy	no good
8s								17			73K
3s								18		Top of 0120 EST	
	45	3"	12	0?				19		very weak	14/15/14
3s								20			
142s	closed	2-3"						21		mostly cloudy	
3s								22			
								1			

Note 1st focus test in same time, Oct 21/196 - for a same TILT

of 600 C grating shows focus right on $T = +8.2^{\circ}\text{C}$ $F = 6.95$

4865 centered for Tilt = 26.50

(500 ADU ghost. 306 slit)

45-48 pixels

(same as for 26.40 tilt)

Looks like 27° tilt with H β @ blue end (just on) gets rid of ghosts. ghost off blue end.

Emulsion Batches:

Date 1996 Oct 22/23. Observers Lu./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.
CC419 ^{94/95}	In board / out board			~ 22 EST		0 0	+38°		4/3
96	BIHS(A)			22 44					
97	Comp						ND=#3	FeAr	4s
98	TT Cet	01 46 57 ²⁰⁰⁰	-09 45 06	23 02 23					1200
99	TT ^{Comp} Cet			23 23 47					1201
CC42000	Comp						"	FeAr	4s
	TT Cet			23 46 00					
01	Comp		1900				"	"	4
02	HD 22484	03 31 46 ¹⁰⁰	05 04	23 57 56		1 47E			46
03	Comp						"	"	4
04	BIHS(A)			00 00 30					
05/09	FLATS x 5						ND#3	TUNG	5s
10	BIHS(A) (done later, after AA cet)			01 15					
11	Comp						ND#3	FeAr	4s
12	AA Cet	01 54 00 ²⁰⁰⁰	-22 55 12	00 25 13		0 31W			882

CCD Spectr. Temp. -100.6°C ...

Dome Temp./Hum. $+8.9^{\circ}\text{C}$...

Transparency Conditions... Part. Cloudy / Hazy. ¹⁶⁰

Focus 6.82

Spectr. Temp. -100.6°C ...

Dome Temp./Hum. $+7.0^{\circ}\text{C}$

390 0 58 1024 4 1 CCDFWT

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
4/3	no filter			CASS CCD	1800/n/m 47.10	306.	5184A	1/2	focus test		
								1		$\sigma = 5.629$	
4s								4			39K
1600	254	4"	10	A				5		27/1 S/H	
1201	238	4.5"						6		AIR MASS = 1.69	
4s								7			2.4K
								8		Too cloudy	
4								9			
46	1250			4.28 F9 IV-V				10	stlved		1.7K
4								11			2.6K
								1			
106 5s								12			10K
								1			
4s								13			2.6K
862	A07	6"	6.7	A7/8				14		AIR MASS 2.57 SE and brighter some cloud	

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pg #2

Tues / wed

Emulsion Batches:

Date . 1996 . Oct . 22/23 . Observers . L. U. / T. M.

Plate No.	Object	R. A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CC72013	AA Cet	01 5900	-22 5512	00 4017		0 51 W			1126 600S
14	Comp						#3	FeAr	45
15	AA Cet	"	"	01 0205					457
16	Comp								45
17/18	In board / out board		H. A. T. Mann				#3	FeAr	6/8

Spectr. Tem

Focus...

Spectr. Tem

Exp. Mtr

no. fil/ke

600

400

T= 6.

Spectr. Temp. Dome Temp./Hum. .. 16.9°C .. $86\% \text{H}$ Transparency Conditions .. *PART cloudy* .. 162
 Focus 6.82
 Spectr. Temp. Dome Temp./Hum. .. 16.9°C .. c_2
getting too humid.
Solid cloud

Expansion Filter Exp	Exp. Mtr.	Seeing	<input checked="" type="checkbox"/> Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1/2 3/8	no filter 600	6"	27	A7/8	C155CD	1800ln/mm. 47.1°	306u	5184A	15			
4									16			2.4K
457	400	6"			Later sp Type of Peir				17		Brighter S E one again	
4									18			
6/8	T = 6.9°C		F = 6.82						19/20	focustest		3.6K/2K

Pg# 163

SAT/SUN

= Eugene Earnshaw - Whyte

Emulsion Batches:

Date 1996 Oct 26/27 Observers E-W / T.M.

Note changes to image projection on chip, Oct 24th - Engineering

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
CC420 ^{19/20}	Inboard / Outboard					00	+40°	FEAR ND II 4	3/13
21	Comp			185909				"	3sec
22	SAD 32442 CN Cyg	20 15 55	+59 29 00	18 59 09					1200
23	Comp							"	3sec
24	Comp							"	3s
25	BD+59 22135 CN Cyg	20 15 55	+59 29 00	19 25 15					1103
26	Comp							"	3s
27	BIAS (4) CN Cyg			19 45					
28	BD 59 22135	"	"	19 46 36					1103
29	Comp							"	3
30	BD+59 22135	"	"	20 07 22					1103
31	Comp							"	3
32	Comp							"	3
33	HD 207076	21 4 24	-02 40 00	20 32 41					177
34	"	"	"	20 36 37	edit ✓				256

ccd Spectr. Temp. -100.6°C Dome Temp./Hum. $+140^{\circ}\text{C}$ 8.12H Transparency Conditions *OK* 1.5.4

Focus 6.82

90 cgain

Spectr. Temp.

Dome Temp./Hum.

300 050 1074 4 1 CCD FIT

Comp. Filter Exp	Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emission	P.H.	Program	Remarks	Quality
4 3/B	No filter				CASS CCD	1800/mm 450°/ft	306 μ	4863Å	1/2			
3 μ								*4841Å actual center	3			OK
150	1970	3"	8.3	A0					4c		Accidentally done before	
3 μ									5			8.5K
3									5			
103	1310	3"	9	~M5c					6		$\approx 50/1$ S/N	
3									7			
									1			
113	1350	3"	9	~M5c					8		some	
3									9			
103	1200	3"	9	~M5c					10		some cloud	
3									11			7.2K
3									12			
177	5800	3"		MTIII					13			
356	8000								14		Keck Post in 13th	

P902 15 SAT/SUN

Emulsion Batches:

Date 1996 Oct 26/27... Observers E-W/Jn.....

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
CC 42035	HD 207076	21 41 24	-02 40 00	20 42 48				A13	11,500
36	Comp							FEA ND04	3s
37	BIAS (4)			20 52					
38	Comp							"	3s
39	HD 1845	00 17 48	+55 14 00	21 01 06					599
40	"			21 11 22					618
41	"			21 22 08					686
42	Comp							"	3s
43	Comp							"	3s
44	HD 3765	0 35 18	+39 40 00	21 48 30					871
45	Comp							"	3s
46	BIAS (4)			22 06					

CG807^{08/10} + 15 HD 3765

11, 12, 13A DARKS x 4

16, 17 HD 3765 0 35 18 +39 40

18, 19 DARKS x 2

{ Intensifier ~~was~~ touched)

slight change in Intensifier model.
Rel to 67ms setting

4x 67ms

2x 133ms

CCD Spectr. Temp. -100.6°C Dome Temp./Hum. $+8.9^{\circ}\text{C}$ 84% RH Transparency Conditions *Some cloud* 1/55

Focus $6:82$

Spectr. Temp. Dome Temp./Hum. $C \cdot 2$

Comparison Filter Exp.	Exp. Mtr.	Seeing	P. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emission	P.H.	Program	Remarks	Quality
4/3	11,500	3"		M7III	C455 CCD	1800 lines/mm 450°	306 μ	Header 4862A	14			
4/3								4841	15			7.5K
								Actual @ Row 512	1			
3		2-3 ~6							16			
5/9	7.5K	2-3	26	M6e					17			
6/8	8.6	"	"	"					18		50/1 S/N	
6/8	10K								19			
3									20			
3									21			
8/1	4.8K	2-3"	7.36	K2V					22	std vel		
3	4.8K								23			
									1			

Apr. 6/8

8/1/85

2-3" 7.36 K2V

Seeing tests
Images above slit
All do fault box centering

1020 76 K pixels ^{Fully Hough}
Seeing Tests Wind very light
NE 4 km/hr
ALT ~ 84-85°
Some WSW pointing

CCD Spectr. Temp. -100.8°C Dome Temp./Hum. $+8.5^{\circ}\text{C}$ 81.5% Transparency Conditions *some cloud* 168

Focus 6.82

solid cloud by 0:30

Spectr. Temp. Dome Temp./Hum.

300 0 50 1024 41 CCD FWIT

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
10 f./ke				CASS CCD	1800 h/ke	306 μ	4862 Hada	24			MAX
6654	2.3"	~4	M6III				4841 Actual	25		Near full moon, but bright	9.9K
6840								26			
								26			
								27			
								28			
5.5K	3"	~5	M8c?					29	WIRA		750
6240	3"	~5	M8c?					30			
9080	3"	~5	M8c					34		some cloud	
								35			
								1		$\sigma = 4.329$	
								7			10K
7.7K	2.3"	~7	M7c					6			
6.8K								7			
								9			

169 p9#4 SHT/SUN

Emulsion Batches:

Date 1996 Oct 26/27 Observers E-W/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.
CC420 62	Comp							FEAR NO#4	3s
63	HD 39816	5 4953	+200929	001743					997
64	Comp							"	3s
65/69	FLATS x 5					3 E	+20°	TUNG NO=#1	11se
70	HD 39816	"	"	004935					902
71	HD 39816 Comp	"	"	1 05 03					848
72	Comp							FEAR NO#4	3s
73	HD 39816	"	"	012426					
74	Comp							"	3s
75	BIAS(4)			0142					
76	Comp							"	3s
77	HD 51610	6 5300	+552700	02 03 43					2086
78	Comp							"	3s
79	HD 51610	"	"	02 54 57					878
80	Comp							"	3s
81	BIAS (4)			03 14					

CCD Spectr. Temp. -101.9°C

Dome Temp./Hum. $+9.0^{\circ}\text{C}$ 73% H

Transparency Conditions *cloudy, then clearing again*

Focus 6.82

Spectr. Temp. -100.9°C

Dome Temp./Hum. $+8.9^{\circ}\text{C}$ 70% H

CCD Temperature still holding.
Top up done by ZEST

Exp. Mtr.	Seeing	Pl. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				C455 CCD	1800 l/m 45.0°	306 μ	H beta Region				
1570	2.3"							12		cloud at end mainly	
								15			12K
15K	3.5"	6	Mbe					16			
19.4k	"	"	"					17			
								18			
21K								19		7 100/1 S/N	
								20		4506	
								1		$\alpha = 4506$	
								21			
540		faint						22		very weak and	
								23		doesn't seem like	
305								24		An m type ?	
								27			8.5K
								1		4545	

17/19/81

Mon / Tues.

Emulsion Batches:

Date 1996 Oct 28/29

Observers KK (Afkanan tests) Bln / Tin

Hdy 1st part of night

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.
CC42082	Fe Ne								5
3	Fe Ar								10
4	Ti Ne								5
5	tung								10
CC42086/87	Inboard / out Board						~0 20W +40°	FeAr ND#2	4/8
88	BiAs(4)			1822					
89	Comp							FeAr ND#4	6
90	HD201091	21 0225	+381527	18 2727					244
91	"	"	"	18 3241					297
92	"	"	"	18 3928					306
93	Comp							FeAr ND#4	65
94	HD201092	21 0226	+381514	18 4818					603
95	"	"	"	18 5905					626
96	"			19 22 10					617
97	Comp							"	65

Spectr. Temp.

Focus...6

Spectr. Temp.

Exp. Mtr

10/1/96

7K

8K

9K

9K 4

9K

9K

CCD
 Spectr. Temp. -100.9 °C Dome Temp./Hum. +25 °C @ 18% RH 4768H
 Transparency Conditions ... Part Cloudy 172

Focus ... 6.82

Spectr. Temp. Dome Temp./Hum. 27 90 c/min (330 05102441) KCOFMT

Comparison
 filter Exp

Exp. Mtr.	Seeing	Plg Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
5				CASSCOO	1800 45°	306					
10											
5											
10											
48	no filter	T = 7.6°	F = 6.82		1800 51.6	250	589AA ± 0.5°	3/4 1	focus	Slit/imaging of spectrum ok tonight as a result of adjustments	
6								5c.			6.5K
7K		5.21	K5V					6c.	Hdy pgm	No D centered.	66K
9K								7			10K
9K								8			105K
9K								9			63K
9K	4.5'	603	K7V					10	Hdy pgm		105K
9K								11			11K
9.1K								11			11K
								12			6K

pg#2 123

Emulsion Batches:

Date ..1996 Oct 28/29. Observers ..Hdy.. / T.n.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CC420 ^{98/} 102	FLATS x 5 at			HD 201092 position,				TUNG ND#4	45
103	BIAS(4)			19 26 24					
104	Comp							FEAR ND#4	65
105	HD 177724	19 00 49	+3 42 53	19 31 38					188
106	"	"	"	19 35 44					202
107	Comp							"	65
108/11	FLATS x 4 @			HD 177724 pos'n				TUNG ND#4	45
12/15	FLATS x 4 at			HD 181655 position				"	45
16	Comp							FEAR ND#4	65
42117	HD 189561	19 16 08	+3 7 09						8485
18	"	"	"	20 20 48					946
19	Comp							FEAR ND#4	65
20/23	FLATS x 4 at			HD 189561 position				TUNG ND#4	45
24	BIAS(4)			20 30 38					

Exp. Mtr.
Spectr. Tem.
Focus...

335 K
37 K

31
3 K

Spectr. Temp. ^{CCD} -101.9°C

Dome Temp./Hum. +10.3°C · 50.9%RH

Transparency Conditions . P.P.T. 1.74

Focus 6.82

Spectr. Temp. -101.5°C

Dome Temp./Hum.

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CNSCap	1800h 51.6° actually	20u	589AR	13			11K
								1			
								14			
188	33.5 K	5"	299	AOV				15	telluric STD	Trailer full	7K
102	37 K							15		slit length	7.2
								15		CHECK	6.3K
								16			11.2K
								17			11.1K
								18			
	8K	6.31	G8I					19			
	9K							19			7.7
								20			
								21			11K
								1			

Py#3 175
 Mon / Tues

Emulsion Batches:

Date 1996 Oct 28/29 Observers Blk / Tq

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.
27	BIAS(4)								
CC421 ⁹⁵ /26	Inbound/outbound							FeAr ND#4	4/8
28	Comp							FeAr ND#4	4
29	HD 184927	19 31 36	+31 04 00	20 57 02		3 53W			1094
30	Comp							"	4s
31	Comp							"	4s
32	HD 235679	21 55 00	+54 00 00	21 36 38					1586
33	Comp							"	4s
34	BIAS(4)			22 08					
35	Comp							"	4s
36	HD 211211	22 10 32	+42 27 28	22 12 22		2 27W			946
37	Comp							"	4s
38	Comp							"	4s
39	HD 6314	0 58 59	+39 27 18	22 38 34		0 02W			877
40	Comp							"	4s
41	BIAS(4)			22 57					

^{CD} Spectr. Temp. -100.9°C ... Dome Temp./Hum. $+5.4^{\circ}\text{C}$ 5638H Transparency Conditions .. increasing cloud ^{17h}

Focus 6.82 still ok for 6563A

^{CD} Spectr. Temp. -101.7°C ... Dome Temp./Hum. $+4.1^{\circ}\text{C}$ 6378H
 SAME 330 0 50 1024 41 CCD FWH

Exp. Mtr.	Seeing	Plg Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no filter				CASS CCD	1800h 562° 9h	306h	6563	1			
								3/4	focus test		
								5			145K
52K	5-7"	7	B2					6	Blupgm		
								7			
								8			142
1580	3-5"	886	B2.5 I6					9		Cloud - thin to mod. thick cirrus	307K
								10			13K
								11		CCDT -100.7C	
7800	4-5"	5.68	A2 V _{on}					12	Telluric Std	1.10 Air mass	3.7K
								13			
								14			
4K	3-4"	6.57	F0 V _{on}					15	Telluric Std	at Zenith, <u>Some cloud</u>	
								16			
								1		$\sigma = 4.405$	

pg#4 VV
Mon / Thu

Emulsion Batches:

Date .. 1996 Oct 28 / 29 Observers Blh / Th Peter MARTIN by OI EST

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.
CG807 ^{20/23}	HD 6314	0 5859	+39 2718					4x	67ms
CG807 ^{24/27}	DARKS							4x	67ms
28/29	HD 6314			Intensifier Reduced from 67ms frame level				2x	133
30/31	DARKS							2x	133
CCA2142.FTS	Comp							FeAr ND4	3s
43	VES 735	02 12 45	+60 39 23	23 23 02					1885
44	Comp							FeAr ND4	3s
45	VES 735	02 12 45	+60 39 23	23 57 43		0 22 W			1800
46	Comp							"	3s
47	VES 735	"	"	00 36 04					
48	Comp							"	3s
49	BIAS (4)			01 07					
50	Comp							"	3s
51	UBV M 4521	02 18 54	+61 33 49	01 15 06		1 31 W			1693
52	Comp							"	3s

Exp Mir
Spectr. Tem
Focus...
Spectr. Tem
Exp Mir
Spectr. Tem
334
200
20
714 4

1374
Pg #5

Mon/Tues

Emulsion Batches:

Date 1996 Oct 28/29 Observers Mn./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
CC42/53	Comp							FeAr ND#4	3c
54	VES 735	021245	+603923	015346		2 22W			2080
55	Comp							"	31
56	BIAS (4)			02 3534					
57	VES 735	"	"	023550		3 05W			2119
58	Comp							"	3c
59/78	FLATS x 20							JUNG ND#4	3s
79/80	Inboard/outboard							FeAr ND#4	3/5
81	Comp								
82	VES 735	021245	+603923	034726					1896
83	Comp							FeAr ND#4	3
84	Comp							"	3
85	U'BU M4521	02 1854	61 33 49	04 2057		4 22W	Limit		843
86	Comp							"	3
87	BIAS (4)			04 3929					

Spec. Temp.
Focus...
Spec. Temp.

Exp Mir

24

= 40°C

58

89

Spectr. Temp. ^{CCD} -100.8°C ... Dome Temp./Hum. ... +42°C 62RH Transparency Conditions ... Fine ... 100

Focus ... 6.82 ... ~~6.85~~ 7.00 for 600C gratry

Spectr. Temp. ... Dome Temp./Hum. ... ^{CCD} 330 0 50 1024 4 1

Comp. Filter Exp.	Exp. Mtr.	Seeing	Pur. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
7c					CASSCO	1800 5670	306u	6562A	28			
20	230	r12	r10						29		Source felt on 1st half of exp.	
3									30			
									1		0 = 4544	
29	240	34"							21		Source detected by off.	
3s									5			
3s									7			16K
3s	T = 40°C F = 7.00				CASS CCO	600u 27.90	306u	5130	3/4		<u>Top up done</u>	
3s	208	r12	r10						5			
3									6		7 30/1 S/N at center.	
3									7			
3									8			
3s	389	34"	10/1908						9		std vel use.	
3									10			
3									1			

Spectr. Temp.

Dome Temp./Hum.

Transparency Conditions *Fin* 162Focus *7.00*

Spectr. Temp.

Dome Temp./Hum. *+36°C 70%**300 0 50 1024 4 1 CCD Fmt*

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	600C 470P	306 μ	51308	2			143
								n			
217	4"	72	i0					12		Air mass 1.42	
								13			
191	4"							14		$\Delta \pm 00 00 36$ $\Delta \delta -00 01 00$	
								15			
								1			
								16			
690	4"	1019	08					17	std vel use,	Faint light coming fast	
								18			
								20			
								1		$\alpha = 4.$	
				called	1800 5160		called 5894	5		DATA for Per 1	
								1	<u>330</u>	0 50 1024 4 1	
								5		CCD Fmt	
								1			

167pg#1

THURS / FRI

Emulsion Batches:

Date . 1996 Oct 31 / Nov 1. Observers . M.K. / J.n. + Student = Law Benjamin

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.
CC 929 ^{15/16}	In board / out board					0 06W	+31°	FeAr ND#4	4/8
17	BIAS(A)			20 21 18 28					
18	Comp							FeAr ND#4	
19	HD 177724	19 0049	+134253	20 3233					69
20	"	"	"	20 3525					131s
21	Comp							FeAr ND#4	75
22	Comp							"	75
23	V471 Tau	03 4443	+165706	20 5115		4 19E			900
24	Comp							"	4
25	V471 Tau	"	"	21 1039					900
26	Comp							"	4s
27	BIAS(A)			21 28					
28	FLAT							TUNG ND#4	3s
29	V471 Tau	"	"	21 3149					769
30	"	"	"	21 4705					900

CCD Spectr. Temp. -100.5 °C

Dome Temp./Hum. +37°C 52/18/4

Transparency Conditions... gradually clearing 154

Focus... 6.86

90 cgs in

very gusty from west

Spectr. Temp.

Dome Temp./Hum.

370 0 50 1024 4 1 cgs in

Exp. Mtr.	Seeing	P. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no filter				CASSOP	1800 bl/mm 56.20	300μ	6563A	3/4	focus test		~ MAX ADV
								1			
								3			
9K		299	AOV					4	Telluric Std		5K
10.7K								5	" in cloud		5.8K
								6			2K
								7			2.4K
570	4.6"	9.4 -9.7	KOV					8		part cloudy	570
								9			2.1K
600								10			
								11			
								1			
								1			16.1K
480								13		~ 65/1 S/N	
637								14			

CCD
Spectr. Temp. -100.6°C

Dome Temp./Hum. $+1.8^{\circ}\text{C}$ 54% H

Transparency Conditions *mostly cloudy* 186

Focus 6.86

Spectr. Temp.

Dome Temp./Hum. -2.2

Exp. Mtr.	Seeing	Pl. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
473 no filter 500	4.7"			CHSS CCD	1800 lines 56.2° tilt	306	6563A	15		much cloud	
								1		$\sigma = 5.083$	
								16			16K
								17			16K
1039								18		comp →	2K
565								19			
								20			2K
								21			16K
								22		All cloud and dark	

Emulsion Batches:

167
 pg#1 Fri/Sat

Date ... 1996 Nov. 1/2 ... Observers ... Miki / In. + Bejunjin and Stefanie Chang

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.
CC422 ⁴¹ / ₄₂	In board / out board							FeAr ND#4	4/10
43	BIAS (4)			0015					
44	Comp							FeAr ND#4	4s
45	FLAT							TUNG ND#4	3s
46	BD+16 516	034443	+165706	001935		0 46 E			900
47	"			003503	edit				937
48	"			005131					900
49/ 52	FLATS x 4							TUNG ND#4	3s
53	BIAS (4)								
54	Comp							FeAr ND#4	4s
55	Comp							FeAr ND#4	4s
56	BIAS (4)								
57	FLAT							TUNG ND Filter 5	4s
58	BD+16 516								60s
59	"			012436					60s

CCD
Spectr. Temp. ... -101.8°C

Dome Temp./Hum. ... +2.0°C 5828H

Transparency Conditions ... Sudalar cleaning 100

Focus ... 6.92

Spectr. Temp.

Dome Temp./Hum.

320 0 50 1024 4 1 CCD FINT

Exp. Mtr.	Seeing	Pl. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
4/16				CASSCO	1800 l/mm Tilt = 5.62°	306μ	6563	3/4			
								10i			
								6			21K
								7			15K
90	856	3"	9.4 -9.7	HOV				8	471 Tau	775/1 S/1	
93	977							9	Reinforced in 8.		
90	930							9			
								10			15.6K
								11		σ = 5.798	
								11			2K
								1 ci	Fint change	316 0 25 1024 8 1	3.6K
								1		σ = 27.276	
								3			12.7
								4			
								5			

pg #2 ¹⁸⁹ FRI/SAT

Date 1996 Nov 1/2 Observers mki./Tn

Emulsion Batches:

.....

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.
CC 42260	FLAT							TUNG ND#4	1S
61	BIAS(4)								
62	Comp							FeAr ND#4	4S
63	BD+16 516			020106					55
64/323	"			020545	0310				53S
324	BIAS(4)								
25	Comp							FeAr ND#4	4S
26	FLAT			032254				TUNG ND#4	1S
327/332	BD+16 516	034443	+165706	032254	0329				53S
333	comp							FeAr ND#4	4S
334/35	FLAT x 2							TUNG ND#4	1S
336	BIAS(4)			0343					
37	Comp							FeAr ND#4	4S
38	HD 26793	4 09 08	+9 45 32	04 00 55		2 32 W			905
39	Comp							"	4S
3 40	BIAS(4)								

Exp. Tem.
 Focus... 6
 Spectr. Tem.

Exp. Mir

10

1.400

60

1.400

1.400

1.400

1.400

1.400

1.400

1.400

1.400

1.400

1.400

1.400

1.400

1.400

1.400

1.400

1.400

1.400

1.400

1.400

1.400

1.400

1.400

CCD Spectr. Temp. ... -101.7°C ...

Dome Temp./Hum. 0°C 57.7% RH

Transparency Conditions ... Part cloudy / Solid + snow

Focus ... 6.92 ...

CCD Spectr. Temp. ... -100.6°C ...

Dome Temp./Hum. ... -0.3°C 62.3% RH

CCD FWHM 140
385 0 10 1024 8

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emission	P.H.	Program	Remarks	Quality
no filter				CASS CCD	1800h 562°C	306u	6563A	1		New format	8.3K
								1		only 10 columns	
								3			3K
								4			
60 TOTAL			60	FRAMES				5	V471TAC	63 sec interval / 10 sec overhead	
3875								1			
								1	All Reset	CCD Hung up upon TRY to move back to C	
								2		some cloud	10K
			19	60 FRAMES	6 frames			3	V471TAC Repeat x60	Sold cloud 03:29 end of, Reset TOO	
								1			
								2			10K
								1			
								3			
980	3.4"	5.22	B9	Vn				4	Telluric Std. (not usually done)		
								5	AIR MASS 1.42	cloudy	
								1			

191 Mon/Tues

Emulsion Batches:

Date 1996 Nov 4/5 Observers KK/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.
CD00									
480-2	3x Blats (sky)	zenith							
483-5	3x Flats (sky)	"							
486-7	2x Sky Flats	"							
488	Bias (mean of 4)								
489	HD 174638								
490	"								
491	"								120°
492	bias (mean of 4)								
493	AD 174638			18 48					
494	"			18:54:31	Time OK				250
495	"			19 00 07					25
496	"			19 10 47					150
497	"			19 26 38					900
498	bias (mean of 4)			19 39					

edited Time & changed CA/Filter to 5500

(all lights out - cube light had been on!)

edit - check previous header times. Dates OK

Acer Time found to be :00 21 30
at 18 50 00 EST

CCD Spectr. Temp. -100°C Dome Temp./Hum. $+7.4^{\circ}\text{C}$ 538H Transparency Conditions... cloudy, some holes...
 Focus... Tel. 2.644 or 45 best for direct focus. Dome T = $+7.3^{\circ}\text{C}$ focus 192
 Spectr. Temp. Dome Temp./Hum. Telescope focus 2645 for ideal CCD direct

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CCD Direct		5500A		6		SBIG position	MAX
						"		7		home position	
						5501				"	
						"					
						"				β Lyn home for	
						"				"	
						"				"	
						5500				} Rack in SBIG position,	
						5500					11.7K
						5501	(5501 called for Rack home)			Rack home.	6.3K
						5500	"	4ci		Rack home SBIG position.	5.7K
						5500		4ci		<u>SBIG position, SBIG guided</u>	
								1			

All edited and to M:1 Direct and F: To CD Rom

193

Tues / wed

Emulsion Batches:

Date 1996 Nov 5/6 Observers K.K./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.
CD00499	SKY FLAT			17 3345		0 57W	-324		245
500	n			17 3411					348
501/02	BILLS (4) (Average of 4 biases)			2 Bias sets					
503/05	Vys 194	19 1412	-01 47 00	18 14 29	3 exps				205
06	n	"	"	18 27 35					170
07	n	"	"	18 31 08					300
08	n	"	"	18 37 30					300
09	n	"	"	18 43 36					300
CC00510/14	ADS 12889	19 41 48	+33 22 00	19 00	5 exps				205
15/19	ADS 12913	19 42 36	+33 30 00	19 13	5 exps				15
20/24	n	"	"	19 18 17	5 exps				15
25	ADS 12913	"	"	19 25 01					205
26/30	HD 156408	19 34 09	+50 17 35	19 33 05	5 exps				35
CC00531	CAS A	23 21 12	+58 32 18	20 28 00					300

CCD Spectr. Temp. -100.5°C

Dome Temp./Hum. $+6.1^{\circ}\text{C}$ 82.7% H Transparency Conditions Clearing fast P14

Focus Telescope 2647

Then low cloud/fog from SE

Spectr. Temp.

Dome Temp./Hum. $+4.4^{\circ}\text{C}$ 86.8% H

0 0 512 512 2 2 CCD FWH

Comparison Filter Exp	Exp. Mtr.	Seeing	Pig. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
245	no filter 500				CCD DIRECT		5501	exist ✓	3		Home position	~9K
246	500						5501		3	max	38K (except for hot pixel saturation)	
									1			
23							5501		2		Target = $+15.5^{\circ}\text{C}$ Focus 2647	
24							5500		2		Using SBIG	
28							5500		2			8K
30							5500		2			8K
31							4					8K
32							5500		2		Target = $+4.9^{\circ}\text{C}$	8K
15							5500		3		Skymap	10K
15							5501		4		Home view	14.8K
29							5501		4		Tracked Home view	
33							5501	edit ✓	3		Home view	9.7K
34							5500		3		Skymap Home	
									4		Control on field	
											stop 11	

All edited and Renamed to CD-software backup

1951

SAT/SUN

Emulsion Batches:

Date 1996 Nov 9/10... Observers E-W/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
CC42341.1HS									
CC42342	Inboard / Outboard							ICR NO 4	3/7
CC42343	BIAS(4)			1746					
349 35	Comp							ICR NO 4	3s
345 36	BD+59 2213S	20 15 55	+59 29 00	18 10 03					1200
346 37	"	"	"	18 31 41					1200
347 38	"	"	"	18 52 18					1200
348 39	Comp			18 52 18				"	3s
349 40	BIAS(4)			19 14					
350 41	Comp							"	3s
351 42	HD 2070 76	21 41 24	-02 40 00	19 20 32					429
352 43	"			19 28 29					559
353 44	"			19 38 09					324
354 45	Comp							"	3s
355 46	Comp							"	3s
356 47	HD 18 45	0 17 48	+55 14 00	19 50 49					1200
357 48	"			20 12 17					946

CCD Spectr. Temp. -101.0°C

Dome Temp./Hum. $+52^{\circ}\text{E } 55\% \text{H}$

Transparency Conditions *thin cloud* 196

Focus 7.04

1st use of source currents to turn sources on, off in "CCD3L"

Spectr. Temp.

Dome Temp./Hum.

405 0 50 1024 41 CCD FRONT

Comp. Filter	Exp. Mtr.	Seeing	P.V. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
4/37	<i>no filter</i>				CASS CCD	600C 26.1°	306u	4620A	1/2	focus test		
									1			max AOD
4/35									3			12K
1/2	600	3.4"	~9	M5E					4	<i>2i React</i>	30/1 S/N SOURCE FEA on 1st 10mins	
2/2	670	"	"	"					4		4360 A em H α 7V	
2/2	672	"	"	"					5		good H Beta on too cap on too COAD not record at 23:00 27th	
3/3									6			10K
									1			
3/3									7			
4/9	10K	4"		M73					8	5 th for program		2.6K
5/9	10K								9			
3/2	10K								10			
8/8		4"	~8	M7E					11			12K
8/8	7680	4"	~8	M7E					12			12K
	9.9K								13		+4620A 70/1 S/N max	1K
6/2									14			

197 pg#2

SAT / SUN

Emulsion Batches:

Date 1996 Nov 9/10 Observers E-W/T_u

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.
CC 42 CC 42 FLATS									
CC 42 CC 42 549	HD 1845	0 17 48	+55 14 00	20 28 31		0 39 E			973
359 40	✓ Comp							FeA ND 44	3
360	51 BIAS(4)			20 46					
361	52/56 FLATS x 5							TUNG ND 44	73
366	57 Comp							FeA ND 44	3
367	58 HD 18191	2 50 11	+17 55 35	20 59 04					414
368	59 "			20 06 18					319
369	60 "			21 12 02					297
370	61 Comp							"	3
371	62 Comp							"	3
372	63 HD 14386	2 14 18	-03 25 54	21 37 40					104
373	64 "	"	"	21 45 40					536
374	65 "	"	"	21 56 48					597
375	66 ✓ Comp							"	35
42354 42354	42356 BIAS(4)			22 08					
CC 42									

CC
Spectr. Temp
Focus...
Spectr. Temp

Exp Mtr

9.5K

18K

17.6K

17.3K

17.3K

17.3K

17.3K

17.3K

17.3K

17.3K

17.3K

17.3K

17.3K

17.3K

17.3K

17.3K

17.3K

17.3K

17.3K

17.3K

17.3K

17.3K

17.3K

17.3K

17.3K

17.3K

17.3K

17.3K

17.3K

CCD Spectr. Temp. -100.5°C ...

Dome Temp./Hum. $+2.2^{\circ}\text{C}$ 55.5RH

Transparency Conditions Partly Cloudy 198

Focus 7.04

Spectr. Temp. -100.6°C ...

Dome Temp./Hum. $\text{C}\lambda$

Comp. Filter	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	10 F/142 9.5K	3-4"	28	M7E	CASS CD	600C/mm 26.1 tilt	306	4620A	15		lost from summary	
									16			
									1			
									17			143
									18			62.9K
	18K	3"		M6TJ					19			9K
	17.6K			"					20		central 7200/1 S/N	77K
	17.3K			"					21			
									22			11.8
									22			
	10K			M7E?					23		55/1 S/N	1K
	16K								24	(90/1 S/N)	Part of EM strongest part of spectrum	
	15.7K								25			
									26			
									1			

pg#3 199

SAT/SUN

Emulsion Batches:

Date 1996.12.9/10..... Observers E-W/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.
CC42377 ✓								RA ND#4	3s
CC42379	Comp								
378 ✓	HD 24019	5 0913	+53 2826	22 22 17		3 36E			1076
CC42379 ✓	"	"	"	22 4042		"			1115
CC42380 ✓	"	"	"	22:59:57		"			1106
81 ✓	Comp							"	3s
82 ✓	BIAS(4)			2321					
83 ✓	Comp							RA ND#4	3
84	HD 39816	5 4953	+20 0929	2326 42					1553
85	Comp								
86/87	inbound/out board							RA ND#4	3/7

CCJ
Spectr. Temp.
Focus...
Spectr. Temp.

Exp. Mtr

11.42

11K

13K

103K

100

CD
Spectr. Temp. ... -106.5°C

Dome Temp./Hum. +11.5°C 57.8H

Transparency Conditions . Part cloudy 200

Focus ... 7.07

Increasing cloud

Spectr. Temp.

Dome Temp./Hum. +11.5°C 60.8H

~ MAX

Exp. Mtr.	Seeing	Plg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no filter				CASSAD	600C 1/4" / 26.1° 1/4"	30um	4620H	27			
11K	2-3"	ug	M7c					28		H & em	1.5K
11.3K								29			
10.3K								30		cloud at end.	
								31			
								32			
								32			
1806								33		cloud source 10K on 1st/10mm	1K
								34			
								1/2			

Still on E Drive awaiting Renumbering *
Crude → Backup on M: Not on F yet.

All Renumbered & To M: & Fe Nov 11

201 pg#1

Sun / Mon

Emulsion Batches:

Date 1996 Nov 10/11

Observers L.A. / T.A.

Ed. LAM (4th year student)

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.
CCA23 ^{88/} 99	Inboard / Outboard							FeAr ND#3	3/11
90	Comp							"	4s
91	HD172167	18 3333	+38 4126	18 1928					1Q
92	"	"	"	18 2021					15s
93	Comp							"	4
94	BINS(4)			18 24					
95/901	FLATS x 7					3 W	+39°	TUNG ND#3	7s
402	Comp							FeAr ND#3	4s
403	DKCyg	(2000) 21 35 02	34 35 42	18 3424					900
404	"			18 4951					914
405	Comp							"	4s
406	BINS(4)			19 08					
407	Comp							"	4s
408	EL Aqr	23 4719	-08 0504	19 1352					1200s
409	"	✓	"	19 3453					1252s

CCD

Spectr. Temp

Focus...

Spectr. Temp

Exp. Mtr

S

45K

7K

350

340

380

408

CCD Spectr. Temp. ... -100.5 °C Dome Temp./Hum. ... +22.2 °C 54.08 H Transparency Conditions ... Part Cloudy ... 20.2

Focus ... ~~6.95~~ 6.91 ...

Spectr. Temp. ... Dome Temp./Hum. ... 390 0 50 1024 4 1 CCD FWHM

Exp. Mtr.	Seeing	P.V. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
3/11				CHSS CCD	1800/10 47.1°	306u	5184	1/2			
4								3			
10	~45K	0	AOV					4	Vegq		5K
15	~7K							5			7K
4								6			3.7K
								1			
3/7								7			13.8K
4								8			
90	350	2"	10.3	ABV				9	DRL	Tel focus, 266 idal Apert +.7° Source on 1st 4005055	
4	340	2"						10		45/1 S/N	
4								11			26K
								1			
4								12			
30	380		10.35	F				13			
25	408		"	"				14			

103 py#2 sun/mon

Emulsion Batches:

Date 1996 Nov 10/11 Observers L4/T4

Plate No.	Object	R.A. 1900 (2000)	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CC42410	comp							F4 RD#3	4s
" 11	EL Agr	034719	-080504	20 00 38					1208s
" 12	bias			20 21					
" 13	EL Agr			20 23 14					1200s
" 14	comp							"	4s
" 15	EL Agr			20 46					201s
" 16	"			21 06 47					1096s
" 17	comp							"	4s
" 18	comp.							"	4
" 19	Gz And	02 12 12	+44 40 00	21 36 27					924s
" 20	"			21 51 55					755s
" 21	comp.								4s
" 22	bias			22 06 46					
CG80732/35	HDC 314x4	CG80732/35		22 19					4x 67m
CG80736/39	MARKS X4								67m

(edit/correc. Object and COORDS)

Spectr. Temp
Focus...
Spectr. Temp

Exp. Mtr. S

H01

#00

404

414

385

217

171

Spectr. Temp. Dome Temp./Hum. $700.5^{\circ}C$ $56.8\%H$ Transparency Conditions ... increasing ... ~~found~~ ... ¹⁰⁴

Focus 6.91

Spectr. Temp. Dome Temp./Hum.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800ln 47.1 ² Fil	306u	5/84	15cc			
401	10.35		F					16cc			
402								1			
404	10.35		F					17c			
								18c.			
414	"	"	"					19			
385								20			
								21			
								22			36K
217	10.8	G5V						23			
171	"	"	"					24			
								25			
								↑			
seeing Tests										85° ALT Dome west	
										no wind, mostly clear	
										pen	

965 pg # 3

Sun/mon

Emulsion Batches:

Date ... 1996 Nov 10/11 ... Observers *ky./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.
CG807A0/41	HD6314	00 58 59	+39 27 18			20 20W		2x 133ms	
42/43	DARK							2x 133ms	
CC42423	Comp							FeAr NO 43	4s
24	HD 22484	3 31 46	00 05 04	22 35 49					590
25	Comp							"	4s
26	Comp							"	4s
27	HD 18884	2 57 03	+03 41 51	22 50 30					124
28	Comp			22 55 22				"	4s
29	Bias (4)			22 59					
30	Comp		(2000)					"	4s
31	GZ And	02 12 12	47 40	00 00 18					1000s
32	"	"	"	00 18 01					900s
33	Comp							FeAr	4s
34	bias (4)			00 34					
35	GZ And	"	"	00 36 13					900s
36	Comp								4s

cd
Spectr. Tem
Focus... 6
Spectr. Tem

Exp. Mtr

1840

18K

184

08

03

CD Spectr. Temp. ... -100.5°C ... Dome Temp./Hum. ... -00.1°C 69.4% H Transparency Conditions ... Mostly cloudy 206

Focus ... 6.91 ... 50

Spectr. Temp. ... -88°C C. 00 Dome Temp./Hum.

Exp. Mtr.	Seeing	Plg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	1-2"	6.57	F0 Vn	Seeing Test	Above 306u	slit				All same Ins setting, 67ms and 113ms	
										No Ins adjustments needed.	
							5184A	25			
1840	3"	4.08	F9 II-V					26	std vel		1.2K
								27			
		2.53	M15 III					28			
			M15 IIIa					29	std vel		6K
10K	3"	2.53	M15 IIIa					30			
								31			
		10.8	G5V					3ci			
184		10.8	G5V					4ci			
198		"	"					5ci			
								6ci			
								1			
213								7ci			
								8ci		* Power warming up	

207 pg # 4

5 em / mov

Emulsion Batches:

Date .. 1946 Nov 10 / 11 ... Observers .. Lu / T. M.

Plate No.	Object	R.A. 1900-2000	Declination 1900-	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CC 42437	Comp							FeAr ND#3	4s
38	GZ And	02 12 12	+44 40 00	01 13 04					JK
39	GZ And Comp			01 30 44					900s
40	Comp							FeAr ND#3	4s
41	Comp							"	4s
42	bias (4)								
43	AH Aur	06 26 05	+27 59 54	01 55 28					900s
44	"	"	"	02 11 09					900s
45	Comp							FeAr ND#3	4s
46	AH Aur	"	"	02 28 24					900s
47	"	"	"	02 43 55					900s
48	Comp							FeAr ND#3	4s
49	bias (4)			03 01					
50	AH Aur	"	"	03 03 27					900s
51	"	"	"	03 19 16					935

CCD Spectr. Temp. @ 01:10 -14.0°C Dome Temp./Hum. 20.4°C 67.0%RH Transparency Conditions ... Pu AT. CLEAR using 208

Focus 6.91

Top up done by 01:10

Spectr. Temp. Dome Temp./Hum. ... Still 390 050 1024 4 1 CCD/FMT

Exp. Mtr.	Seeing	Pub Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no filter				CHSS CCD	1800 N/m 4710	300μ	5184Å	11			
235	1.2"	~108	G5V					12		near MAX	
199								13			
								14			
								15			
								181			
301	2"	~105						16			
394								17ci			
								18ci			
468								19ci			
523								20ci			
								21ci			
								1			
481	2-4"							22ci			
530								23ci			

709 p. # 5

Date 1996 Nov 10/11 Observers Lu/Tn

Emulsion Batches:

.....

Plate No.	Object	R.A. 1900 Zon	Declination 1900 Zon	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CC 42452	Comp							FeAr M#3	4s
" 53	AH Aug	06 26 05	+27 59 54	03 36 39					900s
" 54	"	"	"	03 52 55					900s
" 55	Comp							FeAr M#3	4s
" 56	AH Aug			04 09 34					900s
" 57	Comp							FeAr M#3	4s
" 58	bas(4)			4 27					
" 59	Comp							"	4s
" 60	FG Hya	08 27 04	+03 30 55	04 35 00					900s
" 61	"	"	"	04 50 57					900s
" 62	Comp							FeAr M#3	4s
" 63	FG Hya			05 08 19					900
" 64	"			05 23 58					900
" 65	Comp								
" 66	bas(4)			5 41					

100
Spectr. Tem
Focus... 6
Spectr. Tem

Exp Mir

+17

+21

328

+48

+37

417

42

CCD
Spectr. Temp. -100.5°C

Dome Temp./Hum. -1.3°C 71.5%RH

Transparency Conditions *mostly clear* 25

Focus 6.91

Spectr. Temp.

Dome Temp./Hum.

2 MAX 104

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
								24c			
417								25c		50/1 S/N	
421								26c			
								27c			
328								28c			
								29c			
								1			
								3			3.2K
448	3.5"	10.4	G					4		> 50/1 S/N	
437	"	"	"					5			
								6			
417	"	"	"					7			
410								8			
								9			
								1			

#6211

Date 1996 Nov 10/11

Observers Lu/Tn

Emulsion Batches:

.....
.....
.....

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.
Cc42467	FG Hya	08 27 04	03 30 55	5 42 47					900
68	"			5 58 21					900
69	comp								
70	BIHS (A)								
71/72	Inb / out board					01 W	+3°	R.A. NO 3	3/11

Spectr. Temp.

Focus

Spectr. Temp.

Exp. Nr. Se

436

490

Spectr. Temp. -148°C Dome Temp./Hum. $-1.5^{\circ}\text{C}/71.5\%$

Transparency Conditions 212

Focus 6.91

Spectr. Temp.

Dome Temp./Hum. -47°C 390 0 50 1024 4 1 CCD_{fast}

Component Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
900	436		10.4	G					10cc	DRL	Header ccd _{fast} edited	
900	520				LOST with GPIB & reset.				11cc		GPIB error on readout, Restarted	
									1			
									1			
3 3/4									3/4			

257 pg #1 Tues / wed

Emulsion Batches:

Date ... 1996 Nov 12/13. Observers Tn. (Test?)

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
CC2473/74	Inboard / out					0 0	+30°	FeAr ND#3	3/11
75	Comp TiNe			19 58 14		west side 0 hrs	+90°	TiNe ND#4	15s
76	TUNG (FIAT)			20 02 17		"	"	TUNG ND#4	15s
77	Comp FeNe			20 03 39		"	" ND#4	FeNe ND#4	2s
78	Comp FeAr			20 07 36		"	"	FeAr ND#4	15
79	BINS (4)								
80	Comp FeAr					4 East	+34°	FeAr ND#4	15s
81	Comp FeNe					"	"	FeNe ND#4	2s
82	TUNG (FIAT)					"	"	TUNG ND#4	15s
83	Comp TiNe					"	"	TiNe ND#4	15
84	n					4 West	+34°	n	15
85	TUNG (FIAT) - Hand edit! ✓							TUNG ND#4	15s
86	FeNe							FeNe ND#4	2
87	FeAr			20 39				FeAr ND#4	15s
88	FeAr		edit com ✓			0 0	0 0	n	15s

CCD Spectr. Temp. -100.5°C Dome Temp./Hum. -10°C 369%
 Transparency Conditions *cloudy mostly* 214

Focus 6.97

Spectr. Temp. Dome Temp./Hum. ~~39~~

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CAS CCD	1800 λ /mm 47.10	306 μ	5182 \AA	1/2	focus test	390 0.50 1024 41 CCD ENT	
								5	source illumination tests	390 0 100 1024 21	8.6K
								3			8.1K
								5			7.9K
								4			3.5K
								6			
								8			5.0K
								9			7.4
								10			10.3
								11			6.6K
								12			8.5
								13			10.1
								13			7.9
								14			3.4
								15			3.9K

115 pg#2

Treasler

Emulsion Batches:

Date .1946 Nov 12/13. Observers ...T.N.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CC42489	FeNe			01 49		00	0°	KD4	25
90	FLAT			00 48		"	"	TUNG ND4	15
91	Ti Ne					"	"	Ti Ne ND4	15
92	VTi Ne					"	430	"	15
93	FeAr					"	"	FeAr ND4	15
94	FLAT					"	"	TUNG ND4	15
95	FeNe					"	"	FeNe ND4	25
96	"					"	"	"	25
97	"							"	25
98	"							"	25
99	"			21 24				"	25

*Slit changes

CCD
Spectr. Temp. - 100.6°C

Dome Temp./Hum.

Transparency Conditions ... ~~Part Clear~~ 215

Focus ... 69.7

Spectr. Temp.

Dome Temp./Hum. -1.4°C 67%

MAX
ADM

Comparison
Filter Exp.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
23				CASS cen	1800u	306u	5182	15			7.5K
15							<hr/>	10			10.2
15								11			7.1
15								11			9.3K
15								7			3.4
15								10			10.2
23								15			8.0
23						*250u		16			8.5
25						470u		16		930A slit is a broken piece of glass	9.1
25						200u		16			6.8K
25						150u		25			SHORT SLIT

RT Tues/Wed

Emulsion Batches:

Date 1996 Nov. 19/20. Observers ... L.Y. / T.N.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CC42 ^{500f} 10/1	BIAS								
^{501/02}	Inboard/04 T Board							FeAr NO3	3/11
03	Comp		2000					"	45
04	GZ And	021212	+44 40 00	020309					660
05	Comp							"	45
06	Comp							"	45
07	HD22484	033146	+00 05 04	022006					103
08	Comp							"	45
09	Comp							"	45
10	HD18884	25703	+03 41 51	022820					87
11	Comp							"	45
12	BIAS (4)			2 35					
13/17	FLATS x 5							TUNE NO3	75
18	bias (4)								

Exp. Mtr S
Spectr. Temp
Focus...6
Spectr. Temp

150 3

6K

8K

CCD
Spectr. Temp. ... -100.5 °C

Dome Temp./Hum. ... -1.4 °C ... 76.5% RH

Transparency Conditions ... mostly clear 218

Focus ... 6.97

90 cc gain

Thin cloud again

Spectr. Temp.

Dome Temp./Hum. ... -1.0 °C ...

390 0 50 1024 4 1 CCD FWHM

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CAS CCD	1800 lines 47.1°	306	5182 Å	1			ADU MAX
								3/4			
								5			3K
150	3-5"	10.8						6		25/1 S/H	
								7			
								8			
6K		4.28	F8V					9	std vel		AK
								10			
								11			
8K		2.53	M1.5 III					12	std vel		
								13			
								1		$\sigma = 5.525$	
								14			13.8
								1			

219 Thurs / Fri

Emulsion Batches:

Date 1996 Nov. 21 / 22 Observers M.K. / T.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.
CC425 ^{19/20}	In board / out board					0	+35°	Felt NO#3	15/2 ≡

CO
Spectr. Temp.
Focus.
Spectr. Temp.

Exp. Mtr
Note
No

22/19/81

Tues/Wed

Emulsion Batches:

Date ...19.96. Nov. 26/27 Observers ...L.G./T.G.....

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.
CC425 ^{21/22}	Inboard/OUTBOARD Hermann Test					00	+25°	FeAr Filter 3	5/3
23	BT#5(4)			20 20					
24	Comp	2000						FeAr ND 3	45
25	EL Agr	234719	+080504	20 3604					905
26	"	"	"	20 5130		01 28W			909
27	Comp							"	45
28	EL Agr	"	"	21 0903					901
29	Comp							"	45
30	Comp							"	45
31	TT Cet	2000 014657	-094506	21 3126		0008W			900
32	"			21 4648					912
33	Comp							"	45
34	TT Cet	"	"	22 0357					928
35	Comp							"	45
36	BT#5(4)			22 21					

CCD Spectr. Temp. ... -100.5 °C ...

Dome Temp./Hum. ... -1.7°C 6368H

Transparency Conditions ... Clearing partially ... 222

Focus ... 6.95 ...

CCD Spectr. Temp. ... -100.4 °C ...

Dome Temp./Hum. ... -5.7°C 6478H

390 0 50 1024 4 1 CCD/FWTT

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
5/3	no filler			Tgrating →	1800 l/mm Tilt=46.9	306.	5184Å	1/2	focus test		
75	Lots of Sky counts	5.8						1			
905	408	5.8	10.35	F				3			5.7K
909	386							4	DRL	> 30/1 S/N	
43								5			
901	383	4.6						6			2.9K
45								7			
45								8			2.9K
45								9			4K
900	328							10		30/1 S/N	
907	280							11			
4								12			
928	221							13			
4								14			3.2K
								1			

27942 Tues/Wed

Emulsion Batches:

Date 1996 Nov. 26/27... Observers Lu/Ta.....

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.
CC42537	Comp							FEAR ND43	45
38	CU Eri	2000 02 46 58	-13 20 29	22 27 42					68
39	Comp							"	45
40	Comp							"	45
41	UX Eri	2000 03 09 52	-06 53 24	22 53 35					900
42	"			23 09 21					484
43	Comp							"	45
44	Comp							"	45
45	HD 22484	1900 3 31 46	+00 05 04	23 27 00					
46	Comp							"	4
47	Comp							"	4
48	HD 18684	1900 2 57 03	+34 15 1	23 35 04					73
49	Comp							"	4
50	BIAS(4)			23 38					
51/55	FLATSx 5			23 47		00	0°	TUNG ND3	75

Spectr. Temp.

Focus... 6

Spectr. Temp.

Exp. Mir.

Spectr. Temp.

Dome Temp./Hum.

Transparency Conditions ...

OK - increasing cloud

Focus 6:25

Tien Snow

ADU

Spectr. Temp.

Dome Temp./Hum. -6.1°C 66.2% RH

MAX

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no filter				CASS CCD	1800ln 46.9°	306 μ	5184A	15			
600	6"							16			
								17			
								18			
337		10.6	F8					19			
180								20		clouds passed by	
								21			
								22			
	5"	4.28	F9IV-V					23	std vel	in cloud	
								24			34K
								25			
6 K		2.53	MK5III ₆					26	std vel		3K
								27			
								1			
								28			14K

235
pg #3 Tues/Wed

Date 1996. NOV. 26/27... Observers Lu./Tn.....

Emulsion Batches:

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.....

Plate No.	Object	R. A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CC42556	Comp							FeAr NO 3	85*
57	FG Hyg	08 27 04	²⁰⁰⁰ +3 30 55	01 16 14					900
58	"	"	"	01 31 48					900
59	Comp							"	85
60	FG Hyg	"	"	01 50 21					924
61	"	"	"	02 06 14					902
62	comp							"	85
63	bias (4)			2 23					
64	Comp							"	85
65	UZ Leo	10 40 33	+13 34 00	03 02 38					1200
66	"	"	"	03 22 55					1200
67	Comp								
68	bias (4)								
69/70	Inberran / out Berran		Hartmann			2 40 E	+13 33	FeAr NO 3	10/6

100
Spectr. Temp.

Focus... 6

Spectr. Temp.

Exp. Mtr.

430

408

397

370

678

730

Spectr. Temp. ^{CCD} -100.5°C

Dome Temp./Hum. -6.5°C 67% H

Transparency Conditions ... Hazy ... cloudy ... 225

Focus ... 6.95

Spectr. Temp.

Dome Temp./Hum. -7.7°C
CD

MAX
ADU

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
85*				CASS CCD	1800/n 46.9°	306u	5184	3ci		* Signal strength much lower now for same setup as earlier.	
900	430	5-7"	10.4	G				4		A2/1 S/N	
900	408							5			
85								6			
924	397							7			
922	370							8			
85								9			
								1			
85								9			
1200	675	5-6"	9.7	F2				10	65/1 S/N	Suro of star now. checked encoder error for Regular and applied same to this star.	1.75
1200	730							10			
								11			
								1			
								29/30	focus	still OK.	

#1 ²²⁷ Wed 1 Thurs.

Emulsion Batches:

Date . 1996. Nov. 27/28 Observers . L. U. / T. W.

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
CCA2571/72	In board/out board					0	+30°	Retn ND#3	10/2
73	BIAS(4)								
74	Comp							Retn ND#4	4.5
75	HD182572	19 2012	+11 43 49	17 42 31					67
76	"	"	"	17 44 43					
77	Comp							Retn ND#4	4.5
78	Comp							"	4.5
79	V 361 Lyr	19 01 06	+46 54 00	18 58 02					1500
80	"	"	"	18 23 57					1500
81	Comp							"	4.5
82	BIAS(4)			18 51					
83	V 361 Vyr	"	"	18 52 15					1500
84	"			19 17 36					1518
85	Comp								
86	BIAS(4)			19 45				TUNG ND#5	35
87/91	PLATS x 5								

edit? OK, but tcc03L glitch (Test it)
 (look at @ pocket in handover 4ci says 1950 often
 V 361 Lyr important)

CCD
Spectr. Temp.
Focus... 7.4
Spectr. Temp.

Exp. Mtr. Sec.
no filter
→ needed

2.8K

111
115

121
160

CCO Spectr. Temp. -100.5°C Dome Temp./Hum. -3.3°C 566% H Transparency Conditions Fine 22.8

Focus 7.12

Then increasing cloud

Spectr. Temp. Dome Temp./Hum. CA

185 0 5 0 1024 4 1 CCDFWT

Exp. Mtr.	Seeing	Pl. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no-to-ker ← needed to match in/out exps				CASS CCO	1831 $\frac{6}{1000}$ FH=3345	306a	6765A $\pm 10A$	1/2 1	focus	Comment: 400A scans 386° = 27,000 steps for 60 projects/260 slit recommended	
2.8K		5,16	G7IV					4 4	std vel "		11K
								5 6		3 columns → 50ADU above sky	6.8K
111	1"	14	K?					7	DRL	Good Field identification OK	
115								8 9		bd -0000 15 AS 900 01 36 AIR MASS 1.3	6.6K
								1 10			
121	1-2"							11		25/1 S/N	
160								12 13		25/1 S/N cloud	
								1 13			10K max

Spectr. Temp. Dome Temp./Hum. -5.2°C $63.5\% \text{H}$ Transparency Conditions ... *Some cloud* ... 230

Focus ... 6.98

Spectr. Temp. -100.4°C Dome Temp./Hum. -6.1°C $68.3\% \text{H}$ 390 0 50 1072 4 1 CCD UNIT

Exp. Mtr.	Seeing	Pty Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
69 No filter	(in/out strength)			matched	1800m 46.9°	306u	5184A	14/15	focus	26055 steps, 26500 steps	
45								16			3.6K
97	3'	10.0	A					17	DRL		
8								18			2K
45								19			2.1K
90		10.3	A6V					20			
90								21			
45								22			2K
								1			
90								23		50/1 S/N	
90								24			
45								25			1.9
90	2.4'							26		45/1 S/N	
90								27			
45								28			2K
								1			

2M pg# 3

Wed / Thurs

Emulsion Batches:

Date 1996 Nov 27/28 Observers Lu / 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.
CC2509	Comp							Ketr NO 4	45
10	GZ And	02 12 12	(2000) 44 40 00	22 30 42					900
11	"			22 46 27					900
12	comp							"	45
13	GZ And	"	"	23 04 23					900
14	"			23 20 09					900
15	Comp							"	45
16	B/A 5 (4)			23 37					
17	GZ And	"	"	23 38 11					780
18	Comp			23 52 03				"	4
19	Comp							"	4
20	HD 22484	3 31 46	+00 05 04	00 01 37					168
21	comp							"	45
22	Comp							"	45
23	HD 15884	2 57 03	+03 41 51	00 08 23					

Spectr. Temp. Dome Temp./Hum. $-6^{\circ} / 68.3$ Transparency Conditions ... thin, cloudy areas ... 232

Focus 698

Spectr. Temp. Dome Temp./Hum.

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no filter				CASSED	1800h 46.9°	306a	5187A				21
192		10.8	G5				*	4c		clouds in the	
238	2-3"							5		field	
								6			2K
275	2-3"							7			
298								8			
								9			2K
								1			
244	2-4"							10			
								11			2K
								12			
2.1K		4.76	F9 IV-V					13	std vel	cloudy	
								14			
								15			
7K		2.53	M 115 III					16	std vel		

V57 #4

Wed / Thurs

Emulsion Batches:

Date 1946 Nov 27/28 Observers L. / T.

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.
CC42624	comp							FeAr ND4	4s
25/29	FLATS x 5							TUNG ND4	7s
30/31	Inboard / OUTBOARD			004147				FeAr ND3	4/8
32	comp							FeAr ND3	6s
33	HD47839	6 3528	+9 59 18	004753					601
34	comp							"	6s
35	Comp (FeNe)							FeNe ND3	4s
36	BIAS (A) HD 62509	7 3912	+28	011546					52
37	Comp							FeAr ND3	6
38	HD 62509	7 3912	+28 16 04	011546					52
39	comp							Fe4 ND3	8
40/44	FLATS x 5							TUNG ND1	25s
45	Comp			0141				FeAr ND3	4s
46	HD 62509			014258					214
47	Comp			0148				"	4s

Spectr. Temp

Focus

Spectr. Temp

Exp. Mtr

6.39
5.1K
6.5K

#

12K

6.30
5.1K
3.9K

Spectr. Temp. Dome Temp./Hum. $-60^{\circ}C$ 67.8% Transparency Conditions *thin cloud* 234

Focus *7.03 Far*

Spectr. Temp. Dome Temp./Hum. *CX*

Then solid with snow

Exp. Mtr.	Seeing	P _v Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASSCO	1800 46.9°	306	5184	17			
							5184	18			9.2K
				T Grating	1800h 40.00	306	4040A	3/4	Focus test	390 050 1074 41 CCDENT	
BG39 Filter								5			6.6K
6.5K								6	Bln		2.4K
								7			5.7K
								8		one line & star	13K
12K								1			
								9			
12K			1.14	KO III b				10	std vel		3K
								11			
								12			3.8K
BG39 Filter				T grating	1800h 40.4°		4100	14			6.6
3.9K			1.14	KO III b				15	SLIP		9.00
								18			

235

p95

wed / Thurs

Emulsion Batches:

Date ... 1946 Nov 27/28 Observers ... LW / Tz

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CC426 ^{48/52}	FLATS x 5					0 0	-20°	T4116 IND N	259
not written	Focus in board / ant board			18 11 Nov	28/29	0 0	+35	Fetr NO 3	5/6
	no observing after all. (Just to test with Stanton Chem)								

Spectr. Temp

Focus ...

Spectr. Temp

Exp. Mtr.

F-6-95

Spectr. Temp. Dome Temp./Hum. Transparency Conditions 235.

Focus

Spectr. Temp. Dome Temp./Hum.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
6 253				CASS CCD	1800h 40.4	306	4100	18			45K
5/6	F=6.95	T = -2.1°C		T GRATING	^{1800h} 55.95°	306a	6570A	13/A		Focus test.	
				on wheel	actual <u>56.2°</u>		± 2Å				

237

FRI / SAT

Emulsion Batches:

Date 1996 Nov 28/29 Observers Mki./T.A. & Stefanie & Ben

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.
CC426 ^{53/54}	in board / out board by focus, bat							FeAr NO#3	
55	BIAS(4)			2017					
56	Comp							FeAr NO#3	4s
57	BD+16 516	03 4443	+16 5706	20 2326					791
58	Comp							"	4s
59	FLAT							TUNG ND#4	3s
60	Comp							FeAr NO#4	6s
61	HD12929	2 0132	+22 59 23	20 5342		0 51E			195
62	Comp							"	6s
63	BIAS(4)			2100					
64	Comp							"	6s
65	BD+16 516	03 4443	+16 5706	22 1408					793
66	"	"	"	22 2802					705
67	Comp	} using CFB.BAT						"	6s
68	FLAT							TUNG NO4	3s
69	BIAS(4)			2243					

CCD
Spectr. Temp.

Focus... 6s

Spectr. Temp.

Exp. Mtr.

10.5/100

4.00

2.8K

700

360

CCD Spectr. Temp. -100.5°C

Dome Temp./Hum. +00.9°C 68.3% H

Transparency Conditions clearing. PARTIALLY..... ²²⁸

Focus ... 6:90

Spectr. Temp.

Dome Temp./Hum.

CD

390 0 50 1024 4 1 CCDFWT

Exp. Mtr.	Seeing	Pl [✓] Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no filter					1800 lines/mm	306	6570A	3/4	focus test		
					Tilting → 55.95			1			
								6			
400	42"	9.4 -9.7	KOV					7	V47 Tau		
								7			
								8			15.3K
								9			3.6K
2.8K	42"	2.0	K ⁻	Lab C ₄ -1				10	stalled	cloudy	4.3K
								11			
								1			
								12			
500	42"							13	V471 Tau	70/1 5/N	
360								14			
								5			5.5K
								6			15.4K
								1	- from 2	To CC 42672 more FLATS	

#1 229

Mon / Tues

Date 1996 Dec 2/3 Observers LU J.T.

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CC426 73	BIAS (A)								
74/75	In board / out board			17:37		0 20W	+45°	2Ar ND4	4/9
76	Comp			17:43				"	45
77	HD 182572	19 20 12	+11 43 49	17 45 24					65 2K
78	"	"	"	17 46 53					84 2.9K
79	Comp			17 49 44				"	45
80	Comp			17 56				"	45
81	V361 Lyr	(1950) 19 01 06	46 54 00	17 59 24					1500S 130
82	"	"	"	18 24 44					1899 135
83	Comp							"	4
84	V361 Lyr	"	"	18 51 43					1501 141
85	Comp							"	4
86	Comp							"	4
87	HD 187235	1900 19 43 55	38 09 36	19 20 52					109 23K
88	Comp							"	4

CCD
Spectr. Temp.
Focus... 7
Spectr. Temp.

Exp. Mir

20 filter

2K

2.9K

130

135

141

23K

CCD Spectr. Temp. -100.5°C

Dome Temp./Hum. 0.0°C 69.1% H

Transparency Conditions . Mostly clear..... BUO

Focus... 7.05

90cc gain

Spectr. Temp.

Dome Temp./Hum.

185 0 50 1024 41 CCD Faint

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emission	P.H.	Program	Remarks	Quality
No filter				CASS CCD	813/14mm T=33.98	306 μ	6265A	1		18583 steps	
9/9								3/4	Focus		
43								5	(In Reduction, Lu found this comp (In) to be shifted too much)		5.5K
65	2K							8	2-12 1-01'40" Deltas		
84	2.9K							6			
45								7			
45								8			
150S	130	3" #14	?					9		$\Delta\alpha$ - 00 0017 50ADU 2.8 800' of 2K Above Sky	
141	135							10			
4								11			5.4K
151	141							12		Hazy - Bright! Aircraft? Light for 2.2x2.8	
4								13			
4								13			
163	2.3K							14	Telluric Std		4K
4								15			

20/88 #2

Date 1996 Dec 2/3 Observers Lu / Tu

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CC42689	BIAS(4)			19 26					
40/92	FLATS x3							JUNG ND5	0065
CC42693/94	Inboard / OUT BOARD							REFR ND3	675
95	Comp		2000					REFR ND4	45
96	EL Agr	23 47 19	-08 05 04	19 45 13					700
97	comp			20 02 01				REFR ND4	45
98	bias(4)			20 08					
699/703	flat x5							JUNG ND4	55
04	comp							REFR ND4	45
05	EL Agr	✓	✓	20 23 04					900
06	"	✓	"	20 38 53					900
07	comp								
08	EL Agr	"	"	20 56 52					900
09	bias(4)			21 12					
10	EL Agr			21 13 17					900

Spectr. Tem

Focus...65

Spectr. Tem

Exp Mtr

12.5/10

100 T-scale

4.7

113

138

143

329

Spectr. Temp. Dome Temp./Hum.

Transparency Conditions ... *cloud coming 242*Focus ... *6.93 for 1800m setup*

Spectr. Temp. Dome Temp./Hum.

346 050 1024 4 1 CCD FWH

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
<i>120 f. 1/4</i>					<i>831</i>	<i>306m</i>					
<i>100 T scale</i>											<i>10K</i>
				<i>CBS CCD</i>	<i>1800m 46.90</i>	<i>306m</i>		<i>3/4</i>			
								<i>5</i>			<i>24K</i>
<i>347</i>	<i>7.5"</i>	<i>10.35</i>	<i>F</i>					<i>6</i>	<i>DRL</i>	<i>through clouds</i>	
								<i>7c:</i>			
								<i>1</i>			
								<i>8</i>			<i>6.6K</i>
								<i>9</i>			<i>2K</i>
<i>343</i>								<i>10</i>			
<i>338</i>								<i>11</i>			
								<i>12</i>			
<i>343</i>								<i>13</i>			
								<i>1</i>			
<i>329</i>								<i>14</i>			

MM 1903

Emulsion Batches:

Date 1996 Dec 2/3..... Observers L4./T4.....

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp
CC42711	Comp							FeAr NO4	43
12	EL Agr	234719	-080504	213039					881
13	Comp							"	4
14	Comp							"	4
15	HD22484	3 3146	+00 0504	21 5101					305
16	Comp							"	4
17	Comp							"	4
18	HD18884	2 5703	+34151	220213					64
19	Comp							"	43
20	B1115 (4)								

Spectr. Temp
 Focus...
 Spectr. Temp

Exp Mtr

340

1.5K

574

Spectr. Temp. Dome Temp./Hum. $-1.4^{\circ}C$ 68-28H Transparency Conditions *part cloudy* 2.44

Focus *6.93*

Spectr. Temp. Dome Temp./Hum. 390 0 50 1024 41

Exp. Mtr.	Seeing	P ^h Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				<i>C4500D</i>	<i>1800ln 46.90</i>	<i>306</i>	<i>5184A</i>	<i>15</i>			
<i>340</i>	<i>4.6"</i>							<i>16</i>		<i>through clouds</i>	
								<i>17</i>			<i>2K</i>
								<i>18</i>			
<i>1.5K</i>	<i>4.6"</i>	<i>4.78</i>	<i>F9 III-V</i>					<i>19</i>	<i>st. blue</i>	<i>thick cloud.</i>	<i>1K</i>
								<i>20</i>			<i>2.1K</i>
								<i>21</i>			
<i>5.7K</i>		<i>2.53</i>	<i>M15 Ia</i>					<i>22</i>			<i>3.5K</i>
								<i>1</i>			

745 Sun / mon

Emulsion Batches:

Date 1996 Dec 8/9 Observers L.Y. / T.N. for Blue KK

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp
ce134 ¹⁹ / ₂₀	Inboard low T BOARD							ThAr	4/3
21	Comp							ThAr	45
22	HD 34029	5 0918	+45 5347	00 4946		0 37W			475
23	Comp							ThAr	45
24	BIA 5(4)			01 02					
25	Comp							ThAr	45
26	HD 47839	6 3528	09 5918	01 1000		0 10E			150
27	Comp								4
28	HD 47839	"	"	01 3638					362
29	Comp							"	4
30	BIA 5(4)			01 48					
31	HD 47839	"	"	01 5138					154
32	Comp							"	4
33/37	Comp FLATS x 5							TUNG	25
38	HD 47105	6 3156	+16 2905	02 2670					

CCD Spectr. Temp. ... -100.3°C Dome Temp./Hum. ... -1.0°C 79.5% Transparency Conditions ... PARTIAL CLEARING ²⁴⁶

Focus ... ~~228~~ 222

CCD Spectr. Temp. ... -100.5°C Dome Temp./Hum. ... -1.6°C 77.8%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Blue filter				Ede/b CCD 20.00	0600ln X.4625	60u = 277 400.2 225		1/2		0 0 128 1024 8 1	
							4483Å central ORDER.	3		0 0 256 1024 4 1	5K
4000	6"	B 0.98		G0III + G8III				4	KK pgm	encoders normalized +00.	9K
								3			
								1			
								3			
158	to 1320V	B 4.40		07				4	(5 pmon) 15 pmon Blk pgm	Exposure meter set to 1320V and Rebalanced	MAX 830
	~180							3		seeing poor, But faint NORTHW companion seen and kept off slit.	
32	24							5		cloud	
								3			6.5K
								1		$\sigma = 1.736$	
153	145	B 3.4		07				5	5 pmon (Blk)		MAX 500
								3			
								2		$\sigma = 1.677$	5.7K
		B 1.93		A0III				6	KK pgm	cloud & Gem	

CMX pg #1 only Mon / Tues

Date 1996 Dec 9/10 Observers [Bln] / Tm

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
ce134 ^{31/40}	Inboard / outboard					2 30W	+35°	T/Ar	4/3
41	Comp							"	45
42	HD 217675	22 5719	41 4719	17 42 38		0 09 E			649
43	Comp							"	45
44	BIAS (4)			17 58					
45/49	FLATS x 5			19 44	20 12			TUNG	25
50	Comp			20 17				T/Ar	45
51	HD 34029	5 0918	+45 5347	20 18 29					49
52	"	"	"	20 21 31					96
53	"	"	"	20 23 44					87
54	Comp							"	45
55	BIAS (4)			20 28					
56	Comp							T/Ar	45
57	HD 478319	6 3528	+9 5918	20 35 39		4 50 E			98
58	Comp							"	45

(C) Spectr. Tem

Focus...

Spectr. Tem

Exp Mir

132V
Sia. Filter

500

3K 3

83K

38K

175 8

CCD Spectr. Temp. -100.5°C Dome Temp./Hum. 0.0°C 75% H Transparency Conditions Part Clear 248.

Focus 219

Spectr. Temp. Dome Temp./Hum. -00.7°C 71.5% H

Tel focus 2178 ^{for} Ideo image focus

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ X Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1320V Blue filter				Echelle 20.0°	0600/1000 x.4610	60u = .277 400u height		1/2		0 0 1281024 8 1	MAX ADU
						note 1st, Blue ORDER centered @ 4307		3		0 0 2561024 4 1	5.4K
500	4.6"	3.63	B6p			Blue end 4290		4		encoder normalization	390
						4340 center of 2nd ORDER FROM TOP		3			
								1		$\sigma = 1.676$	
						60u = .277		2		(Reopens 1 Dome)	57K
						500u height for flats = .195 setting		3		(should be 215 for 500u) @ 2013	49K
4.3K	3-4	0.89	G			400u = .225		4	KK pgm		217K
8.3K								4			33K
8.8K								4			37K
								3			
								1		$\sigma = 1.091$	
275	8"	4.4	B.07					3			
								5	Blu pgm	some cloud	3.46 H.K. mag
								3			300

249
pjt1

Tues/Wed

Date .. 1996. Dec. 10/11. Observers .. K.K. / Tn

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
ce134 ^{59/60}	In boundary limit					240W	+10°	TnAr	3/3
61	Comp							"	3
62	HD19356			21 0924					
63	Comp							"	3
64	BIAS(4)			21 18					
65	Comp							"	3
66	HD 88 90	1 2234	+88 4626	21 2912					379
67	Comp							"	3
68	HD 8890	"	"	21 4052					739
69	Comp							"	3
70	HD 8890	"	"	21 55 30					461
71	Comp							"	3
72	BIAS(4)			22 05					
73	Comp							"	3
74	HD19275	3 0105	+74 0049	22 254					1246

CEO
Spectr. Temp
Focus
Spectr. Temp

Exp. Mtr.

no filter
130V

>2000

180

720

700

56

CCD Spectr. Temp. -100.3°C Dome Temp./Hum. $+1.3^{\circ}\text{C}$ 75% H Transparency Conditions cloudy 250

Focus $\dots 2.19$

Spectr. Temp. \dots

Dome Temp./Hum. $+100.9^{\circ}\text{C}$ 74.7% H

90c gain

* Telluric = H₂ inclusion setup

Comparison filter	Exp.	Exp. Mtr.	Seeing	Pls Mag.	Sp.	Inst. Echelle	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	2/3	no filter 1320V				T.H 19.10	0600 x.3025	60u width 400u	* 6401A	1/2	focus test	00 0128102481	
	3							60u width 600u height		3		0 0256 1024 1	
		>2000			212	B8V				4	Just while normalizing encoders		125K
	3				212	B8V				3			
										1			
	3									3			
	5/1	700	2.4	2	F816					4	KK pgn	13+00 1330 15+00 0218	~700
	3									3			
	7/3	720								5			
	3									3			
	4/1	700								6			
	3									3			
										1			
	3									3			
	12/1	686	2.3	2.3	4.87	A2Vnn				2	Telluric Std from Blm new list	400	

263
py#1

Wed / Thurs

Date 1976 Dec 11/12 Observers K.K. / T.

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CE134 ⁸² / ₈₃	Inboard (out Board)			17 09		2 18W	18 30	ThAr	7
CE13484	bias (4)								
485	Comp							ThAr	3
486	HD217675	22 57.3	+41 47	17 38 00	17 40 25				
487	Comp							"	3
488	Comp							"	3
84	HD 8590	01 22 34	+88 46 26	17 47 20	✓				63
90	Comp			17 51 12				"	3
90	HD 8890			17 49 40 in header 17 49 45 #90					70
91	comp			17 51 42 #91				"	3
92	HD 8890 Comp			17 52 24 in header 17 52 30 #92					
93	comp							"	3
94	Comp							"	3
95	HD 1326 B	0 12 42	+43 27	18 01 28					2500
96	COMP							ThAr	3

CCO
Spectr. Tem
Focus
Spectr. Tem

Exp. Mr.

200
1520 Volts

1000

1000

1000

1000

5 EXP

2 2

CCD Spectr. Temp. -101.7°C Dome Temp./Hum. $11.5^{\circ} 77.8\%$ Transparency Conditions Part Clear 254

Focus ~~215~~ 225

90 gain $T_{\text{chip}} = -100^{\circ}\text{C}$

Spectr. Temp. Dome Temp./Hum.

Exp. Mtr.	Seeing	Plg. Mag.	Sp.	Inst.	Grating/ X Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no f. Hex 1320 Volts				Echelle 19.10	06006 .3025	60u = .277 400u = .225	6401A	1/2	Focus test	T = 1.1 F = .225 0 0 178 1074 8 1	
						600u = .205	6401B	1		0 0 256 1074 4 1 poor, many cosmic rays	
1000		2 1/2	B8V					3			
								4			
								2			
								3			
1000	3"	2	F81B					5			
								3		Lost, not written	
1100								5			
								3			
1000								5			
								3			
								3			
								3			
12	2.3"	1100	M4V					6		clear sky here fainter comparison	50 ADU
								3			

exp meter balance checks well.

Spectr. Temp. Dome Temp./Hum. $+100.3^{\circ}\text{C}$ 78.1% Transparency Conditions ... Mostly dark 255

Focus ... 225

Spectr. Temp. Dome Temp./Hum. 0°C 77.1%

0 0 256 1024 4 1 CCD/FIT

Exp. Mtr.	Seeing	P.V. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1115	no filter 250	3"		E-201e 19.10	0600 In .3025	60 μ 600 μ Height					~ 1M HA AIXL
3	V=1320volts										
2						60 μ 500 μ	6401A				
2				18.0	0600m .3007	"	6402A ^P				
3								3ci			
1977	250	2.3"	8.07	M2V				4ci			~ 600
3								3		Dewar Topol E 205ST	
35								3			
574	3050	3.4"	4.01	A1V _m				5	Telluric Std	Blu new list	25K
35								3			
3								1		~ 1.545	
3								3			
364	9000	4"	4.13	F7V				2			1.9K
3								3			

9579#3 wed/TuARS

Emulsion Batches:

Date 1996 Dec 11/2... Observers KK/Tu & [B.L.]

.....

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.
13520 ce13520	Comp HD16895 B	2 37 22	+8 48 20	20 37 57				THAR	3 2303
22	Comp							"	3
23	HD16895	"	"	21 19 30					254
24	Comp							"	3
25	Comp							"	3
26	BD+33 1646B	08 02 34	+33 06 25	21 30 58		4 52 E			2171
27	Comp							"	3
28	BD+33 1646A	<u>edit location</u>		22 10 30					620
29	Comp							"	3
30	BD+33 1646B			22 27 49					1942
31	Comp							"	3
32	BIAS (A)			23 03					
33 34	FLATS x5					0	+12°	TUNG	25
38	Comp							THAR	6
39	HD47859	6 35 28	+9 59 18	23 21 00					1039

Spectr. Tem
 Focus ...
 Spectr. Tem

Exp Mir

320 1000

10

20

11

11/11/96
 KK

Spectr. Temp. Dome Temp./Hum. 0°C 77.3% *W* Transparency Conditions *still mostly clear 25*
 Focus *225* Cloud from East by 23⁰⁰
 Spectr. Temp. Dome Temp./Hum. -00.5°C 75-8 $^{\circ}\text{C}$

Exp. Mtr.	Seeing	PA Mag.	Sp.	Inst. <i>Echelle</i>	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
3 2303	<i>no filter</i> 1320 <i>(1000)</i> 3"	9.87	<i>M12</i>	1940	0600h 3025	60u W 60u H	6403A	3 6			
3								3			
357							6403	2			
3								3			
3								3			
211	10	3.4"	121	M3				4	Vys 250B	Fainter SW of pair Δ 2 00 00 00 Δ 5 00 -1 15	
3								3			
626	20		11	MO				5	Vys 250A	BRight for one	
3								3			
192	11	3"	121	M3				6	Vys 250B	cloud at end	
3								3			
								1			
6 29						80u		3			
6	still 120 f Her	B=		Echelle 20.00	0600h 4590	60u 400u	4481P	3		Royale Star Blue setup by KK	
1037	2K	4.4	07					7	Plu p9m	plus to in manual	700

25p9#14

Wed / Thurs

Emulsion Batches:

Date 1946 Dec 11/12

Observers ... K.K./Tn... for [Blk]

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
ce13540	Comp							Thin	6
5A1	HD 47839	6 3528	+9 5918	23 4020					20A6
5A2	Comp							n	6
5A3	bias (A)								
44	Comp							u	6
45	HD 62509	7 3912	+28 1604	00 0710					37
46	Comp							n	6
47	HD 62509	n	n	00 0941					181
48	Comp							n	6
49	Comp							n	6
50	HD 47105	6 3156	+16 2905	00 18 51					170
51	n			00 22 14				n	15A
52	Comp							n	6
53	Comp								6
54	HD 34029	5 0918	45 534	00 30 30					57

Spectr. Temp. Dome Temp./Hum. Transparency Conditions .. *P.A.T. Cloudy* 250
 Focus *225*
 Spectr. Temp. Dome Temp./Hum.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst. <i>Echelle</i>	Grating/ X Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
<i>4</i>	<i>8</i>			<i>2010</i>	<i>0600</i> <i>4590</i>	<i>60u</i> <i>400u Height</i>	<i>4481A</i>	<i>3</i>			
<i>2010</i>	<i>3.4"</i>	<i>4.4</i>	<i>07</i>					<i>4</i>	<i>Bl. pgn</i>	<i>Some cloud</i>	
<i>6</i>								<i>3</i>			
<i>6</i>								<i>3</i>			
<i>6</i>								<i>3</i>		<i>This time mainly companion in <u>SW</u> seen</i>	
<i>37</i>	<i>250</i>	<i>1.14</i>	<i>KO III b</i>					<i>2</i>	<i>std vel</i>		<i>500</i>
<i>6</i>								<i>3</i>			
<i>18</i>	<i>15K</i>							<i>2</i>	<i>std vel</i>		<i>3K</i>
<i>6</i>								<i>3</i>			
<i>6</i>								<i>3</i>			
<i>170</i>	<i>4030</i>	<i>1.93</i>	<i>AO IV</i>					<i>4</i>	<i>kt. pgn</i>		<i>1.7K</i>
<i>6</i>	<i>4200</i>							<i>4</i>			
<i>6</i>								<i>3</i>			
<i>6</i>								<i>3</i>			
<i>5</i>	<i>16K</i>							<i>5</i>			<i>4.4K</i>

CCD
 Spectr. Temp. -101.7°C Dome Temp./Hum. -0.7 76.2 Transparency Conditions *still clear* 252
 Focus 1225
 Spectr. Temp. Dome Temp./Hum. -00.9°C

Comp. Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
61	10 filter 16 K						60μ 100μ	4780	4			
6									3			
6		3"							3			
535	1010		V-536	AFN					6			1.7K
6									3			
6									3			
183	1000	3"	V 646	BdF8					7			
6									3			
46 75							500μ H=0.215		6			
46 25									3			6K
66									8/9	focus set 0 0 128 102981		

CCD
Spectr. Temp. -100.5°C

Dome Temp./Hum. $+3.8^{\circ}\text{E}$ 73.9% H

Transparency Conditions 759

Focus 225

Spectr. Temp.

Dome Temp./Hum.

clouded out

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ x Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
3/3				19.00	0600ln .3090	60m 400m 600m	W=277 H=.225 H=.205		focus test	00 128 1024 8 1 00 256 1024 4 1	

N5pg #1

Wed/Tues

Emulsion Batches:

Date 1996 Dec 18/19... 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.
CC42721/22	Inboard / out Board					0	+90°	FeAr ND 4	4/3
23	Comp							FeAr ND 5	4s
24	HD 217675	22 57 19	+41 47 19	17 46 51					98
25	Comp							FeAr ND 5	4s
26	BIAS (4)			17 52				FeAr ND 5	9s
27/31	FLATS x 5					3 50 E	0°	TUNG ND 5	9s
32	Comp							FeAr ND 5	4s
33	HD 22484	3 31 46	+00 05 04	18 15 38		3 33 E			839
34	Comp							FeAr ND 5	4s
CC42735	Comp							n	4s
36	HD 30282	4 41 06	+36 32 00	19 28 45		3 30 E			750
37	Comp							n	4s
38	HD 30282	"	"	19 47 25		3 06 E			1199
39	Comp							n	4s
40	BIAS (4)			20 09					

CCO
Spectr. Temp

Focus.....

Spectr. Temp

Exp. Mtr

12-1/19

33K

2K 5

1K 6

375K

CCD Spectr. Temp. -100.4°C Dome Temp./Hum. -1.0°C 55.124 Transparency Conditions ... Part clear 255

Focus 6.85

90 gain

Spectr. Temp. Dome Temp./Hum. 390 0 50 1024 4 1 CCD FMT

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1000 V no filter				CASS CCD	1800/14 54.8°	306 μ	6400A	1/2	focus	* strength's matched.	
								3			8.5K
3.3K	3.62		B6 III pe + A2p					4		inclusion normalization star	1.5K
								5			8.4K
								8.1			13.3K
								6			13.3K
								7		mirror moved again before this scrup	8.5K
2K	5.7	4.28	F9 IV-V					8	std vel	cloudy	1.1K
								9			8.4K
								10			8.8K
1K	6.15	7.9 -8.8	B FG-G1					11	← R _{in} (AW Per)	cloudy & vedy poor seeing	7.00
								7.2c			8.7K
2.75K								11			2K
								12			8.6K
								1		5.723 stars	

7649 #2

wed / Thurs

Emulsion Batches:

Date 1996 Dec 18/19... Observers [Rm]/Tn; [Blh]/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.
CC42741	Comp							FeAr ND5	4s
42	HD44990	6 1949	+7 0825	20 1325		4 24E			8/9
43	Comp							"	4s
44	Comp							"	4s
45	HD22484	3 3146	00 0504	20 3425		1 26E			126
46	Comp							"	4s
CC42747/48	Inboard / Out Board	HARTMANN						FeAr ND3	4/4
49	Comp							FeAr ND4	4
50	HD22484	3 3146	00 0504	20 5641					342
51	Comp							"	4s
52	BIRSCA)			21 04					
53	Comp							"	4s
54	HD47839	6 3528	+9 5918	21 0839					562
55	Comp							"	4s
56	HD47839	"	"	21 2038					770

Spectr. Temp.

Focus...

Spectr. Temp.

Exp. Mtr

NO

61K

6K

7K

86

39

81K

84K

13K

7K

Spectr. Temp. Dome Temp./Hum. -26°C 52.8% H Transparency Conditions *part cloudy* 258
 Focus 6.85 6.96 for 4100Å *VERY gusty*
 Spectr. Temp. Dome Temp./Hum. *∴ extremely poor seeing*

Exp. Mtr.	Seeing	Pg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no filter				CASS CCD	1800 $\frac{1}{2}$ 54.8°	306 μ	6400A	13c			9.2K
6K	7"-15"	B 6.5 -80		F7I _{ab} -K1I _{ab}				14	T Plon for Rm		3.6K
								15			8.9K
								16			
7K		V 4.28		F9II-V				17	stl vel	some done earlier	
								18			8.8K
BG 39 filter				CASS CCD	1800 $\frac{1}{2}$ 40.4°	306 μ	4100A	1/2			
								3			12K
8.4K		V 4.28		F9II-V				4	stl vel		1.5K
								5			13.2K
								1			
								7			13.4K
11.3K	8"	B 4.4	07					8	Bln pgrm	At center ~200/1 S/N	2.5K
								9			
16.7K								10	"	~250/1 S/N	3.4K

2694#3

Wed / Thurs

Date 1996 Dec. 18/19 Observers [Blk] / T_u

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CC42757	Comp — Flat — Lu			~ 21 35				FeAr ND 4	4s
58/62	FLATS x 5			15 ⁺ 21 38				TUNG ND 1	33
								FeAr ND 1	4/5
CC42763/64	Inboard / outboard							FeAr ND 1	3s
65	Comp			21 55 51				FeAr ND 1	3s
66	HD 478 39	6 35 28	+9 59 18	21 57 20					852
67	Comp							"	3s
68	HD 478 39	"	"	22 16 05		2 27 E			1A/2
69	Comp							"	3s
70	BHAS (4)			22 42					
71	Comp							"	3s
72	HD 22 484	3 31 46	+00 05 04	22 17 12					545
73	Comp							"	3s
74/78	FLATS x 5							TUNG ND 1	80
79	Comp							FeAr ND 1	3s
80	HD 478 39	6 35 28	+9 59 18	23 31 14					1705

Comp written next day

OVERWRITING FORMER Flat
T_u

CCO

Spectr. Temp.

Focus.....

Spectr. Temp.

Exp Mir

1000/

66

39 Filter

17.4k

58k

96k

177k 85

CCD Spectr. Temp. -100.5°C Dome Temp./Hum. -3.7°C 55.2% H Transparency Conditions ... PART cloudy ... 270

Focus 6.96

Spectr. Temp. -101.6°C Dome Temp./Hum. -4.3°C 53.6% H

390 0 50 1074 41 CCD FIT

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
4s BG 39 Filter				CASS CCD	1800ln 40.4°	306u	4100Å ±10Å	12 6			12.9K 5.3K
4/5 3s				CASS CCD	1800ln 39.8°	306u	4000Å ±10Å	1/2 3	focus test, Right on	(@ center ~350/1 S/N)	14.9K
852 3s	17.4K	7"	B 4.4	07				13 19	Blu pgn	some cloud	35K 12.4K
112 3s	5.8K							20 21		much cloud	12.2K
3s								1 22			1.4K
545 3s	9.6K	8"	V 4.28	F9 IV-V				23 24	std vel		1.4K
6 80 3s								25 26		Top up by 2325	8.9K 11.4K
1705	17.7K	8-10"	B 4.4	07				27	Blu pgn		3.2K

2Xp9#4

Wed Thurs

Emulsion Batches:

Date 1996 Dec 18/19 Observers [B/n] / T.m.

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter Exp.	
cc42781	Comp							FOA ND1	3s
82	HP47839	6 3528	+9 5918	000257		0 37E			1547
83	Comp							"	3s
84	BIAS(4)			0 31					2227
85/86	Inbound / out bound							FeAr ND1	4/3
87	BIAS(4)			0 59					

} Header CCD FMT wrong

Spectr. Temp

Focus.....

CD

Spectr. Temp

Exp. Mtr.

8639

Filter

217K

2227

2227

239#1 T WRS / Fri

Date ... 1946 Dec 19/20 Observers [Blh] / Lu / Tm

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CC 427 ^{88/} 189	Inboard / outboard							FeAr ND 1	6/3
90	BIAS(4)			0038					
91	Comp			003932				FeAr ND 1	3
92	HD 478 39	6 3528	+95418	004046					1270
93	Comp							"	3s
94	HD 478 39	"	"	010529					2231
95	Comp							"	3s
96	Comp							"	3s
97	HD 62509	7 3912	281604	014922					81
98	Comp							"	3
99/803	FLATS x 5							TUNG ND 1	80s
804	BIAS(4)			2 02					
805	Comp							FeAr ND 4	4s
806	HD 62509	7 3912	281604	2 0650					98
807	Comp							"	4s

40
Spectr. Temp
Focus
Spectr. Temp

Exp Mtr
3.6
34

16.3k

27.1k

20k

14k

CCD Spectr. Temp. -100.5°C

Dome Temp./Hum. -7.2°C 5612H

Transparency Conditions *hazy, part cloudy*

Focus 7.02

40 gain

Spectr. Temp.

Dome Temp./Hum.

390 0 50 1024 4 1 CCUPNT

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
136 34 F. 1400				C455 CCD	1800h 39.8°	306u	4000A	3/4	Focus test	Strengths matched mirror Homel 1st Then to mirror 1 and left trials	11.1K 9.1K
								1			
								5			14.9K
16.3K	5-8	B 4.4	07					6	Blu pgn		33K
								7		mirror not changed same position	11.1K
22.1K	5-10	"	"					8	"	increasing cloud	
								9			11.2K
								10			17.8K
20K		V 1.14	K					11	std vel		
								12			
								13			9K
								1			
				C455 CCD	1800h 40.4°	306u	4100A	14		after mirror Homel	11.4
14K		V 1.14						15	std vel	Then untowed.	2K
								16			11.6K

p9 #2 275

Emulsion Batches:

Date 1996 Dec 19/20 Observers Ly/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.
C 42808	Comp							FeAr ND4	43
09	HD 47839	6 3528	+9 5918	02 1415					22/4
10	Comp							"	43
11	BIAS (A)			02 56					
12/16	FLATS x 3							TUNG ND41	85
17/18	Inboard/outboard			3 15				FeAr ND4	6/6

Spectr. Temp.
Focus.....
Spectr. Temp.

Exp. Mtr. Sec.

6.3.39

11/4 8

6/1 6/6

Spectr. Temp. Dome Temp./Hum. -8.1°C 59.0% H Transparency Conditions ... *part cloudy* 276

Focus *7.02*

^{CCD} Spectr. Temp. -101.8°C

Dome Temp./Hum. -8.1°C 59.0% H

Then snow

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
<i>43</i> BG 39				<i>CASS</i> <i>CCD</i>	<i>1800ln</i>	<i>306</i>	<i>4100A</i>	<i>17</i>			<i>11.5K</i>
<i>2/14</i> <i>43</i> M.K	<i>8"</i>	<i>B</i> <i>44</i>	<i>07</i>					<i>18</i>	<i>Bln pgm</i>		<i>2.7K</i>
								<i>19</i>			<i>10.7K</i>
								<i>1</i>			
<i>06</i> <i>4</i> <i>4</i> <i>1/6</i>								<i>20</i>			<i>12.5K</i>
				<i>outboard after mission Home -> back to #1</i>				<i>3/4</i>	<i>focus,</i>		
				<i>otherwise outboard too weak.</i>							

2X pg #1

Fri / SAT

Emulsion Batches:

Date ... 1996 Dec 20/21. Observers ... Lh / 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
CC428/19/20	In board / out board							RA ND4	6/6
21	Comp -							n	4
22	HD 34029	5 0918	+45 5347	23 5200					11
23	Comp							"	4
24	BIAS (4)			23 58					
25	Comp							"	4s
26	G2 And	021212	+44 40 00	00 01 54		3 48W			901
27	G2 And			00 17 16					902
28	Comp							"	4s
29	G2 And			00 35 30					900
30	Comp							"	4s
31	Comp							"	4s
32	HD 22484	3 3146	00 05 04	00 56 57					108
33	Comp							"	4s
34	BIAS (4)			01 00					

600 Spectr. Temp.
Focus 7
Spectr. Temp.

Exp. Mtr. Se
No. Filter
1000 V

9K

100 3

99 3

275

61K

CCD Spectr. Temp. -100.9°C

Dome Temp./Hum. -6.5°C 63-67%

Transparency Conditions J45T 1142y 1102W 278

Focus 7.02

90c gain

still gusty from west

Spectr. Temp.

Dome Temp./Hum.

398 0 50 1079 4 1 CCD FMT

Comp. Filter	Exp.	Exp. Mtr.	Seeing	Pl. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	6/6	No filter 1000 V				CASS CCD	1800 $\mu\text{m}/\text{mm}$ 46.9°	3060	5184A	3/4			
	4									5			5.9K
	11	9K								6	Capella	exodol 170 Amelization star	10K
	4									7		> 300 / 1 S/N	7K
										1			
	4									8			8.7K
	901	300	3-4"	10.8	G5 I					9	DRL	> 30 / 1 S/N > 30 / 1 S/N	
	982	299	3-5"							10			
	43									11			
	900	275								12			
	4									13			
	43									14			4.8K
	108	6.1K				4028 F9 IV-V				15	Star Vel		4K
	43									16			4.8K
										1			

pg#2 274 FRI/SAT

Emulsion Batches:

Date ... 1996 Dec. 20/21 ... Observers ... L4/T4

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.
cc42835	Comp							F4 ND4	45
36	AH Aur	012605	+275954	010715					900
37	"	"	"	012235					900
38	Comp							"	45
39	AH Aur	"	"	013933					900
40	"			015508					901
41	Comp							"	45
42	Bias(4)			0212				"	45
43	AH Aur	"	"	021332					945
44	AH Aur			022946					910
45	Comp							"	45
46	Comp							"	45
47	FG Hyd	82704	+033055	25248					900
48	"			030821					900
49	comp								45
50	bias(4)			325					

CCDT
Spectr. Temp.
Focus...
Spectr. Temp.

Exp Mtr

no filter

393

399

440

491

455

420

415

536

CCDT
 Spectr. Temp. -100.5°C Dome Temp./Hum. -8.2°C 6476 Transparency Conditions .. hazy - Fire 280

Focus 7.02

Spectr. Temp. Dome Temp./Hum.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no filter				CASS CCD	1800h 46.40	306u	5/84A	17			6.4K
397	3"	10.5	G					18		50/1 5/4	300
399								19			
								20			
440								21			
471								22			
								23			38K
								1			
455	3"							24			370
420								25			
								25			4.1K
								26			5K
515		10.4	G					27			
536								28			
								29			4K
								1			

pg #3

Date 1996 Dec 20/21

Observers Lu/Tn

Emulsion Batches:

.....

Plate No.	Object	R.A.		Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison	
		1900	2000						Type/Filter	Exp.
CC42851	FG Hya	08 27 04		03 30 55	03 27 54					900
52	"				03 43 36					900
53	comp			04 20 24					FeAr ND4	4s
54	FG Hya			04 20 24	04 01 24					900
55	"				04 17 01					7/8
56	Comp									4s
57	BINS(4)				04 31					
58/62	FLATS x5						1 55W +30	+30	TUNG ND4	9s
63	Comp								FeAr ND4	4s
64	Hobbit	7 57 04		02 36 34	04 45 06					86
65	Comp								"	4s

Spectr. Temp

Focus.....

Spectr. Temp

Exp Mir

468

40

384

390

58K

Spectr. Temp. ^{CCDT} -100.5

Dome Temp./Hum. -9.5 65.9%

Transparency Conditions fine 282

Focus 7.02

Then cloud from SW

Spectr. Temp. -100.3°C

Dome Temp./Hum. -9.8°C 68.9% H

Comparison Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
902	no filter 468		104	G	Cass CCD	1800 V/mm 46.9	306.4	5184	3	DRL		
900	410	5"							4			
43									5			
900	384								6			
76	290								7		cloud band	
15									8			3.9K
									1			
75									2			11.7K
4									11		used	3.9K
8	5.8K		4.39	K206 F2-05					12	std vel		2.8K
4									13			3.8K

257#1 Tues / Wed

Date 1997 JAN 7/8 Observers [Blu] / Ly / Tan

Emulsion Batches:

.....

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.
CC 128 ⁶⁶ / 67	In board / out BOARD					0	+44°	FEAR ND 4	4/4
68	B/HS(4)			18 13					
69	Comp							FEAR ND 5	4
70	HD 235679	21 55 00	+54 00 00	18 23 02		W			
71	Comp								4
72	Comp								4
73	HD 14055	2 11 22	33 23 05	18 58 40		0 23 E			1/10
74	Comp								4
75	Comp								4
76	HD 30739	4 45 10	08 43 43	19 08 00					
77	Comp			19					4
78	B/HS(4)			19 15					
79	Comp								4
80	HD 32309	4 57 05	-20 11 51	19 26 02					633
81	Comp								3

CO
Spectr. Tem

Focus...

Spectr. Tem

Exp Mir

10-6/Hex
10-6/Out

100

103K

106K

108

CCD Spectr. Temp. -100.5°C Dome Temp./Hum. -5.8°C 55.3% Transparency Conditions ... Mostly clear 284
 snow stopped for now,

Focus 6.92

Spectr. Temp. Dome Temp./Hum. -6.9°C 82%
 C Lumbdo 340 0 50 1024 4 1 CCD F

Comparison Filter	Exp	Exp. Mtr.	Secing	Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
4/4		no filter 1000 Volt				CASS CCD	1800ln 56.30	306	6604A	1/2	focus	7.56.30 set Had to hone mirror. Before in b & outboard Strengths equalled	
										1			
										3			
		1100	4-5	886	B25 Ib					4	Blu H ₂	Airmass 1.20	
										5			
										6			15.4K
		10.3K	4"	4.01	A1V _{nn}					7	Telluric Std	1.02 Airmass	4.4K
										8			15.7K
										9			15.3K
		12.6K		4.36	A1V _{nn}					10	Potential? Telluric Std	1.57 Airmass	
										11	No good for H ₂ Telluric (Em in core)		16.1K
										1			
										12			15.5K
		24 K	8"	4.91	B9.5V _{nn}					13	potential Telluric Std	3.5 Airmass some snow and cloud	
		to avoid saturation of H ₂ line)								14			12.3K

28942 Tuesday

Emulsion Batches:

Date 1997 JAN 7/8 Observers [Bl.] / L. / 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.
CC428 ⁴³ 901	FLATS x 20					223E	-200	TUNG ND5	8s
902	BIAS(4)			21 39					
903	Comp							Fe4r ND5	3s
904	HD 34759	5 1444	+1 4217	21 4814					278
905	Comp								3s
CG807	-747 HD 24587							4	x.067
CG80748	-751 DARKS							4x	.067
52/33	DARKS							2x	.133
CG80754/55	HD 29587							2x	.133
CC42906	Comp							Fe4r ND5	3s
07	HD 29587	4 3415	+1 57	22 1414					483
08	Comp							n	3s
09	Comp							n	3s
10	HD 37017	5 3025	-4 3336	22 2921					513
11	Comp							n	3s
12	BIAS(4)			22 39					

CCD Spectr. Temp. -100.15 e

Dome Temp./Hum. -70°C 56.790

Transparency Conditions ... Clear mostly 286
9.9.41

Focus 6.92

Spectr. Temp.

Dome Temp./Hum. -7.8°C 56.784

Exp. Mtr.	Seeing	Pr. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				C455 CCD	1800u 5630	306u	6604A	16c	F1u + 8. Bat	20	12.75k
								1			
								17			12.5k
								18	Blu Pgm		4.9k
								19			12.8k
	4.8u			Above	306u	519t			Seeing	gusty NW wind Done west.	
									1 DARKS	All with	
									2 DARKS	SAME Inter setting	
								20			11.6k
	2.1K							21	Std Vel		17k
								22			13.2k
								23			
	5K	5.0		B GAZ R2VP				24	Blu Pgm		2.4k
								25			12.8
								1			

9574#3 Tues/Wed

Emulsion Batches:

Date ..1947..Jan. 7/8... Observers [Bln.]/Lu./Jm.....

.....

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.
CC479 ^{13/14}	Inboard / out Board							FEAR ND1	9/4
15	BIAS(4)								
16	Comp							FEAR ND2	3s
17	HD 47839	6 35 28	09 59 18	00 17 18		0 48W			106Z
18	Comp							"	3s
19	Comp							"	3s
20	HD 62504	7 39 12	+28 16 04	00 41 43					68s
21	Comp							"	3s
22/26	FLATS x 5					0	+28	TUNG ND1	110s
27	BIAS(+)			1 02					

Spectr. Tem
 Focus... 7
 Spectr. Tem

Exp. Mtr

39
 1102

45K

45K

Spectr. Temp. -102.0°CDome Temp./Hum. -8.0°C 60%RH

Transparency Conditions ... 10m snow again 288

Focus ... 7.06.....

Spectr. Temp.

Dome Temp./Hum.

C2147767H

390 0 50 1024 91 CCDFAST

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsiorr	P.H.	Program	Remarks	Quality
=				C455 CCD	1800 μ 39.8 $^{\circ}$	306 μ	4008A	1/2	focus	after relocking m. and to get in/out strength equal	
BG39 Filter								1		Otherwise out focus much stronger for same eff. time	132k
40K	4.5 $^{\circ}$	B 4.4	07					4	Blk pym	15mon	9K
								5			10K
								6			
24.5K		V 1.14	KOUA6					7	st/vel		
								8			10.5K
								9			11.8K
								1			

284
Pg #1 wed / Thurs

Date 1997 JAN 8/9 Observers M.n. / T.n.

Emulsion Batches:

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.....
.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CC 281 289	Inboard / out BOARD					0	+440	FEAR ND5	4/4
30	Comp								+
31	HD 6811	1 0342	46 4731	17 5653					33
32	Comp							FEAR ND 5	4
33	BIAS(4)			18 00					
34	Comp							"	4
35	BD+61 411	021854	+613349	18 1527					941
36	Comp							"	4
37	Comp							"	4
38	VES 735	022007	4610703	18 4606		0 05E			1894
39	Comp							"	4
40	BIAS(4)			19 20					
41	VES 735	"	"	19 2657					1871
42	Comp							"	4
43	VES 735	"	"	19 5526					1863

CCD Spectr. Temp. - 100.4°C Dome Temp./Hum. - 5.8°C 59.6H Transparency Conditions Fine 290

Focus 7.15

Spectr. Temp. Dome Temp./Hum. - 7.0°C 56.67H
 c Lambda 415 0 50 1074 4 1 CCD FMT

Exp. Mtr.	Seeing	Pg Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no filter 1000V				CASS CCD	600C In 25.9°	306u	4600Å	1/2		@ 1941 20259	
								3		Also encoder normal ratio	
3 K		4.25	B7V _e					4		star	8.6K
								5			11.6K
								1		60/1.5/H	
								6		Δ 2 0 0 17	11K
460	3"	10.19	08					7	Std for	PG Martin pgm Δ 5-0 0 36	
								8		close comparison = 5" to NE noted	
								9		15/1.5/H	11.1K
200	3.5"	11.7	0					10	Min pgm	15 2 00 00 05 15 5-00 00 21	
	3.5"	11.7	0					11			9.8K
								1			
226								12			
								13			
								14		17/1.5/H	

pg#2 201
Wed/Thurs

Emulsion Batches:

Date .. 1957 JAN. 8/4.... Observers Mn./Jn.....

.....
.....
.....

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.
CC42944	Comp							FeAn ND 5	4s
45	VES 735	02 20 07	+61 07 03	20 28 57					1809
46	Comp							"	4s
47	VES 735	"	"	21 01 47					1870
48	Comp							"	4s
49	BIAS (4)			21 34					
50	VES 735			21 35 49					1873
51	Comp								4
52	VES 735			22 13 05					1919
53	Comp							"	4
54	Comp							v	4
55	BD+61 411	02 18 54	+61 33 49	22 51 42					959
56	Comp								4
57	BIAS (4)			23 10					

Spectr. Temp.

Focus.....

Spectr. Temp.

Exp. Mtr.

Sec

Spectr. Temp.

Dome Temp./Hum.

Transparency Conditions .

P.A.T. cloudy

292

Focus 7.15

Spectr. Temp.

Dome Temp./Hum. -8.7°C 56.6%RH

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCO	600 l/m 25.90	306	4600Å	15		Slit noted to be tilted	
220	3.4"	12	0					16		more than before.	
								17		(whole night the same)	10.4K
200								18			
								19			10.6K
								1			
209	4.8"							20			
								21			9K
208								22			
								23			11.3
								24			
730	5"	10.19	08					25		still use	
								26			
								1			

Spectr. Temp. Dome Temp./Hum. $-87^{\circ}C$ 60% H Transparency Conditions ... *slightly hazy* 294

Focus 7.15

Spectr. Temp. Dome Temp./Hum. $-10.4^{\circ}C$ 66.7% H Unable to focus Telescope, but luckily focus

Comparison
Filter Exp

Exp. Mtr.	Seeing	Pr. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD		306 μ	4600Å	27			OK
195		12						28			
								29			
								1			
								3	(Tel East side)	OVER the PIER	
229	4"							4			
								5			109K
								6		715/1 S/H	
								8			
245								7			
								9			113K
								1			
								11		$\sqrt{\Delta\lambda} = 0.0021$ $\sqrt{\Delta\lambda} = 0.0133$	13K
5K	7"	4.63	BOV					12		Star Star (spectrum)	11K
								13			12K

295
pg #4

Emulsion Batches:

Date ... 1997 JAN 8/9 ... Observers ... Mn / 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.
CC 429 73	Comp							FeAr ND5	45
74	HD 37043	5 3032	-05 5832	02 22 26					895
75	Comp							"	4
76	Comp							"	4
77	HD 48434	6 3822	+4 01 54	02 36 15					673
78	Comp							"	4
79	Comp							"	4
80	HD 34078	5 0942	+34 11 52	02 54 35					1037
81	Comp							"	4
82	BIAS(4)								
83/89	FLATS x 7							TUNG ND 3	55

Spectr. Temp.

Focus

Spectr. Temp.

Exp. Mtr.

5.8k

44k

52k

Spectr. Temp.

Dome Temp./Hum.

Transparency Conditions ...

PART. Cloudy 295
increasing cloud

Focus ... 7.15

Spectr. Temp. ... -100.52

Dome Temp./Hum. ... -11.20C 62.37H

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	600m	306	1600	15			
5.8K		V 2.77	09 III					16	sp std.		
								17			124
								17			
4.4K	5"	V 5.74	80 III					18	sp std.		8.6K
								19			
								19			
5.2K	4"	V 5.63	09.5 V					20	sp std.		6.7K
								21			
								1			
								2			14.9

297

FRI/SAT

Emulsion Batches:

Date 1997 JAN 10/11 Observers T₁ Tests

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.
CC429 ^{90/91}	Inboard / outBOARD					0	+28°	FeNe ND 5	10/6
92/93	FLATS x 2			0010		0	+27°52'	TUNG ND 5	22s
94/95	" x 2							TUNG ND 4	7s
96/97	" x 2							TUNG ND 3	5Sec
98/99	" " "							TUNG ND 2	3s
CC43000/01	" "							TUNG ND 1	3s
02	BIAS(4)			0035					4
03/04	Comp FLATS x 2							TUNG FeNe ND 5	9s
05/06	" "	"						TUNG ND 4	3
07/08	" "	"		get	> 42932 - < 43113			TUNG ND 3	2
09/10	" "	"			+ 45819 + 20			TUNG ND 2	1
11/12	" "	"						TUNG ND 1	1
13/14	" "	"		Done JAN 11/12	CCDT = -100.5°C		Done T -6.5°C	TUNG ND # 6	80s
15/16	" "	"			0	00	+20	ND # 5	9s
17/18	" "	"						ND # 7	230

CCD for FLAT tests
 Spectr. Temp. -100.14°C ... Dome Temp./Hum. -5.7°C 62.3% H Transparency Conditions ... cloudy ... 298

Focus ... 6.96 ...

Spectr. Temp. ... Dome Temp./Hum. ...

395 0 50 1024 4 1 CCD FMT

Had to do 3-4 mirror + to get in board signal up.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
10/6				CASS CCD	1800 l/m grating 47.55	306	5312A	112		mirror 0704 for test	
11/5	Don't visually						@ Row 512 + 153A	3	Neutral Density filter	imb/outboard signal match	10.3K
11/5							≃ H/w position + angle	4	Tests		10.9K
11/5								5			11.6K
11/5								6			11.4K
11/5								7			13.1K
11/5								1			
11/5					1800 l/m grating 56.3		6404A	10			14.4K
11/5	I see fringes now							11			15.2K
11/5	no fringing obvious							12			15.3K
11/5	some fringing I think							13			12.7K
11/5	Looks OK							14			14.9K
11/5	✓ slight fringing ??							3			11.5K
11/5	some fringing, almost to H5 level							4		NN = 2.0 density	14K
11/5	still some obvious fringing							5		ND = 1.0 density	
11/5	may be worse than for H5 filter									ND = 3.0 density	

229

Continued Tests

Emulsion Batches:

Date 1957 JAN 11/12 Observers Jn

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CC430 ^{19/20}	FLAT x 2					0 0	+2°	TUNG Filt # 8	1s
21	FLAT						new	TUNG Filter #1	4s

0.2
 OLD ND = ~~10~~ in Light path

Spectr. Tem
 Focus

Spectr. Tem
 Exp Mir

no 1
pg #1

Mon / Tues

Date 1997 JAN 20/21 Observers L. Y. I. T. n.

Emulsion Batches:

.....
.....
.....

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.
CCA30 ^{22/23}	Inboard / Outboard		HARTMAN					Felt ND 4	616
24	Comp							Felt ND 4	4
25	HD 17533 ^{ed. v}	1 5746	+15104	181815					250
26	Comp							"	4
27	BIAS (4)			1877					
28	Comp							"	45
29	TT Ket	014657 ²⁰⁰⁰	-094506	183604					907
30	"							"	616
31	Comp								45
32	Bias (4)			2149					
33/37	FLAT x 5							TUNG ND 04	95
38	BIAS (4)			200629					
39	Comp			212102				Felt ND 4	45
40	BV Eri	35153 ²⁰⁰⁰	-103143	212224					720
41	"	"	"	213554					720
42	comp								45

500
Spectr. Temp
Focus ...
Spectr. Temp

Exp Mir

100
100

65K

75

250

750

100

CCD
Spectr. Temp. ... -101.7°C

Dome Temp./Hum. ... -4.5°C 71.6%RH

Transparency Conditions ... Part. Clear ... 302

Focus ... 6.98

Southern 2/3 of primary frosted a bit.

Spectr. Temp.

Dome Temp./Hum.

395 0 50 1024 4 1 CCDFAST

Comparison Filter Exp	Exp. Mtr.	Seeing	Plg Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
6/6	non P. 11000				CASS CCD Tgrating →	1800h 46.9°	306	5784H	1/2	focus	Right on at blue end	
4									3			4.5K
35	6.5K	2-3"	2.28 4.84	K3II B611A0V					4		Horizontalization star	11K
4									5			56K
									1			
43									6			6K
907	375								7	DRL		
6/6	250								8		clouds in the field.	
1/3									9			
									1			
6/6									10			12K
									1			
4									11			46K
320	1230								12	DRL		
320	1106								13			
									14			

W3
pg 22

Emulsion Batches:

Date 1997 JAN 20/21 Observers Ly/Ty

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.
CC4-3043	Bias(4)			21 54					
44	Comp							Fe 104	45
45	FG Hya	08 27 04	²⁰⁰⁰ +03 30 55	21 57 34					900
46	"			22 13 05	edit time in header. ✓				900
47	comp							"	45
48	FG Hya			22 32 28					900
49	"			22 48 07					910
50	comp							"	45
51	Bias(4)			23 05					
52	FG Hya			23 05 44					900
53	"			23 21 12					900
54	Comp							"	45
55	Comp							"	45
56	H14 Aur	06 26 05	²⁰⁰⁰ +27 59 54	23 46 16					935
57	"			00 02 54					900

CCD
Spectr. Temp. -101.5c

Dome Temp./Hum. -68c 65% 4/11

Transparency Conditions ... Fine - hazy 304

Focus 6.98

Spectr. Temp.

Dome Temp./Hum.

Comparison Filter Exp	Exp. Mtr.	Seeing	Mag. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	10 filter				CHSSCCD	1500 l/m 46.9°	306u	5184R	18.5			
4									15			5.9K
900	588		10.4	G					16	DRL		
900	600								17			
45									18			
45	603								19			
900	586	4.5							20			
4									21			
	610								1			
900	610	3.4							22		~ 50/1 S/N	
900	591								23			
4									24			
45									25			
120	650		10.5	G					26		* Near bright moon	
900	630								27		~ 1/3 Exp meter from moon	

705 # 199 # 3

Date 1997 Jan 20/21

Observers Lu/Tn

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
43058	comp							RA ND#4	7s
59	AH Aur	06 26 05	27 59 54	00 21 07					903
60	v	,	,	00 36 50					908
61	comp							"	4s
62	AH Aur	"	v	00 54 01					1007
63	"	"	"	01 11 32					903
64	Comp							"	4s
65	Comp							"	"
66	HD 62509	7 39 12	+28 16 04	01 33 57					19s
67	comp							"	4
68	BIHS (4)			1 37					
69	Comp							"	4
70	HD 65583	7 54 18	+29 31	1 45 40					275
71	Comp							"	4
72	Comp							"	4

Exp. Mtr
Spectr. Temp
Focus.....
Spectr. Temp

Exp. Mtr
Spectr. Temp
Focus.....
Spectr. Temp

CCD Spectr. Temp. -100.5°C Dome Temp./Hum. $-9.2/62.8\%$ Transparency Conditions *clear* 35

Focus 698

Spectr. Temp. Dome Temp./Hum.

Exp. Mtr.	Seeing	Plg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no filter				CASS CCD	1800/1mm 46.9	306μ	S184Å	28			3.9K
633	4.5"	10.5	G					29		~ 50/1 S/N	
608								4		~ 50/1 S/N	
								5			4K
675								6			
620								7			
								8			
								9			
8.5K		1.14	KOITUB					10	stilver		
								11			4.6K
								12	stilver	Had to	
2K	3"5"	7.0	d67					12	stilver	Had to Reboot ACOR CCD32 dead at "Rack 5"	1K
								13		commands	
								14			

not
PA #4

Mon/Tues

Emulsion Batches:

Date 1997 Jan 20/21 Observers Ly/Ty

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison	
								Type/Filter	Exp.
CC43073	FG Hyg	8 2704	+3 3055	01 5502					900
74	"			02 10 40					900
75	Comp							K4 1104	45
76	FG Hyg	8 2704	+3 30 55	02 27 40					910
77	"	"	"	02 43 04					909
78	Comp							"	4
79	BIAS(4)			03 00 39					
80	FG Hyg	"	"	03 01 31					900
81	"			03 17 03					900
82	comp							"	4
83	Comp							"	4
84	XZ Leo	10 0234	+7 0246	03 38 21					910
85	"			03 54 11					900
86	comp								45
87	bias(4)			04:11					

Exp. Mir.

Spectr. Temp.

Focus.....

Spectr. Temp.

533

570

550

540

566

552

538

489

Spectr. Temp. ^{CCD} -100.4°C Dome Temp./Hum. : 9.9°C / 59.7 Transparency Conditions *Fine* 208

Focus 6.98

Spectr. Temp. Dome Temp./Hum.
C 2

Comp. Filter	Exp. Mtr.	Seeing	Pg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
900	no filter 533		10.4	G	CASS CCD	1800 lm 46-90°	306μ	5184A	15			
900	576								16			
4									17			
900	550	4'							18			
900	540								19			
4									20			4K
									1			
900	566								21			
900	552								22			
4									23			4K
4									24			
900	538		106	A5					25			
900	489								26			
900									27			4K
									1			

CCD
Spectr. Temp. 100.5°C

Dome Temp./Hum. -11.4/64.3%

Transparency Conditions fine 310

Focus 6.9.8

Spectr. Temp.

Dome Temp./Hum.

Comp. Filter Exp	Exp. Mtr.	Seeing	P _v Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
90	440		10.6	AS	Cass CCD	1800/46.9	306μ	S184	28	DRL		
100	455								29			
4									30			
x 6m		3"	7.53	K5M	ALT 83°	Above 306μ	Slit			Seeing Test	Dome SW, no wind	
2x 13												
2x 15												
4									1			
4									3			
90	790	4"	9.8	F2					4			
4									5			
4									6			
600	645		9.5B	F7V					7			
600	644		8.9V						8			
3									9			

Hung up again upon doing "Rack 5" commands.

4179 #6

Date 1997 Jan 20/21

Observers Lu/Tn

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CC43099	SX Cru	124015	-18 48 00	060203					604
CC43100	"			061241					600
01	Comp							near ND4	4
02	Comp							"	4
03	GR Vir	144520	-6 44 06	62809					600
04	"	"	"	63830					600
05	"	"	"	64850					500
06	Comp							"	4s
07	B/H/S(4)			659					
08	Comp							"	4
09	HD136202	151412	+20 83 7	71051					38
10	Comp							"	4
11/12	In board / out board					0	+27°	"	6/6

CC
Spectr. Temp
Focus.....
Spectr. Temp

Exp Mtr S
620
600
2K
9
27K

CCD
Spectr. Temp. ... -100.5°C ...

Dome Temp./Hum. ... $-11.8/67.5\%$...

Transparency Conditions ... *Mostly clear* ... 312

Focus ... 6.98 ...

Spectr. Temp. ...

Dome Temp./Hum. ... $-11.5^{\circ}\text{C } 69\% \text{ H}$...

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
620	5 ^u	9.5 ^B 8.9 ^V	F7V	CASS CCD	1800/46.9	306 μ	5184	10	DRL		
600								11			
								12			
								13			
1.7K		8.5? 7.9 ^V	G					14		100/1 S/N	1/K
1.9								15			
								16			
								17			
								18			
2.7K								19	st/vel	set old fashioned way	
								20		Bad encoder errors	
								21/22	focus	Bad encoder errors	
										Bad encoder errors Logged.	

-11.6°C

m/m
p9#1

Tues/Wed

Date 1997 JAN 21/22 Observers Ly. / T.

Emulsion Batches:

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.....
.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CC4313/14	In board / OUT BOARD					0	+35°	Felt ND01	6/6
15	BIAS(4)			17 50					
16	Comp			17 55				Felt ND4	45
17	HD12533	015745	+415100	17 5836					27
18	HD12534	015746	+415104	18 0022					98
19	Comp							n	45
20/24	FLATS x 5							TUNG ND4	95
25	Comp							Felt ND4	4
26	HXCri	3 09 52	²⁰⁰⁰ 06 5324	18 29 38					900
27	"	"	"	18 44 57					900
28	comp							n	45
29	UXCri	"	"	19 02 25					981
30	"	"	"	19 19 22					928
31	Comp							n	4
32	BIAS(4)			19 37					

CCD Spectr. Temp. -100.5°C

Dome Temp./Hum. -5.7°C 67.8%RH

Transparency Conditions ... Mostly Clear 314

Focus 6.98

Dome Temp./Hum. -5.0°C 75.5%RH

395 0 50 1024 41 CCD/FMT
East wind

Exp. Mtr.	Seeing	Pg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no filter				CASSED	1800h/mm +6.9°	30E	5184A	1/2			
					Untouched From Previous night			1			
								3			
	3"	2.26	K3-IIb					4		Just while normalizing escalators	
		4.84	B8.1 + A0V					5			
								6			
								7			
								8			
313		10.6	F8					9		→ 30/1 S/N	
350								10			
								11			2.9K
391	3"-4"							12			
400	3"-6"							13		Increasing cloud	
								14			2.9K
								1			

CCD Spectr. Temp. -100.4°C Dome Temp./Hum. -4.9°C 7558H Transparency Conditions ... Part Cloudy 316

Focus 6.98

Then sudden solid clouds

Spectr. Temp. Dome Temp./Hum.

C2

Exp. Mtr.	Seeing	Plg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no filter	3-5"	10.6	F8	CASS CCD	1800 lines	306u	5184A	15			
				+ grating	46.9°			16		clouds on the field.	
								17			2.8K
								1			
								18			4K
3.8K	5-8"	9.28	F9U					19	std vel		2.6K
								20			3.3K

M17
p441

Thurs / FRI

Emulsion Batches:

Date ..1997.. JAN 23/24 Observers .M.R.. / .T.H.....

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.
CC 431 ⁴⁰ / ₄₁	In board / out board							FeAr ND 5	4/2
42	BIAS(4)			18 07 58					
43	Comp							FeAr ND 5	4s
44	HD 175 33 BD+61 411 ✓	02 18 54	+61 33 49	18 40 41					933
45	Comp ✓		18 57					"	4
46	Comp			19 00				"	4
47	VES 735	02 20 07	+61 07 03	19 01 17					1808
48	Comp ✓							"	4s
49	VES 735	"	"	19 38 01					1832
50	Comp								4
51/55	FIATS x 5							TW 16 ND 3	5
56	BIAS(4)			20 13					
CC 431 51/58	In board / out board							ND 5	4/3
59	Comp							FeAr ND 5	4
60	VES 735	02 20 07	+61 07 03	20 39 10					1800

279 P4#2 THURS / FRI

Emulsion Batches:

Date 1997 JAN. 23/24 Observers M.n./T.V.

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.
CC431 61	Comp							FEAR NO 5	8s
62	VES 735	²⁰⁰⁰ 02 2007	+61 0703	21 14 16					1
63	Comp							FEAR NO 5	4s
64	Comp							FEAR NO 6	8s
65	VES 735	"	"	21 50 37				FEAR NO 6	1808
66	Comp							"	8s
67	VES 735	"	"	22 24 32					1543
68	Comp							"	8s
69	BIAS (A)			22 57		1 22W	-7°		
70	Comp							" NO 6	8s
71	HD 36512	5 27 06	-72 23 1	23 00 35					259
72	"	"	"	23 06 15					334
73	Comp							"	8s
74	Comp							"	8s
75	VES 735	²⁰⁰⁰ 02 20 07	+61 07 03	23 23 44					1965

Spectr. Temp. Dome Temp./Hum. Transparency Conditions *Fine* 320

Focus *6.97*

Spectr. Temp. Dome Temp./Hum. *-12.12 48.56^H* 300 0 50 1024 4 1 CCD FTT *~114x*

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
<i>106/62</i>								16			
<i>200</i>								17			
								18		<i>dusty "ghosting"?</i>	<i>16K</i>
								19		<i>change to lower S/N and ND 6</i>	<i>3K</i>
<i>273</i>	<i>4.6"</i>	<i>~12</i>	<i>0</i>					20		<i>~ 30/1 S/N</i>	
								21			<i>32K</i>
<i>250</i>								22		<i>~ 30/1 S/N</i>	
								23			
								1			
	<i>8"</i>	<i>4.63</i>						24	<i>std MK std (Anchor)</i>		
<i>10K</i>	<i>8"</i>	<i>4.63</i>	<i>BO</i>					25	<i>↓ ↓ ↓</i>		<i>5.2K</i>
<i>12K</i>								26		<i>1177 Air mass</i>	
								27			
								5		<i>Telescope East side</i>	
<i>323</i>	<i>5.8"</i>	<i>~12</i>	<i>0</i>					6			

97#3

Thurs / Fri

Date ... 1997 JAN 23/24. Observers ... Mn. / Tn.

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CC43176	Comp							FEA ND6	8
77	VES735	2000 2 20 07	+61 07 03	23 58 54	00 16 00	5 53 W	+61 6		100
78	Comp							"	8
79	BIA5(4)			00					-
80/86	FLATS x 7			00 28		6 06 W	+61	Tung ND4	3s
87/88	In board / on board.					"	"	FEA ND6	8/8
89-92	flats for fringing tests								

Spectr. Temp
 Focus ... 6
 Spectr. Temp

Exp Mtr

T-10
 F-12

Spectr. Temp. Dome Temp./Hum. ... -12.8°C 1836 Transparency Conditions ... *cloudy in from SE* ³²²

Focus ... 6.97

Spectr. Temp. Dome Temp./Hum.

Exp. Mtr.	Seeing	P. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CHSS CCD	1800 lines 5620	306a	6608A	Fci			
		12	0					8a		cloud + moonlight @ 10 mins exposure stopped 15 minutes	
								90			
								1			
								2			15/K
								3/4	Focus test Tel Averaged		
					1600/45						
					56						
					62						

T - 12.9°C

F - 12.9

1 3/11
1981

Tues / wed

Emulsion Batches:

Date 1997 JAN 28/29 Observers ... L4. / Tn

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp
CC431 ^{93/94}	Inboard / out BOARD					⊕ 0	+43	FeAr ND4	6/11
95	BIAS(4)			19 38					
96	Comp							FeAr ND4	4s
97	TT Cet	²⁰⁰⁰ 01 46 57	-9 45 06	19 44 48					902
98	Comp							"	4s
99	AH Aur ^{Comp}							10"	4s
200	AH Aur	²⁰⁰⁰ 06 26 05	27 59 54	20 07 59					531
201	Comp							"	4s
202	AH Aur	"	"	20 22 15					900
203	Comp							"	4s
204/08	FLATS x 5							TUNG ND4	9c
09	BIAS(4)			21 25					
10	BIAS(4)			00 01					
11	Comp							FeAr ND4	4s
12	HD 89 449	¹⁹⁰⁰ 10 14 18	+19 58 42	00 10 43					

32x SAT/SUN

Emulsion Batches:

Date ..1997. Feb. 1/2... Observers ..MKi. / 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.
cc432 ^{28/29}	Inboard/out BOARD							FeAr ND2	6/6
30	Comp BIAS(4)								4
31	HD 16401 Comp						+ND0.6	FeAr ND3	6
32	Comp BH16 FLAT						" TUNG	FeAr ND3	4
33	BIAS(4) BDH16 516			18 54 23					56s
34/93	BDH16 516	03 44 43	+16 57 06	18 58 58				60 X	53s
94	FLAT						+ND0.6	TUNG ND3	4s
95	Comp						"	FeAr ND3	6s
96	BIAS(4)								
97	Comp						1	"	6s
98	HD 87901	10 03 03	+12 27 22	20 20 55					208
99	Comp						1	1	6s
100/01	FLAT x 2						"	TUNG ND3	4s
cc43302	BIAS(4)			20 27					

CCD Spectr. Temp. -100.5°C

Dome Temp./Hum. -28°C 70%

Transparency Conditions \dots Mostly clear; ³²⁸ ~~Trans~~ cloudy.

Focus \dots 6.93

Spectr. Temp. -101.8°C

Dome Temp./Hum. \dots $c \delta$

just for focus test
390 0 50 1024 3 1 CCD FMT

Exp. Mtr.	Seeing	F _v Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no filter				CAS CCD	1800 lines/mm	306 μ	6570B	1/2	focus test.		
				+grating \rightarrow	55.95						
								1		CCD FMT	
								3		445 0 10 1024 8 1	
								4			
								5			
Accumulated (leaps)								6		* 60 FRAMES Start. Mount V471 TAU. BAT (stands toward end) Cloud for last 10	
2K	3"	~9	K.					7			
								8			
								9			
								10			
2K	6"	1136	B7V					10	Telluric Std	cloudy 400 Air MASS 356	
								11			
								12			
								1			

Spectr. Temp. ^{CD} -101.4 °C

Dome Temp./Hum. -01.7 °C 74.8% H

Transparency Conditions ^{3rd} clearing but hazy

Focus 69.3

Spectr. Temp.

Dome Temp./Hum. -02.7 °C 77.0% H

Exp. Mtr.	Seeing	P _g Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
104/1K -01.7	693			CHSSCD	1800 lines/mm T 46.9	306 μ	5184A	1/2	Focus		
								1			
								3			2K
270 ²⁷⁰	4" 6" 10.5		G					4	DR2		
								5			1.6K
								6			
323								7			
								8			1.8K
								9			
13K		1.14	KOITS					10	std vel		7.5K
								11			
								12			
1.7K	6" 7		dg7					13	std vel		1.1K
								14			1.7K

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Mon/Tues

Emulsion Batches:

Date 1997 Feb 3/4 Observers Lu/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.
CC43319	Comp							FEAR ND4	4s
20	XZ Leo	10 02 34	+17 02 46	23 02 24					900
21	XZ Leo			23 17 57					900
22	comp	✓						"	4s
23	XZ Leo	✓		23 36 20					900
24	"	✓		23 51 50					900
25	comp								7
26	BIAS(4)			00 11					
27	XZ Leo			00 12 27					1000
28	Comp							FEAR ND4	4c
29/33	FLATS x 5								
34	comp BIAS(4)			01				"	4s
	U2 Leo	10 40 33	+13 31 00	00 51 20					

Spectr. Tem

Focus...

Spectr. Tem

Exp. Mtr

260

269

264

277

258

Spectr. Temp.

Dome Temp./Hum.

78.27

Transparency Conditions

Sucklon
Cloud From East 332

Focus 693

Spectr. Temp. - °C

Dome Temp./Hum.

-3.5°C

390 050 10x4 4 1 CCD/FMT

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
45				CASXCO	1800m	306 μ	5184A	15			
				T	46.9						
700		10 ⁶	A5					16			
900								17			
45								18			
900								19			
900								20			
900								21			
900								1ci			
1000		6 ^u						22			
45								23			
45								24			10K
45								25	1ci		

237 pg#1

SHT/SUN

Date 1997 Feb 8/9... Observers MKi./Tn.....

Emulsion Batches:

.....

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.
cc433 ⁵ / ₆	Inboard (out BOARD)						+ ND 0.6	FeAr ND 3	6/6
37	BIAS(4)			18 25					
38	FLAT							FOR ALL 65708 calibrations TUNG ND 3	4s
39	Comp							FeAr ND 3	6s
40	BD+16 516	03 4443	+16 57 06	18 36 07					62s
41/99	BD+16 516	"	"	18 38 19				60x	53s
cc43400	Comp							FeAr ND 3	6s
01	FLAT							TUNG ND 3	4s
02	BIAS(4)			19 42					
03/62	BD+16 516	03 4443	+16 57 06	19 47 01				60x	53s
63	FLAT							TUNG ND 3	4s
64	Comp							FeAr ND 3	6s
65	BIAS(4)			20 51					
66/95	BD+16 516			20 53 50				60x	53s
26	Comp			21 58				FeAr ND 3	6s

Spectr. Temp
 Focus...
 Spectr. Temp

Exp. Mtr.

10.5.10g

10.5.10g

10.5.10g

10.5.10g

10.5.10g

Spectr. Temp. -101.7°C Dome Temp./Hum. -6.0°C 483%^H Transparency Conditions *Fine* 330

Focus $6.9.3$

Spectr. Temp. Dome Temp./Hum. -9.9°C 44.8%^H $\approx 19:55$ I, Tu saw a flash $\approx 3^{\circ}$ N W of MIRA ¹¹⁻⁴⁴
 A line of sight meteor no doubt. ³¹⁻⁴⁴ B. ³¹⁻⁴⁴ ³¹⁻⁴⁴ ³¹⁻⁴⁴
 note \rightarrow 445 0 10 1024 8 1 CCD FMT

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
6/6	no filter			C455 CCD Tgrating	1800/6 5595	306	6570A	3/4	focus	note small CCD FMT ALSO	
								1			
								5			
								6			2.7K
67s	Accumulated	4.6	~9	K				7			
58s	54 exps.	2.2						8		59 Times with V471 Tau. BIT	
								9			
								10			12.7K
								11			
58s	Forgot to open shutter	3.5						11		Repeat x 60 no H α emission good H α absorption at last one	12.9K
								12			
								13			
	Total of 60 exps							14			
53s	2260	3.4						14		Repeat x 60	
								15			

AP #2

SAT/SUN

Emulsion Batches:

Date ...1997 Feb 8/9... Observers M.Ki./Jn.....

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.
CC43427	BIAS(4)			21 58					
28	FLAT							TUNG NO #3	45
29/58	BD+16 516	03 44 43	+16 57 06						52
CC43589/608	BD+16° 516	04 08 29		20 08 29					
609	FLAT							TUNG NO #3	45
610	BIAS(4)								
611	Comp							FeAr NO 3	65
612	Comp							"	65
613	HD 879 01	10 03 03	+12 27 22	23 44 12					22
614	Comp							"	65
615	Comp							"	65
616	HD 675 09	07 39 12	+28 16 04	23 59 04					38
617	Comp							"	65
618	FLAT							TUNG NO 3	45
619	BIAS(4)			00 06					

CCD Spectr. Temp. -100.4°C Dome Temp./Hum. -9.8°C 43824 Transparency Conditions \dots Fine \dots 27E

Focus \dots 6.93 \dots

Spectr. Temp. \dots Dome Temp./Hum. \dots 445 0 10 1024 87 CCD UNIT AD4 \sim MAX

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no filter				CNS CCD	1800 lines/mm	306 μ	6570A	1			
			K	Tgrating	55.95 $^{\circ}$			16			
				Actual CASSETUP	56.15			17		X60	
					54.84			18		Another 20.	
								19			13K
								1			
								20			
								20			
12K		1.36	B7V					21	Telluric	1.24 A.M. 1955	12K
								22		dy	2.8K
								23			
		1.14	KO I \bar{b}					24	std vel		
								25			
								26			12.3K
								1			

MMX
D403 ~~P403~~

SAT/SUN

Emulsion Batches:

Date 1997 Feb. 8/9... Observers M.K. / G. Id. / T.Y....

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.
CC436 ²⁰ / ₂₁	Inboard / Outboard						No extra NO Filter	Extra ND4	5/11
22	Comp							7	4s
23	AD62509	073912 ¹⁹⁰⁰	+281604	003752					28
24	Comp							7	4s
25	BIAS(4)								
26	Comp							4	4s
27	FFCnc	82940 ²⁰⁰⁰	+171702	005510				11	1200
28	Comp							11	4s
29	FFCnc			011802					1200
30	Comp							1	4s
31	FFCnc			014108					1200
32	Comp							1	4s
33	FFCnc			020611					1200
34	Comp							1	4s
35	BIAS(4)								

Spectr. Temp

Focus.....

Spectr. Temp

Exp. Mtr

No Filter

16K

277 3s

277

272

276

270

3

Spectr. Temp. -100.5°C ... Dome Temp./Hum. -10.8°C ⁴⁹⁴⁸ Transparency Conditions *Final* ³⁹⁰

Focus *6.98* 7.03 ...

Spectr. Temp. -100.4°C ... Dome Temp./Hum. -11.2°C ^{5758H}

390 0 501024 41 CCD Fmt

Topup by 00 20 EST

Exp. Mtr.	Seeing	Obj. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
<i>6/1</i>	<i>no filter</i>			<i>CAS CCD</i>	<i>1400ln 46.9°</i>	<i>306u</i>	<i>S184A</i>	<i>3/4</i>	<i>Focus test</i>	<i>CCD Fmt 390 0 501024 41</i>	
<i>4</i>								<i>5</i>			
<i>28</i>	<i>16K</i>	<i>1/4</i>	<i>10115</i>					<i>6</i>	<i>st blue</i>		<i>1.3K</i>
<i>45</i>								<i>7</i>			
								<i>1</i>			
<i>4</i>								<i>8</i>			
<i>20</i>	<i>277</i>	<i>3-4"</i>	<i>10.6</i>	<i>G9-K4</i>				<i>9</i>	<i>Gld pgm</i>	<i>SN ~ 40/1</i>	
<i>10</i>	<i>272</i>							<i>10</i>			
<i>10</i>	<i>272</i>							<i>11</i>			
<i>7</i>								<i>12</i>			
<i>12</i>	<i>276</i>							<i>13</i>			
<i>4</i>								<i>14</i>			<i>1.5K</i>
<i>12</i>	<i>300</i>	<i>3"</i>						<i>14</i>			
<i>5</i>								<i>15</i>			<i>1.6K</i>
								<i>1</i>			

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p9#4

SAT / SUN

Emulsion Batches:

Date 1997 Feb 8/9 Observers mki/Gld/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
Cc43636	FFCnc	082940	+171702	022909					1221
37	Comp							FeAr ND4	4s
38	FFCnc			025201					1200
39	Comp								4s
40	Comp @ β 6m	074506	+280254						4s
41	β 6m ✓	"	"	031907					28s
42	Comp ✓	"	"						4s
43	BIAS(4)			0322					
44	Comp	082940	+171702						4s
45	FFCnc	"	"						1200
46	Comp	"	"						4s
47	FFCnc			035333					1200
48	Comp							n	4
49	BIAS(4)			914					
50/56	FLATSx7					142W	34 ⁰	TUNE ND3	11s

Spectr. Temp. Dome Temp./Hum. Transparency Conditions ... *Fine* 340

Focus ... *7.03*

Spectr. Temp. Dome Temp./Hum. *0.7*

Exp. Mtr.	Seeing	Pl. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
<i>110</i> <i>F. 1/42</i>	<i>2.3</i>	<i>106</i>	<i>G9</i> <i>-K4</i>	<i>CASS</i> <i>CCD</i>	<i>1500W</i> <i>46.9</i>	<i>306a</i>	<i>5/84A</i>	<i>161</i>			
								<i>17</i>			
	<i>326</i>							<i>18</i>			
								<i>19</i>			
								<i>20</i>			
<i>210000</i>								<i>21</i>			
								<i>22</i>			
								<i>1</i>			
								<i>23</i>			
<i>321</i>								<i>24</i>			
								<i>25</i>			
<i>326</i>								<i>25</i>			
								<i>28</i>			
								<i>1</i>			
								<i>27</i>			<i>12.6K</i>

mul pg #5

SAT / SUN

Emulsion Batches:

Date 1997 Feb 8/9 Observers mkr./cid./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
C43657	comp	11 40 56	+34 13 21	04 26 00				Febr ND 4	45
58	HD 101501	"	"	04 26 00					74s
59	"	"	"	04 29 17					143s
60	comp	"	"						4s
61	HD 109358 ^{comp}	12 33 39	41 22 36						4s
62	HD 109358	"	"	04 26 00					59s
63	"	"	"	04 40 04					77s
64	comp	"	"						4s
65	comp								4s
66	HD 124752	14 12 36	+67 36 12	04 51 39					600s
67	"	"	"	05 03 15					463
68	comp.	"	"						4s
69	BIAS (4)			05 12 42					
70	comp								4s
71	HD 109011	12 26 30	95 40 00	05 18 59					344s

Spectr. Temp. Dome Temp./Hum.

Transparency Conditions ... *Fine* ... 242Focus ... *7.03* ...*Hale-Bopp looks just Fine.*

Spectr. Temp. Dome Temp./Hum.

Comparison
File Exp

Exp. Mtr.	Seeing	Pl. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	18000 46.9°	306	5184	28			
7.5	~2100	5.33	68V					29			
4.5	~5000	3"						29			
4.5								30			
4.5		4.27	60V					5			
5.5	~5000	4.27	60V					6			
7.5	~5800	4	4					6			
4.5								7			
4.5								8			
6.5	1018	8.54	K05V					9			
4.5	1032	2.3"						10			
4.5								11			
4.5								1			
4.5								12			
3.5	009	2"	8.11	K2V				13			

Wⁿ
 m p₉#6 SAT/54n

Date 1997 Feb 8/9..... Observers mk. / Gld / Tn.....

Emulsion Batches:

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.
72	HD 109011	12 26 30	55 40 00	05 25 08					301s
73	HD 109011 comp	"	"					FeAr NO 4	4s
74	comp								4s
75	HD 160964	17 37 45	+71 57 00	05 40 17					554s
76	"	"	"	05 50 08					604s
77	comp	"	"						4s
78	BIAS (4)								
79	comp							"	4s
80	HD 185144	19 32 33	+69 29 28						83s
81	"	"	"						84s
82	comp	"	"						4s
83	comp								4s
84	HD 186408	19 39 09	+50 17 35	6 21 03					76s
85	"	"	"	6 22 62					67s
86	HD 186427	19 39 12	50 17 08	6 25 31					88s
87	"	"	"	6 27 21					91s

Spectr. Temp
 Focus...
 Spectr. Temp

Exp. Mtr.

1010

1045

1101

4100

5100

1300

1290

1300

1300

Spectr. Temp.

Dome Temp./Hum. -10.4° 51.3%RHTransparency Conditions *Fine* 344Focus 7.03

Spectr. Temp.

Dome Temp./Hum.

Exp. Mtr.	Seeing	Pl. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1010						306 μ	5184A	14			
								14			
								15			
1048	2"	8.62	K4V					16		$\Delta 2 +00 00 34$ $\Delta 2 -00 00 33$	
1101								17			
								18			
								1			
								19			
5100		4.69	KOV					20			
5400								20			
								21			
								22			
								23			
1300		5.96	G3V					24			
1290		"	"					24			
1300		6.20	G4V					25			
1330		"	"					25			

345
Pg 7

Emulsion Batches:

Date 1997 Feb 8/9..... Observers ... Mki/Gald./Trj.....

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.
CC43688	comp	"	"					FeA ND3	4s
89	Comp								4s
90	Hale-Bopp	20 03	19 57	06 46 20					97s
91	sky (no.)	20 03 06	19 57 19			tail!!			
92	sky (?)								45s
93	Hale Bopp			06 51 53					89s
94	Comp							"	4s
95	BIAS (4)								
96/700	FLAITS x 5							Feiny ND4	11s
701/02	Inboard / out BOARD					00	+35	FeA ND4	61

Spectr. Temp

Focus....

Spectr. Temp

Exp. Mtr.

346

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

Focus 7.03

Spectr. Temp. Dome Temp./Hum. 10.7 52/84

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
						308	5184	26			
								27			
								28		Em@ ~ 5164A	
								21		<u>±.5</u>	
								22			
								23		Bright sky	
								5			
								1			
								2			13K
								3/4	focus		

747

PT 1

Sun/Mon

Emulsion Batches:

Date 1997 Feb. 9/10. Observers [R.E.] / Tn

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CC43703/4	Inbound / out BOARD							FeAr ND4	6/9
5	BIAS(4)								
CC43706	Comp								
7	HD19356	030140	+403414	18 14 42					15
8	Comp								
9	Comp								
10	MIRA HD14386	2 14 18	-03 25 54	18 26 07					32c
11	MIRA	"	"	18 27 58					28s
12	Comp								
13/20	FLATS x 8							TUNG ND2	11s
21	Comp								
22	HD17929	2 01 37	+22 59 23	18 57 18					16
23	Comp							FeAr ND4	3s
24	BIAS(4)								

Spec. Tem

Focus...

Spectr. Tem

Exp Mir

Exp Mir

Exp Mir

Exp Mir

Spectr. Temp. ^{CCD} -101.0°C Dome Temp./Hum. -45°C

Transparency Conditions ... mostly clear 348

Focus 7.03

Spectr. Temp. Dome Temp./Hum. cä

390 050 1024 4 1 CCD/FIT

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
6/9					1800/n AA8	30u	4848A ± 95Å	3/4 1 5	focus test		
	1" ¹⁴ / ₁₅							6	just encode	normalized star	
								7			
								8			
	1" ¹¹ / ₁₂							9		em H beta slightly SATURATED	
	1" ¹¹ / ₁₂							10		H beta not saturated.	
								11			
								12			
								13			
16	8.6K			20 K2 Lab Ca				14	Vel star		6K
								15			
								1			

346
Pg #2

SUN/MON

Date 1997 Feb 9/10 Observers Lu / [r.g.] / T.M.

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison	
								Type/Filter	Exp.
CC43725	Comp							Year ND4	4s
26	HD12929	020132	+225923	190443					
27	Comp							"	4s
28	Comp							"	4s
29	HD18884	025703	+034151	191553					45s
30	Comp							"	4s
31	BIAS(A)			1918					
32/36	FLATS x 5							ND4 TUNG	11s
CC43737	Comp							Year ND4	3
38	HD18884	25703	034151	193915					560
39	Comp							"	3s
40/42	FLATS x 3							ND2 TUNG	11s
43	BIAS(A)			1954					

Spectr. Tem
Focus ...
Spectr. Tem

Exp. Mir.

40
40g

40g

Spectr. Temp.

Dome Temp./Hum.

-5.6°C 65%RH

Transparency Conditions . Becoming Very

350

Focus 7.03

Spectr. Temp. ^{CCD} -100.3°C

Dome Temp./Hum.

390 0 50 1024 4 1 CCD/FMT

Cloudy

mpanson
ter/ Exp

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
45					1500 μ 46°9	306 μ	518A ⁹	18			
		200	M2	MTabCa-1				19	st/vel		
45								20			
45								5			
45		253	M1.5	IIIa				6	st/vel		
45								7			
								1			
								2			
3					18000 44.8	306 μ	4848A	8		Note no. of CCD pixel	
56	4.6K	3"	253	M1.5	IIIa		I.5A	6		Shift from previous 44.8° grating Tilt,	
3								7			
2								2			12.7K
15								1			

115 py #3

Resumed again

Emulsion Batches:

Date 1997 Feb 9/10 Observers Lu/Tu

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
C43744	BIAS (4)			02 07					
45	Comp							KAr NO 4	fse
46	W Crv	12 07 36	-13 09 30	02 14 31					900
47	"	"	"	02 29 48					900
48	Comp							"	4s
49	W Crv	"	"	02 48 29					901
50	"			03 04 09					924
51	comp							"	4s
52	W Crv	"	"	03 22 22					909
53	"	"	"	03 38 01					900
54	Comp							"	4s
55	BIAS (4)			03 54					
56	W Crv	"	"	03 55 27					900
57	"			04 10 49					901
58	comp								4s

Spectr. Tem
 Focus
 Spectr. Tem

Exp Mtr

No. 19

229

230

241

254

243

241

241

227

227

Spectr. Temp.

Dome Temp./Hum.

-5.1°C 87.5% H

Transparency Conditions ...

clearing again

352

Focus 7.03

Spectr. Temp.

Dome Temp./Hum.

* 5185 noted, as grating tilt reset since last 5184A

Comparison
iter Exp

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no filter				CASS CCD	1800/16 16.9°	300μ	* 5185	1			
								5			
229	2.3"	10.7	G2					6		~ 25/1 S/N	
230								7			
								8			
241								9			
254	2"							10			
								11			
243	2.4"							12			
240								13			
								14			
								1			
225								15			
227								16			
								17			

pg#4 353

Sun/Mon

Emulsion Batches:

Date 1997 Feb 9/10 Observers L.H. I.T.N.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CC43759	W CrV	12 07 36	²⁰⁰⁰ -13 09 30	04 27 32					900
60	"			04 43 18					901
61	Comp							RAr ND4	45
62	BIAS(4)			04 59					
63	Comp							"	45
64	V829 Her	16 55 47	²⁰⁰⁰ 35 10 54	05 09 57					900
65	"	"	"	05 25 31					922
66	comp							"	45
67	V829 Her		²⁰⁰⁰ 06	05 43 39					906
68	"			05 59 07					900
69	comp							"	45
70	Comp							"	45
71	HD 136 202	15 14 12	¹⁹⁰⁰ +2 08 37	6 20 08					92
72	Comp							"	45
73	BIAS(4)			6 23					

Spectr. Temp. Dome Temp./Hum. -6.5°C 69.1% H Transparency Conditions ... Mostly clear 354

Focus 7.03

Spectr. Temp. -10.14°C Dome Temp./Hum.

Comet looks quite fine again

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
238				CAS CCD	1800ln 46.9°	306μ	5185A	18			
240	3.4"							19			
								20			
								1			
								24			
420	4.2"	10.1	G2V					25		50/1 S/N	
450	1.2"							26			
								27			
440	2"							28			
430								29			
								30			
								5			
3.2K								6	std vel		3K
								7			
								1			

255

py#5 SHN/mon

Emulsion Batches:

.....

Date 1997 Feb 9/10 Observers Lu/Ty

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
CC43774	Comp							FeAr ND4	As
75	HD126053			062717					2/1
76	Comp							"	As
77/82	FLHTS x6							TUNG ND9	11s
83/84	Inboard/outboard							FeAr ND4	6/1/2

3.0K

17

T=-7

356

$$\frac{8ci}{9ci}$$

std vel

3.0K

12.4K ADU MAX

T = -7.2°C F = 7.03

357

English Edition

July 1957

August 1957

September 1957

Month	Year	Day	Temperature	Humidity	Wind	Clouds	Notes
July	1957	1	75	65	SE	Partly	
July	1957	2	78	68	SE	Partly	
July	1957	3	80	70	SE	Partly	
July	1957	4	82	72	SE	Partly	
July	1957	5	85	75	SE	Partly	
July	1957	6	88	78	SE	Partly	
July	1957	7	90	80	SE	Partly	
July	1957	8	92	82	SE	Partly	
July	1957	9	95	85	SE	Partly	
July	1957	10	98	88	SE	Partly	
July	1957	11	100	90	SE	Partly	
July	1957	12	102	92	SE	Partly	
July	1957	13	105	95	SE	Partly	
July	1957	14	108	98	SE	Partly	
July	1957	15	110	100	SE	Partly	
July	1957	16	112	102	SE	Partly	
July	1957	17	115	105	SE	Partly	
July	1957	18	118	108	SE	Partly	
July	1957	19	120	110	SE	Partly	
July	1957	20	122	112	SE	Partly	
July	1957	21	125	115	SE	Partly	
July	1957	22	128	118	SE	Partly	
July	1957	23	130	120	SE	Partly	
July	1957	24	132	122	SE	Partly	
July	1957	25	135	125	SE	Partly	
July	1957	26	138	128	SE	Partly	
July	1957	27	140	130	SE	Partly	
July	1957	28	142	132	SE	Partly	
July	1957	29	145	135	SE	Partly	
July	1957	30	148	138	SE	Partly	
July	1957	31	150	140	SE	Partly	
August	1957	1	152	142	SE	Partly	
August	1957	2	155	145	SE	Partly	
August	1957	3	158	148	SE	Partly	
August	1957	4	160	150	SE	Partly	
August	1957	5	162	152	SE	Partly	
August	1957	6	165	155	SE	Partly	
August	1957	7	168	158	SE	Partly	
August	1957	8	170	160	SE	Partly	
August	1957	9	172	162	SE	Partly	
August	1957	10	175	165	SE	Partly	
August	1957	11	178	168	SE	Partly	
August	1957	12	180	170	SE	Partly	
August	1957	13	182	172	SE	Partly	
August	1957	14	185	175	SE	Partly	
August	1957	15	188	178	SE	Partly	
August	1957	16	190	180	SE	Partly	
August	1957	17	192	182	SE	Partly	
August	1957	18	195	185	SE	Partly	
August	1957	19	198	188	SE	Partly	
August	1957	20	200	190	SE	Partly	
August	1957	21	202	192	SE	Partly	
August	1957	22	205	195	SE	Partly	
August	1957	23	208	198	SE	Partly	
August	1957	24	210	200	SE	Partly	
August	1957	25	212	202	SE	Partly	
August	1957	26	215	205	SE	Partly	
August	1957	27	218	208	SE	Partly	
August	1957	28	220	210	SE	Partly	
August	1957	29	222	212	SE	Partly	
August	1957	30	225	215	SE	Partly	
August	1957	31	228	218	SE	Partly	
September	1957	1	230	220	SE	Partly	
September	1957	2	232	222	SE	Partly	
September	1957	3	235	225	SE	Partly	
September	1957	4	238	228	SE	Partly	
September	1957	5	240	230	SE	Partly	
September	1957	6	242	232	SE	Partly	
September	1957	7	245	235	SE	Partly	
September	1957	8	248	238	SE	Partly	
September	1957	9	250	240	SE	Partly	
September	1957	10	252	242	SE	Partly	
September	1957	11	255	245	SE	Partly	
September	1957	12	258	248	SE	Partly	
September	1957	13	260	250	SE	Partly	
September	1957	14	262	252	SE	Partly	
September	1957	15	265	255	SE	Partly	
September	1957	16	268	258	SE	Partly	
September	1957	17	270	260	SE	Partly	
September	1957	18	272	262	SE	Partly	
September	1957	19	275	265	SE	Partly	
September	1957	20	278	268	SE	Partly	
September	1957	21	280	270	SE	Partly	
September	1957	22	282	272	SE	Partly	
September	1957	23	285	275	SE	Partly	
September	1957	24	288	278	SE	Partly	
September	1957	25	290	280	SE	Partly	
September	1957	26	292	282	SE	Partly	
September	1957	27	295	285	SE	Partly	
September	1957	28	298	288	SE	Partly	
September	1957	29	300	290	SE	Partly	
September	1957	30	302	292	SE	Partly	
September	1957	31	305	295	SE	Partly	

57

1000 ft. high
200 - 7 1/2 miles

Echelle Tilt 19.00° x Tilt $.3080$

Order from Top 600 ln/mm 6300 Å centop.

- 4 6342 → 6385 (just)
- 5 6413 — 6458
- 6 6487 — 6532

Sept 10/96 H α Brought in 600 ln/mm. FOR Kiss setup

- Echelle Tilt 19.40° x $.3020$
- 1st 6189 ← ^B 6193 — ^R 6236
 - 6258 ← 6261 — 6306.5
 - 6332 — 6377.5 2ci
 - 6405 → 6450
 - 6478 → 6524
 - ~~6546~~ ← 6553 → 6600

MORE ideal setup with Echelle = 19.85°
x = $.3030$

