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Spectr. Ten

ocus . . . . .

Spectr. Ten

Sp. Mr.





#1 5

mon/Tues

Emulsion Batches:

Date 1997 MAY 26/27 Observers WxL (Lu) / Jn

Plate No.	Object	R.A.	Declination	Starting Time	Ending Time	Hour Angle	Declination	Comparison	
		1900	1900	E.S.T.	E.S.T.	End	Type/Filter	Exp.	
CC456	<sup>93/94</sup> Inboard/out Board							FeAr NO 3	4/6
95	BIAS(4)			20 36					
96	Comp							1	4 <sub>4</sub>
97	HD 125488	14 19 38	<sup>2000</sup> 1055348	20 50 55					420
98	<del>Comp</del>			20 58 14					420
99	"			21 05 45					420
700	"			21 13 12					420
01	comp							"	45
02	HD 125488			21 22 29					420
03	"			21 30 00					420
04	"			21 37 33					420
05	"			21 44 54					420
06	comp							"	45
07	Bias (4)			21 53					
08	HD 125488			21 55 31					420



CCD Spectr. Temp. -100.6°C Dome Temp./Hum. +12.7°C 4268H Transparency Conditions Fine To part cloudy 6

Focus 6.8.1 90c gain

Spectr. Temp. Dome Temp./Hum. 390 0.50 1024 4 1. CCD FMT (~ MAX HDU)

Exp.	Exp. Mtr.	Seeing	Pr. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
4/6	1000V no filter				CASS CCD Tgrating →	1800 In/ten 46.9	306u	5784A	3/4	focus test		
									1		~ 3.206	
4/6									5			1-6K
4/20	1070	3.4	8.1	F2					6	DRL	~ 2 90% S/N some cloud	
4/20	992								7			
4/20	1390								8			
4/20	1320								9			
4/5									10			
4/20	1380								11			
4/20	1300								12			
4/20	1283								13			
4/20	1475								14			
4/5									15			
4/20	1490								16		~ 3.304	



#27

Date 1997 May 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		Exp. Mtr.
								Type/Filter	Exp.	
CC45709	HD125488	14 19 38	05 53 48	22 03 12					440	1550
10	"			22 10 57					420	1546
11	"			22 18 21					420	1570
12	comp							FeAr ND#3	45	
13	HD125488			22 28 07					420	1550
14	"			22 35 35					420	1575
15	"			22 42 59					420	1480
16	"			22 50 30					420	1600
17	comp							"	45	
18	BIAS(4)			22 59						
19	HD125488			23 00 56					477	1920
20	"			23 09 23					420	1450
21	"			23 16 55					463	1790
22	"			23 25 02					420	1085
23	comp							"	45	

CCD Spectr. Temp.  $-100.6^{\circ}\text{C}$  Dome Temp./Hum.  $11.1^{\circ}\text{C}/46.2\%$  Transparency Conditions *fine, some clouds* 8

Focus  $6.21$

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

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality	
410	1550	3"-4"	8.1	F2	CCD CASS	$18.00$ 46.9	306	5184	17	DRL	10/15/88	40
420	1596								18	"	"	35
430	1570								19	"	"	35
45									20	comp	"	35
420	1530								21	"	"	35
420	1575								22	"	10/15/88	35
420	1480								23	"	"	35
420	1600								24	"	"	35
45									25	"	"	35
									1		3-128	35
477	1920	3"-5"							26	"	10/15/88	35
420	1450								27	cloud at start	"	35
463	1790								28	100/1/2/1/1	"	35
420	1085								29	"	"	35
45									30	comp	"	35



#3 9

Date 1947 May 26/27

Observers Lu/Tn

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E. S. T.	Ending Time E. S. T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CC45724	HD125488	14 19 38	05 53 48	23 34 11					600
25	"	"	"	23 44 39					600
26	"	"	"	23 55 11					420
27	Comp							FeAr ND#3	45
28	BIAS (4)			00 04					
29	HD125488	"	"	00 05 21					428
30	"	"	"	00 12 59					430
31	"	"	"	00 20 36					420
32	"	"	"	00 28 06					420
33	Comp							"	45
34	HD125488			00 37 31					420
35	"			00 44 57					427
36	"			00 53 17					420
37	"			01 00 52					420
38	Comp							FeAr ND#3	45
39	BIAS (4)			01 09					



CCD  
 Spectr. Temp.  $-100.5^{\circ}\text{C}$  ..... Dome Temp./Hum.  $+10.2^{\circ}\text{C} / 47.9\%$  ..... Transparency Conditions ... *cloudy - Transluc.* 10  
 Focus ..... 6.81 .....  
 Spectr. Temp. .... Dome Temp./Hum.  $+09.3^{\circ}\text{C} / 50.0\%$  .....  
~ MAX ADU

Exp. Mtr.	Seeing	<input checked="" type="checkbox"/> Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
500		8.1	F2	CASS CCD	1800 $\lambda$ mm 46.9	306 $\mu$	S184	6		cloudy	
1000								7		"	
1066	5"							8		"	
								9			
								1		$\sigma = 3.261$	
1610								10		clear	
1400	6"							11			
1270								12			
1390								13			
								14			
1550								15			
1827								16			
1480	4'							17		100/1 S/N	930
1450	3.4							18			
								19			2.9K
								1		$\sigma = 3.411$	

#4 11

Emulsion Batches:

Date 1997 May 26/27 Observers L.A./T.A.

Plate No.	Object	R.A.	Declination	Starting Time	Ending Time	Hour Angle	Declination	Comparison	
		1900 2000	1900	E.S.T.	E.S.T.	End		Type/Filter	Exp.
CC45740	HD125488	14 19 38	+05 53 18	01 11 17					499
41	"			07 20 66					430
42	"			01 27 40					420
43	Comp							FeAr ND3	45
44	comp							"	40
45	HD136202	15 14 12	02 08 37	01 40 11					157
46	Comp							"	4
47	comp							"	4
48	HD 144579	16 01 30	39 24 00	01 52 23					391
49	Comp							"	4
50	B/H S(A)			02 00					
51	Comp			02 09 49				"	45
52	NSV 7457	16 06 02	15 01 12	02 09 49					720
53	"			02 22 21					722
54	"			02 34 53					720

Spectr. T

Focus...

Spectr.

Exp. Nr.

No. F/Min

1500

1375

1280

51

440

4

4

4

4

4

4

4

4

4

4

4

4

4

4

4

4

4

4

4

Spectr. Temp. .... Dome Temp./Hum. .... Transparency Conditions ... *o.k.* ... 1.2

Focus ... *6.81* .....

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

Exp. Mtr.	Seeing	P. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
<i>no 17.1ka</i> 1800	3"			<i>C455</i>	1800 469	306	5784A	20c			
1375								21			
1280								22			
								23			
								24			
5K	3"	508	F8II-V					25	std vel		2.8K
								26			
								27			
4.4K	2.3"	6.6	d48					28	std vel		3.2K
								29			
								1		<i>~ 3.692</i>	
		<del>18</del>	40					5			
443	2.3"	9.5	40					6	DRL		
411								7			
360								8			





CCD  
Spectr. Temp.  $-100.5^{\circ}\text{C}$

Dome Temp./Hum.  $+8.7^{\circ}\text{C}/51\%$

Transparency Conditions *clear* 14

Focus *6.81*

Spectr. Temp. ....

Dome Temp./Hum.  $+08.3^{\circ}\text{C}/53.8\%$

Exp. Mtr.	Seeing	Ptg Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
		<del>9.5</del>	<del>60</del>	CASS CCD	1500 46.9	306 $\mu$	5184	9			
375	5"-5"	9.5	60					10	DRL		
345								11			
350								12			
								13			26K
								14		$\sigma = 4.079$	
								15			
700	35"	90	40					15			
								16			
								3/4	focus		
								1			11.5K
										$\sigma = 4.177$	

#1 15 Tues/Wed

Emulsion Batches:

Date 1947 May 27/28 Observers Lu/Ta

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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.
CC457 <sup>74/</sup> <sub>75</sub>	Inboard/Out Board					0	+41°	FeAr ND3	4/6
76	BINS(A)			20 27					
77	Comp							FeAr ND3	45
78	HD 102870	11 45 <sup>1400</sup> 29	+02 19 42	20 34 55					57
79	Comp							"	45
80	comp							"	45
81	VZ Leo	10 40 <sup>2000</sup> 33	+13 34 00	20 54 44					900
82	"	"	"	21 10 10					900
83	Comp							"	45
84	BINS(A)			21 27					
85	comp							"	45
86	XZ Leo	10 02 <sup>2000</sup> 34	+17 02 46	21 33 31					921
87	Comp							"	45
88	Comp							"	45
89	VZ Lib	15 31 53	-15 41 06	21 56 46					900

CCD Spectr.  
 Focus...  
 CCD Spectr.  
 Exp. Mtr.  
 1000/  
 100  
 880  
 722  
 773



CCD Spectr. Temp.  $-102.0^{\circ}\text{C}$

Dome Temp./Hum.  $113.3^{\circ}\text{C} \dots 72\% \text{RH}$  Transparency Conditions ... Fine to 1/2 inch, 1.874, 16

Focus ..... 6.78

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

Dome Temp./Hum. ....

390 0 50 1074 4 1 CCD FWHM

Exp. Mtr.	Seeing	PK Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1000V no filter	Did	mirror	- 1 step for this match inb/outb exp strengths			300u	5184A	3/4	focus test		
								1	Aug 133.850	$\sigma = 3.328$	
								5			6K
78K	3"	36	F9L					6	std vel		5.7K
								7			
								8			
900	2.3"	9.8	F2					9	DRL		
880								10			
								11			
								1	Aug 133.946	$\sigma = 3.282$	
								12			
722	2"	10.6	AS					13	DRL		480
								14			
								15			
373		10.1	FS					16	DRL		

#2 17 Tues/Wed

Date 1997 May 27/28

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.
CC45790	VZ Lib	(2000) 15 31 53	-15 41 06	22 12 18					900
91	comp							FeAr ND3	4s
92	BIAS(4)			22 29					
93	VZ Lib	"	"	22 30 27					900
94	"	"	"	22 45 54					900
95	comp							"	4s
96	VZ Lib	"	"	23 03 17					900
97	Comp	1	"	23 18 37					903
98	Comp							"	4s
99/805	Flats x 7					~0 10W	-16	ND3	7s
806	BIAS(4)			23 38					
807	Comp	1900						FeAr ND3	4s
08	HD144579	16 01 30	+39 24 00	23 42 51					300
09	Comp								

CCD Spectr. T  
 Focus...  
 Spectr  
 Exp. Mir.  
 355  
 319  
 306  
 303  
 310  
 4K



CCD Spectr. Temp.  $-100.5^{\circ}\text{C}$  ..... Dome Temp./Hum.  $12.2^{\circ}\text{C}/46\%$  ..... Transparency Conditions  $\text{Fine + slightly hazy}$  18  
 Focus  $6.78$  .....  
 Spectr. Temp. .... Dome Temp./Hum. ....  $ca$

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
355		10.1	FS	CASS CCD	$1800/\text{mm}$ 46.9	306 $\mu$	5184	17	DRL		
								18			
								1			
319								19			
306								20			
								21			
303	2"							22			
310								23			
								24			
								2			11.6K
								1	Aug 132,717 $\sim$ 3.310		
								25			
4K		6.66 4.6	d98 d98					26	std vel		

p9#3 19 Tue/Wed

Emulsion Batches:

Date ..1997.. MAY.27/28 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.
CG0868/4	HD144579	16 01 30	+39 24 00					4x	67ms
72/75	PARK x4							4x	67ms
76/77	PARK x2							2x	132ms
78/79	HD144579	"	"					2x	132ms
CC45810/11	Tab / on board HARTMAN							FeAr ND4	4/5
12	Comp		2000					FeAr ND5	4s
13	V361 Lgr	19 02 29	+16 58 42	02 02 51					1500
14	Comp							"	4s
15	BIAS (4)			2:30					
16	V 361 Lgr	"	"	02 31 36					1510
17	Comp							FeAr ND5	4
18	V361 Lgr	"	"	02 59 32					1500
19	comp								
20	comp		1900						4L
21	HD182592	19 20 12	11 43 49	03 32 54					50

Spectr. Tr.  
Focus  
Spectr. Tr.  
Exp. Mtr.

+16  
1000V  
10.5.100  
94

93  
88

97  
9K



Spectr. Temp. .... Dome Temp./Hum.  $+12^{\circ}\text{C}$  42%RH Transparency Conditions *Fine* ..... 20

Focus ..... 678 ..... increasing Haze

Spectr. Temp. .... Dome Temp./Hum. .... 256 0 50 1024 91 CCD FMT

Exp. Mtr.	Seeing	P. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	1.2"	6.66	d68		Above 36u slit.					Seeing Test, ALT 83° No wind at all Dome west. No Funs tonight.	
	$+12^{\circ}\text{C}$	F <sub>6.81</sub>		CASCO	831/4u	36u	6265A	1/2		Note. upon grating changed The grating Tilt mount became jammed and clump had to be removed and re bolted on to pregratings.	MAX 36K
	1000V no filter				Tgrating now @ 33.46			3			
94	1.4"	136	K?		FOROR SAME centering as 33.40 gave PREVIOUS 831h night			4			
					CCD Fmt windowing "Yorign" some what different too.			5			
								1		avg 132.087 $\sigma$ 3.398	
								6			
								7			
								8			
								9			
								10			
2.3 SK	1"	5.16	47IV					11		std Vel	

#4 21

Date 1997 May 27/28

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.
CC45822	comp							ND45	4s
23/29	flats							T416 ND45	3s
30	BIAS(4)			03 41					
31	"								

20  
Spectr. T

Focus...

Spectr. T

Exp. Mtr.





#1 23 Wed 1 Thrus

Wen Lu that is.

Emulsion Batches:

Date 1997 MAY 28/29 Observers WXL (WXL) / J.N.

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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.
CC458 <sup>32/</sup> <del>33</del>	In board / out board		HARTMANN					FEA NO 3	4/7
34	BIAS(4)			20 28					
35	Comp							FEA NO 3	45
36	GR Vir	14 45 20	-06 44 06	20 32 12					480
37	"	"	"	20 40 32					480
38	"	"	"	20 49 08					480
39	comp							"	45
40	GR Vir	"	"	20 59 56					480
41	"	"	"	21 08 20					480
42	"	"	"	21 16 47					480
43	"	"	"	21 25 33					480
44	comp							"	45
45	BIAS(4)			21 35					
46	GR Vir	"	"	21 36 26					480
47	comp							"	45
48	COMP								

Exp. Mtr.

1000V  
no 4/1/4

980  
620  
530

496

380

300

187

351



Spectf. Temp. <sup>CCD</sup> -100.7 °C Dome Temp./Hum. +15.0 °C 40.0% H Transparency Conditions part cloudy 2H

Focus 6.75

Spectr. Temp. Dome Temp./Hum. 396 0 50 1024

Exp. Mtr.	Seeing	F <sup>✓</sup> Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1000 V no filter				C 145 CCD Typing →	1500 lm 469	306	5184R	3/4	Focus test		
								1		136032 - 3138	
								5			-3K
980	2.3"	8.5	40					6	DRL		
620								7			
532								8			
								9			
696								10			
780								11			
300								12			
387								13			
								14			
								15			
351								16			
								16			

Pg#2 25 Wed / Thurs

Date 1997 MAY 28/29 Observers Wxl / T.g.....

Emulsion Batches:

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.....

Plate No.	Object	R.A.	Declination	Starting Time	Ending Time	Hour Angle	Declination	Comparison	
		1900	1900	E.S.T.	E.S.T.	End		Type/Filter	Exp.
CC45849	NSV 7457	16 0602	+50 1112	21 5945					900
50	"	"	"	22 15 35					900
51	comp							FeAr ND3	4s
52	BIAS(4)			22 32					4s
53	NSV 7457	"	"	22 34 57					900
54	"			22 50 29					900
55	Comp							FeAr ND3	4s
56	NSV 7457	"	"	23 09 21					420
57	comp							"	4s
58	Comp							"	4s
59	HD 144 579	16 0130	+39 21 00	23 35 07					416
60	comp							"	4s
CG 808 <sup>80</sup> / <sub>84</sub>	HD 144 579	"	"					4v	67ms
85/89	DARK							"	"
90/91	"							2x	133ms
92/93	HD 144 579					0 05 E		"	"

Spectr. T.

Focus

Spectr. T.

Exp. Mtr.

200 v

155

212

205

87

138

200



Spectr. Temp. .... Dome Temp./Hum.  $\uparrow 13.3^{\circ}\text{C}$   $\uparrow 24.2\%$  Transparency Conditions *increasing cloud 2.6*

Focus *6.75* .....

Spectr. Temp. .... Dome Temp./Hum. .... *2.2* 396 0 50 1024 4 1 CCD/FMT

Exp. Mtr.	Seeing	PV Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
<i>1000V</i> 155	<i>1.2'</i>	<i>9.5</i>	<i>G0</i>	<i>CASS CCD</i> <i>grating →</i>	<i>1800m</i> <i>46.9</i>	<i>306</i>	<i>5184</i>	<i>17</i>			
212								<i>18</i>			
								<i>19</i>			
								<i>1</i>		<i>134.568 or 3.106</i>	
<i>205</i>	<i>1.5'</i>							<i>20</i>		<i>cloudy here</i>	
<i>182</i>								<i>21</i>			
								<i>22</i>			<i>2.7K</i>
<i>138</i>								<i>23</i>			
								<i>24</i>			
								<i>25</i>			<i>7K</i>
<i>2000</i>	<i>2"</i>	<i>6.66</i>	<i>dG8</i>					<i>26</i>	<i>std vel</i>		
								<i>27</i>			
	<i>1.2'</i>			<i>HI! with same ints setting</i>					<i>Seeing tests</i>	<i>ALT 85°</i>	

P4#3 27

Emulsion Batches:

Date 1997 MAY 08/29 Observers WXL/Ta

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison	
								Type/Filter	Exp.
CC45861	BIAS(4)			2349					
62	Comp		2000					FEAn IND3	45s
63	NSV 7457	160602	+501112	235659					720
64	"	"	"	090927					730
65	comp							"	4s
66	comp							"	4s
67	HD136202	151412	020837	003038					276
68	comp							"	4s
69	comp								
70	HD172167	183333	+384126	00					35
71	"	"	"	004744					32
72	Comp								
	Comp								
	SV Equ	205719	+054652	005958					1104
73/79	FLATS X7					3 20E	+6°	JUNG ND3	7s

Spectr. T.

Focus...

Spectr. T.

Exp. Mtr.

140

49

2.9K

14K

12K



Spectr. Temp. .... Dome Temp./Hum.  $+12.3^{\circ}\text{C}$   $75.0\% \text{RH}$  Transparency Conditions *Part Cloudy* ..... 28  
 Focus .... *6.75* .....  
 Spectr. Temp. <sup>CCD</sup>  $-100.6^{\circ}\text{C}$  ..... Dome Temp./Hum.  $+12.1^{\circ}\text{C}$   $43.9\% \text{RH}$  .....  
*-7 Mostly SO<sub>2</sub>*

Exp. Mtr.	Secing	<input checked="" type="checkbox"/> Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS Telescope	1800ln 46.9	306u	578AP	1			
								28			
190	2'	9.5	GO					29	DRL		
149								30	DRL	cloudy very low counts.	
								31			
		5.06	F814E					5			
2.9K								6			2.4
								7			
								8			
~14K		0	AOV					9			13K
~12K								10			14K
								11			
								12			
								13		Too cloudy	
								Q			11.4K

#4 29

Date 1997 May 28/29

Observers

Lu / Tn

Emulsion Batches:

.....

.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison	
								Type/Filter	Exp.
CC 45880	comp							FeA <sub>r</sub> ND 3	4s
81	SV Egu	20 57 19	05 48 52	01 34 33					900
82	comp							"	4s
83	BIAS(4)			01 51					
84	comp							"	4s
85	DK Cyg	21 35 02	34 35 42	02 06 39					900
86	"			02 22 09					901
87	Comp							"	4s
88	Comp							"	4s
89	HD 187691	10 09 55	14 46 14	02 22 51					192
90	comp							1	4s
91	BIAS(4)			02 47					

CCD  
Spectr. T.  
Focus...  
Spectr.

Exp. Mir.

215

211

1850



CCD  
Spectr. Temp.  $-100.5^{\circ}\text{C}$ ...

Dome Temp./Hum.  $12.0^{\circ}\text{C}/43.8\%$

Transparency Conditions... *medium cloud*... 30

Focus  $6.75$ .....

Spectr. Temp. ....

Dome Temp./Hum.  $+11.5^{\circ}\text{C}$   $46.9\%$

396 050 1024 4 1 CCDfMT

Exp. Mtr.	Seeing	Pig. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	$1800/\text{mm}$ $46.9$	306 $\mu$	5184	15			
402	2'43"	9.0	A0					16		clouds in	
								17			
								1			
								18			
215		10.1	A6V					19			
211								20			
								21			
								22			
1850	2-3	5.11	F8					23			
								24			
								1			

#1 31 Tues/Wed

Emulsion Batches:

Date .. 1997. June 3/4. Observers .. M.K.I. / J.n. .... t. P.r.r. = SARA POIRIER

Plate No.	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 45992/93	Inboard / outboard								
94	BIAS (4)			20 55					
95	Comp							FeAr ND4	4s
96	HD 87901	10 0303	+122722	21 0059					13s
97	Comp							"	4s
98	Comp							"	4s
99	HD 171232	18 2830	+252500	21 1648					34s
45900	Comp								
01	BIAS (4)								
02/07	FLATS x 6					04 30 E	+25 29	TUNG ND 5	4s
08	Comp							FeAr ND4	4s
09	S92 NGC 6819	19 4103	+401100	21 5114					162s
10	Comp								4s
11	S92 NGC 6819	19 4103	+401100	22 2410					88s
12	Comp								4s
13	BIAS (4)			22 42					



Spectr. Temp.  $-100.5^{\circ}\text{C}$  Dome Temp./Hum.  $+17.0^{\circ}\text{C}$  108H Transparency Conditions Fine... then some haze

Focus ..... 6.78 .....

Spectr. Temp. .... Dome Temp./Hum.  $+15.5^{\circ}\text{C}$  1092H

CCDFM 355 0 50 1024 4 1

32

Exp. Mtr.	Secing	Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no filter					12006 <del>4250</del> 41.96	306a	76520Å ± 10Å	3/4 1 5		Using Fearbat and Starbat	11Ax A09 124
6K								6 7 10	Telluric Std.		117K
1.4K					77368M			11	std vel	$\Delta\alpha$ -00 00 01 $\Delta\alpha$ +00 01 15	52K
								1 2 7		Aug 14/260 → 2.660	113K
123			2'-3" 15.1					9 10		$\Delta\alpha$ 00 00 00 $\Delta\alpha$ 5 00 01 03	
60			2"					13 14 1		[slit view Ideal] 2674 focusH [2580 focus] comp view	

#2 33

Tues/Wed

Emulsion Batches:

Date 1997 June 3/4.... Observers ... M.K. / P.T. / J.A. ....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison	
								Type/Filter	Exp.
CC45914	S92 NGC6819	194103	<sup>2000</sup> +40 1100	22 49 10				Fel	1825
15	Comp							Kear ND 4	4s
16	S92 NGC6819	"	"	23 24 18					1829
17	Comp								4s
18	BIAS(4)			23 57					
19	S92 NGC6819	"	"	00 00 01					1846
20	Comp							x	4
21	Comp							"	4
22	S92 NGC6819	"	"	00 56 22					1824
23	Comp							"	4s
24	BIAS(4)			01 32					
25	S92 NGC6819	"	"	01 35 42					1803
26	Comp							"	4
27	S92 NGC6819	"	"	02 10 02					1850
28	Comp.							"	4
29	S92 NGC6819			02 45 13					



Spectr. Temp. .... Dome Temp./Hum.  $7.15:30$  40284 Transparency Conditions *improving* ..... 34

Focus ..... 6.78

Spectr. Temp. .... Dome Temp./Hum.  $28$  355 0 50 1024 4 1 CCD/MT

Exp. Mtr.	Seeing	F <sup>W</sup> Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emission	P.H.	Program	Remarks	APM/ADP	Quality
no filter 195	1.2"	15.1		CASSCOJ Tyrating	1200/n 41.96	306	~6500	150		some haze		
Exp meter was in			Good	Balance. No adjustment needed.				16		Sx 00 0003 AS-00 0115		
109	1.2"							17		(2622 idal focus Telescope)		
								18				
								19		haze again		
96	1.2"							20		(Break for filming)		
~100?	1.2"							21		(Warn Networks)		
								22				
								23				
								1		136762	~2.9/7	
83								24				
								25				
~80								26				
								27				
								28				

#3 35

Tues/Wed

Emulsion Batches:

Date 1997 June 3/4 Observers MKI / P.C. / Tq...

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp
c C45930	Comp								
31	<del>HD 187691</del>							FeAr ND4	9
32	HD 187691	19 46 14	+10 09 55	03 24 03					74
33	Comp							n	45
34/43	FLATS x 10							TUNG ND 5	45
44	<del>Comp</del> BIHS(A)			03 33					
45/46	Inb / out board								

Spectr. Tem

Focus...

Speed

Exp. Mtr

3K



Spectr. Temp. .... Dome Temp./Hum. .... Transparency Conditions ... *part. cloudy* ... 36

Focus ... *6.78*

Spectr. Temp. ... *-100.7°C*

Dome Temp./Hum. ... *+14.0°C 4.78H*

Exp. Mtr.	Seeing	Pr. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
						<i>30a</i>	<i>6520A</i>	<i>30</i>			<i>WAA</i>
								<i>30'</i>			
<i>3K</i>			<i>5.11</i>	<i>F8V</i>				<i>30</i>	<i>std vel</i>		<i>28K</i>
								<i>31</i>			
								<i>32</i>			<i>113K</i>
								<i>f</i>			
								<i>3/4</i>	<i>Focus</i>		





C09  
Spectr. Temp. -100.5°C

Dome Temp./Hum. 71.9°C 3602A

Transparency Conditions ... Part. Cloudy ... 38.

Focus ... 6.79

Spectr. Temp. ....

Dome Temp./Hum. ... 2

955 0 50 1024 4 1 CCDENT

Exp. Mtr.	Seeing	P/Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no f. filter 1000V				CASS	1200 l/f mm	306u	6520A	3/4	Focus test		
				Telescope	41.96			1		Aug 14, 584 0 2-747	
								5			
6K		1.35	B7V					6	Telluric std.		12K
								7			12K
								8			
6.8K		3.61	F9V					9	std vel	Traced: 2 peaked profile!	10.7K
								10			
								1		NET 84°	
				ABae		306u slit			seeing tests		
										HIT 84°	
										Dome WSW	
								11			
1.07K	2"	7.73	G81V					12	std vel		
								10			

94#2 39 Wed 11 Times

Emulsion Batches:

Date 1997 June 4/5 Observers M.K. / J.T.g.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison	
								Type/Filter	Exp.
CCAS 960/69	FLATS x10							TUNG ND 5	45
70	Comp		2820					RAA ND 4	45
71	S92 NGC 6819	19 41 03	+40 11 00	21 45 48					1502
72	Comp							"	45
73	S92 NGC 6819	"	"	22 18 17					
74	Comp							"	45
75	BIAS(A)			22 49					
76	S92 NGC 6819	"	"	22 51 20					1801
77	Comp.							"	45
78	S92 NGC 6819	"	"	23:25:16					1803
79	Comp							"	45
80	S92 NGC 6819	"	"	23 57 26					1840
81	Comp							"	45
82	BIAS(A)			00 30					
83	S92 NGC 6819	"	"	00 31 48					1800
84	Comp							"	45

Spectr.  
Focus.  
Spectr.  
Exp. Mtr.

158

138

23

122

2

5



Spectr. Temp. .... Dome Temp./Hum.  $+13.8^{\circ}\text{C}$  360%  
 Focus  $6.74$  ..... Transparency Conditions *Part. Cloudy* ..... 40  
 Spectr. Temp. .... Dome Temp./Hum.  $+16.0^{\circ}\text{C}$  42%  
 40

Exp. Mtr.	Seeing	✓ Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CHSS	1200h 41.96	306h	6520A	32			11K
								11			
158	2.2"		15.1					13		hazy 1.72 A.R. mag	
								14		AX 0000 01	
138								15		BS 00 00 06	
								16			
								1			
123								17			
								18			
122	1.2"							19			
								20			
112	1.0"		15.1					21			
								22			
								1		Aug 139313 ~ 2.840	
105	1"							23			
								24			

P943 41 Wed 17 June

Emulsion Batches:

Date 1997 June 4/5 Observers M.T. / T.G.

Plate No.	Object	R.A.	Declination	Starting Time	Ending Time	Hour Angle	Declination	Comparison	
		1900	1900	E.S.T.	E.S.T.	End	Type/Filter	Exp.	
C45985	S92	194103	+401100	012410					1808
86	Comp.							RA NO4	
87	S92			014028					1804
88	Comp							1	45
89	BIAS (4)			0210					
90	S92			021411					1808
91	Comp							2	45
92	S92			024610					1804
93	Comp							2	45
94	Comp							2	45
95	HD187091	194614	+100755	032226					127
96	Comp							2	45
97	BIAS (4)			0326					
98/99	Inb/out								4/7

Spect. T  
Focus  
Spect. T

Exp. Mir

110

112

107

10

3K



Spectr. Temp. ....

Dome Temp./Hum. ....

Transparency Conditions ...

Hazy

42

Focus 6.74

Spectr. Temp. -100.6°C

Dome Temp./Hum. 15.0°C 93.4% H

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
110		151		CASS	1200h 41.96	308	6520A	26			
								27			
110	1.2"							28			
								29			
								2			
107	2"							2		thin cloud	
								5			
110	2.3"							6			
								7			
								8			
43K		511	F8J					9	std def		
								10			
								1			
								3/4	focus		





Spectr. Temp. ...  $-100.6^{\circ}\text{C}$  ... Dome Temp./Hum. ...  $+18.4^{\circ}\text{C}$   $49.8\text{H}$  ... Transparency Conditions ... *Hazy* ... 44  
 Focus ... *6.70* ... Dome Temp./Hum. ...  $+15.5^{\circ}\text{C}$   $56.5\text{H}$   $90\text{cyan}$   
 Spectr. Temp. ... 390 050 1024 4 1 CCD FWH

Exp. Mtr	Seeing	Pk Mag	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
<i>1000V</i> <i>1000</i>				<i>CAS CCD</i>	<i>300</i>	<i>300</i>	<i>5298A</i>	<i>3/4</i>	<i>focus Test</i>		
				<i>Tgrating</i>	<i>→ 47.72</i>			<i>1</i>	<i>Aug 142.143</i>	<i>0.2.795</i>	
								<i>5</i>			<i>5.2K</i>
<i>1390</i>	<i>4.6"</i>	<i>7.18</i>	<i>M2</i>					<i>8</i>	<i>Skv</i> <i>MARCY std</i>	<i>Too bright for fainter stars still</i>	<i>1.900</i>
								<i>9</i>			<i>5.6K</i>
								<i>6</i>			
<i>440</i>	<i>3.5"</i>	<i>10.5</i>	<i>M0</i>					<i>7</i>	<i>Vys 640</i>	<i>~ 200 ADG</i> <i>Have Bias</i>	<i>5.7K</i>
								<i>10</i>			
								<i>11</i>			
<i>255</i>	<i>3"</i>	<i>11.5</i>	<i>M</i>					<i>12</i>	<i>Vys 138</i>		
								<i>13</i>			
								<i>1</i>	<i>Aug 139.163</i>	<i>0.2.726</i>	
								<i>14</i>			
<i>278</i>	<i>3"</i>	<i>11.3</i>	<i>M2</i>					<i>15</i>	<i>Vys 44</i>		
								<i>16</i>			

pp# 45

Thurs/Fri

Date ... 1997 June 5/6 Observers ... E. V. S. J. / J. T. a .....

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.
CC46016	Comp							FeNo ND5	3s
17	HD144579	16 0130	+392400	23 0810					375
18	Comp							"	3s
CG80908/11	HD144579	"	"					4x	67 <sub>ex</sub>
12/15	DARKs			De fault	Box and			4x	67 <sub>ex</sub>
16/17	"			no	Intensifier chump			2x	133 <sub>ex</sub>
18/20	HD144579							3x	133 <sub>ex</sub>
CC46019	Comp							FeNo ND5	3s
20	HD119850	13 40 36	+152700	23 4350					765
21	Comp							FeNo ND5	3s
22	BIAS(A)			00 01					
83/29	FLATX 8					3W	+15°	TUNG ND4	1/5
30/31	Inb / out Board					"	"	FeNo ND4	6/4

Spectr.

Focus  
COO  
Speci.

Exp. Mir  
252 V  
16 4/100

17K

14K



Spectr. Temp. .... Dome Temp./Hum. .... Transparency Conditions . Part. Cloudy ..... 46

Focus ... 6.70 .....

Spectr. Temp. <sup>ced</sup> -101.7°C .....Dome Temp./Hum. +14.7°C 58A7.0H  
C.D.

MARADY

Exp. Mtr. 1000 ✓ no filter	Seeing	Mag. ✓	Sp.	Inst.	Grating/ Tilt	Slit	Emission	P.H.	Program	Remarks	Quality
				CASSCOB	1800 L 47-72	306	52988	17			
1.7K	3"	666	d68					18	std vel	Reg. ha. EMone	1.4K
								19			
					Above	306	Slit.		Seeing test	ALT +85° No wind, some WSW	
		666	d68								
								20			
1.4K	3.4"	848	M1					21	Margy std vel		900
								22			
								1			
								2			1.4K
								3/4	Focus	Brighton	





(C) Spectr. Temp. ... 10.5°C ... Dome Temp./Hum. <sup>Focus T →</sup> +17.5°C 73.2RH Transparency Conditions ... Clearing partially ... 48  
 Focus ... 6.70 ... +16.6°C @ 23.30  
 Spectr. Temp. ... Dome Temp./Hum. +16.2°C 74.8RH  
 390 6 50 1074 4 1 CCD FOOT

Exp. Mtr.	Seeing	PV. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no filter				CHSS CCD Tyrating →	1800m 4706	306	5182A	3/4	Focus		
								5			
1710	2.77	K2	CN 0.5					6	std vel	beta Oph	
								7			
								1		AUG 139.791 ~ 2.979	
	6.66	d68	Above	306u slit					Seeing Test	mostly cloudy Dome west, Light NE wind.	
										now clearer,	
								8			
1800	2"	666	d68					9	std vel		
								10			
								11			
356	9.0	A0						12		through clouds	
523								13			n 500
								14			





Spectr. Temp. .... Dome Temp./Hum. 715.9°C 75.6%H Transparency Conditions .. Mostly clear ..... 50

Focus ..... 6.70

Spectr. Temp. .... -100.6°C

Dome Temp./Hum. ....

Exp. Mtr.	Seeing	F <sub>1/2</sub> Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1000V				C1455CCD	1800 <sup>h</sup> 47.06	30 <sup>h</sup>	5182 <sup>h</sup>	1			
644	2"	9.0	A0					15			
582								16			
								17			
								18			
251	1-2"	10.3	A6.5					19			
238								20		Frequent emulsion logs for KK emulsion study	
								21			
								1			
259	1-2"							22			
								23			
								24			
514		8.7	F8V					25			
495	2-3"							26			
								27			

#3 51

Date 1997 June 8/9

Observers

Lu/Tn

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison	
								Type/Filter	Exp.
cc 46060	B1A5(4)		-	03 04					5 <sub>3</sub>
61	V839 Oph	18 09 21	09 09 04	03 05 56					720
62	"	"	"	03 18 30					720
63	comp							FeAr	4.5
64/70	flats							ND #3	7.5
								TUNG	
71	B1A5(4)			03 36				ND#3	





Pg#1 53 Mon/Tues

Emulsion Batches:

Date 1997 June 9/10. 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.
CC460 <del>72/73</del>	BIASCA)			2017					
73/74	Inboard / outboard							FeAr NO3	4/7
75/80	Comp FLATS x 7					01 46W	+01 47	FeAr NO3	7s
82	Comp							FeAr NO3	4s
83	H0102870	11 4529	+021942	20 4325					161
84	Comp							u	4s
85	BIASCA)			20 55					
86	Comp								4s
87	XZ Leo	10 0234	+170246	21 0113					900
88	"	"	"	21 17 44					800
89	comp							"	4s
90	XZ Leo			21 33 22					992
91	Comp							"	4s
92	Comp							u	4s
93	GK Boo	14 35 03	+0906 54	21 54 51					720

CO  
Spectr. T

Focus...

Spectr. T

Exp. Mir.  
1000 V  
No. -1149

47K

480

280

37

550

CCD Spectr. Temp.  $-100.5^{\circ}\text{C}$

Dome Temp./Hum.  $+21.6^{\circ}\text{C}$  52.9%RH

Transparency Conditions  $\dots$  Hazy  $\dots$  54

Focus  $\dots$  6.70  $\dots$

Dome Temp./Hum.  $+20.2^{\circ}\text{C}$  57.0%RH

90 c/gain as usual  
390 0 50 1024 4 1 CCDFWIT

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
100 f/1100				CHSS CCD "Type mag" $\rightarrow$	1800 1/4mm 47.06	306u	5182A	1			
								3/4	focus test		
								2			112K
								5			
4.7K	2"	3.61	F9V					7	std vel	sky still slightly bright	
								8			26K
								1		Avg 146284 $\sigma$ 2.705	
								9			
480	2"	10.6	A5					10	bright sky	Encodex Dec error a bit OUTJ +00 00 54	
282								11		should be negative	
								12		Field checks out OK	
317	2.3"	"	"					13			
								14			
								15			
552	1.3"	9.8	F8					16			~ 500



pg #2 55 Mon/Tues

Date 1997 June 9/10 Observers W. (W.L.) / T.

Emulsion Batches:

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

Plate No.	Object	R.A.	Declination	Starting Time	Ending Time	Hour Angle	Declination	Comparison	
		1900 2000	1900	E.S.T.	E.S.T.	End	Type/Filter	Exp.	
cc46094	CK Boo	14 35 03	09 06 54	22 07 20					720
95	"	"	"	22 19 45					720
96	comp							FeAr ND#3	4s
97	BIAS(4)			22 33					0
98	Comp							"	4s
99	HD144579	16 01 30	139 24 00	22 38 25				"	4s
100	Comp							"	4s
CG809 33/36	HD144579	"	"	22 48				4x	67ms
37/40	DARKS x 4							4x	67ms
41/42	DARKS x 2							2x	133ms
43/45	HD144579	"	"					2x	133ms
								016E	
CC46101	Comp							FeAr ND3	4s
02	V839 Oph	18 09 21	09 09 04	22 58 27					720
03	"	"	"	23 11 25					720
04	comp							"	4s

All with default box (windowing)  
 And some Intensifree setting.

Spectr. T  
 Focus...  
 Spectr. T  
 Exp. Mtr.  
 536  
 542  
 236

Spectr. Temp. .... Dome Temp./Hum.  $+19.7^{\circ}C$   $54.98H$  Transparency Conditions .. *Hazy* .....  $56$   
 Focus .....  $6.70$  ..... *Penason HR PORT C 22 EST* *W. wind NW 6 Kms/hr* *and rising pressure*  
 Spectr. Temp. .... Dome Temp./Hum. ....  $390$   $0$   $50$   $1024$   $91$  *CCDFPAT*  $102011$  *Kp=0.4*

Exp Mtr. <i>100K</i> <i>no Fe/Ka</i>	Seeing	<input checked="" type="checkbox"/> Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
$536$	$2''$	$9.8$	$F8$	<i>C155000</i> <i>Tgrating</i>	$18004$ $47.06$	$306u$	$5182A$	$17$			
$542$								$18$			
								$19$			
								$20$		<i>Aug 14, 1969</i> $0-2815$	
$235$	$2''$	$6.66$	$d68$					$21$	<i>Std Vel</i>		$1.7K$
								$22$			
				$ALT=84^{\circ}$ Above		$306u$	<i>Slit</i>			<i>seeing test Done WSW</i> <i>no furs, NW wind 6 Kms/hr</i> <i>(Feels like light breeze)</i>	
				$\sim$ MAX 90							
				$\sim$ MAX 101							
$\#44$	<i>saturated</i>										
								$23$			
$440$	$8.9$	$8.7$	$F8V$					$24$			
$459$	$2.4$							$25$			
								$26$			



#3 57 Mon/Tues

Emulsion Batches:

Date 1997 June 9/10

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.
cc46105	BIAS(4)		(2000)	23 25					
06	V839 Oph	18 09 21	09 09 04	23 26 58					720
07	"	"	"	23 29 33					721
08	comp							FeAr ND3	4s
09	V839 Oph	"	"	23 53 36					733
10	"	"	"	00 06 37					720
11	comp							"	4s
12	V839 Oph	"	"	00 20 29					780
13	"	"	"	00 34 03					900
14	comp							"	4s
15	BIAS(4)			00 50					0s
16	V839 Oph	"	"	00 51 51					794
17	"	"	"	01 05 38					800
18	comp							"	4s
19	V839 Oph	"	"	01 20 40					755
20	comp							"	4s

CCD  
Spectr. T.

Focus

Spectr. T.

Exp. Mtr.

458

451

466

384

354

286

304

290

475



CCD Spectr. Temp. -109.5°C

Dome Temp./Hum. 19.0°C/62.2%

Transparency Conditions Hazy 58

Focus 6.70

increasing cloud

Spectr. Temp.

Dome Temp./Hum. 18.5°C/57.58H

Exp. Mtr.	Seeing	Pg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CCD CASS	1800 <sup>hr</sup> 47.06	306 <sub>μ</sub>	5182	1			
458	3-4"	8.7	F8V					27			
451								28			
								29			
466	3-4"							30			
364								8		some clouds	
								9			
354								10			
286								11		cloudy very low signal	
								12			
								1			
304								13			
290								14			
	<del>3-4"</del>							15			
425	3-4"							16			
								17			



<sup>CCD</sup>  
 Spectr. Temp.  $-100.6^{\circ}\text{C}$  ..... Dome Temp./Hum.  $+18.6^{\circ}\text{C} / 56.8\%$  Transparency Conditions ..... Hazy - but better 60

Focus .....  $6.7$  .....

Spectr. Temp.  $-100.7^{\circ}\text{C}$  ..... Dome Temp./Hum.  $+18.3 / 59.5\%$

Exp. Mtr.	Secing	Mag	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
<sup>1000 V</sup> No f <sub>1</sub> /k <sub>r</sub>				CASS CCD	1500 <sup>1/2</sup> mm 47.06	306 <sub>μ</sub>	5182	18			
580	2.4"	9.0	A0					19			
								20			
								1			
								21			
167	2"	10.5	A6					22			
160								23			
								24			
205								25			
225	2"							25			
								26			
								1			
								27			
4580								28			
		5.11	F9V					29			



p9#1 61

Tues / wed

Emulsion Batches:

Date ... 1997. June 10/11. Observers L.U./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.
CC46 <sup>134</sup> / <sub>37</sub>	Inboard / outboard	Hartmann						FEAR ND3	4/7
38	BIAS (4)			20 43					
39/ <sub>46</sub>	FLATS x 7					0200W	+2°	TUNG ND3	7s
48	Comp							FEAR ND3	4s
47	HD 102870	11 4529	+021942	20 49 21					66
49	"	"	"	20 51 05					63
50	Comp							x	4s
51	Comp							y	1s
52	XZ Leo	10 02 34	+17 02 46	21 03 28					900
53	"	"	"	21 19 02					900
54	"	"	"	21 34 17					900
55	Comp							n	4s
56	BIAS (4)			21 50					
57	Comp							n	4s
58	FO Vir	13 29 47	+01 05 48	21 54 48					666
59	comp							n	4s

CCD  
Spectr. 1  
Focus...  
Spectr.Exp. Mtr.  
10-1160  
+2.2

75K

65K

482

325

47K

CCD Spectr. Temp.  $-100.5^{\circ}\text{C}$  Dome Temp./Hum.  $+22.6^{\circ}\text{C}$   $41.7\% \text{RH}$  Transparency Conditions *mostly clear* 62

Focus  $6.67$

Spectr. Temp. .... Dome Temp./Hum.  $+21.2^{\circ}\text{C}$   $43.1\% \text{RH}$

390 0501024 41 CCDFOOT 2 MAX

Exp. Mtr. <i>1000 V</i>	Seeing	Mag. <input checked="" type="checkbox"/>	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
<i>no filter</i> $+22.3^{\circ}\text{C}$				<i>CASS CCD</i> <i>Tgrating s/h</i>	<i>1800 in/turn</i> $77.06$	<i>306</i>	<i>51828</i>	$3/4$	<i>focus test</i>		
								1			
								2			<i>11.3K</i>
								5			
<i>7.5K</i>		<i>361</i>	<i>F9V</i>					6	<i>stalled</i>		<i>8.3K</i>
<i>65K</i>								6	*		
								7			
								8			
<i>482</i>	<i>2"</i>	<i>106</i>	<i>A5</i>					9	<i>bright sky</i>		
<i>328</i>	<i>2.3"</i>	"	"					10			
								11			
								12			
								1		<i>Avg 148.838 <math>\sigma</math> 2.431</i>	
								13			
<i>4.7K</i>	<i>2.4"</i>	<i>6.7</i>	<i>A2</i>					14		<i>~200/1 S/N</i>	<i>4K</i>
								15			

pg# 2 <sup>63</sup> Tues/Wed

Emulsion Batches:

Date 1997 June 18/11... Observers Lu / Ta.....

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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.
CC46160	FO Vir	13 29 47	01 05 48	22 07 32					632
61	Comp							FEAR NO3	4
62	Comp							"	4
63	HT Vir * <sup>10T</sup>	13 46 07	10 50 657	22 24 31					300
64	Comp							"	4
65	Comp							"	4
66	HD 144579	16 01 30	+39 24 00	22 37 05					451
67	Comp							"	4
68	B/H/S (4)			22 47					0
CG809A <sup>16</sup> <del>50</del>	HD 144579	"	"	22 46				* 8x	67ms
51/54	DARKS x 4							4x	67ms
53/57	DARK x 3							3x	133
58/59	HD 144579							2x	133
CC46189	COMP							FEAR NO3	
70	V 839 Oph	18 09 21	09 09 04	23 00 03					720

Spectr.

Focus

Spectr.

Exp. Mr

44K

1270

42K

1300

581



Spectr. Temp. .... Dome Temp./Hum.  $+21.0^{\circ}\text{C}$   $+34.8\%$  Transparency Conditions ... Hazy... slightly... 64  
 Focus ..... 6.67 .....  
 Spectr. Temp. .... Dome Temp./Hum. ....  
 Reason wind W 6 km/hr 101.76 kpasals  
 @ JREST und Fölling

Exp. Mtr.	Seeing	Pl. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
44K	23	67	A2	Cass CCD Typing →	1500 $\mu\text{m}$ 47-06	306u	5182A	16a			
								17			
								18			
1270	3-2	7.16	40					19		<del>See continuation</del>	
								20			
								21			
4.2K		66 & 68						22	std vel		
		<del>66 &amp; 68</del>						23			
								1			
* 1st one blank					Above	306u slit			Seeing Test	Dome WSW ALT 840 NE FM ON	
								24			
581	<del>8.3</del>	8.7	F8V					25			

#3 65 Tues/Wed  
Date 1997 June 10/11

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.
cc46171	V839 Oph	18 09 21	09 09 04	23 12 49					720
72	comp							FeAr ND #3	45
73	V839 Oph	"	"	23 26 55					720
74	"	"	"	23 39 23					720
75	comp							"	45
76	BIAS(4)			23 53					
77	V839 Oph	"	"	23 54 37					720
78	"	"	"	00 07 06					731
79	Comp							"	45
80	V839 Oph	"	"	00 21 49					721
81	"	"	"	00 34 10					728
82	Comp							"	45
83	V839 Oph	"	"	00 49 17					720
84	"	"	"	01 01 53					720
85	comp							"	45

CCO  
Spectr. T.  
Focus...  
Spectr. T.

Exp. Mir.

656

673

738

774

820

770

787

779

737

CCD  
 Spectr. Temp.  $-100.5^{\circ}\text{C}$  ..... Dome Temp./Hum.  $20.3^{\circ}\text{C}/45.4\%$  ..... Transparency Conditions *clear* ..... 66.  
 Focus  $6.67$  .....  
 Spectr. Temp. .... Dome Temp./Hum. ....

Exp. Mtr.	Seeing	Pg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
656	2"-3"	8.7	F8V	CASS CCD	1800 / 47.06	306 $\mu$	5182 Å	26			
								27			
673								28			
778								29			
								30			
								1			
774								5			
820								6			
								7			
770	2"-4"							8			700
787								9			
								10			
779	2"							11			
737								12			
								13			



#4 67

Date 1997 June 10/11

Observers Le / T<sub>n</sub>

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.
cc46186	BIAS(4)			01 16					0 <sub>s</sub>
87	V839 Oph	18 09 21	<sup>2000</sup> 09 09 04	01 17 38					720
88	"	"	"	01 30 19					720
89	comp							FeAr ND #3	4s
90	V839 Oph	"	"	01 44 30					720
91	"	"	"	01 57 09					732
92	comp							"	4s
93	BIAS(4)			02 11					0 <sub>s</sub>
94	Comp							"	4s
95	RZ Dra	18 23 06	<sup>5000</sup> 158 54 18	02 18 26					1000
96	"	"	"	02 35 33					1000
97	comp							"	4s
98	RZ Dra	"	"	02 54 26					1000
99	comp							"	4s
<del>20</del>									

CCD  
Spectr. T  
Focus...  
Spectr. T

Exp. Mir

697

620

488

467

300

294

326

CCD  
 Spectr. Temp.  $-100.5^{\circ}\text{C}$  Dome Temp./Hum.  $19.1^{\circ}\text{C}/49.2\%$  Transparency Conditions *clear* 68  
 Focus  $6.67$   
 Spectr. Temp. ..... Dome Temp./Hum.  $+18.4^{\circ}\text{C}$   $50.7\% \text{H}$   
 CD

Exp. Mtr	Seeing	FV Mag	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CAS CCD	1800 In/In 47.06°	306 $\mu$	5P82A	1			
692		8.7	F8V					14			
632								15			
								16			
488								17			
469								18			
								19			
								1			
								20			
300		100	AS					21			
277								22			
								23			
326								24			
								25			

69 P95

Emulsion Batches:  
 .....  
 .....  
 .....

Date 1997 June 10/11 Observers Lu / Tg

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison	
								Type/Filter	Exp.
cc46200	Comp							Felt ND3	4s
01	HD187691	194614	+100955	03 1634					174
02	Comp							"	8s
03	BIA 5(A)			03					

Spectr. T  
 Focus  
 Spectr. T  
 Exp. Mtr.

4.4x







Speedf. Temp. <sup>CD</sup> -100.7°C ..... Dome Temp./Hum. +16.6°C 5072H ..... Transparency Conditions . Part cloudy ..... 72

Focus ..... ~~6.68~~ 6.68 .....

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

Exp Mtr. 1000V	Seeing	Mag. ✓	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion 5182	P.H.	Program	Remarks	Quality
710 Filter				CASXCD	1800h/ram	306u	<del>5182</del> 5182	3/4	focus test		
				T-grating →	47-06			5			57K
				Actual Angle ~	47-01						
5.9K		3.61	F9V					6	std vel		57K
								7			
								1		141.492 ~ 2.110	
		8.1	F2					8			
1590								9	DRL		
1170								10			
1436								11			
1240								12			
								13			
730								14		through clouds	
800								15			
1430								16			
1580								17			
								18			



#2 73

Sun/Mon

Emulsion Batches:

Date 1997 June 15/16

Observers

Lu/Tn

Plate No.	Object	R.A.	Declination	Starting Time	Ending Time	Hour Angle End	Declination	Comparison	
		1900	1900	E.S.T.	E.S.T.			Type/Filter	Exp.
CC46221	BIAS(4)		2000	22 06					
22	HD125488	14 19 38	05 53 48	22 08 16					420
23	"	"	"	22 15 40					480
24	"	"	"	22 24 10					420
25	"	"	"	22 31 38					420
26	comp							FeAr ND#3	4s
27	HD125488	"	"	22 40 32					420
28	"	"	"	22 48 08					420
29	"	"	"	22 55 43					420
30	"	"	"	23 03 10					420
31	comp							"	4s
32	BIAS(4)			23 11					0
33	HD125488	"	"	23 13 05					481
34	"	"	"	23 21 38					482
35	"	"	"	23 29 07					543
36	"	"	"	23 38 34					420

CCD  
Spectr. T.Focus  
Spectr. T.

Exp. Mtr.

1770

750

1450

1130

1300

1320

1340

1130

920

838

858

CCD  
 Spectr. Temp.  $-100.5^{\circ}\text{C}$  Dome Temp./Hum.  $15.3^{\circ}\text{C}/54.5\%$  Transparency Conditions  $\text{fine} \rightarrow \text{cloudy}$  74  
 Focus  $6.68$   
 Spectr. Temp. Dome Temp./Hum.  $20$   $\sim \text{max ADU}$

Exp. Mtr.	Seeing	<input checked="" type="checkbox"/> Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800 $\frac{1}{\text{mm}}$ 4706	300 $\mu\text{m}$	5182	1			
1370	2"-3"	8.1	F2					19	DRL		
750								20	DRL	through clouds	
1450								21			
1130								22			
								23			
1300	2.4"							24			
1320								25			
1340								26			
1130								27			
								28			
								1			
920								29			
	2.3"							6			
838								7		cloud again	680
888								8			





CCD Spectr. Temp.  $-101.0^{\circ}\text{C}$  ... Dome Temp./Hum.  $+135^{\circ}\text{C}$  630<sup>24</sup> Transparency Conditions ... PART Cloudy 76

Focus ... 6.68

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

Exp. Mtr.	Seeing	PV Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASSECO	1800 $\mu\text{m}$	306 $\mu\text{m}$	5182A	9			3A
978	3.4"	8.1	F2					10			
910								11			
770								12			
1000								13			
								14			
								1			
								15			
270	2.5"	9.5	G0					16			
270								17			
								18			
								19			
678		9.6	A0					20			
								21			
								22			

994 77 Sun/man

Emulsion Batches:

Date 1997 June 15/16 Observers L.G./J.A.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison	
								Type/Filter	Exp.
CC46252	HD 187691	19 4614	+10 09 55	01 20 11					133
53	Comp								45
54	BIAS(4)			61 24					
CG809 <sup>60</sup> / <sub>63</sub>	HD 176844	18 57 03	+40 32 36					4x	67
64/67	DARKS x 4		All default Box & SAME Intensifier setting					4x	67
68/69	" x 2						2x	133	
70/71	HD 176844						2x	133	
CC46255	Comp						Felt NO 3		45
56	CN And	2000 00 20 30	+40 13 36	01 49 30					900
57	"	"	"	02 05 39					900
58	Comp						n		45
59	BIAS(4)			02 22					
60	CN And	2000 00 20 30	+40 13 36	02 23 16					963
61	"	"	"	02 39 44					900
62	Comp						n		45

Spectr. 7

Focus .

Spectr. 1

Exp. Mtr.

44K

338

351

360

305

Spectr. Temp. .... Dome Temp./Hum.  $+13.5^{\circ}\text{C}$   $64.5\% \text{H}$  Transparency Conditions ... *part cloudy* ..... 78

Focus ..... 6.68 .....

Spectr. Temp. .... Dome Temp./Hum. .... *ca*

Exp. Mtr.	Seeing	✓ Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
44K		5.11	F9V	C 1755 CCD	1800 in 47.06	306 $\mu$	5182A	23	std vel		
								24			
								1			
	3"	665	M21V	AAT 86-87		above 306 $\mu$	51T		Seeing Test	Rise W	
										Light SSE wind	~ 85
											~ 90
								25ci			4+
338	4.5"	B- 10	E5					26			
350								27			
								28			3+
								29			
260	3.5"							29			
305								6		Aug 13 $\mu$ 84 $\sigma$ 2.554	
								7		<del>cloud against end</del>	



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Sun/Mon

Emulsion Batches:

Date . 1.9.77. June 15/16. Observers . L.H. / T.H. ....

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Plate No.	Object	R.A.		Declination +1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison	
		1900	2000						Type/Filter	Exp.
CC46263	CN And	00 20 30		+40 13 36	02 56 34					900
64	comp								FeAr ND #3	4
65	comp								"	4
66	HD 204867	21 26 18		-06 00 40	03 17 40					70
67	Comp									
68/74	FLATS x 7						~ 30E	-6°	TUNG ND 3	75
75	BIAS(4)				03 23					
76/77	Inboard / OUT BOARD						00	~ 35°	FeAr ND 3	4/7

Spectr. T

Focus

CCD

Spectr. T

Exp. Mtr.

290

55K

Spectr. Temp. .... Dome Temp./Hum.  $+12.9^{\circ}\text{C}$  68%RH Transparency Conditions ... Part. Cloudy ... 80

Focus ..... 6.68 .....

Spectr. Temp.  $-100.5^{\circ}\text{C}$  .....

Dome Temp./Hum.  $+12.6^{\circ}\text{C}$  68%RH

Exp. Mtr.	Secing	P <sub>0</sub> Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
290	3-6	<sup>B</sup> 2/10	F5	CASS COD	1800 km 47.06	36 <sub>a</sub>	5182A	8ci			
								9			
								10			
5.5K		2.91	G07b					11	std vel		3-6K
								12			
								2			11K
								1			
								3/4	focus	now set for focus	

81

Tues / wed Engineering

Date . 1997. June. 17/18. Observers . Shen / . 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.
	NORMALIZATION @ Zenith, Then Bright stars Logged at meridian, down to $-30^{\circ}$ Dec Logging 1 Hr W up to $+10^{\circ}$ Dec, Then $40-60^{\circ}$ Dec 1 to 5 Hrs West. Due to typo, Had to Renormalize on HD A-7394 from MK Bright Star List.								
cx462	<sup>78</sup> Inboard Comp / outboard		HARTMANN					Fene ND5	4/2
80	Comp							"	3s
81	HD137909	15 23 42	29 27 01	00 10 52					17
82	"	"	"	00 04 06					82
83	Comp							"	3s
84	BIAS								0
85	FLAT							TUNG NO4	1/2
Wed / Thurs		Encoder Error engineering							
1997	June 18/19	Miki / In-	Many Bright star encoder logs; Telescope west side and from East side.						









Spectr. Temp.  $-110.7^{\circ}\text{C}$ Dome Temp./Hum.  $+19.6^{\circ}\text{C}$  81.5% H<sub>2</sub>OTransparency Conditions *PART. Cloudy* 84Focus *6.67*

Spectr. Temp. ....

Dome Temp./Hum. ....

390 0 50 1024 41 CCDENT

Exp. Mtr.	Seeing	Flt. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emission	P.H.	Program	Remarks	Quality
<i>1000</i> AFTER Resetting		HV		<i>Tyring</i>	51-58	2-2	5895 $\pm 5\text{\AA}$	3/4	focus test		
$\downarrow$	5"	418	AOP					5			6K
								6			
								7			
								8			
10.6K	5"	299	AOV <sub>2</sub>					9	Telluric std (1.92 AIRMASS)		7.6K
								10		cloudy	
								11			
1050	5"-10"							12		7 70/1 S/N	
								13		Lightning in the west	
								14		will it show?	
1020	4"-6"							15		fast loop 15" W?	
								15			
915	4"-6"							16		over after	
								16			



Pg# 85 Tues/Wed

Emulsion Batches:

Date 1997 June 24/25 Observers G.D. &amp; company / Tm...

Plate No.	Object	R.A.	Declination	Starting Time	Ending Time	Hour Angle	Declination	Comparison	
		1900 2000	1900	E.S.T.	E.S.T.	End	Type/Filter	Exp.	
CC46293	BD+492317	14 40 17	+48 42 30	22 37 34					1200
94	Comp							K/H H03	F5
95	"							"	"
96	BD+521826	14 45 57	+51 37 30	23 02 46					1800
97	Comp							"	F5
98	BD+521826	"	"	23 35 17					1800
99	Comp							"	F5
LL46800	Bras (4)								0
301	Comp							"	F5
302	HD 151809	16 44 36	+56 33 00	00 13 13					1800
303	Comp							"	F5
304	HD 151809	"	"	00 46 20					1600
305	comp							"	F5
	<del>HD 151081</del>	<del>16 58 12</del>	<del>+56 36 00</del>						1
306	comp								
307	HD 154081	16 58 12	56 36 00	01 22 19					1000

CCD

Spectr. T

Focus

Spectr. r

Exp. Mir.

1000/  
904

813

896

583

344

725

CCD Spectr. Temp. ... -100.7°C ... Dome Temp./Hum. 7.19.0°C 84.6% H Transparency Conditions ... Part. Clear ... Haze 86

Focus ... 6.6.7

Spectr. Temp. ....

Dome Temp./Hum. ....

390 0 50 1024 41 CCD FMT

Exp. Nr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emission	P.H.	Program	Remarks	Quality
1000 V 909	3.5	7.7	F0	Typing →	1900 L 51.58	250	5895A	14	H1 claud pgin		
								15			
								16			
813	4.7	8.7	A2					17		AD = -00.00 10 AB = +00.00 48	
								18			
896	3.6"	"	A2					19			
								20			
								1			
								21			
583	3.6"	9.5	B7?					22			
								23			
344	5"							24		cloudy M	
								25			
								26			
								26			
1726	6.5	A3						27		clouds	

PG #3 87 TUE/WED

Date 1977 JUNE 24/25... Observers Gld./In./Att./Kar..

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.
CC46308	COMP							FeAr #3	45
309	HD154081	165812	58 36 00	024105				"	90s
310	COMP		"					"	21s
311	HD154081	"	"	025813				"	71s
312	COMP							"	45
313	COMP	<del>190049</del>	<del>134253</del>					"	45
314	HD177724	190049	134253	021550				"	135
315	"	"	"	021849				"	126
<del>HD 196504</del>		<del>203249</del>	<del>260650</del>					"	45
316	COMP							"	45
317	BIAS (4)							"	0
<del>HD 196504</del>		<del>203249</del>	<del>260650</del>					"	45
318	COMP							"	45
319	HD 196504	203249	260650					"	300s
320	COMP							"	45

CCO Spectr. T.  
 Focus...  
 Spectr. T.  
 Exp. Mtr.

1722

1743

1090

1300

246



CCD Spectr. Temp.  $-100.7^{\circ}\text{C}$  ... Dome Temp./Hum.  $+18.2^{\circ}\text{C}$   $88.9\% \text{H}$  Transparency Conditions ... *Hazy* ... *88*

Focus ... *6.67* .....

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

Exp. Mtr.	Seeing	<input checked="" type="checkbox"/> Mag	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
								28			
1722		6.8	A3					29	HI cloud		
								11			
1743								12			
								13			
								14			
10090		2.99	A0V <sub>n</sub>					15	Telluric Std	1.19 Air mass	
10080		"	"					16	"		
								17			
								17			
								1			
								18			
								18			
2480	4"	5.59	B9V					19	TELLURIC STD		
								20			

Pg #4 89

TUE/WED

Date .1997. JUNE. 29/25.

Observers ..G.I.D./T.O./Att./Kar.

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.
CC46321	COMP							Fe Ar H <sub>3</sub>	45
322	HD 210026	22 02 21	24 51 24						434 s
323	"	"	"						392 s
324	COMP							"	45
325	<del>NO</del> COMP							"	45
326	HD 172167	18 33 33	38 41 26	02 58 00					205
327	"	"	"	03 00 00					245
328	COMP							"	45
329	BIAS 4			03 01 52					0
330- <sup>339</sup>	FLATS X10							TUNE NOT	75

SCO

Spectr. T.

Focus

Spectr. T.

Exp. Nr.

10020

4345

10400

10200

CCP  
Spectr. Temp. .... Dome Temp./Hum. .... Transparency Conditions ..... 90

Focus ..... 6.67 .....

Spectr. Temp. .... Dome Temp./Hum. ... 11.76°C ... 92.18% H

Exp. Mtr.	Seeing	Mag. ✓	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
								21			
10020	4"	3.77	F5 V					22	SPECTRAL STD	cloudy / moon etc	
9395	"	"	"					23	"		
								24			
								25			
10400	"	0.05	A0 V					26	SPECTRAL STD	Nega	
10200	"	"	"					27	"	"	
								28			
								1			
								2			1AK



Pg #1 91 Wed/Thurs

Tec = Tracy Clark

Emulsion Batches:

Date 1997. June. 25/26.... Observers G.I.d./Tec./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.
CC963 <sup>40/</sup> 41	Inboard / OUTBOARD		HARTMANN TEST					FEAR ND 3	4/7
42	BIDS (A)			21 03					
43	Comp							ND 5	4s
44	HD149757	16 31 39	-70 21 53	21 17 56					218s
45	"			21 24 05					334
46	"			21 30 48					190
47	"			21 35 21					93s
48	COMP							"	4s
49	COMP							"	4s
50	HD177724	19 00 49	+13 42 53	21 42 12					58
51	Comp								
52	BIDS (A)			21 46					
53/58	FLATS x 6							Fearney ND 5	11s
59/60	Inb / outboard							FEAR ND 3	4/7
61/62	Comp							FEAR ND 5	4

CCD  
Spectr.

Focus

Spectr.

Exp. Mir  
1000/  
10-5-1997

1000

S.K

10/6/97

10/6/97

13K

CCD  
Spectr. Temp.  $\bar{\quad}$   $\epsilon$

Dome Temp./Hum.  $12.17^{\circ}\text{C}$   $62.28\%$

Transparency Conditions  $\text{Part. Cloudy}$   $92$

Focus  $0.65$

Spectr. Temp.  $\bar{\quad}$

Dome Temp./Hum.  $\bar{\quad}$

$390$   $0.50$   $1024 \times 1$  CCD Fwh

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no filter				Cass CCD Typical $\rightarrow$	1800 infra 56.90	306u	6615A 158	3/4 1	focus test		
								5			
1000		2	0					6		thin clouds	
5.1k	3"							7		getting better	3.8k max
10.6k								8			
10.5k								9			
								10			
								11			
13k		2.99	AQIR					12			6.5k
								13			
								1			
								2			13k
								8/4			
								4			4k

93 P92

Wed Thurs

Emulsion Batches:

Date 1997 June 25/26 Observers Gld./Tecl/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.
CC96362	HD177724								
63	Comp							FeA ND5	45
64	Comp							"	"
65	HD149757			22 1735					
66	<del>Comp</del> "								
67	Comp							"	45
68/73	FLATS x 6							TUNG ND3	75
74	Comp							FeA ND3	45
75	HD149757	16 31 39	-10 21 53	22 2927					
76	"			22 3107					
77	Comp								
78	Comp								
79	HD177724			22 3712					
80	Comp								
81	BIHS(4)								
82/87	FLATS x 6							TUNG ND5	11500



Spectr. Temp. .... Dome Temp./Hum. .... Transparency Conditions ..... 94.

Focus .....

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

Still 390 050 10244 (CCDRT)

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
6.4k		6.70 focus			600 lines 26°10	29	A600	15			10K max
								16			
								17			11.2k max
12k		2.5						18		trailed	
8k								19		trailed.	9.2k
								20			
								21			
		6.70 focus set			600 lines 27°16	25	<del>5184</del>	22			
6.8k							5184	23		"	13K max
5.9k								24		"	10.7k
								25			
5.8k								26		"	10k
5k								27		"	10k
								28			
								1			
								2			13.6k

95 pg #3 wall/Tours

Emulsion Batches:

Date 1997 June 25/26 Observers Gid/Tec/Ta

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison	
								Type/Filter	Exp.
cc463 <sup>86/89</sup>	In b / OUTBOARD							FAV ND3	4/7
90	Comp							"	4s
91	BD +48 2229	14 40 36	<sup>2000</sup> +48 05 38	23 11 22					1600s
92	comp							"	4s
93	BD +48 2229	"	"	23 42 18					1600s
94	Comp							"	4s
95	BIAS(4)			00 15					4s
96	Comp							"	4s
97	HD 151809	<sup>1900</sup> 16 44 36	+56 23 00	00 20 04					1800s
98	comp							"	4s
99	HD 151809	"	"	00 52 00					1800s
400	comp							"	4s
401	HD 151809	"	"	01 38 00					700s
402	Comp							"	4s
403	BIAS(4) comp			01 48					0

Spectr. T

Focus

Exp.

Exp. Mir.

Rec.

No.

325

287

1270

1290

540



Spectr. Temp. .... Dome Temp./Hum.  $+22.5^{\circ}\text{C}$  79.2% H<sub>2</sub>O Transparency Conditions Fine - increasing cloud 96

Focus ..... 6.63

Spectr. Temp.  $-100.7^{\circ}\text{C}$  Dome Temp./Hum.  $27$  39.0 50 1024 4 1 CCD INT

Exp. Mtr.	Seeing	F <sub>0</sub> Mag	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
110 file				CASS	1800/40	250	5894A	3/4	focus test		
				Tspatung	5+58			5			
325	2"-3"	11.1	A2					6		Note Header CLambda is <span style="border: 1px solid black; padding: 2px;">All Correlated</span>	
								6			
287	3"-4"							7		5194 but	
								8		correct CLambda	
								9		is 5894A	
		9.5	B7?					9		Some high cloud clearing	
1270	3"	9.5	B7?					10			
								11			
1290								12			
								13			
540								14			
								15		redone after crash + rebase!	
				1st one with wrong CLAMBDA in header				16			



97 pg 4

Emulsion Batches:

Date 1997 June 25/26 Observers Gld. / Tec. / T.p.

Plate No.	Object	R.A.	Declination	Starting Time	Ending Time	Hour Angle	Declination	Comparison	
		1900	1900	E.S.T.	E.S.T.	End		Type/Filter	Exp.
CC46404	HIPP 43 - mikes	16 5024 Hand Set	+57 2518	01 4936					65h
05	Comp							FOAR ND3	4s
06	Comp							"	"
07	HD 177724	19 0049	+13 42 53	02 0639					256
08	"	"	"	02 1145					205
09	Comp								
CG 809	HD 195 047 x 4			All same	box				67m
76/79	DARKS x 4								67ms
80/81	" v 2								133ms
82/83	HD 195 047 x 2			(Had to lower Intensi free Set)	00 02W				133ms
CC46410	Comp							FOAR ND3	4s
11	Hipp 43	16 5024	+57 2518	02 3600					260
12	Comp							"	4s
13/22	FLATS x 10							TUNG ND4	7s
23	BIAS (4)			03 26					

Spectr. Temp. .... Dome Temp./Hum. .... Transparency Conditions *Increasing cloud* 98

Focus ..... 6.6.3 .....

Spectr. Temp. <sup>CD</sup> ..... -100.5°C .....

Dome Temp./Hum. 120.3°C 77.2% H

Exp. Mtr.	Seeing	P <sup>✓</sup> Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
70		12			1800/ 57.58	280	589A9	3		Clouds -	
								4			
								5			
7K		299	A0V <sub>n</sub>					6	Telluric Std		6-8K
9.3K								7			
								8			
		2" 7.9	G5V Above			250u slit				seeing test	
								10			
277	2"-3"	12	B9?					11		clear again	
								12			
								13			14K
								1			



99

Pg#1 Thurs / Fri

Date . 1997. Jan 26 / 27

Observers .. Kar / Tec / T.n. / L.f.b. = LUIS FELIPE BARRIENTOS

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.
c CC46A <sup>24</sup> / <sub>25</sub>	Inboard / Outboard						00° 07' W + 46°	FeAr ND3	4/7
26	BHS(A)			20 38					
27	Comp							FeAr ND3	4s
28	HD177724	19 00 49	+13 42 53	20 48 26					70s
29	Comp							"	4s
30	Comp							"	4s
31	BD+47 2064	13 3000 <sup>2000</sup>	+46 30 06	21 12 28					1800
32	Comp							"	4s
33	BD+47 2064	"	"	21 44 48					1800
34	Comp							"	4s
35	BHS(A)			22 15					0
36	BD+47 2064	"	"	22 18 06					1800
37	Comp							"	4s
38	Comp							"	4s
39	BD+48 2229	14 40 36	48 05 38	22:55:15					1800

100  
Spectr. Te

Focus ...

Spectr. Te

Exp. Mtr

1000/  
Mm/Sec

9.7K

427

356

320

184



CCD Spectr. Temp. .... Dome Temp./Hum. +21.0°C 44% H Transparency Conditions ... Clear ..... 100

Focus ... 6.65 .....

Spectr. Temp. .... Dome Temp./Hum. \* ..... 20 (390 0 50 1024 4 1 CCD) MAXIMUM

Exp. Mtr.	Seeing	M. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulston	P.H.	Program	Remarks	Quality
1000V no filter				CASS CCD Telescope	1800 lines/mm 51.58	29μ	589A8	3/4	focused	CLEAR NIGHT	
								1		PHOTOMETRIC	
								5		GAIN 90	6-8K
9.7K		2.99	MOV <sub>n</sub>					6	Telluric Std.		7K
								7			
								8			
427	3.4"	10.92	A2					9	H 1 pgm		
								10			
356								12			
								13			
								1			
320								14			
								15			
								16			
284								17			

pg #2 101 Thurs / Fri

Emulsion Batches:

Date 1997 Jun 26/27... Observers Kerl, Tecl, T... / Lsh....

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

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison	
								Type/Filter	Exp.
CC464 40	Comp		2000					FeAr NDS	4s
41	BIAS (4)								0
42	BD +40 2229	14 40 36	+48 05 33	23 28 41					1801
43	Comp							FeAr NDS	4s
44	Comp							FeAr	4s
45	HIPP 43	16 50 24	<sup>2000</sup> 57 25 18	00:05:37					1930
46	Comp							"	4s
47	BIAS			00 39					0
48	HIPP 43	"	"	00 40					2000
49	Comp							"	4s
50	Hipp 43	"	"	01 15 43					2032
51	Comp							"	4s
52	Bias			01 51					0
53	Hipp 43	"	"	01 52					2214
54	Comp							"	4s

CCO  
Spectr. T.  
Focus  
Spectr. T.

Exp. Mtr.

262

170

158

64

81

Spectr. Temp.  $-101.7^{\circ}\text{C}$

Dome Temp./Hum.  $718.0^{\circ}\text{C } 53\% \text{H}$

Transparency Conditions  $\text{Fair}$  102

Focus  $665$

Spectr. Temp. ....

Dome Temp./Hum. ....

Exp. Mtr.	Seeing	Pl <sup>+</sup> Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASSCO	1800L 51.58	250	5844A	18			
								1			
262	5							19			
								20			
								21			
170		12	B9?					22		CLEAR.	
								23			
								1			
158	3"							24			
								25			
164								26			
								27			
								1			
181	3.4"							6		MOVE GUIDER WHILE READING IMAGE	
								7			



103 pg#3

Emulsion Batches:

Date 1997 June 26/27 Observers Kac./Ted/Tre. E. Felipe

Plate No.	Object	R.A.	Declination	Starting Time	Ending Time	Hour Angle End	Declination	Comparison	
		1900 2000	1900	E.S.T.	E.S.T.			Type/Filter	Exp.
CC 46455	Hipp 43	16 50 24	75 72 51 8	02 31 23					2300
56	Comp							Red ND3	45
57	Comp								
58	HD 177724	19 00 49	13 42 53	03 16 16					75
59	Comp								
60/69	FLATS x 10							7416 ND4	75
<del>70</del>	<del>BIDS (7)</del>			03					



Pg #1 105 Fri/Sat

Emulsion Batches:

Date 1997 June 27/28 Observers MJS = MARCIN SAUNDY / Lfb/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.
CC46A 70/71	In b/out BOARD					0 0	45	JFA ND3	4/7
72	BIAS(4)			20 43					0
73	Comp							n 45	⊙
74	HD177724	19 00 49	+13 42 53	20 57 02					57
75	Comp			20 57 02				n	45
76	Comp							n	45
77	BD+47 2064	13 <del>30</del> <sup>2000</sup> 00	+46 30 06	21 14 02					1500
78	Comp							n	45
79	BD+47 2064	"	"	21 46 44					
80	Comp							n	45
81	Comp Bias(4)							<del>n</del>	<del>45</del>
82	Comp							n	45
83	BD+521826	14 45 57	51 37 30	22 26 18					921
84	"	"	"	22 42 00					916
85	Comp							n	45

CCO  
Spectr. T

Focus

Spectr. T

Exp. Mtr.

MK

565

2000

900



CCD  
 Spectr. Temp. .... Dome Temp./Hum.  $12.22^{\circ}\text{C}$   $60\% \text{H}$  Transparency Conditions ... *Fine* ..... 106  
 Focus ..... *6.65* .....  
 Spectr. Temp. .... Dome Temp./Hum. .... *ca* 390 0 50 1024 41 CCD/MT

Exp. Mtr.	Seeing	F <sub>0</sub> Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800h 51-58	25u	5894A	3/4			
								1			
								5			
<i>10K</i>		<i>2.99</i>	<i>A01n</i>					6	<i>Telluric Std</i>		<i>8K</i>
								7			
								8		<i>clear, good transp.</i>	
<i>565</i>	<i>2"</i>	<i>109</i>	<i>A2</i>					9			
								10			
								11			
								12			
								1			
								13			
<i>2000</i>	<i>2</i>	<i>8.6</i>	<i>A2</i>					14			
<i>1900</i>								15			
								16			

pg#2 107 Fri/SAT

Emulsion Batches:

Date . 1997. June. 27/28. Observers Lfb/ Mj's / Tg. ... E.H.1 } pgm

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison	
								Type/Filter	Exp.
CC46496	Comp							RAr NO3	4s
87	BD+48 2229	14 40 36	<sup>2000</sup> 48 05 38	23 04 00					1820
88	COMP							"	4s
89	BD+48 2229	"	"	23 3646					1833
90	Comp							"	4s
91	BIAS(4)			00 08					
92	Comp							"	4s
93	HD136 849	15 17 48	<sup>1980</sup> +33 17 30	00 12 42					191
94	Comp							"	4s
95	Comp							"	4s
96	BD+60 1703	16 47 37	<sup>2000</sup> +60 12 42	00 21 05					1210
97	"	"	"	00 41 50					1255
98	BIAS(4)	Comp		01 04					4s
499	609	BIAS(4)		01 04					0
500	BD+60 1703	"	"	01 11 38					12

Spectr. Temp. .... Dome Temp./Hum. .... Transparency Conditions ..... 108.

Focus ..... 6.65 .....

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

C2

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1000 V No Filter				CASS CCD	1800/4 57.58	350	5844A	17			
368	2"	11.9	A2					18			
								19			
328								20			
								21			
								1			
								22			
53K		5.37	B9.5 <sub>h</sub>					23	Telluric		
								24			
								25			
777	2.3"	9.6	B-V: 0.38					26			
725								27			
								28			
								1			
580								29		computer crashed, exposure OK	



109 P 3

FRI/SAT

Emulsion Batches:

Date ... 1997 June 12/28 Observers *Continued* {H.Z.} *from* ... L86/105/Tm

Plate No.	Object	R.A.	Declination	Starting Time	Ending Time	Hour Angle	Declination	Comparison	
		1900	1900	E.S.T.	E.S.T.	End		Type/Filter	Exp.
CC46501	BD+601703	16 47 37	+60 12 42	01 32 29					1200
02	Comp							Fe4 ND3	45
03	Comp							"	45
04	BD+601704	16 47 41	59 55 27	02 04 58					1223
05	"	"	"	02 25 43					1200
06	"	"	"	02 47 00					1200
07	Comp							Fe4 ND3	45
08	BIDS(4)			03 08					0
CC80984/87	HD 207754	x2						4x	67ms
88/90	DARKS x4							4x	67ms
92/93	" x2								
94/95	HD 207754	x2							
CC46509	Comp							Fe4 ND3	4
10	HD 177724	19 00 49	+13 42 53	03 24 33					575
11	Comp							JUNG NDA	75
12/91	FLATS x10								

CC

Spectr.

Focus

Spectr.

Exp. Mtr.

1000V

636

870

800

805

11K

Spectr. Temp. <sup>CD</sup> ... = 100.7°C ... Dome Temp./Hum. +19.4°C 64.5% H Transparency Conditions . Fine ..... 110.

Focus ..... 66.5 .....

Spectr. Temp. .... Dome Temp./Hum. +18.8°C 59.5% H

Exp. Mtr. 7600 V	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
636	3"	9.6		C455 CD	1800 In 51-58	250	58947	8c	H1		
								9			
								10			
870	3"	9.4	B-V = 0.57					11		NE of Pair 2, Sep 15'	
800								12			
805								13			
								14			
								1			
		7.32	1000	HK200		250	slit			Seeing test	
								15			
11K								16		Telluric Std.	
				+ BIAS (4)				17			
										CC46522	



pg#1 III SAT/SUN

Emulsion Batches:

Date 1997 June 28/29 Observers {H.I.} / In. & Cas. = Mike Casey  
BT = Burns

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison	
								Type/Filter	Exp.
465 <sup>23/24</sup>	Inboard/outboard							Film NO3	7/7
25/34	FLATS x10							TURK NO4	7S
35	Comp							Film NO3	7S
36	HD 17772A	19 00 49	134253	204648					10S
37	Comp							"	4S
38	B/A S(A)								0
39	Comp							"	4S
40	BD+47 2064	13 30 00	+46 30 06	21 10 00					1807
41	Comp							"	4S
42	BD+47 2064	"	"	214209					1800
43	Comp							"	4S
44	Comp							"	4S
45	HD 120315	13 43 36	+49 48 45	221640					27S
46	"	"	"	221902					32S
47	Comp								4S
48	B/A S(A)			22 21					

Exp. Mtr  
No. 10  
1200/1200  
10K  
443  
317  
12K



Spectr. Temp. <sup>cup</sup> - 100.7°C

Dome Temp./Hum. 22.5°C 53%

Transparency Conditions Hazy 112

Focus 6.65

Spectr. Temp. ....

Dome Temp./Hum. ....

Exp. Mtr.	Seeing	Mag	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
16 in 1/4 1000V6 1/2						250	584A	3/4	focus test		
								7			15K
10K		2.97	B0V					8a			
								9			
								1			
								10			
443	2'	1.09	A2					11			
								12			
3/2								13			
								14			
								15			
		1.86	B3V					16			
12K								17			
								18			
								1			

113 P9#2

Emulsion Batches:

Date ..... 1997 June 28/29 Observers {H.I.}/T.O. ... Gld. group

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison	
								Type/Filter	Exp.
46	549		1900					FeAr ND3	4s
50	MD154081	16 5812	+58 3600	22 3328					508
51	"	"	"	22 4228					517
52	Comp							"	4s
53	Comp							"	4s
54	BD+581685	16 5846	+57 5350	22 5612					1800
55	Comp							"	4s
56	BD+581685	"	"	23 2812					1969
57	Comp							"	4s
58	BTHS(4)			00 02					
59	Comp		2000					"	4s
60	Hipp 43	16 5024	+57 2518	00 0809					2072
61	Comp							"	4s
62	Hipp 43	"	"	60 4447					
63	Comp							"	4s
64	B1A5(4)			01 22					

Spectr. Temp. .... Dome Temp./Hum.  $22.6^{\circ}\text{C}$  62% H Transparency Conditions ... slightly hazy ... 114

Focus ..... 66.5 .....

Spectr. Temp. .... Dome Temp./Hum.  $19.9^{\circ}\text{C}$  67% H  
*cd*

Exp. Mtr.	Seeing	P <sub>10</sub> Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1000V		6.8	A3	<i>ignoring</i>	1800 $\mu$ m 51.58	2SA	5894A	19			
23K	23"	6.8	A3					20		$\Delta$ 100 0005 $\Delta$ 100 00 98	3A1
3K								21			
								22			
								23			
532	23"	10.15	B-V 0.040					24		multiple system Brightest of 3 within 1' of center	
								25			
768								26			
								27			
								1			
								5			
247	2" 12		B9?					6			
								7			
240	12" 12							8			
								9			
								1			





CCD Spectr. Temp.  $-100.7^{\circ}\text{C}$  Dome Temp./Hum. .... Transparency Conditions *slightly hazy* ..... 116.

Focus ... *G:6.5* .....  
 Spectr. Temp. .... Dome Temp./Hum. *718.3°C 70%RH*

Exp. Mtr.	Seeing	<input checked="" type="checkbox"/> Mag	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800h 57.58	25A	589A	10			
380	2"	11						11		Faint close companion seen To SE at 2.5 sec exp 1119 Air mass	
								12			
340								10			
								11			
297	3"							12			
								13			
								1			
			7.32	KOUI		Alexe	0.50m slit			seeing test	V Light breeze/wind
12K										Telluric std	

117 p9 121

Sun/Mon

Emulsion Batches:

Date 1997 June 29/30 Observers  $\frac{H.B.}{B.}/\frac{A.H.}{I.A.}$ .....

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 465 <sup>77x</sup> / <sub>78</sub>	Inboard Mount Board		HARTMAN			0	+30°	FAr ND3	4/7
79/88	FLATS x 10							TUNG ND4	7s
89	BISCA)			2038					0
90	Comp							FAr ND3	4s
91	HD 177724	19 00 49	+13 42 53	20 44 08					99
92	Comp							"	4s
93	Comp							"	4s
94	HD 120315	13 43 30	+49 28 45	20 56 53					23
95	Comp							"	4s
96	Comp								4
97	HD 144579	16 01 30	+39 25 36	21 04 26					179
98	Comp								4
CG 81008/11	HD 144579	16 01 30	+39 25 36						4x 67ms
12/15	DARKS x			No Intensifier change needed,					4x 67ms
16/17	DARKS x2								2x 133
18/19	HD 144579								2x 133

C40

Spectr. T

Focus

Spectr. T

Exp. Mir

12K

12K

12K



Spectr. Temp. <sup>CD</sup> -10.5 °C

Dome Temp./Hum. 4.24 °C 57.0% H Transparency Conditions ... Hazy ..... 118

Focus 6.65

Spectr. Temp. ....

Dome Temp./Hum. .... 390 0 50 1029 A 1 CO<sub>2</sub> FT 2 MAX ADU

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				(BSCCD)	1800in 5258	250	5899A	3/4	Focus test		
								5			14.8K
								1			
								6			6K
12K								7	Telluric Std.		10K
								8			
								9			
12K		1.89	B32					10	for Telluric Std use		
								11			
								12			
1.7K								13	std vel		
								14			
	1.3	666	G8V		4300e	250u	slit		seeing test		

Pg #2 119 Sun/moon

Emulsion Batches:

Date 1997 JUNE 29/30 Observers {HIJ}/Br/Att/Tn.....

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 .....  
 .....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison	
								Type/Filter	Exp.
CC46599	Comp		1900					F <sub>0</sub> Ar ND 3	4s
600	HD 132561	14 54 42	52 20 00	21 20 14					1700
601	"	"	"	21 40 35					1213
602	Comp							"	4s
603	BIAS (4)			22 02 00					0
604	Comp		2000					"	4s
605	BD+48 2229	14 40 35	+48 05 30	22 06 29					1803
606	Comp							"	4s
607	Comp							"	4s
608	HD 238631	16 55 48	57 05 00	22 43 32					1800
609	Comp							"	4s
610	HD 238631	"	"	23 15 18					1808
611	Comp							"	4s
612	BIAS (4)			23 46					0
613	Comp							"	4s

Spectr. T.  
 Focus.  
 Spectr. T.

Exp. Mtr.

1000  
 1000/100

13K

1166

354

936

906

Spectr. Temp. .... Dome Temp./Hum.  $12.35^{\circ}\text{C}$  5768H Transparency Conditions *Hazy* ..... 120

Focus .... 6.65 .....

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

Exp. Mtr.	Seeing	<input checked="" type="checkbox"/> Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1000 no filter				CMS CCD	1900 5.58	250	58948	15			
1.3K	1.2"	8.96						16	HI Clad		
1166								17			
								18			
								19			
354	2"	11.07						20		$\Delta$ dec -00 01 00 Is this Right Star? (Probably OK) noted later	
								21			
								22			
936	2.3"	9.60						23		$\Delta$ dec +00 01 00 and OK.	
								24			
406	"	"						25			
								26			
								1			
								27			





CCO  
Spectr. Temp.  $-100.9^{\circ}\text{C}$

Dome Temp./Hum.  $+21.0^{\circ}\text{C}$  77.7% H

Transparency Conditions *Hazy* 122

Focus  $6.65$

Spectr. Temp. ....

Dome Temp./Hum. .... 22

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emission	P.H.	Program	Remarks	Quality
833	2'-3"	9.27		CASSIOPIA Tyrant →	1800H 51.58	25A	5894A	28	HI Cloud		
684	"	"						29			
								30			
		<del>9.15</del>						9			
650	"	9.45						10			
595	"	"						11			
								12			
								1			
								13			
346	"	11.03						14			
								15			
								16			
<del>264</del>	"	7.89						17		CLOUDY OVER	
								18			







125

Pyl Mon/Tues July 1

Date ... 1997 June 30 / Observers ... L. ... 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.
CC466 <sup>31/32</sup>	Inb / on board	HARTMANN						RA ND3	4/7
33	B/D S(4)			20 44					
34	Comp							"	4s
35	HD 1355 30	15 10 33	+42 32 38	20 47 34					182
36	Comp							"	4s
37	Comp							"	4s
38	FO Vir	13 29 47	<sup>2000</sup> 01 05 48	20 57 49					600
39	comp							"	4s
40	Comp							"	4s
41	HT Vir	13 46 07	+05 06 57	21 13 33					900
42	Comp								4s
43	Comp							"	4s
44	HD 1445 79	16 01 30	+39 24 00	21 36 40					556
45	Comp							"	4s
46	B/D S(4)			21 48					0

Exp. Mtr.

Focus...

Spectr. T.

Exp. Mtr.

10-4/100  
100C ✓

2K

2350

255

1.4K

CCD Spectr. Temp. -100.8°C

Dome Temp./Hum. 12.4°C 71.6% H

Transparency Conditions ... Partly cloudy ... 12.6

Focus 6.65

Spectr. Temp. ....

Dome Temp./Hum. ....

390 0 50 1024 41 CCD FWHM

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
100-1100 1000V				CASS CCD	47.06	306	5189A	1/4	focus test		~ MAX
								1			
								5			
2K	2"	6.13	M2 IIIa					6		PHOTOMETRIZATION STAR	1K
								7			
								8			
2380	2"	A7V	6.7					9	DRL		
								10			
								11			
2150	3"	7.16	EO					12	DRL		
								13			
								14			
1.7K	2.3"	6.86	G8V					15	std vel		
								16			
								1			



127

1942 Mon/Tues

Date June 30/July 1 Observers Lu/Tu

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison	
								Type/Filter	Exp.
CG 810 <sup>90/</sup> 23	HD 144579	16 01 30	+39 24 00					4x	67ms
24/27	DARKS x 4							4x	67ms
28/29	DARKS x 2							2x	133ms
30/31	HD 144579	"	"					2x	133ms
CC 46647	Comp							FEAR ND3	4s
48	HD 125111	14 12 20	40 12 30	21 56 43					420
49	comp							"	4s
50	comp							"	4s
51	HD 128167	14 30 20	+30 10 46	22 09 21					183
52	"	"	"	22 13 26					275
53	Comp							"	4s
54/	Comp flat							JUNG ND3	7s
60	<del>HD 167858 flat</del>			<del>22 25 58</del>					
61	BIAS (4)			22 36					
62	comp							FEAR 4	4s
63	HD 167858	18 12 00	00 58 16	22 45 02					960

Spectr. I

Focus

Spectr. I

Exp. Mtr

2190

5000

7100

2100

Spectr. Temp. <sup>CCD</sup> -100.7°C ..... Dome Temp./Hum. 122.6°C 71.6%  
 Transparency Conditions ... Very Hazy (20)  
 Focus ... 6.65 .....  
 Spectr. Temp. .... Dome Temp./Hum. ....  
 no wind at all

Exp. Mtr.	Seeing	Flx Mag	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
		666	G8V		Above	306 $\mu$	slit		Seeing test	ALT 85°	
									Pomo	WSW semi cloudy	
2190	2"	624	F2V	CASS CCD	1800 $\mu$ 4706	306 $\mu$	5/8A	17	"std" vel		
								18			
								19			
								20			
5000		4.45	F2V					21	"std" vel		3.5
7100								22			5.5 <del>5.5</del>
								23			
								24			
		6.48	F1V					25			
								1			
								25			
2100		6.48	F1V					26	"std" vel		

129 #3 Mon/Tues

Date 1997 June 30/July 1

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.
cc 4666f	comp							FeAr ND#3	4s
65	comp							"	
66	SV Egu	(2000) 20 57 19	05 48 52	23 37 58					1200
67	comp							"	4s
68	BIAS(4)			23 59					
69	comp							"	4s
70	HD 185395	19 33 46	49 59 22	00 22 25					319
71	"	"	"	00 28 29					375
72	Comp							"	4s
73	HD 187691 <sup>comp</sup>	<del>19 46 14</del>	<del>+10 09 55</del>	<del>00 47 31</del>				"	4s
74	HD 187691	19 46 14	+10 09 55	00 47 31					415
75	Comp							"	4s
76	Comp							"	4s
77	HD 186791	19 41 30	+10 22 10	00 59 55					102
78	Comp							"	4s
79/80	BIAS(4) x 2			01 03	/ 01 39				0

CCD  
Spectr. T.

Focus

Spectr. T.

Exp. Mtr

recap

12/1/97

514

6150

6400

4.4k

33H



CED  
Spectr. Temp.  $-100.7^{\circ}\text{C}$

Dome Temp./Hum.  $121.7^{\circ}\text{E}$  8002H

Transparency Conditions .. Very. Hazy. cloudy 130

Focus 6.65

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

Dome Temp./Hum.  $121.1^{\circ}\text{C}$  8202H

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1000 1000				CASS CCD	1800 lines 47-06	30 $\mu$	518A	27			
								28			
514	2"	9.0	A0					29	DRL	through clouds	
								30			
								1			
								5			
6150	23	4.48	F4V					6	std vel		4K
6400								7			
								8			
								10			
4.4K	2"	5.11	F8V					11	std vel		3.4K
								12			
								13			
9.3K	2.73	K30						14	std vel		
								15			
								1			

131 #1 Tues/Wed

Emulsion Batches:

Date 1997 July 1/2..... 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.
CC466 81/82	Inb /out Board		Haz. Contamin	Test				Film ND3	4/7
83	Bias(4)			2205					
84	Comp		2000					"	4s
85	NSV 7457	16 0602	+50 1112	22 10 56					900
86	Comp							"	4s
87	Comp							"	4s
88	FO Vir	13 29 47	+01 05 48	22 35 27					900
89	comp							"	4s
90	comp							"	4s
91	HI Vir	13 46 07	+05 06 57	22 54 25					918
92	Comp							"	4s
93	BIAS(4)			23 11					0
94	Comp							"	4s
95	DK Cyg	21 35 02	+34 35 42	23 17 04					960
96	<del>Comp</del>			23 33 32					1000
97	comp							"	4s

CCD

Spectr. Te

Focus

Spectr. Te

Exp. Mtr.

Coverage

1582

1582

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1582

CCD Spectr. Temp.  $-100.7^{\circ}\text{C}$  Dome Temp./Hum.  $+22.8^{\circ}\text{C}$  73.1% Transparency Conditions ... Partly cloudy ... 132

Focus ... 6.65 ... 90 gain as usual

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

Exp. Mir	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no filter				CCD Tyndall	1800 47.06	300	5284A	3/4	focus	unchanged	
								1			
								6			
258	2"	9.5	G0					7		clouds in	
								8			
								10			
1582	3-4"	6.7	A7					11			
								12			
								13			
1040	4"	7.16	G0					14			
								15			
								1			
								16			
240	1.2"	10.3	A6V					17			
250								18			
								19			



133#2

Date 1997 July 1/2 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.
CC46698	DK Cyg	21 35 02	<sup>2000</sup> 34 35 42	23 52 22					1028
89	Comp							FeA ND3	4s
700	DK Cyg	"	"	00 11 17					1000
01	comp							"	4s
02	BIAS (4)			00 29					0
03	Comp							"	
04	GSC 519800659	21 21 25	-03 09 35	00 36 04					900
05	comp							"	4s
06	Comp							"	7s
07	HD 187691	19 46 14	+10 09 55	01 01 07					271
08	Comp							"	4s
CG81032/35	HD 187120								4x 67
36/39	DARKS x4								4x 67
40/41	x2								2x 133
42/43	HD 187120								0x 133
CC46709	BIAS (4)			01 20					

LCD

Spectr. T

Focus

Spectr. T

Exp. Mtr.

250

250

316

AK



135  
#3

Tues/wed

Emulsion Batches:

Date 1997 July 1/2 Observers L4/J4

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison	
								Type/Filter	Exp.
CC46710	Comp							FEAR ND3	45
11	HD177724	19 00 49	+13 42 53	01 30 23					635
12	Comp							"	45
13	comp							"	45
14	HD167858	18 12 00	00 58 16	01 38 32					720
15	comp							"	45
16	Comp							"	45
17	HD185395	19 33 46	+19 59 22	01 55 23 <del>23 17 04</del>					1805
18	"	"	"	01 58 58					1805
19	Comp							"	45
20	Comp							"	45
21	CN Hnd	(2000) 00 20 30	40 13 36	02 06 09					900
22	"	"	"	02 23 34					900
23	comp							"	45
24	BIAS(4)			02 40					0

Spect. T.

Focus

Spect. T.

Exp. Mtr.

57K

2380

780

754

280

270



Spectr. Temp.  $-100.6^{\circ}\text{C}$ Dome Temp./Hum.  $170.5^{\circ}\text{C}$  8366HTransparency Conditions *Hazy* 136Focus  $6.65$ 

Spectr. Temp. ....

Dome Temp./Hum. ....

Exp. Mtr.	Seeing	$\frac{F\#}{Mag}$	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
						30a	5784A	10			
5.7K		299	80					11			
								12			
								13			
2380		648	FIV					14			
								15			
								16			
7.8K	2"	448	F+V					17			b3K
7.5K								18			
								19			
								20			
280	2"	100	FS					21			
270								22			
								23			
								1			









CCD Spectr. Temp.  $-101.1^{\circ}\text{C}$  ..... Dome Temp./Hum.  $+18.2^{\circ}\text{C}$  51.52H ..... Transparency Conditions *mostly clear* ..... 140  
 Focus ..... *6.73* .....  
 Spectr. Temp. .... Dome Temp./Hum. .... *ca* 390 0 50 1074 4 1 CCD FWH

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emission	P.H.	Program	Remarks	Quality
				CBS CCD	1900/16mm	25u	587AA	1			
								5/4	focus test		
								8			
12K		2.97	B0V					9		helix standard	6K
								10			
								11			
10K		1.89	B3V					12		"	7K
								13			
								14			
~172	3"	11.67	B-V 293					15			
								16			
147	"	"	"					17			
								18			
								1			
154	"	"	"					19			
								20			

141pg#2

Mon/Tues

Emulsion Batches:

Date ..1997. July. 7/8...

Observers E.H.S. and company. J.Ten

Plate No.	Object	R.A.	Declination	Starting Time	Ending Time	Hour Angle End	Declination	Comparison	
		<del>1900</del> 5000	1900	E.S.T.	E.S.T.			Type/Filter	Exp.
CC 46755	TYC 3476131	14 35 45	+49 10 03	23 03 59					1825
56	Comp							Felt ND3	4s
57	comp			23 41 29				"	4s
58	TYC 4193 691	16 42 31	+64 21 37	23 43 56					1802
59	Comp							"	4s
60	BINS (4)			00 16					0
61	TYC 4193 691	"	"	00 17 31					1800
62	comp							"	4s
63	comp							"	4s
64	TYC 4190 126	16 32 00	61 57 11	00 56 42					1800
65	comp							"	4s
66	TYC 4190 126	"	"	01 30 13					1807
67	COMP							"	4s
68 <sup>T</sup>	FLATS X10							TUNE #4	7s
78	BINS (4)			02 11					0



Spectr. Temp. .... Dome Temp./Hum. +1.1°C 56% H Transparency Conditions PART. Cloudy ..... 142

Focus ..... 6.73 .....

Spectr. Temp. .... Dome Temp./Hum. .... c) 390 0 50 1024 \* 1 CCD/MT

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
149	3"	11.67	B-V 0.293	CMOS CCD	1900Å 51.58	290	5894A	21	HI Clouds		
								22			
								23			
273	2.3"	11.4	B-V 0.182					24			
								25			
								1			
257	"	"	"					26			
								27			
								28			
216	"	11.38	B-V 0.181					29			
								30			
203	"	"	"					35		CLOUDY PART OF THE TIME	
								6			
								2			
								1			

143 p. 213

Date 1997 July 7/8 Observers H.I. p. 1. T. 1.

Emulsion Batches: .....

.....

.....

Plate No.	Object	R.A.		Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison	
		1900	2000						Type/Filter	Exp.
CC 467 79	Comp								FeAr ND3	45
80	TYC 4190 126	14 32 00	61 57 11		02 16 13					1804
81	Comp								"	45
82	TYC 4190 126	"	"		02 48 47					1804
83	Comp								"	45
84	Comp								"	45
85	HD 177224	19 00 49	13 42 53		03 24 38					575
86	"	"	"							775
87	Comp								"	45
88	BIAS 4									0
89	Comp								"	45
90	HD 120315	13 43 36	49 48 45		03 40 09					1485
91	Comp								"	45
92-98	FLATS x7								TUNG #4	75

Spectr. T

Focus

Spectr. 1

Exp. Mir.

No. of Exp.

263

224

2-400

24

1072

Spectr. Temp. ....

Dome Temp./Hum. ....

+134° 5862H

Transparency Conditions ...

P. &amp; J. C. Clauy

144

Focus ..... 6.77

Spectr. Temp. ....

Dome Temp./Hum. ....

Exp. Mtr.	Seeing	Magn.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1000 V no filter				CASECO	1800h 5158	20	5899A	8		Telosofo E <sub>9</sub> side	
263	2.5	11.38	B-V 0.181					9			
								10			
224	"	"	"					11			
								13			
								14			
1040		2.99	B <sub>0</sub> V					15	TELLURIC		
12K		"	"					15	"		
								16			
								1			
								18			
1072								19	Telluric	slid 4 152	
								20		HIR MUSS	
								22			



145  
Pg #1

Wed 1 THURS

Date 1997 July 9/10 Observers Miki, 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.
CC 46 <sup>99</sup> <del>800</del>	Inboard/out BOARD							FEAR ND4	4/7
801	BIAS(4)			20 50					0
802	Comp							FEAR ND4	4s
803	HD 177724	19 00 49	+13 42 53	20 52 31					37
804	"	"	"	20 54 49					33
805	Comp							"	4s
806	Comp							"	4s
807	HD 187691	19 46 14	+10 09 55	21 02 14					197
808	Comp								4s
809	BIAS (4)			20 07					0
810	Comp							"	4s
811	S92 NGC 6819	19 41 03	+40 11 00	21 16 33					1600
12	Comp							"	4s
13	S92	"	"	21 50 03					1803
14	Comp							"	4
15	BIAS (4)			22 22					0

CCD  
Spectr. T

Focus...

Spectr. T

Exp. Mir.

vs. F/No

6K

64K

143

1803

CCD  
Spectr. Temp. .... °C

Dome Temp./Hum. +17.0°C 64%RH

Transparency Conditions ... Fine ..... 146

Focus ..... 6.81 .....

Spectr. Temp. ....

Dome Temp./Hum. ....

390 0 50 1024 4 1 CCDFAST ~ 1104 MAX

Exp. Mtr. 150 K	Seeing	✓ Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no filter				CASS CCD Typical	1200 Mmm 41.96	306	6520A	3/4	focus test		
								1			
								5			12.9
~6K		2.99	B					6	Telluric std		6.9K
6.4K								7	" "		
								8			12.9
								9			
		5.11	F8V					10	std vel		10K
								11			
								1			
								12			
143*		2.3	15.1					13		* sky slightly bright still	
								14			
<del>150??</del>								15			
								16			
								1			

147  
pg 42

Emulsion Batches:

Date 1997 July 9/10... Observers MKi./Tc.....

Plate No.	Object	R.A.	Declination	Starting Time	Ending Time	Hour Angle	Declination	Comparison	
		1900 2000	1900	E.S.T.	E.S.T.	End	Type/Filter	Exp.	
CC46816	S92 NGC6819	19 41 03	+40 11 00	22 24 16					1804
17	Comp							FeAr NO4	4s
18	S92	"	"	22 57 36					1814
19	Comp							"	4s
20	S92	"	"	23 32 08					1838
21	Comp							"	4s
22	BIAS (4)			00 06					0
23	S92	"	"	00 06 59					1811
24	Comp							"	4s
25	S92	"	"	00 38 23					1804
26	Comp							"	4s
27	BIAS (4)			01 11					0
28	S92	"	"	01 13 12					1800
29	Comp							"	4s
30	S92	"	"	01 45 13					1804
31	Comp							"	4s

Spectr. Te

Focus

Spectr. re

Exp. Mtr

78.2

79.120

95

78

79

76

71

73



Spectr. Temp. .... Dome Temp./Hum.  $115.3^{\circ} \dots 71.02H$  Transparency Conditions *Fine* ..... 148

Focus ..... *6.81* .....

Spectr. Temp. .... Dome Temp./Hum.  $113.8^{\circ} \dots 76.72H$  ..... *~ MAX*

Exp. Mtr	Seeing	Pl <sup>u</sup> Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
<i>no film</i> 120	2"	151		CARS CCD	1206 41.96°	306 $\mu$	6520A	17			
								18			
95	2-3"							19			
								20			
78	2"							21			
								22			
								1			
79								23			
								24			
76	2"							25		Crossed meridian	
								26			
								1			
71	2-3"							28			
								29			
73								30			
								9			

149 p9#3

## Emulsion Batches:

Date ... 1997 July 9/10 ... Observers Miki, 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.
CC46832	BIAS(4)			0216					0
33	S92 NGC 6819	19 4103	<sup>2000</sup> +40 11 00	021816					1753
34	Comp							Kodak 1104	4s
35	S92 NGC 6819	"	"	024932					1811
36	Comp							"	4s
37	Comp							"	↑
38	HD 222 368	23 3448	+050503	03 2544					69
39	Comp							"	4
40	Comp							"	4
41	HD 1777 24	19 0049	+134253	03 <del>3331</del>					
42	Comp							"	4
43	BIAS(9)			0337					0
44/53	FLATS X 10							Kodak 1105	4s

Spectr. T.

Focus...  
Cap  
Spectr. T.

Exp. Nr.

1000  
1000  
1000

70

78

458X

6.7K

Spectr. Temp. ....

Dome Temp./Hum. ....

Transparency Conditions .. Fine .....

150

Focus ... 6.81 .....

Spectr. Temp. <sup>LED</sup> - 100.6 °C

Dome Temp./Hum. 13.4 °C 81.2%RH

Exp. Mir.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1000 20 fillee				CASCO				1			
70	2.3"	151			1200m 41.96	300	6520A	10			
								11			
78	2"							12			
								13			
								14			
4.8K		413	F7V					15	std vel		
								16			
								17			
6.7K		299	B0Vn					18	Telluric std.		
								19			
								1			
								2			10.5K



151 pg#1 Thues / FA1

Date ... 1997 July 10/11. Observers ... M.Si./Gld./Kar./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.
CC468	<sup>59/65</sup> Inb / out BOARD							EAR ND 3	4/7
56	Comp								
57	HD177724	19 00 49	+13 42 53	20 56 42					70
58	Comp								
59	<del>Star</del> Umu BIAS(4)								0
60	Comp								4
61	HD120315	13 43 36	+19 48 45	21 09 53					188
62	Comp							"	4s
63	Comp							"	4s
64	TYC 3480245	14 45 09	+52 09 54	21 16 22					1200
65	Comp							"	4s
66	TYC 3480245	"	"	21 38 17					1200
67	Comp							"	4s
68	TYC 3480245	"	"	22 00 16					1201
69	Comp								4s
70	BIAS(4)			22 21					

CCD Spectr. Temp.  $-100.5^{\circ}\text{C}$  Dome Temp./Hum.  $+20.0^{\circ}\text{C}$  6360 Transparency Conditions ..... mostly clear ..... 157

Focus ... 6.71 .....

Spectr. Temp. .... Dome Temp./Hum.  $+18.4^{\circ}\text{C}$  6012H

390 0 50 1029 41 CCD-MT

Exp. Mtr.	Seeing	P. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
107				CASS CCD	1800 In 51.58	200	5291A	5/4	Focus test		
								6		Telescope East side	
70	~10K	2.99	BOV					7		Reggie Telluric Standard	
								8			
0								1		$\Delta\alpha = -30^{\text{S}}$ $\Delta\delta = -1^{\text{h}} 27^{\text{m}}$	
								9			
5	~12K	1.89						10		Telluric Standard 430	
								11			
								12			
120	220	2 <sup>9</sup>	11.					13			
								14			
20	230							15			
								16			
20	190	2 <sup>4</sup>						17			
								18			
								1			





Spectr. Temp. .... Dome Temp./Hum. .... Transparency Conditions .. *Some clouds* ..... 154  
 Focus ..... 6.71 .....  
 Spectr. Temp. .... Dome Temp./Hum. *11.74°C 59.9% H* ..... 390 0.50 1024 9 1 CCD PMT

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
<i>no filter</i> 175				<i>C955 CCD</i>	<i>1800/4 57.58</i>	<i>250</i>	<i>589A</i>	19			
								20			
166		<i>11.49</i>						21		<i>Δ-000029</i> <i>AS-0001 21</i>	
								22			
								23			
210		<i>11.02</i>						24			
								25			
205								26			
								28			
								1			
								29			
176	<i>3"</i>	<i>11.16</i>						30			
								31			
								6			
252	<i>2"</i>							7			
								8			

R#3 Times / Fri  
155

Date 1997 July 19/11... Observers *mki./Tn./Gld./Kar*

Emulsion Batches:

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.....  
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Plate No.	Object	R.A.	Declination	Starting Time	Ending Time	Hour Angle End	Declination	Comparison	
		<del>1900</del> 2000	<del>1900</del>	E.S.T.	E.S.T.			Type/Filter	Exp.
CC96887	BD+64 1134	16 27 57	+63 57 41	01 03 23					1201
88	Comp							FeAr ND3	4s
89	BIAS(4)			01 25					0
90/99	FeArATS x 10							JUNK ND4	7s
900	Comp							FeAr ND5	4s
901	S 92 in NGC 6819	19 41 03	+46 11 00	01 57 50					1200
902	Comp							"	4s
903	S 92 NGC 6819	"	"	02 30 09					1076
904	Comp							"	4s
905	BIAS(4)			02 49					0
906	Comp								
907-910	MO 172167	18 33 33	+58 41 26						
911	Comp								4s
912	BIAS(4)			02 59					
913	Comp								4

Spectr. T  
Focus  
Spectr. T  
Exp. Mtr

246

100

114

5K

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

Transparency Conditions ..... 156

Focus ..... 6271 ..... 678 for 600m setup

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

Exp. Mtr.	Seeing	✓ Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
296	2"			CAS CCD Tgrating →	1800 h/line 51.58°	250	589A8	9		B at -00 00 35 6.5 -00 00 51	
								10			
								1			
								2			
				CAS CCD Tgrating →	600 h/line 25.15	470u	4100A	5		CCD FMT 440 050 1024 41	HK
100		15:1						6			
								7			
114	2.3"							9		guessed Some cloud	
								10			
								1			
			A					11			
~Sk			AOV					(2/13)		Vega ~ 10k max	
								17			
								1			
								28			



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Emulsion Batches:

Date 1997 July 10/11 Observers Mki./Cld./Tn.+Kar

Plate No.	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 4691A	HD 210027	22 0221	+24 5124	03 0617					203
15	"			03 1044					156
16	"			03 1500					63
17	Comp							FeAr ND 5	4s
18	Comp							"	4s
19	HD 211356	22 1121	+56 3241	03 2221				<del>FeAr</del>	<del>4s</del>
20	"	"	"	03 2428					78
21	Comp							"	4s
22	BIAS (A)			03 27					
23	Comp							"	4s
24	HD 193702	20 1838	+39 0516	03 3609					505
25	Comp							"	4
26/35	FLATS X	10						JUNE ND 2	75s
36	BIAS (A)							<hr/>	0

Spectr. Temp. .... Dome Temp./Hum.  $+16.2^{\circ}$   $60\%H$  Transparency Conditions ... *cloudy* ..... 1.58

Focus ..... 6.78 .....

Spectr. Temp. .... Dome Temp./Hum.  $+16.4^{\circ}$   $59\%H$  4 10 0 50 10 24

Exp. Mtr.	Secing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
4.3K		3.77	F5V	CNS	600 2515°	47a	A/1008	17	mk std		7.1K
10K								18			7.6K
11K								18			7.6K
								19			
								20			
11.7		4.19	F0V					21	mk std		
12K								21			7.7K
								22			
								1			
								23			
4.3		6.22	A1V					24	mk std??	multiple system	6.6
								25			
								2			11K
								1			

159 99#1

Tues/wed

Emulsion Batches:

Date 1997 July 15/16 Observers L. U. / J. 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.
CC 469 <sup>37/38</sup>	in board							FeAr NO.3	4/7
39	BIAS(4)								0
40	Comp							FeAr NO.3	4s
41	HD 144579	16 01 30	+39 24 00	20 48 28					347
42	comp							"	4
43	comp							"	4
44	FO Vrr	13 29 47	21 05 48	21 01 13					660
45	comp							"	4
46	"							"	4
47	HD 125485	14 19 38	+05 53 48	21 19 06					713
48	comp							"	4
49	AOS 9019B	edit ✓	"	"	21 33 43				1378
50	Comp	edit ✓	"	"				"	1378
51	HE Vrr	HD 125452	"	"	21 59 23			"	4
52	Comp							"	900
53	Bias(4)			22 16				"	4s

CCD  
Spectr. I.

Focus

Spectr. I.

Exp. Mir

1000/

1001/10

3600

4278

1854

477

477

1085



CCD  
Spectr. Temp.  $-100.8^{\circ}\text{C}$

Dome Temp./Hum.  $+25.0^{\circ}\text{C} . 64.8\%$

Transparency Conditions ... Fine ... some cloud 160

Focus  $6.69$

90c gain

Spectr. Temp. ....

Dome Temp./Hum. ....

390 0 50 1024 41 current 2 MAX

Exp. Mtr	Seeing	F <sub>0</sub> Mag	Sp.	Inst.	Gratings/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
notifier				CMS CCD Telescope	1500 l-in 47-06	306 $\mu$	5184A	3/4	focus test		
								1			
								5			
3600	2"	6.66	dG5					6	std vel		34K
								7			
								8			
4275	3"	6.7	A7V					9			38K
								10			
								11			
1850	3"	8.1	F2					12		Brighter of pair @ W SW of pair	
		8.1						13			
477		8.1						14		Faint one N E of pair	
477		9	K					15			
185		9	K					16		Star 4 arc mins SW of H $\alpha$	
								17		HD 125488	
								11			

161 p942 Tues/Wed

Date 1997 July 15/16 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.
CC46954	Comp		1900					RA NO 3	4s
55	HD187691	19 46 14	+10 09 55	22 21 16					157
56	Comp							"	4s
57	comp							"	4s
58	RZ Dra	18 23 06	58 54 18	22 45 57					1200
59	er	"	"	23 07 05					1700
60	comp							"	4s
61	BIAS(4)			23 28					
62	RZ Dra	"	"	23 30 13					1200
63	comp							"	
64	comp							"	
65	DK Cyg	21 35 02	34 35 42	00 00 16					1000
66	"	"	"	00 17 32					1000
67	comp							"	4s
68	BIAS(4)			00 36					0

Spectr. T.

Focus

Spectr. T.

Exp. Mtr.

7/1/1997

54K

427

478

425

274

289

Spectr. Temp. .... Dome Temp./Hum.  $+23.0^{\circ}\text{C}$  72/74 Transparency Conditions *Fine* ..... 162

Focus .... 6.69 .....

Spectr. Temp. .... Dome Temp./Hum. ....  $20$ 

Exp. Mtr.	Seeing	<input checked="" type="checkbox"/> Mag.	Sp.	Inst.	Grating/ Filt	Slit	Emulsion	P.H.	Program	Remarks	Quality
10 f1/102				CBS CCD	1800A 47.06	300	5184A	18			
54K		5.11	F8V					19	st/vel		7-6K
								20			
								21			
427		10.0	A5					22	DRL		
428		"	"					23			
								24			
								1			
425		"	"					25			
								26			
								27			
274	1-3'	10.3	A6V					28			
289								29			
								30			
								1			



163 #3

Date July 15/16, 97 Observers Lu/Tn

Emulsion Batches: .....

Plate No.	Object	R.A.	Declination	Starting Time	Ending Time	Hour Angle	Declination	Comparison	
		1900- 2000	1900-	E.S.T.	E.S.T.	End	Type/Filter	Exp.	
CC46969	DK Cyg	21 35 02	34 35 42	00 38 00					1000
70	"	"	"	00 55 13					1001
71	Comp							FeA ND3	45
72	DK Cyg	"	"	01 13 47					1073
73	"	"	"	01 32 05					1053
74	Comp							"	45
75	BHIS(4)			01 32					
76/82	FLATS x 7								
CC46983	Comp							FeA ND4	45
84	Cepheus X-4	21 39 30.6	+56 59 12.9	02 18 00					900
85	"	"	"	02 33 46					900
86	"	"	"	02 49 43					908
87	Comp							"	45
88	SKY	"	"	02 07 31					548
89	Cepheus x 4	"	"	03 19 38					1073
90	Comp			<del>03 40</del>				"	4

CCD Spectr. Temp.  $-100.5^{\circ}\text{C}$  Dome Temp./Hum.  $21.3^{\circ}\text{C}/78.7\%$  Transparency Conditions *fine* 164

Focus *6.9*

Spectr. Temp. Dome Temp./Hum.  $340\ 0\ 50\ 1024\ 4\ 1\ \text{CCDF}_{\text{max}} \sim \text{MAX}$

Exp. Mtr.	Seeing	P <sup>W</sup> Mag	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
330	2"-3"	10.3	ABV	CASS CCD	1800/ 47.06	306 $\mu$	5184	5	DRL		900
320								6			
								7			
331								29			
322								29			
								8			
								1			
								2			
					1200h 4196	306 $\mu$	6520A	1		CCDF <sub>max</sub> Same 390 050 1024 41	11K
42	<2"		14.2 B0? Be					5		H $\alpha$ em $\sim$ 50 $\mu$ by abae	
41								6		Background	
42								7		$\sim$ <200A FWHM @ H $\alpha$	
								8			
25								9	SKY	1 sec min N of cap X-4	
65								10			
								11			

165 p4#4

Tues/wed

Emulsion Batches:

Date 1997 July 15/16 Observers Lu./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.
CC469 91	B/H/S(4)			03 40					0
92	Comp							Feat 104	4s
93	HP 209833	22 0103	+28 2841	03 4436					162
94	Comp							v	4s
95	Comp							v	4s
96	HD 222368	23 3448	+05 0503	03 5125					76s
97	Comp							v	4s
98/	FLAIS X 7							JUNG 105	4s
<del>CC47004</del>									
CC47005	B/H/S(4)			03 57					

Spect. T.

Focus

CO

Spect. T.

Exp. Mtr.

38k

51k



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

Focus .... 6.69 .....  
 Spectr. Temp. .... -120.8°C ..... Dome Temp./Hum. .... 120.0°C 85.2%RH

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emission	P.H.	Program	Remarks	Quality
				CASS	1200L 4196	306	6520A	1			
								12			
3.8K	5.63	B9	U					13	Telluric Std.		4.6K
								14			
								15			
5.1K	4.13	FIV						16	std vel		
								17			
								2			
								1			

167

Wed / Thurs

Emulsion Batches:

Date 1947 July 16/17 ..... Observers Lu / 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.
CC46906/67	Inboard / outboard		HARTmann					FeAr ND3	4/7
08	BIAS(A)			20 37					
09	Comp							FeAr ND3	4s
10	HD144579	16 01 30	+ 39 24 00	20 46 44					100/
11	Comp							"	4s
12/18	FLATS x 7					0 22W	-19°	TUNG ND3	7s

Exp. Mtr.

Spectr.

Spectr.

Exp. Mtr.

Spectr.

Spectr.

9/89

CCD Spectr. Temp.  $-100.7^{\circ}\text{C}$  Dome Temp./Hum.  $26.2^{\circ}\text{C}$  6/21/84 Transparency Conditions *PART. Cloudy* 168

Focus  $6.65$

Spectr. Temp. Dome Temp./Hum. *CD* 390 0 50 1024 41 CLDFMT

Exp Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
<i>no filter</i>				<i>C455 CCD Tequating →</i>	<i>1900 nm 47.06</i>	<i>306</i>	<i>518A8</i>	<i>3/4</i>	<i>focus</i>		
								<i>1</i>			
								<i>14</i>			
<i>969</i>	<i>&lt; 2"</i>	<i>666</i>	<i>DG5</i>					<i>15</i>	<i>std vel</i>		
								<i>16</i>			
								<i>2</i>			<i>10K</i>



169 pg #1

THURS / FRI

Emulsion Batches:

Date . 1997 July 17/18.. Observers . A.H./C.S./B.R./T.A. {HI} 1997

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison	
								Type/Filter	Exp.
CC470 <sup>19</sup> / <sub>20</sub>	Inboard / Outboard							FeAr 1105	4/6
21	BIAS(4)			20 42					0
22	Comp							"	4s
23	HD151809	16 4436	+56 3300	20 5212					1200
24	"	"	"	20 1232					1200
25	"	"	"	21 3307					1200
26	Comp							"	4s
27	BIAS(4)			21 55					0
28	Comp							"	4s
29	TYC 3882 548	16 5024	+57 2518	22 0000					1600
30	"			22 3021					1800
31	Comp							"	4s
32	BIAS(4)			23 01					0
33	TYC 3882 548	"	"	23 0257				4s	1901
34	"	"	"	23 3459					1801
35	Comp							"	4

CO

Spectr. T

Focus

Spectr. T

Exp. Mir.

1200

1200

1685

1030

1582

424

400

418

365

Spectr. Temp.  $\overset{CCD}{-}$  °C

Dome Temp./Hum.  $+25.4^{\circ}C$  718H

Transparency Conditions *part cloudy* 170

Focus  $6.61$

*\* HAT WITH MASK in all night*

Spectr. Temp. ....

Dome Temp./Hum.  $+23.1^{\circ}C$  7808H

390 0 50 1624 4 1 CCD/FMT

Exp. Mtr.	Seeing	PV Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
<i>no filter</i>				CASS CCD	600/15 25/15	470 $\mu$	41009	3/4	focus		
								1			
								<del>11</del>		Telescope East side	1.3K
1685	2.3"	9.99	B-V -0.158					12		L100/1 S/H Sky still slightly bright	1.4K
1030	"	"	"					13		cloud	
1583								14			
								15			
								1			
								16		<i>1200 photons above the band</i>	
424	2"	12.04	B-V -0.121 153					17		DA -00 00 25 BS 100 00 21	
400								18			
								19			1.5K
								1			
418								20			
365	2.3"							21			
								22			





Spectr. Temp. .... Dome Temp./Hum. .... Transparency Conditions *Fine* ..... 172Focus *6.67* .....Spectr. Temp. .... Dome Temp./Hum. .... *\*\* Lug pup*

Exp. Mtr.	Seeing	H <sub>v</sub> Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CMS CCD	600/15 25/15	470 $\mu$	4100A	1			
								23			
825	447	10.92	B-V .067					24		Front comp close to SE seen,	
110	416	"	"					25			
20	376	3'-4"	"					26			
4								27			
0								1			
10	371	3.5"	"					28			
12	354	"	"					29			
100	353	"	"					30			
0								1			
								5			
100	313	12.04	B-V -0.121 0.02					6			
15	314	"	"					6			
								7			

173 #3

Thurs / Fri

Emulsion Batches:

Date . 1997 July 17/18... Observers {H.I.S. ppm... / 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.
CC470 52	COMP							Fe Ar No 5	4
57	HD 219 688	23 12 42	-9 43 42	03 44 49					86s
54	COMP							"	4
55	<del>HD 210 221</del>	<del>22 03 43</del>	<del>52 49 07</del>					"	4
56	HD 210 221	22 03 43	52 49 07	03 53 42					518s
57	Comp							"	4
58/61	FLATS x 10							TUNG No 2	314s
68	B/AS (4)			04 11					0

Spectr. T.

Focus...  
CCD  
Spectr. T.

Exp. Mtr.

3.7K

4.1K

\*\*\*

Spectr. Temp. .... Dome Temp./Hum. *+20.7°C ... 73.2%* Transparency Conditions ... *Part Cloudy* ..... *174*

Focus ..... *6.69* .....

<sup>CD</sup> Spectr. Temp. *-100.7°C* ..... Dome Temp./Hum. ....

Exp. Mtr.	Seeing	<sup>M</sup> Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				<i>CASS</i>	<i>600C</i>	<i>A70</i>	<i>4100A</i>	<i>8</i>			
				<i>CD</i>	<i>35150</i>						
<i>6.7K</i>	<i>4"</i>	<i>4.40</i>	<i>B5V</i>					<i>9</i>	<i>MR STD</i>		
								<i>10</i>			
								<i>11</i>			
<i>4.1K</i>	<i>4"</i>	<i>6.14</i>	<i>A31B</i>					<i>12</i>	<i>MR STD</i>		
								<i>13</i>			
								<i>2</i>			<i>11K</i>
								<i>1</i>			
<i>** HARTMANN Mask was in "OUT BOARD" position All nights</i>											



175P4#1

Fri/Sat

Gmo = Gabriela

Emulsion Batches:

Date 1997 July 18/19...

Observers

{HIS/mjs/Gmo...}

MAllen-Drahas

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison	
								Type/Filter	Exp.
cc47069	Comp				Hmask H	EQ		FeAr ND5	45
70/71	FLATS x 2				Hmask H			TUNG ND2	75
72/73	" "				Hmask	Outboard		"	145
74	HD142373	15 49 13	+42 43 53	20 28	"	"			47
75	HD142373	"	"		Hmask	Home			30s
76	Comp							FeAr ND5	45
77	BIAS (4)			20 36					0
78/79	Inboard / out board							FeAr ND3	4/7
80	Comp							"	45
81	HD 120315	13 43 36	+49 48 45						22
82	"	"	"						25
83	Comp							"	45
84	Comp							"	45
85	TYC 3476 57	14 33 39	+49 56 29	21 06 01					1300
86	Comp								45
87	BIAS(A)			21 30 40					0

Spectr. Temp. .... Dome Temp./Hum.  $+22.0^{\circ}\text{C}$  62-58% Transparency Conditions ..... 176

Focus ..... 6.69 .....

Spectr. Temp. .... Dome Temp./Hum. .... 390 0 50 102A 4 1 CCD/FMT

Exp. Mtr.	Seeing	F <sub>0</sub> Mag.	Sp.	Inst.	Grating/Filter	Slit	Emulsion	P.H.	Program	Remarks	Quality
					600nm 7515	42u	A100P	5		Tests to check	3K
								6		against last night's	
								6		ill faked "outboard	10K
53k			P85					7	Test	Observations,	5K <sup>2k</sup>
8/25k			P85					8			22K
								9			
								1			
					1800nm 51.58	25u	589AA	3/4	Focus		
								5			6K
		1.89	B3V					6			<del>5K</del>
11K								7			
								8			
								9			
256								10			
								11			
								1			

177 p4 #2 Fri/Sat

Emulsion Batches:

Date 1997 July 18/19... Observers S.I.S. Gabriel &amp; Marcia / Tu

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison	
								Type/Filter	Exp.
CC47088	Comp							REF ND3	4s
89	TYC 3860482	14 45 11	52 57 03	21 35 43					1800 220
90	Comp							"	4s
91	TYC 3860 482	"	"	22 08 30					1814 220
92	Comp							"	4s
93	BIHS(4)			~22 24 3					0
94/103	FLATS x 10							TUNG ND4	7s
104	Comp							REF ND3	4s
105	TYC 3476 118	14 37 14	49 23 47	22 53 06					1823 223
106	Comp							"	4s
107	TYC 3476 118	"	"	23 25 56					2069 227
108	Comp							"	4s
109	TYC 3476 118	"	"	50 02 51					1800 220
110	Comp							"	4s
111	BIHS(4)			00 34					



Spectr. Temp. .... Dome Temp./Hum.  $+19.9^{\circ}\text{C}$  6528H Transparency Conditions ... Fine ..... 178

Focus .... 6.69 .....

Spectr. Temp. .... Dome Temp./Hum.  $+17.6^{\circ}\text{C}$  6848H 390 0 50 1029 4 1 CCD FMT

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CHSSCO	1800 $\mu$ 51.58	20 $\mu$		12			
220	3.4"	11.76	B-V 0.29					13		$\Delta x = 0000$ 29 18 +000 39	
								14			
220								15			
								16			
								1			
								17			14.5K
								18			
243		11.6	B-V = 0.4					19			
								20			
287								21			
								22			
260	4"							23			
								24			
								1			

1179

Pg #3

Emulsion Batches:

Date ..1997.. July 18/19... Observers {H.I.} p.g.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.
cc47112	Comp							FeR ND3	4s
13	TYC 3478 761	14 29 43	<sup>2000</sup> +50 39 10	00 41 08				"	1800
14	Comp							"	4s
15	Comp							"	4s
16	TYC 3882 601	16 49 44	+57 07 28	01 17 17				"	1804
17	Comp							"	4s
18	TYC 3882 601	"	"	01 50 27				"	1800
19	Comp			02 27 55				"	4s
20	<del>TYC 3882 601</del>	"	"	02 27 55				"	0
21	Comp			03 16				"	4s
22	TYC 3882 601	16 49 44	+57 07 28	03 20 14				"	1800
23	Comp							"	4s
24	Comp							"	4s
25	MD1 77724	19 00 49	+13 42 53	03 54 55				"	94
26	"	"	"	03 57 08				"	103

Spectr. Temp. .... Dome Temp./Hum. .... Transparency Conditions *Fine, But with 180*  
 Focus *6.69* ..... *Full moon*  
 Spectr. Temp. .... Dome Temp./Hum. *+13.5°C 66.0%RH*

Exp. Mtr	Seeing	F <sub>v</sub> Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				<i>C455 CCD</i>	<i>1800/nm</i>	<i>250</i>	<i>5894H</i>	<i>250</i>			
<i>321</i>		<i>111</i>	<i>B-V</i> <i>.13</i>		<i>51.58</i>			<i>26</i>		<i>~ 100 ADU above background,</i>	
								<i>27</i>			
								<i>5</i>			
<i>310</i>		<i>109</i>	<i>B-V</i> <i>.07</i>					<i>6</i>			
								<i>7</i>			
<i>320</i>		"	"					<i>8</i>		<i>↓ Noise ???</i> <i>ADU - <del>from</del> CCD warming up</i> <i>Must Have forgotten to top up of sanddown.</i>	
								<i>9</i>			
		"	"					<i>10</i>			
								<i>10</i>			
								<i>11</i>			
<i>362</i>	<i>5"</i>		"					<i>12</i>			
								<i>13</i>			
	<i>5"</i>	<i>299</i>	<i>B0V</i>					<i>14</i>			<i>515K</i>
								<i>15</i>			







183 SAT/Sun 2 Large TOURS 1st Half of night M13 viewed  
 pg #1

Date 1997 July 19/20 Observers {H. I. J. p.m. / K. R. / Br. / J. J.

Emulsion Batches:

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

Plate No.	Object	R. A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CC 4713 <sup>9/20</sup>	Inboard/outboard							F4 ND3	4/7
38	BIAS(4)			22 50					0
41	Comp							"	4s
42	HD 120315	13 4336	+49 48 45	22 47 51					29s
43	Comp							"	4s
44	Comp							"	4s
45	TYC 3882601	16 4944	<sup>2000</sup> 57 07 28	22 5802					1818
46	Comp							"	4s
47	Comp							"	4s
48	TYC 3478761	14 2948	<sup>2000</sup> +50 39 10	23 4941					1800
49	Comp							"	4s
50	TYC 3478761	"	"	00 22 21					1818
51	Comp							"	4s
52	BIAS(4)			00 54					0
53	Comp							"	4s

CCD  
 Spectr. T.  
 Focus  
 Spectr. T.  
 Exp. Mtr.

11K

373

390

353



CCD  
 Spectr. Temp.  $\sim 100.7^{\circ}\text{C}$  ... Dome Temp./Hum.  $+14.3^{\circ}\text{C}$   $66\% \text{RH}$  Transparency Conditions ... Thin cloud ..... 184  
 Focus ..... 6.75 .....  
 Spectr. Temp. .... Dome Temp./Hum. .... 28 390 0 50 1024 41 CCOFMT

Exp. Mtr.	Seeing	PV Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASSCO	1800	250	5894A	3/4			
								1		Telescope East Side	
								7			
	$\sim 11K$	$3.4^{\circ}$	1.89	B3V				8	Telluric Std		$\sim 5K$
								9			
								10			
	373	$3.4^{\circ}$	10.9	B-V				11			
				.07				12			
								13			
	390	$3.4^{\circ}$	11.1	B-V				14		$\Delta t$ 00 00 34	
				.13				15		$\Delta t$ 00 00 02	
								16			
	353							17			
								1			
								18			

185 p4 #2

Emulsion Batches:

Date 1997 July 19/20... Observers F.H.S. / K.A.R. / B.C. / J.M....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison		Exp. Mr.
								Type/Filter	Exp.	
CC47154	TYC 4194 218	16 4944	+640417	01 05 23					1804	298
55	Comp							FeA ND 3	4s	
56	TYC 4194 218	"	"	01 37 36						
57	Comp							"	4s	
58	TYC 4194 218	"	"	02 09 55					1808	290
59	Comp							"	4s	
60	BIAS (4)			02 41					0	
61	Comp							"	4s	
62	TYC 4193 112	16 27 57	63 57 40	02 46 10					1508	300
63	Comp							"	4s	
64	TYC 4193 112			03 12 51					1500	297
65	Comp							"	4s	
66	Comp							"	4s	
67	HD 177724	19 00 49	+13 42 53	03 43 07					235	297
68	HD 177724			03 47 44					220	185

Spectr. Temp. .... Dome Temp./Hum. *14.2°C 66.5% H* Transparency Conditions *Final* ..... 186Focus ..... *6.75* .....

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

Exp. Mtr.	Seeing	Pl <sup>✓</sup> Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
298	3"	11.4	B-V .12	CASSCO	1800h 51-58°	250 <sub>u</sub>	589AA	19			
								20			
								21			
								22			
290								23			
								24			
								1			
								25			
300	3"	11.4	B-V 104					26			
								27			
307								28			
								29			
								5			
17.7								6	Telluric Std.		10K
13.5								7			9K



187 p<sub>3</sub> ) SAT/SUN

Date ... 1947 ... July 19/20 Observers ... H.I. ppm .....

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.
647169	Comp							FeAr ND3	75
	90/79 FLATS x 10							TUNG ND4	7
	80 B115 (4)			0356					
Cloudy Night Tests sun/moon Tu									
	July 20/21	Grating Zeroth ORDER projection position determination							
Not written		CCD FMT for Y centering info			390 0 50 1024 41	+ND102	FeAr ND5	1 sec	
					455 0 50 1024 41	"	FeAr ND5	1 sec	
	600J grating is a tight fit in Grating mount				385 0 50 1024 41	"	FeAr ND3	1 sec	
					280 0 50 1024 41	"	"	"	
					390 0 50 1024 41	"	"	"	
					405 0 50 1024 41	"	"	"	

Spectr. Temp. ....

Dome Temp./Hum. ....

Transparency Conditions .. *Part Cloudy* ..... 188Focus .. *6.75* .....

Spectr. Temp. ....

Dome Temp./Hum. *+130°C 73.2%RH*

Exp. Mtr.	Seeing	Pg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
					<i>1800 51.58</i>	<i>25u</i>	<i>5894A</i>				
										<i>Zeroth order Row 762 for 18° grating</i>	
										<i>" " 678 for 17.90 "</i>	
										<i>∴ for 512 → 17.70</i>	
										<i>Zero order image position</i>	
<i>Tests,</i>					<i>(F grating)</i>						
<i>Bit 10 scale is:</i>	<i>1/100 sec</i>				<i>1800 l/min</i>	<i>25u</i>	<i>T grating</i>	<i>17.722 → 17.723</i>		<i>exactly on Row 512 ± 1 pixel</i>	
<i>"</i>	<i>"</i>			<i>Scale type</i>	<i>600C</i>	<i>25u</i>	<i>"</i>	<i>17.723</i>		<i>exactly on Row 511</i>	
<i>"</i>	<i>"</i>				<i>600D</i>	<i>"</i>	<i>"</i>	<i>17.801</i>		<i>exactly on Row 511</i>	
<i>"</i>	<i>"</i>			<i>D grating</i>	<i>831 l/min</i>	<i>"</i>	<i>"</i>	<i>17.757</i>		<i>" " Row 512</i>	
<i>"</i>	<i>"</i>			<i>A grating</i>	<i>150 l/min</i>	<i>"</i>	<i>"</i>	<i>17.757</i>	<i>unchanged</i>	<i>" " 511</i>	
<i>"</i>	<i>"</i>			<i>E grating</i>	<i>1200 l/min</i>			<i>17.733</i>		<i>" " 511</i>	



189A1

Mon/Tues

Date 1997 July 21/22

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.
CC47181/2	Inboard/outboard								
83	Bras (4)			21 16					
84	comp		(2000)					FeAr #3	4s
85	FO Vir	13 29 47	01 05 48	21 19 09					920
86	comp							"	4s
87	comp		2000					"	4s
88	HT Vir	13 46 07	05 06 57	21 41 52					900
89	comp							"	4s
90	<del>HD 136202</del> comp		1900					"	4
91	HD 136202	15 14 12	02 48 37	22 05 32					185
92	comp							"	4
93/99	FLATS x 7							JUNG NO3	7s
CC47200	B/AS(4)			22 18 10					0
01	Comp		2000					FeAr NO3	4s
02	T2 Lyr	18 15 50	41 06 42	22 40 25					1200
03	comp							er	4s

CCD

Spectr. T

Focus...

Spectr. T

Exp. Mtr.

1660

1650

4840

310



CCD  
 Spectr. Temp. ... 100.5 °C    Dome Temp./Hum. ... 16.9/83.6%    Transparency Conditions ... cloudy ... 190  
 Focus ... 6.75 .....  
 Spectr. Temp. ....    Dome Temp./Hum. ....

Exp. Mtr.	Seeing	<input checked="" type="checkbox"/> Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800/mm	3.06 μ	5184	3/4			
								1			
								5			
1660		6.7	A7					6			
								7			
								8			
1650	4"	7.16	G0					9			
								10			
								11			
4840		5.06	F8II-2					12	std ver		
								13			
								14			10K
								1			
								15			
310	2-3	10.4	F5					16		Brighter south end of close pair	

191 P4#2 Mon/Tues

Date 1997 July 21/22 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.
CG81044/47	HD 176844	185703	+03736					4x	67ms
48/51	DARKS x 4							4x	67ms
52/53	DARKS x 2							2x	133ms
54/55	HD 176844 x 2							2x	133ms
CC47204	Comp	2000						RA 403	4s
05	CN And	00 20 30	+01336	01 22 03					900
06	"	"	"	01 37 59					900
07	comp							"	4s
08	BIAS(4)			01 54					
09	CN And	"	"	01 56 13					900
10	"	"	"	02 11 40					900
11	comp							"	4s
12	CN And	"	"	02 28 35					901
13	"	"	"	02 44 17					900
14	comp							"	4s
15	BIAS(4)			03 01					

Spect. T

Focus

Spect. I

Exp. Mir

12.6  
000 V

536

550

590

638

645

663

Spectr. Temp. .... Dome Temp./Hum. *7.16.3.2 85.62H* Transparency Conditions *Partly Cloudy* ..... 192  
 Focus ..... *6.75* .....  
 Spectr. Temp. .... Dome Temp./Hum. ....

Exp. Mtr.	Seeing	<input checked="" type="checkbox"/> Mag	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
						<i>ARAR 306 slit</i>				<i>Seeing Tests</i>	
										<i>Wen Lu did this set while Tom was watching.</i>	
<i>No filter</i> <i>1000 V</i>				<i>CASS CCD</i>	<i>1800km</i> <i>4706</i>	<i>306</i>	<i>518A11</i>	<i>17</i>			
<i>536</i>	<i>2"</i>	<i>10.0</i>	<i>F5</i>					<i>18</i>			
<i>550</i>	"	"	"					<i>19</i>			
								<i>20</i>			
								<i>1</i>			
<i>590</i>	"	"	"					<i>21</i>			
<i>638</i>	"	"	"					<i>22</i>			
								<i>23</i>			
<i>645</i>	"	"	"					<i>23</i>			
<i>663</i>	"	"	"					<i>24</i>			
								<i>25</i>			
								<i>1</i>			



193  
#3

Date 1997 July 21/22

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.
cc47216	CN And	00 20 30	40 13 36	03 03 34					900
17	"	"	"	03 19 16					900
18	comp							FeAr ND#3	4s
19	CN And	"	"	03 37 02					900
20	comp							"	
21	comp							"	4s
22	HD 222368	23 34 48	+05 05 03	03 58 06					95s
23	comp							"	4s
24	BIAS(4)			04 01					0

Spectr. T

Focus

Spectr. I

Exp. Mir.

66s

660

67s

7K

Spectr. Temp. .... Dome Temp./Hum.  $15.9^{\circ}\text{C}$  86.9%<sup>H</sup> Transparency Conditions ... Hazy slightly ..... 194

Focus ..... 6.75 .....

Spectr. Temp. .... Dome Temp./Hum.  $15.3^{\circ}\text{C}$  .....

390 050 1024 41 CCD/FIT

Exp. Mtr.	Seeing	Pig. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
665	2"	19.0	FS	CASS CCD	1800 <sup>nm</sup> /mm	306 <sub>u</sub>	5184	26			
660	"	"	"					24			
								27			
672	"	"	"					26			
								28			
								29			
7K		9.13	F7V					30	std/vel		GK
								31			
								1			

195 pg#1

Sun 1 moon

Emulsion Batches:

Date 1997 July 27/28 Observers E. V. S. S. / T. G. / L. 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.
CC47225/26	Inboard / outboard		HURTMAN					KMC ND5	4/3
27	B/H5(4)			20 49					
28	Comp		1900					"	3s
29	HD 11 9850	13 40 36	H152700	20 55 42					961
30	Comp							"	2s
31	Comp							"	2s
32	BD-02 2892	14 01 03	2000 -23912	21 24 32					549
33	Comp							"	2s
34	Comp							"	2s
35	Vys 887B	16 55 00	1900 for HD +7 30 00	21 45 23					1867
36	Comp							"	2s
37	VYS 887A	"	"	22 19 25					129A
38	Comp							"	2s
39	VYS 887B	"	"	22 44 03					1408
40	Comp							"	2s
41	B/H5(4)			23 10					



Spectr. Temp. <sup>CCD</sup> - 100.8 °C

Dome Temp./Hum. +23.2°C 77.9% H

Transparency Conditions ... some cloud ... 196

Focus ... 6.46

Spectr. Temp. ....

Dome Temp./Hum. +21.6°C 81.6% H

390 0 50 1024 4 1 CCD FMT

Exp. Mtr.	Seeing	Mag	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
No filter				CASS CCD Tyrating →	18004/mm 47-75	306	S2788 F1A	3/4 1			
								5			5K
1-4K	2"	8.48	M1					6	Vys 308	Mercury std vel	
								7			10K
								8			10K
192	2.3"	9.73	M0					9	Vys 705	✓	
								10			
								11			
500	1.2"	11.2	K8					12	Vys 887B	✓ ENE faint + close companion Too cloudy	
								13			
	1.3"	~9	~K8					14	Vys 887A	Bright companion - 1 colored	
								12			
354	1.2"	11.2	K8					12	Vys 887B	clear now	
								15			
								1			

197  
#2

Sun / Mon

Date 1997 July 27/28 Observers {Vys} / Tn / Lu

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.
CC47242/As	Comp							FeNe ND5	2
43	Vys 840 AB	22 18 56	31 57 15	23 21 01					1800
44	comp							"	2
45	comp							"	2
46	HD <del>186799</del>	<sup>1900</sup> 19 41 30 <del>22 51 48</del>	<sup>1900</sup> +10 22 10 <del>16 02 00</del>	00 35 34 <del>00 01 45</del>					230 <del>150</del>
47	Comp							"	2
46	B/A 5(A)			06 41 44					0
49/57	FLATS x 9					01 10W + 10°		TUNG ND3	7s
58	Comp							FeNe ND5	2s
59	HD 216 899	<sup>1900</sup> 22 51 48	+10 02 00	00 57 33					403
60	comp							"	2s

C-P  
Spectr. Te

Focus

Spectr. I

Exp. Mtr.

1/6 F/16

402

5K

130

CD  
Spectr. Temp.  $-1.00, 8^{\circ}\text{C}$

Dome Temp./Hum.  $+21.5^{\circ}\text{C}/82^{\circ}$

Transparency Conditions *Part. Cloudy* 198

Focus *8.16*

Spectr. Temp. ....

Dome Temp./Hum.  $+21.0^{\circ}\text{C}/84.5\text{RH}$

*mix*

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
<i>No filter</i>				<i>CASS ECO</i>	<i>1800<math>\lambda</math> 47.25</i>	<i>36<math>\mu</math></i>	<i>5298</i>	<i>16</i>			
<i>402</i>		<i>10.7</i>	<i>M0<sub>e</sub></i>					<i>17</i>	<i>✓</i>	<i>not well separated. cloudy in</i>	
								<i>18</i>			
								<i>19</i>			
<i>5K</i>		<i>2.72</i>	<i>K3 II</i>					<i>20</i>	<i>std vel</i>	<i>cloudy</i>	<i>→ 5K</i>
								<i>22</i>			
								<i>1</i>			
								<i>2</i>			<i>127K</i>
								<i>23</i>			
<i>120</i>	<i>3'</i>	<i>8.66</i>	<i>M2</i>					<i>20</i>	<i>magy std</i>	<i>Δ RA error -00004 should be +000003</i>	
								<i>24</i>			



199  
Pg#1 Mon/Tues

Emulsion Batches:

Date 1997 July 28/29 Observers KK/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.
CF01715	test flat								30sec
1716	bias								
1717	Hartmann (n (rr. switch))							FeNe	2sec
1718	Out							"	.
1719	Comparison							FeNe/5	2sec
1720	standard flat (but with both lamps)							ruby 1	45sec
<p>↓ 72 Note that these should be CF series <del>Aluminum</del> To be edited to CF later <u>Done</u></p>									
CF01719	BIAS(4)			20 25					0
20	Comp		1900					FeNe NO5	2sec
21	HD186791	19430	+102210	20 3356					348
22	"	"	"	20 4130					489
23	Comp							"	25
24	HD187691	194614	+100955	20 5944					3574
25	Comp							"	25
26	BIAS(4)			22 01					0

Spectr. T  
Focus...  
Spectr.  
Exp. Mtr.  
We did  
JUST CAS  
37K  
50K  
37K





201 A#2

Mon/Tues

Emulsion Batches:

Date 1997 July 28/29 Observers [KK]/WHL/TG

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison		
								Type/Filter	Exp.	
CF01727	HD187691	19 46 1A	10 09 55	22 05 59					3742	
28	Comp							FeNe NDS	2s	
29	HD187691	.	"	23 11 46	23 11 46				3600	
30	comp							"	2s	
31	BIAS (4)			00 14					0	
32	HD187691	19 41 30	+10 22 10	00 20 17					519	
33	HD187691	19 46 14	10 09 55	00 34 36					4075	
34	Comp							"	2s	
35	BIAS (4)			01 46					0	
36	HD187691	19 46 14	+10 09 55	01 49 52					3931	
37	Comp							"	2s	
38	HD187691	"	"	02 58 30					3883	
39	Comp							"	2s	
46	BIAS (4)			04 05					0	
40/45	FLATS x 6							TUNG ND1	455	
				Both sources appear on						

Spectr. T

Focus

Exp. Mr

Exp. Mr

51K

37K

29 2K

33 3K



Spectr. Temp. .... Dome Temp./Hum.  $+19.8^{\circ}\text{C}$  66%RH Transparency Conditions *Some cloud* 202

Focus .....  $0.238$  Note IIS + J7E in WARM ROOM.

Spectr. Temp. *CCD*  $10.1$  *shaking IT<sub>2</sub> since 1/2 in instrument room* Dome Temp./Hum.  $+19.9^{\circ}\text{C}$  67%RH 0 0 512 1024 21 CCDFAST

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ X Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
37K	4.5"	5.11	F8V	<i>etelle</i> 18.00	800 $\mu\text{m}$ .5745	<i>Fiberopt</i>	6300A	1c;			
								2c;		45000 e <sup>-</sup>	13K
37K								4			
								2			
								1			
51K	2.5"	272	K3II					3		extracted mode = 60000 e <sup>-</sup>	
37K	2.5"	5.11	F8V					4		= 55000 e <sup>-</sup>	
								3c;			
								1			
29.2K								4			
								3			12.9K
23.3K	4.5"							4		At west Limit,	
								3			
								1			
								2			5K

203

Tues/wed

Emulsion Batches:

Date ..... 1997 July 29/30 Observers ... K.K. / T.G. ....

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison	
								Type/Filter	Exp.
CF01748	BIAS(4)			2032					0
49	Comp							Fene ND5	2
50	HD183912	192641	+274458	204504					730
51	<del>Comp</del>	"	"	<del>205330</del>					<del>840</del>
52	Comp							Fene ND5	2s
53	HD183912	"	"	212240					856
54	FLAT			Both sources				JUG ND1	45s
55	Comp							Fene ND5	2s
56	HD186791	194130	+102210	214638					1037
57	Comp							"	2s
58	HD187691	194614	+100955	221018					368
59	Comp							"	2s
60	BIAS(4)			2314					0
61	HD186791	194130	+102210	231955					640
62	Comp							"	2s

Spectr. T

Focus

Spectr. I

Exp. Mir

JUST

CASS EXP

60K

72K

78K

117K

96K

76K



Spectr. Temp. set to  $\rightarrow -100^{\circ}\text{C}$  Dome Temp./Hum.  $119.1^{\circ}\text{C}$  51.48H Transparency Conditions Fine 204

Focus .....

Spectr. Temp. ....

Dome Temp./Hum.  $116.7^{\circ}\text{C}$  61.28H 90 c/gain  
 0 0 512 1024 21 000000

Exp. Mtr.	Seeing	HP Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
0				Echelle F300/Fel	300/1.5 .5820	F.600 Head	6300A	1	$\rightarrow$ changed	From last night in setup and CD	MAX A04
					18.60			3			
60K	2"	3.24	K5D?+B?					2		$\sim$ 500 ABOVE BIAS	
<del>72K</del>				went to check HEATMANN mask				<del>2</del>		stellar lost.	
				SHARE MAX 95 CFO1749				3		After checking HEATMANN mask switches both depressed	
78K	2-3"	3.24	K5II+8					2		$\sim$ 700 ABOVE	
								4			37K
								3			
117K	23	272	K3II					4			1.3K
								3			78K
46K	2-3"	511	F8V					4		seeing getting poor	$\sim$ 500/1004
								3			8.3K
								1			
88K		272	K3II					2			
								3			



205A1

Tues/Wed

Date 1997 Aug 5/6

Observers ~~HRS~~/Lm/Tn/Ces/Vnk/Pvr

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-47261	BIAS (4)								0
62/63	Inboard Filter / OUTBOARD							FEAR NDS	4/6
64	Comp							"	4c
65	BD+64 1134	16 27 57	63 57 41	21 06 45					1800
66	"	"	"	(21 38 00)	21 51 58				840
67	comp							"	4s
68	BIAS (4)								0
69	BD+64 1134	"	"	22 02 51					1800
70	"	"	"	22 33 20					1800
71	Comp							"	4
72	BIAS (4)			23 05					0
73	Comp							"	4
74	TYC 419421881	16 49 45	64 07 17	23 10 46					1800
75	"	"	"	23 41 24					1823
76	Comp							"	4

Exp. Mtr.

Spectr. T.

Spectr. T.

Exp. Mtr.

512

354(2)

506

484

417

430

Spectr. Temp. ... 100.8° C.

Dome Temp./Hum. ... 16°/61.40%

Transparency Conditions ... fine ... 206.

Focus ... 6.80

Spectr. Temp. ....

Dome Temp./Hum. ....

410 0 50 1024 4 1 CCDPMT

Exp. Mtr.	Seeing	Pig. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASCOO	600 lines 25:15	470	* 4080A	1		* probably same exact centering as July 17/97	
								3/4	focus test		
								5			3.4
512		11.36	B-V 0.044					6			
350(?)		"	"					7			
								8			
								1			
506		"	"					9			
484		"	"					10			
								11			
								1			
								12			
417		11.14	B-V 0.121					13			
430		"	"					14			
								15			

#2 207

Date 1997 Aug 5/6

Tues/Wed

Observers

{HI? / Lu / Tr / Cas / Nnk / Prr

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.
CC47277	BIAS(4)		2000	00 13					0
78	TYC419421881	16 49 45	64 07 17	00 15 15					1800
79	"	"	"	00 45 54					1800
80	comp							FeAr ND5	4
81	BIAS(4)			01 18					0
82	comp							"	4
83	TYC419012631	16 32 00	61 57 11	01 23 31					1800
84	"	"	"	01 54 05					1810
85	comp							"	4
86	BIAS(4)			02 26					
87	TYC419012631	"	"	02 27 28					1800
88	comp							"	4s
89	TYC419012631	"	"	03 01 11					1800
90	comp							"	4s
91	BIAS(4)			03 33					0

LCO

Spectr. T

Focus

Spectr. T

Exp. Mir.

382

367

383

394

364

351



LEO  
Spectr. Temp.  $-100.8^{\circ}\text{C}$ Dome Temp./Hum.  $14.1^{\circ}\text{C}/64.5\%$ Transparency Conditions *fine* 208Focus  $6.80$ 

Spectr. Temp. ....

Dome Temp./Hum. ....

Exp. Mtr.	Seeing	<input checked="" type="checkbox"/> Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CDSS CCD	600 25.15	47 $\mu$	4080	1			
382	4.5	11.14	B-V 0.121					16			
367								17			
								18			
								1			
			B-V 0.181					19			
383		11.38	$\downarrow$					20			
394								21		some clouds	
								22			
								1			
364								23			
								24			
351								25			
								26			
								1			

#3 209

Tues/Wed

Date ... 1997.. Aug 5/6.. Observers {H.I.S./Cas/And.T.n.} <sup>↓ SURG</sup>

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.
CC47292	Comp							FeAr ND5	4s
CC47293	HD 170073	18 22 27	58 44 34	03 41 55					174
CC47294	Comp							FeAr	4s
CG81054/55									
<del>CC47295</del>	HD 6314	0 58 59	39 27 18					4x	.067
59/61	DARKS							3x	.067
62/63	"							2x	.133
64/65	HD 6314							20	.133
CC47295	Comp							FeAr	4s
CC47296	AD 210027	22 02 21	24 51 24	04 13 28					53s
97	Comp							"	4s
98	Comp							"	4s
99	HD 11636	01 49 07	+20 19 09	04 20 17					653
300	Comp							"	4s
301/307	flat							Tung ND #3	5s
308	BIAS(4)				04 32				

Spectr. T

Focus

Spectr. I

Exp. Mr.

62K

6400

6300

Spectr. Temp. .... Dome Temp./Hum. .... Transparency Conditions ... *Some Cloud* ... 210

Focus .....

Spectr. Temp. ....

Dome Temp./Hum. *41.2°C 64.5%RH*

*Light NNW winds*

Exp. Mtr.	Seeing	<input checked="" type="checkbox"/> P. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
					<i>600/40m</i>	<i>470a</i>	<i>4080</i>	<i>27</i>			
<i>6.2K</i>	<i>5"</i>	<i>499</i>	<i>A1 V</i>					<i>28</i>	<i>Mk Standard</i>	<i>AKA b Dra</i>	<i>MAX ~ 6.6</i>
								<i>29</i>			
					<i>ABOVE 470a</i>	<i>SLIT</i>			<i>Seeing Test</i>	<i>Seeing Test</i>	
					<i>No change of window OR Integrator Level</i>						
					<i>was Lu did this set, with Tu advising.</i>						
								<i>6</i>			
<i>8,400</i>			<i>3.77</i>	<i>F5 I</i>				<i>6</i>	<i>Mk Standard</i>	<i>AKA <del>(A)</del> (A) i Peg</i>	<i>MAX 10 K</i>
								<i>7</i>			
								<i>8</i>			
<i>8,200</i>			<i>2.64</i>	<i>A5 V</i>				<i>9</i>	<i>Mk Standard</i>	<i>AKA <math>\beta</math> Ari</i>	
								<i>10</i>			
								<i>2</i>			
								<i>1</i>			



211  
Pg #1 Waltham

Date 1997 Aug 6/7

Observers Hnd/Tn/Vnk/Lu (SHIS)

Emulsion Batches:

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Plate No.	Object	R.A.		Declination		Starting Time		Ending Time		Hour Angle End	Declination	Comparison	
		1900	1900	1900	1900	E.S.T.	E.S.T.	Type/Filter	Exp.				
CC47309/0	Inboard/Outboard											FeAr	8s
11	Bias(4)											NDS	0
12	comp											FeAr	4s
13	HD 128299		14 <sup>h</sup> 01 <sup>m</sup> 49 <sup>s</sup>		64°51'14"		20:30:55					NDS	36s
14	comp "		"		"		20:32:08						30s
15	comp											FeAr	4s
16	comp											FeAr	4s
17	HD 130109		14 <sup>h</sup> 41 <sup>m</sup> 12 <sup>s</sup>		02°18'51"								30s
18	"		"		"		20:45:00						30s
19	comp											FeAr	4s
20	comp											FeAr	4s
21	HD 128167		14 <sup>h</sup> 30 <sup>m</sup> 20 <sup>s</sup>		30°10'46"		20:52:13						60s
22	"						20:53:34						60s
23	comp											FeAr	4s
24	comp											FeAr	4s
25	HD 127162		14 <sup>h</sup> 28 <sup>m</sup> 05 <sup>s</sup>		38°44'44"		20:1:00						20s

Spect. T.

Focus

Spect. I.

Exp. Mir.

8.7K

6.9K

4.7K

4.5K

5.5K

5.8K

7.0K

Spectr. Temp. <sup>CSO</sup> -101.7°C

Dome Temp./Hum. 18.5°/53.7%

Transparency Conditions .. Fine ..... 212

Focus ..... 6.80

Spectr. Temp. ....

Dome Temp./Hum. 17.8°/56%

Exp. Mtr.	Seeing	PV Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				Case CCD	600 L/m 25.15	470	4080A <sup>0</sup>	3/4	SHI3	Focus test	
								#1	SHI3		
								5			
8.7K		3.65	A0III					6	15K	A0III (α Da) <sup>mk</sup> standard	
6.9K								7		"	
								8			
								9			
4.7K		3.74	A0V					10		109Vr → mk std.	
9.5K								11		"	
								12			
								13			
5.5K		4.46	F2V					14		σ Boo mk std.	
5.8K								15			
								16			
		<del>3.00</del>	<del>A7III</del>					17		σ Boo mk std.	
7.9K		3.00	A7III					18		σ Boo mk std.	



pg #2 Wed/Thurs

213

Date 1997 Aug 6/7

Observers Hml/Th/Lu/Vnk & HIZ

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.
CC478 26	HD 127762	14 <sup>h</sup> 28 <sup>m</sup> 03 <sup>s</sup>	38° 44' 44"	21:01:07	21:01:07				20s
27	Comp							FeAr	4s
28	Comp							FeAr	4s
29	HD 140159	15 <sup>h</sup> 37 <sup>m</sup> 03 <sup>s</sup>	19° 54' 37"	21:09:03					60s
30	"	"	"	21:10:53					67s
31	Comp							FeAr	4s
32	Comp							FeAr	4s
33	HD 134083	15 <sup>h</sup> 02 <sup>m</sup> 55 <sup>s</sup>	25° 15' 31"	21:16:35					103s
34	"	"	"	21:18:53				FeAr	4s
35	Comp							FeAr	4s
36	Bias(4)			21:22					0
37	Comp							"	4s
38	TyC 4193 6911	16 <sup>h</sup> 42 <sup>m</sup> 31 <sup>s</sup>	64° 21' 37"	21:31:20					1800
39	"	"	"	22:02:48					1800
40	Comp			22:00				FeAr	4s
41	TyC 4193 6911			22:34:32					1800

Spectr. Te

Focus

Spectr. Te

Exp. Mtr.

8.8K

6.2K

7.2K

6.3K

6.2K

6.2K

6.5K

6.5K

6.2K



Spectr. Temp. = 101.7

Dome Temp./Hum. 17.8°/56%

Transparency Conditions Fine 214Focus 6.80

Spectr. Temp. ....

Dome Temp./Hum. +17.6°/57%

Exp. Mtr.	Seeing	Pis. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion <i>e. limited in</i>	B.H. E.S.	Program	Remarks	Quality
8.8K		3.00	A III	Cass CCD	600 low 25.15	470	4080A	19		MK Std X Boo	
								20			
								21			
6.2K		4.51	A IV					22	8.3K max	MK Std i Sep	
7.2K								23	10K max		
								24			
								25			
6.3K		4.93	F V					26	6.6K max	45c Boo MK Std.	
<del>6.3K</del> 6.2K 76K								27	7.4K max		
6								28	7.8K		
								1			
								5			
654	1.5"	11.38	?					6c		G90.0+38.8 dual program star	
651								7			
								8c			
636		"						9c			

Pg #3 wed / Thurs

215

Date 1997 Aug 6/7..... Observers Hml / Ta / Lu / Vnt.....

The EHS program

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.
cc47342	comp		(2000)					FeAr NO 5	4s
43	TYC 4193 6911	16 <sup>h</sup> 42 <sup>m</sup> 31 <sup>s</sup>	64°21'37"	23:01:03					1800
44	Comp							"	4s
45	BHS(4)			23 39					
46	Comp		(2000)					"	4s
47	S92 NGC 6819	19 41 03	40 11 00	23 52 44					1800
48	comp							"	4s
49	S92 NGC 6819			00 25 23					1801
50	Comp							"	4s
51	S92 NGC 6819			00 59 19					1800
52	Comp								4s
53	BHS(4)			01 30 52					0
54	comp							FeAr	4s
55	HO 176 437	18 <sup>h</sup> 55 <sup>m</sup> 12 <sup>s</sup>	32°33'08"	01 36 04					34s
56	"			01 37 35					"
57	Comp								4

CCD  
Spectr. T  
Focus...  
Spectr. TExp. Mr.  
1997  
10-11-92

627

13200

1650

1027

8950

7K



CCD  
Spectr. Temp.  $-100.8^{\circ}\text{C}$

Dome Temp./Hum.  $17.6^{\circ}/57.5\%$

Transparency Conditions  $\text{fine}$  216

Focus  $6-80$

Spectr. Temp. ....

Dome Temp./Hum.  $15.1^{\circ}/65.3\%$

Exp. Mtr	Seeing	Pig. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
$1320V$ no filter				CASS CCD	$600V$ $25.15$	$470$ $24$	4080	<del>10</del>			
627	$1.2^{\circ}$	11.38	7					11c		HI program $690.0 + 38.8 \text{ cad}$	
								12			
								13			
								14			
								15			
								16			
								17			
								18			
								19			
8950 7K		13.25	B <sup>III</sup>					20	11,3K max	HI program 8Lyr mxstd	
								21			



page 4

217  
Date 1997 Aug 6/7 Observers Hrd/tn/Luf/vnk

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.
CC47358	comp							FeAr	4s
59	H 018688a	14 <sup>h</sup> 41 <sup>m</sup> 51	44 <sup>o</sup> 53'12"	01 42 58					22s
60	"			01 44 18					22s
61	comp							FeAr	4s
62	comp							"	4s
63	H 0195215	20 <sup>h</sup> 25 <sup>m</sup> 19	30 <sup>o</sup> 02'05"	01 50 18					
64	"			01 53 05					75s
65/66	comp							FeAr	4s
67	comp							"	"
69	H 0196867	20 <sup>h</sup> 34 <sup>m</sup> 40	15 <sup>o</sup> 33'33"	01 58 55					50s
69	"			02:00 26					50s
70	comp							FeAr	4s
71	comp							"	"
72	H 0196379	20 <sup>h</sup> 31 <sup>m</sup> 56	51 <sup>o</sup> 30'32"	2:08:04					360s
73	"			2:14:44					360s
74	comp							FeAr	4s

Spectr. Temp. .... Dome Temp./Hum.  $-15.0^{\circ}\text{C}$  67.5% H Transparency Conditions *Fine* ..... 2.18Focus ..... *6.80* .....

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

Exp. Mtr.	Seeing	Pig. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				Cass CCD	600 l/mm 25.15	470 $\mu$	4080	22	EHI3		
8850		2.87	BA5II					23	13.2K max	6 legs MK std.	
9130								23	14K max		
								24			
								25		4	
		4.01	FSII					26		41 legs MK std.	
10000								26b			
								27		(2 copies of this one)	
								27			
8000		3.71	BAIV					28	11K max	2 Del MK std.	
9000								28			
								<del>28</del>			
								5			
8100		6.13	APII					6ci		mk std	
'8500								7i			
								8u			

page 5  
219

Date 1997 Aug 6/7

Observers Hrd/Th/Lu/Vnk

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.
CC47375	comp BIAS(4)							FeAr NOS FeAr	4s 4s
76	comp								4s
77	H0199470	20 5227	47 0203	02 2753					208
78	"	"	"	02 2703					214
79	Comp							"	8s
80	comp							"	"
81	H0198183	20 4371	36 0723	02 4207					70s
82	"			02:43 58					70s
83	comp							FeAr	4s
84	comp								
84	H0202850	21 1329	38 5832	02 5014					65s
86	"								75s
87	comp							FeAr	4s
88	comp							"	"
89	H0214923	22 3628	10 10 33	02:59 35					33s
90	"			03:00 46					30

Spectr. T  
Focus...  
Spectr. T  
Exp. M  
84K  
85K  
88K  
80K  
8.5K  
8.5K  
8.5K  
8.5K  
8.5K



Spectr. Temp. .... Dome Temp./Hum. .... Transparency Conditions ..... P. 10 ..... 220.  
 Focus ..... 600 .....  
 Spectr. Temp. .... Dome Temp./Hum. 150/59.9%

Exp. Mtr.	Seeing	Pgr. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				Canon CCD	600L/mm 25.15		4080A	1	SHI3		
								9			
8.4K		5.16	B52a					10		mk std.	
8.5K								10			F/A
								11			
								12			
8.8K		4.53	B5V					13		mk std	X Cyg
8.0K								13			
								14			
								15			
8.5K		4.23	B50ab					16			
8.5K								16			
								17			
								18			
8.6K		3.40	B5V					19		Zeta Peg	mk std
9.0K								20			

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Date 1997 Aug 6/7 Observers Hml/Tn/Lu/Vak

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison	
								Type/Filter	Exp.
cc 473 91	comp							FeAr	4s
92	comp								
93	H10211336	22 11 21	56 32 41	03 10 03					55s
94	"			03:11 40					59
95	comp							FeAr	4s
96	comp							"	"
97	H10210221	22 03 43	52 49 07	03 16 27					301s
98	"			03 22 06					400s
99	comp							FeAr	4s
cc 474 00	BIAS (4)								
CG 81066/69	HD 3765	00 35 13	+39 40	Wen Lu mainly doing this set				4x	67ms
70/73	Vank's	x 4						"	"
71/75	"	x 2						2x	133ms
76/77	HD 3765	"	"					2x	133ms

Spectr. Temp. ....  
 Focus ..... -6.8D .....  
 Spectr. Temp. ....

Dome Temp./Hum. .... 15°/59.99%  
 Dome Temp./Hum. .... 14.4°/60.9%

Transparency Conditions ..... Fine ..... 222

410 0.50 10244, CCDFAST

Exp. Mtr.	Seeing	P.V. Mag	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				Cass CCD	600nm 25.15	470u	4080A	20			
								21			
8.1k	4.19		FON					22	10Kmax	mkstd G Cep	
7.2k								23	13Kmax		
								24			
								24			
7.3k	6.14		A3Std					25		mkstd. 9.2Kmax	
8.4k			"					25			
								26			
								1			
	3"		7.36k	B		470u slit				seeing test. Dome East	
										A Rare seeing Test where Telescope is East side of pier.	



223 p9#7

Date ... 1997 Aug 17 ... Observers ... HIZ, And/Tn/Lu .....

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.
cc47401	comp							FeAr	4s
02	H10571	00 05 07	45 30 57	03 <sup>h</sup> 52 39					750s
03	"			03 <sup>h</sup> 55 34					180s
04	comp							FeAr	4s
05	comp							"	"
06	HD 1280	00 <sup>h</sup> 11 52	38 <sup>o</sup> 07 35	04 <sup>h</sup> 03 29					100s
07	"			04 <sup>h</sup> 05.48					120s
08	comp							FeAr	4s
09	"							"	"
10	H106130	00 57 27	60 32 15	04 <sup>h</sup> 13 35					318s
11	"			04 <sup>h</sup> 14 14					411s
12	comp							FeAr	4s
13	Bias (4)								
cc47414/23	Flats (x10)			M30				ring	5s

Spectr. Temp. .... Dome Temp./Hum. 14.4°/160.9% Transparency Conditions ... Fine ..... 224

Focus .....  
Spectr. Temp. .... Dome Temp./Hum. 14.3°/61.4

Exp. Mtr.	Seeing	Pg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				Cass CCD	600 $\mu$ m 25.15	470	4080P	5c	ETHS		
8.7K	5.04		FAT					6c		mK std 22 And 6.9K max	
10.1K								6c			
								7c			
								8c			
8.1K	4.61		A2V					9c	8.8K max	mK std 646et And.	
10.1K								9c			
								10c			
								11c			
7700	5.92		FAT					12c	5K max	mK std	
10300								12c	9.3K max		
Note - At end of night, I found								13c			
that gating Handle was still up and								1c			
blocking some of our potential photos.								2c			
It likely was up all night.											

225 Pg #1

Date Aug 7/8/97 Observers Cas/Kar/Unk/LU

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.
CC47424/25	Inboard/outboard							FeAr ND#3	4/7
26	Bias (4)			20 18					0
27	comp								4s
28	HD 177724	1900419	134253	20:30:29	20:30:				
29	comp							FeAr	4s
30	comp							"	4
31	TYC 3866 21	1656 44	(2000) +52 33 46	20 59 46					1800
32	comp							FeAr	4s
33	TYC 3866 221	1656 44	+52 33 46	21 31 25					1840
34	comp							FeAr	
35	Bias (4)			22:07					0
36	comp							FeAr	
37	TYC 3879 9281	1643 13	+53 01 19	22 11 39					1800
38	comp							FeAr	4
39	TYC 3879 9281	"	"	22 46 17					180



CCD Spectr. Temp.  $-100.8^{\circ}\text{C}$

Dome Temp./Hum. 21.0/55.2

Transparency Conditions 4.3y 226

Focus 6.71

Spectr. Temp. ....

Dome Temp./Hum. ....

CCD FWHM  
 $\begin{matrix} 4/0 & 10 & 24 \\ 0 & & \\ 50 & & 0 \end{matrix}$

Exp. Mtr.	Seeing	Pig. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CCD CASS	18 <sup>00</sup> 51.58	250 $\mu$	5894	3/4		{HI}	
								1			
								5			
		2.99	BOV					6		Telluric Standard	
								7.			
								8			
745		10.59						9			
626								10			
676								11			
								12			
								1			
								13			
237	1"-2"	11.66						14		Faint Star to the side	
								15			
215								16			

Pg #12

2271997 Aug 7/8

Thurs/Pri.

Emulsion Batches:

Date

Observers

{HIZ}/Cas/Kar/Vnk/Lu

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison	
								Type/Filter	Exp.
CC47440	comp							F2Ar ND#3	4s
41	TYC 38799281	16 43 13	53 04 19	23 18 56					1821
42	comp							"	4s
43	BIAS(4)			23 52					
44	comp							"	4s
45	TYC 38871381#	17 10 57	53 21 10	23 58 22				<del>ND</del>	1800
46	Comp							"	4s
47	TYC 38871381#	"	"	00 31 04					1760
48	comp							"	4s
49	BIAS(4)			01 02					
50	comp							"	4s
51	TYC 417024372	16 37 55	46 02 09	01 19 47					1600
52	Comp							"	4s
53	TYC 417024371	"	"	01 49 47					1200
54	"	"	"	02 10 21					1200
55	Comp							"	4

CCD

Spectr. Te

Focus

Spectr

Exp. Mtr.

214

378

365

392

216

104

CCD Spectr. Temp.  $-100.8^{\circ}$  Dome Temp./Hum.  $19.1^{\circ}/59.4\%$  Transparency Conditions *hazy* 228

Focus  $6.71$

Spectr. Temp. Dome Temp./Hum.  $17.7^{\circ}/64.5\%$  CCD/FMT 410 0 56 1024 4 1

Exp. Mtr.	Seeing	$\sqrt{\frac{D}{\lambda}}$ Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800/mm 51.58	250 $\mu$	5894	17			
214		11.66						18			
								19			
								1			
								20			
378	1"-2"	10.92						21			
								22			
365		10.92						23			
								24			
								1			
								25			
292		10.83						26			
								27			
216		10.83						28			
194	2-3							29			
								30			



Pg #3

229

Date 1997 Aug 7/8

Observers

{HI}/Cas/Kar/Vnk/Lu

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.
cc47456	BIAS(4)			02 32					
57	comp		(2000)					FeAr	45
58	TYG41919361	17 06 31	+60 39 13	02:39 16					1800
59	comp							FeAr	
60	TYC41919363	"	"	03 12 41					1800
61	comp							FeAr	4
62	BIAS(4)			03 44					
63	comp		(1900)					FeAr	4
64	HD 176437	18 55 12	32 33 08	03 53 23					160
65	"	"	"	03 57 02					160
66	comp							FeAr	4
67	Comp							FeAr	4
68	HD 186882	19 41 51	44 53 12	04 06 08					60
69	"			04 07 43					63
70	comp							FeAr	4

Spectr. Temp.  $-100.7^{\circ}\text{C}$ Dome Temp./Hum.  $17.5/66\%$ Transparency Conditions  $\text{hazy}$  230Focus  $6.71$ 

Spectr. Temp. ....

Dome Temp./Hum. ....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	$1800 \frac{1}{\text{mm}}$ 51.58	250 $\mu$	5894	1		[HI?]	
								5			
207	2-3	1156						6			
195		"						7			
								8			
								9			
								1			
								10			
10.2 K		3.25	B9II					11			
10. K		"	"					11			
								12			
								13			
10 K		2.87	B9.5III					14			
10.7 K		"	"					14			
								15			







PG#1  
 233  
 Date 1997 Aug 8/9 Observers Vnk/Lu

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.
CC47485/6	Inboard/outboard							FeAr ND#3	4/7
87	BIAS(4)			20 35					0
88	comp			<del>20 49</del> 20 49				"	4s
89	HD154417	17 00 11	00 50 58	20 49 12					300
90	comp							"	4
91	comp							"	
92	HD177724	19 00 49	13 42 53	21 04 30					60
93	comp							"	
94	comp							"	
95	HD187183	19 43 30	09 05 00	21 14 26					900
96	comp							"	4s
97	HD187183	"	"	21 32 49					900
98	comp							"	
99	BIAS(4)			21 49					0
500	comp							"	4s

CCD  
 Spectr. T  
 Focus...  
 Spectr. T  
 Exp. Mtr.

2530

93K

634

643

CCD  
Spectr. Temp. -100.8°C

Dome Temp./Hum. 22.5/62.7

Transparency Conditions Very Hazy 234

Focus 6.65

Spectr. Temp. ....

Dome Temp./Hum. ....

400 0 50 1024 41 CCDPMT

Exp. Mtr.	Seeing	Pig. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800 $\frac{1}{mm}$ 56.35	306	6600	3/4			
								1			
								5			
2530		6.01	GOV					6	std vel		
								7			
								8			
9.3K		2.99	BOZ					9	telluric std		
								10			
								11			
634		9.5	G5V					12	contact Binary (Vnk)		
								13			
643		"	"					14			
								15			
								1			
								16			



pg #2

235 1997

Aug 8/9

Date

Observers

Vnk / Lu

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.
CL47501	HD197433	20 38 36	75 14 00	22 10 43	<del>22 18 43</del>				480
02	"			22 20 03					480
03	comp							FeAr ND#3	45
04	comp							"	45
05	HD199497	20 52 30	19 15 00	22 36 54					600
06	"			22 48 14					600
07	comp							"	4
08	BIAS(4)			23 00					0
09	comp							"	4
10	HD 199465	20 52 18	05 27 00	23 06 17					900
11	"			23 22 23					900
12	comp							"	45
13	BIAS(4)			23 39					0
14/20	flat							Tung ND#15	4

CCD

Spect. T.

Focus

Spect. T.

Exp. Mtr.

1720

1800

638

660

595

608

<sup>CCD</sup>  
 Spectr. Temp.  $-100.8$  ..... Dome Temp./Hum.  $21.7/66\frac{1}{6}\%$  ..... Transparency Conditions *Very Hazy* ..... 236  
 Focus  $6.65$  .....  
 Spectr. Temp. .... Dome Temp./Hum. ....

Exp. Mtr.	Seeing	Pig. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1720		7.4	K0V	CuSS CCD	1800 $\sqrt{\text{mm}}$ 56.35	306 $\mu$	6600	17	Vnk CB	$\Delta\alpha = 47^s$ , $\Delta\delta = 1'24''$	
1800								18			
								19			
								20			
638		8.7	G5					21	Vnk CB		
660								22			
								23			
								1			
								24			
595	2"-3"	9.3	A0					25	Vnk CB		
608								26			
								27			
								1			
								2			

Pg #3

237 1997 Aug 8/9

Date

Observers

[Kok]/Vnk/Lu

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.
cc47521/22	Inboard/outboard							FeAr clear	29/30
23	BIAS(4)								0
24	comp							"	60
25	HD 204848	21 26 12	-10 11 00	00 11 11					1800
26	comp							"	60
27	comp							"	60
28	HD 207687	21 45 42	-10 31 00	00 53 22					2000
29	comp							"	60
30	BIAS(4)								0
31	comp							"	60
32	HD 197989	20 42 10	33 35 44	01 40 22					36
33	comp							"	60
34/38	flat								60
39	BIAS(4)			01 55					

CCD

Spectr. T

Focus...

Spectr. I

Exp. Mir.

3530

3870

12K



CCD  
Spectr. Temp. ... 1.90. 8.0

Dome Temp./Hum. ... 20.6/69.5

Transparency Conditions ... Very Hazy ... 238

Focus .....

Spectr. Temp. ....

Dome Temp./Hum. ....

400 0 50 1024 4 1 CCDAMT

Exp. Mtr.	Secing	Pg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800/mm 41.74	306μ	4303	3/4			
								1			
								5	<del>KOK</del>		
3530	3-4'	8	KOII					6	KOK Pgm		
								7			
								8			
3870		7. <sup>88</sup>	KOII					9	KOK Pgm		
								10			
								11			
12K								12	KOK stel		
								13			
								2			
								1			

Pg #1

Mon/Tues

239 1997 Aug. 11/12

Observers

Unk/Lu

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.
cc47540/41	Inboard/outboard							FeAr ND#3	4/7
42	Bias(4)			20 59				"	45
43	comp							"	45
44	HD186791	19 41 30	10 22 10	21 07 50					270
45	comp							"	45
46	comp							"	45
47	HD187691	19 46 14	10 09 55	21 18 43					640
48	comp								
49	BIAS(4)			21 31					
50/56	flats							Tung ND#5	4
57	BIAS(4)			22 32					
58	comp							FeAr ND#3	
59	HD187691	19 46 14	10 09 55	22 36 07					245
60	comp							"	4
61	comp							"	4
62	HD177441	18 59 36	01 09 00	22 52 14					900

Spectr. Te

Focus...

Spectr. Te

Exp. Mir

2000

611

6X

2X

Spectr. Temp.  $-100.7^{\circ}\text{C}$ Dome Temp./Hum.  $16.3/68.4\%$ Transparency Conditions  $\text{cloudy} \rightarrow \text{clear}$  240  
A.P.Focus  $6.69$ 

Spectr. Temp. ....

Dome Temp./Hum.  $14.8/79\%$ 

400 0 50 1024 4 1 CCDMT

Exp. Mtr	Seeing	Flg. Mag	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800 56.35	206	6600	3/4			
								1			
		2.7	K3II					5			
2000		2.7	K3II					6	std vel		
								7			
								8			
611		5.11	F8V					9	std vel		
								10			
								1			
								2			
								1			
								11			
6K	4"-5"	5.11	F8V					12	std vel		
								13			
								14			
775		8.5	K2I-II					15	V <sub>AK</sub> Cap		



pg#2 Mon/Tues  
 241 1997 Aug 11/12

Date ..... Observers Vnk/Lu .....

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.
cc47563	comp							FEA NDH3	4s
64	comp							"	4s
65	HD178359	19 03 12	01 09 00	23 16 22					900
66	comp							"	4s
67	BIAS(4)			23 33					0
68	comp							"	4s
69	HD 229680	18 45 54	15 49 00	23 41 31					2400
70	comp							"	4s
71	comp							"	4s
72	HD187921	19 47 24	27 12 08	00 30 21					600
73	comp							"	4s
74	BIAS(4)			00 42					0
75	comp							"	4s
76	HD 227463	20 00 36	33 50 00	00 48 27					900
77	comp								

CCD  
 Spectr. T  
 Focus...  
 Spectr. T  
 Exp. Mr.

2990

574

2048

444

CCD  
Spectr. Temp.  $-100.7^{\circ}\text{C}$   
Focus  $6.69$   
Spectr. Temp. ....

Dome Temp./Hum.  $14.8^{\circ}\text{C}/70\%$   
Dome Temp./Hum.  $13.4^{\circ}\text{C}/77.6\%$

Transparency Conditions  $\text{fine + some clouds in S}$   
242

Exp. Mtr.	Secing	Pig. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800 56.35	306 <sub>N</sub>	6600	16			
								17			
2970	4.5"	7	F5I <sub>2</sub>					18	Vnk CEP		
								19			
								1			
								20			
574		11	F2I					21	"		
								22			
								23			
2048		7	G2I					24	"		
								25			
								1			
								26		more clouds	
494		9	F8I <sub>2</sub>					27	"		
								28			

243 pg #3

Date 1997 Aug 11/12 Observers Vnk/Lue

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.
CC47578	comp		(2000)					TeAr ND#3	4s
79	BD+44 3571	20 46 00	45 18 30	01 14 16					1800
80	comp							"	4s
81	comp		(1700)					"	4s
82	H0196018	20 29 36	46 16 00	01 53 40					1200
83	comp							"	4s
84	BIAS(4)			02 15					
85	comp							"	4s
86	BD+39 4379	20 57 21	40 10 39	02 22 45					1000
87	comp							"	4s
→ 88	comp		(2000)					"	
89	BD+42 3935	21 00 06	42 35 51	02 48 02					960
90	comp							"	4s
91	BIAS(4)			03 06					0
92	comp							"	4s

CCD  
 Spect. Te  
 Focus ...  
 Spectr. Te

Exp. Mir

677

713

489

520



CCD  
 Spectr. Temp. ... -100.7°C ...  
 Focus ..... 6.69 .....  
 Spectr. Temp. ....

Dome Temp./Hum. 13.3°C / 78%  
 Dome Temp./Hum. 12.5°C / 80.3%

Transparency Conditions ... patches → cleanup  
 244  
 400 0 50 1024 4 1 CCD/FNT

Exp. Mtr.	Seeing	Plg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800/mm	306	6600	5			
677		10.3	F8I <sub>6</sub>					6	Vnk Cep		
								7			
								8			
713		9.4	F8I <sub>6</sub>					9	"		
								10			
								11			
489		10	F8I <sub>6</sub>					12	"		
								13			
								14			
								15			
520		9	F8I <sub>6</sub>					16			
								17			

→ [410 0 50 1024 4, 1]

CCD format charged here!!!

PG #4  
 245  
 Date 1997 Aug 11/12... Observers ... Vok / Lu .....

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.
cc47593	HD 214975	22 36 54	56 19 00	03 12 56					613
94	comp							EAR ND#3	4s
95	comp							"	4s
96	HD 221491	23 27 29	34 24 02	03 30 51					320
→ 97	comp							"	4
<del>98</del>	<del>comp</del>							"	4s
	<del>IX Cas</del>	<del>20 04 51</del>	<del>50 14 01</del>	<del>03 49 45</del>					
	<del>comp</del>								
	<del>BIAS(4)</del>								
98	BIAS(4)								
99	BIAS(4)								
cc47600/ 06	flat3							Tung ND#5	4

620 Spectr. Te

Focus ...

Spectr. Te

Exp. Mtr

670

650

LED  
Spectr. Temp.  $-100.7^{\circ}\text{C}$   
Focus ..... 6.69  
Spectr. Temp. ....

Dome Temp./Hum.  $12.5\% / 80.5\%$   
Dome Temp./Hum. ....

Transparency Conditions ... some clouds in 246  
LOWR sky  
460 0 50 1024 4 1 CCDPMT

Exp. Mtr.	Seeing	Pig. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
670		8	FBI	CASS CCD	1800 $\sqrt{\text{mm}}$ 56.25	300 $\mu$	6600	18	Vnk Cep		
								19			
								20			
2550		665	B8V					21	Telluric Std		
								22			
								23			
								24			
								25			
								26			
								27			
								28			
								29			
								30			

~~11.8~~

~~23~~  
~~24~~  
~~25~~  
~~26~~  
~~27~~  
~~28~~  
~~29~~  
~~30~~





CCD Spectr. Temp.  $-100.7^{\circ}\text{C}$  Dome Temp./Hum.  $16.4^{\circ}\text{C}/76.4\%$  Transparency Conditions *clear* 248  
 Focus  $6.69$   
 Spectr. Temp. Dome Temp./Hum.  $14.5^{\circ}\text{C}/75.9\%$  410 0 50 1024 4 1 CCD/FMT

Exp. Mtr.	Seeing	Pig. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800/mm 56.35	306	6600	3/4			
								1			
								6			
6K9		2.72	K3II					7	std Vel		
								8			
								9			
1364	3"-4"	8	B9.5					10	IRAS PPM		
								11			
								12			
974		9	A2					13	"		
								14			
								15			
710		9.69	A0					16	"		
								17			

Pg #2

Wed/Thur

Emulsion Batches:

249  
Date 1997 Aug 13/14 Observers Vnk/Ksz/Lu

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison	
								Type/Filter	Exp.
c47623	comp		(2000)					F2 Ar ND#3	4s
24	SAO 19953	22 13 48	70 02 41	23 34 18					1200
25	comp							"	4s
26	comp							"	4s
27	GSC 4467.083	22 16 31	70 02 40	<del>00 10 00</del>					1800
28	comp							"	4s
29	BIAS(4)			00 43					
30	comp							"	4s
31	SAO 20054	22 24 42	69 41 17	00 50 44					1200
32	comp							"	4s
33	comp							"	4s
34	HD 216486	22 48 12	76 32 00	01 16 03					1200
35	comp							"	4s
36	comp							"	4s
37	SAO 10593	23 02 16	72 43 40	01 41 37					1200
38	comp							"	4s

CCD

Spectr. Te

Focus...

Spectr. Te

Exp. Nr.

928

306

955

1080

2550



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

Dome Temp./Hum.  $14.5^{\circ}/75.8\%$

Transparency Conditions *clear* 250

Focus  $6, 6.9$ .....

Spectr. Temp. ....

Dome Temp./Hum. ....

Exp. Mtr.	Seeing	Pig. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	$1800/\text{mm}$ 56.35	306 $\mu$	6600	18			
928	4"-5"	9.1	A0					19	IRAS PGM		
								20			
								21			
306		10	K2					22	"		
								23			
								1			
								24			
985		8.8	A0					25	"		
								26			
								27			
1080		8.8	A3					28	"		
								29			
								30			
2550		7.9	A5					7	"		
								8			

Pg# 3

Wed/Thur

251 1997 Aug 13/14 Observers Vnk/Ksg/Lu

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.
CC47639	BIAS(4)			02 03					
40	comp							FeAr ND#3	4s
41	SAO 10726	23 23 49	77 04 09	02 02 38					900
42	SAO 10726	23 23 49	77 04 09	02 28 41					900
43	comp							"	4s
44	comp							"	4s
45	HD 221491	23 27 29	34 24 02	02 52 20					300
46	comp							"	4s
47	BIAS(4)			02 58					0
48	comp							"	4s
49	HD 216598	22 49 06	37 23 00	03 06 18					600
50	comp							"	4s
51	comp							"	4s
52	BD+36 5017	23 11 32	36 53 38	03 23 38					600
53	comp							"	4s

CCD

Spectr. T

Focus...

Spectr. T

Exp. Mtr.

808

505

2500

576

262

CCD  
 Spectr. Temp. - 100.7°C ..... Dome Temp./Hum. 13.5°C / 70.5% ..... Transparency Conditions *clear* ..... 252  
 Focus ..... 6.9 .....  
 Spectr. Temp. .... Dome Temp./Hum. .... 410 0 50 1024 4 1 CCDPMT

Exp. Mtr.	Seeing	Pig. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800/mm 50.75	306 <sub>μ</sub>	6600	1			
								9			
628	5.6"	9.9!	A0					10	IRAS P3m		
525		9.9!	A0					11		E ← O S N	
								12			
								13			
2500	4"	6.6	B8V					14	Telluric Std		
								15			
								1			
								16			
576	5.6"	9	K0					17	Vnk CB		
								18			
								19			
282		9.9	G5					20	"		
								21			







255

Date 1997 Aug. 14/15

Observers

Vnk/Ksz/Lu

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.
cc47668/9	Inboard/out board							FeAr ND#13	4/7
70	BIAS(4)			20 14					
71	comp							"	4s
72	<del>SAR 1592</del> HD145001	16 03 34	17 18 48	20 24 03					90
73	comp							"	4s
74	comp							"	4s
75	HD157741	17 20 03	15 41 49	20 36 02					300
76	comp							"	4
77	comp							"	
78	HD171232	18 28 30	25 25 00	20 49 43					600
79	comp							"	4
80	BIAS(4)			21 03					0
81/87	flat3							Tung ND#5	4
88	HD197441	18 59 36	01 09 00	22 08 52					900
88	comp							FeAr ND#3	4
90	comp								4

c40  
Spectr. T

Focus...

Spectr. T

Exp. Mr.

4.3 K

4.4 K

2400

1995 744



CCD  
Spectr. Temp. -1.00, 8.0°C

Dome Temp./Hum. 16.7°C/61.7%

Transparency Conditions fine with clouds 256  
in the lower sky

Focus .....

Spectr. Temp. ....

Dome Temp./Hum. 14.7°C/66.9%

Exp. Mtr.	Seeing	Pig. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800/mm 56.35	306 μ	6600	3/4			
								1			
								6			
4.3 K		5.0	G5III					7	std vel		
								8			
								9			
4.4 K		6.35	B9V					10	Telluric std		
								11		more clouds	
								12			
2400		7.7	G8					13	std vel		
								14			
								1			
								5			
HDS 740		8.5	K2					16	Vnk <del>CEP</del>	cloudy	
								15	△△		
								17			









CCD  
 Spectr. Temp.  $-100.8^{\circ}\text{C}$  ... Dome Temp./Hum.  $16.3^{\circ}\text{C} / 51.4\%$  Transparency Conditions *fine* ..... 260  
 Focus ..... 6.96 .....  
 Spectr. Temp. .... Dome Temp./Hum. .... 365 0 50 1024 4 1 CCFMT

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1200/mm #2.07	306 $\mu$	6540	3/4			
								1			
								6			
								<del>7</del>			
?		11	F8					7	Vnx CB	EXP MTR Does not work	
								8			
								9			
		5.11	F8V					10	std vel		
								11	"		
								12			
								1			
								13			
		5.00	B8IV					14	std telluric		
								15			
								16			

Pg #2  
261 Date 1997 Aug 18/19

Observers Gld/AH/Prr/Lu

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.
CCH7707	S92-ngebsig	19 41 03	40 11 00	22 57 49					1800
08	comp							F2Ar ND#4	4
09	BIAS(4)			23 30					
10	comp							"	4
11	NGC6826	19 44 48	56 31 50	23 33 56					200
12	" comp			23 37 42					207
13	"								600
14	comp							"	4
15	comp							"	4
16	NGC7469	23 03 17	08 52 40	00 14 24					240s
17	"	"	"	00 20 54					1205s
18	comp							"	4s
19	BIAS(4)			00 42					0
20	comp							"	4
21	S92-NGC6819	19 41 03	40 11 00	00 59 16					1800
22	comp							"	4

CCD  
Spacer: Te  
Focus...  
Spectr. Te  
Exp. Mir



CCD  
 Spectr. Temp.  $-100.8^{\circ}\text{C}$  ..... Dome Temp./Hum.  $15.4^{\circ}\text{C}/53.2\%$  ..... Transparency Conditions  $\text{fine}$  ..... 262  
 Focus  $6.76$  .....  
 Spectr. Temp. .... Dome Temp./Hum. .... 365

Exp. Mtr.	Seeing	Pis. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
		14.3	AO?	CAS CCD	1200 Vmm 42.07	306 $\mu$	6540	17	{Mky/Gld}		
								18			
								19			
		9.8	PN					20	AST 125 data.		
		"	PN					21			
		"	"					21			
								22			
								23			
		11.3	Sc					24	{HI}	H $\alpha$ visible in emission Bright moon!	
								25			
								26			
								1			
								27			
		14.3	AO					28			
								29			

263 pg #3

Date 1997 Aug 18/19

Observers

Gld/Alt/Pr/Lu

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.
CC47723	S92-NGC6819	19 41 03	40 11 00	01 21 25					180
24	comp							FAA ND#4	4s
25	BIAS(4)								
26	comp							"	4s
27	CV Cyg	19 54 22	38 02 30	01 58 30					120
28	comp							"	4s
29/38	flats							Tung ND#5	25!
39	BIAS(4)			02 25					0
<hr/>									
40	NGC0488	01 21 48	05 15 00	03 45 36					900
41	comp							FAA ND#5	1s
42	slightly near NGC0488			04:04					600s
43	comp							"	1s
44	BIAS(4)								
45/49	flats							Tung ND#6	4s

CCD Spectr. Temp:  $-100.8^{\circ}\text{C}$

Dome Temp./Hum.  $14.0^{\circ}\text{C}/63.7\%$

Transparency Conditions  $\text{f. r. o. / s. l. g. b. r. i. g. h. t. 064}$

Focus  $6.76$

Spectr. Temp. ....

Dome Temp./Hum. ....

365 0 50 1024 4 1 CCD FMT

Exp. Mtr	Seeing	Pig-Mag	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
		14.3	A0?	CASS CCD	1200/mm 42.07	306 $\mu$	6540	30			
								31			
								1			
								6			
		11.	F8					9			
								10			
								5			
								1			
09560					150/mm 23.64	47 $\mu$	7000	4	450 0 50 1024 4 1 CCD FMT	sky very bright	
								7			
								8			
								9			
								10			
								1			
								5			





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

Dome Temp./Hum.  $17^{\circ}\text{C}/59.5\%$

Transparency Conditions... *fairly cloudy full moon*

Focus  $6.79$

266

Spectr. Temp. ....

Dome Temp./Hum. ....

440 0 50 1024 4 1 CCD/FMT

Exp. Mtr.	Secing	<del>10x</del> Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				E455 CCD	600 $\mu\text{m}$ 25.15	470	4080	3/4	<del>HI</del>		
								1			
								6			
4.2K	2"	3.9	B5 IV					7	HI		
4.3K		"	"					7			
		<del>2.1</del>	<del>A5 III</del>					8			
		2.1	A5 III					9			
7.5K		2.1	A5 III					10			
7.3K								10			
								11			
								12			
<del>5.4</del> 5.4K		0	A0 V					13			
5.9K		0	"					13			
								14			
								15			





<sup>CCD</sup>  
 Spectr. Temp.  $-100.9^{\circ}\text{C}$  ..... Dome Temp./Hum.  $15.8^{\circ}\text{C}/63.7\%$  Transparency Conditions *thin clouds full moon*  
 Focus .....  $6.79$  .....  
 Spectr. Temp. .... Dome Temp./Hum. .... 440 0 50 1024 4 1 CCDPMT 268

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
5.7K		2.1	A5 III	CASS CCD	600/mm 25.15	470 $\mu$	4080	16			
9.0K		"	"					16			
								17			
								17			
4.7K		4.4	B5 III					18			
4.8K		"	"					18			
								19			
								19			
								1			
								20			
580	2"	11.9C	?					21		$\Delta\alpha - 42^{\circ}$ $\Delta\delta - 1'42''$	
			<del>?</del>					22			
								23			
552		11.19	?					24		<del>?</del> <del>?</del>	
								25			
								1			
								26			

PG #3

TUE/WED

Emulsion Batches:

269

Date 1977 Aug 19/20 Observers Att / Prr / Lu

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison	
								Type/Filter	Exp.
CC477 83	TYC 4190 1263	(2000) 16 32 00	+61 57 11	23 43 11					1800s
84	COMP							FeAr #5	4s
85	COMP							"	4s
86	TYC 4193 641 1	(2000) 16 42 31	+64 21 37	00 29 06					1800s
87	COMP							"	4s
88	BIAS(4)			01 00					0
89	COMP							"	4s
90	HD 6961	01 05 01	+54 37 05	01 08 20					60s
91	"	"	"	01 10 17					60s
92	COMP							"	4s
93	COMP								
94	HD 11636	01 49 07	+20 19 09	01 18 04				"	165 <del>7100</del>
95	HD 11636	"	"	01 19 53				"	14s
96	COMP							FeAr	4s
97	COMP							"	3)
98	HD 19807	03 06 06	+36 45 00	33 53 01 26 58					1500s

CCD Spectr. Temp.  $-100.7^{\circ}\text{C}$  ..... Dome Temp./Hum.  $15.2^{\circ}\text{C}/66.1\%$  ..... Transparency Conditions TWIN CLOUDS, FULL MOON 270

Focus 6.79 .....

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

440 0 50 1024 41 CCD FMT

Exp. Mtr.	Seeing	No. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
538		11.38	?	CASS CCD	600 Å 25 Å	470μ	4080	27		DA - 28 <sup>s</sup> DB - 1'33"	
								28			
								29			
577		11.38	?					30		DA - 38 <sup>s</sup> DB - 27"	
								31			
								1			
								6			
7.0K		4.33	A7V					7		DA 9 <sup>s</sup> DB 0	
7.1K		"	"					7			
								8			
								9			
7.1K		2.16	A5V					10			
7.4K		"	"					10			
								11			
								12			
2776		8.1	B9.5V					13			



271  
pg # 4

Tues/Wed

Date 1997 Aug 19/20

Observers A#/Prr/Lu

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 47799	HD 19807	03 06 06	+ 36 45 00	02 05 16					1800 <sub>s</sub>
47800	comp							Fe Ar #5	4s
801	BIAS (4)			02 36					0
802	<del>HD</del> comp								4s
803	HD 8538	1 19 16	59 42 56	02 45 17					14s
804	HD 8538	"	"	02 46 31					17s
805	comp								4s
<del>806</del> <del>807</del>	<del>comp</del> <del>HD 13161</del>	<del>02 03 35</del>	<del>+34 30 52</del>	<del>02 55 20</del>					<del>4s</del>
808	HD 13161			02 56 27					19
809	comp							Fe Ar	4s
810	comp							Fe Ar	4s
811	HD 17918	02 47 38	16 04 31	03 02 53					
812	"	"	"	03 10 36				<del>Fe Ar</del>	20s
813	comp							Fe Ar	4s
814	comp								
815	HD 23585	03 41 12	23 42 00	03 24 00					1000

CCD

Spectr. Temp. -100.3°C

Dome Temp./Hum. 14.6/62.4%

Transparency Conditions fine clouds in the south 272

Focus ..... 6.79

Spectr. Temp. ....

Dome Temp./Hum. ....

440 0 50 1024 4 1 CCDPMT

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
2900		8.1	B9, I	CASS CCD	600/mm 25.15	47 $\mu$	4080	13			
								14			
								1			
								15			
7.2 k	2.68	AS III	IV					16			
7.3 L	2.68	"						<del>16</del>			
								17			
7.2 k	3.0	AS III						<del>18</del> 19			
7.3 k	3.0	"						19			
								20			
								21			
7.2	6.3	F5 II						22			
7.9	"	"						22			
								23			
								24			
3024	8.0	F0 V						25			

Pg #5

Tues/Wed

273

Date 1997 Aug. 19/20 Observers .....

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 47816	HD 2358 <del>5</del>	03 41 12	23 42 00	03 42 02					1000s
17	COMP							FeAr #5	4s
18	BIAS (4)			03 59 66					
19	COMP							"	"
20	HD 21071	03 18 51	+48 46 05	04 05 04					300s
21	"	"	"	04 10 51					300s
22	COMP							"	4s
23	COMP							"	"
24	HD 23288	03 38 51	+23 58 30	04 22 13					150s
25	"	"	"	04 25 24					210s
<del>26</del>	<del>COMP</del>							<del>"</del>	<del>4s</del>
27	COMP							"	4s
28	HD 17584	02 44 16	+37 54 25	04 33 48					60s
29	HD 17584	"	"	04 35 18					60s
30	COMP							"	4s
31	BIAS (4)			04 37 21				FeAr #5	
32-41	FLATS (x10)							FeAr #3	5s



60  
 Spectr. Temp. -100.7 ..... Dome Temp./Hum. .... Transparency Conditions *lenses new, cleaned 274*  
 Focus ..... 6.79 .....  
 Spectr. Temp. .... Dome Temp./Hum. 13.8°C / 62.4%

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
2025		8.0	F0V		600 <sup>1</sup> / <sub>mm</sub> 25.15	470 $\mu$	4080	26			
								27			
								1			
		6						28			
3028		6.1	B7V					29		cloudy	
4370		4	"					30		"	
								31			
								6			
4378		5.5	B7E					7			
3360		"	"					8		cloudy	
1								9/10			
5.1K		4.2	F2III					11		cloudy	
5.8K		"	"					12			
								15			
								1			
								5			

95 #1

275

1997 Aug 25/26

Date

Observers

Vnk/K<sub>23</sub>/Lu

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.
cc47842/3	Inboard/outboard							F2/Avr ND#3	4/7
44	BIAS(4)			19 48					
45	comp	<del>17</del>						"	4
46	HD 159139	17 27 54	<del>28</del> 28 47	20 32 14					270
47	comp							"	4
48	comp							"	4
49	HD 15417	17 00 11	00 50 58	20 43 32					500
50	comp			-				"	4
51	BIAS(4)			20 54				<del>17</del>	0
52	comp							"	4
53	HD 204038	21 20 48	33 16 00	21 07 01					1801
54	comp							"	4
55	comp							"	
56	HD 187183	19 43 30	09 05 00	21 56 45					1200
57	comp			<del>22 18</del>				"	4
58	BIAS(4)			22 18					

CCD  
Spectr. Te  
Focus...  
Spectr. Te

Exp. Mtr.

6000

6078

4350

868

CCD  
Spectr. Temp. -100.8°C

Dome Temp./Hum. 17.4°C/68.7%

Transparency Conditions a little haze 276

Focus 6.71

Dome Temp./Hum. 16.3°C/77.2%

400 0 50 1024 4 1 CCDPMT

Exp Mtr	Sceng	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800 58.35	306	6600	3/4			
								1			
								6			
6000	2-3	562	ADV					7	Telluric std		
								8			
								9			
6078		6.01	GOV					10	Vel std		
								11			
								12			
4350		8.40	FIV					13	K <sub>2</sub> CB		
								14			
								15			
868		9.6	45V					16	✓		
								17			
								1			



Emulsion Batches:

Pg # 2

277 Date 1997 Aug 25/26

Observers

V. K. ~~Lu~~ / Lu

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison	
								Type/Filter	Exp.
CC47859	comp	<del>20 38 36</del>	<del>75 14 00</del>	<del>22 35 37</del>				FA7 ND #3	
60	HD 197433	20 38 36	75 14 00	22 35 37					600
61	comp							"	4
62	comp							"	4
63	HD 199497	20 52 30	19 15 00	22 56 16					900
64	comp							"	4
65	BIAS(4)			23 13					
66	comp							"	4
67	AB And	23 11 32	36 53 38	23 20 02					900
68	comp							"	4
69	comp							"	4
70	DK Cyg	21 35 07	34 35 07	23 50 32					1500
71	comp							"	4
72	BIAS(4)								0
73	comp							"	4
74	HD 199485	20 52 18	05 27 00	00 24 36					493

Spectr. Temp.  $-100.5^{\circ}\text{C}$ Dome Temp./Hum.  $16.3^{\circ}\text{C}/76.7\%$ Transparency Conditions *hazy - FRY 278*Focus  $6.71$ 

Spectr. Temp.

Dome Temp./Hum.  $15.6^{\circ}\text{C}/89.3\%$ 

Exp. Mtr.	Secing	Pig. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1500/mm 56.35	306 <sub>m</sub>	6600	18			
2800		7.5	KOV <sub>r</sub>					19	K58 CB		
								20			
								21			
1120		8.7	G5					22	"		
								23			
								1			
								24			
545		9.9	G5					25	"		
								26			
								27			
436		10.5	ABV					28	"	clouds coming from NW	
								29			
								7			
								30			
93		9.4	A0					31			







Pg #1

Tues/Wed

Emulsion Batches:

281

1997 Aug 26/27

Vnk/Ksz/Lu

Date ..... Observers .....

Plate No.	Object	R. A. 1900	Declination 1900	Starting Time E. S. T.	Ending Time E. S. T.	Hour Angle End	Declination	Comparison	
								Type/Filter	Exp.
CC47884/5	Inboard/outboard							FeAr ND#3	4/7
86	BIAS(4)			20 04					0
87	comp							"	4
88	HD159139	172754	282847	20 11 17					600
89	comp							"	4
90	comp							"	4
91	HD154417	17 00 11	00 50 58	20 27 26					600
92	comp							"	4
93	comp							"	4
94	HD178359	19 03 12	01 09 00	20 45 11					1800
95	comp							"	4
96	BIAS(4)			21 17					0
97	comp							"	4
98	HD187921	19 47 24	27 12 00	21 22 32					872
99	comp							"	4

Spectr. Te

Focus

Spectr. te

Exp. Mtr.

6770

4270

5350

4180

Spectr. Temp.  $-100.8^{\circ}\text{C}$  Dome Temp./Hum.  $18.5^{\circ}\text{C}/94.4\%$  Transparency Conditions *very Hazy* 282

Focus  $6.71$

Spectr. Temp. ..... Dome Temp./Hum. .... 400 0 50 1024 4 1 CCD/FMT

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	$1800\frac{1}{\text{mm}}$ 56.35	$306\mu$	6600	$\frac{3}{4}$			
								1			
								6			
6770	3"	5.62	AIV					7	Telluric std		
								8			
								9			
4270		6.1	GOV					10	vel std		
								11			
								12			
5350	2"-3"	7.	FSI					13	Vnk cep		
								14			
								<del>15</del>			
								15			
4180		7.	G2I					16	"		
								17			







Pg #1  
 285  
 Date 1997 27/28  
 Aug. Wed/Thur

Observers Vnk/Ksg/Lu

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.
CC47908/9	Inboard/outboard							F2A ND13	4/7
10	BIAS(4)			20 10					0
11	HD17287 comp							"	4
12	HD17287	18 53 42	43 08 12	20 16 58					420
13	comp							"	4
14	comp							"	4
15	HD 167370	18 09 45	38 44 44	20 29 38					523
16	comp							"	4
17	comp							"	4
18	HD 144579	16 01 30	39 24 00	20 50 16					900
19	comp							"	4
20	BIAS(4)			21 07					0
21	comp							"	4
22	HD 187183	19 43 30	09 05 00	21 39 08					1500
23	Comp							"	4

CCD  
 Spectr. T.  
 Focus...  
 Spectr.

Exp. Mir.

4870

8000

8440

163



CCD Spectr. Temp.  $-100.8^{\circ}\text{C}$  Dome Temp./Hum.  $20.4^{\circ}\text{C}/74.7\%$  Transparency Conditions *OK, clouds in the south*  
 Focus  $6.69$   
 Spectr. Temp. Dome Temp./Hum.  $400 \ 0 \ 50 \ 1024 \ 4 \ 1 \ \text{CCDFMT}$  286

Exp. Mtr.	Seeing	Pig. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800 $\frac{1}{\text{mm}}$ 56.35	306 $\mu$	6600	3/4			
								1			
								6			
4870	1.26		FOV					7	Bln		
								8			
								9			
8000	6.4		B9 II <sub>n</sub>					10	Telluric std		
								11			
								12			
8340	6.66		d48					13			
								14			
								1			
								15			
763	3"-4"	9.5	G5V					16	USE CB		
								17			

Pg #2

287

Date 1997 Aug 27/28

Observers

Vnk/K33/Lu

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.
CL47924	comp		(2000)					FeAr NO#3	4
25	BD+33 4304	21 35 02	34 35 45	22 15 35					1500
26	comp							"	4
27	BIAS(4)			22 42					0
28/34	flats							Tung NO#5	4
35	comp							FeAr NO#3	4
36	HD 199497	20 52 30	19 15 00	23 23 40					900
37	comp							"	4
38	BIAS(4)			23 40					0
39	comp							"	4
40	HD 212943	22 22 48	04 11 39	23 54 31					230
41	comp							"	4
42	comp							"	4
43	HD 204867	21 26 18	-06 00 40	00 05 38					30
44	comp							"	4

CCD

Spectr. T

Focus...

Spectr. T

Exp. Mtr

379

610

87K

6K

87K

CCD  
 Spectr. Temp.  $-100.7^{\circ}\text{C}$  Dome Temp./Hum.  $19.4^{\circ}\text{C} / 76.4\%$  Transparency Conditions *clouds in the north, 288*  
 Focus  $6.67$   
 Spectr. Temp. .... Dome Temp./Hum. ....

Exp. Mtr.	Seeing	Pig. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800 $\frac{1}{\text{mm}}$	306 $\mu$	6600	18			
379		10.7	AGU					19			
								20			
								1			
								5			
								21			
610		8.65	65					22			
								23			
								1			
								24			
8.7K		4.8	KOIII					25	Vel std		
								26			
								27			
6K 8.7K		2.9	GOI					28	Vel std		
								29			



289  
Pg #3

Wed/Thur

Date 1997 Aug. 27/28 Observers Vnk/K53/Lu

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.
cc47945	comp							FeAr No. 13	4
cc47946	BD+15°4915	23 57 59	15 57 12	00 17 07					1200
47	BD+15°4915	"	"	00 40 08					1200
48	comp							"	4
49	BIAS(4)			01 01					0
50	BD+15°4915	"	"	01 04 17					1200
51	"	"	"	01 24 50					1200
52	comp							"	4
53	comp							"	4
54	HD 224930	23 56 57	26 33 10	01 50 52					
55	comp							"	4
56	comp							"	4
57	V778 Cas	01 53 23	70 02 33	02 11 17					600
58	comp							"	4
59	BIAS(4)			02 23					0

cc0

Spectr. T.

Focus...

Spectr. T.

Exp. Mir.

749

750

719

680

565

CCD  
 Spectr. Temp.  $-100.8^{\circ}$  Dome Temp./Hum.  $18.0^{\circ}2/75.9\%$  Transparency Conditions OK. Some clouds 290  
 Focus  $6.69$  in the south  
 Spectr. Temp. Dome Temp./Hum.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	$1800 \text{ \AA} / \text{mm}$ 56.35	306 u	6600	6			
749		10	G2V					7			
750								8			
								9			
								1			
719	3"-4"							10			
680								11			
								12			
								13			
		5.7	G3V					14			
								15			
								16			
565	5"	9	F0					17		$\Delta X + 15^s$	
								18		$\Delta \delta - 1'6''$	
								1			





CCO  
Spectr. Temp.  $-100.8^{\circ}\text{C}$ ...

Dome Temp./Hum.  $17.8^{\circ}\text{C} / 70.4\%$

Transparency Conditions *fine* ..... 292

Focus ..... *6.69* .....

Spectr. Temp. ....

Dome Temp./Hum. ....

Exp. Mtr.	Seeing	Ptg. Mag	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800 56.35	300 $\mu$	6600	19			
395		10.3	K5					20			
								21			
								22			
2880		7.3	K5					23	Vel std		
								24			
								1			
								25			
485		10	G5					26			
								27			
513		"	"					28			
								29			
								30			
3.4K	3"	6.3	G5III					31			
								30			

Pg #5

293 1997 Aug. 27/28

Date

Observers Vnk/KSB/Lu

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.
cc47925	comp	.						F2Ar 1/0 #3	4
76	HD 20715	03 11 03	43 39 27	04 12 30					300
77	comp							"	4
78	BIAS(4)			04 19					0
79	comp							"	4
80	HD 20418	03 12 00	49 43 47	04 26 53					200
81	comp							"	4
82	comp							"	4
83	HD 26793	04 09 08	09 45 32	04 38 42					340
84	comp							"	4
85	comp							"	4
86	HD 27638	24 16 30	25 23 27	04 48 50					337
87	comp							"	4
88	BIAS(4)			04 55					0

CCD  
 Spectr. Te.  
 Focus...  
 Spectr. Te.  
 Exp. Mtr.  
 10 K  
 97 K  
 97 K  
 97 K

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

Dome Temp./Hum.  $17.5^{\circ}/66.1\%$

Transparency Conditions *fine* 294

Focus  $6.69$

Spectr. Temp. ....

Dome Temp./Hum. ....

400 0 50 1024 4 1 CCDPMT

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800/mm 58.35	306 $\mu$	6600	6			
10K		5.5	B8V					7	Telluric Std		
								8			
								1			
								9			
9.7K		5.0	B5V					10			
								11			
								12			
9.9K		5.2	B9V					13			
								14			
								15			
9.9K		5.4	B9V					16			
								17			
								1			





CCD Spectr. Temp.  $-100.8^{\circ}\text{C}$  Dome Temp./Hum.  $17.5/71.2\%$  Transparency Conditions *fine* 296

Focus  $6.69$

Spectr. Temp. Dome Temp./Hum.  $400\ 0\ 50\ 1024\ 4\ 1\ \text{CCDFMT}$

Exp. Mtr	Seeing	Pig. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800/mm 56.35	306 $\mu$	6600	3/4			
								1			
								6			
8K	2.4	6.7	B9V					7	Telluric std		
								8			
								9			
6K		6.2	G5					10	K38 CB		
								11			
								12			
1559		8.7	G5					13			
								14			
								1			
								15			
1039		9.7	G5V					16			
								17			





CCD  
Spectr. Temp. = 100.7 °C

Dome Temp./Hum. 16.4 °C / 77.2%

Transparency Conditions ... fine ... 298  
→ cloudy

Focus ..... 6.69 .....

Spectr. Temp. ....

Dome Temp./Hum. .... 400 0 50 1024 4 1 CCDFMT

Exp. Mtr.	Seeing	Fig. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800/mm	306 $\mu$	6600	18			
548		10	GS					19			
								20			
								1			
								21			
2350		8.5	FAU					22		cloudy	
								23			
								5			

PG # 1 Fri/Sat,  
 299 1997 Aug 29/30  
 Date .....

Observers

Vnk/Ks8/Lu

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.
CL48020/21	Inboard/outboard							FeAr ND#3	4/7
22	BIAS(4)			19:48					
23	comp							"	4
24	HD177724	19 00 49	13 42 53	19 57 02					60
25	comp							"	4
26	comp							"	4
27	HD145001	16 03 34	17 18 48	20 06 50					273
28	comp							"	4
29	comp							"	4
30	HD 187183	19 43 30	09 05 00	20 20 05					1500
31	comp							"	4
32	BIAS(4)			20 47					0
33	HD 187183	"	"	20 48 28					1500
34	comp							"	4
35	HD 187183	"	"	21 16 34					1500
36	comp							"	4

CCO  
 Spectr. T.  
 Focus...  
 Spectr. I.

Exp. Nr.

10 K

81 K

813

853

943

CCD  
 Spectr. Temp.  $-100.8^{\circ}$  ..... Dome Temp./Hum.  $17.8^{\circ} / 72.4\%$  ..... Transparency Conditions *Fine* ..... 300  
 Focus ..... 6.70 .....  
 Spectr. Temp. .... Dome Temp./Hum. .... 400 0 50 1024 4 1 CCDFHT

Exp. Mtr.	Seeing	Pg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800/mm 56.35	306 $\mu$	6600	3/4	KS2 CB		
								1			
								6			
10K	2"-3"	299	40Vn					7			
								8			
								9			
8.1K		50	G5m					10			
								11			
								12			
813		955	65V					13			
								14			
								1			
853								15			
								16			
943								17			
								18			



PG # 2 Fri/Sat  
 301 1997 Aug. 29/30  
 Date ..... Observers Vnk/Ksz/Lu

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.
CL48037	HD187183	19 43 30	09 05 00	21 44 33					1500
38	comp			<del>22 11</del>				FeAr ND#3	4
39	BIAS(4)			22 11					
40	HD187183	"	"	22 12 27					1500
41	comp							"	4
42	- comp							"	4
43	HD199629	20 53 27	40 46 55	22 44 25					98
44	comp							"	4
45	comp							"	4
46	HD 209750	22 00 39	-00 48 21	22 54 45					47
47	comp							"	4
48	BIAS(4)			22 58					0
49	comp	(2000)						"	4
50	BD+36 5017	23 11 32	36 53 38	23 05 17					1000
51	comp							"	4

Exp. Mir.  
 935  
 944  
 10 K  
 8.5X  
 515

SPECTRUM  
 Spectr. Temp.  $-100.7^{\circ}$  Dome Temp./Hum.  $16^{\circ}\text{C}/78\%$  Transparency Conditions *slight haze* 302  
 Focus  $6.7^{\circ}$   
 Spectr. Temp. ..... Dome Temp./Hum. ....

Exp. Mtr.	Seeing	Pig. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
935	2-3	9.55	G5V	CASS CCD	$1800/\text{mm}$ 56.35	306 $\mu$	6600	19			
								20			
								1			
944	"	"	"					21			
								22			
								23			
10 K		4.0	AOV					24		←	
								25		H $\alpha$ in emission	
								26			
8.5 K		2.93	G22b					27			
								28			
								1			
								29			
515								30			
								31			

Pg # 3

Fri/Sat.

303 1997

Date Aug. 29/30

Observers

Vnk/Ksz/Lu

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.
048052	comp							FeAr ND#3	4
53	HD 199497	20 52 30	19 15 00	23 28 55					1100
54	comp							"	4
55	comp							"	4
56	HD 172167	18 37 33	38 41 26	23 54 38					9
57	comp							"	4
58	BIAS(4)			23 59					0
59	comp							"	4
60	HD 186791	19 41 30	10 22 10	00 10 20					43
61	comp							"	4
62	comp							"	4
63	HD 187691	19 46 14	10 09 55	00 16 43					342
64	comp							"	4
65	comp							"	4
66	BD+33 4304	21 35 02	34 35 40	00 35 54					1500
67	comp								

CCD

Spectr. Ten

Focus. ....

Spectr. Ten

Exp. Mir

1154

10K

8.3K

8K

433



CCD  
Spectr. Temp.  $-100.8^{\circ}\text{C}$   
Focus  $6.70$   
Spectr. Temp. ....

Dome Temp./Hum.  $15.3^{\circ}\text{C}/81.4\%$   
Dome Temp./Hum. ....  $400 \ 0 \ 50 \ 1024 \ 4 \ 1$

Transparency Conditions  $OK$  clouds in the east  
and in the south  $304$   
CCDFMT

Exp. Mtr	Seeing	Pkg Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
								6			
1157		8 <sup>65</sup>	G5					7		clouds in the field	
								8			
								9			
10K		0	A0V					10			
								11			
								1			
								12			
8,3K		2.7	K2II					13			
								14			
								15			
8K		5.11	F8V					16			
								17			
								18			
435	2-3"	197	A6V					19			
								20			



CCD  
Spectr. Temp. ... 1.00. 8.0 ...

Dome Temp./Hum. 14.9 °C / 84.7 %

Transparency Conditions ... 30.6

Focus ... 6.70

some thin clouds  
— fairly cloudy

Spectr. Temp. ....

Dome Temp./Hum. ....

Exp. Mtr.	Seeing	Pig. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD				21			
647		9.0	K0V					21			
								22			
								23			
								25			
1160	2.4"	9.	F8					26	Vix cep		
								27			
								5			
								1			



PG# 1

307 1997 Sept. 1/2

Date

Mon/Tues

Observers

Vnk/Ksz/Lu

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.
CC48083/84	Inboard/Outboard							FeAr ND#3	#7
85	BIAS(4)			2005					
86	comp							"	4
87	HD177724	19 00 49	13 42 53	20 15 19					51
88	comp							"	4
89	comp							"	4
90	HD145001	16 03 34	17 18 48	20 22 01					291
91	comp							"	4
92	comp							"	4
93	BD+382803	16 35 57	37 58 02	20 43 00					1802
94	comp							"	4
95	comp							"	4
96	HD163506	17 51 23	26 03 57	21 21 57					314
97	comp			21				"	4
98	BIAS(4)			21 28					0

CCD  
Spectr. Temp. -100.7 °C

Dome Temp./Hum. 20.2°C/64.8

Transparency Conditions haze 308

Focus 6.69

Spectr. Temp.

Dome Temp./Hum.

400 0 50 1024 4 1 CCD/FMT

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1500/mm 56.35	306 $\mu$	6600	3/4			
								1			
								6			
10 K	2"	2.89	AOV <sub>n</sub>					7	Telluric std		
								8			
								9			
8 K	2"	5.0	95 III					10	Vel std		
								11			
								12			
1414	2"	9.0	G					13	Vok cep		
								14			
								15			
61K		5.5	GI					16			
								17			
								1			

PG #2  
 309 1997 Sept. 12

Mon/Tues

Observers

Vnk/Ksz/Lu

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.
cc48099	comp							FeAr 1/2B3	4
100	HD229680	18 45 54	15 49 00	20 43 54					2000
01	comp							"	4
02	comp							"	4
03	HD177441	18 59 36	01 09 00	22 22 47					1200
04	comp							"	4
05	BAAS(4)			22 44					
06	comp							"	4
07	HD178359	19 03 12	01 09 00	22 47 52					600
08	comp						0 09	"	4
09	comp							"	4
10	HD187129	19 47 23	00 44 56	23 06 39					1317
11	comp							"	4
12	comp							"	4
13	HD187921	19 47 24	27 12 00	23 17 13					600
14	comp								

Spectr. Ter  
 Focus...  
 Spectr. Ter  
 Exp. Min  
 617  
 924  
 1980  
 61K  
 6390



CCD  
 Spectr. Temp.  $-100.7^{\circ}$  ..... Dome Temp./Hum.  $18.5^{\circ}/73.2\%$  ..... Transparency Conditions haze ..... 310  
 Focus 6.69 .....  
 Spectr. Temp. .... Dome Temp./Hum. ....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	$1800/\text{mm}$ 56.35	306 $\mu$	6600	18			
617	1-2"	11.	F2I <sub>b</sub>					19			
								20			
								21			
974		8.5	K2I					22			
								23			
								<del>24</del>			
								24			
1980	2	7.0	FSI					25			
								26			
								27			
81K		4.	FSI					28			
								29			
								30			
4090		7	G2I					31			
								<del>32</del>			

PG #3  
 311 1997 <sup>Sept</sup> / 2  
 Date

Observers Vnk/Ks3/Lu

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.
cc48115	comp							FeAr ND#3	4
16	HD188727	19 51 29	16 22 11	23 32 21					312
17	comp							"	4
18	BIAS(4)			23 39					0
19	comp							"	4
20	HD227463	20 00 36	33 50 00	23 44 10					1200
21	comp							"	4
22	comp							"	4
23	HD196018	20 29 36	46 16 00	00 16 39					1500
24	comp							"	4
25	BIAS(4)			00 44					0
26	comp							"	4
27	BD+03 4377	20 50 13	03 29 08	00 50 12					1800
28	comp							"	4
29	comp							"	4
30	BD+39 4379	20 57 21	40 10 39	01 30 10					1200

CCD  
 Spectr. Temp.  $-100.7^{\circ}\text{C}$  ..... Dome Temp./Hum.  $17.8/81.2\%$  ..... Transparency Conditions  $\text{hazy}$  ..... 3.12  
 Focus  $6.67$  .....  
 Spectr. Temp. .... Dome Temp./Hum. ....

Exp. Mtr	Seeing	Pig. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800/nm 56.35	306 $\mu$	6600	6			
6K	2.3	5.8	G					7			
								8			
								1			
								9			
990		8.7	F8I					10			
								11			
								12			
940		9.5	F8I					13			
								14			
								1			
								15			
817		9	F8I					16			
								17			
								18			
436	1.2"	10	FSI					19		some clouds in the field	



Emulsion Batches:

PG # 4  
313 Date 1997 Sept. 1/2

Observers Vnk/Ksg/Lu

Plate No.	Object	R. A. 1900	Declination 1900	Starting Time E. S. T.	Ending Time E. S. T.	Hour Angle End	Declination	Comparison	
								Type/Filter	Exp.
CC48131	comp							FRAP ND#3	4
32	comp							"	4
33	HD222368	23 34 48	05 05 03	01 56 46					154
34	comp							"	4
35	comp							"	4
36	HD223094	23 41 30	28 09 00	02 05 17					630
37	comp							"	4
38	BIAS(4)			02 17					0
39	comp							"	4
40	HD214975	22 36 54	56 19 00	02 22 42					1200
41	comp							"	4
42	BIAS(4)			02 47					0
43/49	flat3							Tung ND#5	4

CCD  
Spectr. Temp.  $-100.7^{\circ}\text{C}$   
Focus  $6.69$   
Spectr. Temp. ....

Dome Temp./Hum.  $17.3^{\circ}\text{C}/86.9\%$   
Dome Temp./Hum. ....

Transparency Conditions *very haze*  $3.14$   
 $400 \ 0 \ 50 \ 1024 \ 4 \ 1 \ \text{CCDFMT}$

Exp. Mtr.	Seeing	Pts. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASC CCD	$1800 \frac{1}{\text{mm}}$ $54.35$	$306 \mu$	6600	20			
								21			
6K	2"	4.1	F7V					22	vel std		
								23			
								24			
4069		7.4	K5III					25	vel std		
								26			
								1			
								27			
1180		8.3	F6I					28	V <sub>nk</sub> CB		
								29			
								1			
								5			

PE# 1

Tues/Wed

315

Date 1997 Sept 2/3

Observers

Vnk/Ksz/Lu

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.
CC48150	Inboard/outboard							FeAr ND#3	4/7
52	BIAS(4)			19 49					
53	comp							"	4
54	HD159139	17 27 54	28 28 47	19 55 58					590
55	comp							"	4
56	comp							"	4
57	HD196504	20 32 49	26 06 50	20 11 19					590
58	comp							"	4
59	comp							"	4
60	HD154417	17 00 11	00 50 58	20 27 26					531
61	comp							"	4
62	comp							"	4
63	HD171232	18 28 30	25 25 00	20 42 16					710
64	comp							"	"
65	BIAS(4)			26 55					



CCD -100.8°C  
Spectr. Temp. ....

Dome Temp./Hum. 16.4°C/64.5%

Transparency Conditions partly cloudy 316

Focus 6.72

Spectr. Temp. ....

Dome Temp./Hum. ....

400 0 50 1024 4 1 CCDPHT clear

Exp. Mtr.	Seeing	Pig. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1500/mm 56.35	306μ	6600	3/4			
								1			
								6			
9.2K	4"-6"	5.6	AIV					7	Telluric Std		
								8			
								9			
9.1K	4"-8"	5.6	B9II					10	Telluric Std		
								11			
								12			
5K		6.0	G0II					13	Vel std	-clear up.	
								14			
								15			
2170		7.7	G8II					16	Vel std		
								17			
								18			



CCD  
 Spectr. Temp. ... -100.5°C... Dome Temp./Hum. 15.1<sup>2</sup>/68.4% Transparency Conditions ... clear ... 318  
 Focus ... 6.72  
 Spectr. Temp. ... Dome Temp./Hum. ...

Exp. Mtr.	Seeing	Fig. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800/mm 5635	306 $\mu$	6600	18			
6.4K		5.5	FGI <sub>A</sub>					19	Vix CEP		
								20			
								21			
487	4"	11	F2I <sub>B</sub>					22	"		
								23			
								<del>24</del>			
								24			
897	8"	8.5	K2I					25	"		
								26			
								27			
2055	<sup>11</sup> 8" 4	7.0	FSI					28	"		
								29			
								30			
6.1K		4	FSI					31			



PG #3

319 1997 Sept 2/3

Vnk/Ks3/Lu

Emulsion Batches:

Date ..... Observers .....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison	
								Type/Filter	Exp.
cc48182	comp							F2Ar ND#3	4
83	HD187921	19 47 24	27 12 00	22 42 44					546
84	comp							"	4
85	BIAS(4)			22 55					0
86	comp							"	4
87	HD188727	19 51 29	16 22 11	23 01 34					319
88	comp							"	4
89/95	flats							Tung ND#5	4
96	BIAS(4)								0
97	BIAS(4)			01 41					0
98	comp							F2Ar ND#3	4
99	BD+17°4572	21 19 21	17 51 00	02 26 04					800
cc48200	comp							"	4
01	BIAS(4)			02 41					0
02	comp							"	4
03	BD+36 5017	23 11 32	36 53 38	02 47 11					1040

CCD  
Spectr. Temp. -100.52

Dome Temp./Hum. 14.0°C / 60.6%

Transparency Conditions clear 320  
2 cloudy

Focus 6.72

Spectr. Temp.

Dome Temp./Hum. 400 0 50 1024 4 1 CCD FITT clear

Exp. Mtr.	Seeing	Pig. Mag	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800/mm 56.55	306 <sub>H</sub>	6600	6			
2929		7.	G2I					7	Vok CEP		
								8			
								1			
								9			
1820		5.8	G					10			
								11			
								5			
								1			
								1			
								6		was slit took out. then put in again	
536	6"	9	F8					7			
								8			
								1			
								9			
457	6"	9.9	G5					10			

P4 #4  
 321 1997 Sept 2/3  
 Date .....

Observers Vrk/Ks3/Lu  
 .....

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.
cc48204	comp							FeAr	4
05	BIAS(4)			03 06				ND#3	
06	BD+36 5017	23 11 32	36 53 38	03 12 30					1061
07	comp							"	4
08	comp							"	4
09	HD16780	02 36 19	47 50 18	03 43 17					610
10	comp							"	4
11	BIAS(4)			03 56					

CCO  
 Spectr. Te  
 Focus...  
 Spectr. Te  
 Exp. Mtr.



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

Dome Temp./Hum.  $12.2^{\circ}\text{C}/59.9\%$  .....

Transparency Conditions  $\dots$  cloudy again 322  
 $\rightarrow$  clearing.

Focus  $\dots$  6.72 .....

Spectr. Temp. ....

Dome Temp./Hum. ....

Exp. Mtr.	Seeing	Pig. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800/mm 56.35	3.6 $\mu$	6600	91			
								1			
399	4.8"	9.91	45					12			
								13			
								14			
5K		6.45	45					15			
								16			
								1			

PG #1  
323 1997 Sept 3/4

Emulsion Batches:

Date ..... Observers Vnx/Ksz/Lu

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
cc48212/13	Inboard/outboard							FAc ND#3	4/7
14	BIAS(4)			19 39				"	4
15	<sup>comp</sup> HD 167376	18 09 45	38 44 44	19 51 05				"	452
16	comp							"	4
17	comp							"	4
18	comp							"	4
19	HD 145122	16 04 16	17 28 16	20 04 55				"	639
20	comp							"	4
21	comp							"	4
22	HD 163075	17 49 15	46 40 10	20 21 18				"	522
23	comp							"	4
24	comp							"	4
25	HD 161193	17 39 04	51 51 59	20 35 34				"	360
26	comp							"	4
27	BIAS(4)			20 43				"	0
28	comp							"	4
29	HD 216548	22 49 06	37 23 00	21 07 20				"	900

CCD  
Spectr. Ten  
Focus.....  
Spectr. Ten

Exp. Mir

9K

9.2K

6K

6K

1075

Spectr. Temp.  $\text{--- } 100.5^{\circ}\text{C}$  Dome Temp./Hum.  $13.5^{\circ}\text{C}/45.3\%$  Transparency Conditions  $\text{--- } \text{fine}$  324  
 Focus  $\text{--- } 6.75$   
 Spectr. Temp. Dome Temp./Hum.  $400 \text{ } 0 \text{ } 50 \text{ } 1024 \text{ } 4 \text{ } 1 \text{ } \text{CCDFMT}$

Exp Mtr	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CAS5 CCO	1800/mm 56.35	306 $\mu$	6600	3/4			
9K	2"	6.4	B9III <sub>n</sub>					1/6 7		Telluric std	
								8			
								9			
9.2K		6.14	AOV <sub>nn</sub>					10		Telluric std	
								11			
								12			
6K		6.4	KO					13			
								14			
								15			
6K		5.88	8KO					16			
								17			
								1			
								18			
10T5		8.95	KOV					19			



PG #2  
325 1997 Sept 3/4

Emulsion Batches:

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Observers Vnk/Ksz/Lu

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison	
								Type/Filter	Exp.
CL48230	HD 216598	22 49 06	37 23 00	21 22 47					900
31	comp							FeAr ND#3	4
32	BIAS(4)			21 39					
33	HD 216598	"	"	21 40 58					900
34	"	"	"	21 56 18					900
35	comp							"	4
36	comp							"	4
37	HD 204038	21 20 48	33 16 00	22 19 32					1800
38	comp							"	4
39	BIAS(4)			22 51					
40	comp							"	4
41	HD 216598	22 49 06	37 23 00	22 58 01					900
42	"	"	"	23 13 26					900
43	comp								
44	HD 216598	"	"	23 30 28					900
45	"			23 46 03					702

Spectr. Ten  
Focus.....  
Spectr. Ten  
Exp. Mtr  
829  
750  
762  
799  
778  
742  
45

CCD  
Spectr. Temp.  $-100.5^{\circ}\text{C}$  ..... Dome Temp./Hum.  $12.0^{\circ}\text{C}/49.9\%$  Transparency Conditions *fine* ..... 326

Focus .....  $6.75$  .....

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

Exp. Mtr.	Seeing	Pig. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
973	3"	8.95	KOV	CASS CCD	$18^{\circ}$ / $56.35$	$306_{\mu}$	6600	20			
								21			
								1			
829		"	"					22			
750:		"	"					23			
								24			
								25			
3062		8.42	FIV					26			
								27			
								1			
								28			
797		8.95	KOV					29			
878		"	"					30			
								31			
942								7			
415								8		Cloudy	

PG# 3

327 1997 Sept 3/4

Date

Observers

Vnk/KS3/Lu

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.
cc48246	comp							FeAr ND#3	4
cc48247	BIAS(4)			23 59					
48	Comp							"	4
49	HD216598	22 49 06	37 23 00	00 43 14					900
50	"	"	"	00 58 43					900
51	comp							"	4
52	BIAS(4)			01 15					
53	HD216598	"	"	01 16 20					900
54	"	"	"	01 32 00					900
55	comp							"	4
56	comp							"	4
57	HD199497	20 52 30	19 15 00	01 56 09					1100
58	comp							"	4
59	BIAS(4)			02 16					
60	comp							"	4
61	BD+36 5017	23 11 32	36 53 38	02 22 47					1000



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

Dome Temp./Hum.  $10.6^{\circ}\text{C} / 59.2\%$

Transparency Conditions *some clouds reduced 328*

Focus  $6.75$

Spectr. Temp. ....

Dome Temp./Hum. .... 400 0 50 1024 4 1 CCD/FMT

Exp. Mtr	Seeing	Pig Mag	Sp.	Inst.	Grating/Filter	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800/mm 56.35	306 $\mu$	6600				
								6			
1084		8.95	KOV					7			
1150		"	"					8		clear, some clouds in the south	
								9			
								1			
990		"	"					10			
852								11			
								12			
								13			
1129		8.69	95					14			
								15			
								1			
								15			
581		9.01	95					16			

PG # 4  
 329 1997 Sept 3/4  
 Date

Observers Vnk/Ks8/Lu

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.
CC48262	comp							FAV ND#3	4
63	comp							"	4
64	HD 216598	22 49 06	37 23 00	02 45 39					900
65	"	"	"	03 01 13					900
66	comp							"	4
67	BIAS(4)			03 18					0
68	HD 216598	"	"	03 19 44					900
69	"	"	"	03 35 38					900
70	comp							"	4
71	HD 216598	"	"	03 52 40					900
72	"	"	"	04 08 21					900
73	comp							"	4
74	HD 216598	"	"	04 25 35					900
75	comp							"	4
76	BIAS(4)			04 41					0

Spectr. Temp.  $-100.7^{\circ}\text{C}$  Dome Temp./Hum.  $100^{\circ}\text{C}/50.7\%$  Transparency Conditions *clear* 330  
 Focus  $6.75$   
 Spectr. Temp. .... Dome Temp./Hum. ....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CCS CCD	1800/mm 56.35	306 $\mu$	6600	17			
								18			
795	2.3 <sup>4</sup>	8.95	KOV					19			
884			"					20			
								21			
								1			
1005		"	"					22			
1059		"	"					23			
								24			
1186		"	"					25			
1184		"	"					26			
								27			
1086		"	"					28			
								29			
								1			







PG # 1  
 333 1997 Sept 4/5

Observers Vnk/Ksg/Lu

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.
CC48288/89	Inboard/outboard							2 Ar ND#3	4/7
90	BIAS(4)			19 42					
91	comp							"	4
92	HD177724	19 00 49	13 42 53	19 52 55					80
93	comp							"	4
94	comp							"	4
95	HD14501	16 03 34	17 18 48	20 01 48					119
96	comp							"	4
97	comp							"	4
98	HD163506	17 51 23	26 03 59	22 08 15					148
99	comp							"	4
300	comp							"	4
01	HD178359	19 03 12	01 09 00	20 16 08					600
02	comp							"	4
03	comp								
04	HD229680	18 45 54	15 49 00	20 32 01					180

Exp. Mtr.  
 Spectr. Ten  
 Focus.....  
 Spectr. Ten

10 K

5K

5K

2780

440



CCD Spectr. Temp.  $-100.8^{\circ}\text{C}$  Dome Temp./Hum.  $15.3^{\circ}\text{C}/44.8\%$  Transparency Conditions *fine with some clouds*  
 Focus  $6.73$  334  
 Spectr. Temp. Dome Temp./Hum.  $400.0, 60, 1024, 41$  CCD/FMT

Exp. Mtr.	Seeing	Pig. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCO	1500/mm 56.35	306 $\mu$	660	3/4			
								1			
								6			
10K	2"	3.	A0V <sub>6</sub>					7			
								8			
								9			
5K	2"	5.0	G5III					10			
								11			
								12			
5K	2"	6.4	K0					13			
								14			
								15			
2780		7.	F5I					16			
								17			
								18			
440		10.7	F2I					19			



CCD Spectr. Temp. = 100.7° ... Dome Temp./Hum. 138.2°/47.7% Transparency Conditions fine 336

Focus 6.33

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

Exp. Mir.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800/mm 58, 35	306 $\mu$	6600	20			
								21			
4820	2"	7.	G2I					22			
								23			
								1			
								24			
840		9	F8II					25			
								26			
								27			
502		10.5	A6					28			
								29			
								1			
								29			
1420	2-4"	8.69	G5					30			
								31			



PG #3

337 1997 Sept 4/5

Date ..... Observers Vnk/KSB/Lu

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 48320	HD 199497	20 52 30	19 15 00	22 39 36					1100
21	comp							FeAr ND#3	
22	HD 199497	"	"	23 00 47					1100
23	comp							"	4
24	BIAS(4)			23 20					0
25	HD 199497	"	"	23 22 22					1100
26	comp							"	4
27	BIAS(4)			00 51					0
28	comp							"	4
29	BD +39 4379	20 57 21	40 10 39	00 55 41					1800
30	comp							"	4
31	comp							"	4
32	BD +42° 3935	21 00 06	42 35 51	01 30 38					1500
33	comp							"	4
34	BIAS(4)			01 57					0

20  
Spectr. Ten  
Focus.....  
Spectr. Ten

Exp. Mtr

190

705

905

738

752

CCD Spectr. Temp.  $-100.6^{\circ}\text{C}$  Dome Temp./Hum.  $12.3^{\circ}\text{C}/55\%$  Transparency Conditions  $\text{fine (some clouds passing by)}$   
 Focus  $6.73$   
 Spectr. Temp. .... Dome Temp./Hum. .... 338

Exp. Mtr.	Seeing	Pg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1390		8.69	G5	CASS CCD	1800/mm 56.35	300 $\mu$	6600	7			
								8			
745		"	"					9		— clouds in the field	
								10			
								11			
965								12			
								1			
								14			
738		10	FSI					15			
								16			
								16			
732		9.4	FSI					17			
								18			
								1			

PG# 4

339 Date 1997 Sept 4/5

Observers

Vnk/Ksb/Lu

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
cc48335	comp							FeAr ND#3	4
36	HD214975	22 36 54	56 19 00	02 07 03					1200 2300
37	comp							"	4
38	comp							"	4
39	IX Cas	00 04 51	50 14 06	02 34 21					2400 258
40	comp			02 03				"	4
41	BIAS(4)			03 16					0
42	comp							"	4
43	HD22544 = HIP 17042	03 32 30	40 58 00	03 22 30					600 1800
44	comp							"	4
45	comp							"	4
46	HD23874 = HIP 17826	03 43 24	11 24 00	03 40 41					810 1504
47	comp							"	4
48	comp							"	4
49	HD22484	0		03 58 52					112 03K
50	comp							"	4
51	BIAS(4)								0
57/58	flat3							Tung ND#5	



<sup>CCD</sup>  
 Spectr. Temp.  $-100.7^{\circ}$  ..... Dome Temp./Hum.  $10.8^{\circ}/64.5\%$  Transparency Conditions *fairly cloudy* 340  
 Focus .....  $6.73$  .....  
 Spectr. Temp. .... Dome Temp./Hum.  $10.1^{\circ}/68.7\%$  ..... *clear*

Exp. Mtr.	Seeing	Fig. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	$1800/\text{mm}$ $4.35$	$306_{\mu}$	6600	6			
2300		8	F6I					7			
								8			
								8			
258		11.5	F7					9			
								10			
								1			
								10			
1800		8.0	A0					11			
								12			
								12			
1504		F0	8.6					13			
								14			
6.3K		4.3	F9IV-II					15			
								16			
								1			
								5			

PG #1

34)

Sun/mon

Emulsion Batches:

Date 1997 Sept 7/8 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
CL48359/60	Inboard/Outboard							FeAr ND3	4/8
61	BIAS(4)			20 34					
62	comp							4	4
63	HD154225	16 59 06	40 12 00	20 31 22					627
64	comp							4	4
65/71	flats							Tung ND#4	5
72	BIAS(4)			21 03					0
73	BIAS(4)			00 10					0
74	comp							FeAr ND3	4
75	HD212584	22 20 18	40 48 00	00 15 19					865
76	comp							"	4
77	comp							"	4
78	HD218396	23 02 33	20 35 41	00 35 46					283
79	comp							"	4
80	comp							"	4
81	HD220237	23 17 06	76 31 00	00 49 07					455
82	"			00 59 01					447

SED Spectr. Temp.  $-100.5^{\circ}\text{C}$

Dome Temp./Hum.  $+15.4^{\circ}\text{C}$  70% H

Transparency Conditions P.A.T. Cloudy

342

Focus 6.76

Spectr. Temp.

Dome Temp./Hum.  $e_2$

400 0 50 1024 4 1 CCD/FMT

Exp. Mtr.	Seeing	Pg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD T-grating	1800 in low -47.06	306 $\mu$	5184	3/4			
490		8.1	AS					8		sharp lines	
								9			
								5			max 14K
								1			
								1			
								10			
900	4-8"	8.2	AO					11	HIP 110622	almost no lines	max 10K weak
								12			
								12			
2100		6	AS					13	HIP 114189	lines are sharp	
								14			
								14			
1100		7.74	F2					15	HIP 115262	S-E broaden lines	
600								16		N-W very sharp lines	





Spectr. Temp. .... Dome Temp./Hum. **72.0c 75% H** Transparency Conditions **Part Cloudy** **344**Focus **6.7.6**

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

**400 0 50 1024 A 1 CCD FAT**

Exp. Mtr	Seeing	Mag	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
<i>No filter</i>				<i>CBSCCD</i>		<i>306<sub>u</sub></i>		17			
								17			
1670	5"	7.6	AD					18	HIP 17111	<i>no lines + bordering</i> <i>Faint companion also</i> <i>on slit</i>	✓
								19			
								1			
								20			
1320		7.56	dKS					21			
								22			
	<b>4.8"</b>			<i>ALTitude 46° Above 306u slit</i>					<i>Seeing test.</i>	<i>Light NE Breeze</i> <i>Dome west</i>	
	<i>HV with same window and Int setting</i>										
								23			
158	4.6"	10.0	A					24			
159								25			
								26			





CCD Spectr. Temp.  $-100.7^{\circ}\text{C}$  ..... Dome Temp./Hum.  $+11.0^{\circ}\text{C}$  75%RH ..... Transparency Conditions ..... mainly clear ..... 346

Focus ..... 6.76

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

Exp. Mtr.	Seeing	Foc. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CBS CCD	1800 $\lambda$ mm 47.06	306	518A	1			
								27			
1510	5"	67	A7					28		SE of close pair. MAX 1K	
1510			A5F					29		NW of pair	
								30			
								8			
151		9.5	?					7			
163		"	"					8			
								9			
								1			
192		"	"					10			
192		"	"					11			
								12			
205	4-6	"	"					13			
								14			







349  
pg #1

Mon / Tues

Date .. 1997 Sept 8/9.... Observers .. J.n./Lu.....

Emulsion Batches: .....

Plate No.	Object	R.A.	Declination	Starting Time	Ending Time	Hour Angle	Declination	Comparison	
		1900	1900	E.S.T.	E.S.T.	End		Type/Filter	Exp.
CC484 <sup>17/18</sup>	Inboard (out board)							FEAR NO3	4/8
19	BIAS(4)			19 22					0
20	Comp							"	4
21	RZ Dra	18 23 06	58 54 18	19 35 36					1200
22	"	"	"	19 56 06					1200
23	Comp							"	4
24	BIAS(4)			20 17					
25	RZ Dra	"	"	20 18 33					1201
26	"			20 39 03					1235
27	Comp							"	4s
28	RZ Dra	"	"	21 01 23					1200
29	"	"	"	21 21 48					1200
30	Comp							"	4
31	BIAS(4)			21 43					
32	RZ Dra	"	"	21 44 31					1200
33	"	"	"	22 04 58					1365

CCD  
Spectr. Te  
Focus ...  
Spectr. TeExp. Mir  
500  
490545  
490498  
529560  
572

CCD Spectr. Temp.  $-100.7^{\circ}\text{C}$  ..... Dome Temp./Hum.  $716.2^{\circ}\text{C}$   $63-78\text{H}$  Transparency Conditions  $\text{Fine}$  ..... 350

Focus  $6.76$  .....

Spectr. Temp. .... Dome Temp./Hum.  $60$

Exp Mtr. 1000 V	Secing	Pig Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no filter				CAS CCD	1200 h/mm	306 $\mu$	5184A	3/4	focus test	15.5 $^{\circ}\text{C}$ put in ladder	
				Tigrating $\rightarrow$	77.06			1	<del>plate</del>		
								6			
500	1"	10.0	AS					7			
490	"	"	"					8			
								9			
								1			
545		"	"					10			
490		"	"					11			
								12			
498		"	"					13			
529		"	"					14			
								15			
								1			
560		"	"					16			
572	2"	"	"					17			

351PG #2

Mon/Tues

Date 1997 Sept 8/9

Observers

Lu/Tn

Emulsion Batches:

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

Plate No.	Object	R.A.	Declination	Starting Time	Ending Time	Hour Angle	Declination	Comparison	
		1900	1900	E.S.T.	E.S.T.	End		Type/Filter	Exp.
CC 48434	comp							F <sub>2</sub> Ar ND #3	TS
35	BIAS(4)			22 29					0
36	RZ Dra	182306	2000 1585718	22 30 42					1221
37	"	"	"	22 51 38					1258
38	comp							"	4
39	RZ Dra	"	"	23 14 37					1406
40	comp							"	4
41	BIAS(4)			23 40					
42	comp							"	4
43	CN And	00 20 30	40 13 36	23 48 32					900
44	"	"	"	00 04 33					900
45	comp							"	4
46	CN And	"	"	00 21 49					900
47	CN And	"	"	00 37 14					900
48	comp							"	4
49	BIAS(4)			00 54					0

CCD  
Spectr. Te.  
Focus....  
Spectr. Te.  
Exp. Mr.

435

452

490

538

548

502

462



CCD  
Spectr. Temp.  $-100.7^{\circ}\text{C}$  Dome Temp./Hum.  $+13.6^{\circ}\text{C}$  7488H Transparency Conditions *mainly clear* 352

Focus  $6.76$

Spectr. Temp. Dome Temp./Hum.

Exp. Mir.	Seeing	P <sub>0</sub> Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800/mm 47.06	306μ	5184	18			
								1			
435	2"	10.0	A5					19			
452	"	"	"					20			
								21			
490								22			
								23			
								1			
								24			
578		10.0	FS					25			
548		"	"					26			
								27			
502	2"	"	"					28			
462								29			
								30			
								1			

Pg #3

Mon/Tues

353

Date 1997 Sept 8/9 Observers Ly/Ta

Emulsion Batches:

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

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison	
								Type/Filter	Exp.
CC48450	Comp							FeA NO3	As
51	HD 222 368	23 34 48	+05 05 03	00 59 04					60s
52	Comp								As
53	Comp	(2000)						"	4
54	UX Eri	03 09 52	-06 53 24	01 07 34					1200
55	"	"	"	01 28 03					1200
56	comp							"	4
57	UX Eri	"	"	01 50 06					1200
58	"	"	"	02 10 37					1200
59	comp							"	4
60	BIAS(4)			02 32					0
61	UX Eri	"	"	02 33 54					1200
62	comp							"	4
63	Comp							"	As
64	HA Ce +	01 59 00	-22 55 12	02 57 38					600
65	Comp							"	As

Spectr. Te

Focus ...

Spectr. Te

Exp. Mr.

3K

300

305

294

292

263

475

Spectr. Temp.  $-100.6^{\circ}\text{C}$ Dome Temp./Hum.  $+12.3^{\circ}\text{C}$  74%RHTransparency Conditions *Hazy*

354

Focus  $6.76$ 

Spectr. Temp. ....

Dome Temp./Hum.  $11.9^{\circ}\text{C}$  75%RH

Exp Mtr	Seeing	Mag	Sp.	Inst.	Grating/ Tilt	Slit	Emulstion	P.H.	Program	Remarks	Quality
				CASS CCD Telescope	1800 W/1 47.06	306 $\mu$	5189A				
5K		4.3	F7J					7	std/ud		
								8			
								9			
300	253"	10.6	F8					10			
305	"	"	"					11			
								12			
294	"	"	"					13			
292	"	"	"					14			
								15			
								1			
263	"	"	"					12			
								17			
								18			
1495	5"	6.9	A7					19			
								20		SE and PA 1/5/10	



pg#4  
355

Mon / Tues

Date 1997 Sept 8/9 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
CC 48466	Comp		2000					FeAr ND3	45
67	B0+59 289	01 37 34	160 36 15	03 17 53					1200
68	comp							"	45
69	Comp		1900					"	45
70	HD 240 94	03 45 12	15 31 20	03 43 34				"	851
71	comp							"	4
72	comp							"	4
73	HD 24771	03 51 12	15 14 00	04 07 40					934
74	comp							"	4
75	comp							"	4
76	HD 30600	04 43 54	11 56 00	04 29 29				"	708
77	comp							"	4
78	comp							"	4
79	HD 22484	03 31 46	00 05 04	04 46 17					108
80	comp							"	4
81	BIAS(4)			04 49					0
82/88	flats x 7							JTAG ND5	5.00

963  
1510  
1000  
800  
5.2K

Note For Focus Test Analysis, This was the 1st night since <sup>356</sup>  
 before Tn vacation, that Temperature in focus Headers was the actual  
 Temp at Time of Test. Wen had (LWXL) had been putting estimated temp  
 for the particular focus setting in Header, not Actual temp, as is  
 standard practice

Special Request For MKI's Gld

563 Vmax 10.1 SpAm note Sept 19 - ~~1st~~ of ~~that~~ night was 400001  
 very narrow lined 05 -00 0115 as found in Encoder  
 Log.

1510 8.4 B8 HIP 18157 all most no lines EW,

1000 8.9 FO HIP 18474 puls? line broadened.

800 8.3 A5 HIP 22326 line broadened

5.2K 4.28 F9II-V std vel

14K max







