





13

per. Temp. ...

FOCUS

Spectr. Temp. . . .

Mr. Seeing

Dome Temp./Hum.

4

David Danlop Observatory
74" logbook
Vol 85
Plates: 41510-43784
08 1996 - 02 1997

Py#3 of Previous Book

Thurs / Fri

Date 1996 Aug 29/30... Observers K.K. / 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.
CC41510	BIAS (4)			2312.					
11	Comp						NO F.	FeAr HR5	2s
12	HD 27022	4 11 16	+64 53 47	23 21 42		6 30 E			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	1s
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. Nr. S

1996 Aug 29/30

7:00

9:00

14:00

15:00

^{CCD}
Spectr. Temp. -100.3°C

Dome Temp./Hum. +17.5°C 84% H

Transparency Conditions ... Some cloud..... 6

Focus 6.75

90 cgs in

Dome Temp./Hum. +16.2°C 75.5% H

CCOFMT

Spectr. Temp.

390 0 50 1024 41 MAX

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no filter Probably BG39				CASS CCD	1800bl/m 44.70	306	4790 ± 5 Å	1		- Hβ region -	
2								27			5K
721	7400	4"	5.4	G511				28	mk std		7.1K
2								29			5.9K
								30			4.9K
282	9800	4"	4.10	F8V				4	mk std		15K
								5			4.9K
2								6			4.5K
2076	1400	4.25"	8.4	G2V				7	sp. std	megastep position w Rong, 100 Fur East By 1.5 mins	1.2K
2								8			4.7K
								9			
55								9			11.8K
25				CASS CCD	1800bl/m 41.1	306	4189 Å	10			8K
2122	1560	4"	8.4	G2V				11	Sp Std		
25								12			6.3K

Dewar found @ -88°C
Had not topped up
at sun down I guess

pg #4⁷

Date 1996 Aug 29/30 Observers ... Kok / Tr

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.
cc41529	Bias(4)								
30	Comp							FeAr	
31	HD20630	03 14 06	03 00 00	02 07 11	02 18 08	2 44 E			650
32	Comp								
33-35	Flats x3						no filter	Tung clear	85
36-38	Flats x3						ND filter 5	"	3
39	Comp						ND filter 5	FeAr	3
40	HD20630	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	HD9826	01 39 54	40 54 00	03 28 57					81
48	Comp							"	3

LED Spectr. Temp.

Focus ...

Spectr. Temp.

Exp. Mir.

8639
Filter
Still Struck in

2500

1400

1400

Spectr. Temp. - 100.3°C Dome Temp./Hum. +15.9/74.7% Transparency Conditions Haze 8

Focus 6.75 6.68 For H_α set

Spectr. Temp. Dome Temp./Hum.

Comparison Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
					CASS CCD	1800l/m 4.2	306	4189A ^o	813			
									13			
650	10700	4"	4.8	G5II					14	MK std		max 2.6K
									15			7.1K
850									16			
3	BG39 Filter	Focus	6.68		CASS CCD	1800l/m 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			
									1			
9									20			
1983	1420	3"	8.1	G2II					21	Sp. std		2K
3									22			8K
									23			8K
81	4400		4.1	F8V					24	MK Std		8.0K
3									25			

pg #59

Emulsion Batches:

Date 1996 Aug 29/30 Observers ...kak/.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.
CC415A	Comp						ND#5	FeAr Clear	
50	HD 27022	04 11 18	64 54 00	03 38 04		E			233
51	Comp							"	
CC41552	Comp						ND#5	FeAr Clear	8s
53	HD 27022	04 11 18	64 54 00	03 49 39		2 9 E			196
54	Comp							"	8s
55	B/H S(4)								
56	Comp							"	8s
57	HD 9826	01 30 54	40 54 00	04 02 38		0 45 W			74
58	Comp							"	8s
59	Comp							"	8s
60	Juno	01 11 17	03 24 00	04 15 19		1 43 W			1300
61	Comp						ND#5	"	8s
62	Comp							"	"
663	HD 20630	03 14 07	03 00 13	04 41 34		0 E			128

CCD Spectr. Temp. ... 100°... 5..... Dome Temp./Hum. ... 14.4... 774% Transparency Conditions Clear..... 10

Focus ... 6.68.....

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

Comparison Iter. Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	BG39?				CASS CCD	1800l/m	306	6560A ²	26		Mx	8.2K
233	3900	3"	5.4	GSM					27	Mkstd		12.5K
	-								28			
8s					CASS CCD	1800l/m 51.8	306	5900A ²	3		N2ID	5.5K
196	3300		5.4	GSM					4	Mkstd		9.4K
8s	3300								5			
									1			
8s									6			
74	3200	3"	4.1	F8V					7	Mkstd		6.4K
8s									8			
8s			8.1	G2V					9	Spstd		
130	1020	3"	✓	✓					10	Spstd		
8s									11			
4									12			
128	4900	"	4.8	G5V					13	Mkstd		max 4.4

pg #6

Thurs / Fri

Date 19.96. Aug. 29/30... Observers KoK/Tn.....

Emulsion Batches:

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[illegible]

12

Spectr. Temp.

Dome Temp./Hum.

390 0 50 1024 41 ccofint

Exp.	Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
&					CASSCOO	1806h 51.8	306a	5900A	14			
									15			11.2K
									1			
					All To			m:/CCD/CASS & F:/To-CDROM				

13 pg #1

Mon / Tues

Date ... 1996. Sept. 2/3.

Observers ... WxL / T_n

Emulsion Batches:

Note CCD camera Top up from Ambient. High: for 15 min

(We thought BIAS were

Plate No.	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			102
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	⁺²⁰⁰⁰ +05 48 52	20 55 25		1 18E			673
83	Comp							"	9s

ccy
Spectr. Temp.

Focus... 6s

Spectr. Temp.

Exp. Mr.

No filter

Reflected

6K

Exp. note

5K

360

1350

783

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 c gain

CCDFMT
390 0 50 1024 + 12 m H x AD4

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
No Filter Definitely				CASS CCD	1800 lines/mm	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	Balanced					5			3.2
								6			
5K	2"	5.16	G7IV					7	std Vel		3.2K
								8			3.4K
								9			4.3K
360	1-2"	10.3	A6V					10	DRL		300 4000/5
2350								11		CCDT -100.7°C	
								12			
								1			
		9	A0					13			3.9K
783	2.3"	9	A0					14			1K
								15			2.4K

1589#2

Mon / Tues

Date 1996 Sept 2/3..... Observers WxL/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.
CC41584	Comp		2000					FeAr H5NO	9s
85	V417 Aql	19 35 24	05 50 18	21 13 49		00 25 W			900
86	"			21 29 31					900
87	Comp							"	9
88	V417 Aql			21 49 35					900
89	"			22 05 35					900
90	bias (4)			22 21					900
91	Comp							"	9s
92	V417 Aql			22 26 15					901
93	"			22 41 41					900
94	Comp							"	950
95	V417 Aql			22 59 33					900
96	Comp							"	950
97	bias (4)			23 = 17.					
98	Comp							"	9s

CCP
Spectr. Temp

Focus.....

Spectr. Temp

Exp. Mtr.

1589#2

386

389

395

399

320

323

293

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

Focus 6.62

Spectr. Temp. Dome Temp./Hum.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no filter				CASCCO	1800ln/m 47.05°	306u	5184A	16			2.8K
386		11	G2V					17	DRL		
389								18			
								19			
395								20			
359								21			
								1			
								22		after Rehoming in mirror	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		310 E			900
600	"			233831					701
601	Comp							FeAr #5	9s
602	Comp							"	"
603	HD8779	¹⁹⁰⁰ 12120	-005507	235544		253 E			254
604	Comp							"	9s
605	Comp							"	9s
606	AQ Psc	²⁰⁰⁰ 012104	+73621	000711		223 E			1060
607	"	"	"	002534					900
608	Comp							"	9s
609	BIAS (4)			0042					
610	AQ Psc			004349					900
611	"			005934					900
612	comp							"	9s
613	AQ Psc			011843					900

C0
Spectr. Temp.
Focus.....
Spectr. Temp.

Exp. Mir.

No. 1/1/2

1010

2706

1670

1350

1320

1300

14

1415

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

Focus 6.62

Spectr. Temp. ^{CD} -99.7°C Dome Temp./Hum. ^{CD}

Comparison Exp.	Exp. Mtr.	Seeing	Pl. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
900	W6 f8/ter	3"	8.9	F8	CHSSCCD	1800/m/m 47-05°	306	5184A	29		90/1 S/N	
701	1010								30			
9s									31			2K
4									3			2.8K
254	2706	3"	6.4	g10					4	std vel		1.6K
8s									5			2.4K
9s									6			3.4K
1060	1670	(2-3")	8.9	F8					7	Source Feat on for 1st 5 min	7100/1 S/N	
900	1350	2-3"							8			
9s									9			2K
									1			
900	1320								10			
900	1355								11			
9s	14								12			2/K
900	1415	3-4"							13			

1-19 #4 Mon/Tues.

I Date Sept 2/3 Observers WXL/Tn

Emulsion Batches:

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
	CC 4161A	AQ Psc	01 21 04	+ 7 36 21	01 34 02		0 51 E		900
	15	Comp						Felke ND45	95
	16	AQ Psc			01 51 58				913
	17	"			02 07 33				1500
	18	Comp						"	95
	19	B/AS(4)			02 25				
	20	AQ Psc			02 26 55				901
	21	"			02 42 35				906
	22	Comp						"	95
	23	AQ Psc			03:00:12				909
	24	Comp						"	95
	25	B/AS(4)			03 20				
	26	Comp			03 23 42			"	95
	27	GZ And	02 12 12	+44 40 00	03 23 42				900
	28	"			03 39 22				900

CCD
Spect. Temp.
Focus.....6.6
SFO
SFO Temp.

up. Mir. See
1748 4

1468 3

1545

1519

346 2

341

CCD
 Spectr. Temp. -100.7°C Dome Temp./Hum. $+19.4^{\circ}\text{C}$ 74% 14 Transparency Conditions Fine 20

Focus 6.62

CCD
 Spectr. Temp. -10.015°C Dome Temp./Hum.

Comparison Filter Exp	Exp. Mtr.	Seeing	Mag. ✓	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
900	no filter 1448	4"	8.9	F8	CHSSCCD	1800 μm 47.050	306	518A11	14		90/1 S/N	
95									15			2K
913	1468	3"							16			
	1500								17			
95									18			
									1			
94	1545								19			
918									20			
95									21		Re home/mirror → mirror #1	
909	1519								22			
95									23			2K
									1			
95									24			3.6K
900	306	2"	10.9	G5 II					25		> 40/1 S/N	
95	301								26			

2/p9#5 mon/Tues

Date Sep 2/3/96 Observers W & L / Tn

Emulsion Batches:

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[illegible]

CD
Spectr. Temp

Focus . . . 6

Spectr. Temp

Exp. Mtr. S

 $0.70 \text{ ft}^3/\text{hr}$

20

27

070

250

10

[illegible]

3007

25

5700

1

1

1

279#1

Tues / Wed

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

Emulsion Batches:

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.
C41645	BIAS(4)			19 41					
46	Comp							FeAr ND#5	9s
47	HD 187691	19 46 14	10 09 55	19 48 14		1 25 E			90
48	Comp							"	9s
49	Comp							"	9s
50	SV Equ	20 57 19	2000 +5 48 52	19 56 47		2 09 E			90s
51	Comp							"	9s
52	Comp							"	9s
53	DK Cyg	21 35 02	2000 +34 35 42	20 22 40		2 21 E			90s
54	"	"	"	20 38 03					90s
55	Comp			20 27				"	9s
56	BIAS(4)			20 55					9s
57	Comp							"	9s
58	SV Equ	20 57 19	2000 +5 48 52	21 04 22		1 01 E			90s
59	Comp								9s

CCO
Spectr. Temp

Focus.....6

Spectr. Temp

Exp. Mtr.

120-1/2

374

780

315

350

730

CCD
Spectr. Temp. - 100.5°C

Dome Temp./Hum. +22.9°C 57%RH

Transparency Conditions Part cloudy 24

Focus 6.62

Spectr. Temp. - 100.6°C

Dome Temp./Hum. +21.7°C 61%RH 90C grain

390 0 50 1024 4 1 CCD FmT

Comparison
Filter Exp.

Exp. Mtr.	Seeing	Pl. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no filter				CASS CCD	1800 lines/mm 47.05	306	518A	1			
								3			2.8K
307K	1.2"	5.11	F8.1					4	std vel	source on during exp	4.9K
								5			2.8K
		9.0	A0					6			2.9K
780	1.2"	9.0	A0					7	DRL	> 70/1 S/N	
								8			2K
								9			2.2K
315	1.2"	10.3	A6.1					10		> 40/1 S/N	
350								11			
								12			2.9K
								1			
								13			2.8K
730	2.3"	9.0	A0					14		75/1 S/N	
								15			2K

Exp #2 Tues / Wed

Date 1996 Sep 3/4 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.
CC41660	Comp							FEAR I5 ND	9s
61	^{not} DK Cyg	21 35 02	+34 35 42	21 26 55					685
62	Comp							"	9s
63	The Real DK Cyg	"	"	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 Cyg			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

CCO
Spectr. Temp
Focus
Spectr. Temp

Exp. Mir.

No. / Hg

400

404

855

420

24

212

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

Dome Temp./Hum.

Transparency Conditions ... *hazy* ... *25*

Focus *6.62*

Spectr. Temp.

Dome Temp./Hum.

Comparison Filter	Exp	Exp. Mtr.	Seeing	Fig. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
<i>9s</i>		<i>no filter</i>				<i>CHSS CCD</i>	<i>1800 l/n/mm 4705</i>	<i>306</i>	<i>5184A</i>	<i>16</i>			<i>22K</i>
<i>685</i>		<i>400</i>	<i>1.2"</i>	<i>10.3</i>	<i>A6V</i>	<i>(19.5 A type)</i>				<i>17</i>		<i>no filter, wrong star STAR 1.5' south of intended</i>	<i>2K</i>
<i>9s</i>										<i>18</i>			
<i>900</i>		<i>404</i>	<i>1.2"</i>	<i>10.3</i>	<i>A6V</i>					<i>19</i>			
<i>9s</i>										<i>20</i>			
<i>9s</i>										<i>21</i>			
<i>900</i>		<i>855</i>								<i>22</i>			
<i>9s</i>										<i>23</i>			<i>1.7K</i>
										<i>1</i>		<i>-100.7°C</i>	
<i>9s</i>										<i>24</i>			<i>2.2K</i>
<i>920</i>		<i>420</i>	<i>2"</i>	<i>10.3</i>	<i>A6V</i>					<i>25</i>			
<i>900</i>		<i>424</i>								<i>26</i>			
<i>9s</i>										<i>27</i>			
<i>9s</i>										<i>28</i>			
<i>900</i>		<i>212</i>	<i>1.2"</i>	<i>10.8</i>	<i>F8</i>					<i>29</i>			

Vp9#3 Tues/Wed

Date ..1996..Sep.3/4..... Observers ...W.S.L./T.S.....

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							Fe4 #5	9s
77	BIA 5(4)			23 44 ✓					
78	BB Peg			23 52 08 00 02 41	edit Time and date ✓	23 W			1003
79	"			error time 00 11 40	edit date ✓				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 ^{83/86}	HP 3765	00 35 18	+39 40					4x	67ms
87/90	DAKs							4x	67ms

Spectr. Temp.

Focus.....

Spectr. Temp.

Exp. Mtr.

no 4/90

240

308

308

270

271

1650

Spectr. Temp. Dome Temp./Hum. $+21.0^{\circ}\text{C}$ 63% H Transparency Conditions ... some cloud 28

Focus 6.62

Spectr. Temp. Dome Temp./Hum.

Comparison Iter. Exp.	Exp. Mtr.	Seeing	Phot. 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		
915									31			1.8K
									1			
1003	300								1		Rebooted All due to some hanging up "Type	
918	300				Acer Time Reset (ok now)				2	[Acer Time being ^{Apogee} timing] corruption?"		
915									3			1.7K
901	270								4			
900	271								5		some clouds in.	
915									6		CCOT - 100.9%	
									1			
915									7			2K
918	1650	2"	7.36	dk5					8	std vel		1.8K
915									9			2.5K
915			"	"	ABOVE			306 μ slit		Seeing Test Dome WSW		
915					Default Box centered used					Photo Thin cloud, no wind		

NP9#4 Tues/Wed

Date 1996 Sep 3/4 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.
CG80691/92	HD3765					0 23E		2x 133 _u	
93/94	DARKS							2x 133 _u	
CC41688/92	FLATS x 5							Tung Filter 5	9s
93	Comp							12An Filt 5	9s
94	GZ And	2000 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		W			900
98	"			02 58 29		4 18W			1000
99	comp							"	9
CC41700	BIAS(4)			03 18					
01	Comp							"	9
02	GZ And	02 12 12	44 40 00	03 22 10		ES			960
03	"			03 39 24		.			987
04	Comp							"	9s

Spectr. Temp.

Focus...

Spectr. Temp.

Exp. Mtr.

220

230

221

204

115

Spectr. Temp.

Dome Temp./Hum.

Transparency Conditions ... *P.O.A.T. cloudy* 30Focus ... *6.62**increasing cloud*

Spectr. Temp.

Dome Temp./Hum.

Comparison ter Exp.	Exp. Mtr.	Seeing	Pg Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
133m			726	dk5			306a				Seeing tests continued.	
133m											All with default box and same intensive settings	
9s							518'		10c:			15.7K
9s									11			2.1K
950	220	1'-2"							12c:		> 30/1 5/N	
9s									13			2K
9s									12.			
900	230	3"	10.3	A6V					14		clouds in	
1000	221								15			
9									16			1.7K
									1			
9									17			2.2K
960	204	1'-2"	7/11	G5V					18		> 30/1 5/N thin clouds.	
937	215								19			
9s									20		7.8/1	

Spectr. Temp.

Dome Temp./Hum. $+17.0^{\circ}\text{C}$ 76%

[illegible]

77#1

Wed / Thurs

Date ... 1996... Sept. 4/5. Observers ... K.O.K. / 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.
CC4171115	Bias(4)			STellar with (OG560 order sep) comparison with				ND12 + R60 filter	
12	Comp							FeAr 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			589
7 22	Comp	"	"	20 21 00		2 17 E		"	747
23	Comp							"	0.5 sec
24	Bias(4)			20 36 03					
25	Comp							"	
26	HD 207687	21 45 42	-10 31 00	20 39 48		2 20 E			618
27	"	"	"	20 50 47		2 5 E			831

CO
Spectr. Temp
Focus ... 6
Spectr. Temp

Exp. Mir. S

No. f./2

300

100

2000

2000

200

1700

71

126

CCD Spectr. Temp. -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 CCDFMT

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no f: / 102					831.1 μ 37.8	306 μ	7900 Å $\pm 15 \text{ Å}$	1 c			
								5			8K
1300		2.8	G8 III					6	Mk std		8K
1400		11	"					7	"		8K
								8			(8.7K)
								9			
2400		3.48	Ko III					10	Mk std		
2000			"					11	"		15.7
								12			
1200	2"	8	Ko III					13			
								14	Carbon pgn		46K
1700		"	"					15	"		46K
								16			
								1			
								17			10K
1271		7.88	Ko III					18	Carbon pgn		68K
1226		"	"					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	Exp
cc41728	Comp				R60+ND1.2 →		FeAr	Filter #5	0.55s
29	Comp						"		"
30	HD 177724	19 00 49	13 42 53	21 12 10	0 48 W →				28 2300
31	"	"	"	21 13 37	0 50 W →				30 2200
32	Comp						"		0.55s
33	Comp						"		"
34	HD 9826	01 30 56	40 54 19	21 25 11		5 29 E			79 750
35	"	"	"	21 27 46		5 E			55 1900
36	Comp						FeAr		0.55s
37-41	FLat x 5			note - (Done with R60+ND1.2 like FeAr comp)			tung		
42	Bias (4)			21 46					
43	Comp						FeAr		0.55s
44	Juno	01 11 20	02 29 30	21 58 04		4 00 E			1930 1300
45	Comp						FeAr		0.55s
46/50	FLATS x 5			with	(OG 560 filter + ND 1.2 in)				11
27	"	"	"	"					

CCD Spectr. Temp. -100.3° C

Dome Temp./Hum. ... +22.1°C 62.4% / Transparency Conditions ... Thick. Haze ... 3G

Focus 6.65

Spectr. Temp.

Dome Temp./Hum. ... +20.8°C 71% H

90 c gain

240 050 1024 + 1 CCD unit

Comparison Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
0.5	10 filter	using 100 t scale				831 / 378°	306	7900 Å	20c		OI	10K
									21			
28	2300		2.99	ADT					22	Telluric st		7.4K
80	2200		"	"					23	"		"
0.82									24			8.5K
									25			
89	2750		4.1	F8V					26	1K std		11 K
55	1900		"	"					27	"		12.4K
0.82									28			7.8K
	Will do with OG 560 order separation latter.								29			12K
									1			
0.82									30			
1.0	1300	3"	8.2	G2V					31	Sp. std	AIR MASS 2.9 Indeed, moving South 10" / 30 mins or so	11 K 3.8K
0.55									32			
11			1000 t scale						33			11.1K

pg# 327

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.
CC 41751	Comp				(ORDER Sep R:60 ± ND 1.2)			FeAr #5	1
52	HD 148856	16 25 55	21 42 27	22 48 03					30
53	"	"	"	22 49 11		9T West Limit			41
54	Comp B/H S (4)			22 58				FeAr	1
55	B/H S (4)			22 58					
56	Comp						FeAr		1
57	"						FeNe #5 Filter		.5x
58	HD 204848	21 26 12	-10 11 00	23 09 29		0 32 E			810
59	Comp						"		2.5x
60	Comp						"		1
61	HD 207687	21 45 42	-10 31 00	23 27 54		0 31 E			789
62	Comp						FeNe		0.5
63	Comp						"		"
64	HD 197989	20 42 12	33 36 00	23 17 43		1 42 W			747
65	Comp B/H S (4)						"		0.5
66									

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

Exp. Mtr. S

1/0 f/12

1520

14/5 3

2300

^{ced}
Spectr. Temp. 100.3 °C Dome Temp./Hum. Transparency Conditions Hazy 38

Focus 6.68

Spectr. Temp. Dome Temp./Hum. ⁵⁰ / Harder 8580 Å

Comparison
Filter/Exp

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1	no filter			CHSSCED	831 m/m 39.70	306u	8572 Å	1		CII Triplet	
30		2.8	G8IV				I.51 Å	3	mk std.		7.5K
41		2.8	G8IV				Ⓢ Row 512	4	u		
1								5			
								1			
1								6			
5k								7			
80	1520	4"	8	KOIII				8	Carbon pgm		
0.5k								9			8.5K
1								10			
70	1415	3.4"	7.88	KOIII				11	Carbon pgm		11K
0.5								12			
								13			
70	2300	3.48	KOIII					14	mk std		12K
0.5								15			
								1			

pg#4 29

Date 1996... Sep 4/5.. Observers ... K. K. / 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.
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		E 0 E			141
72	Comp						"		.5s
73	Comp								
74	Juno	01 11 20	02 29 30	00 13 27		1 50 E			1/28
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

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

Exp. Mtr. Spectr. Temp.

1541

1800

516

1725

Spectr. Temp. ⁴⁴100:5.C..... Dome Temp./Hum. 20.3°C, 71.6% H Transparency Conditions H₂O₂y. → Thick..... 40
 Focus ... 6.6.....
 Spectr. Temp. Dome Temp./Hum.

Comparison
Filter Exp.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
.55							8572	16			
1	1541	4.1	F8V				8580 in Hand	17	MKstd		3.9K
.5								18			
~								19	1st Hstd		
III	1700	5.4	G5III					20	MKstd		6.7K
IV								21			
								22			
1/5	1516	8.2	G2V					23	Sp.Std		3.4K
0.5								24			
								25			8.5K
1/5	1728	4.82	G5V					26	Mkstd		6.5K
~								27			
16								1			
								27			10.8K

Pg#541

Emulsion Batches:

Date 1996... Sep 4/5. Observers ... Koh/Tr.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
cc41785	Comp							FeAr	0.55
86	HD20630	03 14 07	03 00 13	01 08 32		3 E			233
87	Comp							"	0.5
88	Comp							"	~
89	HD27022	04 11 18	64 54 00	01 19 36		4 10 E			91
90	Comp							"	0.55
91-92	Flats x2				06560 +	ND1.2 +	#5 Filter	ting	115
93	Bias (4)								
cc41794	Comp					only	Filter #3	FeAr	2
95	HD9826	01 30 56	40 54 19	02 01 22		0 50 E			123
96	Comp							"	25el
97	Bias (4)			02 05					
98	Comp							"	25
99	HD27022	04 11 18	64 54 00	02 13 57			3 21 E		236
cc41800	Comp							"	

 (C1)
 Spectr. Temp.
 Focus.....
 Spectr. Temp.

Exp. Mtr. S

1666

1650

10400

2700

CCD Spectr. Temp. ... 1.20.5... Dome Temp./Hum. ... +20.5°C, 67% H Transparency Conditions .55% Hazy..... 42

Focus 6.65

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

Filter	Exp	Exp. Mtr.	Seeing	Pie Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
						CASS CCD	831/nl~ 37.8	306 μ	790A	56		Back to OF.	
		1666	4.82	G5II						6	Mkstd		9K
										7			
										8			
		1650	5.4	G5II						9	Mkstd		12K
										10			
										11			11.7K
										1			
						CASS CCD	1800/nl~ 46-8	306 μ	5150A	42	400 0 50 1024 4 1 CCD FWH	- Mg II lines -	
		10400	4.10	F8II						3	Mkstd		8.5K
										4			
										5			3K
		7700	1.2	G5III						6	Mkstd		10K
										7			

pg#6 43

Date 1996 Sep 4/5 Observers Kok / T.A.

Emulsion Batches:

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[illegible]

CCD
Sect. Term

Focus

Spectr. Ten

Exp. Mtr.

no file

829

1800

400 0 50 1024 4 1 CDFMT

[illegible]

Pg# ¹⁵ Thurs / Fri

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

Emulsion Batches:

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	+43 0812	20 0344		0 31 W			1185
13	Comp						"	"	55
14	HD 172187	"	"	20 2421		0 58 W			1266
15	Comp						"	"	55
16	BIAS (4)			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 (4)			21 43					
24	Comp						"	"	5
25	HD 148213	16 2150	+37 3718	21 4729		4 34 W			1628
		(16 2150	+37 3718)						

CCD Spectr. Temp.

Focus

CCD Spectr. Temp.

Exp. Mir.

No. f. Hca

12.2k

126k

Accumulation
Sat. Val.

BG 39 f. Hca

14K

10.3k

Spectr. Temp. ^{CCD} ... -100.7°C ...

Dome Temp./Hum. ... +23.0°C 70% H

Transparency Conditions ... Hazy to thinly cloudy... ⁴⁵

Focus ... 6.65 ...

Spectr. Temp. ^{CCD} ... -100.7°C ...

Dome Temp./Hum. ...

^{CCDFMT}
420 0 50 1024 4 1 ~ MAX ADU

Comparison Iter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
5	no filter				CASSED 1900 l/min TILT = 42.6°		306u	4462A	4c	That	Hot pixel @ 001 26 tonight.	3.8K
1185	12.2K	4"	6.40	F0V	F0 Ar source on 1st 500 sec of exp			± 1 Å	5c	Blk SB2	Tel encoder normalized +00, 200/1 S/N	
5									6			
166	12.6K	3-4"	"	"					5			4K
5									6			3.4K
									1			
5									7			3.4K
1022	Accumulation failed.	4"	5.09	A5V					8	A-shell Blk	clear here, no exposure	6.6K
5									9			3.1K
5									10			3.6K
1022	BG39 filter 14 K	3-6"	4.30	B8V					11	dbl line SB	~ 260/1 S/N	5.7K
5									12			3.4K
									1			
5									13			3.6K
1628	10.3K								14			4.3K

1940 47 — Thurs / Fri

Date 1996 Sep 5/6..... Observers Blh / Tn.....

Emulsion Batches:

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[illegible]

Wind SE @ 21 EST Pearson 102.01 Kpsols
and Rising

[illegible]

49
pg#1 Tues/Wed

Date .1996. Sep 10/11... Observers .KISS. I. Th.....

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 HORTMAN					2 35 W		ThAr	3/2
85	BHAS(4)								
ce12686	Comp HD176155							ThAr	2s
87	FF Ag1	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	BHAS(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
Spectr. Temp.
Focus.....
CCD
Spectr. Temp.

Exp. Mtr.

no filter

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. $\rightarrow \text{CCD}$ 0 0 128 1024 81 focus

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
3/2	no filter			Echelle 19.85	6004/mm 13030	60u 600uH 6400A		1/2	focus	used 600H for focus. should use 400H light	
								1		[0 0 256 1024 41 CCDFMT]	
2s						90u = .265 600u light		3			
1873	180	2.4	5.18 5.68	F/G				4	Cepheid p/m		3.4k
2s								3			143k
2s								3			
440	180	3.4	3.48 4.39	F-G				5	Cepheid p/m	~ 250/1 S/N @ center	3.5
2s								3			
2s								3			
500	64	3.4	5.24 6.04	F-G				6	Cepheid	~ 170/1 S/N	
2s								3			
								1			
2s								3			
720	127	3.4	5.5	F-G				7	Cepheid		
2s								3			

pg #251 Tues / wed

Date 1996 Sep 10/11... Observers Kiss / 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
cel 2699	Comp							Th Ar	2s
700	HD 187691	19 46 14	10 09 55	21 30 37		0 55 W			783
701	Comp							Th Ar	2s
02	Comp							"	2s
03	HD 201078	21 02 18	+30 47 01	21 50 41		0 03 W			1000
04	Comp							"	2s
05	BIAS (4)			22 09					
06	Comp							"	2s
07	HD 177724	19 00 49	+13 42 53	22 14 42		2 16 W			163
08	Comp								2s
09	Comp								2s
10	HD 198726	20 47 13	+27 52 32	22 24 12		0 51 W			992
11	Comp								2s
12	Comp								2s
13	HD 17463	02 43 03	+68 28 27	22 49 56		4 56 E			1140
14	Comp								1s

SCP
Spectr. Temp.
Focus 1
Spectr. Temp.

Exp. Mtr.
Sec.

167 3

127 3

360

146

Spectr. Temp. -101.7°C ... Dome Temp./Hum. $+17.5^{\circ}\text{C}$ 788 H Transparency Conditions ... PLAT CLEAR ... 52

Focus ... 123.60 ...

Spectr. Temp. ... Dome Temp./Hum. ... 5.0

Comparison Filter Exp	Exp. Mtr.	Seeing	P _v Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Ar 3	no Filter		5.11	F8V	achelle 19-85	0600 In .3030	90u 600uH	6400	3			
783	167	3-4"	5.11	F8V					2	std vel	OK by Recat [H] notes	
Ar 3		5.2"							3			
2									3			
1000	127	3"	5.8	F/G					4	cephoid	short period.	
25									3			13K
									1			
2									3			
163	360		2.99	A0 Vn					2	Telluric std	Air mass 1.300	2.7K
23									3			
25									3			
992	146		5.4	F/G					5	cephoid		
25									3			
20									3			
1140			6.0	F/G					6	cephoid		
15									3			

pg #3 ⁵³ Tues/Wed

Date 1986 Sep 10/11

Observers Kiro/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							n	2s
23	HD 204867	21 2618	-06 0040	00 1548		1 50 W			198
24	Comp							n	2s
25	Comp							n	2s
26	HD 213307	22 2524	-57 5300	00 2946		1 14 W			638
27	Comp							i	2s
28	BIAS(4)			0043					
29	Comp								

(C)
Spectr. Temp.

Focus.....

Spectr. Temp.

Exp. Mir. St

no filter

214 2

180

365

482 2

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

Focus 2360

Spectr. Temp. Dome Temp./Hum. 27

Comparison
Filter Exp

Exp. Mtr.	Seeing	Ag. Mag.	Sp.	Inst.	X Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no filter				Echelle 19.85	0600 1.3030	90uW 600uH	6400A	1			
2s								3			
1034	214	2.3"	F-G					2	cepheid		1.7K
2s								3			1.6K
2s								3			
1073	180	2.3'	5.9 F-G					4	cepheid		1.7K
2s								3			
2s								3			
188	365	4"	2.9/GOIB					5	std vel	IAU std notes indicate As a "prob var"	3.9K
2s								3			
2s								3			
638	482	2.3'	4.3 F-G					6	cepheid	5 cep	4.5K
2s								3			
								1			
								3			1.5K

55
pg 44

Tues/Wed

Date 1996 Sep 10/11.... Observers Kiss/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.
CE 12730	HD 201078	21 02 18	30 47 01	00 49 00		3 W			1008
31	Comp							ThA	25
32	Comp							n	9
33	HD 32456	04 58 18	+55 13 00	01 21 54		4 10 E			1905
34	Comp							v	7
35	BIAS(4)			01 55					
36	Comp							n	2
37	SZ Tau	04 31 26	+18 20 30	02 04 52		3 09 E			1224
38	Comp							n	2
39	Comp							n	2
40	HD 22484	3 31 46	00 05 04	02 30 57		1 51 E			709
41	Comp							n	2
42	Comp							n	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.

10/11/96

46

59

66

112

140

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

Focus *12360*

Very light NW breeze all night

Spectr. Temp. ^{CCD} *-100.7^{\circ}\text{C}*

Dome Temp./Hum.

~ MAX

Comparison filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ x Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
<i>1008</i>	<i>no filter</i> 40	<i>3"</i>	<i>5.8</i>	<i>F16</i>	<i>Eclatello</i> <i>19.85</i>	<i>0600m</i> <i>3030</i>	<i>90u = .265</i> <i>600u H = .205</i>		<i>2</i>	<i>cepleid</i>		<i>1.7K</i>
<i>2</i>									<i>3</i>			
<i>4</i>									<i>3</i>			
<i>1905</i>	<i>59</i>	<i>3"</i>	<i>7.5</i>	<i>F-G</i>					<i>4</i>	<i>cepleid</i>		<i>900</i>
<i>1</i>									<i>3</i>			
									<i>1</i>			
<i>2</i>									<i>3</i>			
<i>122</i>	<i>66</i>	<i>3</i>	<i>6.6</i>	<i>F-G</i>					<i>5</i>	<i>Cepheid</i>		<i>1.2K</i>
<i>2</i>									<i>3</i>			
<i>2</i>									<i>3</i>			
<i>709</i>	<i>112</i>	<i>3"</i>	<i>4.28</i>	<i>F8V</i>					<i>6</i>	<i>std vel</i>	<i>OK by recent LAM notes</i>	<i>35K</i>
<i>2</i>									<i>3</i>			<i>12.9K</i>
<i>2</i>									<i>3</i>			
<i>213</i>	<i>148</i>		<i>5.2</i>	<i>F16</i>					<i>7</i>	<i>cepleid</i>		
									<i>3</i>			
									<i>1</i>			

Date 1996 Sep 10/11 Observers .. Kess / TH

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.....

.....

300

Transparency Conditions .. 1.424 50.

Spectr. Temp. -101.8°C Dome Temp./Hum. $+15.5^{\circ}\text{C}$ $86\% \text{H}$

[illegible]

54 pg#1 Tues / wed

Emulsion Batches:

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

Acer 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.
Ce127 ⁶¹ / ₆₂	Inboard / outboard		HARTMANN			~ 3 W	+30°	ThAr	2/2
63	BIAS(4)			22 3454					
64	Comp							"	2s
65	HD 213307	22 2524	+57 53 00	22 42 35		0 08 E			351
66	Comp							"	2s
67	Comp							"	2s
68	HD 163506	17 51 23	+26 03 57	22 55 09		4 54 W			1318
69	Comp							"	2s
70	Comp							"	2s
71	HD 177724	19 00 49	+13 42 53	23 23 00		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 36 06		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. $15.8^{\circ}\text{C} / 80.4\%$ Transparency Conditions PART Cloudy 60

Focus 2340 40 cm

Spectr. Temp. Dome Temp./Hum. C

Comparison Filter Exp.	Exp. Mtr.	Seeing	Pl. Mag.	Sp.	Inst. Echelle	Grating/ X Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
2/2	no filter				19.850	0600 3030	90u W 400u H	6400A	1/2		CCDFMT 0 0 128/1024 8 1	
							90u W 600u H		1		0 0 256/1024 4 1	
2s									3			15K
357	480	4"	24	F-G					4	cephoid	S cap	3.1K
2s									3			15.1K
2s									3			
138	41	3-6"	5.5	F-G					5	cephoid.		350 ABOVE 8K level
2s									3			
2s									3			
277	365	5"	2.99	A0In					6	Telluric Std	AIR MASS 1.84	
2s									3		one line saturated	
									1			
2s									3			
	60	5"	6.0	F-G					2	cephoid		
2s									3			

Cepg#2

Tues/Wed

Emulsion Batches:

Date 1996 Sept 17/18... 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.
CC12777	Comp							ThAr	25
78	HD198726	20 4713	+275232	000414		W			970
79	Comp							"	25
80	Comp							"	2
81	HD222368	23 3448	+5 0503	002506		029W			657
82	Comp							"	2
83	Comp							"	2
84	HD201078	21 0218	+304701	004117		3 24W			780
85	Comp							"	2
86	Comp							"	2
87	HD203468	21 1718	+642652	010948		3 43W			1156
88	Comp							"	2
89	BIAS(4)			0135					
90	Comp							"	2
91	HD203156	21 1523	+374855	014052		4 12W			
92	Comp							"	2

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

MAXAD4

Comparison Iter Exp.	Exp. Mtr.	Seeing	Mag. P ₀	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	cepleid		1.3K
25									3			
7									3			
657	245	5"	4.13	F 7V					7	Std Vel	OK by recent IAU notes	3-3K
7									3			
2									3			
980	141	5"-7"	5.5	F-G					5	cepleid		1.1K
2									3			
2									3			
1156		6"	5.1	Be					6	B-eunson cepleid	Nice HA En Telescope East Side	
2									3			
									1			
2		5.5"	5.8						3		still East side	15.1
	6	4.6"	5.8	F-G					2			
2									3			
											~ 60AD4 ABNE Bias	

63 pg#3

Thurs/Wed

Emulsion Batches:

Date 1996 Sep 17/8 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.
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							n	2s
806	BIAS (4) Comp after Topap			BIAS (4)					
	8.2 Taa			031944					671

Spectr. Temp

Focus.....

Ccd

Spectr. Temp

Exp. Mtr.

11.0 Filter

1

34

6

65pg#1

Wed / Thurs

Emulsion Batches:

Date 1996 Sep 18/19 Observers Kiss / 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.
CE 128 ^{07/08}	Inboard / outboard								
09	B1H5(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					225
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	B1H5(4)			20 08					

CCD

Spectr. Temp.

Focus...

Spectr. Temp.

Exp. Mr.

ra fr log

365

565

320

286

CCD Spectr. Temp. ... -100.8 °C ... Dome Temp./Hum. ... +17.2 °C 63.7% H Transparency Conditions ... Fine ... 66

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

CCD Spectr. Temp. ... -101.0 °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 19.85	0600/n/mm .3030	90uW 400uH 90uW 600uH <u>1K</u>	6400 Å	1/2 1 3	Focus test	0 0 128 1024 81 CCDPAT 0 0 256 1024 41 CCDPAT	
232									2			
355	365	4"-6"	3.5	F-G					3	cepheid		4.1K
23									3			
2									3			
225	565	3"	2.99	A0Vn					4	telluric st.	AIRMASS 1.156	3.6K
2									3			
2									3			
1000	320		5.5	F					5	Semi Regular		2.4K
2									3			16.1K
2									3			
1010	286	4"	5.7	F-G					6			2.7K
2									3			
									1			

64p902 wed/Thurs

Emulsion Batches:

Date ..1996..sep.18/19... 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	Ex
cel2823	Comp							ThAr	2s
24	HD188727	19 5129	+16 2211	20 13 52		0 15W			13/4
25	Comp							n	2s
26	Comp							n	2s
27	HD17463	2 43 03	68 2827	20 46 38		6 13 E			1000
28	Comp							n	2s
29	comp								2s
30	HD203467	21 1718	64 26 52	21 10 08		0 24E			600
31	Comp								2s
32	Comp								2s
33	HD201078	21 0218	+30 4701	21 3257		0 17W			900
34	Comp								2s
35	BIAS(4)			21 50					.
36	Comp								2
37	HD187691	19 4614	+10 0955	21 5521					714
38	comp								2

Spectr. Temp. ..

Focus.....23

Spectr. Temp. ..

Exp. Mtr. See

10 1/4

208 4

180 4

373 3

225

250

Spectr. Temp.

Dome Temp./Hum.

Transparency Conditions .. *Fine* *6.8* ..Focus *2.340**very windy from North*Spectr. Temp. *-101.8°C*

Dome Temp./Hum.

C2

Comparison Filter Exp	Exp. Mtr.	Seeing	☒ Mag.	Sp.	Inst. <i>Echelle</i>	Grating/ X Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
<i>2s</i>	<i>no filter</i>				<i>19.85</i>	<i>0600h/m</i>	<i>90u</i>	<i>6400A⁺</i>	<i>3</i>			
<i>13/4</i>	<i>208</i>	<i>4"</i>	<i>5.9</i>	<i>F-G</i>					<i>2</i>	<i>cephelid</i>		<i>2.1K</i>
<i>2s</i>									<i>3</i>			<i>14.8K</i>
<i>2s</i>									<i>3</i>			
<i>1000</i>	<i>180</i>	<i>4"</i>	<i>6.0</i>	<i>FG</i>					<i>4</i>	<i>cephelid</i>	<i>short period</i>	
<i>2s</i>									<i>3</i>			
<i>2s</i>									<i>3</i>			
<i>600</i>	<i>373</i>	<i>3'-4"</i>	<i>5.1</i>	<i>B</i>					<i>5</i>	<i>Bremian</i>	<i>odd absorption in center</i>	
<i>2s</i>									<i>2</i>			
<i>2s</i>									<i>1</i>	<i>After Acer Reboot,</i>		<i>15.9K</i>
<i>900</i>	<i>225</i>	<i>3'</i>	<i>5.6</i>	<i>F-G</i>					<i>2</i>	<i>Cephelid,</i>	<i>short period</i>	<i>2K</i>
<i>2s</i>									<i>3</i>			
<i>2</i>									<i>1</i>			
<i>2</i>									<i>3</i>			
<i>7/4</i>	<i>250</i>		<i>5.11</i>	<i>F8V</i>					<i>4</i>	<i>std vel</i>		
<i>2</i>									<i>3</i>			

69
p. 3

Date ... 1996 Sep. 18/19 ... 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.	Exp. Mir.	Spectr. Temp.
ce12839	Comp							Th Ar	2s	140	
40	HD 204867	21 2618	-06 0040	22 1126					173	330	
41	Comp							"	2s		
42	Comp							"	2s		
43	HD 177724	19 0049	+13 4253	22 1902					172	478	
44	Comp							"	2s		
45	Comp							"	2s		
46	HD 197572	20 3929	+35 1338	22 2647					156	135	
47	Comp							"	2		
48	Comp							"	2		
49	HD 198726	20 4713	+27 5232	23 0100		2 00W			871	271	
50	Comp							"	2		
51	Comp							"	2		
52	HD 203156	21 1523	+37 4855	23 2135		1 56W			1054	256	
53	Comp							"	2		
54	B1A5 (4)			23 41							

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

Focus

^{CCD}
Spectr. Temp. — *101.7* °C ... Dome Temp./Hum. *C2*

Comparison
Filter Exp.

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
<i>10</i> <i>f. per</i>				<i>Echelle</i>	<i>x</i> <i>0600</i>	<i>90u</i> <i>600u/11</i>	<i>6400A</i>	<i>3</i>			
<i>13</i> <i>330</i>	<i>5"</i>	<i>2.91</i>	<i>G01b</i>					<i>5</i>	<i>std vel</i>		
<i>3s</i>								<i>3</i>			
<i>3s</i>								<i>3</i>			
<i>172</i> <i>478</i>		<i>2.99</i>	<i>A0In</i>					<i>6</i>	<i>telluric Std</i>	<i>Thickness 1.463</i>	
<i>2s</i>								<i>3</i>			
<i>2s</i>								<i>3</i>			
<i>156</i> <i>135</i>		<i>6.7</i>	<i>F-G</i>					<i>7</i>			<i>1.7K</i>
<i>2</i>								<i>3</i>			
<i>2</i>								<i>3</i>			
<i>871</i> <i>271</i>	<i>4-6"</i>	<i>5.5</i>	<i>F-G</i>					<i>4</i>			<i>1.7K</i>
<i>2</i>								<i>3</i>			
<i>2</i>								<i>3</i>			
<i>1054</i> <i>256</i>	<i>3-4"</i>	<i>5.8</i>	<i>F-G</i>					<i>5</i>	<i>cephoid</i>		<i>1.7K</i>
<i>2</i>								<i>3</i>			
								<i>1</i>			

11 1944

Emulsion Batches:

Date 1996 Sep 18/19..... Observers Kiz. / 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.
ce12855	Comp							ThAr	2s
56	HD 213 307	22 2524	+57 53 00	23 47 23					250
57	Comp							"	2s
58	Comp							"	2s
59	HD 220 7	00 20 54	+50 43 00	23 57 17					180
60	Comp						ThAr	2sec	180
61	Comp						"	2sec	
62	HD 17463	2 43 03	+68 28 27	00 33 42		2 24 E			1073
63	Comp							"	2s
64	Comp							"	2s
65	HD 201078	21 02 18	+30 47 01	00 58 17		3 46 W			1075
66	Comp							"	2s
67	BIAS (4)			01 18 32					
68	Comp	after Topup							2s
69	HD 32456	4 58 18	+55 13 00	01 34 39		3 24 E			1902
70	Comp								2s

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

Focus *2340*

Spectr. Temp. ^{ced} -100.8°C Dome Temp./Hum.

Comparison Filter Exp.	Exp. Mtr.	Seeing	Mag. ✓	Sp.	Inst. <i>Echelle</i>	Grating/ X Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
<i>25</i>					<i>19.85</i>	<i>0600h 13030</i>	<i>90u W 600u H</i>	<i>6400A</i>	<i>3</i>			
<i>25</i>	<i>410</i>	<i>3"</i>	<i>3.6</i>	<i>F-G</i>					<i>6</i>	<i>cephoid</i>		<i>2.8K</i>
<i>25</i>									<i>3</i>			
<i>25</i>									<i>3</i>			
<i>100</i>			<i>7.5</i>	<i>F-G</i>					<i>2</i>	<i>cephoid</i>		
<i>25</i>									<i>3</i>			
<i>25</i>									<i>3</i>			
<i>1073</i>	<i>200</i>	<i>5-7"</i>	<i>6.0</i>	<i>F-G</i>					<i>4</i>	<i>cephoid</i>		
<i>25</i>									<i>3</i>			
<i>25</i>									<i>3</i>			
<i>1075</i>	<i>130</i>	<i>5"</i>	<i>5.6</i>	<i>F-G</i>					<i>5</i>	<i>cephoid</i>	<i>2nd exposure</i>	<i>1K</i>
<i>25</i>									<i>3</i>			
<i>25</i>									<i>1</i>			
<i>25</i>									<i>3</i>			
<i>1902</i>	<i>62</i>	<i>5"</i>	<i>7.5</i>	<i>F-G</i>					<i>2</i>	<i>cephoid</i>		<i>900</i>
<i>25</i>									<i>3</i>			

7.29.45

Emulsion Batches:

Date ..1996..5. Sep. 18/19..... Observers ..Kiss. 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.
CE12871	Comp							THAr	2s
72	HD 22484	3 31 46	00 05 04	02 12 56		1 35 E			774
73	Comp							"	2s
74	Comp							"	2s
75	SZ Tau	4 31 26	+18 20 30	02 30 04		2 08 E			1358
76	Comp							"	2s
77	Comp							"	2s
78	HD 40457	5 53 48	+35 19 00	02 57 24		2 57 E			1800
79	Comp							"	2s
80	BIAS (4)			03 30					
81	Comp							"	2s
82	HD 45412	6 22 08	+30 33 18	03 34 29		2 58 E			1118
83	Comp							"	2s
84	Comp							"	2s
85	HD 52973	6 58 11	+20 43 02	3 58 03		3 19 E			573

Spectr. Temp. Dome Temp./Hum. *112.6°C 6638H* Transparency Conditions *Fine* *74*

Focus

seeing getting worse

Spectr. Temp. Dome Temp./Hum.

Comparison Filter Exp.	Exp. Mtr.	Seeing	Mag. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
<i>2</i>	<i>no filter</i>				<i>Echelle</i>		<i>90u</i>	<i>6400f</i>	<i>3i</i>			
<i>74</i>	<i>240</i>	<i>5.4</i>	<i>4.18</i>	<i>F8V</i>					<i>4</i>	<i>st/vel</i>		<i>2.6H</i>
<i>3</i>									<i>3</i>			
<i>2</i>									<i>3</i>			
<i>1388</i>	<i>60</i>	<i>6"</i>	<i>6.5</i>	<i>F-G</i>					<i>5</i>	<i>cephoid</i>		<i>900</i>
<i>2</i>									<i>3</i>			
<i>3</i>									<i>3</i>			
<i>180</i>	<i>15</i>	<i>5.8</i>	<i>7.5</i>	<i>F-G</i>					<i>6</i>	<i>Cepheid</i>	<i>no Hx Em</i>	<i>± 900</i>
<i>2</i>									<i>3</i>			
<i>3</i>									<i>1</i>			
<i>3</i>									<i>3</i>			
<i>1118</i>	<i>125</i>	<i>7u</i>	<i>5.6</i>						<i>7</i>			
<i>2</i>									<i>3</i>			
<i>2</i>									<i>3</i>			
<i>573</i>	<i>300</i>	<i>7"</i>	<i>4</i>						<i>2</i>			<i>2.4</i>

Transparency Conditions *Fine* *75*

Spectr. Temp.

Dome Temp./Hum. $+11.4^{\circ}\text{C}$ 6638 H

→ max

Comparison Filter	Exp.	Exp. Mtr.	Seeing	P.L. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
2						Echelle	0660 +3030	90u W 600u H	6400A	3ci			
2s										3ci			
100%		218	6"	5.1	Be					4ci		Same apparent dbl	
2s										3ci		@ Hx em	
100%		193								5ci			
2s										3ci			
16	3s									1			14K
										1			

xy
pg #1

Thurs / Fri

Date 1996 Sept 19/20 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.
ce 12901	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	4171335	19 3707		0 32 W			870
11	Comp							"	2s
12	Comp							"	2s
13	HD 2207	00 2054	+504300	19 5840		4 20 E			1714
14	Comp							"	2s
15	BIAS (4)			20 30					

cc0
Spectr. Temp
Focus.....
Spectr. Temp

Exp. Mtr. S

0.1 sec

420

213

265

28

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

Focus 2.330 *slight change from previous* 90c gain

Spectr. Temp. Dome Temp./Hum.

Comparison Filter Exp.	Exp. Mtr.	Seeing	Pl [✓] Mag.	Sp.	Inst.	Grating/ X Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
2/2	<i>no filter</i>				<i>Echelle</i>	0600	90u	6400A	8/9	<i>focus test</i>	<i>CCDFMT</i> 0 0 128 1024 8 1	
2s					19.85	13030	400u 90u 600u		3		0 0 256 1024 4 1	
384	420	3"							5			4.1K
2s									3			
									1			
2s									3			
750	213	2"-3"							2			1.7K
2s									3			
2s									3			
870	265	2"-3"							6			
2s									3			
2s									3			
17/4	28	3"	7.5						7		A 2 00 00 11 A 5 00 00 51	500
2s									3			
									1			

79

19#2

Thurs / Fri

Emulsion Batches:

Date ... 1996 Sep. 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.
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								2s
26	HD188727	19 51 29	16 22 11	21 37 27					900
27	Comp	<u>stock header</u> ✓							2s
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. note

130

210

Spectr. Temp. Dome Temp./Hum. $+14.1^{\circ}\text{C}$ 71.6/74 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
2s					0600	90 μ W	6400	3			
100	130	3"	5.7	F-G	3030	600 μ H		2	Cepheid	$\Delta 00 00 23$ $\Delta 5-00 00 06$	12K
2s								3			
1								3			
600	300	3"	5.1	Be				5			
2s								3			
2s								3			
947	186		5.7	F-G				4	Cepheid		
2s								3			
2s								3			
900	Exp note balanced, was falling slightly							6	Cepheid		
2s	2130	2.3"	6.0	F-G				3			
is								3			
66	210		5.1	F8V				7c.	std vel		
								3			
								1			

61 p4#3

Emulsion Batches:

Date 1946 Sept 19/20.... Observers .. Kiss / Jan.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
32	Comp							ThAr	2 sec
33	HD 204867	21 2618	-060040	22 1533					190
34	Comp							ThAr	2 sec
35	Comp							"	"
36	HD 177724	19 0049	+134253	22 2508					180
37	Comp							ThAr	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	BIA5 (4)			23 38					

Ccd
Spectr. Temp.

Focus.....

Ccd
Spectr. Temp.

Exp. Mtr. S

5/14

333

400

148

222

222 3/2

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

Focus

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

Exp. Mtr.	Seeing	^V Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
2cc	100			Echelle		90u	6400H	3			
190	333	2.9	GOIL					2	stblue		
250								3			
180	400	2.9	ADU _n					4	te/lurk		2.2K
25								3			
1408	148	3.4	6.7 F-G					6	cepkid		1.5K
833	222	3	5.6 F-G					7	cepkid	$\approx 150/1 \text{ S/N}$ @ center	1.7K
916	222	3.4	5.8 F-G					4	cepkid		1.7K
								3			
								1			

Pg 44 67

Thurs/Fri

Emulsion Batches:

Date 1996 Sept. 19/20... Observers . Kiss / 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
(C) 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					1823
53	Comp							"	2s
54	Comp							"	"
55	HD 2207	0 20 34	+50 43 00	00 31 38		0 06W			1227
56	Comp							ThAr	2s
57	Comp								2s
58	HD 17463	2 43 03	+68 28 27	00 59 24		1 57E			904
59	Comp								2s
60	B115(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. Mtr. Se

305 2

82

61 3

209 2

145 5

CCD 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

Comparison Filter Exp.	Exp. Mtr.	Seeing	Mg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Ar 2s					Echelle 19.85	0600 .3030	90u	6400A	3			
237	305	2.4"							2	cephalid		
2									3			
1873	82		7.5	F16					3			
20									4	cephalid		700
"									3			
127	61	3"	7.5	F-G					3			
Ar 2s									5	cephalid		
7									3			
904	209	2.3"	5.7	F-G					3			
7									6	cephalid	112 00 00 25 15 100 01 57	
									3			13.7K
									1			
2									3			
1068	145	5.8"	5.7	F-G					2	cephalid		900
									3			

Pg 45 45

Thurs / Fri

Emulsion Batches:

Date 1996. Sept. 19/20... 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.
1 CE12964	Comp							ThAr	25
65	HD22484	3 3146	+000509	015302					748
66	comp							"	25
67	Comp							"	25
68	SZ Tau	4 3126	+182030	020926					1532
69	Comp							"	25
70	BIA5(4)			0236					25
71	Comp							"	20
72	HD45412	6 2208	303318	024211					724
73	Comp							"	25
74	Comp								25
75	HD40457	5 5348	+351900	025849					1500
76	Comp								25
77	Comp							ThA	25
78	HD52373	6 5811	204302	3:28:18					6000
79	Com								25

Spectr. Temp.

Focus... 12.2

Spectr. Temp.

Exp. Mtr. Se

10

5/12

755 4

100 4

143 4

41 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.

Topup by 0150

Comparison Filter Exp.	Exp. Mtr.	Seeing	P ₀ Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
4r 2s	No filter				Echelle 1985	0600 1/2m 3030	90u W 600u H	6400A	3			
748 2s	255	4"	4.18	F8V					4	std dev		3.4
2s									3			
1532 2s	100	4"	6.1	F-G					5	cephoid		1K
2s									3			
2s									1			
748 2s	143	4"	6.0	F-G					6	cephoid		1.2K
2s									3			
2s									3			
1500 2s	71	3-4	7.7	F-G					7	cephoid		500
2s									3			
2s									3			
6000 2s			4.1	F-G					2	cephoid		
2s									3			

pg# 667

Emulsion Batches:

Date 1996 Sep 19/20..... Observers ..Kiss, J.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.
1 ce12980	Comp							ThAr	2s
81	HD 203467	21 17 18	+64 26 52	03 46 52		6 19 W			630
82	Comp							"	2s
83	BIAS(4) Comp							"	2s
84	BD+33 1646 B	08 02 34	+33 06 25	04 05 01		4 01 E			1346
85	Comp							"	2s
86	BD+33 1646 A	"	"	04 30 11		3 35 E			1378
87	Comp							"	2s
88	BIAS(4)			4 56					
89	Comp							ThAr	2
90	HD 36395	5 26 18	-03 41 00	5 01 27		0 36 E			791
91	Comp							"	2
92/98	FLATS x 7					3 W		TUNG	3s
99/13K	Inboard/out					"		ThAr	2 1/2

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

Focus

CCD Spectr. Temp. -100.3°C ...

Dome Temp./Hum. $+11.3^{\circ}\text{C}$ 79% H

increasing cloud

Exp. Mtr.	Seeing	Pg Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emission	P.H.	Program	Remarks	Quality
25				Echelle	0600	90%	6400A	3		Telescope East Side	
30	335	3"	5.1	Be	3030	60%		4	Be em		
35								3			
45								3			
58	4	2-3"	12.1	M3				5	Vys H α pgr	Faintest SW of pair	
65								3		OH well	
1378	9	3-5"	11	M0				6	Em@H α in 30ADU above background.	a bit weak	
15								3		FOR "B"	
2								1		Continuum = 10ADU above	
79	15	2-5"	7.97	M1				3		Vys 250A H α double	
2								2			
3								3			
16								1			
12								8/9			

800u H

F=11.4 $^{\circ}$ F=2330

CCD slit
0 0 125 M2A S1
Still OK, Right on now

13K

pg 109 Fri/SAT

Date 1996 Sept 20/21 Observers Kiss/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.
CE1300 1/2	Inboard / Out Board					3 W	+39°	THA	2/3
3	BIAS(4)			1849					
4	Comp							THA	2s
5	HD 187929	19 4723	00 44 56	19 03 26					252
6	Comp							"	2s
7	Comp							"	2s
8	HD 163506	17 5123	+26 03 57	19 13 08					676
9	Comp							"	2s
10	Comp							"	"
11	HD 176155	18 5348	11 71335	19 24 29					499
12	Comp							"	"
13	Comp							"	2
14	HD 188727	19 5129	H62211	19 4245					645
15	Comp							"	2
16	Comp							"	2

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

Exp. Mtr.

Kaf 102

348

242

263

217

CCD Spectr. Temp. -101.7°C Dome Temp./Hum. $+18.2^{\circ}\text{C}$ 55% H Transparency Conditions P.A.T. Checky 90

Focus 2330 no need to change 90 c/gain

Spectr. Temp. Dome Temp./Hum.

Comparison Filter Exp.	Exp. Mtr.	Seeing	Plg. Mag.	Sp.	Inst.	Grating/ X Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
2/3	no filter				Echelle 19.85	0600m 3038	90x 400m	6400A	8/9		set for cooler again	
							90x W 600x H		1			
2/3									3			128K
2/2	340	1.2"	3.6	FG					4	cephoid		
2/3									3			
2/3									3			
6/6	242	1.2"	5.5	F					2	cephoid	semi Regular	
2/3									3			
1									3			
2/2	263	1"	5.6	F-G					5		160/1 S/N @ Hx	2.4K
1									3			
2									3			
6/5	217	1.2"	5.7	F-G					6			2K
2									3			14K
1/1									3			

pg 12 91

Fai / Sci

Date . 1996. Sept. 20/21. . . . Observers Miss. / 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	cel 3017	HD 187691	19 46 14	+10 09 55	19 57 11				8 1/2
18	Comp							Th Ar	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.....?

Exp. Mtr.

Spectr. Temp.

Focus.....?

Exp. Mtr.

Spectr. Temp.

Focus.....?

Exp. Mtr.

Spectr. Temp.

Focus.....?

Exp. Mtr.

Spectr. Temp.

Focus.....?

Exp. Mtr.

Spectr. Temp.

Focus.....?

Exp. Mtr.

Spectr. Temp.

Focus.....?

Exp. Mtr.

Spectr. Temp.

Focus.....?

Exp. Mtr.

Spectr. Temp.

Focus.....?

Exp. Mtr.

Spectr. Temp.

Focus.....?

Exp. Mtr.

Spectr. Temp.

Focus.....?

Exp. Mtr.

Spectr. Temp.

Focus.....?

Exp. Mtr.

Spectr. Temp.

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

Focus 2.330

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

Comparison Filter	Exp.	Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ x Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
8/16		250	1.2	5.11	F8K	Echelle 19.85	0600in 3030	90u 60u	6400A	3	st/vel		
25			1.2	5.11	F8K					3	st/vel		
1										3			
25										3			
172		350	2'	2.99	G016					2	st/vel		
25										3	st/vel		
25										3			
165		540	1.2	2.99	A0V					4	telluric st/vel		
2										3			
2										3			
420			1"	5.11	Be					5	Be		2.8k
2										3			
23		500								3			
										6			
										3			

pg #3 63

Emulsion Batches:

Date .. 1996 SEP 20/21... Observers ... Kiss / 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.
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	B/AS(1)			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 0543					1002
44	Comp							"	2
45	Comp								
46	HD 17463	02 4303	168 2827	22 2946					892
47	Comp							"	2

CD
Spec. Temp

Focus.....

Spectr. Temp

Exp. Mtr. S

218

260

190

317

320

Spectr. Temp. ^{CCD} -100.02 Dome Temp./Hum. +160°C 60% H Transparency Conditions 9.4

Focus

Spectr. Temp. Dome Temp./Hum.

Comparison Filter Exp.	Exp. Mtr.	Seeing	Pt. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
23					Echelle 19.95	0600m 13030	90u 600u	54009	3			
1773	218		6.3						7			
23									3			
1									3			
984	260	1.2	5.7						4			2.4K
1									3			
									1			
2									3			
746	190	2"	5.9						2	cepheid		
2									3			
2									3			
1002	317	1.2	5.7						5			2.2K
2									3			
892	220	2"							6			
2									3			

pg #4 *AK*

Date *1996 Sep 20/21* Observers *Kiss / 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.
<i>ce13048</i>	<i>Comp</i>							<i>ThAr</i>	<i>2s</i>
<i>49</i>	<i>HD 2207</i>	<i>0 2054</i>	<i>+504300</i>	<i>22 53 43</i>					<i>1811</i>
<i>50</i>	<i>Comp</i>							<i>"</i>	<i>2</i>
<i>51</i>	<i>BIAS(4)</i>			<i>23 26</i>					
<i>52</i>	<i>Comp</i>							<i>"</i>	<i>2</i>
<i>53</i>	<i>HD 32456</i>	<i>4 5818</i>	<i>+551300</i>	<i>23 31 07</i>					<i>1747</i>
<i>54</i>	<i>Comp</i>							<i>"</i>	<i>2</i>
<i>55</i>	<i>HD 32456</i>			<i>00 01 43</i>					<i>2025</i>
<i>56</i>	<i>Comp</i>	<i>"</i>	<i>"</i>					<i>"</i>	<i>2</i>
<i>57</i>	<i>BIAS(4)</i>							<i>"</i>	<i>2</i>
<i>58</i>	<i>HD 29260</i>	<i>4 31 24</i>	<i>18 20 00</i>	<i>00 40 50</i>					<i>1692</i>
<i>59</i>	<i>Comp</i>							<i>"</i>	<i>2</i>
<i>60</i>	<i>BIAS(4)</i>			<i>01 10</i>					
<i>61</i>	<i>Comp</i>								<i>2</i>
<i>62</i>	<i>HD 22484</i>	<i>3 31 46</i>	<i>+00 05 04</i>	<i>01 14 55</i>					<i>1809</i>
<i>63</i>	<i>Comp</i>								<i>2</i>

Spectr. Temp

Focus.....

CCD
Spectr. Temp

Exp. Mtr.

10
filter

108

55

148

210

355

Spectr. Temp. Dome Temp./Hum. $+15.4^{\circ}\text{C}$ 62.28/1 Transparency Conditions .. *increasing cloud* 96

Focus 2330

^{CCD}
Spectr. Temp. -100.4°C Dome Temp./Hum.

Comparison Filter Exp.	Exp. Mir.	Seeing	Mag. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
25	<i>no filter</i>				19.85°	0600	90° 600 μ	6900A	3			
18/1	100	1-2'	7.7						7		<i>some cloud</i>	700
2									3			14K
									1			
2									3			
1742	55	2'3"	18						2		<i>mostly cloudy</i>	
2									3			
2025	140	2"							4		<i>clearing</i>	1K
2									3			
2									3			
1692	210	1'2"-3"	6.5						5			
2									3			
									1			
2									3			
1089	335		4.28	F					6	<i>std vel</i>		3.4K
2									3			

pg 5 A7

Emulsion Batches:

Date .1996. Sep. 26/21.... 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.
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					693
69	Comp							"	2s
70	Comp							"	2s
71	HD 40457	5 5348	+351900	02 1511					1717
72	Comp							"	2
73	BIHS (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. S

193

316

90

318

250

Spectr. Temp. Dome Temp./Hum. $+14.1^{\circ}\text{C}$ 70% H Transparency Conditions .. *Part. Cloudy* 98.

Focus

Spectr. Temp. Dome Temp./Hum.

Temp by 02 EST

Comparison ter Exp	Exp. Mir.	Seeing	Hg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
25					<i>Echelle</i>	<i>600 nm</i>	<i>90u</i>	<i>6400A</i>	3			
849	193	2"	5.7				<i>600u H</i>		2	<i>cephoid</i>		
25									3			
25									3			
693	316	2"							4			2.2K
25									3			
25									3			
1717	90	2"							5	<i>cephoid</i>		700
2									3			
25									1			
412	318	2	4.3						3			12K
25									2			
25									3			
25									3			
601	250	2"-3"	5.1						4	<i>Be</i>	<i>Reversed.</i>	
2									3		<i>Ad -00 00 40</i>	
											<i>Ad -00 01 00</i>	

pg#699

Emulsion Batches:

Date ... 1996 ... Sept 20/24 Observers ... Hiss, 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.	Exp. Mtr.	Se
ce13080	Comp							Th4r	2s	No	1/12
81	HD2207	0 20 54	+50 43 00	3 24 46					1492	126	2
82	Comp							"	2s		
83	Comp							"	2s		
84	HD17463	2 43 03	+68 28 27	3 56 19					380	300	
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	8-52	
89	Comp							"	2s		
90	BD+33 1646A			04 41 26					1215	18	2
91	Comp							"	2s		
92	Comp							"	2s		
93	HD 36395	5 26 18	-03 41 00	5 07 10					572	32	
94	Comp							"	2s		

Spectr. Temp. Dome Temp./Hum. $+14^{\circ}\text{C}$ 75% Transparency Conditions *Hazy* (12)

Focus 2330

Spectr. Temp. Dome Temp./Hum.

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ X Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
2s	no filter			19.85	0600	90u	6400A	3			
1492	126	2"	7.7					5		Telescope still reversed	
2s								3			
2s								3		still east side	
300								6			
2s								3			
								1			
2s								3			
1340	18 8	2"	12.1	M3				4	Vys 250B	nicely dbl ex?? slight haze	
2s								3			
1215	18	2"	11	M0				5	1/2 250A		
2s								3			
2s								3			
572	32		7.7	M1				6		image still vel	
2s								3			

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

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Spectr. Temp.

[illegible]

Spectr. Temp.

Dome Temp./Hum.

Transparency Conditions . . . Haze 102

Focus 2330

Spectr. Temp. -99.5°C

Dome Temp./Hum. +13.7°C 72%RH

[illegible]

103
pg 41

Mon / Tues

Date 1996 Sep 23/24 Observers Kiss / 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.
ce13103/164	Inboard / Outboard		Hartmann			24W	+40°	ThAr	2/2
ce13105	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					70
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					10/3
17	Comp							"	2s
18	BIAS(4)			20 07					

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

Exp. Mtr. S

10/11/96

280

264

224

220

CCD Spectr. Temp. -100.3°C

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

Transparency Conditions $\dots\dots$ Fine - thin ¹⁰⁰ ~~slightly~~

Focus $\dots\dots$ ~~2100~~ $\dots\dots$ 2300

Changed From previous

90C gain

Bright moon 3/4

CCD Spectr. Temp. -100.9°C

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

Tel Focus 2100

Comparison Filter	Exp.	Exp. Mtr.	Seeing	Pk. Mag.	Sp.	Inst.	Grating/ X Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
r	2/2	10 Filter				Echelle 18.95	0600 '3030	90u W 400u H 40u W 600u H	6400A	8/9 1 3	Focus test $\alpha=61$ Looks clean	CCDFMT 0 0 128 1024 8 1 CCDFMT 0 0 256 1024 4 1	
r	2	270	4"	4.3	F-6					2	cepleid		
	2									3			
1	2									3			
70	2	264	3"	5.5	F-6					4	slightly cepleid		
	2									3			
	2									3			
80	2	224	3"	5.6	F-6					5	cepleid		2K
	2									3			
	2									3			
10	2	228		5.6	F-6					6	cepleid		16.3K 1.4K
	2									3			
										1	$\alpha=1.657$		

105
p442

Mon/Tues

Date 1946 Sep 23/24 Observers Kiss/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.
ce13119	Comp							ThAr	2s
20	HD 185727	19 5129	+16 2211	20 1221					869
21	Comp							"	2s
22	Comp							"	2
23	HD 187690	19 4614	+10 0955	20 3102					680
24	Comp							"	2
25	Comp							"	2
26	HD 204867	21 2618	-06 0040	20 4728					200
27	Comp							"	2
28	Comp							"	2
29	HD 177724	19 00 49	+13 4253	20 5517					116
30	Comp							"	2
31	Comp							"	2
32	HD 203467	21 1718	+64 2652	21 0455					593
33	Comp							"	2
34/35	B1H5(4) x 2			21 18					

Spectr. Temp

Focus.....

Spectr. Temp

Exp. Mtr.

No. 5/11/42

252

233

270

375

360

Spectr. Temp. Dome Temp./Hum. Transparency Conditions 166

Focus

Spectr. Temp. Dome Temp./Hum.

Exp. Mtr.	Seeing	Ag. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
29								3			
252		5.6	F-6					2	explor		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 E port 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		$\sigma = .739$	

107
pg#3

Mon / Tues

Emulsion Batches:

Date .1976. Sept. 23/24. 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.
ce13136	Comp							THAr	2
37	HD 213307	22 2524	+57 53	21 24 29					178
38	Comp							"	2s
39	Comp							"	2s
40	HD 197572	20 3924	+35 13 38	21 32 49				+	1202
41	Comp							"	2s
42	Comp							"	2s
43	HD 198726	20 4713	+27 52 32	21 57 43					930
44	Comp							"	2s
45	Comp							"	2s
46	HD 203156	21 15 23	+37 48 55	22 17 56					801
47	Comp							"	2s
48	BINS (4)			22 33					
49	Comp								2s
50	HD 2207	00:20 54	50 43 00	22 40 16					1802
51	Comp								2s

Spectr. Temp

Focus.....

Spectr. Temp

Exp. Mtr.

Spectr. Temp. Dome Temp./Hum. $+10.6^{\circ}\text{C}$ $60\% \text{H}$ Transparency Conditions *Fine* 105

Focus 2300

Spectr. Temp. Dome Temp./Hum.

Comparison Filter Exp.	Exp. Mtr.	Seeing	Plg Mag.	Sp.	Inst.	Grating/ x Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
2	no filter				Echelle 19.85°	0600M 3030	90u W 600u H	6400A	3			
178	360	3"	3.5	F-6					2	Cepheid		2.4K
25									3			
75									4			
1202	207		6.5	F-6					4	Cepheid	1st exp	1.5K
25									3			
25									3			
730	260	3"	5.8	F-6					5	Cepheid		1.7K
25									3			
25									3			
84	268	2.3"	5.9	F-6					7	Cepheid		1.7K
25									3			
									1	$\sigma = .718$		
25									3			
1802	110	3"	7.5	F-6					2	Cepheid		850
25									3			

109p4#4

mon / Tues

Emulsion Batches:

Date 1996 Sep 23/24... 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.
CE13152	Comp							ThAn	2s
53	HD 17463	24303	+682827	231701					870
54	Comp							"	2s
55	Comp							"	2s
56	HD 32456	45818	+551300	233703					1600
57	Comp							"	2s
58	BPAS(A)			0005				"	2s
59	Comp							"	2s
60	HD 26630	40733	+480919	001302					303
61	Comp							"	2s
62	Comp							"	2s
63	HD 22484	3346	+000504	002349					63
64	Comp							"	2s
65	Comp							"	2s
66	HD 29260	43124	182000	003813					1353
67	Comp							"	2s

Spectr. Temp.

Focus.....

Spectr. Temp.

Exp. Mtr. S

No
1/4

330

100

550

256

14

Spectr. Temp. Dome Temp./Hum. *17.9°C... 62.4% / 11* Transparency Conditions *Fine* *110*.

Focus

Spectr. Temp. Dome Temp./Hum.

Comparison Filter Exp.	Exp. Mtr.	Seeing	Phot. Mag.	Sp.	Inst.	Grating/ X Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
<i>2s</i>	<i>no filter</i>				<i>Echelle</i>	<i>060061/m</i>	<i>90u W</i>	<i>6400A</i>	<i>3c</i>			
<i>870</i>	<i>330</i>	<i>2"</i>	<i>5.9</i>	<i>F-6</i>	<i>19.85</i>	<i>3030</i>	<i>600u H</i>		<i>5c</i>	<i>cephid</i>		<i>2.6K</i>
<i>2s</i>									<i>3c</i>			
<i>3</i>									<i>3</i>			
<i>1600</i>	<i>100</i>	<i>2"</i>	<i>7.5</i>	<i>F-6</i>					<i>6</i>	<i>cephid</i>		<i>1.2K</i>
<i>2s</i>									<i>13</i>			
<i>2s</i>									<i>3</i>		<i>Bias(4) 0.5 = .803</i>	
<i>303</i>	<i>550</i>	<i>1.2"</i>	<i>4.1</i>	<i>G0J6</i>					<i>2</i>	<i>Std for metalicity</i>		
<i>2s</i>									<i>3</i>			
<i>2s</i>									<i>3</i>			
<i>63</i>	<i>256</i>	<i>3"</i>	<i>4.28</i>	<i>F9II-V</i>					<i>4</i>	<i>std vel</i>		
<i>2s</i>									<i>3</i>			
<i>2s</i>									<i>3</i>			
<i>1358</i>	<i>144</i>	<i>2.3"</i>	<i>6.5</i>	<i>F-6</i>					<i>5</i>	<i>cephid</i>		
<i>2s</i>									<i>3</i>			

11/15

Date 1996 Sep 23/24 Observers Kiss, 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.
ce13168	Comp							THAr	2s
69	HD 5394	0 5040	+601031	01 0659					7s
70	Comp							"	2s
71	BIAS(4)			01 10					
72	Comp							"	2s
73	HD 45412	06 2208	30 3318	01 1612					570s
74	Comp							"	2s
75/82	FLATS x 7							"	2s
85	HD 52973			01 47 01 3019		2 47W + 7°		"	2s
87	Comp							"	2s

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

Exp. Mtr.

Spectr. Temp. -102.0°C

Dome Temp./Hum.

Transparency Conditions *increasing cloud* 112

Comparison iter	Exp.	Exp. Mtr.	Seeing	Pg. Mag.	Sp.	Inst.	Grating/ x Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
-	2s						0600		6400A	3			
	7s	570		2	Be					7	Be for comparison		4K
	2s									3			15K
										1		$\sigma = .1.075$	
	2s									3			
	7s	170		5.8	F-6					2	cephid		1.2K
	2s									3			
	7s									7			10K
		All to Embryo, M DRIVE = F DRIVE, to 183											
		3-4	4.0	F-6						4	cephid	cloudy	$\sigma = .957$
	7s									3			

113
p941

Wed / Thurs

Date ... 1996. Sept. 25/26 Observers ... Kiss / 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.
ce 131 ^{84/90}	FLATS x 7			18 32		2 52W	+30°	Tung	2
94	BIAS (A) (written @ 19:03)			18 47					
94	Comp							ThAr	2
92	HD 187929	19 47 23	+00 44 56	18 49 54		0 51E			548
93	Comp							"	2
95	Comp							"	2
96	HD 175123	17 51 23	12 60 35	19 08 11					601
97	Comp							"	2s
98	Comp							"	2s
99	HD 176155	18 53 48	+17 13 35	19 23 25					658
CE-13200	Comp							"	2s
01	Comp							"	2s
02	HD 203467	21 17 18	+64 26 52	19 41 38					495
03	Comp							"	2s
04	BIAS (A)			19 51		1 25E	65°		

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

Exp. Mtr. S

No. fil/2

330

250

290 3

388 3

CCD — 101.3 °C Spectr. Temp. Dome Temp./Hum. +13.3°C 67% H 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-INT

Comparison
ter Exp.

Exp. Mtr.	Seeing	P.M. Mag.	Sp.	Inst.	Grating/ x Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
2	No filter			Edelle 17.850	0600h .3030	40u W 800u H 90u W 600u H	6900A	1			133K
2								1		~ = .735 (But not pined)	
548	330	4-5	3.6	F-G				3		STREAK (Horizontal)	13.6K
2								2	Cephid		6K
2								3			
2								3			
601	250	3"	5.5	F				4	semireg.		1.7K
25								3			
25								3			
658	290	3-4"	5.6	F-6				5	cephid		2.4K
25								3			
25								3			
415	388	3"	5.1	Be				6	Be pgr		
25								3			13.3K
25								1		σ = .835	

115
pg 12 Wed / Thurs

Emulsion Batches:

Date ... 1996... Sep. 25/26 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.	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	244	
10	Comp							"	25		
11	Comp							"	25		
12	HD 187691	19 46 14	10 09 55	20 25 34					577	325	
13	Comp							"	25		
14	Comp							"	25		
15	HD 204867	21 26 18	-06 00 40	20 38 45					185	335	
16	Comp							"	25		
17	Comp								25		
18	HD 177724	19 00 49	+13 42 53	20 46 42					136	550	
19	Comp								25		
20	BIAS (4)			20 50		2 2W	+14°				

Spectr. Temp. Dome Temp./Hum. *+12.2°C 67.6%* Transparency Conditions *Fine* *116* ..

Focus *2300*

^{cell}
Spectr. Temp. *-100.4°C* Dome Temp./Hum.

Exp. Mtr.	Seeing	Pgr. Mag.	Sp.	Inst.	Grating/ X Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
<i>23</i>				<i>Echelle</i>	<i>0600 L</i>	<i>90° W</i>					
				<i>19.85</i>	<i>.3030</i>	<i>600 L H</i>	<i>6400A</i>	<i>3</i>			
<i>209</i>	<i>362</i>	<i>3.9</i>	<i>F-6</i>					<i>2</i>	<i>Cepheid</i>		<i>3.1 K</i>
<i>3</i>								<i>3</i>			
<i>3</i>								<i>3</i>			<i>158 K</i>
<i>910</i>	<i>214</i>	<i>5.8</i>	<i>F-6</i>					<i>4</i>	<i>Cepheid</i>		<i>156 K</i>
<i>3</i>								<i>3</i>			
<i>21</i>								<i>3</i>			
<i>577</i>	<i>325</i>	<i>3"</i>	<i>5.11</i>	<i>F8V</i>				<i>5</i>	<i>std. vel.</i>		<i>2.2 K</i>
<i>71</i>								<i>3</i>			
<i>23</i>								<i>3</i>			
<i>185</i>	<i>335</i>	<i>3"</i>	<i>2.91</i>	<i>G0 Ib</i>				<i>6</i>	<i>std vel</i>		
<i>3</i>								<i>3</i>			
<i>71</i>								<i>3</i>			
<i>136</i>	<i>550</i>	<i>2.99</i>	<i>A0 V</i>					<i>7</i>	<i>telluric std.</i>		
<i>77</i>								<i>3</i>			
								<i>1</i>			

$\sigma = .942$ ^{no cosmic} _{RAYs}

pg#3117

Wed / Thurs

Emulsion Batches:

Date 1946. Sep. 25/26. 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.	Exp. Mtr.	Se
ce 13221	Comp							ThAr	2s		
22	HD 197572	20 39 29	+35 13 38	21 08 04		0 55W			1600	189	2
23	Comp							ThAr	2s		
24	BIFS(4)			22 57		2 10W	+28°				
25	Comp							"	2s		
26	HD 198726	20 47 13	+27 52 32	22 59 07		2 31W			1178	170	3
27	Comp							"	2s		
28	Comp							"	2s		
29	HD 203156	21 15 23	+37 48 55	23 22 18		2 28W			1220	92	3
30	Comp							"	2s		
31	Comp							"	2s		
32	HD 202904	21 13 48	+34 28 37	00 07 20		3 00W			395	275	2
33	Comp							"	2s		
34	Comp							"	2s		
35	HD 189687	19 56 15	+36 46 07	00 18 08					600	225	2
36	Comp							"	2s		

⁰⁰⁰ Spectr. Temp. -100.7°C @ 23 EST Dome Temp./Hum. $+11.2^{\circ}\text{C}$ 708/14 Transparency Conditions *Some cloud* 118

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
4 25				<i>Edelp</i>	0600	90 μ W					
				19.85	.3030	600 μ W	6400 μ	3			
160	189	2.3"	5.8					4		cloud	1.5K
4 25								3			
								1		$\sigma = .728$	
3								3			
1178	170	3"	5.6	F-6				5	cephalid		1.3K
25								3			
25								3			
120	92	3"-4"	5.9	F-6				6	cephalid	cloud again	700
25								3		topup done by 0005	
25								3			
395	275	2.3"	4.5	Be				4	Be		1.4K
25								3			
25								5			
60	225	2.3"	4.5	Be				5	60 μ m		1.2K
25								3			

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

Focus 2300

Spectr. Temp. Dome Temp./Hum. $+9.5^{\circ}\text{C}$ $78.8\% \text{H}$

Comparison Filter	Exp.	Exp. Mtr.	Seeing	Pk. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	7							90uW 600uH	6400H	3			
150		65	3"	7.5	F-G					6	Cepheid		800
7										3			
										1		Jr. 689 Lots of cosmic Rays	
23										3			
163		64	3"	7.5	FG					2	Cepheid		700
23										3			
2										3			
335		300	2"	4.5	Be					4	Be ppm		1.8K
2										3			
2										3			
1800		62	3"	6.6	F-G					5	Cepheid		1.0K
2										3			
2										3			
151		163	3"	5.8	F-G					5	Cepheid		2K
2										3			

191 py#5

Wed / Thurs

Emulsion Batches:

Date 1996 Sep 25/26.... 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.
ce13253	BIAS(4)			02 55					
54	Comp							ThAr	2s
55	HD 17463	2 43 03	+68 28 27	03 02 18					1282
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					
65	Comp								
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

ThAr 2s

CO

Spectr. Temp

Focus.....

Spectr. Temp

Exp. Mir.

S

160

338

h1

300

CCD Spectr. Temp. -102.0° Dome Temp./Hum. Transparency Conditions *Part cloudy* 122

Focus 2306

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

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>	<i>1</i>		<i>$\alpha = 1754$</i>	
								<i>3</i>			
<i>1292</i>	<i>160</i>	<i>5.9</i>	<i>F-6</i>					<i>2</i>	<i>cephrid</i>		<i>1.4K</i>
								<i>3</i>			
		<i>4.1</i>	<i>F-6</i>					<i>3</i>	<i>cephrid</i>		
<i>592</i>	<i>338</i>	<i>3"</i>	<i>4.1</i>	<i>F-6</i>				<i>4</i>	<i>cephrid</i>		<i>3.6K</i>
								<i>3</i>			
								<i>3</i>			
<i>1300</i>	<i>41</i>	<i>2.3-5.7</i>	<i>6</i>	<i>P-6</i>				<i>5</i>	<i>cephrid</i>		<i>500</i>
								<i>3</i>			
								<i>3</i>			
	<i>3'</i>	<i>5.0</i>	<i>Be</i>					<i>6</i>		<i>Encoder Dec error $\Delta\delta - 45745$</i>	
								<i>3</i>			
<i>300</i>								<i>7</i>		<i>$\Delta\delta - 9^{\circ}22'$ correct star now</i>	
								<i>3</i>			
								<i>1</i>		<i>$\alpha = 1733$</i>	

123
Pg#1 SAT/Sun after non observing TOURS

Date ...19.96. Sep. 28/29... Observers ...Kiss. I.Ta.....

Emulsion Batches:

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.....
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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 BOARD HARTMANN					~ 3 W	~ +30	ThAr	3/6
ce 13274	BIAS(4) done after 1st star			23 16					
71	Comp							ThAr	2s
72	HD 187929	19 4723	+004456	23 0741		3 38 W			4/3
73	Comp							"	2s
75	Comp							"	2s
76	HD 177724	19 0049	+134253	23 2110		4 35 W			200
77	Comp							"	2s
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							"	2s
83	Comp HD 188727		+16 2011	23 48 05					1200
84	Comp	19 5129						"	2s

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

Exp. Mtr. S

T=134°

218

257

248

25 5

CCD Spectr. Temp. -100.8 °C

Dome Temp./Hum. +13.1 °C 67.2% RH

Transparency Conditions clearing - cloudy 12.4
294in

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
3/6	no filter	T = 13.1 °C	F = 2300 unchanged	Echelle 19.85	0600 13030	90uW 100uW 600uW	6400A	1/2	Focus	20 128 1024 87 for slightly cooler	
								1		$\alpha = 806$	
25								3			
413	218	6"	3.6	F-G				4	capteid		1.9K
25								3			
25								3			
200	254	5"	2.99	AOI				2	Telluric Std.		
25								1			
2								3			
167	240	6"	2.91	GOIB				5	std vel		2.2K
2								3			
								1		$\alpha = .809$	
25								3			
120	125	5"-8"	6.0	F-G				6	capteid	cloudy at 1st	1K
25								3			

SAT/544

Emulsion Batches:

Date 1996 Sep 28/29 Observers Kiss/Ta.....

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Spectr. Temp

Focus!

Spectr. Temp

[illegible]

Spectr. Temp. Dome Temp./Hum.

[illegible]

pg 127

Sun / Mon

Date ..1996.. Sep. 29/30.. Observers ...Kiss / ...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.
ce13302	BIAS(4)			21 17					
03	Comp							ThAr	2s
04	HD163506	17 51 23	+26 03 57	21 19 50		4 0 W			1500
05	Comp							"	2s
06	Comp							"	2s
07	HD 187929	19 47	+00 44 56	21 42 47					906
08	Comp							"	2s
09	Comp							"	2s
10	HD 177724	19 00 49	+13 42 53	22 03 45		3 21 W			195
11	Comp							"	2s
12	Comp							"	2s
13	HD 204867	21 26 18	-06 00 40	22 11 34					240
14	Comp							"	2s
15	Comp							"	2s
16	HD 197572	20 39 29	+35 13 38	22 20 41					1266
17	Comp							"	2s

ccd
Spectr. Temp.

Focus.....

ccd
Spectr. Temp.

Exp. Mtr.

No
filter

211

276

320

307

128

CCD
Spectr. Temp. -101.8°C

Dome Temp./Hum. +11.0°C 66% H

Transparency Conditions clearing, but windy
from west

Focus 2300

CCD
Spectr. Temp. -100.8°C

Dome Temp./Hum. +9.4°C 64% H

0 0 256 1024 4 1 CCDP477

Comparison Filter Exp.	Exp. Mtr.	Seeing	Mag. Mag.	Sp.	Inst.	Grating/ x Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	no filter				Echelle 19.85	0600h .3030 v	90u 600u	6400h	1		$\sigma = .973$	
3s									3			
1500	211	5"8"	5.5	F					2			1.2K
3s									3			
2s									3			
90s	276		4.0	F-6					4	cephrid		2.3K
2s									3			
7s									3			
195	320	3"6"	2.99	AOU					5	telluric std.		1.5K
7s									3			
2s									3			
240	307	6"	2.91	GOIB					6	std vel		2.8K
2s									3			
2s									3			
120s	128	4"6"	6.2	F-6					7	cephrid * some more		1.2K
2s									3			

p952 114

Sun / mon

Emulsion Batches:

Date 1996 Sep 29/30. Observers Kiss / 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.
ce13316	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	49 3019	00 1615				Dis. circle +5123 1.5x1.5 nark 2	157
30	Comp							"	2s
31	Comp							"	2s
32	HD 2207	00 2054	+50 4300	00 3028					1835
33	Comp							"	2s

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

Exp. Mtr. S

16 f/162

233 4

200 3

51

865

60 5

Spectr. Temp. ^{COO} -100.8°C

Dome Temp./Hum.

Transparency Conditions . Part cloudy 130

Focus 2306

~ 00:25 Bright fireball Heading North.

Spectr. Temp.

Dome Temp./Hum. . + 7.7°C 71% H

seen by both of us. we 1st saw ~~it~~

Bright Light on obscuring Floor.

Comparison
Exp.

Exp. Mtr.	Seeing	Plg. Mag.	Sp.	Inst.	Grating/ x Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
10 filter				Echelle 19.85	0600m	90u 600u	6400A	3			
23	4"	6	F-6					4	Cepheid	* - in rim too?	
25								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			

Pg #3

131

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.
36 C Ce 1333	BIA 5(9)	written out of order		01 03					
34	Comp							ThAr	2s
35	HD 203156	21 15 23	+37 48 55	01 07 14			Dec circle +38 13		1200
37	Comp							"	2s
38	Comp							"	2s
39	HD 213307	22 25 24	+57 53 00	01 35 19					330
40	Comp							"	2s
41	Comp							"	2s
42	HD 22484	3 31 46	+00 05 04	01 49 07					1072
43	Comp							"	2s
44	Comp							"	2s
45	HD 29260	4 31 24	+18 20 00	02 13 21			Dec circle +18 30		1700
46	Comp						-3' 20" error	ok	2s
47	Comp							"	2s
48	HD 45412	6 22 08	+30 33 18	02 48 17					1631
49	Comp							"	2s

Spectr. Temp.

Focus.....2

Spectr. Temp.

Exp. Mtr. Se

188 5

270

242 5

100 5

219 5

Spectr. Temp. Dome Temp./Hum. Transparency Conditions clear 132.

Focus 2300

Spectr. Temp. Dome Temp./Hum. 16.2°C 73.2°F H

Comparison Filter Exp.	Exp. Mtr.	Seeing	Pl. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
					Echelle	0600A	90u	6400A	1		$\sigma = .989$	
					19.85	.3030	600u					
4r 3									3			
120	188	5"	5.8	F-G					2	cephid.	$\sigma = .989$	1-1/4
2s									3			
2s									3			
33	270		40	F-G					4	cephid		
2s									3			
3									3			
167	242	5"	4.28	Fg IV-V					5	stolvel		
2s									3			
2s									3			
170	100	5"	6.5	F-G					6	cephid		1K
2s									3			
2s									3			
163	219	5"							7			17K
2s									3			

Pj#4 12³ 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.
ce13350	BIAS(4)			03 17 21					
51	Comp							TbAr	2s
52	HD 40457	5 53 48	+35 19 00	03 23 24					1812
53	Comp							TbAr	2s
54	Comp							"	2s
55	HD 52973	6 58 11	+20 43 02	03 59 33					622
56	Comp							"	2s
57	Comp							"	2
58	HD 17463	2 43 03	+68 28 27	04 21 35			Dec Circle +68 54		1342
59	Comp							"	2s
60	Comp							"	2s
61	HD 2207	0 20 34	+50 43 00	04 57 16			Dec circle 51° 18'		1648
62	Comp							"	"
63/69	FLATS x 7					3 27 W	±+30°	Tung	3s
70	BIAS(4)			05 36		"	"		

cc0
Spectr. Temp.

Focus.....
cc0
Spectr. Temp.

Exp. Mtr. Se

67 4

303 5

203 4

61
1648 5

^{CCD}
Spectr. Temp. ... -100.8°C

Dome Temp./Hum. ... +5.6°C 75% H

Transparency Conditions ... Fine ... 1.36

Focus ... 2300

^{CCD}
Spectr. Temp. ... -101.9°C

Dome Temp./Hum. ... +5.2°C 75% H

x TRY HD176155 tomorrow? Sept 25/26 ^{P9} #1 done

Comparison
Filter Exp.

Exp. Mtr.	Seeing	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			
182	67	4.5	7.5	F-6				2	Cephoid		500
								3			
								3			
62	303	5	4.0	F-6				4	Cephoid		
								3			
								3			
1542	203	4.6	6.0	F-6				5	Cephoid	Tel Reversal RA Δ = 11 59 17 in M100 Field checks out Brighter in fld	
								3			
								3			
1648	61 1648	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#1 135

Tues/Wed

Emulsion Batches:

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

Plate No.	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 71/72	In board/out board					3 07W	+39°	ThAr	3/8
73	BIAS			23 51				L	3/4
74	Comp							ThAr	1s
75	HD 137 909	15 23 42	+29 27 01	19 00 17		4 03W			25
76	Comp							"	1s
77	Comp							"	1s
78	HD 8890	1 22 34	+88 46 26	19 13 40		7 02E			41
79	Comp							"	1s
80	HD 8890								62
81	Comp							"	1s
82	✓ HD 8890			19 18 25					
83	Comp	not written						"	1s
✓ 83	HD 8890B			19 25 55		6 31E			1059
84	Comp							"	1s
85	BIAS (4)			19 48 20					

^{CCD}
 Spectr. Temp. ... 100.8°C ... Dome Temp./Hum. ... +17.0°C ... 71.58% Transparency Conditions ... Mostly clear ... 136

Focus ... 2360 ...

→ mostly cloudy

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

0 0 256 1024 4 1 CCD Fmt

Comparison Filter Exp.	Exp. Mtr.	Seeing	Proj. Mag.	Sp.	Inst.	Grating/ X Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
3/8 3/4	no filter				Echelle [19.85° intended] 19.99 actual	0600m 400m	60u = 277 6460A		1/2	focus	Focus CCD Fmt 00128 Just sl set for cooler	1024 81
1s									1		$\sigma = .754$	MAX HDL
29	486	2-3'	3.66	Fop					3			
1s									2	Kk pym	some cloud.	36K
1s									3			7.5K
41	550	24	2	F					3			
1s									4			4.9K
62	610	1-2'							3			
1s									4			5.7K
									3			
1s									4			6.6K
105	12	1-2'	9						3			5.3K
1s									5	> 40/1 S/N	well It's clear here, but cloudy far east where next sta on pgr is. 1st TAG 5 = 1.251	> 100 Above BIRs
									3			
									1	repeat	→ $\sigma = 1.141$	

pg #2¹²⁷

Tues / wed

Emulsion Batches:

Date 1946 Oct. 1/2. 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.
ce 13386	Comp							ThA	1s
87	HD 1326	0 12 42	+43 27 00	20 01 42		3 11 E			2342
88	Comp							"	1s
89	HD 1326 B V4585B	" "	" "	20 43 35		2 42 E			1602
90	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?	many pixels off.						"	1s
95/401	FLATS x 7					2 10 W	+11°	TUNG	3s
402/408	FLATS x 7					2 13 W	"	TUNG	3s
ce 13409	Comp							ThA	1s
10	HD 186791	19 41 30	+10 22 10						192
11	Comp							"	1s
12	BIAS (4)			21 51					

Spectr. Temp

Focus.....

Spectr. Temp

Exp. Mtr.

No. Filter

59

2

525

525

Spectr. Temp. Dome Temp./Hum. $+15.9^{\circ}\text{C}$ 77.2% H Transparency Conditions PART cloudy 138.

Focus 2360

Spectr. Temp. Dome Temp./Hum.

Exp. Mir.	Seeing	Pr. Mag.	Sp.	Inst.	Grating/ x Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
NO Filter,				Echelle	0600u	60u W					
1s				CCD	.3030	600u H	6400A	3			
2342	59	2"	8.07	M12W	19.85 ^{intended}			6	Vys 85A MARCY Stelvel	BRIGHTER component.	1K
1s					<u>19.99</u> actually found that way			3			
1102	2	2.4"	11?					7	Vys 85B	Faint NE component -	100 ABOVE 12.5K
1s								3		Almost NO H ₂ visible	8.6K
								1		$\sigma = 11150$	
1s								3			
139	525	3"	1.72	K3II				2	stelvel		6.7K
1s								3			
3						800u H		1			13.1K
3				Echelle	0600u	60u		1	* Telluric Region		12.4K
1s				19.00	.3080	800u	6300A	3			6.8K
192	525	3"	1.72	K3II		60u = .277		4	stelvel		5K
1s						600u = .205		3			
								1		$\sigma = 1025$	

Day #3 Tues / wed

Date 1996 Oct 1/2 Observers [KA]/TH

Emulsion Batches:

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[illegible]

CCD
Specu. Tem

Focus

Spectr. Term

Exp. Mr.

RD
Filled

63

$$T = +15.7^\circ$$

Spectr. Temp.

Dome Temp./Hum. $+15.7^{\circ}\text{C}$ 77.3% H

Comparison	Filter	Exp.
1		
2		
3		
4		
5		
6		
7		
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88		
89		
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92		
93		
94		
95		
96		
97		
98		
99		
100		

Exp. Mtr.	Seeing	Hg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
NO F0/H0				Eckel/p 19.00	0600 3080	60x 600x	6300	3c		$\Delta = 00^h 19^m 00^s$ $20^h 00^m 00^s$	
63	4"	2	F					4c 3 1	Ht pgrm	Too cloudy ~ 500 ABate bars	
										Door closed $\sigma = 1.009$	
								8/9		After 10 min only one obvious cosmic 0 0 12.8 10.74 81 Aug. CCDFMT for focus test	

pg 14 / Sun / Mon

Date ..1996 Oct 8/7..... Observers ...W & L / T_h.....

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.
CC41840	Comp						Filter #5	FeAr	3s
41	V 700 Cyg	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	20 57 19	+05 48 52	20 07 11					1000
46	Comp							"	3s
47	BIAS (4)			20 28					
48	Comp							"	3s
49	DK Cyg	21 35 02	+34 35 42	20 33 31					900
50	"	"	"	20 50 26		0 17 W			901
51	Comp							"	3s
52	Comp							"	3s
53	SV Equ	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

114

10
C. 100

690

336

446

970

CCD Spectr. Temp. -100.8°C Dome Temp./Hum. $+14^{\circ}\text{C}$ 60% H Transparency Conditions .. *Part cloudy* 1.42...

Focus ... 6.85 ... -7 (6.75 for 1800ln) 90 c/gdn

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

Comparison Mtr. Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
3s	no filter BG39 filter				C455CCD	0600ln/mm 25.50	250u	4200A	3			
1200	114	2"	5/1						4	Durebeck.	~ 35/1 S/N	
3s									5			
									1	Do not use this bias with next setup		
3s	no filter	Focus 6.75 now.				1800ln/mm 47.05	306u	5184A	6		CCD-Fmt 410 0 50 1024 4 1	3K
1000	690	2-3"	~9	A0					7	PRL	770/1 S/N	
3s									8			2.4K
									1			
3s									9			2.4K
700	336			10.3	A6V				10			
900	446	2"							11			
3s									12			
3s									13			
900	970	2-3"	~9	A0					14			
3s									15			

pg 2 143 Sun/Mon

Date 1996 Oct 8/9 Observers VxL/Tn

Emulsion Batches:

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CCD
 Spectr. Temp
 Focus.....
 CCD
 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.
CC +1955	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 Egu	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 Egu	20 57 19	+05 48 52	23 13 06					1000
70	Comp							"	3s

Exp. Mtr. S

432

431

835

360

275

420

CCD Spectr. Temp. -100.6°C

Dome Temp./Hum. $+13.0^{\circ}\text{C}$ 628H

Transparency Conditions OK 144

Focus 6.75

To increasing cloud ADU

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/H	
								19		[Typical for this coating] $\sigma = 4.231$ Igross	
								1			
								20			
835	3"	~9	A0					21			
								22			
								23			
360	2"	10.3	A6V					24		45/1 S/H	
275								25			
								26			
								1		$\sigma = 4.250$	
								27			2.3K
420	3-4"	~9	A0					28			
								29			2.0K

145 p9#3 Sun/Mon

Date 1996 Oct 6/7..... 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.
CC1871	Comp						Filter #3	Felt	3s
72	HD 204867	21 26 18	0600 40	23 36 43					33s
73	Comp							Felt	3s
74	Comp							"	3s
75	EL Agr	23 47 19	0805 04	23 45 50					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 22464	03 31 46	1000 50 4	00 50 41					70s
83	Comp							"	3s
84	Comp							"	3s
85	AQ Psc	01 21 04	17 36 21	00 58 02					902

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

Exp. Mtr.

3500

292

304

300

2800

1740

CCD Spectr. Temp. ... -99.5°C

Dome Temp./Hum.

Transparency Conditions . PART. Cloudy 1.46

Focus 6.75

CCD Spectr. Temp. ... -101.8°C

Dome Temp./Hum. +12.2°C 65.6%RH

410 050 1024 + 1 CCD FWHM

Comparison Filter Exp.	Exp. Mtr.	Seeing	Plt Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
3					CASSCO	1800 h/mm 47050	306u	5184	3			
33	3500		2.91	GOIb					4	std vel		2K
3									5			
3									6			
1000	292	2.3"	10.35	F					7			
1012	304								8		thin cloud	
3									9			2K
1000	308								10		clear hole	
3									12			
									1		$\sigma = 4189$	
3s									13			2K
70s	2800		4.28	F9 IV-V					14	std vel		
3s									15			
3s									16			
902	1740	2.3"	8	F8					17			

147
Pg #4 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.
CC4786	AQ Psc	01 21 04	+73 6 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
96	Comp							FeAr	3s
97/901	FLATS x 5					ND	Filter 3	Tung	4s
902	AQ Psc	01 21 04	+73 6 21	03 01 50					1200
903	Comp					ND	"	FeAr	3s
904	Comp							"	3s
905	HD 295 87	4 34 30	+15 7 00						720
906	comp								3s

Spectr. Temp.

Focus.....

Spectr. Temp.

Exp. Mtr.

Se

1705

1520

994

994

716

350

150

100

Spectr. Temp. Dome Temp./Hum.

Transparency Conditions *increasing cloud* 148Focus *6:7.5*Spectr. Temp. ... *100.9°C @ 2:37* ... Dome Temp./Hum.*4 10 0 50 1024 4 1 CCD FWH*Comparison
Filter Exp.

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			
160	350							26		very cloudy	
45								2			
1200	550	3"	8	F8				27		plus 4 minutes ^{to} starting time - Lu	8-4t
3								28			
3								3			
720	1800	2-3"	7.29	dG2				4	Std vel		
3								5			

146 #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
99/102	DARK							4 x	67m
703/04	HD 29597							2 x	133
05/07	DARK	Note	3 DARKs actually			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				u3	500
10	Comp							FcAr	3s
11	BiH S(4)			4 35					

 Exp. Mir. Se
 Spect. Temp.
 Focus... 6.7
 Spect. Temp.

Exp. Mir. Se

No filter

189

107

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

Focus ... 6.75

CCD Spectr. Temp. -100.0°C Dome Temp./Hum. +11.7°C 76.4%

410 0 50 1024 4 1 CCDPMT,

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
4 x 67ms		7.29	G62		Above 306x 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 each integration.									
3 x 133											
4 x 3s	no filter							6			
900	189	2"	10.8	G5V				7		thin cloud here	
500	107	2"	"	"				8		cloudy	
4 x 3s								9			
								1		$\sigma = 4.356$	

pg#1 151 Fri/Sat

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

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.
CC41912	Comp						ND #5	FeA	4s
13	HP 184927	19 31 36	+31 04 00	18 38 50		0 24 W			854
14	Comp							FeA	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					

C40
Spectr. Temp.
Focus... 6
CCP
Spectr. Temp.

Exp. Mtr.

10/1/96

6.5k

5.2k 3

2.88k 2

8.5k

410 050 7024 41 MAX

Comparison filter	Exp.	Exp. Mtr.	Seeing	F ₀ Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
4	4s	no filter				CASS CCD	1800/n 56.4°	306u	~6618A	1			5.7K
	854	6.5K	2'	~7	B2				$\frac{512\text{cd}}{\text{I} \cdot \text{A}}$	2	Blu pgm	some cloud	3K
	4s									3			6.3K
										1		$\sigma = 6.316$	
	4s									4			
	2053	5.2K	3"-4"	8.43	B2V					5	Blu pgm	> 200/1 S/N Air mass ≈ 1.23	3.6K
	4s									6			6.5K
	4s									7			6.5K
	1388	2.88K	2'-3"	8.86	B2.5Ib					8	Sp Bin Blu		7.2K
	4s									9			
	8s									10			
	68s	8.5K		2.99	A0V					11	Telluric std		5K
	4s									12			
116	8s									13			13.8K
										1			

Pg #2 153

Date 1996 Oct 11/12 Observers Hely⁷/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.
CC41946	Comp						ND#3	FeAr	45s
47	HD 177724	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 201091	210225	+381527	210211					237
55	"	"	"	210714					
56	HD 201092			211344					517s
57	"			21 2321					511
* 58	Comp						ND#3	FeAr	4s
59	B/H S(A)								
60/62	FLATS x 3						ND#5	TUN6	8s
63	DARK			21 4927					180s
64	B/H S(A)			21 5657					

Spectr. Temp.

Focus.....

Spectr. Temp.

Exp. Mtr.

no filter

25K

33

5.5K

5.0K

5.1K

5.1

Spectr. Temp. Dome Temp./Hum. Transparency Conditions *part cloudy 154*

Focus *6.83*

Spectr. Temp. Dome Temp./Hum.

Comparison
Filter Exp.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
<i>no filter</i>				<i>C455 CCD</i>	<i>1800/4um 5610</i>	<i>250u</i>	<i>65638</i>	<i>14ci</i>			
<i>229</i>								<i>15c</i>	<i>Telluric Std</i>	<i>Trailed middle third of slit length</i>	<i>1.5K</i>
<i>37</i>								<i>16c</i>			
<i>45</i>								<i>17c</i>			
<i>85</i>								<i>18</i>			<i>10K</i>
<i>45</i>								<i>19</i>			<i>3.6K</i>
<i>237</i>	<i>2"</i>	<i>5.21</i>	<i>K5 V</i>	<i>[Fe Ar source on for both these expts]</i>				<i>20</i>	<i>Holy ppm</i>	<i>NW and Brighter</i>	<i>8.6K</i>
								<i>21</i>			
<i>517</i>								<i>22</i>		<i>SE and fainter one</i>	
<i>511</i>								<i>23</i>			<i>8K</i>
<i>45</i>								<i>24</i>			<i>3.1</i>
								<i>1</i>			
<i>116</i>								<i>25</i>			<i>10K</i>
<i>168</i>								<i>26</i>			
								<i>1</i>			

Sp9#3

Emulsion Batches:

Date 1996 Oct 11/12.... Observers Hdy / Tn / Then... dtb = Pure Bullantyne... (U.Vic.)...

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CC41965	DRK for Hdy setup			21 59					1200s
66	BIAS(4)			22 33					
CC41967	Comp						ND#4	FeAr	3s
68	EM# VES 735	02 12 45	+60 39 23	22 57 46		1 51 E			1521
69	Comp						"	"	3s
70	EM# VES 733	"	"	23 27 22					1789
71	Comp								3s
72	BIAS(4)								
73	Comp								3s
74	HD 22484	3 31 46	+00 05 04	00 13 35		2 14 E			144
75	Comp							"	3s
76/80	FLATS x 5						ND#3	TUNG	8s
CC41 981	Comp						ND#5	FeAr	3
82	HD 22484	3 31 46	+00 05 04	00 32 49					588
83	Comp								3

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/nm setup*

Spectr. Temp. Dome Temp./Hum.

Comparison Filter Exp.	Exp. Mtr.	Seeing	✓ P. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1205									27		410 0 50 1024 4 1	
									1	$\sigma = 6588$	4 4 4	
3	<i>no filter</i>				CASS CCD	<i>600 l/n/nm</i> 25.8°	<i>250u</i>	<i>4340A</i>	3	CCDFNT	440 0 50 1024 4 1	
152	<i>120</i>	<i><2"</i>	<i>12</i>	<i>~0</i>					4	Vatican Star	<i>Part clear here</i> <i>For David Ballou type</i>	
3									5			
178	<i>not open</i>								6			
35									7			10K
									1	-102.0°C	$\sigma =$	
3									8			
144	<i>1500</i>	<i>4.6"</i>	<i>428</i>	<i>F9 IV-V</i>					10	std vel		
3									11			
16 85									11			10K
4 3					CASS CCD	<i>600C</i> 26.5°	<i>250u</i>	<i>4800A</i>	12			
58	<i>3K</i>			<i>428</i>	<i>F9 IV-V</i>				13	std vel		6.3
3									14			

Date 1996 Oct 11/12 Observers drb, J.T.

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

Exp. Mtr.

120

110

45

Closest

La

CCD Spectr. Temp. -100.5°C

Dome Temp./Hum. +14.9°C 74% H

Transparency Conditions . Partly Cloudy 150

Focus 6.95

Spectr. Temp.

Dome Temp./Hum.

St./11 440 0 50 1024 4 1 CCD FWHM

Comparison Iter. Exp.	Exp. Mtr.	Seeing	Mag. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
3s	no filter				C455 CCD	600C 26.50	25u	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	14/15/16
3s									20			
1472	closed	2-3"							21		mostly cloudy	
3s									22			
									1			

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

of 600 C grating shows focus right on T = +8.2°C F = 6.95

4865 centered for Tilt = 26.50 (500 APU ghost) 30u slit

(45-48 pixels) (same as for) 26.40 tilt

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

59
pg #1

Tues / Wed

Date 1996 Oct 22/23. 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.
CC419 94/95	In board / outboard			~ 22 EST		0 0	+38°		4/3
96	BIAS(4)			22 44					
97	Comp						ND=#3	FeAr	4s
98	TT Cet	01 46 57	-09 45 08	23 02 23					1200
99	TT Comp Cet			23 23 47					1201
CC42000	Comp						"	FeAr	4s
	TT Cet			23 46 00					
01	Comp						"	"	4
02	HD 22484	03 31 46	+00 05 04	23 57 56		1 47E			46
03	Comp						"	"	4
04	BIAS(4)			00 00 30					
05/09	FLATS x 5						ND#3	TUNG	5s
10	BIAS(4)			01 15					
11	Comp						ND#3	FeAr	4s
12	AA Cet	01 54 00	-22 55 12	00 25 13		0 31W			882

CCD
Spectr. Temp
Focus...
Spectr. Temp

Exp. Mtr.

Not full

254

238

1250

4

6

CCD
Spectr. Temp. ... -100.6°C ...

Dome Temp./Hum. ... +8.9°C ...

Transparency Conditions ... Part Cloudy / Hazy. 160

Focus ... 6.82 ...

Spectr. Temp. ... -100.6°C ...

Dome Temp./Hum. ... +7.0°C ...

390 0 58 1024 4 1 CCDFWT

Exp. Mtr.	Seeing	Pv. 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		$\sigma = 5.624$	
4s								4			39K
1200	254	4" 10	A					5		27/1 S/N	
1201	238	4" 5"						6		AIR MASS = 1.69	
4s								7			2.4K
								8		Too cloudy	
4								9			
4/6	1250	4.28	F9 IV-V					10	stlvel		1.7K
4								11			2.6K
								1			
16 5s								12			10K
								1			
4s	4	6						13		AIR MASS 2.57	2.6K
882	407	6" 6.7	A7/8					14		SE and brighter some cloud	

Spectr. Temp. Dome Temp./Hum. ... $+6.9^{\circ}\text{C}$... $86\% \text{H}$ Transparency Conditions ... Part cloudy ... 152
 Focus 6.82
 Spectr. Temp. Dome Temp./Hum. ... $+6.9^{\circ}\text{C}$...
 getting too humid.
 Solid cloud

Comparison Filter Exp.	Exp. Mtr.	Seeing	Pa. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1/4 400S	no filter 600	6"	27	A7/8	CASSED	1800ln/mm 47.1°	306u	518A8	15			
43									16			2.4K
457	400	6"			Later sp Type of Peir				17		Brighten S E one again.	
43									18			
6/8	T = 6.9°C		F = 6.82						19/20	focus test		3.6K/ 2K

Pg#1 163

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	SAO 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					1103
28	BD 59 22135	"	"	19 46 36				"	3
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
Focus... 6
Spectr. Temp

Exp. Mtr. Se

Ref: 1/2

1970

1310 3

1350 3

1200 3

5800 3

8000

CCD
 Spectr. Temp. -100.6°C Dome Temp./Hum. $+14.0^{\circ}\text{C}$ 8/18/4 Transparency Conditions OK 1.2.4.
 Focus 6.82 90 c/gain
 Spectr. Temp. Dome Temp./Hum. CD 300 050 1024 4 1 CCD FWHM

Comp. / Filter	Exp.	Exp. Mtr.	Seeing	Mag. ☒	Sp.	Inst.	Grating/Tilt	Slit	Emission	P.H.	Program	Remarks	Quality
R 3/3		No filter				CASS CCD	1800 λ/mm 450 $\text{\AA}/\text{H}$	306	4863 $\text{\AA}$	1/2			
32									*4841 $\text{\AA}$	3			OK
120		1970	3"	8.3	AO				actual center	4c		Accidentally done before	
32										5			8.5K
3										5			
113		1310	3"	9	~M5c					6		$\approx 50/1$ 5/14	
3										7			
										1			
113		1350	3"	9	~M5c					8		Some	
3										9			
1103		1200	3"	9	~M5c					10		Some cloud	
3										11			7.2K
3										12			
177		5800	3"		MTIII					13			
256		8000								14		Keck lost in 13th	

P902 16 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							FA ND44	3s
37	BIAS (4)			20 52					
38	Comp							"	3s
39	HD 1845	00 17 48	+55 14 00	21 01 06					549
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									4x 67ms
11,12,13A	DARKS x 4								
16,17	HD 3765	0 35 18	+39 40						2x 133ms
18,19	DARKS x 2								

{ Intensification sun touched }

slight change in Intensified model.
Rel. to 67ms setting

CCD Spectr. Temp. -100.6°C . Dome Temp./Hum. $+8.9^{\circ}\text{C}$ 84% Transparency Conditions ... *some cloud* ... 165

Focus ... 6.82

Spectr. Temp. ... Dome Temp./Hum. ... -2

Comparison Filter Exp.	Exp. Mtr.	Seeing	P ₀ Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
4/3	11,500	3"		H7II	C455 CCD	1800 μm /mm 45 $^{\circ}$	306 μm	48628 4841	14			
4/4	3s							Actual @ Row 512	15			7.5K
3		2-3" ~6"							16			
5/9	7.5K	2-3"	26	M6e					17			
6/8	8.6	"	"	"					18		50/1 S/N	
6/6	10K								19			
3									20			
3									21			
8/4	48K	2-3"	7.36	K2V					22	std vel		
3	4.8K								23			
									1			
		2-3"	7.36	K2V							102.76 Kpscales ^{Falling} stand	
											Wind very light NE 4 km/hr	
											ALT. ~ 84-85 $^{\circ}$	
											Dome WSW pointing	

Seeing tests
Images above slit
All de Fault Box centering

Seeing Tests
ALT. ~ 84-85 $^{\circ}$
Dome WSW pointing

167943

SAT / 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.
CC42047	Comp							Fe 4 ND44	3s
48	HD18191	02 50 11	17 55 35	22 26 47					391
49	"	"	"	22 32 56					363
50	"	"	"	22 39 21					
51	Comp							"	3s
52	Comp							"	3s
53	HD14386	24 18	-03 25 54	22 53 43					513
54	"	"	"	23 03 10					602
55	"	"	"	23 14 15					615
56	Comp							"	3s
57	BIAS (4)			23 31					
58	Comp							"	3s
59	HD 34019	5 09 13	+53 28 26	23 40 24					901
60	"	"	"	23 56 06					856
61	Comp							"	3s

CCD

Spectr. Temp

Focus.....6

Spectr. Temp

Exp. Mtr.

10 f/4

16.554

17.890

55K

52.40

5000

57K

58K

CCD Spectr. Temp. -100.8°C Dome Temp./Hum. +8.5°C 81.5%H Transparency Conditions ... some cloud 168

Focus 6.82

Solid cloud by 0:30

Spectr. Temp. Dome Temp./Hum.

300 0 50 1024 41 CCD FWH

Comparison filter	Exp.	Exp. Mtr.	Seeing	P.V. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	35	10 f./ke				CASS CCD	1800 h/ke	306u	4862 HeNe	24			~ MAX
341	363	6654	2.3"	~4	M6III				4841 Actual	25		Near Full moon, but bright	99%
		16840								26			
										26			
35										27			
35										28			
53		3.5K	3"	~5	M8c?					29	Mira		750
602		6240	3"	~5	M8c?					30			
65		9080	3"	~5	M8c					34		some cloud	
38										35			
										1		$\sigma = 4.329$	
3		7.7K	2.3"	~7	M7c					7			10K
8%		6.8K								6			
										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 49 53	+20 09 29	00 17 43					997
64	Comp							"	3s
65/69	FLATS x 5					3 E	+20°	TUNG NO#1	11s
70	HD 39816	"	"	00 49 35					902
71	HD 39816 Comp	"	"	1 05 03					848
72	Comp							FEAR NO#4	3s
73	HD 39816	"	"	01 24 26					
74	Comp							"	3s
75	BIAS (4)			01 42					
76	Comp							"	3s
77	HD 51610	6 53 00	+55 27 00	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. $+9.0^{\circ}\text{C}$ 7328H

Transparency Conditions $\text{cloudy, then clearing again}$

Focus 6.82

Spectr. Temp. -100.9°C

Dome Temp./Hum. $+8.9^{\circ}\text{C}$ 7007H

CCD Temperature still holding.
Topup done by 2EST

Exp. Mtr.	Seeing	Plg. 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 μ							12		cloud at end mainly	
								15			12K
15K	3.5 μ	6	M6e					16			
19.4K	"	"	"					17			
								18			
21K								19		7100/1 S/R	
								20		2-4506	
								1		$\alpha = 4506$	
								21			
548		faint						22		very weak and	
								23		doesn't seem like	
305								24		An m type?	
								27			8.5K
								1		$\alpha = 45451$	

17/19#1

Mon / Tues.

Emulsion Batches:

Date 1996 Oct. 28/29

Observers

KK (Afkman tests)

B/n / Tn

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 20V + 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	1381514	18 4818					603
95	"	"	"	18 5905					626
96	1			19 22 10					617
97	Comp						"		65

CCD
Spectr. Temp.

Focus....6

Spectr. Temp.

Exp. Mtr.

not H/K

7K

9K

9K

9K

9K

9.1K

CCD Spectr. Temp. -100.9 °C ... Dome Temp./Hum. ... +85 °C @ 18 EST 4768H Transparency Conditions ... Part Cloudy ... 172

Focus ... 6' 82 ...

Spectr. Temp. Dome Temp./Hum. ... 90 again (330 05102441) CCOFMT

Exp. Mtr.	Seeing	Plg Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
5				CASS CCD	1800 45°	306					
10											
5											
10											
48	no filter	T = 7.6°	F = 6.82		1800 51.6	250	5894 Å ± 0.5°	3/4		Slit/imaging of spectrum OK tonight a result of adjustments	
							1			σ = 3.543	
6							5c.				6.5K
24	7K	5.21	K5V				6c.	Hdg pgm		No D centered.	66K
27	9K						7				10K
30	9K						8				105K
65							9				6.3K
68	9K	4.5'	603	K7V			10	Hdg pgm			10.5K
62	9K						11				11K
67	9.1K						11				11K
6							12				6K

pg#2 123

Date ...1996 Oct 28/29... Observers ...Hdy./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.
CC420 ^{98/} 102	FLATS x 5 at		HD 201092 position,					TUNG ND#4	4s
103	BIAS (4)			19 26 24					
104	Comp							FEAR ND#4	6s
105	HD 177724	19 00 49	+13 42 53	19 31 38					188
106	"	"	"	19 35 44					202
107	Comp							"	6s
108/11	FLATS x 4 @ HD 177724 pos'n							TUNG ND#4	4s
12/15	FLATS x 4 at		HD 181655 position					"	4s
16	Comp							FEAR ND#4	6s
42117	HD 189561	19 16 08	+37 09						848s
18	"	"	"	20 20 48					946
19	Comp							FEAR ND#4	6s
20/23	FLATS x 4 at HD 189561 position							TUNG ND#4	4s
24	BIAS (4)			20 30 38					

CC
Spectr. Tem.

Focus...

Spectr. Tem.

Exp. Mr.

335 K

77 K

31

9 K

Spectr. Temp. ^{CCD} -101.9°C

Dome Temp./Hum. +10.3°C : 5092H

Transparency Conditions ^{PART} 1.74

Focus 6.82

Spectr. Temp. -101.5°C

Dome Temp./Hum.

Comparison Filter Exp.	Exp. Mtr.	Seeing	PS. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
3 4 4s					CASSAP	1800h 51.6° actually	250u	589A	13			11K
									1			
4 6s									14			
188	33.5 K	5"	299	A0V					15	telluric STD	Trailing full	7K
202	37 K								15		slit length	7.2
6s									15			6.3K
6 4 4s									16			11.2K
4s									17			11.1K
6s	8K								18			
848s	8K		6.31	G8I					19			
946	9K								19			7.7
6s									20			
106 4s									21			11K
									1			

py#3 175^{mon} / Tues

Date 1996..Oct.28/29.. Observers Blk.../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.
27	BIAS(4)								
CC421 ²⁵ /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					158
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					

Exp. Mtr.

Focus.....

Exp. Mtr.

Exp. Mtr.

no filter

52K 3

1580 3

9800 4

4K 3

^{CD} Spectr. Temp. -100.9°C Dome Temp./Hum. $+5.4^{\circ}\text{C}$ 5638H Transparency Conditions .. increasing .. cloud .. 176

Focus 6.82 still ok for 6563A

^{CD} Spectr. Temp. -101.7°C Dome Temp./Hum. $+4.1^{\circ}\text{C}$ 6378H
SAGLE 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 5629h	306u	6563	1			
								3/4	focus test		
								5			14.5K
5.2K	5.7"	7	B2					6	Blupgm		
								7			
								8			14.5K
1580	3.5"	8.86	B2.5 Ib					9		Cloud - thin to mod. thick cirrus	3.7K
								10			13K
								1		CCDT -100.7C	
								11			
7,800	4.5"	5.68	A2V _{inn}					12	Telluric Std	1.10 Air mass	3.7K
								13			
								14			
4K	3.4"	6.57	F0V _h					15	Telluric Std at Zenith, <u>some cloud</u>		
								16			
								1		$\alpha = 4.405$	

pg#4 VV
Mon / Tues

Emulsion Batches:

Date ..1996 Oct 28/29. Observers ..Blk / Jh..... Peter MARTIN by 01 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.
CG807/23	HD 6314	0 5859	+39 27 18					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
CC42142.FTS	Comp							FeAr ND4	3s
43	VES 735	02 12 45	+60 39 23	23 23 02				FeAr ND4	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

CCD
Spectr. Term.

Focus.....

Spectr. Term.

Exp. Mtr.

No

After

top model

234

200

200

714

Spectr. Temp. ^{CCD} -101.9 °C Dome Temp./Hum. +4.5 °C 62.5% Transparency Conditions clearing again 178.

Focus 6.82

Spectr. Temp. Dome Temp./Hum.

330 0 50 102441

Comparison Filter Exp.	Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
67ms	No filter					Above 306u slit				ALT ~ 86°	Dome was +	
67ms					default foc center		used for N11				In and out of clouds.	
133											Light WNW Wind.	
133												
3s												
188s	234	3.4"	12	2		1800h/m	306u	6563A	18			
3s						5620			19		> 25/1 SIN	
1800	200								20			
3s									21	overwritten		
									22			10K
	200								23			
									24			
									1			
									25			
169s	714	4.5"	10.19	08					26	For std vel use.		
3s									27			

Pg 54

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							F4 ND4	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							"	3s
59/78	FLATTS x20							TUNG ND4	3s
79/80	Inboard/Outboard							F4 ND4	3/5
81	Comp								
82	VES 735	021245	+603923	034726					1696
83	Comp							F4 ND4	3
84	Comp							"	3
85	U'BV M4521	02 1854	61 33 49	042057		4 22W	Limit		843
86	Comp							"	3
87	BIAS (4)			04 3929					

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

Exp. Mir. Se

T=40°C

208

384 3

Spectr. Temp. ^{cen} -100.8°C ... Dome Temp./Hum. ... +42°C 628H Transparency Conditions ... Fine ... 100

Focus ... 6.82 ... ~~6.95~~ 7.00 for 800C spectro

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

Comparison Filter	Exp.	Exp. Mtr.	Seeing	Fig. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	7c					CASS CCD	1800 56.70	306	6562A	28			
	20	230		~12	~0					29		Source felt on 1st half of exp.	
	31									30			
										1		~5 4544	
	21	248	34"							21		Source definitely off.	
	3s									5			
	3s									7			16K
	3/5	T = 40°C F = 7.00				CASS CCD	600h 27.90	306	5130	3/4		Top up done:	
										5			
	18/6	208		~12	~0					6		7 30/1 5/11 at center.	
	3									7			
	3									8			
	8/3	389	34" 10/19 08							9	std vel use.		
	3									10			
										1			

pg#6 161

Emulsion Batches:

Date 1996 Oct 28/29 Observers M.N. / 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.
CC421 88/96	FLATS x9							TUNG ND5	8s
97	Comp							ND5	3s
98	VES 735	02 12 15	+60 39 23	05 00 13					
99	Comp							"	3s
200	VES 735	"	"	05 32 43		5 48 W			270
01	Comp							"	3s
02	BIAS (4)			05 56					
03	Comp							"	3s
04	UBV M 4521	02 18 54	+61 33 49	05 59 57		5 59 W			600
05	Comp							"	3s
06/09	FLATS x4							TUNG ND5	8s
10	BIAS (4)								
CC422 11	DARK for Paul			06 19 55					900
12	BIAS (4)			06 36					
13	DARK			06 37 38					900
14	BIAS (4)								

Spectr. Temp.

Dome Temp./Hum.

Transparency Conditions

Fin

162

Focus 7.00

Spectr. Temp.

Dome Temp./Hum. +3.6°C... 70%

300 0 50 1024 4 1 CCD FMT

Comparison
Filter Exp.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
6 5 8				CASS CCD	600C 470P	306u	5130A	2			143
5 3								h			
217	4"	7/2	10		I must have meant 2701			12		Air mass 1.42	
35					Tn 0597			13			
191	4"							14		$\Delta 2 = 00 00 36$ $\Delta 5 = 00 01 00$	
35								15			
								1			
35								16			
690	4"	10/19	08					17	std vel use,	Faint light coming fast	
								18			
								20			
								1		$\alpha = 4.$	
900					called 1800 51.6°		called 5894	5		DATA's for Pca 1	
								1	330	0 50 1024 4 1	
900								5		CCD FMT	
								1			

167pg#1

THURS / FRI

Emulsion Batches:

Date . 1996 Oct 31 / Nov 1 Observers . M.K. / J.N. + Student = Lacy 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 922 ¹⁵ / ₁₆	In board / out board					0 06W	+31°	FaAr ND #4	4/8
17	BIAS(4)			20 21 18 58					
18	Comp							FaAr ND #4	
19	HD 177724	19 00 49	+13 42 53	20 32 33					64
20	"	"	"	20 35 25					131s
21	Comp							FaAr ND 4	4s
22	Comp							"	4s
23	V471 Tau	03 44 43	+16 57 06	20 51 15		4 19E			900
24	Comp							"	4
25	V471 Tau	"	"	21 10 39					900
26	Comp							"	4s
27	BIAS(4)			21 28					
28	FLAT							TUNG ND 4	3s
29	V471 Tau	"	"	21 31 49					769
30	"	"	"	21 47 05					900

CCD Spectr. Tem

Focus...

Spectr. Tem

Exp. Mtr.

No filter

9K

10.7K

570

500

580

537

CCD
Spectr. Temp. - 100.5 °C

Dome Temp./Hum. +37 °C 52/18/4

Transparency Conditions .. gradually clearing 154

Focus ... 6.86

90 CG9 in

very gusty from west

Spectr. Temp.

Dome Temp./Hum.

320 0 50 1024 4 1 CG9 in

Comparison Filter	Exp.	Exp. Mtr.	Seeing	P.W. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
4	1/8	no filter				CASSIOPE	1800 lines/mm 56.20	300	6563A	3/4	Focus test		~ MAX ADY
4										1			
4										3			
64		9K		299	A0V					4	Telluric std		5K
131s		10.7K								5	"	in cloud	5.8K
8										6			2K
8										7			2.4K
900		570	4.6	9.4 -9.7	K0V					8		part cloudy	570
4										9			2.1K
900		600								10			
4										11			
										1			
1000	3s									12			16.1K
769		480								13		~ 65/1 S/N	
900		637								14			

pg #2 165 Thurs / Fri

Date 1996 Oct 31 / Rev 1 Observers MKi / Tu

Emulsion Batches:

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.....

.....

[illegible]

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

Exp. Mur. S

10/1/12
500 4

~~1930~~

565

CCD
Spectr. Temp. -100.6°C

Dome Temp./Hum. $+1.8^{\circ}\text{C}$ 54.8/4

Transparency Conditions *mostly cloudy* 186

Focus 6.86

Spectr. Temp.

Dome Temp./Hum.

Exp.	Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
138	no filter 500	4.7"			CHSS CCD	1800 lines/mm 56.2° tilt	306	6563A	15		much cloud	
3								1			$\sigma = 5.083$	
3								16				16K
3								17				16K
1039	1039							18			comp →	2K
971	565							19				
45								20				2K
3								21				16K
910								22			All closed and dark	

187
pg#1 Fri/Sat

Emulsion Batches:

Date ... 1996. Nov. 1/2 ... Observers ... Miki / In. + Benjamin 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	+16 5706	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
Focus... 6
Spectr. Temp

Exp. Mtr.

ND
Filter

856

977

930

CCD
Spectr. Temp. -101.8°C

Dome Temp./Hum. ... +2.0°C 58% RH

Transparency Conditions ... Sudolm c leaning 100

Focus ... 6.92

Spectr. Temp.

Dome Temp./Hum.

320 0 50 1024 4 1 CCD FMT

Exp. Mtr.	Seeing	Pl. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
4/10				CASSCO	180614/mm Tilt = 5.62°	306u	6563	3/4			
								101			
45								6			2.1K
35								7			15K
900	856	3 ⁺ 9.4 -9.7	H0V					8	471 Tau	775/1 S/1	
937	977							9	Realout in 8.		
900	930							9			
35								10			15.6K
								11		$\sigma = 5.298$	
45								11			2K
45								101	Fmt change	316 0 25 1024 8 1	3.6K
								1		$\sigma = 27.276$	
45								3			12.7
603								4			
603								5			

pg #2 ¹⁸⁹ Fri / SAT

Date 1996 Nov 1/2 ... Observers mki / 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.
Cc 42260	FLAT							TUNG ND#4	1S
61	BIAS(4)								
62	Comp							Fed ND#4	4s
63	BD+16 516			020106					55
64/323	"	Repeat V471TA4. BAT 60		020545	~0310				53s
324	BIAS(4)								
25	Comp							Fed ND#4	4s
26	FLAT							TUNG ND#4	1S
26	BD+16 516			032254					
327/332	BD+16 516	034443	+165706	032254	~0329				53s
332	Comp							Fed ND#4	4s
333	comp							TUNG ND#4	1S
334/35	FLAT x 2								
336	BIAS(4)			0343					
37	Comp							Fed ND#4	4s
38	HD 26793	4 09 08	+9 45 32	04 00 55		2 32 W			905
39	Comp							"	4s
340	BIAS(4)								

cap
Spectr. Temp.
Focus... 6
cap
Spectr. Temp.

Exp. Mtr.

10
5.1/100

60
TOTAL
3875

980 3

CCD Spectr. Temp. ... -101.7°C ...

Dome Temp./Hum. 0°C 57.7% H

Transparency Conditions ... Part cloudy / Solid + snow

Focus ... 6.92 ...

CCD Spectr. Temp. ... -100.6°C ...

Dome Temp./Hum. -0.3°C 62.3% H

CCD FWHM 385 0 10 1024 8 / 110

Comparison Filter Exp.	Exp. Mtr.	Seeing	Mag. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
15	no filter				CASS CCD	1800h 562°C	306u	6563A	1		New format only 10 columns	8-3K
									1			
45									3			3K
55	60								4			
53	TOTAL 3875			60	FRAMES				5	V471TAC	63 sec interval 10 sec overhead	
									1			
45									1	All Resot	CCD 3L Hung up up. TRY to move back to C	
15									2			10K
53				19	60 FRAMES	6 frames			3	V471TAC Repeat x60	some cloud Solid cloud 0329 endal, Resot TOO	
									1			
15									2			10K
									1			
45									3			
105	980			34	522	B9 Vn			4	Telluric std. (not usually done)		
45									5	Airmass 1.42	cloudy	
									1			

191 Mon / Tues

Date 1996 Nov 4/5 Observers KK/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.
CD00									
480-2	3x Flats (sky)		zenith	edited Time & changed CA/Filter to 5500					
483-5	3x Flats (sky)		"						
486-7	2x Sky Flats		"	(all lights <u>out</u> - cube light had been on!)					
488	Bias (mean of 4)								
489	HD 174638								
490	"								
491	"								120s
492	bias (mean of 4)								
493	AD 174638			18 48	edit - check previous header times. Dates OK Acer Time found to be :00 21 30 of 18 50 00 EST				
494	"			18:54:31	Time OK				25s
495	"			19 00 07					25s
496	"			19 10 47					150s
497	"			19 28 28					90s
498	bias (mean of 4)			19 39					

Spectr. Temp. -100°C Dome Temp./Hum. $+7.4^{\circ}\text{C}$ 5384 Transparency Conditions *cloudy, some holes*
 Focus *Tel. 2644 or 45 best for direct focus.* Dome T = $+73^{\circ}\text{C}$ 192
 Spectr. Temp. Dome Temp./Hum. Telescope focus 2645 for *direct* CCD direct focus

[illegible]

193

Tues / wed

Date ... 1996 Nov 5/6 ... Observers ... K.K./T.H.

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.
C000499	SKY FLAT			17 3345		0 57W	-324		245
500	"			17 3411					348
501/02	BINS (4) (Average of 4 biases)			2 Bias sets					
503/05	Vys 194	19 1412	-01 47 00	18 1429	3 exps				20s
06	"	"	"	18 2735					120s
07	"	"	"	18 3128					300
08	"	"	"	18 3730					300
09	"	"	"	18 4336					300
CC00510/14	ADS 12889	19 4148	+33 2200	19 00	5 exps				20s
15/19	ADS 12913	19 4236	+33 3000	19 13	5 exps				15
20/24	"	"	"	19 1817	5 exps				15
25	ADS 12913	"	"	19 2501					20s
26/30	HD 186408	19 3409	+50 1735	19 3305	5 exps				3s
CC00531	CAS A	23 2112	+58 3218	20 2800					300s

CCD
Spectr. Tem

Focus. T2/1

Spectr. Tem

Exp. Mtr.

11/1/92

500

500

14/ed/tes

CCD Spectr. Temp. ... -100.5 °C

Dome Temp./Hum. ... +6.1 °C 82.7% H

Transparency Conditions ... Clearing fast ... 144

Focus . Telescope . 264.7

Then low cloud / fog from SE

Spectr. Temp.

Dome Temp./Hum. ... +4.4 °C 86.8% H

0 0 512 512 2 2 CCDFWTT

Comparison Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
245	no filter 500				CCD direct		5501	edit ✓	3		home position	~9K
346	500						5501		3		max 38K (except for Hot pixel saturation)	
									1			
245							5501		2		Target = +5.5°C Tel Focus 2647	
124							5500		2		using SBIG	
300							5500		2			
300							5500		2			8K
300							4					8K
245							5500		2		Dome T = 4.9°C	8K
15							5500		3		SBIG view	10K
15							5501		4		Home view	14.8K
205							5501		4		Tracked, Home view	
35							5501	edit all ✓	3		Home view.	9.5K
305							5501		3		SBIG view Home	
									4		Continued on field star #11	

All edited and Renamed to CD - nofts, backup

195

SAT / SUN

Emulsion Batches:

Date 1996 Nov 9/10... Observers E-W / 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.
CC42341.45								ICR ND#4	3/7
CC42342	Inboard / Outboard								
Correct CC42343	BIAS(4)			1746					
344 35	Comp							ICR ND#4	3s
345 36	BD+59 2213s	20 1555	+59 2900	18 1003	edit Time ✓				1200
346 37	"	"	"	18 3141	"				1200
347 38	"	"	"	18 5218	"				1200
348 39	Comp			18 5218				"	3s
349 40	BIAS(4)			19 14					
350 41	Comp							"	3s
351 42	HD 2070 76	21 41 24	-02 40 00	19 2032					429
352 43	"			19 2829					554
353 44	"			19 3809					324
354 45	Comp							"	3s
355 46	Comp							"	3s
356 47	HD 1845	0 1748	+55 14 00	19 5049					1200
357 48	"			20 1217					946

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

Exp. Mtr. S

1/16

600 3-

670 "

672 "

10K 4"

10K "

10K "

A

10K 4"

9.9K

Spectr. Temp. ^{CCD} -101.0°C

Dome Temp./Hum. +52° 55% 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 4 1 CCD FMT

Comparison Filter	Exp.	Exp. Mtr.	Seeing	P.V. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	3/7	<i>no filter</i>				CHSS CCD	600C k/mm 26.1°	306u	4620A	1/2	focus test		
										1		~	max ADU
	3s									3			12K
	120	600	3.4"	~9	~M5E					4	<i>2x; Readout</i>	30/1 S/N SOURCE FCR on 1st 10 mins	
	120	670	"	"	"					4		4360 A em HC 2L	
	60	672	"	"	"					5		good H Beta em too exp meter control not record at 23.0 27.6	
	3s									6			10K
										1			
	3s									7			
	400	10K	4"		M73					8	std. f62 program		2.6K
	500	10K								9			
	324	10K								10			
	8s		4"	~8	M7E					11			12K
	8s									12			12K
	120	7680	4"	~8	M7E					13		+ 4620A	
	94s	9.9K								14		70/1 S/N max	1K

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SAT / SUN

Emulsion Batches:

Date 1996 Nov 9/10 Observers E-W/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 42 549 549	HD 1845	0 17 48	+55 14 00	20 28 31		0 39 E			923
359 42 ✓	Comp							FeAr ND 44	3
360 51	BIAS (4)			20 46					
361 52/56	FLATS x 5							TUNG ND 44	75
366 57	Comp							FeAr 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					404
373 64	"	"	"	21 45 40					536
374 65	"	"	"	21 56 48					547
375 66 ✓	Comp							"	35
42359 67	BIAS (4)			22 08					
42396 67									
CC 42 549									

 C.D.
Spectr. Temp
Focus
Spectr. Temp

Exp. Mir. Sc

10.5/4

9.5k 3

18k 3

17.6k

7.3k

1k

6k

5.7k

Spectr. Temp. -100.5°C

Dome Temp./Hum. 72.2°C 55.5% H

Transparency Conditions Part Cloudy 19.8

Focus 7.04

Spectr. Temp. -100.6°C

Dome Temp./Hum. -2°C

Companion
Filter Exp

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
10 Filter 9.5K	3-4"	18	M7E	CASS CCD	600C/mm 26.1 tilt	306	4620A	15		Lost from Runway	
								16			
								1			
								17			14.3
								18			12.9K
18K	3"		M6III					19			9K
17.6K			"					20		central 7200/1 S/N	77K
17.3K			"					21			
								22			11.8
								23			
10K			M7E					24		55/1 S/N	1K
16K								25	(90/1 S/N)	100% En Strongest PART of spectrum	
15.7K								26			
								1			

CCD
Spectr. Temp. -106.5°C

Dome Temp./Hum. +1.5°C 57% H

Transparency Conditions . Part cloudy 200

Focus 7.07

increasing cloud

Spectr. Temp.

Dome Temp./Hum. +1.5°C 60% H

~ MAX 400

Exp. Mtr.	Seeing	Pl. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no filter				C45500	600C 1/4" 26.1° 95/14	30u	4620H	27			
11K	2-3"	ug	M7c					28		H8 em	1.5K
11.3K								29			
10.3K								30		cloud at end.	
								31			
								32			
1806								33		cloud SOURCE TEXT on 1st 10 mins	11K
								34			
								1/2			

Still on E Drive awaiting Renumbering *
 Crude → Backup on M: Not on F Yet,
 All Renumbered & To M: & F: 1 Nov 11

201 pg#1

Sun / Mon

Emulsion Batches:

Date 1996 Nov 10/11..... Observers Lu / Tu..... 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.
CC23 ^{88/} 89	Inboard / Outboard							FeAr ND#3	3/11
90	Comp							"	4s
91	HD172167	18 3333	+38 4126	18 19 28					1Q
92	"	"	"	18 20 21					15s
93	Comp							"	4
94	BINS(4)			18 24					
95/401	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 34 24					900
404	"			18 49 51					914
405	Comp							"	4s
406	BINS(4)			19 08					
407	Comp							"	4s
408	EL Aqr	23 47 19	-08 05 04	19 13 52					1200s
409	"	✓	"	19 34 53					1252s

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

Exp. Mtr.

45K

7K

350

340

380

408

CCD Spectr. Temp. -100.5°C Dome Temp./Hum. $+22.2^{\circ}\text{C}$ 5408H Transparency Conditions ... Purest Cloudy ... 90.2

Focus 6.95 6.91

Spectr. Temp. Dome Temp./Hum.

390 0 50 1024 4 1 CCD Fmt

Comparison Filter	Exp.	Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
3/11						CHSS CCD	1800lm 47.1°	306u	5184	1/2			
4										3			
10		~45K		0	AOV					4	Veg9		5K
15		7K								5			7K
4										6			3.7K
										1			
3/75										7			13.8K
15										8			
90		350	2"	10.3	ABV					9	DRL	Tel focus 2682 idal Dome T +1.7° Source on 1/31 400sec	
9/14		340	2"							10		45/1 S/N	
45										11			25K
										1			
45										12			
1200		380		10.35	F					13			
1252		408		"	"					14			

103 pg#2 sun/mon

Emulsion Batches:

Date 1996 Nov 10/11... Observers L4/Js.....

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							FeR RD#3	4s
" 11	EL Agr	534719	-080504	20 00 38					1208s
" 12	bias			20 21					
" 13	EL Agr			20 23 14					1200s
" 14	comp							"	4s
" 15	EL Agr			20 46					1201s
" 16	"			21 06 47					1096s
" 17	comp							"	4s
" 18	comp.							"	4
" 19	Gz And	021212	+44 40 00	21 36 27					924s
" 20	"			21 51 55					755s
" 21	comp.								4s
" 22	bias			22 06 46					
750733 HD 6314x4		CG80732/35		22 19					4x 67m
CG80736/39	MARKS X4								67m

(edit/ender. Object and
COORDS)

Spectr. Temp.

Focus.....

Spectr. Temp.

Exp. Mtr.

S

401

404

404

414

385

217

171

204
auch

.6.91.

دفعه

Comparison Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
3	4S					CASS CCD	1800/n 47.1° Filt	306u	5784	15c			
	1208s	401		10.35	F					16cc			
		404								1			
	1208s	404		10.35	F					17c			
	4s									18c.			
	201s	414		"	"					19			
	1066s	385								20			
	4s									21			
	4									22			36K
	924s	217		10.8	G5V					23			
	755s	171		"	"					24			
	4s									25			
										*			
4v	67m								seeing Tests		85° ALT Dome west		
	67n										no wind, mostly cloudy		
											pen		

165 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.
CG80740/41	HD6314	00 56 59	+39 27 18			20 20W		2x 133ms	
42/43	DARK							2x 133ms	
CC42423	Comp							FeAr NO 43	4s
24 ✓	HD 224 84	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	BIA 5(4)			22 59					
30	Comp							"	4s
31	GZ And	(2000) 02 12 12	44 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. Mir.

1840

10K

184

98

23

Spectr. Temp. ^{CD}... -100.5°C ... Dome Temp./Hum. ... -00.1°C 64.4% Transparency Conditions ... Mostly cloudy 206.

Focus ... 6.91 ... 50

Spectr. Temp. ... 88.0°C ... Dome Temp./Hum.

Exp. Mtr.	Seeing	Plg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	1.2"	657	F0 Vh	Seeing Test	Above 306	slit				All same Ins setting, 67ms and 133ms	
										No Ins adjustments needed.	
							5184A	25			
1840	3"	428	F8 II-V					26	std vel		12K
								27			
		2.53	M1.5IIa					28			
10K	3"	2.53	M1.5IIa					29	std vel		6K
								30			
								31			
		10.8	QSV					3ci			
184		10.8	QSV					4ci			
198		"	"					5ci			
								6ci			
								1			
213								7ci		* Power warming up	
								8ci			

707 pg # 4

Sept / mon

Emulsion Batches:

Date ..1946 Nov 10/11.... Observers ..L.H. / T.H.

Plate No.	Object	R.A. 1900 2000 1900	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					2K
39	GZ And Comp			01 30 44					906s
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. Tem

Focus....

Spectr. Tem

Exp. Mir.

No filter

235

199

301

394

48

523

81

530

CCD Spectr. Temp. @ 01:10 -10.0°C Dome Temp./Hum. 20.4°C 67.0% Transparency Conditions ... Part. Clear again ... 208

Focus 6.91

Topup done by 01:10

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

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

109 pgs #5

Date 1996 Nov 10/11 Observers Lu/Tn

Emulsion Batches:

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

CCP
Spectr. Tem
Focus...
Spectr. Tem

Exp. Mir.

417

421

328

448

437

417

410

CCD Spectr. Temp. -100.5°C Dome Temp./Hum. -1.3°C 71.5% H Transparency Conditions ... Mostly clear ... 25

Focus ... 6.91

Spectr. Temp. Dome Temp./Hum.

2 MAX
104

Comparison ter Exp.	Exp. Mtr.	Seeing	Mag. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
4s									24c			
900s	417								25c		50/1 S/N	
900s	421								26c			
4s									27c			
900s	328								28c			
4s									29c			
									1			
4s									3			3.2K
900s	448	3.5"	10.4	G					4		> 50/1 S/N	
900s	437	"	"	"					5			
4s									6			
900s	417	"	"	"					7			
900s	410								8			
									9			
									1			

Date 1996 Nov 10/11

Observers Lu/Tn

Emulsion Batches:

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[illegible]

Spectr. Temp. -503°C
Focus 6.91

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

Transparency Conditions 212

Spectr. Temp.

Dome Temp./Hum. -47°

390 0 50 1024 41 CCD_{avg}

Conversion Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
100		436		104	G					10cc	DRL	Header corrupt edited.	
100		520				LOST with GPIB & Reset.				11 cc		GPIB error on Readout.	
										1		Restarted	
										1			
6 3/4										3/4			

23 pg#1 Tues/Wed

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

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.
CC42473/74	Inboard/out					0 0	+30°	FeAr ND#3	3/11
75	Comp TiNe			19 58 14		westside 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#3	2s
78	Comp FeAr			20 07 36		"	"	FeAr ND4	15
79	BINS (4)								
80	Comp FeAr					4 East	+34°	FeAr ND#4	15s
81	Comp FeNe					"	"	FeNe ND4	2s
82	TUNG (FIAT)					"	"	TUNG ND4	15s
83	Comp TiNe					"	"	TiNe ND4	1s
84	n					4 West	+34°	n	1s
85	TUNG (FIAT) - Hand edited! ✓							TUNG ND4	15s
86	FeNe							FeNe ND4	2
87	FeAr			20 39				FeAr ND4	15s
88	FeAr		edit com ✓			0 0	0 0	n	15s

CCD Spectr. Temp. ... -100.5°C ... Dome Temp./Hum. ... -1.0°C 569% H Transparency Conditions ... cloudy, mostly ... 214 ...

Focus ... 6.97 ...

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

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
3 11				CASS CCD	1800/4/mm 47.10	308 μ	5182A	1/2	focus test	390 0 50 1024 4 1 CCD FWHM	
12								5	Source II	390 0 100 1024 2 1 Unimation Tests	8.6K
52								3			8.1K
26								5			7.9K
15								4			3.5K
								6			
15								8			5.0K
23								9			7.4
15								10			10.3
15								11			6.6K
15								12			8.5
15								13			10.1
2								13			7.9
15								14			3.4
15								15			3.9K

115. pg #2

Tues/Wed

Emulsion Batches:

Date 1946 Nov 12/13 Observers T.H.

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[illegible]

1.17 Tues/Wed

Emulsion Batches:

Date 1996 Nov 19/20. Observers L.H. / 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.
CC42 ⁵⁰⁰ / ₁	BIAS								
⁵⁰¹ / ₀₂	Inboard/04 T Board							Fair ND3	3/11
03	Comp		2000					"	4s
04	GZ And	021212	+44 40 00	020309					660
05	Comp							"	4s
06	Comp							"	4s
07	HD22484	033146	+00 05 04	022006					103
08	Comp							"	4s
09	Comp							"	4s
10	HD18884	25703	+03 41 51	022820					87
11	Comp							"	4s
12	BIAS(4)			2 35					
13/17	FLATS x 5							TUNE ND3	7s
18	bias (4)								

CCP
Spectr. Temp
Focus...6
Spectr. Temp

Exp. Mtr. S

150 3

6K

8K

CCD Spectr. Temp. -100.5 °C Dome Temp./Hum. ... -1.4 °C ... 76.5% H Transparency Conditions ... mostly clear 218

Focus 6.97 90 cgain Then 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
				CASSED	1800 l/mm 47.10	306u	5182A	1			~ADY max
3/11								3/4			
8								5			3K
60	150	3-5"	10.8					6		25/1 S/H	
8								7			
15								8			
103	6K	4.25	F8V					9	std/vel		AK
45								10			
8								11			
87	8K	2.53	M1.5II					12	std/vel		
45								13			
								1		$\sigma = 5.525$	
3								14			13.8
								1			

219 Thurs / Fri

Date 1996 Nov 21/22 Observers MKJ/Tn

Emulsion Batches:

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[illegible]

Spectr. Temp. ^{CCD} -100.5°C

Dome Temp./Hum. $+100.5^{\circ}\text{C}$ 66% H

Transparency Conditions Late partial clearing.

Focus 6:9.2

Spectr. Temp.

Dome Temp./Hum.

390 850 1024 4. 1 CCD/FMT

Comparison Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality	
5/2						C455CCD	1800 μ /mm	306 μ	6568 $\text{\AA}$ $\pm 1\text{\AA}$		3/4	focus test		
						grating = 55.95°			Row 512					
						$\Rightarrow$ Note exposure differences to get 2 = exposures of in board / out board.								
						<u>Note</u> 1st use of new grating command to set grating tilt								

N_{py}#1

Tues / wed

Date ...19.96. NOV. 26/27. Observers ...L.Y./T.O.....

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.
CC425 ^{21/22}	Inboard/OUTBOARD Harriman Test					00	+25°	FeAr Filter 3	5/3
23	B/H S(4)			20 20					
24	Comp							FeAr ND 3	45
25	EL Agr	2000 23 47 19	-08 05 04	20 36 04					905
26	"	"	"	20 51 30		01 28 W			909
27	Comp							"	45
28	EL Agr	"	"	21 09 03					901
29	Comp							"	45
30	Comp							"	45
31	TT Cet	2000 01 46 57	-09 45 06	21 31 26		00 08 W			900
32	"			21 46 48					912
33	Comp							"	45
34	TT Cet	"	"	22 03 57					928
35	Comp							"	45
36	B/H S(4)			22 21					

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

Exp. Mr. S

No filter

1500 sky
conts

408

386

383

378

280

271

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

CA

390 0 50 1024 4 1 CCOFMT

Comparison Filter Exp.	Exp. Mtr.	Seeing	Hg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
5/3	no filter					1800 l/mm Tilt=46.9	306	5184A	1/2	focus test		
									1			
45	Lots of Sky counts	5.8							3			5.7K
905	408	5.8	10.35	F					4	DRL	> 30/1 S/N	
909	386								5			
45									6			2.9K
901	383	4.6							7			
45									8			2.9K
45									9			4K
910	328								10		30/1 S/N	
912	280								11			
45									12			
928	221								13			
45									14			3.2K
									1			

~27pg #2 Tues/Wed

Date . 1996 Nov. 26/27... Observers . L. A. / 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.
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. Mtr.

1201/4

600

337

180

6K

OK - increasing cloud

Thien Snow AD

2014

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
43	no filter			CASS CCD	1800ln 46.9°	306 μ	5184A	15			
68	600	6"						16			
45								17			
45								18			
900	337	10.6	F8					19			
484	180							20		clouds passed by	
48								21			
48								22			
	5"	4.28	F9IV-V					23	std vel	in cloud	
4								24			34K
4								25			
73	6 K	2.53	171.5 III ₄					26	std vel		3K
4								27			
								1			
16 3								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	+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	U Z Leo	10 40 33	+13 34 00	03 02 38					1220
66	"	"	"	03 22 55					1200
67	Comp								
68	bias (4)								
69/70	Inboard / out Board			Heilmann		2 40 E	+13 33	FeAr No 3	10/6

Spectr. Temp. ^{CCD} -100.5°C.....

Dome Temp./Hum. -6.5°C 67% H

Transparency Conditions ... Hazy... cloudy... 226

Focus ... 6.95.....

Spectr. Temp.

Dome Temp./Hum. -7.7°C.....

max
ADU

Comparison ter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
85*					CASS CCD	1800h 46.9°	306u	5184	3ci		* Signal strength much lower now for same setup as earlier	
900	430	5-7"	10.4	G					4		45/1 S/N	
900	408								5			
85									6			
924	397								7			
902	370								8			
85									9			
									1			
85									9			
1200	675	5-6"	9.7	F2					10	65/1 S/N	Surf of star now, checked encoder error for Regular	1.75
1200	730								10		and applied same to this star,	
									11			
									1			
10/6									29/30	focus	still OK.	

#1 ²²⁷ Wed / Thurs.

Date . 1996. Nov. 27/28 Observers . L. U. / 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.
CC425 71/72	In board/out Board					0	+30°	FeAr ND #3	10/2
73	BIAS (4)								
74	Comp								
75	HD 182572	19 2012	+11 43 49	17 42 34				FeAr ND #4	4.5
76	"	"	"	17 44 43					67
77	Comp							FeAr ND #4	45
78	Comp							✓	45
79	V 361 Lyr	19 01 06	+46 54 00	18 58 02					1500
80	"	"	"	18 23 57					1500
81	Comp							"	45
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	FLATS x 5								

OK, But CCD3L glitch (Test it)
 (look at @ pocket in hander 4ci says 1950 often
 V 361 Lyr
 import)

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

Exp. Mtr. Sec.

110-60 f/8
 28

111
115

121
160

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

Focus 7.4.12

Then increasing cloud

Spectr. Temp. Dome Temp./Hum.

185 0 50 1024 4 1 CCD FMT

Comparison
Filter Exp.

Exp. Mtr.	Seeing	Pl. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
3 10/2 no-fiber no-al to match in/out exps				CASS CCO	1831 6/line FH=3345	306	6765A ± 10A	1/2 1	Focus.	Comment: 400A scale 396° = 27,000 steps for 60° proj. 260A slit recommended.	
4 67	2.8K	5.16	G7IV					4 4	std vel		11K
4 8								5			6-8K
4 8								6		3 columns 50ADU above sky	
1500	111	1"	14	K?				7	DRL	Good Field identification OK	
1500	115							8		bd -0000 15 AS-100 01.36	
4 8								9		AIR MASS 1.3	6.6K
								1			
1500	121	1-2"						10		25/1 S/N	
1518	160							11		25/1 S/N cloud	
								12			
16 35								1			
								13		10K max	

229 #2 Wed / Thurs

Emulsion Batches:

Date ... 1996 Nov. 27/28. Observers L.Y. / 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.
cc 425 ^{92/93}	Inboard / out					00	35°	DOA ND 4	6/9
94	Comp		(2000)					DOA ND 4	45
95	TT Cet	01 46 57	-09 45 06	20 21 13					937
96	Comp							"	45
97	Comp		(2000)					"	45
98	DK Cyg	21 35 02	+34 35 42	20 45 14					900
99	"			21 01 18					900
600	comp							"	45
01	biqs(4)		(2000)	21 19 22					
02	DK Cyg	21 35 02	+34 35 42	21 20 35					900
03	"			21 36 11					900
04	Comp							"	45
05	DK Cyg	"	"	21 53 41					900
06	"	"	"	22 08 57					900
07	Comp							"	45
08	BIHS(4)								

Spectr. Temp. Dome Temp./Hum. -5.2°C 63.5% H Transparency Conditions ... *Some cloud* 230

Focus 6.98

^{CCD}
Spectr. Temp. -100.4°C

Dome Temp./Hum. -6.1°C 68.3% H

390 0 50 1072 4 1 CCD/FAT

Comparison Filter Exp	Exp. Mtr.	Seeing	Pl [✓] Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
6/9 4	No filter	(in/out strength <i>matched</i>)				1800h 46.9°	306	5184A	14/15	Focus	26055 steps 26500 steps	
									16			3.6K
977 8	300	3"	10.0	A					17	DRL		
4									18			2K
									19			2K
900 900	349		10.3	A6V					20			
	392								21			
45									22			2K
									1			
900 900	377								23		50/1 S/N	
4	368								24			
									25			1.9
900 900	340	2.4"							26		45/1 S/N	
4	328								27			
									28			2K
									1			

NM 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							FeAr ND 4	45
10	GZ And	(2000) 02 12 12	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	Bik 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

Focus

Spectr. Temp

Exp. Mtr.

10 f/12

192

238

275

298

244

21K

7k

Spectr. Temp. Dome Temp./Hum. $-6^{\circ}C / 68.3$

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°	3060	5187A				21
192		10.8	G5				*	4ci		clouds ... the	
238	2-3'							5		field.	
								6			2K
275	2-3'							7			
298								8			
								9			2K
								1			
244	2-4'							10			
								11			2K
								12			
2.1/K		4.26	F9 IV-V					13	std vel	cloudy	
								14			
								15			
7K		2.53	M105 III					16	std vel		

V57 p#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			00 41 47				FeAr ND3	4/8
32	comp							FeAr ND3	6s
33	HD 47839	6 3528	+9 59 18	00 47 53					601
34	comp							"	6s
35	Comp (FeNe)							FeNe ND3	4s
36	HD 62509	7 39 12	+28	01 15 46					52
37	Comp							FeAr ND3	6
38	HD 62509	7 39 12	+28 16 04	01 15 46					52
39	comp							FeAr ND3	8
40/44	FLATS x 5							TUNG ND1	25s
45	Comp			01 41				FeAr ND3	4s
46	HD 62509			01 42 58					214
47	Comp			01 48				"	4s

Spectr. Temp

Focus.....7

Spectr. Temp

Exp. Mtr.

6639

F. 1/4

6.5K

12K

12K

6639

F. 1/4

3.9K

Spectr. Temp. Dome Temp./Hum. ... -60° 67.8% Transparency Conditions ... thin cloud ... 234
 Focus ... 7.03 far ...
 Spectr. Temp. Dome Temp./Hum. C X
 Then solid with snow

Exp. Mtr.	Seeing	Pl. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
4s				CASSCO	1800 46.9°	306	5184	17			
7s							5184	18			9.2K
4/8				Tgrating →	1800h 40.00	306	4040A	3/4	Focus test	340 050 1074 41 CCDINT	
6s	BG39 Filt							5			6.6K
60s	6.5K							6	Bln		2.4K
6s								7			5.7K
4s								8		one line v str	13K
8s	12K							1			
6s								9			
57s	12K							10	std vel		3K
6s								11			
25s								12			3.8K
4s	BG39 Filt				1800h 40.4°		4100	14			6.8
214s	3.9K				Tgrating →			15	SLIP		900
4s								18			

235 p 45

wed / Thurs

Date .. 1946 Nov 27/28 Observers ... LU/Tn

Emulsion Batches:

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.....

[illegible]

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
5/25				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. & 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 ND #3	
55	BIAS(4)			2017					
56	Comp							FeAr ND #3	4s
57	BD+16 516	03 4443	+16 5706	202326					791
58	Comp							"	4s
59	FLAT							TUNG ND #4	3s
60	Comp							FeAr ND #4	6s
61	HD12929	2 0132	+22 59 23	20 5342		0 51 E			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 ND 4	3s
69	BIAS(4)				2243				

CCD Spectr. Temp.

Focus... 6s

Spectr. Temp.

Exp. Mtr.

No. 1/1

400

28K

500

360

CCD
Spectr. Temp. -100.5°C

Dome Temp./Hum. +00.9°C 68.3% H

Transparency Conditions *clearing. partially* 238

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 l/mm	306	6570A	3/4	focus test		
					T6 GRATING → 55.95			1			
								6			
400	42"	9.4 -9.7	KOV					7	V417 Tau		
								7			
								8			15.3K
								9			3.6K
2.8K	42"	2.0	K2	Job Co-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 CC42672 more FLATS	

#1 239

Mon / Tues

Date ... 1996 Dec 2/3 ... Observers ... L.H. / T.H. ...

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 (4)								
74/75	In board / out board			17:37		0 20W	+45°	12Ar ND4	4/9
76	Comp			17:43				"	45
77	HDB2572	19 20 12	+11 43 49	17 45 24					65
78	"	"	"	17 46 53					84
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
82	"	"	"	18 24 44					1899
83	Comp							"	4
84	V361 Lyr	"	"	18 51 43					1501
85	Comp							"	4
86	Comp							"	4
87	110187235	1900 19 43 55	138 09 36	19 20 52					109S
88	Comp							"	4

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

Exp. Mtr.

No. 4, 1/2

2K

2.9K

130

135

41

2.3K

CCD Spectr. Temp. -100.5°C

Dome Temp./Hum. 0.0°C 69.1% H

Transparency Conditions . Mostly clear..... 24°C

Focus ... 7.05

90c gain

Spectr. Temp.

Dome Temp./Hum.

C 2

185 0 50 1024 41 CCD Faint

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emission	P.H.	Program	Remarks	Quality
20 f/kr				CHSS' CCD	813/14/mm T = 33.48	306	6265A	1		18583 steps	
								3/4	Focus		
								5	(In Reduction, Lu found this comp (In) to be shifted too much)		5.5K
2K								8		2 ~ 12 4 ~ 01'40" Deffas	
2.9K								6			
								7			
								8			
130	3" #14		?					9		Δα - 00 0017 50ADU Δδ 00 01 24 ABUSky	
135								10			
								11			5.4K
141								12		Hazy - Bright Aircraft?	
								13		Light for 2525	
								13			
2.3K								14	Telluric Std		4K
								15			

24/18 #2

Date 1996 Dec 2/3. Observers Lu / Th

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					
90/92	FLATS x3							TUNG ND5	065
CC42693/94	Inboard / OUT BOARD							FeAr ND3	675
95	Comp	2000						FeAr ND4	45
96	EL Agr	23 47 19	-08 05 04	19 45 13					900
97	comp			20 02 01				FeAr ND4	45
98	bias(4)			20 08					
699/703	flat x5							TUNG ND4	55
04	comp							FeAr 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. Temp

Focus... 6

Spectr. Temp

Exp. Mtr.

12.1/12

100 T500

347

343

338

343

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 Fuji

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
<i>120 f. 112</i>					<i>831</i>	<i>3064</i>					
<i>100 Tsculp</i>											<i>10K</i>
				<i>CAS CCD</i>	<i>1800m 46.90</i>	<i>3064</i>		<i>3/4</i>			
								<i>5</i>			<i>24K</i>
<i>347</i>	<i>4.5"</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>			

Spectr. Temp.

Dome Temp./Hum.

390 0 50 1024 41

[illegible]

245 Sun / mon

Date 1996 Dec 8/9 Observers L4 / Tn for Blue KK

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 ^{19/20}	Inboard / outboard							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					1534
32	Comp							"	4
33/37	Comp FLATS x 5							TUNG	25
38	HD 47105	6 3156	+16 2905	02 2670					

CCD
Spectr. Temp
Focus...
Spectr. Temp

Exp. Mir. Se

Blue

1/4x

2000

6

Set Voltage

1320V

180

24

25

3-4

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				Edelk CCD 20.00	06001n X.4625	60u = 277 400.2 225		1/2		0 0 1281024 81	
							4483A	3		0 0 2561024 41	5K
4000	6"	B 0.88		G0 III + G8 III			control ORDER.	4	KK pgm	encoders normalized +00.	9K
								3			
								1			
								3			
Set voltage to 1320V	4.6"	B 4.40	07					4	(5 Mon) Blu pgm	Exposure meter set to 1320V and Rebalanced	MAX 830
180								3	Seeing poor	But faint NORTH companion seen and kept off slit.	
24								5		cloud	
								3			6.5K
								1		$\sigma = 1.736$	
145	3.4"	B 4.40	07					5	5 Mon (Blu)		NOV 500
								3			
								2		$\sigma = 1.677$	5.7K
		B 1.93		AOLK				6	KK pgm	cloud 8Gem	

cm7 pg #1 only, Mon / Tues

Date 1996 Dec 9/10. Observers [B/k] / T.H.

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							"	4s
42	HD 217675	22 57 19.41	+71° 19'	17 42 38		0 09 E			649
43	Comp							"	4s
44	BIAS (4)			17 58					
45/49	FLATS x 5			19 44	20 12			TUNG	25
50	Comp			20 17				T/Ar	4s
51	HD 34029	5 09 18	+45 53 47	20 18 29					49
52	"	"	"	20 21 31					96
53	"	"	"	20 23 14					87
54	Comp							"	4s
55	BIAS (4)			20 28					
56	Comp							T/Ar	4s
57	HD 478319	6 35 38	+9 59 18	20 35 39		4 50 E			98
58	Comp							"	4s

(C) Spectr. Temp

Focus....

Spectr. Temp

Exp. Mtr.

1320V Blue Filter

500

9.3K 3

8.3K

8.8K

9.75 8

Specr. Temp. ^{CCD} -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

Comparison filter Exp.	Exp. Mir.	Seeing	Ptg. Mag.	Sp.	Inst. Echelle	Grating/ X Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
4/3	1320V Blue Filter				20.0°	060014/102 X.4610	60u = .277 400u height		1/2		0 0 1281024 8 1	MAX H04
4s						note 1st, Blue	ORDER.		3		0 0 2561024 4 1	5.4K
649	500	4.6"	3.63	B6p		centered @ 4307	Blue end 4290		4		encoder normalization	390
4s						4340 center of 2nd ORDER FROM TOP			3			
							60u = .277 500u height for Fringe = .195 setting 400u = .225		1		$\sigma = 1.676$ (Response Dome) @ 2013	57K
25									2			49K
4s									3			217K
49	4.3K	3-4	B 0.88	G.					4	KK pgm		33K
96	8.3K								4			32K
87	8.8K								4			
4s									3			
									1		$\sigma = 1.41$	
4s									3			
98	275	8"	B 4.4	B.07					5	Blu pgm some cloud	3.46 HiK mass	300
4s									3			

249
p#1

Tues/Wed

Date ..1996..Dec.10/11.. Observers ..K.K..I.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	Inclined / out					240W	+10°	ThAr	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					579
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 1254					1246

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

Exp. Mtr. S

10 f/11
1320V

>2000

700

720

700

656

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

Focus 2.19

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

90c gain

* Telluric = H₂ inclusion setup

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
3/3 No filter 1320V				T.H. 19.10	0600 x.3025	60u width *	6401A	1/2	focus test	00 0128 1024 81	
3						60u width		3		0 0256 1024 41	
>2000		212	B8V			60u width		4	Just while normalizing encoders		125K
3		212	B8V			60u width		3			
								1			
3								3			
5/9 700	2.4	2	F816					4	KK pgn	15 00 13 30 15 5 00 02 18	~700
3								3			
7/9 720								5			
3								3			
4/6 700								6			
3								3			
								1			
3								3			
12/6 686	2.3"	2.3"	A2Vnn	4.87				2	Telluric Std from Bln newlist	400	

pg #251

Tues / wed

Emulsion Batches:

Date 1996 Dec 10/11 Observers KK/Tu

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[illegible]

Spectr. Temp. ^{50T} -102.0°C

Dome Temp./Hum.

Transparency Conditions... *mostly cloudy*..... 252

Focus . . . 219

Spectr. Temp.

Dome Temp./Hum.

[illegible]

253
py#1

Wed / Thurs

Date 1996 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	HD8890	01 22 34	+88 46 26	17 47 20	✓				63
90	Comp			17 51 12				"	3
90	HD8890			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	HD1326B	0 12 42	+43 27	18 01 28					2500
96	COMP							ThAr	3

CCO
Spectr. Tem

Focus....

Spectr. Tem

Exp. Mtr.

No. Acc
1320 Volts

1000

1000

1000

1000

Exp. Mtr.

12 2'

CCD Spectr. Temp. -101.7°C Dome Temp./Hum. $11.5^{\circ} 77.8\%$ Transparency Conditions $\text{Partly Clear } 25.4$

Focus 225

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

Spectr. Temp. Dome Temp./Hum.

Exp. Mtr.	Seeing	Pl. Mag.	Sp.	Inst.	Grating/ X Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no filter 1320 Volts				Echelle 19.10	06006m .3025	60u = .272 400u = .225	640/11/2	1	Focus lost	$T = 1.1$ $F = .225$ 0 0 128 1074 8 1 0 0 256 1074 4 1 poor, many cosmic rays	
						600u = .205	640/11/8	3			
1000		2 1/2	B8V					4			
								3			
								3			
1000	3"	2	F8IV					5			
								3		Lost, no turn. H ₂	
1100								5			
								3			
1000								5			
								3			
								3			
exp meter balance checks well.											
12	2.3'	11.0	M4V					6		clear sky home fainter comparison	50 ADU
								3			

255

Pg² Wed / Thurs

Emulsion Batches:

Date 1996 Dec 11/12

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.
CE13497	HD 1326 A	0 12 42	43 27	18 45 50	19 04 30				1115
498	comp								3
499	bias (4)			19 06					
500-504	flats x 5								2
505 504	flats x 5								2
570	Comp							ThAr	3s
511	HD 1326 A	0 12 42	43 27	19 24 13					1517
512	Comp							"	3s
513	Comp							"	3s
514	HD 14055	2 11 22	43 23 05	20 04 43					574
515	Comp							"	3s
516	B/A 5 (4)			20 16					
517	Comp							"	3s
518	HD 168 95	2 37 22	48 48 20	20 21 28					384
519	Comp							"	3

Spectr. Tem

Focus...

Spectr. Tem

Exp. Mtr.

10-11/2K

250

V: 1320

250

3050

3000

Spectr. Temp. Dome Temp./Hum. $+100.3^{\circ}\text{C}$ 78.1% Transparency Conditions ... Mostly dark 25K

Focus ... 225

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

0 0 256 1024 4 1 CCD FWT

Comparison Filter Exp.	Exp. Mtr.	Seeing	PA Mag.	Sp.	Inst. E. Lalle	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1115	no filter 250	3"			19.10	0600 In 13025	60u 600u Height					~ 11 HK
3	V=1320 u/s											
2							60 u 800 u	6401A				
2					18.0	0600h 13007	"	6402A ^P				
3									3ci			
1977	250	23"	8.07	M2V					4ci			~ 600
3									3		Devar Topo E 205ST	
35									3			
574	3050	3.4"	4.01	A1V _{on}					5	Telluric Std	Blu new list	25K
33									3			
									1		~ 1.5 ⁴⁵	
3									3			
38	9000	4"	4.13	F7V					2			1.9K
3									3			

25pg#3 wed/Tues

Date 1996 Dec 11/12... Observers KK.../Tu...E... [B.L.]

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.
13520	Comp							THAR	3
CE13520	HD16895 B	2 37 22	+18 48 20	20 37 57					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	✓ edit header		22 10 30					926
29	Comp							"	3
30	BD+33 1646B			22 27 49					1942
31	Comp							"	3
32	Bias (A)			2303					
33/34	FLATS x5					○	+12°	TUNG	2s
38	Comp							THAR	6
39	HD47899	6 35 28	+9 59 18	23 21 00					1039

Spectr. Tem

Focus...!

Spectr. Tem

Exp. Mtr.

As 1/10

1320 100

10

20

11

5/11

1/100

2K

Spectr. Temp. Dome Temp./Hum. 0°C 77.3% Transparency Conditions *still mostly clear 25*
 Focus 225 Cloud from East by 2300
 Spectr. Temp. Dome Temp./Hum. -00.5°C 75.8%

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
3 2303	no f/lex 1320 1000 3"	9.84	M12	Echelle	0600m 3025	60u W 60u H	6403A	3 6.			
3								3			
257							6403	2			
3								3			
3								3			
217	10	3.4	121	M3				4	Vys 250B	Fainter S W of pair A 2 00 00 00 A 5 00 -1 15	
3								3			
626	20		11	M0				5	Vys 250A	Brighter one	
3								3			
1942	11	3"	121	M3				6	Vys 250B	cloud at end	
3								3			
								1			
6 25						800u		3			
6	still no f/lex 2K	B=		Echelle 20.00	0600u 4590	60u 400u	4481P	3		Regular Std Blue setup by K.K.	
1039		4.4	07					7	Blup 99u	photo in manual	700

25p9#4 Wed / Thurs

Emulsion Batches:

Date 1946 Dec 11/12 Observers ... K.K./Tn... for [Bh]

Plate No.	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							ThAr	6
5A1	HD 47839	6 3528	+9 5918	23 4020					20A6
5A2	Comp							n	6
5A3	bias (4)								
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.

Focus.....

Spectr. Temp.

Exp. Mtr. Sec

2050 34

258

151

4030

4200

14

Spectr. Temp. Dome Temp./Hum. Transparency Conditions .. *PART. Cloudy* .. *250*

Focus .. *225* ..

Spectr. Temp. Dome Temp./Hum.

Companion Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst. <i>Echelle</i>	Grating/ X Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
<i>4</i>	<i>6</i>					<i>2010</i>	<i>0600</i> <i>4590</i>	<i>60u</i> <i>400u</i>	<i>4481A</i> <i>Height</i>	<i>3</i>			
<i>2A6</i>	<i>6</i>	<i>2050</i>	<i>3.4"</i>	<i>4.4</i>	<i>07</i>					<i>4</i>	<i>Blu pgn</i>	<i>Some cloud</i>	
										<i>3</i>			
										<i>4</i>		<i>This time nearly</i> <i>companion in <u>Sw</u> seen</i>	
<i>6</i>										<i>3</i>			
<i>37</i>	<i>6</i>	<i>2508</i>		<i>✓</i> <i>1.14</i>	<i>KO III b</i>					<i>2</i>	<i>std vel</i>		<i>500</i>
										<i>3</i>			
<i>181</i>	<i>6</i>	<i>15K</i>			<i>'</i>					<i>2</i>	<i>std vel</i>		<i>3K</i>
										<i>3</i>			
	<i>6</i>									<i>3</i>			
<i>170</i>		<i>4030</i>		<i>B</i> <i>1.93</i>	<i>AO IV</i>					<i>4</i>	<i>Kti pgn</i>		<i>1.7K</i>
<i>154</i>		<i>4200</i>								<i>4</i>			
<i>6</i>										<i>3</i>			
<i>6</i>										<i>3</i>			
<i>57</i>		<i>16K</i>								<i>5</i>			<i>4.4K</i>

Date 1996 Dec 11/12 Observers KK / TN

Emulsion Batches:

[illegible]

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

Companion Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
61		12" filter 16 K						60u 400u	4480	4			
6										3			
6			3"							3			
535		1010		V=5.36	15n					6			1.7K
6										3			
6										3			
180		1000	3"	V 646	BdF8					7			
6										3			
6										3			
6								500u H=0.215		3			6K
6										8/9	focus 1st	0 0 128 1024 81	

263

Tues/Wed

Emulsion Batches:

Date 1996 Dec 17/18 Observers KK/Jr

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.....

.....

[illegible]

Spectr. Temp. Dome Temp./Hum.

Could out

[illegible]

N59 #1

Wed / Thurs

Emulsion Batches:

Date 1996 Dec 18/19... Observers [Pm] 1Th.....

Plate No.	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	4s
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							"	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					

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

Exp. Mtr.

10/6/96

33k

2k 5

1k 6

375k

CCD Spectr. Temp. -100.4 °C Dome Temp./Hum. -1.0 °C 55.124 Transparency Conditions ... Part clean 265

Focus 6.85

90 c gain

Spectr. Temp.

Dome Temp./Hum.

390 0 50 1024 4 1 CCD FMT

Exposure	Exp. Mtr.	Seeing	PA Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
4/3	1000 V no filter				CASSCO	1800/m 54.8°	306u	6400A	1/2	focus	* Strengths matched.	
4s									3			8.5K
98	3.3K		3.62	B6IIIpe+A2p					4		encoder normalization star	1.5K
4s									5			8.4K
4s									8.1			13.3K
4s									6			13.3K
4s									7		mirror home again before this comp	8.5K
839	2K	5.7" 4.28		F9II-V					8	std vel	cloudy	1.1K
4s									9			8.4K
4s									10			8.8K
750	1K	6.15" 7.9		FG-G1					11	← Rm(AW Per)	cloudy & vedy poor seeing	700
4s									72c:			8.7K
1199	2.75K								11			2K
4s									12			8.6K
									1		5.723 stars	

9649 #2

Wed / Thurs

Date 1996 Dec 18/19... Observers [Rm] / Tn; [Blh] / 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.
CC42741	Comp							FeAr ND 5	4s
42	HD 44990	6 19 49	+7 08 25	20 13 25		4 24 E			8/9
43	Comp							"	4s
44	Comp							"	4s
45	HD 22484	3 31 46	00 05 04	20 34 25		1 26 E			12s
46	Comp							"	4s
CC42747/48 Inboard / Outboard Hartmann									FeAr ND 3
49	Comp							FeAr ND 4	4/4
50	HD 22484	3 31 46	00 05 04	20 56 41					4
51	Comp							"	4s
52	BINSCA			21 04					
53	Comp							"	4s
54	HD 47839	6 35 28	+9 59 18	21 08 39					562
55	Comp							"	4s
56	HD 47839	"	"	21 20 38					270

Spectr. Temp.

Focus.....

Spectr. Temp.

Sp. Mtr.

NO
5/1/82

6K

7K

86
39
5/1/82

84K

13K

6.7K

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	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no filter				CHSS CCD	1800 λ 54.8°	306 μ	6400A	13c			9.2K
6K	7"-15"	B 6.5 -80		F7I ₆ b-K1I ₉ b				14	T Plon for Rm		3.6K
								15			8.9K
								16			
7K		V 4.28		F9II-V				17	std vel	some done earlier	
								18			8.8K
BG 39 filter				CHSS CCD	1800 λ 40.4°	306 μ	4100A	1/2			
								3			12K
8.4K		V 4.28		F9II-V				4	std vel		1.5K
								5			13.2K
								1			
								7			13.1K
11.3K	8"	B 4.4	07					8	bln pgm	A+ center ~200/1 S/N	2.5K
								9			
16.7K								10	"	~250/1 S/N	3.4K

1694#3

Wed / Thurs

Date 1996 Dec 18/19 Observers [Bh] / 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.
CC42757	Comp — Flat — Lu			21 35				FeAr ND 4	4s
58/62	FLATS x 5			1st @ 21 38				TUNG ND 1	33
[Comp written next day overwriting former Flat Tn]									
CC42763/64	Inboard / Outboard							FeAr ND 1	4/5
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			14/2
69	Comp							"	3s
70	BHAS (4)			22 42					
71	Comp							"	3s
72	HD 22 484	3 31 46	+00 05 04	22 47 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

COO
Spectr. Temp

Focus.....

Spectr. Temp

Exp. Mtr.
000

B6
39 F/10

17.4k

5.8k

9.6k

17.7k

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

390 050 1024 41 CCD Faint

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1000V											
BE 39 F/1K				CHSS CCD	1800ln 40.4°	306u	4100A ±10A	12 6			12.9K 5.3K
				CHSS CCD	1800ln 39.8°	306u	4000A ±10A	1/2 3	focus test, Right on	(C center ~250/1 S/N some cloud)	14.9K 35K 12.4K
17.4K	7"	B 4.4	07					13 19	Blu pgrm		
5.8K								20 21		much cloud	12.2K
								1 22			14K
9.6K	8"	V 4.28	F9 IV-V					23 24	std vel		1.4K
								25 26		Top up by 2325	8.9K 11.4K
17.7K	8-10"	B 4.4	07					27	Blu pgrm		3.2K

Wed Thurs

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.
CC42781	Comp							FOA ND1	3s
82	HP47839	6 3528	+9 5918	000257		0 37E			1547
83	Comp							"	3s
84	BIAS(4)			0 31					2237
85/86	Inbound / Outbound			} Header CCD FMT wrong				FeAr ND1	4/3
87	BIAS(4)			0 59					

Spectr. Temp.

Focus

Specr. Temp.

Exp. Mtr. S

RL 39

E: Len

11/2K

217

811

10

214

4/15

10

10

1

—

—

1

1

Transparency Conditions *Mostly cloudy.....22.*

Specr. Temp. -101.4°C

Dome Temp./Hum. ... -4.5°C 55.1%RH

[illegible]

23 pg#1 TLUWS / Fri

Date ... 1996 Dec 19/20 Observers [Blk] / 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.
CC 427 ^{88/} 189	Inboard / outboard							ReAr ND 1	6/3
90	BIAS(4)			0038					
91	Comp			003932				Felt ND 1	3
92	HD 47839	6 3528	+95918	004046					12.5
93	Comp							n	3s
94	HD 47839	"	"	010529					223/
95	Comp							"	3s
96	Comp							"	3s
97	HD 62509	7 3912	281604	014922					8/
98	Comp							"	3
99/803	FLATS x 5							TUNG ND 1	80s
804	BIAS(4)			2 02					
805	Comp							ReAr ND 4	4s
806	HD 62509	7 3912	281604	2 0650					98
807	Comp							"	4s

CC0
Spectr. Temp.
Focus.....
Spectr. Temp.

Exp. Mtr.
186
396/

16.2k

22.1k

20k

14k

CCD
Spectr. Temp. -100.5°C ...

Dome Temp./Hum. -7.2°C 5618H

Transparency Conditions ... hazy; part cloudy... 274

Focus 7.02

90 again

Spectr. Temp.

Dome Temp./Hum.

390 0 50 1024 4 1 CCUPMT

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulstn	P.H.	Program	Remarks	Quality
1000 V											
136 39 f/1402				C455 CCD	1800h 39.8°	306u	4000A	3/4	Focus test	strengths matched ~ mirror Homel 1st. Then to mirror 1 and left more.	11.1 K 9.1 K
								1			
								5			14.9 K
16.3K	5-8	4.4	07					6	Blu pgn		3.3 K
								7		mirror not changed same previous	11.1 K
22.1K	5-10	"	"					8	"	increasing cloud	
								9			11.2 K
								10			12.8 K
20K		1/14	K					11	stave		
								12			
								13			9 K
								1			
				C455 CCD	1800h 40.4°	306u	4100A	14		after mirror Homel	11.4
14K		1/14						15	stave	Then untuned.	2 K
								16			11.6 K

Spectr. Temp.

Dome Temp./Hum. - 8.1°C 67%

Transparency Conditions... *part cloudy*... *276*

Focus 102

Spectr. Temp. ^{CCP} - 101.8 °C

Dome Temp./Hum. -8.1°C 39

Then snow

Companion Filter	Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	43	BC 39				CASS CCD	1800m	306	4100A	17			11.5K
2/4	43	N.K	8"	B 4.4	07					18	Bln pgm		2.7K
										19			10.7K
										1			
1/6	85									20			12.5K
4/4	1/6	outbound after mirror Home → Back to #1 otherwise outbound too weak.								3/4	Focus,		

22 pg #1

Fri / SAT

Emulsion Batches:

Date ... 1996 Dec 20/21. Observers ... L.H. / 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.
CC428/9/20	J11 board / not board							FeAr ND4	6/6
21	Comp --- not comp, it is HD 34029							n	4
22	HD 34029	5 0918	+45 5347	23 5200					11
23	Comp							n	4
24	B/AS (4)			23 58					
25	Comp							n	4s
26	GZ And	02 12 12	+44 40 00	00 01 54		3 48W			901
27	GZ And			00 17 16					902
28	Comp							n	4s
29	GZ And			00 35 30					900
30	Comp							n	4s
31	Comp							n	4s
32	HD 22484	3 31 46	00 05 04	00 56 57					108
33	Comp							n	4s
34	B/AS (4)			01 00					

CCD Spectr. Temp. -100.4°C

Dome Temp./Hum. -6.5°C 63-67%

Transparency Conditions .. J45T.. 1/14 zy. now 278

Focus 7.02

90c gain

still gusty from W at

Spectr. Temp.

Dome Temp./Hum.

398 0 50 1674 4 1 CCD FMT

Companson Filter	Exp	Exp. Mtr.	Seeing	P.H. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
4	6/6	no filter 1000 V				CASS CCD	1800 l/m 46.9°	3060	5184A	3/4			
4	4								5				5.9K
1	1	9K							6		Capella	exodur 170mm/1200 line sten	10K
4	4								7			> 300/1 S/N	7K
									1				
4	4								8				8.7K
4	4	300	3-4"		10.8 G5 E				9		DRL	> 30/1 S/N > 30/1 S/N	
4	4	299	3-5"						10				
4	4								11				
4	4	275							12				
4	4								13				
4	4								14				7.8K
4	4	6.1K			4.28 F9 IV-V				15		Star Vel		4K
4	4								16				4.8K
									1				

pg#2 279 FRI / SAT

Emulsion Batches:

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

Plate No.	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							Fe 4n 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 Hyg	82704	+033055	25248					900
48	"			030821					900
49	comp								45
50	bias (4)			325					

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

Exp. Mtr. S

no filter

373

399

440

431

455

420

515

536

CCDT
Spectr. Temp. -100.5°C Dome Temp./Hum. -8.2°C 64.7% Transparency Conditions .. hazy - Fine 280

Focus 7.02

Spectr. Temp. Dome Temp./Hum.

Comparison Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
45		no filter				CASS CCD	1800h 46.40	306u	5/84A	17			6.4K
400		377	3"	10.5	G					18		50/1 5/4	300
400		399								19			
45										20			
900		440								21			
901		471								22			
45										23			38K
945										1			
945		455	3"							24			390
910		420								25			
45										25			4.1K
45										26			5K
700		515		10.4	G					27			
700		536								28			
45										29			4K
										1			

pg #3

Date 1996 Dec 20/21

Observers *Ed / M*

Emulsion Batches:

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[illegible]

Spectr. Temp.

Focus

Spectr. Temp.

Exp. Mr.	9
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50516

48

46

368

20

[illegible]

1

3.8K

10

[illegible]

1

Spectr. Temp. $-100.3^{\circ}\text{C} \dots$

Dome Temp./Hum. - 9.8°C 68.9% H

Then cloud from SW

Comparison Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	900	no filter 468		10.4	G	Cass CCD	1800 V/mm 46.9	306μ	5184	3	DRL		
	900	410	5"							4			
	43									5			
	900	384								6			
	748	290								7		cloud band	
	8									8			3.9K
										1			
	95									2			11.7K
	8									11		used overexposed	3.9K
	86	5.8K		4.39	K200b Fz-0.5					12	std vel		2.8K
	8									13			3.8K

257#1 Tues / wed

Date ... 1997 JAN 7/8 Observers [Bln] / L4 / 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.
CC428 ⁶⁶ /67	In board / 64T BOARD					0	+44°	PEAR ND 4	4/4
68	B/HS(4)			18 13				PEAR ND 5	4
69	Comp								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			100
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					632
81	Comp								3

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

Exp. Mtr.

10-1/2
100 V04

100

103k

126k

4k

100% Saturated

CCD
Spectr. Temp. -100.5°C

Dome Temp./Hum. -5.8°C 55.3%
Camber

Transparency Conditions ... Mostly clear 284
snow stopped for now

Focus 6.92

Spectr. Temp.

Dome Temp./Hum. -6.9°C 62%
Camber

390 0 50 1024 4 1 CCD

Exp.	Exp. Mtr.	Seeing	Pls. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
4/4	no filter 1000 Volt				CASS CCD	1800ln 56.3°	306x	6604A	1/2	focus	7.56.30 set [Had to home mirror. Before in b & outboard strengths equalled]	
									1			
5 4									3			
	1100	4.5"	886	B25T6					4	Blk Hx	Airmass 1.20	
7									5			
4									6			15.4K
10	10.3K	4"	4.01	AI V _{nn}					7	Telluric Std	1.02 Airmass	4.4K
4									8			15.7K
4									9			15.3K
	12.6K		4.36	AI V _n					10	Potential? Telluric Std	1.57 Airmass	
4									11	no good for Hx Telluric (Em in core)		16.1K
									1			
4									12	potential		15.5K
63	4 K	8"	4.91	B9.5 V _n					13	Telluric Std	3.5 Airmass some snow and cloud	
3	to avoid saturation of line								14			12.3K

Vp 5 #2

Tues/Wed

Date 1997 JAN 7/8.. Observers [Blm] / Ly / Tv.....

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.
CC428 ⁴² 901	FLATS x 20					223E	-200	TUNG ND5	8s
902	BIAS(4)			21 39					
903	Comp							FeAr ND5	3s
904	HD 34759	5 1444	+14217	21 4814					278
905	Comp								3s
CG807	-747 HD 24587							4	1067
CG80748	-751 DARKS							4x	1067
52/33	DARKS							2x	133
CG80754/55	HD 29587							2x	133
CC42906	Comp							FeAr ND5	3s
07	HD 29587	4 345	+157	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					

CC
Spectr. Temp.

Focus.....

Spectr. Temp.

Exp. Mtr.

4000

101K

11K

10K

CCD
Spectr. Temp. -100.5°C

Dome Temp./Hum. -70°C 56.7%

Transparency Conditions ... Clear mostly 286

Focus 6.92

Spectr. Temp.

Dome Temp./Hum. -7.8°C 56.78%

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
8s				C4SS CCD	1800u 56-30	306u	6604A	16c	F16+8.B4+	20	12.75K
								1			
3s	4sec saturates strong line							17			12.5K
278	10.1K	5.09	B5U					18	Blu Pgm		4.9K
3s								19			128K
1067	4"64			1.40u	306u	519+		Seeing		gusty NW wind Dome west.	
1062								4 DARKS		All with	
133								2 DARKS		Same Inter setting	
133											
3s								20			11.6K
487	2.1K	7.24	dG2					21	Std Vel		1.7K
3s								22			102K
3s								23			
512	5K	5.0	B 6A2 B2Vp					24	Blu Pgm		2.4K
3s								25			12.8
								1			

9843 Tues / Wed

Emulsion Batches:

Date ... 1997 Jan. 7/8... Observers [B/n] / L/n / J/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.
CC429 ^{13/} 14	Inboard / Outboard							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			1062
18	Comp							n	3s
19	Comp							n	3s
20	HD 62509	7 39 12	+28 16 04	00 41 43					68s
21	Comp							n	3s
22/26	FLAT5x 5					0	+28	TUNG ND1	110s
27	BIAS(4)			1 02					

Spectr. Temp. -102.0°C.....

Dome Temp./Hum. -8.0°C 60%RH

Transparency Conditions *110n snow again* ²⁸⁸

Focus 7.06

Spectr. Temp.

Dome Temp./Hum.

СЪЗНАНИЕ

390 0 50 1024 41 C(DFMT)

[illegible]

269
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	Inboard / Out Board					0	+440	FEAR ND 5	4/4
30	Comp								4
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	1900 02 1854	+61 3349	18 1527					941
36	Comp							"	4
37	Comp							"	4
38	VES 735	2000 02 2007	46 10703	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
Focus.....
Spectr. Temp

Exp. Mtr.

No follow
1.001

3K

460

200

226

CCD Spectr. Temp. -100.4°C Dome Temp./Hum. -5.8°C 59614 Transparency Conditions Fine 290

Focus 7.15

Spectr. Temp. Dome Temp./Hum. -7.0°C 56674

c Lambda 415 0 50 1074 4 1 CCD FMT

Exp. Mtr.	Seeing	Ptg/Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
2/4 no filter 1000V				C455 CCD	600C 1/4 25.9°	306u	4600A	1/2		@ 19414 2025.9	
4								3		Also encoder normal ratio	
33 3 K		425	B7V					4		star.	8.8K
4								5			11.6K
4								1			
99/1 460	3"	10.19	08					6		~ 60/15/14 Δ 2 0 0 17 Δ 5-0 0 36	11K
4								7	Std for	PIG martin pgm	
4								8	close companion = 5" to NE noted		
4								9		15/1 15/14	11.1K
187/1 200	3-5"	1/2	0					10	Mn pgm	Δ 2 00 00 05 Δ 5-00 00 21	
4	3-5"	1/2	0					11			9.8K
187/1 226								12			
4								13			
1863 —								14		17/1 5/14	

pg#2 201
wed / Thurs

Date ..1997. MAR. 8/4..... Observers Mr. / 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.
CC42944	Comp							Retn 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							"	4
55	BD+61 411	02 18 54	46 13 33 49	22 51 42					959
56	Comp								4
57	BIAS (4)			23 10					

Spectr. Temp.

Focus.....

Spectr. Temp.

Exp. Mtr.

Sec.

220 3

200

209 4

208

430 5

Spectr. Temp.

Dome Temp./Hum.

Transparency Conditions . *P.A.T. ... cloudy* 292Focus *7.15*

Spectr. Temp.

Dome Temp./Hum. *8.2°C 56.6%*

Exp. Mtr.	Seeing	Fig. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				C455 CCD	600 μ m 25.90	306 μ	4600Å	15		Slit noted to be tilted	
1829	220	3"4"	12	0				16		more than before..	
1830								17		(whole night the same)	10.4K
	200							18			
								19			10.6K
								1			
1873	209	4"8"						20			
4								21			"K
1919	208							22			
4								23			11.3
4								24			
959	730	5"	10.19	08				25		std use	
4								26			
								1			

293 pg #3

wed 17 Dec

Emulsion Batches:

Date 1997 JAN 8/9 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.
CC42958	Comp							RED ND5	45
59	VEST 35	²⁰⁰⁰ 220 07	+61 07 03	23 21 50					
60	comp							"	45
61	B/H S(4)			00 08 54					
62	Comp							"	45
63	VEST 35			00 19 16					1805
64	comp							"	45
65	VEST 35			00 52 04					1829
66	Comp							"	4
67	VEST 35			01 25 40					1830
68	Comp							"	4
69	B/H S(4)			01 58					
70	Comp							"	4
71	HD 36512	527 06	-7 22 31	02 07 36					470
72	Comp							"	4

Spectr. Temp.

Focus.....7.

Spectr. Temp.

Exp. Mtr. Sec.

Spectr. Temp. Dome Temp./Hum. -8.7°C 60% H Transparency Conditions ... slightly hazy 294

Focus 7.15

Spectr. Temp. Dome Temp./Hum. -10.4°C 66% H Unable to focus Telescope, but luckily focus

Comparison
Filter Exp.

Exp. Mtr.	Seeing	Mag. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
5 45				CASS CCD		306 μ	4600A	27			
195		~12						28			
5								29			
								1			
4								3	(Tel End Side)	OVER the PIER	
1805	229	4"						4			
4								5			109K
184								6		715/1 S/H	
4								8			
1830	245							7			
4								9			113K
								1			
4								11		$\sqrt{\Delta\delta} = 00\ 0021$ $-0\ 0133$	13K
430	5K	7"	$\checkmark$ 4.63	BOV				12	Std Star (spectrum)		11K
4								13			10K

Spectr. Temp.

Dome Temp./Hum.

Transparency Conditions ..

PART. Cloudy 296

Focus ... 7.15

Spectr. Temp. ... -100.5°C

Dome Temp./Hum. ... -11.2°C 62.3% H

increasing cloud

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	600nm	306	1600	15			
5.8K		V 277	09 III					16	sp std.		
								17			124
								17			
4.4K	5"	V 574	80 IV					18	sp std.		8.6K
								19			
								19			
5.2K	4"	V 563	09.5 V					20	sp std.		6.7K
								21			
								1			
								2			17.8

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 / out BOARD					0	+28°	FELK 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	55s
98/99	" " "							TUNG ND 2	3s
CC43000/01	" "							TUNG ND 1	3s
02	BIAS(4)			0035					4s
03/04	Comp FLATS x 2							TUNG FELK ND 5	9s
05/06	" "	"						TUNG ND 4	3
07/08	" "	"		get	> 42972 - < 42653			TUNG ND 3	2
09/10	" "	"			+ 42819 + 20			TUNG ND 2	1
11/12	" "	"						TUNG ND 1	1
13/14	" "	"		Done JAN 11/12	CCD T = -100.5°C		Done T	TUNG ND # 6	80s
15/16	" "	"			01	00	-6.5°C +20°	ND # 5	9s
17/18	" "	"						ND # 7	220

CCD for FLAT tests
 Spectr. Temp. $\approx 100.14^\circ\text{C}$ Dome Temp./Hum. -5.7°C 62.3% H
 Transparency Conditions $\dots$ cloudy $\dots$ 298
 Focus $\dots$ 6.96 $\dots$
 Spectr. Temp. $\dots$ Dome Temp./Hum. $\dots$
 395 0 50 1024 4 1 CCD FMT
 Had to do 3-4 mirror + to get inboard

Exp. Mir.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
10/6				C455 CCD	1800 lnm grating 47.55	306u	5312A	112		mirror 704 for best	
22s	Don't visually						CR0512 + 1.5A	3	Neutral Density Filter	imb/outboard signal match	10.3K
7s	Look "fringed"						$\approx$ H/w position + height	4	Tests		10.9K
55s								5			11.6K
3s								6			11.4K
3s								7			13.1K
4s								1			
8s	I see fringes now				1800 lnm grating 56.3		6404A	10			14.4K
3s	no fringing obvious							11			15.2K
2s	some fringing I think							12			15.3K
1s	Looks OK							13			12.7K
1s	V slight fringing??							14			14.9K
80s	some fringing, almost to H's level							3		NN = 2.0 density	11.5K
9s	SAME obvious fringing							4		ND = 1.0 density	14K
27s	may be worse than for D5 filter							5		ND = 3.0 density	

299 continued Tests

Date 1999 JAN 11/12 Observers TJ

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Spectr. Tem
Focus.....
Spectr. Tem

Exp. Mr.

300

120 AX

[illegible]

ns1
pg#1

Mon / Tues

Date 1997 JAN 20/21 Observers L. Y. 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.
CC430 ^{22/23}	Inboard / Outboard		HARTMANN					F4r ND 4	6/6
24	Comp							F4r ND 4	4
25	HD 12533	1 5746	+41 51 04	18 18 15					250
26	Comp							"	4
27	BIAS (4)			18 27					
28	Comp							"	4s
29	TT Ket	01 46 57	2000 -09 45 06	18 36 04					907
30	"							"	616
31	Comp								4s
32	Bias (4)			21 49					
33/37	FLAT x 5							TUNG ND 04	9s
38	BIAS (4)			20 06 29					
39	Comp			21 21 02				F4r ND 4	4s
40	BV Eri	3 51 53	2000 -10 31 43	21 22 24					720
41	"	"	"	21 35 54					720
42	comp								4s

CCD
Spectr. Temp.
Focus
Spectr. Temp.

Exp. Mtr.

Non
Aboard

65K

275
250

230
1100

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 & Rostedabit

Spectr. Temp.

Dome Temp./Hum.

395 0 50 1024 4 1 CCD FWHM

Comparison Filter Exp.	Exp. Mir.	Seeing	Pg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
6/6	non filtered				CASS CCD	1800h	306	5184H	1/2	focus	Right on at Blue end	
4					Tgrating →	46.9°			3			4.5K
250	6.5K	2-3"	2.28 4.84	K3 II B6K AOV					4		Horizontalization step	11K
4									5			56K
									1			
45									6			6K
907	375								7	DRL		
6/6	250								8		clouds in the field.	
45									9			
									1			
16 44									10			12K
									1			
45									11			4.6K
120	1230								12	DRL		
120	1106								13			
45									14			

263
pg 2

Emulsion Batches:

Date ...1997... JAN 20/21 Observers ...L.Y./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.
CC4-3043	BIAS(4)			21 54					
44	comp							FEA NO4	4s
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							"	4s
48	FG Hya			22 32 28					900
49	"			22 48 07					910
50	comp							"	4s
51	Bias (4)			23 05					
52	FG Hya			23 05 44					900
53	"			23 21 12					900
54	Comp							"	4s
55	Comp							"	4s
56	HIT AUR	06 26 05	²⁰⁰⁰ +27 59 54	23 46 16					435
57	"			00 02 54					900

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

Exp. Mtr.

10 f/1100

518

600

603

586

570

510

591

650

630

^{CCD} Spectr. Temp. -101.5°C Dome Temp./Hum. -68°C 65-4% H Transparency Conditions ... Fine - hazy 304

Focus 6.98

Spectr. Temp. Dome Temp./Hum.

Exp. Mtr.	Seeing	Fig. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
No filter				CHSSCCD	1800 l/n/mm 46.9°	306u	5184R	15.5			
4								15			5.7K
900 588		10.4	G					16	DRL		
900 600								16.5			
45								17			
900 603								18			
910 386	4-5"							19			
4								20			
								21			
610								1			
900 610	3-4"							22		~ 50/1 S/H	
900 591								23			
45								24			
45								25			
* 650		10.5	G					26		* Near bright moon	
900 630								27		~ 1/3 Exp meter from moon	

705 #pg#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.
CC43058	comp							FEAn ND#4	7s
59	AH Aur	06 26 05	27 59 54	00 21 07					903
60	"	"	"	00 36 50					908
61	comp							"	4s
62	AH Aur	"	"	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	BHS (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. S
Spectr. Temp.
Focus

Exp. Mtr. S

No. f./hr.

633

608

675

620

8.54

2k 3

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	Pis. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
43	no filter			CASS CCD	1800 μm 46.9	306 μ	SISYÅ	28			3.9K
903	633	4.5"	10.5	G				29		$\sim 50/1$ S/N	
908	608							4		$\sim 50/1$ S/N	
43								5			4K
1007	675							6			
903	620							7			
43								8			
1								9			
193	8.5K		1.14	KOITUB				10	stilver		
4								11			4.6K
4								11	stilver	Had to	
175	2K	3.5"	7.0	dG7				12	stilver	Had to Reboot ACER CCD32 dead at "Rock's" commands.	1K
4								13			
4								14			

not
Pg #4

Mon/Tues

Date 1997 Jan 20/21

Observers L4/T4

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.
CC43073	FG Hyg	2000 8 27 04	+3 30 55	01 55 02					900
74	"			02 10 40					900
75	Comp							EA 1104	45
76	FG Hyg	8 27 04	+3 30 55	02 27 40					900
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 02 34	+17 02 46	03 38 21					910
85	"			03 54 11					900
86	comp								45
87	bias(4)			04:11					

Exp. Mir. Sec.
Spectr. Temp.
Focus.....
Spectr. Temp.

104/162
533

536

550

540

566

556

538

489

Spectr. Temp. ^{CCD} -100.4°C.....

Dome Temp./Hum. 9.9°C / 59.7

Transparency Conditions *Fine* 308

Focus 6.98

Spectr. Temp.

Dome Temp./Hum.

C 2

Comparison
Filter Exp.

Exp. Mtr.	Seeing	Pig Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
900 no filter 533		10.4	G	CASS CCD	1800 ln 46-90°	306u	5184A	15			
900 576								16			
4 45								17			
910 550	4'							18			
909 540								19			
4								20			4K
								1			
900 566								21			
900 552								22			
4								23			4K
4								24			
910 538		106	A5					25			
900 489								26			
45								27			4K
								1			

2098 #5

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.
CC43088	XZ Leo	10 02 34	17 02 46	05 13 04					900
89	"			05 28 41					900
90	Comp							FeAr ND4	4s
CG80756/59	HD113811	13 01 12	140 08					4x	67ms
66/63	DARKS							4x	67
64/65	DARKS							2x	135
CG80766/67	HD113811					00 20 E		2x	135
CC43091	B1A8(4) After Topup			506					
92	Comp							FeAr ND4	4s
93	UZ Leo	10 40 33	13 34 00	05:11:20					901
94	Comp							"	4
95	Comp							"	4
96	SX Crv	12 40 15	-18 48 08	05 38 11					600
97	"			05 48 49					600
98	comp edit							"	4s

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

Exp. Mtr. See

440

455

3

390

4

45

644

CCD
 Spectr. Temp. -100.5°C Dome Temp./Hum. $-11.4/64.3\%$ Transparency Conditions *fine* 310
 Focus 6.98
 Spectr. Temp. Dome Temp./Hum.

Comparison Filter	Exp.	Exp. Mtr.	Seeing	P ₀ Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	900	440		10.6	AS	Cass ECD	1800 46.9	306	5184	28	DRL		
	900	455								29			
	4	4								30			
	67		3"	7.53	K5M	ALT 83°	Above 306	Slit			Seeing Test	Domo SW, no wind	
	67												
	2x13)												
	2x13)												
										1			
	4									3			
	901	790	4"	9.8	F2					4			
	4									5			
	4									6			
	600	645		9.5B	F7V					7		Hung up again upon doing "Rack S" command.	
	600	644		8.9V						8			
	45									9			

71/29 #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					64
CC43100	"			061241					600
01	Comp							Fea ND4	4
02	Comp							"	4
03	GR Vir	144520	-6 44 06	62809					600
04	"	"	"	63830					600
05	"	"	"	64850					500
06	Comp							"	4
07	B/H/S(4)			659					
08	Comp							"	4
09	HD136202	151412	+20837	71051					38
10	Comp							"	4
11/12	In board / out board					0	+27°	"	6/6

CCD
Spectr. Temp

Focus.....

Spectr. Temp

Exp. Mtr. Sc

620

600

1.7K

1.9

2.7K

Spectr. Temp.

Dome Temp./Hum. -11.5°C 69% H

Transparency Conditions *Mostly clear* 312

Exposure	Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
64	620	5"	9.5 ^B 8.9 ^V	F7V	CASS CCD	1800 46.9	306μ	5184	10	DR2		
50	600								11			
4									12			
4									13			
60	1.7K		8.5? 7.9 ^V	G					14		100/1 S/N	1.1K
600	1.9								15			
300									16			
4									17			
									1			
4									18			
38	2.7K								19	std vel	set old fashioned way	
4									20		15 d 0.129	
616		-11.6°C							21/22	focus	15 dec + 27.149 Büd encoder errors Logged.	

mm
pg#1

Tues / Wed

Date 1997 JAN 21 / 22 Observers Ly / 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.
CC4313/14	In board / OUT BOARD					0	+35°	Fair ND01	6/6
15	BIAS(4)			17 50					
16	Comp			17 55				Fair ND4	4s
17	HD12533	015745	+415100	17 5836					27
18	HD12534	015746	+415104	18 0022					98
19	Comp							n	4s
20/24	FLATS x 5							Tung ND4	9s
25	Comp							Fair ND4	4
26	HXCri	3 09 52	²⁰⁰⁰ 06 5324	18 29 38					900
27	"	"	"	18 44 57					900
28	comp							n	4s
29	UX Cri	"	"	19 02 25					981
30	"	"	"	19 19 22					928
31	Comp							n	4
32	BIAS(4)			19 37					

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

Exp. Mtr. Sc

Filter

313

350

391

400

CCD Spectr. Temp. -100.5°C

Dome Temp./Hum. -5.7°C 67.8% H

Transparency Conditions ... mostly clear. 314

Focus ... 6.98

Dome Temp./Hum. -5.0°C 75.5% H

East wind
395 0 50 1024 41 CCD/FMT

Exp. Mtr.	Seeing	Pg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
6/6	no filter			CASSED	1800h/lm +6.9°	306u	5184A	1/2			
					Untouched From previous night			1			
								3			
	3"	2.26	K3-IIb					4		Just while normalizing encoders	
		4.84	B8.I+ADU					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			

^{COD}
Spectr. Temp. -100.4°C

Dome Temp./Hum. -4.9°C 75.5%RH

Transparency Conditions ... *Part Cloudy* ... *316*

Focus 6.98

Then sudden solid cloud,

Spectr. Temp.

Dome Temp./Hum.

C 2

[illegible]

M17
p941

THURS / FRI

Date ..1997.. JAN 23/24 Observers . M. D. ... / . T. L.

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.
CC431/40	In board / out Board							FeAr ND 5	4/2
42	B1A5(4)			18 07 58					
43	Comp							FeAr ND 5	45
44	BD+61 411 HD 125 33 ✓	1900 02 18 54	+61 33 49	18 40 41					933
45	Comp ✓		18 45	18 57				"	4
46	Comp			19 00				"	4
47	VES 735	2000 02 20 07	+61 07 03	19 01 17					1808
48	Comp ✓							"	48
49	VES 735	"	"	19 38 01					1832
50	Comp								4
51/55	FIATS x 5							TW 6 ND 3	5
56	B1A5(4)			20 13					
CC43151/58	In board / out board							ND 5	4/3
59	Comp							FeAr ND 5	4
60	VES 735	2000 02 20 07	+61 07 03	20 39 10					1800

CCD
Spectr. Temp
Focus
Spectr. Temp

Exp. Mir.

110-1/42

302

15

333

F=69

11/101

350

Spectr. Temp. ^{CCD} -101.9 °C Dome Temp./Hum. -7.0°C 458H Transparency Conditions ... Fine ... 315

Focus 7.20 6.97 for 1800 setup

Spectr. Temp. Dome Temp./Hum. -11.2°C 508H

378 0 50 1024 4 1

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
4/2	no filter			CHSS CCD	600C 1m/mm	306u	4600 Anya's	3/4			
				top edge @ 25.90				1			
				PREP CASSETTE	26.13			5			
4								6	Std for Mn	Ad 1000015 BS 100 0024 for VES 735	
4								7		same close NE comparison seen.	10K
1808	215	4-8"	1/2	0				8			11.1K
4								9	Mn pgm	VE 5735	
1832	233	5-8"						10			105
4								11			
5								12			
								13			153K
								1			
4/3	F=6.97	T=-11.0°C		CHSS CCD	1800H		6608A	3/4	Focus.	390 050 1024 4/1	
4	no filter				5620		± 1A	14			
1800	250						@ 1A 512	15			

27^a 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 ND5	4s
62	VES 735	²⁰⁰⁰ 02 20 07	+61 07 03	21 14 16				FEAR ND5	1
63	Comp							FEAR ND5	4s
64	Comp							FEAR ND6	8s
65	VES 735	"	"	21 50 37				FEAR ND6	1808
66	Comp							FEAR ND6	8s
67	VES 735	"	"	22 24 32				"	1543
68	Comp							"	8s
69	BIAS(4)			22 57		1 22W	-7°		
70	Comp							" ND6	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. -12.1°C 48.58°F 340 0 50 1024 4 1 CCD FIT ~ 114x

Comparison Filter Exp.	Exp. Mtr.	Seeing	Mag. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
5 4s	100/162								16			
1	260								17			
5 4s									18		rusty "ghosting"?	16K
5 8s									19		change to lower signal ND 6	3K
180s	273	4.6"	~12	0					20		~ 30/1 S/N	
8s									21			32K
159s	250								22		~ 30/1 S/N	
8s									23			
									1			
6 8s		8" 4.63							24	std MK std (Anchor)		
297	10K	8" 4.63	BOE						25	↓ ↓ ↓		5.2K
344	12K								26		11.77 Air mass	
8s									27			
8s									5		Telescope East side	
196	323	5.8"	~12	0					6			

Spectr. Temp. Dome Temp./Hum. ... -12.8°C 1836 Transparency Conditions ... *cloudy 12. from SE* ³²²

Focus *6.97*

Spectr. Temp. Dome Temp./Hum.

Exp. Mtr.	Seeing	Plg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
<i>8</i>				<i>CHSSCCD</i>	<i>1800/45</i>	<i>306u</i>	<i>6608A</i>	<i>Fci</i>			
<i>100</i>	<i>—</i>	<i>112</i>	<i>0</i>		<i>5620</i>			<i>8c</i>		<i>cloud + moonlight @ 10 minutes</i>	
<i>8</i>								<i>90</i>		<i>exposure stopped 15 minutes</i>	
<i>3s</i>								<i>1</i>			
<i>8/8</i>								<i>2</i>			<i>15/K</i>
	<i>T - 12.9°C</i>							<i>3/4</i>	<i>Focus test Tel/Reverge</i>		
	<i>F - 12.9</i>										
					<i>1800/45</i>						
					<i>56</i>						
					<i>62</i>						

1 37h
pg 1

Tues / wed

Emulsion Batches:

Date 1997 JAN 28/29 Observers L4. / 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
CC431 ^{93/4}	Inboard / outboard					⊕ 0	+43	FeAr ND4	6/11
95	BIAS(4)			19 38					
96	Comp							FeAr ND4	4s
97	TT Cet	01 46 57	-94 50 6	19 44 48					90Z
98	Comp							"	4s
99	Att Ar comp							"	4s
200	AH Aur	06 26 05	27 59 54	20 07 59					53/
201	Comp							"	4s
202	AH Aur	"	"	20 22 15					900
203	Comp							"	7s
204/08	FLATS x 5							THX ND4	9s
09	BIAS(4)			21 25					
10	BIAS(4)			00 01					
11	Comp							FeAr ND4	4s
12	HD 89 449	10 14 18	+19 58 42	00 10 43					

CCP
Temp.
Focus... 7.0
Spectr. Temp.

sp. Mtr. See

10-5/1/2

350 5

260 3

425 3

K

3

Spectr. Temp. ^{CCD} ~ 100.4 °C Dome Temp./Hum. -7.7°C 57.5%

Transparency Conditions ... Clearing, but gusty ^West wind
Then snow

Focus ... 7.00

Spectr. Temp. ... Dome Temp./Hum. -9.5°C 56.5%

395 0 50 1024 4 1 ccorat

Comparison Filter Exp.	Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
4 6/11	no filter				CASS CCD Tgrating	1800/4 3 46.90	306	518A	1/2	focuses	Handled pickup mirror a few times to try to match in/out strengths	
4 45									1			
907	350	5"	10.0	A					3			
43									4			
43									5			
53	260	3.4"	10.5	G					7			
43									8		Readout early due to cloud	
900	425	3"	10.5	G					9			2K
1 13									10		35/1 S/N clear again	
16 4 13									11			
									12			10.5K
									1			
	Resumed observing after snow and shutter fix								1		After resetting CCD Temp back to -100°C	
4 13									13			
	5"	4.79	F6	1K					14			

125 #2

Emulsion Batches:

Date Jan 28/29, 1997 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
CC43213	Comp							FeAr ND4	4
14	comp		2000					"	4
15	FG Hyg	08 27 04	03 30 55	00 22 31					900
16	"	"	"	00 37 56					856
17	Comp							"	4
18	comp		1900					"	4
19	HO 84441	09 40 11	24 14 05	00 56 59					106
20	comp							"	4
21	Bias (4)								
22/23	In board/out board					0	30°	FeAr ND4	6/9
	Jan 31, 1997								
24	comp							FeNe	1
25	"								2
26	"								1
27	"								1

32X SAT/SUN

Date ..1997 Feb. 1/2... Observers ..MKi./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.
cc432 ^{28/}	Inboard/out board							FeAr ND 2	6/6
30	Comp BIAS(4)								4
31	HD 16401 Comp						+ND 0.6	FeAr ND 3	6
32	Comp BD 16 FLAT						" TUNG	FeAr ND 3	4
33	BIAS(4) BD 16 516			18 54 23					56s
34/93	BD 16 516	03 44 43	+16 57 06	18 58 58				60 X	53s
94	FLAT						+ND 0.6	TUNG ND 3	4s
95	Comp						"	FeAr ND 3	6s
96	BIAS(4)								
97	Comp						1	"	6s
98	HD 87901	16 03 03	+12 27 22	20 20 55					208
99	Comp						1	"	6s
100/01	FLAT x 2						"	TUNG ND 3	4s
cc43302	BIAS(4)			20 27					

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

Exp. Mir. S

0.7/1/97

2K

accumulated

2K

3K

Spectr. Temp. ^{CCD} ... -100.5°C ...

Dome Temp./Hum. -28°C 70%

Transparency Conditions... *Mostly clear; Thundery*

Focus 6.93

Spectr. Temp. -101.8°C

Dome Temp./Hum. *cd*

Just for focus test

390 0 50 1024 7 1 CCDFMT

Comparison Filter	Exp.	Exp. Mtr.	Seeing	Hg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
6/6		no filter				CASCCD +grating →	1800 lines/mm 55.95	306u	6570A	1/2	focus test.	CCDFMT 445 0 10 10 24 8 1	
4										1			
6		12.5K								3			
4										4			
56s		Accumulated 60 exps)								5			
X 53s		2K	3"	~9	K-					6		* 60 FRAMES Start, Repeat V471 TAU, BAT (stands toward end) Cloud for Last 10	
4s										7			
6s										8			
										1			
6s										9			
208		2K	6"	V	1136	B7V				10	Telluric std	cloudy 400 AIR MASS 3.56	
6s										11			
4s										12			
										1			

329
py # 1

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.
CC 4330 ^{3/4}	In board / out board							FeAr ND 4	6/8
5	BIAS(4)			21 52					
6	Comp							FeAr ND 4	4
7	AH Aur	²⁰⁰⁰ 06 26 05	+27 59 54	21 56 04					900
8	Comp							"	4
9	Comp							"	4
10	FG Hya	²⁰⁰⁰ 08 27 04	+03 30 55	22 16 20					977
11	Comp							"	4
12	bias (4)			22 36					
13	Comp							"	4
14	HD 62509	¹⁹⁰⁰ 07 39 12	+28 16 04	22 47 20					32
15	Comp							"	4
16	Comp							"	4
17	HD 65583	¹⁹⁰⁰ 07 54 10	+29 31 00	22 48 10					472
18	Comp							"	4

Spectr. Temp. ^{CCD} -101.4 °C

Dome Temp./Hum. -01.7 °C 74.8 %

Transparency Conditions ³³⁰ clearing but hazy

Focus 6.9.3

Spectr. Temp. Dome Temp./Hum. -02.7 °C 77.0 %

Exp. Mtr.	Seeing	P. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
68	1204.1K -01.7	693		CH55 CCD	1800 nm/mm T 46.9	3064	5184A	1/2	Focus		
								1			
								3			2K
900	220 ²⁷⁰	4'-6" 10.5	G					4	DR2		
								5			1.6K
								6			
922	323							7			
								8			1.8K
								9			
32	13K	1.14 KOUTS						10	std vel		7.5K
								11			
								12			
422	1.7K	6" 7	dG7					13	std vel		1.1K
								14			1.7K

777 pg #2

Mon / Tues

Emulsion Batches:

Date 1997 Feb 3/4 Observers Lu / 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.
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. Temp.

Focus...

CCD
Spectr. Temp.

Exp. Mtr.

No
Filter

260

269

264

247

258

Spectr. Temp.

Dome Temp./Hum.

78.27

Transparency Conditions

Sudden

Cloud From East

332

Focus 693

Spectr. Temp. °C

Dome Temp./Hum.

-3.5°C

CJ

390 050 10x4 4 1 CCD/FMT

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
4s				CASSCO	1800m	306u	5184A	15			
				T	46.9						
900		10 ⁶	A5					16			
900								17			
4s								18			
900								19			
900								20			
4								21			
								1ci			
1000								22			
4c								23			
								24			10K
								25	1ci		

237 pg#1

SHT/SUN

Date 1997 Feb 8/9... Observers MKI./Jn.....

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.
CC433 ⁵ / ₆	Inboard / Outboard						+ ND 0.6	FeAr ND 3	6/6
37	BIAS(4)			18 25					
38	FLAT							FOR ALL 6570A 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					
66/25	BD+16 516			20 53 50				60x	53s
26	Comp			21 58				FeAr ND 3	6s

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

Exp. Mtr.

no filter

Account 1/4
54 exps.
2.2K

forgot to
open shutter

Total of 60 exps.
3260 3

Spectr. Temp. -101.7°C

Dome Temp./Hum. ... -6.0°C ...

Dome Temp./Hum. -6.0°C 48.3%RH Transparency Conditions Fine 334

Focus 6.93

Dome Temp./Hum. -9.9°C 44.8%
+2

$\approx 19:55$, I, In saw a flash $\sim 3^\circ$ NW of Mira

Spectr. Temp.

Dome Temp./Hum.

-9.9°C 44.85/1

note $\rightarrow 445 \quad 0 \quad 10 \quad 1024 \quad 8 \quad 1 \text{ CDFMT}$

	Exp. Mtr.	Seeing	P.W. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
6/6	No Filter				CASS CCD Tgrating	180° 5595	306	6570A	3/4	FOCUS	no filter Small ccd FMT A150	
									1			
4s									5			
6s									6			2.7K
62s	Aaccumulated	4-6"		~9 K					7			
53s	59 exps. <u>2.2K</u>								8		59 Times with V471 Tau. BHT	
6s									9			
4s									10			12.7K
									1			
53s	Forgot to open shutter	3-5"							11		Repeat x 60	no H ₂ emission good the observation as last one 12.9K
4s									12			
6s									13			
	Total of 60 exps								14			
53s	2260	3-4"							14		Repeat x 60	
6s									15			

AP₉#2

SAT/Sun

Date ...1997 Feb 8/9... Observers M.K. / J.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.
CC43427	BIAS(4)			21 58					
28	FLAT							TUNG ND#3	4s
29/58	BD+16 516	03 44 43	+16 57 06						52s
CC43589/608	BD+16° 516	04 08 29		23 08 29				TUNG ND#3	4s
609	FLAT								
610	BIAS(4)								
611	Comp							FeAr ND3	6s
612	Comp							"	6s
613	HD 87901	10 03 03	+12 57 22	23 44 12					22
614	Comp							"	6s
615	Comp							"	6s
616	HD 67509	07 39 12	+28 16 04	23 59 04					38s
617	Comp							"	6s
618	FLAT							TUNG ND3	4s
619	BIAS(4)			00 06					

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

Exp. Mtr.

12K

CCD Spectr. Temp. -100.4°C Dome Temp./Hum. -9.8°C 4388/4 Transparency Conditions $\dots$ Fine $\dots$ 275

Focus $\dots$ 6.93 $\dots$

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

445 0 10 1024 8 1 CCD FWHM $\sim$ MAX ADY

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no filter				CMS CCD	1800 ln/mm	306	6570R	1			
			K	Tgrating $\rightarrow$	55.95			16			
				Actual	56.15			17		X 50	
				CASSETUP	54.84			18		Another 20	
								19			13K
								1			
								20			
								20			
12K		1.36	B7II					21	Telluric	1.24 H in mass	12K
								22		dy	2.8K
								23			
		1.14	KO IWB					24	std vel		
								25			
								26			12.3K
								1			

mm
p403 ~~P403~~

SAT/SUN

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

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.
CC436 ²⁰ /21	Inboard / Outboard						No extra ND Filter	extra ND4	5/11
22	Comp							"	4s
23	HD 625109	07 39 12 ¹⁹⁰⁰	+28 16 04	00 37 52					28
24	Comp							"	4s
25	B/HIS (4)								
26	Comp							"	4s
27	FF Cnc	8 29 40 ²⁰⁰⁰	+17 17 02	00 55 10				"	1200
28	Comp							"	4s
29	FF Cnc			01 18 02					1200
30	Comp							"	4s
31	FF Cnc			01 41 08					1200
32	Comp							"	4s
33	FF Cnc			02 06 11					1200
34	Comp							"	4s
35	B/HIS (4)								

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

Exp. Mtr.

No. 1

16K

77 3

272

276

300

3

Spectr. Temp. -100.5°C ...Dome Temp./Hum. -10.8°C 49.4%

Transparency Conditions Final 338

Focus ~~6.78~~ 7.03Spectr. Temp. -100.4°C ...Dome Temp./Hum. -11.2°C 57.5%

390 0 50 1024 41 CCD FMT

Topup by 0020 EST

Comparison
ter. Exp.

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
5/11	no filter			CASS CCD	1800ln 46.9°	306u	5184A	3/4	Focus test	390 0 50 1024 41 CCD FMT	
4								5			
28	16K		1/4	10115				6	Std blue		1.35K
45								7			
								1			
45								8			
1200	277 3-4"	10.6	G9-K4					9	Gld pgm	SN ~ 40/1	
1200	272							10			
45								11			
								12			
1200	276							13			
45								14			1.5K
1200	300	3'						14			
45								15			1.6K
								1			

279
p4#4

SAT / SUN

Emulsion Batches:

Date .. 1997 Feb 8 / 9 .. Observers .. mki / Gld / To

Plate No.	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	08 29 40	+17 17 02	02 29 09					1221
37	Comp							FeAr ND4	4s
38	FFCnc			02 52 01					1200
39	Comp								4s
40	Comp @ β Cen	07 45 06	+28 02 54						4s
41	β Cen ✓	"	"	03 19 07					285
42	Comp ✓	"	"						4s
43	BIAS(4)			03 22,					-
44	Comp	08 29 40	+17 17 02						4s
45	FFCnc	"	"						1200
46	Comp	"	"						4s
47	FFCnc			03 53 33					1200
48	Comp							n	4
49	BIAS(4)			4 14					
50/56	FLATS x 7					1 42W	34°	TUNE ND3	11s

Spectr. Temp.

Focus 7.0

Spectr. Temp.

Ap. Mtr.

Seei.

10 340

326

210000

321

326

321

326

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326

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

Focus ... *7.03*

Spectr. Temp. Dome Temp./Hum. *2*

Comparison Filter	Exp.	Exp. Mtr.	Seeing	Pl. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	1221	No <i>340</i> Filter	<i>2.3</i>	<i>10.6</i>	<i>G9</i> <i>-K4</i>	<i>CASS</i> <i>CCD</i>	<i>1800ln</i> <i>46.9</i>	<i>306u</i>	<i>5/84A</i>	<i>16.1</i>			
	4	<i>8</i>								<i>17</i>			
	1200	<i>326</i>								<i>18</i>			
	4									<i>19</i>			
	4									<i>20</i>			
	888	<i>210000</i>								<i>21</i>			
	4									<i>22</i>			
										<i>1</i>			
	4									<i>23</i>			
	1200	<i>321</i>								<i>24</i>			
	4									<i>25</i>			
	1200	<i>326</i>								<i>25</i>			
	4									<i>28</i>			
										<i>1</i>			
	3	<i>115</i>								<i>27</i>			<i>12.5H</i>

July #5

SHT/SUN

Emulsion Batches:

Date 1997 Feb 8/9 Observers M.K. / G.D. / 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
C43657	comp	11 40 56	+34 13 21	04 26 00				RAW ND 4	45
58	HD 101501	"	"	04 26 00					745
59	"	"	"	04 29 17					1435
60	comp	"	"						45
61	HD 109358 comp	12 33 39	41 22 36						45
62	HD 109358	"	"	04 40 04					595
63	"	"	"	04 40 04					775
64	comp	"	"						45
65	comp								45
66	HD 124752	14 12 36	+67 26 12	04 51 39					6005
67	"	"	"	05 03 15					463
68	comp	"	"						45
69	BIAS (4)			05 12 42					
70	comp								45
71	HD 109011	12 26 30	95 40 00	05 18 59					3145

Spectr. Temp.

Dome Temp./Hum.

Transparency Conditions ... *Fine* 342Focus ... *7.03**Hule-Bopp looks just Fine.*

Spectr. Temp.

Dome Temp./Hum.

Comparison
Filter: Exp

Exp. Mtr.	Seeing	Plg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CAS CCD	1800 46.9°	306	5184	28			
45											
745	~2100	5.33	68V					29			
1435	~5000 3"							29			
45								30			
45		4.27	60V					5			
595	~5000	4.27	60V					6			
775	~5800	4	1					6			
45								7			
45								8			
605	1018	8.54	K05V					9			
405	1032 2.3"							10			
405								11			
405								1			
405								12			
345	1009 2"	8.11	K2V					13			

^{UN}
M_P #6 SAT/544

Date, 1997 Feb 8/9..... Observers mk: /Gld/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.
72	HD 109011	12 26 30	55 40 00	05 25 08					301s
73	HD 109011 comp	"	"					FeA ND 4	4s
74	comp								4s
75	HD 160964	17 37 48	+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... 7...

Spectr. Temp.

Exp. Mtr.

1010

048

1101

5100

5400

300

290

1300

1370

Spectr. Temp. Dome Temp./Hum. *-10.4°C 57.3%RH* Transparency Conditions *Fine* *344*
 Focus *7.03*
 Spectr. Temp. Dome Temp./Hum.

Comparison Filter	Exp.	Exp. Mtr.	Seeing	Pg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
301s		1010						306u	5184A	14			
4s										14			
4s										15			
54s		1048	2"	8.62	K4V					16		$\Delta 2 +00 00 34$ $\Delta 2 -00 00 33$	
60s		1101								17			
4s										18			
										1			
7s										19			
83s		5100		4.69	K0V					20			
84s		5400								20			
4s										21			
4s										23			
76s		1300		5.96	G3V					24			
67s		1290		"	"					24			
93s		1300		6.20	G4V					25			
94s		1330		"	"					25			

345
Pg 7

Emulsion Batches:

Date 1997 Feb 8/9..... Observers Mti/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.
CC 43688	comp	"	"					FeA ND 3	4s
89	Comp								4s
90	Hale-Bopp	20 03	19 57	06 40 20					97s
91	sky (no!)	20 03 06	19 57 19						
92	sky (?)								55s
93	Hale Bopp	Head again		06 51 53					89s
94	Comp							"	4s
95	BIA 5 (4)								
96/700	FLAITS x 5							Feing ND 4	11s
701/02	Inboard / outboard					00	+35	FeA ND 4	61

Spectr. Temp

Focus.....

Spectr. Temp

Exp. Mtr.

Spectr. Temp.

Dome Temp./Hum.

Dome Temp./Hum. 70.7 51

Transparency Conditions 348

346

Exposure	Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
3	4								308	5184	26			
	4										27			
	97										28		Em@ ~ 5164 Å	
											21		<u>±.5</u>	
	5										22			
	89										23		Bright sky	
	4										5			
											1			
4	11										2			13K
4	6										3/4	focus		

747

p#1

Sun/Mon

Date 1997 Feb 9/10.. Observers [T.G.] / 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.
CC43703/4	Inbound 104T500AD							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	-032554	18 26 07					32s
11	MIRA	"	"	182758					28s
12	Comp								
13/20	FLATS x 8							TUNG ND2	11s
21	Comp								
22	HD12929	2 01 32	+22 59 23	18 57 18					16
23	Comp							FeAr ND4	3s
24	BIAS(4)								

CCP
Spectr. Tem.

Focus...

Spectr. Tem.

Exp. Mtr.

No. 5/10
-045

86K

Spectr. Temp. ^{CCD} -101.0 °C Dome Temp./Hum. -4.5 °C

Transparency Conditions *mostly clear 348*

Focus *7.03*

Spectr. Temp. Dome Temp./Hum. *28*

390 050 1024 4 1 CCD FMT

Comparison Iter. Exp.	Exp. Mtr.	Seeing	Pls. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
6/9	<i>1205 H₂</i> <i>-04.5</i>					<i>1800/n</i> <i>AA-B</i>	<i>306</i>	<i>4848A</i> <i>± 95A</i>	<i>3/4</i> <i>1</i> <i>5</i>	<i>Focus test</i>		
15		<i>1" K_H</i>							<i>6</i> <i>7</i> <i>8</i>	<i>Just encoder normalized star</i>		
32s		<i>1" n1</i>							<i>9</i>		<i>em</i> <i>H beta slightly</i> <i>SATURATED</i>	
28s		<i>1" n1</i>							<i>10</i> <i>11</i> <i>12</i> <i>13</i>		<i>H beta not saturated</i>	
16	<i>8.6 K</i>								<i>14</i> <i>15</i> <i>1</i>	<i>Vel std</i>		<i>6K</i>

Sun Mon

Date 1997 Feb 9/10 Observers Lu / [r.G.] / Tu.

Emulsion Batches:

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Spectr. Term

Focus....)

^{CCD}
Spectr. Term

Exp. Mr.

Plate No.	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							FeAr ND4	4s
26	HD12929	020132	+225923	190443					
27	Comp							"	4s
28	Comp							"	4s
29	HD18884	025703	+034151	191553					45s
30	Comp							"	4s
31	B145(A)			1918					
32/36	FLATS x 5							ND4 TUNG	11s
CC43737	Comp							FeAr ND4	3
38	HD18884	25703	034151	193915					560
39	Comp							"	3s
40/42	FLATS x 3							ND2 TUNG	11s
43	B145(A)			1954					

Spectr. Temp.

Dome Temp./Hum.

-5.6°C 65%RH

Transparency Conditions .

Becoming Very

350

Focus 7.03

Spectr. Temp. -100.3°C

Dome Temp./Hum.

390 0 50 1074 4 1 CCDPMT

Cloudy

Comparison
ter Exp

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
4s					1500 μ 46° 9	306 μ	51848	18			
		200	K2	Mab C-1				19	st/vel		
4s								20			
4s								5			
45s		253	M1.5 IIIa					6	st/vel		
4s								7			
								1			
11s								2			
3					180 00 44.8	306 μ	4848A	8	Note no. of <0.1 pixel shift from previous 44.8° grating tilt,		
560	4.6K	3"	253 M1.5 IIIa				±.5A	6			
3s								7			
2								2			12.7K
11s								1			

45 pg #3

Resumed again

Date 1997 Feb 9/10... Observers Lu/Tk.....

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.
C43744	BIAS (4)			02 07					
45	Comp							KAr NO 4	75e
46	W Crv	12 07 36 ²⁰⁰⁰	-13 09 30	02 14 31					900
47	"	"	"	02 29 48					900
48	Comp							"	45
49	W Crv	"	"	02 48 29					901
50	"			03 04 09					924
51	comp							"	45
52	W Crv	"	"	03 22 22					909
53	"	"	"	03 38 01					900
54	Comp							"	45
55	BIAS (4)			03 54					
56	W Crv	"	"	03 55 27					900
57	"			04 10 49					901
58	comp								45

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

Exp. Mtr.

No 1/2

224 2

250

241

254

243 2

240

245

225

221

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 starting tilt reset since last 5184D.

Comparison
ter Exp.

fse

900

900

fs

901

924

fs

909

900

fs

900

901

fs

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no file				CASS CCD	1800/16 46.9°	300x	* 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			
225								1			
225								15			
227								16			
								17			

pg#4 353

Sun/Mon

Date 1997 Feb 9/10..... Observers L.L. / 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.
CC43759	W Crv	²⁰⁰⁰ 12 07 36	+13 09 30	04 27 32					900
60	"			04 43 18					901
61	Comp							REAR ND4	45
62	BIAS(4)			04 59					
63	Comp							"	45
64	V829 Her	²⁰⁰⁰ 16 55 47	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	¹⁹⁰⁰ 15 14 12	+2 08 37	6 20 08					92
72	Comp							"	45
73	BIAS(4)			6 23					

Spectr. Tem

Focus.....

Spectr. Tem

Exp. Mtr.

258

240

420

450

440

430

32K

Spectr. Temp. Dome Temp./Hum. -6.5°C 59.1% H Transparency Conditions ... Mostly clear ... 354

Focus 7.03

Spectr. Temp. -10.1°C

Dome Temp./Hum.

Comet looks quite fine again

Comparison
Exp.

900

901

45

45

900

902

45

906

900

45

45

902

45

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
238				CASS CCD	1800 l/n 46.9°	306 μ	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			
3.2 K								6	std vel		3K
								7			
								1			

355
py#5 SHN/mon

Date 1997 Feb 9/10 Observers Lu/Tu

Emulsion Batches:

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[illegible]

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

std dev /

3.0K

12.4K ADU MAX

T = -7.2°C F = 7.03

357

1

358
Echelle Tilt $17.00^\circ \times$ Tilt. 3080

Order from Top 600 ln/mm 6300 Å centop.

4	6342 $\rightarrow$ 6385 (just)
5	6413 $\rightarrow$ 6458
6	6487 $\rightarrow$ 6532

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

1st $\overset{B}{6189} \leftarrow \overset{R}{6193} \rightarrow 6236$ Echelle Tilt $19.40^\circ \times .3020$

$6258 \leftarrow 6261 \rightarrow 6306.5$

6332 $\rightarrow$ 6377.5

2c1

6405 $\rightarrow$ 6450

6478 $\rightarrow$ 6524

~~6546~~
 $\leftarrow 6553 \rightarrow 6600$

MORE ideal setup with Echelle = 19.85
 $\times = .3030$

