

Echelle setups

MAR 23/24/97 6400Å 600ln/mm

1 3

Spectr. Tem

Focus.....

Spectr. Tem

Exp. Mtr.

5 p9#1

Mon/Tues

Emulsion Batches:

Date 1997. Feb 10/11..... Observers L. y. [Bl. n.] / T. n.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CC437 ⁸⁷ / ₈₆	Inboard/outboard							FeAr ND3	3/4
87	BIAS(4)			21 43					3
88	Comp							FeAr ND4	3s
89	HD47839	063528	+95918	21 5934					441
90	"	"	"	22 0721					155
CC43791	Comp							FeAr ND4	3s
92	Comp							"	3s
93	HD37022 ✓	05 3022	-052720	22 2802					732
94	Comp							"	3s
95	Comp							"	3s
96	HD37043 ✓	05 3032	-055832	22 5040					219
97	Comp							"	3
98	Comp							"	3
99	HD37742 ✓	05 3543	-015943	23 0045					122
CC43800	Comp							"	3
01	BIAS(4)			23 04					

CCD

Spectr. Tem

Focus.....

Spectr. Tem

Exp. Mtr.

8639

Filter

5K

5K

5K

20K

4.7

4.7K

CCD Spectr. Temp. -101.8°C Dome Temp./Hum. -02.9°C 71% H Transparency Conditions . PART Cloudy 6

Focus 7.12

Spectr. Temp. -100.8°C Dome Temp./Hum. -04.7°C 73% H
 408 0 50 1024 4 1 CCDFWT ADU
 CD -MAX

Expansion Iter. Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
84	BG39 Filter					600C	200u	4309A	3/4			
3					Tgrating →	25.40		± 2A @ Row 572	1			
35	5K				Actual visually checked				5			
44	5K		4.4	07 V f					6	15 mon		13K
45	5K								7			13K
35									8			10.3K
35									9			
732	2.2K	3"	5.15	06 V f sep,					10	Bln 0 star	*C component cloudy	47
3									11			86K
3									12			
219	4.7		2.53	09 III					13	Bln 0 star	15d -00 0013 15 -00 01 20	13
3									14		CARD Field BAD	
3									15			
122	4.7K	3"	1.54	09.5 Ib					16	Bln 0 star		
3									17			
									1			

7 pg#2 Mon/Tues

Emulsion Batches:

Date 1997 Feb 10/11..... Observers L.G./[Blm]/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.
CC43802	Comp							FEAR ND4	3s
03	HD 34656	05 1400	+37 20 00	23 09 36					1249
04	Comp							"	3s
05	Comp							"	3s
06	HD 37366 ✓	05 33 00	+30 50 00	23 37 49					1439
07	Comp							"	3s
08	Comp							"	3s
09	HD 47839	06 35 28	+09 59 18	00 07 29					241
10	Comp							"	3s
11	BIAS(A)			00 14					
12	Comp							"	3s
13	HD 84441	09 40 11	+24 14 05	00 18 42					1082
14	Comp							"	3s
15/23	FLATS x 9							TUNG ND 2	11s
24/25	Inboard / Outboard							FEAR ND 2	3/4

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

Exp. Mtr.

B639
Filter

3.3

13K

160

360

-04.8

CCD Spectr. Temp. -100.8°C

Dome Temp./Hum.

Transparency Conditions *cloud/haze* δ

Focus 7.12

Spectr. Temp.

Dome Temp./Hum. -04.8°C $75\% \text{H}$

CD

Comparison
of Exp.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
BG39 Filter				CASCCD	600C 14° 25.40	250 μ	43098	18			
3.3		6.81	07II(A)					19	Blk 0 star		8K
								20			
								24			
1.3K	2"-4"	^B 7.67	09.5V					25	Blk 0 star	getting cloudy	26K
								26			
								27			
160	1-3"	4.8 4.40	07V(F)					28	15min Blk 0 star	Faint companion 2" to SW	
								29			
								1			
								5			
360	2"	^V 2.98	G1 II					6	std vel	very cloudy	
								7			
								2			14K
-04.8								3/4	focus	right on in Red	

9

Tues / wed

Emulsion Batches:

Date ... 1997 Feb 11/12 ... Observers G.I.d./T.o.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CC438 ^{26/27}	Inb/outboard							FEAR ND4	4/6
28	BIAS(4)			19 27 04					
29	Comp							FEAR ND4	45
30	HD 62509	07 39 12	+28 16 04	19 30 5					43
31	"			19 33 45					119
32	Comp							"	45
33/38	FLATS x 6							JUNG ND4	115
39	BIAS(4)			19 47					
40	Comp BIAS(4)							FEAR ND4	45

Spectr. Tem

Focus... 6

Spectr. Tem

Exp. Mtr.

No. Fil/Exp

3k

3.8k

Spectr. Temp. -100.9°C Dome Temp./Hum. -2.6°C 62.1% Transparency Conditions *PART Cloudy* 10

Focus 6.94

Spectr. Temp. Dome Temp./Hum. 340 0 56 1024 41 CCD UNIT

Comparison Iter. Exp.	Exp. Mtr.	Seeing	Pl. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
4/6	no filter				CHSSCO	1800 μ /mm	306 μ	5/84A	3/4			
					Tgrating	46.9			1			
					Actual	47.1			5			
					CHSSCO	Predicted by 46.94			6	stavel	thin cloud	
43	3K				1.14 K0 III b				7	"	Thick cloud	8.8K
119	3.8K								8			
4									9			12.8K
1/5									1			
4									10 1			

11. pg #1

Wed 1Thues

Emulsion Batches:

Date 1997 Feb 12/13.... Observers Gld./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.
CC438 ^{41/42}	Inbound / Outbound							FEAR ND4	3/5
43	Comp							FEAR ND4	4s
44	HD 62509	073912	+281604	195737					16
45	"			195829					30
46	Comp							"	4s
47	BIAS(4)			200147					
48	Comp							"	4s
49	FF Cnc	2000 082939	171702	200943					1200
50	Comp							"	4s
51	FF Cnc			203246					1200
52	Comp							"	4s
53	FF Cnc			205437					1200
54	Comp							"	4s
55	BIAS(A)			211658					
56	FF Cnc			211847					1200
57	Comp							"	4

CO

Spectr. Tem

Focus ... 7

Spectr. Tem

Exp. Mr.

No. of Neg

8K

10K

270

270

260

240

CCD Spectr. Temp. -100.7°C Dome Temp./Hum. -08.0°C 56% H Transparency Conditions .. Clearing quickly... 12
 Focus 7:00 [All Headers; stellar info very gusty NW
 Spectr. Temp. Dome Temp./Hum. MANUALLY entered] 390 0 50 1024 4 1 CCD/FMT

Exp. Mtr.	Seeing	Plg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulston	P.H.	Program	Remarks	Quality
35	No filter			CHSSCCD	1800 l/m	306u	5184A	3/4			
4s				Tgrating	46.9			5			
16	8K		1.14	KOIII 6				6	std vel		
30	10K	6"						6	"		
4s								7			
4s								1			
4s								8			
1200	270		10.6	G8-K3				9			
4s								10			
1200	270							11			
4s								12			
1200	260	4"-6"						9			
4s								13			
1200	240	5"-7"						1			
4s								11			
								14			

13 p9A2

Wed / Thurs

Emulsion Batches:

Date 1997 Feb. 12/13..... Observers G.D. 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.
CC43858	COMP							FeAr NO4	4s
59	HD 27990	04 20 00	+17 48 00	21 51 59					637s
60	COMP							i	4s
61	COMP							k	4s
62	HD 28783	04 27 06	15 48 00	22 06 26	edit ✓				690
63	COMP							y	4s
64	COMP								4s
65	HD 29250	04 13 06	19 40 00	22 23 03					513
66	COMP							u	4s
67	BIAS (4)			22 33					
68	COMP							v	4s
69	HD 285720	04 24 16 ²⁰⁰⁰	+18 00 12	22 37 03					953
70	COMP							n	4s
71	COMP							n	4s
72	HD 29310	04 31 54	+14 57 00	22 58 07					200
73	COMP							i	4s

Spectr. Tem.

Focus...

Spectr. Tem.

Exp. Mr.

not like

500

570

543

370

535

Spectr. Temp. Dome Temp./Hum. -10.1°C $55.1\% \text{RH}$ Transparency Conditions *Fine* *18*

Focus *7.00*

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

340 050 1024 41 CCD UNIT

*MAX
2ADU*

Exp. Mtr.	Seeing	Hg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
<i>not filter</i>				<i>CHSS CCD</i>	<i>1800 lines 46.9</i>	<i>306</i>	<i>5184A</i>	<i>15</i>			
<i>500</i>	<i>6"</i>	<i>9.01</i>	<i>K2V</i>					<i>16</i>	<i>A2</i>	<i>750/11 SIN -12^S 18 - 1'19"</i>	<i>270</i>
								<i>17</i>			
								<i>18</i>			
<i>510</i>	<i>4.7"</i>	<i>8.94</i>	<i>K1V</i>					<i>19</i>		<i>with Ha in 16 ci</i>	
								<i>20</i>			
								<i>24</i>			
<i>543</i>		<i>8.63</i>	<i>G9V</i>					<i>25</i>			
								<i>26</i>			
								<i>1</i>			
								<i>27</i>			
<i>370</i>	<i>4.5"</i>	<i>9.99</i>	<i>K4V</i>					<i>28</i>			
								<i>29</i>			
								<i>30</i>			
<i>535</i>	<i>4"</i>	<i>7.54</i>	<i>G1V</i>					<i>31</i>			
								<i>32</i>			

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Date 1997 Feb 12/13 Wed/Thurs Observers Gld/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.
CC43874	Comp							FeAr ND4	75
75	HD 23068	04 20 42	+637 00	23 05 35					338
76	Comp							"	45
77	Comp							"	45
78	HD 27989	04 20 00	+1839 00	23 15 35					202
79	Comp							"	45
80	Comp							"	45
81	HD 62509	07 39 12	+2816 04	23 26 16					270
82	Comp							"	45
83	BINS(4)			23 29					
84	Comp							"	75
85	FFCnc	08 29 40 ²⁰⁰⁰	+1717 02	23 33 54					129
86	Comp								45
87	FFCnc	"	"	23 58 06					1200
88	Comp								45
88 ⁴	FFCnc			20 42					1290

Spectr. Tem

Focus.....

Spectr. Tem

Exp. Mr.

No
Filter

550

512

246

240

249

Spectr. Temp. Dome Temp./Hum. $-12.1^{\circ}\text{C } 56\% \text{H}$ Transparency Conditions *Fine* 16
 Focus 7.00
 Spectr. Temp. Dome Temp./Hum.

Exp. Mtr.	Seeing	Pg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
110 Filter.				CHSS CCD	1800L 46.9	306 μ	518A \AA	5			
558	3.5"	8.06	G5V					6			
								8			
								8 ¹³			
512		7.53	G6V					14			
								15			
								16			
		1.14	KOIII					17	std vel		
								18			
								1		CC-B/A9-BAT	
								19			
246								9			
								19		\rightarrow	
240								9			
								19			
249								9			

17 p9#4 Wed/TuRS
Feb 12/13
Date 1.99.7 Wed. 1. TuRS Observers G. d. I. 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.
CC43890	comp							Fear ND4	4s
91	FFCnc	08 29 ²⁰⁰⁰ 40	+17 41 02	00 43 55					1300
92	Comp							"	4s
93	FFCnc			01 07 41					1267
94	Comp							"	4s
95	FFCnc			01 31 31					1259
96	Comp							"	4s
97	FFCnc			01 55 50					1210
98	Comp							"	4s
99	BIAS(4)								-
900-909	Eluts(x10)							TUNG ND4	11s
CC43910/11	Inboard/out BOARD							FENE ND5	4/2
12	Comp							"	4s
13	FFCnc			02 44 21					1201
14	Comp							"	4s

Exp. Mtr.
no. Her
267
220
255
294
-154
203

CD Spectr. Temp. -100.4°C Dome Temp./Hum. -140°C 51.2% H Transparency Conditions *slightly hazy* 18

Focus 7.00

Spectr. Temp. Dome Temp./Hum.

Exp. Mtr.	Seeing	P _v Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
4s 130	no filter			CASS CCD	1800.1u 46.9	306u	S184A	19.			
4s 1267	267							9			
4s 1267	270	4 ⁴⁵	10.6					19			
4s								9			
4s								19			
4s	255							9			
4s								19			
1210	254							9			
4s								19			
-								1			
11s								2			
4/2	-15.5	F 2028		Tgrating practical	600u 25.0 25.17	250u	4113 E1A	3/4 5	CCD FMT1	422 0 50 1024 4 1	
4s								5			12K
1201	203						@ Row 512	9			
4s								19			

17 19 pg#5

Wed/Thurs

Emulsion Batches:

Date 1997 Feb 12/13 Observers G/d, L/T

P	Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp
	CC43915	FF Cnc	08 29 40	17 17 07	03 09 55					1800s
	16	Comp							FAK ND5	45
	17	BIAS(4)			03 42					
	18	Comp							"	45
	19	HD 98230	11 12 51	32 05 31	03 47 49					73
	20	Comp							"	45
	21	Comp							"	45
	22	HD 101501	11 35 47	34 46 00	03 55 40					250s
	23	Comp							"	45
	24	Comp							"	45
921	25	HD 96833	11 04 03	45 02 28	04 04 42					54s
C	26	Comp							"	45
	27	Comp							"	45
	28	HD 109358	12 28 60	41 54 08	04 11 23					150
	29	Comp							"	45

Spectr. Temp.

Focus.....7

Spectr. Temp.

Ap. Mtr. Se

10 201
4/1/2 6

46K

37K 5

6400K

64 5

Spectr. Temp. Dome Temp./Hum. -15.7°C 52.38% Transparency Conditions ... *slightly hazy* ... 20

Focus 7.28

Spectr. Temp. Dome Temp./Hum. -16.2°C 52.3%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
110 201 filter	6"			Tgrating	600c 25.0	250 μ	413A	9			
								19			
								1			
								20			
4.6K		4.97	G2V					21		Max 2.8 k ADU	
								22			
								23			
3.7k	5"	5.33	G8V					24		max. 2.0 k ADU	
								25			
								26			
6400k		3.01	K1V					27			2.6K
								28			
								28			
6.4	5"	4.26	G0V					29			
								30			

21 pg #6 Wed / Thur.

Emulsion Batches:

Date 1997 Feb 12/13 Observers Gld/Tn

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CL43930	comp							FeNe NDS	4s
31	HD 117176	13 23 32	14 18 46	04 20 48					235
32	comp							"	4s
33	comp							"	4s
34	HD 107950	12 19 10	52 06 58	04 32 23					205s
35	comp							"	4s
36	comp							"	4s
37	HD 128165	14 30 18	53 20 00	04 42 36					924s
38	Comp							"	4s
39	Comp							"	4s
40	HD 181276	19 14 48	53 11 02	05 05 52					87s
41	comp							"	4s
42	BIAS (4)			05 09					-
43	comp							"	4s
44	HD 144467	19 29 30	58 24 00						714s
49	comp							"	4s

Spectr. Tem

Focus ...

Spectr. Tem

Exp. Mir.

nr/f

5.3k

5k

2.9k

5k

308

Spectr. Temp. Dome Temp./Hum. $-16.4, 52.3\%$ Transparency Conditions 22

Focus 7.28

Spectr. Temp. Dome Temp./Hum. ~~$-16.4, 52.3\%$~~

Comparison Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	45	n.f. 1/2						250u	4/13	5			
	255	5-3/4		4.97	G4V					6		2.6 km ADU.	
	8									8			
	4									9			
	205s	SK		4.78	G6III					10			
	4									11			
	4									12			
	92s	2.9k	5 ⁴	4.23	K3V					13			
	4									14			
	4									15			
	87	SK		3.79	G9III					16			
	4									17			
	-				K					1			
	4									18			
	70	3050		6.60	K2V					19			
	4									20			

23
Pg #7

wed/Thur.

Emulsion Batches:

Date 1947 Feb 12/13 Observers Gld/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.
CC43946	Comp							FeNe NDS	4s
47	HD185144	19 32 33	69 29 28	—					220s
48	comp							"	4s
49	comp							"	4s
50	HD144579	16 01 30	39 24 00						331
51	Comp							"	4s
CC30768/71	HD144579	"	"					4x	67ms
72/75	DARKS x 4					Again, no box center		4x	67ms
76/77	DARKS x 2					OR intensifier adjustments		2x	133
78/79	HD144579 x 2					Throughout Test		2x	133
CC43952	Comp							FeNe PNS	4s
53	sky	20 15 50	+32 00						4:35
54	comp							"	4s
55	HD144579 comp							"	4s
56	Hale Bopp	20 15 25	+22 20 24	06 21 16					203s
57	star NE of core	20 15 24	+22 20 57	06 26 29					371s

Spectr. Ten

Focus.....

CC
Spectr. Ten

Exp. Mtr.

5.1K

5.3K

1.7K

44

2100

529

Spectr. Temp. Dome Temp./Hum. $-16.8, 52.8^{\circ}$ Transparency Conditions *Fine* *24*

Focus *7.28*

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

Dome Temp./Hum. $-17.5^{\circ}\text{C } 54.3\% \text{H}$

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
<i>No. 5.1K</i>							<i>4113A</i>	<i>21</i>			
<i>5.3K</i>		<i>4.68</i>	<i>KOV</i>					<i>22</i>			
								<i>23</i>			
								<i>24</i>			
<i>1.7K</i>	<i>5"</i>	<i>6.6</i>	<i>G8V</i>					<i>25</i>		<i>RV standard</i>	
								<i>26</i>			
		<i>6.6</i>	<i>G8V</i>	<i>Above</i>		<i>250u slit</i>			<i>Seeing Test</i>	<i>Dome SSW</i>	
				<i>ALT 279°</i>						<i>medium N wind,</i>	
							<i>4113A</i>				
<i>44</i>								<i>27c</i>		<i>sky line exp.</i>	
								<i>28</i>			
								<i>29</i>			
<i>2100</i>								<i>30</i>			
<i>828</i>								<i>31</i>			

25 19 #8

Emulsion Batches:

Date 1947 Feb 12/13 Observers Gid/Ty

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CC43958	comp							FeNe NDS	4s
59	Hale-Bopp	20 15 27	22 20 39	06 35 52					2005
60	"	"	"	06 39 48					252
61	comp	20 15 30	22 20 42					"	4s
62	Brus (4)								-
63	sky	20 15 29	32 43 30	06 47 53					116
64	Comp							"	4s
65	Flat							ND2 16s	4s
66-73	Flats x 8							ND2 TUNG	11s
74/75	Inb/out board Hurimann							ND5 FeNe	4/2

Spectr. Tem

Focus

CCD

Spectr. Tem

Exp. Mtr.

2700

3900

2270

Spectr. Temp. Dome Temp./Hum. Transparency Conditions *Fine* 26

Focus *7.28*

CCD
Spectr. Temp. *-100.8°C* .. Dome Temp./Hum. *77.7°C 54.3%RH*

Comparison
Filter Exp.
05 4s
20s
25s
4s
-
11s
5s
6s
2 11s
25s
4/2

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				<i>Cass T-grating</i>	<i>600c 25.0</i>	<i>250u</i>	<i>4113A</i>	<i>5</i>			
<i>2700</i>								<i>6</i>			
<i>3900</i>								<i>6</i>			
								<i>8</i>			
								<i>1</i>			
<i>2270</i>								<i>9</i>		<i>brightest best now!</i>	
								<i>11</i>			
								<i>2</i>			
								<i>2</i>			
								<i>3/4</i>			

27

Tues / wed

Date 1997 Feb 18/19..... Observers [i.g.] / L.V. / J.A.....

↓ called "E-W" in Header.

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 439 ⁷⁶ / ₇₇	inboard / outboard							RA ND 4	5/9
78	Comp							"	4s
79	HD 14386	02 14 18	-03 25 54	19 48 46					387
80	"	"	"	19 56 26					136
81	HD 14386 Comp	"	"	19 59 43				"	308
82	Comp							RA ND 4	4s
83	BIAS (4)			20 07					
84	Comp							"	4s
85	HD 1888 4	02 57 03	+03 41 51	20 13 28					1085
86	"	"	"	20 16 13					531s
87	"	"	"	20 28 01					312
88	Comp							"	4s
89/95	FLATS x 7					0 0	plate form	TRNG ND 2	11s
96	BIAS (4)								
97	BIAS (4)			21 34					

CCD
Spectr. Tem

Focus.....

CCD
Spectr. Tem

Exp. Mtr.

No
5/14

24K

88K

12K

87K

73K

9K

CCD Spectr. Temp. -100.3°C Dome Temp./Hum. $+2.6^{\circ}\text{C}$ 73% Transparency Conditions Mostly cloudy 28

Focus 6.90

CCD Spectr. Temp. -100.5°C Dome Temp./Hum. $+5.5^{\circ}\text{C}$ 67% 400 0 50 1024 41 CCD/FMT

Companson filter	Exp.	Exp. Mtr.	Seeing	Pr. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
5/9		No Filter				CASS CCD	1800 In AA-B	306	4848A	3/4	focus test		MAX
4/5										5			
387		2.4K	10"	12 ⁷ M						6	Read into 5c. r6 pgm	cloudy MIRD 0 CET	4 Act
136		8.8K								6		continuum ~ 1.4K	3.6K
308		12K								7		1.5K	4K
4/5										8			11.5K
										1			
4/5										9			
1085		8.7K	5"	2.52	M1.5 III					10	std vel	and MAX std from	
53/5		7.3K								11	"	LARGE Garcia List.	
312		9K								12			4K
4/5										13			
11/5										14			12K
										1			
										1			

29

Date ..1997 Feb 19... Observers ..KK/Ri.....

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 43998	flat fringe test							NONE /	
43999	"							ND #5	10
44000	"							ND #7	30
44001	"						ND	ND #6	100

Note 1997 Feb 22nd - Tu Dh, They were from Dec 7/96
 Next page, for 1st write, I noticed seed file not updated by KK eichelle Tests,
 I updated and looked at headers of ce13571. All 3 will be backed up.

Spectr. Temp.

Dome Temp./Hum.

Transparency Conditions 30.

Focus

Spectr. Temp.

Dome Temp./Hum.

Comparison filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
E /						1800/		6700Å				
10						57.35						
30												
100												
						These now on F _s T ₀ - CDRA				fringes gone		
						and on Perseus; but not exhibited.						

31

pg #1 SAT/SUN

Date . 1997. Feb. 22/23. Observers . Blm. / L.H. / J.M.

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.
CE135 ^{74/75}	Inboard / OUTBOARD							ThAr	5/3
76	Comp							"	4s
77	HD 37017	05 3025	+043336	19 21 46		0 33W			3143
78	Comp							"	4s
79	BIAS(4)			20 15 00					
	HD 37017	"	"	20 17 40					
80	BIAS(4)			20 37					
81	Comp							ThAr	4s
82	HD 47839	06 3528	+095918	20 45 21		0 11W			726
83	Comp							"	4s
84	HD 47839			20 58 39					1230
85	Comp								
86	comp							"	4s
87	HD 47839	06 3528	+095918	00 43 29		4 20W			1302
88	Comp								4s
89	BIAS(4)			01 07					

CCD
Spectr. Tem

Focus...

CCD
Spectr. Tem

Exp. Mir.

V=1300%

Blue/Orange

7.17K.

188

560

520

3580

CCD Spectr. Temp. -160.4°C Dome Temp./Hum. -3.0°C 50576H Transparency Conditions *Mostly clear* 32

Focus $\dots 21.4$ 90cgain $\pm 5\text{\AA}$ @ ≈ 1001110

CCD Spectr. Temp. -102.0°C Dome Temp./Hum. \dots 4481\AA can't read in 5th order

Comparison Filter	Exp.	Exp. Mtr.	Seeing	Pig. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
		V=1300v/k Blue/green Filter.				Echelle 0600u 19.90	x .4590	60u = .277 400u = .25	x 4481\AA	1/2	focus test	CCDFMT 0 0 128 1024 8 1	
							x.4585	60u @ Row 512 400u = 225 Height		3		CCDFMT 0 0 256 1024 4 1	
	318	188	5"	B 6.42	B2V					4	Bln Binary	Permal too poor by Bln	n60 above Background
										3			
										1			
										5		Discordant.	
										1			
								100u width now 400u height		3			
	76	560	6"	B 4.40	07V (CF)					5		15 min (sometimes cloud)	max BK
										3			
	120	520								6			
										3			
										3			
	45	2580	4"	B 4.40	07V (CF)					4			
										3			
										1			

33

p9#2

SAT/SUN

Emulsion Batches:

Date 1997 Feb 22/23... Observers [B/h]/L.U./T.u.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
ce13590	Comp							T ₃ A ₁	43
91	HD86360	09 52 51	712 55 19	01 12 31					2187
92	Comp							v	45
93	HD86360	v	v	01 50 31					435
94	Comp							n	4
95/01	FLATS	x 7						TUNG	215
02	Bias(4)			02 15					

Spectr. Tem

Focus.....

Spectr. Tem

Exp. Mir.

1300w/s
Blue filter

3060

360

35 pg#1

Sun / Mon

Emulsion Batches:

Date 1997 Feb 23/24... Observers [Blh]/Lu/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
ce136 ^{03/04}	In board 1047 Board							ThAr	5/3
05	BIAS(4)			19 16					
06	Comp							ThAr	4
07	HD 37017	05 30 25	-04 33 36	19 27 40					1197
08	Comp							ThAr	4
09	Comp							ThAr	4
10	HD 47839	06 35 28	+09 59 18	19 54 16					798
11	Comp								4
12	BIAS(4)			20 09					
13/17	FLATS x5							TUNG	2/5
18	BIAS(4)			01:52					
19	Comp							ThAr	4
20	HD 152614	16 49 17	+10 19 48	02 47 19					2709
21	Comp							ThAr	45
22	Comp							n	45

CCD
Spectr. Temp.
Focus
CCD
Spectr. Temp.

Exp. Mtr. See

130000

555 L2

1367

vol/1000

2600

CCD Spectr. Temp. -100.4°C

Dome Temp./Hum. -02.4°C 62.1%RH

Transparency Conditions ... Mostly clear ... 36

Focus ... 214

CCD Spectr. Temp. - ... °C

Dome Temp./Hum. -03.5°C 77.4%RH

Then mostly cloudy
Then clear after snow

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emission	P.H.	Program	Remarks	Quality
Ar 5/3				e.elle	600 l/w/mm 4585	100uV 400uH .225 = 400u	4481A	1/2	focus unchanged	focus CCD FMT 0 0 128 1024 8 1	
								1		0 0 256 1024 41	
								3		n ~ 70/1 S/N @ 4481A MAX	
555	2"	6.42	B2Vp					4	Sp Bin Blu	cloud end of exp. n ~ 406	ABae
								3			62K
								3		n ~ 100/1 S/N @ 4481A	
1367	2-3"	4.4	B	707V (CF)				5		n ~ 70/1 S/N @ 4471A MAX	
										some cloud n ~ 1K	ABae
								3			
								1			
						set.215	500uH for FLATS	6			105
								1			
								3			
2600	3-5"	4.38	B	B8V				4	Sp Bin Blu	n ~ 180/1 S/N MAX	3.5
								3		Almost 1 pixel flowward	
								3		shift between comparators,	

37 p940 Sun/Mon

Emulsion Batches:

Date 1997 Feb 23/24.. Observers [Blu]/Lu/TH.....

.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
ce13623	HD 164852	17 5807	+20 5000	03 4503					1126
24	Comp							TH Ar	4s
25	BIAS (4)			0407					

CCD
 Spectr. Temp
 Focus.....
 Spectr. Temp
 Exp. Mtr.
 Blue Japan
 840

39

pg 11

Mon / Tues

Emulsion Batches:

Date 1997 Feb 24 / 25 Observers [B.L.]/L.H./J.N.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
ce136 ²⁶ ₂₇	Inboard / outboard					~230W	50°	ThAr	5/3
28	BIAS (4)			1848					
29	Comp							ThAr	45
30	HD 37017	053025	-043336	190227					3036
31	Comp							ThAr	45
32	HD 37017	"	"	195418					2400
33	Comp							ThAr	45
34	BIAS (4)			2035					
35	HD 37017	"	"	203723					2435
36	Comp							ThAr	4
37	HD 37017	"	"	20 ²¹ 1423					2406
38	Comp							ThAr	45
39	BIAS (4)			2156					
40	HD 37017	"	"	215915					2400
41	Comp							ThAr	45

CCD Spectr. Tem

Focus ...

CCD Spectr. Tem

Exp. Mir.

132016k

Blue/

7/16

731

Exp. Mir.

735

735

700

760

CCD Spectr. Temp. -100.5° Dome Temp./Hum. $-08.8^{\circ}C$ 50% H Transparency Conditions *Fine* 40

Focus 0.211

CCD Spectr. Temp. -100.6° Dome Temp./Hum. $C\lambda$

some clouds

Comparison Filter	Exp.	Exp. Mtr.	Seeing	Pig. Mag.	Sp.	Inst.	Grating/ X Tilt	Slit	Emission	P.H.	Program	Remarks	Quality
5/3		132066t Blue/green Filter				Echelle 19.90	0800ln 4585	100uW 480uH	4481A	1/2	Focus.	Focus CCD FWHM 0 0 128 1024 81	
										1		0 0 256 1024 41	
										3		seeing getting worse than at start.	
	3036	731	2" 3"	B 6.47	B2V _p					2		<u>~ 100/1 @ 4481A</u>	
		Exp meter balance OK								3			
	2400	730	2" 3"	"	"					4		~ 80/1 S/N @ 4481A	
		730								3			
										1			
	2435	735	3"	"	"					2		only 70/1 S/N @ 4481A cloud at end	
										3			
	2406	700	3" 5"	"	"					4		70/1 S/N again poor seeing, ended exposure	
										3			6-6K
										1			
	2400	760	2" 4"	"	"					2		70/1 S/N	
										3			

4/ p9#2 Mon/Tues

Emulsion Batches:

Date 1997 Feb 24/25 Observers [Blh]/L.H./T.H.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
ce13642	Comp							ThAr	45
43	HD 47839	06 3528	+09 5918	22 46 09					1693
44	Comp							ThAr	45
45	BIAS(4)			2315					
46/52	FLATS	X 7	for Blh	100u slit width		2 48W	+10°	TUNG	25s
ce13653	HD 47105	06 3156	+16 2905	23 3813				ThAr	45
54	HD 47105	"	"	23 3813					1010
55	Comp							"	4
56	Comp							"	4
57	HD 34029	05 0918	+45 5347	23 59 59					836
58	Comp							"	45
59	BIAS(4)			0016					
60/64	FLATS x 5					2 30W	+10°		35s
65	BIAS(4)			07 03					

COO
Spectr. Tem
Focus...
Spectr. Tem

Exp. Mir.

1320V
Blue/pan

425

with
1320V/45

4241

1460

CCD Spectr. Temp. -100.6°C

Dome Temp./Hum. $-12.5^{\circ}\text{C } 60\% \text{H}$

Transparency Conditions ... *some cloud* ... 42

Focus ... 211

Spectr. Temp.

Dome Temp./Hum.

Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ x Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	4	1320V Blue pyramid				capella 19.90	0600nm/mm 4585	100u W 400u H	4481A	3			
	16.3	4275	2"	B 4.4	OTV (F)					5	Blu pyramid	$\sim 160/1$ S/N MAX 15 Mon in cloud $\sim 100/1$ @ 4471A	
	8									3			
										1			MAX
	6.25						FOR FLATS	500u H = .215		6			11K
	8	still 1320V/15		4.9 B				60u = .277 400u H = .225		3			
	10.0	4341		1.9	A0IV			60u 4481A		2	KK pyramid	$\sim 150/1$ S/N	
	4									3			
	4									3			
	8.36	1460	4"	B 0.9	G8IV + F					4	KK pyramid	capella in cloud	
	4.5									3			
										1			
	3.5							60u W 500u H		6			11.5K
										1			

43

FF #1 sun/moon

Date .1997.MAR.2/3. Observers .M.A./T.A. (Charles KERTON)

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.
CC4400 ²⁴	Inboard/outboard							FeAr NO 5	8/10
CC4400 ⁰¹	HD 34019							FeAr NO 4	45
05	HD 34019*	05 09 13	+53 28 26	19 13 12			1997 α 05 16 55 δ 53 44 00		708
06	Comp							"	45
07	BIAS(4)			19 28 54					
08	Comp							"	45
09	VES 735	2000 02 20 07	+10 07 03	19 46 31					
10	Comp							"	45
11	VES 735	"	"	20 29 59					
12	Comp							NO 5	45
13	VES 735	"	"	21 00 43					1062
14	Comp							"	45
15	BIAS(4)			21 21 52					
16	Comp							"	45
17	HD 36512	05 27 06	-07 22 31	21 34 41					563

CO
Spectr. Ten

Focus.....

Spectr. Ten

Exp. Mr.
1000 VoltsNo
5/1/92

800

Exp. Mr.
Rebularis

180

105K

Spectr. Temp. -100.4°C

Dome Temp./Hum. ... +00.4°C ... 53.1%

Transparency Conditions ... Clearing gradually. 8x

Focus 6-90

Then cloud again.

Spectr. Temp.

Dome Temp./Hum. -00.7°C 58.3% H

390 0 50 1024 4.7 CCDFWT

Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality	
8/10	no filter				CASS CCD	1800/n 56.2°	306μ	6608A	1/2	focus test			
4s										3			
708	800									4	E-W mirror	* Not the Right Str.	
4s										5		Not a mirror	
4s	Exp meter Reburning								1				
4s		3-4"	1205	0					6				
4s									7	Mn pgn	Reversal.		
4s									8		500 photos, where bkgrd.		
4s									9	Mn pgn	Had to Reboot skew, And Restart		
4s									2		Mirror Rehomel	5K	
4s	180								3		NL -0000 to Reversal, to 5+00 00 0x		
4s									4				
4s									1				
4s									5				
4s	10.5K	5"	487	BOV					6	mk std	cloudy	5.5K	

57

Pg#1 Thurs / Fri

Emulsion Batches:

Date 1.9.9.7. MAR 6/7.... Observers G.D./T.M.
1st night after source Baffle installed, ~~xx~~ maybe MIRROR (source) got bumped?

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CC44030/31	Inbound / outBOARD							FeAr ND3?	5/60
32	BIAS (4)			190032					
33	Comp							FeAr ND2	4
34	HD 36891	05 2953	+40 0704	19 0607					219
35	Comp								4
36	Comp								4
37	HD 62509	07 3912	+28 1604	19 1600					39s
38	Comp								4s
39	BIAS (4)			19 34					
40	Comp						**	FeAr ND3	4s
41	HD 65583	07 5418	+29 3100	19 50'2					1111
42	Comp								
43	Comp							11	4s
44	FF Cinc	08 2940	+17 1702	00 3949					900
45	Comp							11	4s

CO
Spectr. Ten

Focus...

Spectr. Ten

Exp. Mtr.

116 f/100

still 100V

2.1k

11k

3,170

265

Spectr. Temp. ^{CO} -100.1°C ... Dome Temp./Hum. -01.6°C 56.28% Transparency Conditions . Part. Cloudy 48.

Focus ... 7.00

Spectr. Temp. Dome Temp./Hum. -4.4°C 56.68%

396 0 50 1024 4 1 CCD Fmt

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no filter still 1000V				Tgrating →	1800 l _n 48.9°	306u	5184 ⁰ ±1A c 512	3/4 1/2	focus test		
								5			6.3K
2.1K		6.09	G3IB					6		normalization star.	
								7			
								8			
11K		1.14	KODIT					9	std vel		
								10			
								1			
								13		* source MIRROR down (-) 2 steps from normal (after home (for max speed) posn.	5K
3,170	3.4"	7.00	G8K					14	std vel		
								15			
								11			
265	2'-3"	10.6						12		7.30/1 5/4 very gusty NW wind but great seeing ??	
								16			

49

pg#2 Thurs/Fri

Emulsion Batches:

Date 1997 MAR 6/7... Observers Gld / Tn.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison	
								Type/Filter	Exp.
CC44046	FF Cnc	08 2940	⁷⁰⁰⁰ +171702	00 5717					1000
47	Comp							FeAr ND 3	45
48	BIAS (4)			01 15					
49	FF Cnc			01 1625					953
50	Comp							"	45
51	FF Cnc								751
52	Comp							"	45
53	Comp							"	45
54	HD 62509	07 3912	+281604	01 5321					36
55	"			01 5434					51
56	Comp							"	45
57	BIAS (4)								
58/64	FLATS x 7							JUNG ND 3	85
65/66	In board / OUT BOARD							FeAr ND 3	5/6

Exp. Mir.

Specif. Tem

Focus.....

Spectr. Tem

Exp. Mir.

268

270

237

10.8K

Spectr. Temp. ^{CCD} -100.3°C Dome Temp./Hum. -5.6°C 55%^H Transparency Conditions *Late clearing* 50

Focus 7.00

Spectr. Temp. Dome Temp./Hum. -5.6°C 56.8%^H

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1000 268		10.6		C455 CCD	1800m 46.9°	306 μ	5184Å	17			
								18			
								1			
953 270	3 ⁴							19		some cloud	
								20			
751 237								21		more cloud.	
								22			
								23			
								24	stl vel		3.3K
51 10.8K								25	"		
								26			3.4K
								1			
								27		NO adjustment to MIREM MADE.	13.6K
								3/4	focus		

- 5.2° F=7.00

51

Mon / Tues

Emulsion Batches:

Date 1997 MAR 10/11... Observers In..... Tests of ND Filter F Ringing.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp
CC440 ^{67/68}	Inboard / out					0	+14°	Fear ND 4	3/3
69	FLAT							TUNG ND 4	3
70	BIAS(4)			00 40					
71	FLAT							TUNG ND 5	9
72	FLAT							TUNG ND 6	39
73	FLAT 47						*	TUNG ND 7	44
74	FLAT						+GG385	TUNG ND 4	3s
75/46	Inboard / out Board						+GG385	Fear ND 3	9/12
77	FLAT						"	TUNG ND 4	30
78	FLAT						"	TUNG ND 5	90
79	"						"	TUNG ND 6	400
80	"						"	TUNG ND 7	500
81	FLAT						ORDER SEP f.kerout	TUNG ND 7	1115

Note, that 600C grating used by mistake

CCO Spectr. Temp

Focus...6

Spectr. Temp

Exp. Mtr. S

103

Interfer

600

Abit Ion

CCD Spectr. Temp. -100.3°C

Dome Temp./Hum. $+00.7^{\circ}\text{C}$ 80% H

Transparency Conditions ... Snow ... 52

Focus ... 6.85

90C gain

Spectr. Temp.

Dome Temp./Hum.

396 0 50 1024 4 1 CCD FMT. MAX

Comparison Filter	Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
4	3/3						1800nl/mm 56.87	306 μ	6702 \pm 1A	3/4	focus test		12/116K
6	3/3						Tgrating \rightarrow			5		Yes, HARTMANN MITSK home now	13K
7	3/3									1			
9										6			12.1K
16	3/3									7		4.4K 5.2K	
16	3/3									8		(No I guess this was ND #6 and not #7)	700 4.4K
16	3/3									9			11.8K
16	3/3						600C 42.52	306 μ	6696 \pm 2A	11/12	focus.	CCD FMT 4.25 0 50 1024 4 1	5.6K
16	3/3						600 \perp grating, but discovered 600C in		6512	10		*except for hot pixel	12.9K
16	3/3						At end of test. No wonder!			13		x " " "	5.2K
16	3/3									14			2.2K
16	3/3									15			500
16	3/3									16		The Real ND #7 filter.	1.5K
16	3/3						1800 56.87	306 μ	6701A			A repeat actually	

53 pg#1

Tues/Wed

Date 1997 MAR 11/12 Observers [Blm] Lu (WxL) / Ta.....

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CC440 ⁸² /83	Inboard/outboard							FeAr ND 3	7/6
84	BIAS (4)			19 21					
85	Comp							FeAr NO 3	4
86	HD37017	05 3025	-0433 36	19 25 04					1209
87	Comp							"	4 _B
88	Comp							"	4 _B
89	HD21564	03 21 45	+09 23 03	19 53 29					253
90	Comp							"	4 _B
91	Comp							"	4 _B
92	HD37017	05 3025	-0433 36	20 06 58					18/2
93	Comp							"	4 _B
94	BIAS (4)			20 39					
95	Comp							"	4 _B
96	HD 38446	04 24 06	+53 41 37	20 47 41					815
97	Comp							"	4 _B

CCD Spectr. Tem

Focus.....

Spectr. Tem

Exp. Mtr.

No. 100V

8.5K

12.8K

6.4K

7.8

Spectr. Temp. ^{CCD} -100.7°C Dome Temp./Hum. -0.6°C 5678H Transparency Conditions Fine 54.

Focus 6.97

Spectr. Temp. Dome Temp./Hum. -0.32°C 5679H

405 0 50 1074 4 1 CCD/FUT

Comparison Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	3	No filter 1000V				CASS CCD	1800 k/1mm 42150	306 μ	1463A	3/4	focus test	MIRROR again home 1st.	
										1			
	3									5			
	120	8.5K	4"	642	B2Tp					6	Blu SB		2.3K
	4									7			10K
	8	BG 39 new								8	pass into 6c1		
	23	12.8K	4"	366	B8p					9	Blu SB		6K
	4									10			
	4									11			
	182	6.4K	3.5"	642	B2Tp					12	Blu SB		3K
	4									13			
										1			
	4									14			
	815	7.8	4.2 5.22		B0II					15	Blu SB		3K
	4									16			

55

Pg#7 Tues/Wed

Emulsion Batches:

Date 1997 MAR 11/12 Observers [Blu] Lg. (wsl) / 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.
CC44098	Comp							EAR ND3	45
99	HD 37468	05 3344	-02 39 28	21 0843					276
CC44100	Comp							"	45
01	Comp							"	45
02	HD 47839	06 3528	+09 5918	21 1747					779
03	HD 47839	"	"	21 3108				"	789
04	Comp							"	45
05	BIAS(4)			2146					
06	Comp							EAR NO 3	45
07	HD 46516	06 2848	+19 3000	21 5225					1918
08	Comp							"	45
09	Comp							"	45
10	HD 86360	09 5251	+12 5519	22 2959					1455
11	Comp								
12	BIAS(4)								

Exp. Mir.

Spectr. Ten

Focus....

Spectr. Ten

Exp. Mir.

CG 39
Filter

11.4K

20K

20.4K

4.4

20.5

Spectr. Temp. ^{CCD} -100.3°C

Dome Temp./Hum. -03.5°C 56.7%RH

Transparency Conditions . Part. Cloudy 56

Focus 6.97

Spectr. Temp.

Dome Temp./Hum. -04.1°C 59.0%RH

Comparison
Filter Exp.

Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
3 45	BG 39 Filter					1800h 42150	306 μ	4A63A	17			
26 45	11.4K	4"	3.57	09.5	<u>V</u>				18	SB Bl _n		
4 45									19			
8 45									20	SB Bl _n		
779 45	20K	3.5"	07V(f)	4.4					21	15 Mon		8.7K
789 45	20.4K	"	07V(f)	4.4					21	"		
									22			
									1			
3 45									23			
1918 45	4.9		A0	6.88					24	SB Bl _n		2K
45 45									25			10K
4 45									26			
1455 45	20.5	4"	B9V	5.22					27	SB Bl _n		9K
									28			
									1			

57

p9#3 Tues / wed

Emulsion Batches:

Date 1997. MARR 11/12... Observers [Blh] / Lh / Th.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CC44113	comp							FEAR NO 3	4s
14	HD 81104	09 18 36	54 28	23 02 11					2100
15	comp							"	4s
16	comp							"	4s
17	HD 103095	11 47 13	38 26	23 45 19					1120
18	comp							"	4
19	Bias (4)			00 06 08					
CG80 80/83	HD 103095	"	"					No change to Intensifier and default Box used	4x 67ms
84/87	DARK x 4								4x 67ms
86/89	" x 2							FOR 111	2x 133ms
90/91	HD 103095								20 133ms
CC44120	Comp							FEAR NO 3	4s
21	HD 102870	11 45 29	+02 19 42	00 27 06					218
22	comp							"	4s
23	comp							"	4s

Spectr. Tem

Focus.....

Spectr. Tem

Exp. Mtr.

3.6K

4.3K

10.7K

Spectr. Temp. ^{CCD -100.3°C}Dome Temp./Hum. ^{-4.5°C 59.8%}Transparency Conditions ^{FinR} 58.Focus ^{6.97}

Spectr. Temp.

Dome Temp./Hum. ^{-05.5°C 62.8%}<sup>Light west wind
High pressure still coming in,</sup>Comparison
Filter Exp.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
4s				CASS Tgrating	1800h 42.50	306u	4463A	5c			
2100	3.6 K	7.42	A2					6c	B/n SB		
4s								7			9.9K
4s								8			
1/120	4.3 K	3.5 ^v	6.45	G8Vp				9	Std vel		
4								10			
								1			
6.75s		6.45 ^v	G8Vp	ALT 80°	1800h	306u	slit			Seeing Test, Dome SW	
6.75s										Light west wind	
13.75s										A no Fan night.	
13.75s											
3				CASS CCD	1800h 42.50	306u	4463A	11			12.4K
818	10.7K	5 ⁿ	3.6 ^v	F9V				12	Std vel		7.3K
4s								13			12.4K
4s								14			

59 pg#4 Tues/Wed

Date 1997 MAR 11/12 Observers [Blk]/L.H./T.H.....

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.	Exp. Mtr.
CC44124	HD130841	14 4521	-15 3734	00 3730					415	21K
25	Comp							FeAr ND3	45	
26	HD130819	14 4509	-15 3453	00 4749					153Z	77K
27	Comp							"	45	
28	BIAS (4)			01 16						
29/37	FLATS X9					2 E	-16°	JUNG ND2	255	
38	comp							FeAr ND3	45	
39	HD152614	16 4917	10 19 48	01 48 07					826	205
40	Comp							FeAr ND3	45	
41	Comp							"	45	
42	HD154528	17 0054	+77 48 00	01 5902					1384	46K
43	comp									
44	Bias (4)			02 25'						
45/46	Inboard / outboard					0 40E	+40	FeAr ND3	4/7	T=...
47	Comp							"	45	

Spectr. Temp. Dome Temp./Hum. Transparency Conditions .. *some.. cloud.....* 60.

Focus *6.97*

Spectr. Temp. Dome Temp./Hum.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
415	21K	^B 2.89	Am	CASS CCD	1800/n	306u	4463A	15	S13 Bln	α ² Lib, SE Brighter of wide pair.	
								16			
1587	7.7K	5 ^u -8 ^u						17	S13 Bln	cloud at end	2K
								19			
								1			
								2			12K
								5			11K
826	20.5	3 ^u -5 ^u	4.46	B8V				6	S13 Bln	~ 400/1 S/N	7K
								7			11K
								8			
1384	4.6K	^V 6.66	A0					9	S13 Bln	clouds in.	
								10			11K
								1		Topup by 0240	
4/7	T = -06.4 °C							3/4	focus	Righter Redward of row 300 ₂ still.	
								11			

61 pg #5

Emulsion Batches:

Date 1997 MAR 11/12 Observers [Bh] 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.
CC44148	¹⁶⁴⁸⁵² HD 102870	17 58 07	+20 50	02 49 11					1506
49	Comp							TeAr ND 3	4s
50	¹⁶⁴⁸⁵² HD 102870	"	"	03 16 17					1500
51	Comp							"	4s
52	BIAS (4)			03 44 46					
53	Comp							"	4s
54	HD 164577	17 56 41	+01 18 27	03 49 04					846
55	Comp							"	4s
56	Comp							"	4s
57	HD 172187	18 33 42	43 08 12	04 09 16					2033
58	Comp							"	4s
59	Bias (4)								
60	Comp							"	4s
61	HD 180316	19 11 00	+27 46 00	04 49 06					2351
62	Comp								

Spectr. Ten

Focus...6

Spectr. Ten

Exp. Mir.

3K

20K

20K

12K

8.7K

Spectr. Temp. Dome Temp./Hum. -06.4°C 70.7% Transparency Conditions *Cloudy* 62

Focus ... 6.9.7

Spectr. Temp. Dome Temp./Hum. -06.8°C 77.3% 405 0 50 1024 41 CCD/FMT

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1500 4s	3K	A ^B -8 ^B 5.19	B3 IV	CBSS	1800/n 42.50	306 μ	4463A	12	SB Bln	1st part mostly cloudy	
1500 4s	20K							13			
1500 4s	20K							14	SB Bln	clear	
								16			
								1			
840 4s	20K	5 ^B -8 ^B 4.46	A1 V					19			
840 4s								20	SB Bln		6.4K
								22			
								23			
2033 4s	12K	3 ^B -5 ^B 6.40	F0 V					24	SB Bln		
								25			
								1			
								26			
235 4s	8.7K	^B 6.64	B8					27	SB Bln		3K
								28			

63

pg#6

Date 1997 Mar 11/9 Observers [B/n]/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.
CC44163	Comp							FeAr ND3	4s
64	HD 86791	19 4130	+10 2210	05 3310					226
65	comp								4s
66	Bras (4)								

Spectr. Ten
Focus...
Spectr. Ten
Exp. Mr.

8639
17.4

65 Pg #1

Wed / Thurs

Date 1997 MAR 12/13 Observers Lu / T.n.....

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CC41 ^{67/68}	In board / out board HARTMANN							FeAr ND 3	4/5
72	Bias (4)			19 05					
69	Comp							FeAr ND 3	4s
70	HD 62509			18 58 11					27
71	Comp							FeAr ND 3	4s
73	Comp							"	As
74	BV Eri	²⁰⁰⁰ 03 51 53	+10 31 43	19 14 01					900
75	"	"	"	19 29 19				"	849 As
76	Comp							"	4s
77	Comp			19				"	4s
78	XZ Leo	²⁰⁰⁰ 10 02 34	+17 02 46	19 50 51					900
79	"	edit previous ✓		<u>20 06 18</u>					900
80	Comp.								4s
81	Bias (4)			20:24					
82	XZ Leo	10 02 39	+17 02 46	20 25 43					903

CCD Spectr. Tem

Focus.....

Spectr. Tem

Exp. Mir.

-042°

8639 E.H.

No Filter
now

370

363

354

CCD
Spectr. Temp. ... -100.5°C ...

Dome Temp./Hum. -04.2°C 58.0%RH

Transparency Conditions ... Fine 66

Focus G.9.7

Hale Bopp real fine, with star in TAIL.

Spectr. Temp.

Dome Temp./Hum.

405 050 1024 41 CCDPMT

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
4/5	-04.2°C			MISS CCD Tgrating	1800/in 46.9	306 μ	5184A	3/4	focus test		
4s								5			2.8K
27								6	std vel		10.8K
4s								7			
4s	BG 39 F: HR still in							8			3.5K
9/0	5"	8.6	F2					9	DRL	~ 80/1 S/N	
8/9								10			
4s	No F: HR now							11			2.4
4s								12			3.2
9/0	370	19.6	A5					13	DRL		
9/0	363							14			
4s								15			
4s								1			
9/0	354	3.4"						16		40/1 S/N	

67 pg #2

Date ... 1997 Wed/Thurs
 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
CC44183	XZ Leo	10 02 34 ²⁰⁰⁰	17 02 46	20 41 04					900
84	comp							Fe Ar ND 3	45
85	Comp							"	"
86	AH Aur	06 26 05 ²⁰⁶⁰	27 59 54	21 05 04					972
87	"	"	"	21 21 34					924
88	comp							"	45
89	Comp							"	45
90	U Z Leo	10 40 33	+13 34 00	21 43 25					900
91	"			21 58 53					902
92	Comp							"	45
93	BIAS (4)			22 16					
94	U Z Leo	10 40 33	13 34 00	22 17 05					900
95	"			22 32 33					900
96	Comp							"	4
97	Comp							"	4

Spectr. Temp. ...
 Focus ...
 Spectr. Temp. ...
 Exp. Mtr. ...
 346 350
 402 350
 550
 502
 550
 540

Spectr. Temp. $CCD - 100,5^{\circ}C$ Dome Temp./Hum. $-6,0^{\circ}C$ $55,1\%$ Transparency Conditions *some cloud* 58

Focus $6,97$

Spectr. Temp. Dome Temp./Hum.

405 0 50 1024 4 1 CCD FWH

Comparison Filter/Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
900	1066i/kn 346	3-5"	10,6	A5			306	5184A	17		< 40/1 S/N	
23									18			2.6K
									19			
922	402	3-4"	10,5	G					20		> 40/1 S/N	
924	394								21			
45									22			
									23			3.1K
900	550		9.8	F2					24			
902	502	3"							25			
45									26			2.6K
									1			
900	550	2-3"							27			
900	540	2-3"							28			
4									29			2.6K
4									30			3.1K

69 p4#3 wed / Thurs

Emulsion Batches:

Date 1997 MAR 12/13... Observers L.G. / T.H.

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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.
C44198	W Crv	12 07 36	-13 09 30	22 54 51					900
89	"	"	"	23 10 15					900
200	comp							FEAR 1103	45
01	W Crv			23 27 45					900
02	"			23 43 22					900
03	comp							"	45
04	BIAS (4)								
05	W Crv			00 03 06					900
06	"			00 18 35					900
07	Comp							"	45
08	W Crv			00 35 29					935
09	"			00 53 31					907
10	Comp								
11	W Crv			01 11 20					900
12	"			01 26 56					900
13	comp								45

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

Exp. Mtr.

no. 1/2
 240
 219
 250
 220

239
 235
 243
 230
 221
 210

Spectr. Temp. Dome Temp./Hum. -07.4°C 59% H Transparency Conditions .. Fine 70

Focus 6.97

Spectr. Temp. Dome Temp./Hum.

Comparison /Filter	Exp.	Exp. Mtr.	Seeing	Pig. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	900	no filter 240	2.4'	10.7	G2	C455 CCD	1800 L 46.9	306 μ	5784A	31	DRL	25/1 S/K ?	
	900	239								6			
3	45									7			
	900	230								8			
	900	220								9			
	45									10			
										1			
	900	239								11			
	400	233								12			
	45									13			
	935	243								14			
	907	230								15			
										16			
	900	221								17			
	900	210								18			
	45									19			

71 P94 wed/Thurs

Emulsion Batches:

Date 1997 MAR 12/13 Observers L.G./T.G.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CC44214	Comp							FEAr NO 3	4s
15	SX Cru	12 40 15	-18 48 00	01 49 07					900
16	"	"	"	02 04 42					900
17	comp							"	4s
18	SX Cru	"	"	02 22 19					900
19	"	"	"	02 37 47					910
20	comp							"	4s
21	Bias (4)			02 54				"	4s
22	Comp							"	4s
23	VZ Lib	15 31 53	-15 41 06	03 12 08					900
24	"	"	"	03 27 41					900
25	comp							"	4s
26	VZ Lib	"	"	03 45 15					900
27	"	"	"						900
28	comp							"	4

Spectr. Tem
Focus...
Spectr. Tem

Exp. Mtr.

5/12

665

606

570

600

313

325

309

285

Spectr. Temp. -99.6°C 3EST Dome Temp./Hum. -09.0°C 6488H Transparency Conditions ... slightly hazg 72

Focus 6.97

Spectr. Temp. Dome Temp./Hum.

Comparison Filter	Exp.	Exp. Mtr.	Seeing	Pg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	4s	no f/ka				C455 CCD	1800h 46.9°	306u	51848	22			
	900	665	4"	9.5	F7V					23	DRL	65/1 S/N	
	900	606								24			
	4s									25			
	900	570								26			
	910	600								27			
	4s									28			
	4s									1.		Topup by 3:05	
	4s									29			37K
	900	313		10.1	F5					30	RRL		
	900	325								31			
	4s									5cc			
	900	309								6			
	900	285								7			
	4									8			

73pg #5 Wed/Thurs

Date 1997... Mar 12/13... 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.
CC41229	Bias (4)			04 17					
30	VZ Lib	15 31 53	-15 41 06	04 19 41					968
31	"	"	"	04 36 08	ed. to ✓				1152
32	Comp							Fe 4r ND 3	45
33	VZ Lib	"	"	04 57 36					900
34	"	"	"	05 13 13					900
35	Comp							"	45
36	Comp							"	45
37	HD 136202	15 14 12	+02 08 37	05 33 57					
38	Comp							"	45
39	BIAS (4)			05 38					
40	Comp							"	45
41	HD 145001	16 03 34	+17 18 48	05 41 51					
42	Comp							"	45
A3/47	FLATS x 5							TUNG ND 3	85

Spectr. Temp.

Focus...

Spectr. Temp.

Exp. Mtr.

290

340

268

290

4K

5K

Spectr. Temp. -100.5°C Dome Temp./Hum. $-10.1/69.1\%$ Transparency Conditions ... *some cloud* 74

Focus 6.97

Spectr. Temp. -100.6°C Dome Temp./Hum. $+10.2^{\circ}\text{C} \dots 70\% \text{H}$

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
					1800 46.9	306 μ	5184	1			
968	2'-3"	10.1	F5					9		< 40/1 S/N	
1152	340							10		read into 9ci	
45								11			
900	268							12			
900	290							13			
45								14			2.9K
45								15			
4K		5.06	F8 IV-V					16	silver		
45								17			
								1			
45								18			
5K	2'-3"	5.0	G5M					19	silver		
45								20			
8								2			13.7K

75 p4#1

SAT/SUN

Emulsion Batches:

Date ..1997 MAR 15/16... Observers Gld. J. n.....

5 photometer 24"

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CCAA248/49	In board / out board			0920				Felle ND5	45ft
50	Comp							ND5	4
51	HP 47914	063548	+443714	002352					273
52	Comp							n	4
53	BIAS(A)			1932					
54	Comp								4
55	HD62509	073912	+281604	193835					255
56	Comp							i	4
57	Comp							j	4
58	FF Cnc	082940	+171702	194758					1800
59	Comp							ii	4
60	FF Cnc	n	n	202041					1200
61	Comp							l	45
62	FF Cnc	n	n	204337					1235
63	Comp BIAS(A)								45

ccj
Spectr. Tem

Focus

Spectr. Tem

Exp. Mtr.

8639

File

3K

12K

220

160

150

CCD Spectr. Temp. -100.5°C Dome Temp./Hum. -060°C 57.4% Transparency Conditions *clearing finally* 76.

Focus 7.15

Spectr. Temp. Dome Temp./Hum. SMALL class TOUR early evening 405 0 50 1024 4 1 CCD UNIT

Companson filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
4	4	BG39 Filter				<i>Tgrating →</i> 25.00	600C 1u/min 25.3° actual	2.50u	4113A	3/4	focus.		
	4									5	} Maximum		
27	4	3K	5.02		K5 III					6		STILL in outboard	
	4									7		Just normalized stars	6K
										8		Maximum out now	
4	25	12K								9	stalled		
	4									10			
	4									11			
1800	4	220	3"		10.6					12		> 30/1 S/N some cloud	
	4									13			
1200	4	160								14		30/1 S/N	
	4									15			15K
1235	4	150								16			
	4									17			
										+			

77

p4#2

SAT/SUN

P MK:

Emulsion Batches:

Date 1997. MAR. 15/16. Observers G.I.d.I.T.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CC44264	FF Cnc	082940	²⁰⁰⁰ +171702	21 07 38					
65	Comp							Red No 5	45
66	BIAS(4)			21 29					
67	FF Cnc	"	"	21 30 01					1200
68	Comp							Red No 5	35
69	FF Cnc	"	"	21 53 33					1200
70	Comp							"	35
71	FF Cnc	"	"	22 15 51					1200
72	Comp.							"	35
73	FF Cnc	"	"	22:37:49					1200
74	Comp							"	35
75	BIAS(4)			22 59					
76	FF Cnc	"	"	23 00 45					1315
77	Comp			.				"	3
78	FF Cnc			23 24 25					1200
79	Comp								3

note Filter change →

CCD

Spectr. Tem

Focus...

Spectr. Tem

Exp. Mtr.

86 39

154

155

135

155

170

CCD
Spectr. Temp. -100.5°C

Dome Temp./Hum. -08.0°C 66.7%RH

Transparency Conditions .. Part Cloudy 78.

Focus 7.15

Spectr. Temp. -100.5°C

Dome Temp./Hum. -09.0°C 68.7%RH

CX

Comparison
filter
Exp.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emission	P.H.	Program	Remarks	Quality
BG 39 154				C455 CCD	0600ln 2500	250 _a	4113Å	18		7 30/1 S/N	
								19			
								1			
1200 155	3"							20			
								21			OK
								22			
								23			
1200 135								24			
								25			13K
1200 155	3'							26.			
								27			
								1			
13K 170	3"-4'							28		30/1 S/N	
								29			13K
1000 —								30			
								5			

79 P9#3

SAT/SUN

mainly doing platework 24"

Emulsion Batches:

Date 1997 MAR 15/16... Observers G. Id. / 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.
CC44280	FF Cnc	08 29 40	2000 47 17 02	23 46 24					1211
81	Comp							Enk No 5	3s
82	BIAS(4)			00 07					
83	FF Cnc.			00 03 09					1206
84	Comp.							"	3
85	FF Cnc.			00:32:19					1110
86	Comp							"	3
87	FF Cnc			00 52 54					1209
88	Comp							"	3
89	FF Cnc			01 14 54					1200
90	Comp							"	3
91	BIAS(4)			01 36					
92	Comp							"	3
93	HD 161096	17 38 27	74 36 32	01 55 48					206
94	Comp							"	3

CCD
Spectr. Ten
Focus...
Spectr. TenExp. Mir.
F/No

8639

160.

150

160

150

600

CCD
Spectr. Temp. -100.5°C

Dome Temp./Hum.

Transparency Conditions *some thin cloud*..... do.

Focus 7.15

Spectr. Temp.

Dome Temp./Hum. $-10.4^{\circ}\text{C } 69.8\% \text{H}$

Comparison Filter	Exp.	Exp. Mtr. <i>F1/KR</i>	Seeing	Mag. <i>Mag.</i>	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1211		BG 39	$3-5$	10.6		CHSS CCD	600C 1/4/mm 25.00	25 μ	4113A	12			
	3s									13			
										1			
1201		160								14			
	3									15			
1110		150								16		cloud @ end = 19	
	3									17			13.7K
1204		160								18			
	3									19			
1200		150								20		cloud @ end 19	
	3									21			
										1			
	3									23			
206		600	5"	2.77	K2 III					24	std vel	in cloud	
	3									25			11.5K

83

Pg#1 Sun/Mon

Emulsion Batches:

Date 1997 MAR 16/17. Observers L.Y./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.
cc44309/10	In hour on T					0 10E	40°	FeAr ND 4	4/7
11	Comp							"	4
12	HD 47914	063548	+43714	19 0427					77
13	Comp							"	45
14	Comp							"	45
15	HD 67509	073912	281604	19 1217					23
16	Comp								
17	BIHS (4)			19 14					
18	Comp							"	45
19	HD 65583	075418	+293100	19 2136					457
20	Comp							"	45
21	comp								45
22	AH Aur	062605	+275954	19 3609					721
23	Comp							FeAr ND 4	45
24/32	FLATS x 9					0 55W	+28°	Tung ND 4	115
33	BIHS (4)			20 00					

 cc
 Spectr. Temp.
 Focus.....7.
 Spectr. Temp.

Exp. Mtr. Se

No
1/42

34 1

79 1

34

480?

CCD
Spectr. Temp. -100.3°C

Dome Temp./Hum. -05.7°C 52.3% H

Transparency Conditions ... PART CLEAR 84

Focus 7:00

Spectr. Temp.

Dome Temp./Hum. -06.9°C 54.3% H

405 0 50 1024 41 CCDFWT

Comp. Filter	Exp.	Exp. Mtr.	Seeing	Pr. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	4	9/2	no filter			CHSS	1800/n Tigrating → 4916°	306 _u	518A17 ²	3/4			
	4									5		Handk home!!	
	77	3K	1"	5.07	K5 III					6	normalize STAR	normalization star	
	85									7			
	45									8			
	23	7-9	1"	1.4	K0 IIIb					9	stdvel		10K
										10			
										11			
	45	3K	2"	7.00	dG7					12	stdvel		
	45									13			
	45									15			
	72	480?	1.2'	10.5	G					16	DRC	PRE → 30/1 S/N through thin clouds	
	45									17			12.8K
	115									2			12.8K
										1			

SP902 Sun/moon

Emulsion Batches:

Date 1997 MAR 16/17 Observers Lu, J.T.

.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CC4334	AA Aur	²⁰⁰⁰ 06 26 05	27 59 54						915
35	Comp							Red ND4	45
36	Comp							v	v
37	U2 Leo	²⁰⁰⁰ 10 40 33	13 34 00	20 25 18					970
38	"			20 42 00					900
39	Comp							n	4
40	BIAS(4)			20 58					47
41	U2 Leo			21 00 38					900
42	"			21 16 08					900
43	Comp							n	4
44	U2 Leo			21 33 24					904
45	"			21 49 03				1	900
46	Comp								
47	BIAS(4)			22 05					
48	U2 Leo			22 10 29					791
49	Comp							n	45

Spectr. Temp
 Focus...
 Spectr. Temp

Exp. Mtr.

670
670

670

670

800

840

835

770

510

Spectr. Temp. Dome Temp./Hum. -07.0°C 543%^H Transparency Conditions *part cloudy* 86

Focus 7.00

Spectr. Temp. Dome Temp./Hum. -07.0°C 566%^H
 CA 465 0 50 1024 4 1 CCDPMT

Comparison Filter	Exp.	Exp. Mtr.	Seeing	P _v Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	45	no filter 642	1-2"	10.5	G	1800 ⁱⁿ CHSS	4690	306 ^u	5184A	18		< 50/1 S/N	
	45									19			
	4									20			3K
	970	670		9.8	F2					21	DRL		
	900	670		"	"					22			
	4									23			
	900	800		9.8	F2					1			
	900	840		"	"					24			
	4									25			
	4									26			
	900	835		"	F2					27			
	900	840	2"							28			
										29			
										1			
	71	510	2"							6		some cloud	
	45									7			

Spectr. Temp. Dome Temp./Hum. -07.3° $57.7\%H$ Transparency Conditions *mostly cloudy* 89

Focus 7.00

Spectr. Temp. Dome Temp./Hum.

Comparison
Filter Exp.

Exp. Mtr.	Seeing	Hg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
<i>no filter</i>				<i>C455 CCD</i>	<i>1800M 46.9</i>	<i>306u</i>	<i>5184A</i>	<i>8</i>			
<i>?</i>	<i>13'</i>	<i>10.6</i>						<i>16</i>		<i>cloudy</i>	
<i>?</i>	<i>12'</i>							<i>18</i>		<i>"</i>	
								<i>7</i>			
								<i>1</i>			
<hr/>											
				<i>CCD T = -101.2°C</i>	<i>600J</i>	<i>306u</i>	<i>6700L1A</i>	<i>3/4</i>	<i>focus (light on)</i>	<i>Test CCD FWHM 360 0 50 1024 41</i>	<i>ADU MAX K</i>
<i>1006 F=700</i>				<i>Tgrating</i>	<i>42.60</i>						<i>18</i>
<i>no fringes no fringes</i>				<i>[Actual Angle Visual]</i>	<i>42.80</i>			<i>5</i>		<i>plotted max 12.5 K</i>	<i>12.5K</i>
<i>no fringes seen</i>								<i>6</i>		<i>plotted max 11.0 K</i>	11.0K
<i>no fringes</i>								<i>7</i>		<i>" " 100 K</i>	100K
<i>no fringes</i>								<i>8</i>		<i>" " 12.3 K</i>	
								<i>1</i>			

90 pg#1

Mon/Tues

Emulsion Batches:

Date .1997.MAR.17/18.... Observers [B.H.]/L.Y./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.
CC443 ⁶² / ₆₃	Inboard / out board							FeAr H33	4/6
64	BIAS(4)			20 30				order sep Filter from	
65	Comp							FeAr Tests Removed	4s
66	HD 37017	05 3025	-04 3336	20 4228					1800
67	Comp							u	4s
68	Comp							u	4s
69	HD 37468	05 3344	-02 3928	21 16 36					348
70	Comp							n	4s
71	Comp							u	4s
72	HD 478 39	06 3528	+09 5918	21 28 18					657
73	Comp							n	4
74	BIAS(4)			21 41					
75	Comp							n	4
76	HD 28446	04 2406	+53 41 37	21 46 23					1216
77	Comp							n	4

CCD
Spectr. Tem.

Focus....

Spectr. Tem.

Exp. Mir.

BG 39
Filter

6.7K

15.1K

22.7K

12K

Spectr. Temp. ^{CCD} -100.6°C

Dome Temp./Hum. 700.6°C 78%RH

Transparency Conditions ... Clearing gradually ... 91

Focus ~~500~~ 700

Spectr. Temp.

Dome Temp./Hum. ... 20

390 0 50 1024 4 1

CCDFMT

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
BG 39 Filter					1800 m 42.50	306 μ	4463A	3/4	focus		
								1			
								5			10K
6.7K 3"4"		^B 642	B2Vp					6	SB Bln	200/1 S/N	3.8K
								9			
								10			
15.1K		^B 357	09.5V					11	SB Bln		7.7K
								12			10.1K
								13			
22.7K 2"3"		^B 44	07.5Vf					14	SB Bln		12.4K
								15			
								1			
								16			
12K 822		^B 512	B0V					17	SB Bln	NORTH East of Pair	6K
								18			9K

92 p9#2 Mon/Tues

Emulsion Batches:

Date ... 1997 MAR 17/18 .. Observers [Blh]/Tr./Lg

.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
Cc44378	Comp							18A ND3	45
79	HD 86360	09 52 51	+12 55 19	22 14 33					702
80	Comp							"	45
81	Comp							"	45
82	HD 102870	11 45 29	+02 19 42	22 37 34					174
83	Comp							"	45
84	Comp							"	45
85	HD 46516	06 28 48	-19 30 00	22 46 12					1833
86	Comp							"	45
87	BIA5 (4)			23 19					
88	comp							"	45
89	HD 81104	09 18 36	54 28 00	23 24 51					1192
90	comp							"	45
91	HD 81104	"	"	23 59 35					1301
92	Comp							"	4
93	BIA5 (4)			00 23					

cc0
Spectr. Tem
Focus ...
Spectr. Tem

Exp. Mtr.

BG39

146

11K

5.5K

2000

13K

CCD
Spectr. Temp. -100.5°C

Dome Temp./Hum. 0.0°C 68.3% H

Transparency Conditions ... PART Cloudy 93

Focus 7.00

Spectr. Temp.

Dome Temp./Hum.

390

Filter	Exp.	Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	8	BG 39				CASS	1800h 42.50	300 μ	4463A	19			
	702	1A-6	2.3"	^B 5.22	B9 IV					12	SB Blm	cloud righted end	10K
	8									13			
	8									20			
	124	11K	3"	^v 3.61	F9 IV					21	std vel		5.5K
	8									22			
	8									23			
	183	5.5K	2"	^B 6.88	A0					24	SB Blm	some cloud	2.5K
	8									25			
										1			
	45									26			
	102	2000	1"	7.42	A2					27		clouds in @ 15 min.	
	45									28			
	130	1.3K	1.2"	^v	"					29		through clouds.	
	4									30			
										1			

94 pg #3 Mon/Tues

Date 1997 MAR 17/18 Observers [BLS]/LH/TG.....

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.
CG807 ^{92/95}	HD 103095	11 4713	+38 2610					4x 67ms	
96/99	DARKS							4x 67ms	
800/01	DARKS							2x 133	
02/04	HD 103095	02 saturated						2x 133	
CCA4394 ^{As}	Comp							F4r ND3	45
95	HD 103095	"	"	00 4023					887
96	Comp							"	45
97	Comp							"	45
98	HD 130841	14 4521	-15 3734	01 0620					304
99	Comp							"	45
CC44400	HD 130819	14 4509	-15 3453	01 1423					1481
01	Comp							"	45
02	BIAS(4)			01 41					
03	Comp							"	45
04	HD 152614	16 4917	+10 19 48	01 4512					485

Default Box containing FRA 11

some Intensifier adjustment though

Spectr. Tem

Focus...

Spectr. Tem

Exp. Mtr.

6539
11/12/97

5K

45K

10K

4K

Spectr. Temp. -99.9°C ... Dome Temp./Hum. -00.5°C 73.3% H Transparency Conditions ... Half cloudy ... 95.

Focus ... 7.00

Spectr. Temp. ... Dome Temp./Hum. -01.3°C 68.3% H 390 0 50 1024 4 1

Exp. Mtr.	Seeing	Flt. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	1-2"	645			H6X2 386	5117			Seeing Test	PART cloudy Light NW wind	
BG 39 Filter					1800 42.50		4463A	5		Format OK	10K
5K	1-2"	645	68V P					6	Std vel		
								7		-99.9°C Dewar T	
								8		AFTER Topup	
14.5K	3-5"	2.89	A m					9	SB Blu		8.6K
								10			
10K	5"	5.57	FSII					11		clouds in the field	3.9
		5.07	FSII					12			
								1			
								13			
14K	2-3"	4.3	B8V					14			7.5

96 pg #4

Mon 1/4/05

Date ..1.9.9.7.. MAR. 17/18 Observers [Bln] / 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.
CC44405	Comp							FeAr ND3	4s
06	Comp							"	4s
07	HD 154528	17 00 54	77 48 00	02 06 22					2096
08	Comp							"	4s
09	Bills(4)			0243					
10	Comp							"	4s
11	HD 175187	18 33 42	+13 08 12	02 48 22					2087
12	Comp							"	4s
13	Comp							"	4s
14	HD 164852	17 58 07	+20 50 00	03 28 20					1200
15	comp							"	4
16	Bills(4)			03 50					
17	Comp							"	4
18	HD 164577	17 56 41	+01 18 27	03 55 03					1539
19	* Comp							"	4

Spectr. Ten

Focus ...

Spectr. Ten

Exp. Mtr.

8639

9.5K

8.5K

13.1K

13.5K

Spectr. Temp. ^{LED} -100.1°C

Dome Temp./Hum. -2.1/64.4

Transparency Conditions *PART cloudy* 97

Focus 7.00

Spectr. Temp.

Dome Temp./Hum. 03.9°C 59.0%RH

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
BG39				CASS	1800lm 42.50	306u	4463A	15			
7.5K	2"	^V 6.66	AO					17		15x0000 50 15x0000 39 050/1 5/4	5K
								18			
								19			
8.5K	1"-2"	^B 6.40	FOV					20			
								21			
								22		COIT - 99.8°C	
13.1K	2"-3"	^B 5.19	B3IV					23		thin cloud	6.3K
								24			
								25			
13.5K	3"-5"	^B 4.46	AIV					26	SBBlm		5.7K
								27	*	Had to Abort Acor and Horizon before this exp.	10K

98 p#5 1220n / Tues

Emulsion Batches:

Date ..1997 MAR 17/18..... Observers [Blm] / L4 / T2.....

.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CC44420	Comp							RA ND 3	4s
21	HD 180316	19 11 00	27 46 00	04 35 02					2400
22	Comp							"	4s
23	Comp							"	4s
24	HD 145001	16 03 34	11 7 18 48	05 22 49					568
25	Comp							"	4s
26	BIAS (4)			05 34					
27/35	FLATS x 9							TUNG ND 2	33

CCD
Spectr. Tem

Focus....

Spectr. Tem

Exp. Mtr.

B639
Filter

2850

3K

100 pg#1

Emulsion Batches:

Date 1997 MAR 18/19 Observers R.G. I.T.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp
CC444 ³⁶ / 37	Inb low							Red NO3	4/7
38	BIAS (4)			1909					
39	Comp							"	4s
40	HD 48682			191336					60s
41	Comp							"	4s
42	Comp			200212				"	4s
43	HD 34578	051325	335113	191938				400	9.5
44	"	"	"	201752				400	9.5
45	HD 34578 Comp	"	"	203338				Red NO3	4s
46	Comp			200212				Red NO3	4s
47	BIAS (4)								
48	Comp							"	4s
49	HD 47105	63156	+162905	205712					161
50	"			210218					315
51	"			210936					397
52	Comp							"	4s

CG
Spectr. Temp

Focus... 6

Spectr. Temp

Exp. Mtr.

18639

5.14

800

16K

17.1

18.9

18.9

18.9

18.9

18.9

18.9

18.9

18.9

18.9

18.9

18.9

18.9

18.9

18.9

18.9

18.9

18.9

18.9

18.9

Spectr. Temp. ^{CCD} -100.3°C Dome Temp./Hum. -02.5°C ^{52/94H} Transparency Conditions ... Mostly clear 10

Focus ... 6.97

Spectr. Temp. Dome Temp./Hum. ^{CD} 390 050 1021 41 CCD/FIT

Comparison Filter	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
417	BG39 filter				CASS CCD	41.03	306 μ	A720R J2A	3/4 1			
45	800		5.25	G0V					6		Encoder narrow star	
45	16K \downarrow		5.3	A5 II					8			
45	17.5K 23		5.3	A5 II					2		~ 275/1 S/N	5.2K
45	15.9K								3			
45									4			
45									5			
45									6			
161	63K		1.93	AL IVs					7		Traced 1/5 slit	13K
315	123K								8		Traced 1/3 slit	10K
321	136K								9			13K
40									10			

102 pg#2 Tues Wed

Emulsion Batches:

Date 1997 MAR 18/19 Observers ... G/T ...

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CC44453/57	FLATS x 5			1st 2 60sec, 3x 70secs				TUNG ND2	60
58	BHS(4)			21 35					
59	Comp							EA ND3	45
60	HD 87737	10 01 53	+17 15 01	21 44 21					270
61	"	"	"	21 46 56					600
62	"	"	"	21 59 29					602
63	Comp							"	45
64	Comp							"	45
65	HD 89625	10 11 08	+23 54 57	22 15 20					600
66	"	"	"	22 25 38					606
67	"	"	"	22 36 09					503
68	Comp							"	45
69	BHS(4)								
70	Comp							"	45
71	HD 92125	10 33 06	32 29 45	22 50 17					658

Spectr. Temp.

Focus... 6

Spectr. Temp.

Exp. Mir.

5639
F140

60K

58K

58K

52K

49K

504K

15.1K

Spectr. Temp. ... -101.9°C ... Dome Temp./Hum. ... -05.3°C 57.4% Transparency Conditions ... Fine ... 103

Focus ... 6.9.7 ...

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

Comparison Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
60	60	BG 39 Filter				CHSS CCD	1800u 4.03	306u	4220A	11			12K
										1			
3	As									12			10K
20	20	90K	2"	B 3.49	AOI b					13	r6 p4m		7.4K
60	60	58K								14		1/4 slit trailed.	5.8K
60	60	58K								15		"	
As	As									16			
As	As									17			
60	60	52K	2"	B 3.75	FOLTA					18	r6 p4m		5.5K
60	60	49K								19			
60	60	50.4K								20			
As	As									21			
										1			
As	As									22			
65	65	15.9K	2"	B 5.52	G1 II					23		7200/1 5/4	4K

164

Pg #3 Tues/Wed

Emulsion Batches:

Date 1997 MAR 18/19 Observers S.G./T.S.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
cc44472	HD 92125			23 03 29					642
73	"			23 4 35					632
74	Comp							FeAr ND 3	45
75	Comp							"	45
76	HD 111 812	12 46 50	+28 05 06	23 29 42					890
77	"			23 45 24					840
78	"			00 00 00					877
78	Comp							"	45
79	BIAS (4)			00 16					
80/85	FLATS x 5					0 50 E	+27	TUNG ND 2	70
86/87	Inboard/out					"	"	FeAr ND 4	4/8
FOR Gladders -		Stefan		checking in					
cc44488/89	In b / out Board							FeNe ND 5	
90	Comp							"	45
91	FF Cnc	08 29 40	+71 7 02	01 23 10					1800

CCO
Spectr. Tem

Focus ...

Spectr. Tem

Exp. Mtr.

BG

15K

15K

15K

15K

15K

15K

15K

15K

15K

15K

15K

15K

15K

15K

15K

15K

15K

15K

15K

15K

15K

15K

15K

CCD Spectr. Temp. -10.8°C ... Dome Temp./Hum. -05.8°C 52% H Transparency Conditions ... Fine, some haze ...

Focus ... 6.9.7 ... 7.13 for 600C setup ... 105

Spectr. Temp. ... Dome Temp./Hum. -07.1°C 61.3% H

Comparison Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
642		BG A/PR 14.9K		B 5.52	G1 II	CASS CCD	1800h 41.03	306u	4220A	24ci	rG pgm		
632		15K	2"							25			
63										26			
63										27			
890		15K	3.4"	5.61	GOTT					28			3.9K
84		15K	3"	"	"					29			
87		15K		"	"					30			
63										5			
										1			
70										6			14.2K
4/8										10/11			
		BG39 Filter				CASS CCD	600C 25.00	250u	410 050 4113H	1024 41	CCDFMT	is 2-000021 DS-000048 @ 4 30 West	
63										5		Tel East SIDE	13K
1800		360	3.4"	10.6						6	Gld pgm	moon near and BRIGHT,	

106

Py #4 Tues / wed

Emulsion Batches:

Date 1997. MAR. 18/19.. Observers [Gld] / Th.....

.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CC44492	Comp Comp		2000	021503				Fedle ND5	3s
CC44492	BFA5(4)			0241					
	Gld ^{NGC 6819} _{noname}			found it, but it clouded in					
CC444	^{93/95} FLATS	x 3						TUNG ND2	11s

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

Exp. Mir.
 G
 Fi/lep

108 pg #1 Sun / man

Date 1997 MAR 23/24... Observers K.K. / T.K.

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.
ce13666/67	Inboard / out board					2 32W	+10 11	THAr 5/3	
68	BIAS(4)			19 15					
69	Comp							THAr	1s
70	HD 57669	B 71713	+40 51 54	19 20 11					134
71	Comp							"	1
72	Comp							"	1
73	BD+33 1646 B	08 02 34	+33 06 25	19 31 54					1800
74	Comp							"	1
75	BD+33 1646 A	"	"	20 03 36					1345
76	Comp			26 49					1
77	Comp			32 25				"	1
78	AC+54 2311-89	03 33 54	+54 53 34	20 32 25	02 41 / 13678				178
79	Comp				02 40			"	1
80	Comp				14 07			"	1
81	BD-02 3000	09 48 10	-03 13 04	21:14					230
82	Comp								

one calibrated
 13679

cc7
 Spectr. Tem
 Focus...
 Spectr. Tem

Exp. Mr.
 1320V
 F/1.4 out

600

74

105

100

CCD Spectr. Temp. - 100.3°C Dome Temp./Hum. - 04.0°C 50.1%RH Transparency Conditions Fine 109

Focus 215 90c gain as usual

Spectr. Temp. Dome Temp./Hum. CCD

Exp. Mtr.	Seeing	PV Mag.	Sp.	Inst. Echelle	Grating/ x Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
5/3				19.12	0600 •3028	90u = .265 400u H	6400H	3/4	focus test	CCDFINT 0 0 128 1024 8 1	
						90u 400u H = .225		1		0 0 256 1024 4 1	
1/5								3			76K
134	600	5.19	KOUII	CNI				4		just encoder normalizer STAR.	700
1								3			
1								3		Encoder errors dx -00 00 04 e44'E -100000's	
1800	74	2"	12.1	M3				5	Vys 250B	fainter SW of pair	Hx em ~30ND4 ABR 7K
1								3			
1345	105	11	MO					6	Vys 250A	Brighter NE one	
1								3			
1								3			
178	86		11.0	MO				7	Vys 424	dx -00 00 16 65 +00 01 06 e 4 44 west	
1								3			
1								3			
23	100	2"	10.54	MO				2	Vys 560	dx -00 00 10 132 -00 02 10	
								3			

116 P. 2

Sun / Mon

Date 1997 Mar 23/24 Observers KK/TM

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.
CE13683	bias (4)			21 56					
84	Comp							THA	1s
85	AC+38 28746	9:30:07	+3758	22:04					2356
86	Comp							THA	1s
87	Comp							"	1s
88	AC+70 4336A	09 3358	+702925	23 0134					1763
89	Comp							THA	1s
90	AC+70 4336B	"	"	23 3324					1780
91	Comp							"	1s
92	Bias (4)			00 04					
93	Comp							"	1s
94	HD 95735	10 5754	3638 00	00 11 48					850
95	Comp							"	1s
96	Comp							"	1s
97	BD+01 2447	10 2349	+0121 36	00 31 22					1723
98	Comp							"	1s

CCD
Spectr. Ten

Focus.....

Spectr. Ten

Exp. Mr.

1326V
No. f. 162Advanced
had beam
climbing

83

50

550

90

CCD Spectr. Temp. -100.8°C Dome Temp./Hum. -07.6°C 59.78/4 Transparency Conditions *Fine* 111

Focus $+215$

Nice PARTIAL LUNAR eclipse (Handy)

Spectr. Temp. Dome Temp./Hum.

Comparison ter Exp.	Exp. Mtr.	Seeing	App. Mag.	Sp.	Inst. <i>e.elle</i>	Grating/ X Till	Slit	Emulsion	P.H.	Program	Remarks	Quality
	1320V No filter				19.12	0600ln 130258	90u 400u	6400A	1			
ls	Eyo meter Balancost Had Bean cap climbing	$\sim 95\text{cnts}$ 1-2"	11.0	M10					3			
1736									4	Vys 549		
15									3			
15									3			
1763	83	2-3"	10.58	M12					5	Vys 550A	Brighter WSW of PAIR During MAX of PARTIAL Lunar eclipse.	
15									3	Vys 550A	$\Delta \alpha -00 00 02$ $\Delta \delta +00 00 42$	87K
1780	50	~ 11.5		M					6	Vys 550B	PAIR Fainter ENE one $\Delta \alpha +00 00 11$ $\Delta \delta +00 01 06$	
15									3			
									1			
15									3			
850	550	2"	7.48	M12					2	marcy std vel	Vys 594	
15									3			82K
15									3			
1780	90	2-4"	9.65	M2					4	marcy std		
15									3			

112 p9#3 Sun/mar

Date 1997 MAR 23/24 Observers [K.K.] / T.n.....

Emulsion Batches:

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

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison		Exp. Mr.
								Type/Filter	Exp.	
cel3699	Comp							Th Ar	1s	no file
13700	HD 87901	10 0303	+12 2722	01 0513					65s	4K
01	HD 87901	"	"	01 0727					133	9K
02	Comp							"	1s	
03	BIAS (4)			01 11						
04	Comp							"	1s	
05	BD+21 2763	15 1725	+21 2006	01 2031						90
06	Comp							"	1s	
07	Comp							"	1s	
08	*BD-08 4352	16 5005	-08 0947	02 0810					176	16
09	Comp							"	1s	
10	BD-08 4352	"	"	02 4037					182	90
11	Comp							"	1s	
12	BIAS (4)			03 13						
13	Comp							"	1s	

Exp. Mr.
Spectr. Tem
Focus...
Spectr. Tem

Exp. Mr.

no file

4K

9K

90

16

90

CCD Spectr. Temp. -100.8°C Dome Temp./Hum. -079°C 6059H Transparency Conditions ... Fine ... 11.3

Focus -215

Spectr. Temp. Dome Temp./Hum.

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ x Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1s	no filter			Echelle 19.12	0600 3028	90x W 400x H	6906A	3			
65s	4K	1037	BQV					7	Telluric Std	MAX ~	3K
133	9K							7			5K
1s								3			
								1			
1s								3			
	90	2"	1011	M0e				2	Vys 740	nice H α em	
1s								3			
1s								3			
176	16	2.5"	12					7	Vys 782 AB	slightly hazy WRONG STAR	weak
1s								3			
182	90	2.4"	9.0	M5e				4	Vys 782 AB	nice H α em	
1s								3			
								1			
1s								3			

116 pg#1

Mon Tues

Emulsion Batches:

Date . 1997. MAR. 24/25 Observers [KK] / Jb. + MK. and students

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
ce137 ²⁸ 30	Inbound / out BOARD		Heartmark			2 30W	+24°	Tb Ar	2/1
31	BIAS (4) Comp			19 03				Tb Ar	1
32	HP57669	07 17 13	+10 51 54	19 06 19					273
33	Comp							Tb Ar	1
34	Comp							n	1
35	BD+33 1646 A	08 02 34	+33 06 25	19 18 02					1289
36	Comp							n	1
37	BD+33 1646 B	"	"	19 41 59					2282
38	Comp							n	1
39	Comp							n	1
40	BD-02 3000	09 48 10	-03 13 04	20 33 24					8152
41	Comp							n	1
42	BIAS (4)			21 16					
43	Comp							n	1

Exp. Mtr. 8

Focus. 2

Spectr. Temp.

Exp. Mtr. 8

Focus. 2

Spectr. Temp.

1320V

570

31

56

CCD Spectr. Temp. -100.3°C Dome Temp./Hum. -00.2°C 59.6H Transparency Conditions Thin cloud 117

Focus 215 unchanged

JUST past Full moon
Yesterday was lunar eclipse

Spectr. Temp. Dome Temp./Hum. -01.0°C 64.56H
CD

Comparison filter Exp	Exp. Mtr.	Seeing	Mag.	Sp.	Inst. Echelle	Grating/ x Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
2/1	no filter 1320V				19.12°	0600 .3028	90u w 400u H	6700A	1/2	focus test CCDFMT	0 0 128 1024 8 1	
									1	" "	0 0 256 1024 4 1	
1									3			
2/3	570	1-2'	5.19	KO II					4		just some normalization star of last night.	1.1K
1									3			7.5K
1				HA					3			
2/2	65	1-2'	11	MO					2	Vys 250A	good H α em Brighter NE end	
1									3			
2/2	31	1-2'	12.01	M3					5	Vys 250B	em @ \nearrow (about same width as As H α em) Looks single just a bit of self absorption	
1									3			
1									6			7K
2/2	56	1-2'	10.54	MO					7	Vys 560	B2 - 00 0007 B5 - 00 02 24 No H α em as expected	
1									3			
1									1			
1									3			7.5K

118 p9th

Mon / Tues

Emulsion Batches:

Date 1997 MAR 24/25. Observers [RH] / 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.
ce13744	AC+38 28746	09 3007	+37 5838	21 1855					1500
45	Comp							ThAr	1s
46	Comp							"	1s
47	HD 95735	10 5754	363800	21 4853					891
48	Comp							"	1s
49/53	FLATS x 5							TUNG	2s
54	BIAS(4)			22 09					
ce13755	Comp							ThAr	1s
56	HD 95735	10 5754	+363800	22 2720					2331
57	Comp							ThAr	1s
58	Comp							"	1s
59	HD 87901	10 0303	+12 2722	23 0637					1736
60	Comp							"	1s
61	BIAS(4)			23 37					
62/66	FLATS x 5							TUNG	2s
63/68	Inb / out BOARD					1 26W +120		ThAr	2/
						3 05W +30			

CCO

Spectr. Temp

Focus...

Spectr. Temp

Exp. Mu.

No. F. / W.

13200

25

250

1s

2s

1s

135

1s

1736

37K

1s

23 37

2s

2/

T=-0

CCD Spectr. Temp. -100.5°C Dome Temp./Hum. -01.1°C 6528H Transparency Conditions increasing cloud 119
 Focus 17.15
 Spectr. Temp. -101.7°C Dome Temp./Hum. -01.9°C 7376H
 23 EST Air port wind
 ESE 17 Kms/hr.

Plate	Exp.	Exp. Mtr.	Seeing	P.V. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1500		no F filter 1320V 27	1.3"	11	MO	edelle CCD 17.12°	0600m .3028	90u 400u	6400A	2ci	Vys 549		
	1s									3		Bottom Hz order 6559A → 6607A 48 Å range	
	1s									3			
89		250		7.48	M2					4	marcy std	Vys 594	
	1s									3			
16	2s							90u 600u = 1205		6ci			
										1			
	1s					edelle 17.50	0600m .3056	90u 400u = 775	6401	1		6520-6566 Å Bottom order	75K
330		135	1.2"	7.48	M2					5	std	other side of blaze	
	1s									3			
	1s									3			
170		3.7K	2.4"	1.37	B7V					6	telluric std.	Thick cloud	3K
	1s									3			
										1			
										2			
										11/7		Focus CCD emf 0 0 128 1024 8 1	11.8K
		T = -02.0°C											

Big ~ 0.2 pixels
 set for cooler settings slightly

170 p9#1

Wed / Thurs

Emulsion Batches:

Date 1997 MAR 26/27 Observers [Blm] / L.H. / 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.
CC444 ^{96/97}	In bound / out board					00	+40	FeAn ND 4	4/4
98	BIAS(4)			~ 01 26					
99	Comp							n	4
CC44500	HD 80360	09 5251	+125319	01 34 38					2291
01	Comp							n	4
02	Comp							n	4
03	HD 152614	16 4917	+10 19 46	02 19 04					873
04	Comp							n	4
05	BIAS(4)			02 35					
06	Comp							n	4s
07	HD 154528	17 00 54	+774800	02 44 48					2400
08	Comp							n	4.
09	Comp							n	4s
10	HP 144579	16 01 30	+39 24 00	03 31 02					836
11	Comp							n	4s
12	BIAS(4)			3 46					

CCD
Spectr. Tem

Focus... 6

Spectr. Tem

Exp. Mtr.

1000V015

8639A

1/2K

20K

87K

24K

Spectr. Temp. ^{CCD} - 101.9 °C... Dome Temp./Hum. 101.2°C 74.6% Transparency Conditions clearing, but Hazy... 121

Focus ... 6.93

Bright moon in Libra

Spectr. Temp. - 101.7 °C...

Dome Temp./Hum. 100.8°C 81.2%

390 0 50 1024 4 1 CCDPMT

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1000 Voltz BG 39A/12				CASS CCD Fgrating →	1800hr 42.50	30 μ	4463A	3/4	focus Test		
								1			
								5			9.7K
2/2K	5.9 ^B	5.22	B9IV					6	SB Bl _n	7250/1 S/N	38K
								7			8.3K
								8			
20K	6 ^B	4.3	B8V					9	SB Bl _n	7300/1 S/N	77
								10			
								11			9.8K
8.7K	4.7 ^V	6.66	A0					12	SB Bl _n		7.4K
								13			8.0K
								14			
2.9K	4 ^V	6.66	G8V					15	std vel		
								16			
								1			

127 pg #2

Wed / Thurs

Emulsion Batches:

Date .. 1997. MAR. 26/27. Observers [Bl.] / 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.
CG80805/808	HD 144579	16 0130	+39 24 00	03 48				4x 67ms	
809/12	DARKS x 4				All same	Box on top		4x 67ms	
13/14	DARKS x 2				and	Int setting		2x 133	
15/16	HD 144579							2x 133	
CC 44513	Comp							FeAr ND4	4s
14	HD 164577	17 56 41	+01 18 27	03 59 21					954
15	Comp							"	4s
16	Comp							"	4s
17	HD 164852	17 58 07	+20 50 00	04 21 13					970
18	Comp							"	4s
19	Comp							"	4s
20	HD 172187	18 33 42	+43 08 12	04 41 56					
21	Comp							"	4s
22	Comp							"	4s
23	HD 180316	19 11 00	+27 46 00	05 05 05					1532

Spectr. Temp. ^{CCD} -100.5°C..... Dome Temp./Hum.....

Transparency Conditions... 1/4.29..... 123

Focus..... 6.9.3.....

Airport SSW 17kms/hr
~~100.77~~ 100.77 kpcuts and falling

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

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
2.9K			ALT = 85°		Above	306a	slit			Seeing test Dome WSW.	
				C455 CCD	1800ln 42.50	306a	A463A	17			9.9K
20K		B 4.46	A1V					18	SB Bln		
								19			
								20			
15.2K	4.6"	B 5.19	B3V					21	SB Bln		7.1K
								22			
								23			8.8K
7.1K	4"	B 6.40	F0V					24	SB Bln		
								25			
								26			
6.1	4.5"	B 6.64	B8					27	SB Bln	Sky bright	

126
pg#1

THURS / FRI

Emulsion Batches:

Date 1997 MAR 27/28.. 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.
CC445 ³³ / ₃₄	Inb / out board					020E	40	FEAR ND4	4/7
35	BIAS (A)			1911					
36	Comp							FEAR ND4	4s
37	HD 57669	07 1713	+1051 54	1914 52					128s
38	Comp							"	4s
39	Comp							"	4s
40	AH Aur	06 26 05	27 59 54	19 25 24					900
41	" Comp	"	"	1940 48					900
42	Comp							FEAR ND4	4s
43	Comp							"	4s
44	BD-02 3000	09 48 10	-0313 04	20 02 04					1359
45	Comp							"	4s
46	BIAS (A)			2026					
47	Comp							"	4s
48	BD+01 2447	10 23 49	+01 2136	20 31 00					731
49	Comp							"	4s

cep
Spectr. Tem

Focus....6

Spectr. Tem

Exp. Mir.

No filter
1000 Volts

5.3K

500

410

590

570

CCD Spectr. Temp. -101.5°C Dome Temp./Hum. $+07.8^{\circ}\text{C}$ $63.7\% \text{H}$ Transparency Conditions *Fine* *some cloud* 127

Focus 6.85

Spectr. Temp. Dome Temp./Hum. $+06.6^{\circ}\text{C}$ $65.0\% \text{H}$

CCDFMT
390 0 50 1024 41 ~ MAX

Exp. Mtr.	Seeing	PA Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
4/7 no filter 1000 V _{eff}				CASS CCD	1800m 46.9	306	5184	3/4	focus test		
								1			
								5			
128s 5.3K	1"	5.19	KO III	CNI				6	Test and normalization star		5.5K
								7			2K
								8			
900 500	1"	10.5	G					9	Lu pgm	50/1 S/N	404 440
900 410	1.2"	"	"					10			
								11			1.7K
								12			
1339 590	1.2"	10.54	MO					13	H _{low} Vys pgm	K200 0010 158-00 0039 (45/1 S/N)	
								14		is a bit north of equator? Field OK though.	
								1			
								15			
731 570	2"	9.65	M2					16	Murcy std vel		
								17			

178
Pg #2

TuRS / Fri

Date 1997. MAR. 27/28... Observers L.G. / 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.
CC1455D	Comp							FeAr ND4	4s
51	HD 95735	10 5754	1900 +363800	20 48 16					153
52	Comp							m	4s
53	Comp							n	4s
54	U2 Leo	10 40 33	2000 +13 34 00	20 57 57					1020
55	"	"	"	21 15 32					1050
56	comp								4
57	Bias (4)			21 35					
58	comp		2000						4
59	XZ Leo	10 02 34	17 02 46	21 43 13					4900
60	"			21 58 43					900
61	comp								4s
62	XZ Leo	"	"	22 16 04					900
63	"	"	"	22 31 55					900
64	comp								

Spectr. Tem

Focus... 6

Spectr. Tem

Exp. Mr.

no filter

1K

525

587

333

397

432

420

Spectr. Temp. Dome Temp./Hum. $+5.3^{\circ}\text{C} / 66.3\%$ Transparency Conditions *mostly clear* 129

Focus ... 6.8.5

Spectr. Temp. Dome Temp./Hum.

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no filter				CASS CED	1800 h	306 μ	5184A	18			
1K	2'	7.48	M2					19	marcy std.		
								20			
								21	L4 pgn		
525								22	n		
587	2"							23			
								24			
								1			
								25			
333		10.6	A5					26			
397								27			
								28			
432								29			
420	1.2'							30		50/1 S/N	
								5			

P #35 130

Date 1997 Mar. 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.	Exp. Mir.
cc4565	Comp							F2Ar ND#4	45	
66	W Crv	12 07 36	-13 09 30	22 56 36					900	202
67	"	"	"	23 12 13					900	217
68	Comp							"	4	
69	BIAS (A)			23 28						
70	Comp							"	4	
71	SX Crv	12 40 15	-18 48 00	23 32 41					600	512
72	"			23 43 30					600	517
73	"			23 54 01						
74	Comp							"	45	
75	SX Crv	" "	"	00 05 58					800	490
76	"	"	"	00 16 18					600	510
77	"	"	"	00 26 44					600	454
78	"	"	"	00 37 12					600	455
79	Comp							"	45	
80	BIAS (A)			00 48						

Spectr. Temp. Dome Temp./Hum. $+5.7^{\circ}\text{C} / 67.6\%$ Transparency Conditions *clear* 131

Focus 6.85

^{LED}Spectr. Temp. Dome Temp./Hum. $+5.0^{\circ}\text{C} / 70.8\%$

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
45				Cass CCD	1800 46.9	306 μ	5184A	5			
900	202	10.7	G2					6	DRL		
900	217	1"	"					7			
4								8			
4								1			
4								9			
600	557	1-2"	9.5	F7V				10		60/1 S/H	
600	517							11			
								12			
4								18			
800	490	2"						19			
600	510							20			
600	459							21			
600	455	2-3"						22			
45								23			
								1			

Spectr. Temp. Dome Temp./Hum. Transparency Conditions ... *Some cloud* ...

Focus ... *6.85* ...

133

Spectr. Temp. ... *-100.5°C* ... Dome Temp./Hum.

Comparison Filter	Exp.	Exp. Mtr.	Seeing	Pl. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	45	no filter				CASS CCD	1800h 46.90	306 μ	5184A	24			2/1K
	460	1500	2"	8.5	40					25	Lu p9m	< 100/1 5/1K	1/1K
	480	1570								26			
	460	1550								27			
	480	1630								28			
	45									29			
	480	1360								6			
	480	1200								7			
	480	1100	2"							8			
	480	1160								9			
	480									10			
	480									11			
	480	4.4K	7.2"	5.06	F8 II-V					12	std Vel		3.7K
	480									13			

Pg #5

134

Date 1997 MAR 27/28 Observers L.G./T.M.

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CC445 ⁹⁶ /601	FLATS x 6		1900			0 55E	+20	ND 3	85
CG80817/20	HD 128718	14 33.4	+48 39					4x	67ms
21/24	DARK x 4					De fault Box and SAME Int		4x	67ms
25/26	" x 2					FOR All		2x	133
27/28	HD 128718							2x	133
CC44502	Comp		1900					FeAr ND 3	45
03	BD+21 2763	15 17.25	+21 20.06	02 57.23					1295
04	Comp							"	45
05	Comp							"	45
06	BD-08 4352	16 50.05	-08 09.47	03 27.06					694
07	Comp							"	45
08	BIAS (4)			03 43					
09	Comp							"	45
10	GR Vir	14 45.20	-06 44.06	03 46.06					600
11	"			03 56.41					600

Spectr. Temp.

Focus...

Spectr. Temp.

Exp. Mtr.

no
f.14er

710

490

480

416

Spectr. Temp. Dome Temp./Hum. $+04.2^{\circ}\text{C}$ 71% H Transparency Conditions ... Mostly clear 135

Focus 6.85

Spectr. Temp. Dome Temp./Hum.

Exp. Mtr.	Seeing	Av. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
85				CASS	1800ln 46.9°	306 μ	5184A	2			13K
67 _{ms}	1.2'	6.7	F2	ALT 86°	Above	306 μ	slit		seeing test	No wind, Dome NW	
67 _{ms}											
133											
13											
3	710 filter			CASS CCD	1800ln 46.9°	306 μ	5184A	14			2.1K
129	710	1.2'	10.11	M10e				15	Vys 740K/H		~ 450
8								16			
8								17	Vys 782 AB		
69	490	2'	9	M5e				18			
4								19			
4								1			
4								20			
60	480		8.5	G0				21		through clouds.	
60	416		"	"				22			

136 pg #6

Date 1997 Mar. 27/28

Observers Lu/Tn

Emulsion Batches:

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Plate No.	Object	R.A.	Declination	Starting Time	Ending Time	Hour Angle End	Declination	Comparison	
		1900	1900	E.S.T.	E.S.T.			Type/Filter	Exp.
CC4612	GR Vir	14 45 20	-06 44.06	04 07 32					600
13	Comp							FeAr ND3	45
14	GR Vir	"	"	04 19 37					600
15	"	"	"	04 29 56					600
16	Comp								4
17	Comp								4
18	CK B60	14 35 03	09 06 54	04 47 56					300
19	comp								4
20	Bias(4)								0

Spectr. Tem

Focus.....

Spectr. Tem

Exp. Mtr.

486

625

640

380

138 P #1

Mon/Tues

Date 1997 Mar 31/Apr 1 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.	Exp. Mtr.
UC 4621/22	I ₁₁ board/out board		HARTMANN					FeAr ND3	4/6	10.5/12 100V
23	BIAS(4)			19 27						
24	Comp							FeAr ND3	4	
25	HD95735	10 57 54	+36 38 00	19 34 42					367	2K
26	Comp							"	4	
27	Comp							"	4	
28	BD-02 3000	09 48 10	-03 13 04	19 46 42					1800	630
29	Comp							"	4	
30	Comp							"	4	
31	BD+01 2447	10 23 49	+01 21 36	20 21 09					950	710
32	Comp							"	4	
33	BIAS(4)			20 40						
34	Comp							"	4	
35	FF Cnc	08 29 40	+17 17 02	20 47 27					1261	280
36	Comp									

CCO

Spectr. Temp.

Focus.....

Spectr. Temp.

Exp. Mtr.

CCD Spectr. Temp. ~~didn't check~~ Dome Temp./Hum. $-00.1^{\circ}C$ 53624 Transparency Conditions ... Fine 139...

Focus 6.93.....

Spectr. Temp. Dome Temp./Hum.

390 0 50 1024 4 1 CCD PAINT

Exp. Mtr.	Seeing	Plg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
4/6	10 filter 1000V			CASS CCD	1800 μ 46.9°	306 μ	518AA	3/4	focus test		
4								1			
4								5			
367	2K	3-4"	7.48	M2				2	Marcy std vel		1K
4								7			36K
4								8			34K
630	3-6"	10.54	M10					9	Vgs 560 H/w	50/1 S/N	
4								10			20K
4								11			26K
950	710	3-5"	9.65	M2				12	Marcy std vel		
4								13			
4								1			
4								14			
280	3-4"	10.6						17	Gld pgr		

140 Pg #2

Mon/Tues

Emulsion Batches:

Date 1997 MAR 31 / Apr 1 Observers ... L.A. / 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		Exp. Mtr.
								Type/Filter	Exp.	
CC 74637	Comp							KeA ND3	As	No Filter
38	AC+38 28746	09 30 07	+37 58 38	21 21 19					18/8	377
39	Comp							"	As	
40	Bias(4)			21 53						
41	Comp							"	4s	
42	SX Crv	(2000) 12 40 15	-18 48 00	22 02 02					720	386
43	"	"	"	22 15 03					720	378
44	"	"	"	22 27 27					721	380
45	Comp							"	As	
46	SX Crv	"	"	22 41 40					720	375
47	"	"	"	22 54 08					720	370
48	"	"	"	23 06 33					721	375
49	comp							"	4s	
50	Bias(4)			23 20						
51	SX Crv			23 22 35					721	411

CCD
Spectr. Terr

Focus ...

Spectr. Terr

Exp. Mtr.

No

Filter

377

386

378

380

375

370

375

411

CCDT Spectr. Temp. -92.5°C @ 21:30 Dome Temp./Hum. -00.8°C 94.8% H Transparency Conditions *Fine* 141

Focus 6.93 CCDT set at start of night to 4.2 units not the usual 5.0 units by accident

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
<i>no filter</i>				<i>CAS CCD</i>	<i>1800m 46.90</i>	<i>306m</i>	<i>518A</i>	<i>18</i>			
<i>477</i>	<i>3.5</i>	<i>11</i>	<i>M0</i>					<i>19</i>	<i>Vys 549</i>		
								<i>20</i>			<i>26K</i>
								<i>1</i>		<i>CCDT = -92.9°C</i>	
								<i>20</i>			
<i>386</i>	<i>8"</i>	<i>9.5</i>	<i>F7V</i>					<i>21</i>	<i>DRL</i>		
<i>378</i>								<i>22</i>			
<i>380</i>								<i>23</i>			
								<i>24</i>			
<i>395</i>								<i>25</i>			
<i>390</i>								<i>26</i>			
<i>395</i>								<i>27</i>			
								<i>28</i>			
								<i>1</i>			
<i>411</i>								<i>29</i>			

142 pg # 3

Date 1997 Mar 31 / Apr 1

Observers Lu / T_n

Emulsion Batches:

.....

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

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison		Exp. Nr.
								Type/Filter	Exp.	
CC44652	SX Crv	12 40 15	(2000) -18 48 00	23 35 16				FaAr ND43	720	455
53	comp							↓	45	
54	comp							u	45	
55	W Crv	12 07 36	-13 09 30	23 55 48					900	153
56	"			00 12 29					990	172
57	Comp							u	45	
58	W Crv	"	"	00 31 19					927	166
59	"			00 47 10					956	166
60	Comp							"	45	
61	BIAS(A)			01 04						
62	Comp							"	45	
63	SX Crv	12 40 15	-18 48 00	01 08 36					660	440
64	"			01 20 01					660	441
65	"			01 31 16					697	420
66	Comp							"	45	

CCD
Spectr. Temp. -92.5

Dome Temp./Hum. $-1.5^{\circ}\text{C}/47.8\%$

Transparency Conditions *Fine* 143

Focus 6.93

medium strength NNW wind

Spectr. Temp. -92.4°C

Dome Temp./Hum.

wind NNW 28 Kms/hr @ 0830

Exp. Mtr.	Seeing	Pr. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
720	4.55	4" 6"	9.5	F7V	CASS CCD	1800 46.9	306 μ	5184	30		
45								5			
45								5			
900	153	3.5"	10.7	42				6	DRL		
990	172							7			
45								14			
927	166							15		720/1 S/N	
956	166							16			
45								18			2.8
								1			
45								24			
66	440		9.5	F7V				25			
660	441	3.8"						26			
692	~420							25			
45								27			

pg # 4
144

Mon / Tues

Date 1997 MAR 31 / Apr. 1 Observers L.G. / T.O.

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

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
cc 44667	Comp							FeAr 1103	45
68	HD 102870	11 4529	+02 19 42	01 47 55					4B
69	Comp							"	4
70	Comp							"	4
71	HD 107328	12 1516	+03 52 10	01 52 58					133
72	Comp							"	4
73	Comp							"	4
74	CK Boo	14 3503	+09 06 54	02 00 07					600
75	"			02 10 51					600
76	"			02 21 16					600
77	comp							"	45
78	BIAS (4)			02 33					
79	CK Boo			02 34 40					600
80	"			02 45 10					600
81	"			02 55 42					600

CCJ
Spectr. Tem
Focus...
Spectr. Tem

Exp. Mtr.
no. 514
4K
5K
644
618
570
560
500
460

Spectr. Temp. ^{CCD} -92.4°C Dome Temp./Hum. -02.1°C 39.4% H Transparency Conditions Finer 145

Focus 6.93

Spectr. Temp. Dome Temp./Hum.

390 0 50 1024 4 1 CCD/FMT

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no filter				CASS CCO	1800m 46.9°	306u	5184A	28			
4K		361	F9V					29	std vel		2K
		361	F9V					30			3.1K
								5			
5K	4"	496	K0.5 IIIb					6	std vel		2.5K
								7			3K
								8		CCDT -92.5°C	
644	4-5"	9.8	F8					9			
618								10			
570								11			
								12			
								1			
560								13			
500	5-7"							14			
466								15			

P9#5

146

Date ..1997. MAR 31. / Apr. 1 Observers Lu. / Tn.....

Emulsion Batches:

.....

CCD
 Spectr. Tem
 Focus...6
 Spectr. Tem

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CC44682	Comp CK Boo							FeAr ND3	1/1A
83	VZ Lib (4)	14 35 03	+09 06 54	03 08 27					600
84	CK Boo	"	"	03 18 54					679
85	CK Boo			03 30 36					610
86	Comp							FeAr ND3	4s
87	CK Boo	14 35 03	+09 06 54	03 42 25					600
88	"	"	"	03 53 13					655
89	Comp							FeAr ND3	4s
90	B/H S (4)			04 06					
91	Comp							"	4s
92	VZ Lib	15 31 53	+5 41 06	04 25 09					983
93	comp							"	4s
94	Comp							"	4s
95	BD-08 4352	16 50 05	-08 09 47	04 46 53					1115
96	Comp							"	4s

Exp. Mtr.

No.
Filter

47

520

460

450

465

185

1070

Spectr. Temp. ^{CCD} -92.4 °C Dome Temp./Hum. -02.8 °C 91.7% H Transparency Conditions Fine 147

Focus 6.93

Wind NNW 14 Kms/HR.

Spectr. Temp. Dome Temp./Hum.

390 050 1024 4 1

Exp. Mtr.	Seeing	P [✓] Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
4/15 No filter				CASS	1800 46-9	306 _u	5184A	3/4 16			
600 477		9.8	F8					17			
570 520	4-7"							5			
610 460	"							6			
630								7			26K
640 450								8			
655 465	3-5"							9			
670								10			
680								11			2.5K
690 185		9	m5e					12	Vys 782 AB		
700								13			
710								14			
720 1070	8-9"		m5e					15	Vys 787 AB		
730								16			

Spectr. Temp. Dome Temp./Hum. -03.1°C $44.6\% \text{H}$ Transparency Conditions *Fine* *149*

Focus *6.93*

Spectr. Temp. Dome Temp./Hum. *c2*

Comparison filter	Exp.	Exp. Mtr.	Seeing	✓ Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
<i>fs</i>						<i>CASS CCD</i>	<i>1800/n 4609</i>	<i>306μ</i>	<i>5184A</i>	<i>17</i>			
<i>320</i>		<i>3.7K</i>	<i>8"</i>	<i>6.0</i>	<i>G0</i>					<i>18</i>	<i>std vel</i>		
<i>fs</i>										<i>19</i>			
										<i>1</i>			
<i>8</i>										<i>2</i>			<i>13.5K</i>

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Tues/wed

Emulsion Batches:

Date 1997 Apr 1/2 Observers Lu, T.H.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CC47708/09	In board / out board							FeAr ND3	4/7
10	BIHS(4)			19 26					
11	Comp							"	4s
12	HD60437	07 29 16	+46 24 03	19 33 27					36s
13	Comp							"	4s
14	Comp							"	4s
15	HD 95735	10 57 54	+36 38 00	19 41 46					48s
16	Comp							"	4s
17	Comp							"	4s
18	BD-02 3000	09 48 10	-03 13 04	19 55 49					1756
19	Comp							"	4s
20	comp		(2000)					"	4s
21	U2 Leo	10 40 33	13 34 00	20 30 45					900
22	"			20 46 46					930
23	comp								
24	Bras(4)			21 04					

C49
Spectr. Temp.

Focus...

Spectr. Temp.

Exp. Mtr.

10-6/6

55K

21K

612

454

460

CCD Spectr. Temp. ... 100.5 °C Dome Temp./Hum. ... 103.6 °C 43.87% H Transparency Conditions ... Fine ... 15/...

Focus ... 6.93 ... no change needed

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

Exp. Mtr.	Seeing	P ₁₈ Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no filter				CASS CCD	1800 λ 48.9°	306 μ	5184A	3/4	Focus		
								1			
								5			
* 5.5K	2-3"	565	MO III					6	High exp meter cuts for resulting spectra. Normalization star.	Em front hd SAY?	35K 1K
								7			
								8			39K
2.1K	3"	7.48	M2					9	Marcy vel star		900
								10			2.9K
								11			
512	3-5"	10.54	M0					12	Vgs 560 μ m for H/w		
								13			2AK
								14			
454		9.8	F2					15			
460								16			
								17			
								1			

152 pg #2

Tues / wed

Date 1997 Apr 1/2

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.
CC44725	U7 Leo	10 40 33	(2000) 13 34 00	21 06 11					900
26	"	"	"	21 21 40					960
27	comp							FeAr ND3	45
28	U7 Leo	"	"	21 41 10					
29	Comp							1	45
30	Comp							"	45
31	FF Cnc	08 29 40	²⁰⁰⁰ 17 17 02	22 08 17					1342
32	Comp							"	45
33	BIAS (4)			22 32					
34	FF Cnc	"	"	22 34 13					1380
35	Comp							"	45
36	Comp							"	45
37	BD +01 2447	10 23 49	¹⁹⁰⁰ 10 21 36	23 01 52					80
38	Comp								
39	BIAS (4)			23 18					

Spectr. Tem

Focus ...

Spectr. Tem

Exp. Mr.

463

520

280

285

640

Spectr. Temp. Dome Temp./Hum. $+2.6^{\circ}\text{C}/39.4\%$ Transparency Conditions ... *Fine* 153.

Focus 6.93

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

Comparison ter. Exp.	Exp. Mtr.	Seeing	P _{1/2} Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
900	463		9.8	F2	CASS CCD	1800 469	366 _u	5184	18			
960	520								19			
43									20			
		4-6 ^v							21			
45									22			
45									23			
1300	280	4-5 ^v	10.6						24	Gld pgrm	740/1 5/N	
45									25			2.6K
									1			
1300	285		10.6						2	Gld pgrm		
45									26			2.6K
45									27			2.6K
800	640		9.65	m2					28	marcy std vel		2.6K

154 P923

Tues/Wed

Emulsion Batches:

Date 1997 Apr 1/2 Observers L. U. / J. T. y

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CG8039/32	HD 103095	11 4713	+382610					4x	67
CG8033/34	DARK	Should have done 4 instead of 2.						2x	67
35/36	"	All with default box and same intensifier setting						2x	133
37/38	HD 103095	"	"					2x	133
CC 44740	Comp		1900					Febr ND3	45
41	HD 103095	11 4713	382610	23 28 42					207
42	Comp							"	45
43	Comp		2000					"	"
44	U2 Leo	10 40 33	13 34 00	23 57 28					900
45	"			23 53 00					900
46	Comp								45
47	U2 Leo	"	"	00 10 06					900
48	"	"	"	00 26 29					.
49	Comp								
50	BIAS (A)			00 34					

Spectr. Tem

Focus

CCD

Spectr. Tem

Exp. Mtr.

209k

562

586

537

540

Spectr. Temp. Dome Temp./Hum. 40.21°C $40.2\% \text{RH}$ Transparency Conditions *Fine* 155

Focus *6.93*

Spectr. Temp. -100.6°C

Exp.	Exp. Mtr.	Seeing	P.V. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
67			6.45	G8Vp			Above 3064 slit			Seeing Tests	ALI = 84° Dome SW, medium NW wind	
133												
133												
45												
207	2.9K	2.9"	6.45	G8Vp					29			
45									30	std vel		
1									5			
90	562		9.8	F2					6			
7	556								2	O.R.L.		
45									3			
90	537		9.8	F2					4			
1	540	4.5"							5			
									6			
									1			

Note we should have had Fans on tonight, but did.

Just NEFAN on for tests

CASS 1800h
CCD 46.90

3064 518A9

156

Pg #4

Tues / Wed

Emulsion Batches:

Date 1997 Apr. 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.
CC 44751	Comp							FeAr NO.3	45
52	VZ Lib	15 3153	2000 -15 4106	00 4958					900
53	"	"	"	01 0520					900
54	Comp							"	45
55	VZ Lib	"	"	01 2223					960
56	"	"	"	01 3912					960
57	Comp							"	45
58	BIAS(4)	12	16	01 57 02					
59	VZ Lib	"	"	01 59 02					900
60	"	"	"	02 1433					900
61	Comp							"	4
62	VZ Lib	"	"	02 32 05					919
63	Comp							"	4
64	Comp							"	4
65	CK BOO	14 35 03	09 06 54	02 5318					622

Spectr. Tem

Focus.....

C49
Spectr. Tem

Exp. Mtr.

no filter

277

200

192

188

180

180

183

193

Spectr. Temp. Dome Temp./Hum. $+01.7^{\circ}\text{C}$ 40.2% Transparency Conditions ... *Fine* 157

Focus 6.93

Spectr. Temp. -100.6°C @ $2:40$ Dome Temp./Hum. $+01.1^{\circ}\text{C}$ 41.6% No wind by 02:30, but seeing worse.

Exp. Mtr.	Seeing	Pk. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no filter				CASS CCD	1800h <u>48.9</u>	306u	5184Å	8c			3.2K
227	4"8"							15c	DRL	> 30/1 S/N	
200								16c			
								17			
192								18			
188								19			
								20			
								1			
180		10.1	F5					21			
180	4"8"							22			
								23			
183	5-15"							24			
								25			2.6K
								26			2.8K
293		9.8	F8					27	DRL	> 50/1 S/N	

Note noticed Grating Tilt in Header.
Had been wrong. It is 46.9° all night.
and Grating unchanged from last night's tilt.

158 pg # 5 Tues/Wed

Emulsion Batches:

Date ... Apr. 1/2 / 1997 Observers ... L.H.L.Th.....

.....

Plate No.	Object	R.A.	Declination	Starting Time	Ending Time	Hour Angle End	Declination	Comparison		Exp. Mtr.
		1900	1900	E.S.T.	E.S.T.			Type/Filter	Exp.	
cc44766	CK Boo	14 35 03	09 06 54	3 04 06					622	420
67	comp ↑							Fe Ar ND3	4s	
68	NSV 7457	16 06 02	50 11 12	03 20 41					600	241
69	comp ↑							"	4s	
70	BIAS (4)			03 33						
71	NSV 7457 ↓	"	"	03 35 33	edit time ✓				900	380
72	"	"	"	03 51 57					900	407
73	comp							"	4s	
74	NSV 7457	"	"	04 09 18					1054	445
75	"	"	"	04 27 19					900	400
76	comp							"	4s	
77	NSV 7457	"	"	04 44 40					600	265
78	comp							"	4s	
79	comp								4s	
80	HD 136202	15 19 05	01 46 56	05 00 53				1495	870	3.9k

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

Spectr. Temp. ^{CCD} -100.4°C Dome Temp./Hum. +01.1°C / 40.9% Transparency Conditions ... Fine 159
 Focus 6:9.3
 Spectr. Temp. Dome Temp./Hum.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
622	420	5-10"	9.8	F8	CASS CCD	1800 46.9	306μ	518/A	28ci	DRL	
43								29			
600	241		9.5?	40?				30	- without comp	before code error 00 00 00 -30	
43								31			
								1			
900	380		"	"				5	Redant in	30ci	
950	407							6			420
4								7		CCOT -100.4@ 04:20	
1054	445	78"						8		75/1 S/U	
900	400							9			
43								10			
10	265							11			
43								12			
43								13			
890	3.9K		5.06	F8IV-II				14	std vel		

162 p4#1

Wed/Thurs.

Date 1997 Apr 2/3..... Observers L.U./T.N.....

Emulsion Batches:

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

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CC447 ^{9/1} 92	In bound / out bound							RA+ NO3	4/8
93	BIAS(4)			19 15				"	4s
94	Comp							"	4s
95	HD 66437	07 29 16	+46 24 03	19 18 47					238
96	Comp							"	4s
97	Comp							"	4s
98	HD 84441	09 40 11	+24 14 05	19 29 14					47s
99	Comp							"	4s
CC44800	Comp							"	4s
01	UZ Leo	10 40 33	+13 34 00	19 40 34					900
02	comp							"	4s
03	comp							"	4s
04	XZ Leo	10 02 34	17 02 46	20 01 00					900
05	comp							"	4s
06	BIAS(4)			01 18					0

20
Spectr. Tem

Focus... 6

Spectr. Tem

Exp. Mtr.

No. filtered
1000 V

688K

7K

530

378

Spectr. Temp. ^{CO} - 1005 °C Dome Temp./Hum. 110.6 °C 40.2% Transparency Conditions ... mostly clear ... 163

Focus .. 6.85

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

Exp. Mtr.	Seeing	P [✓] Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no filter 1000 V				CASS CCD	1800h 46.9°	306μ	5184A	3/4			
								1			
								5			3.3K
6.85K	2.3'	5.65	M0 III					6	No amplitude star	sky a bit strong still	4K
								7			3K
								8			
7K	2'	2.98	G1 II					9	StdVel		7.7K
								10			3.3K
								11			3.5K
530		9.8	F2					12	DRL		
								13			
								14			
378		10.6	A5					15	DRL		
								16			
								1			

164 p4 #2 wed / Thurs

Emulsion Batches:

Date 1997 Apr 2/3 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.
cc44807	Comp		2000					FeAr ND#3	4s
08	U Z Leo	10 40 33	13 34 00	20 21 49					900
09	"	"	"	20 37 36					901
10	comp							"	4s
11	U Z Leo	"	"	20 55 14					900
12	"	"	"	21 10 34					900
13	comp							"	4s
14	U Z Leo	"	"	21 27 47					900
15	Comp							"	4s
16	BIDS(4)			21 45					
17	Comp							"	4s
18	NSV 7457	16 06 02	50 11 12	21 53 48					901
19	comp							"	4s
20/27	FLATS x 8					0520E	+50 11	JUNG ND3	8s
28	Comp							FeAr ND3	4s

166 pg#3

Wed / Thurs

Emulsion Batches:

Date 1997 Apr 2/3 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.
CC44829	HD103095	11 4713	+382610	22 24 33					1236
30	Comp							rear NO3	4s
31	BIA5(A)			22 48					
CG808 39/42	HD103095							4x	67ms
43/46	DARKS			All nicely done with				4x	67ms
47/48	DARKS			SAME box & Inverse for settings				2x	137ms
49/50	HD103095	11 4713	+382610				unchanged,	2x	137ms
CC44832	Comp							rear NO3	4s
33	BD-02 3000	09 4810	-03 1304	22 59 38					1434
34	Comp							n	4s
35	Comp							y	4s
36	BD+01 2147	10 2349	+012136	23 29 23					840
37	Comp							n	4s
38	Comp							n	4s
39	AC+38 28746	04 3007	+375838	23 52 16					1579
40	Comp							n	4s

Ccd Spectr. Temp.

Focus... 6

Spectr. Temp.

Exp. Mtr.

ref. No.

3-9K

760

420

380

CCD Spectr. Temp. -100.3°C

Dome Temp./Hum. 708.0°C 46.9% H

Transparency Conditions ... Part. Cloudy ... 15T

Focus ... 6.85

Spectr. Temp.

Dome Temp./Hum. 707.6°C 46.9% H

WSW 10 Kms/hr

~ MAX

Exp. Mtr.	Seeing	P.W. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no filter 3.9K	1.2"	6.45	G8Vp	CASSCOB	1800h 46.5°	306u	5184A	30	std vel		3K
								31			2.7K
								1			
		6.45	G8Vp		Above	306u	slit		Seeing test	Dome SW, Light WSW wind ALT 81°	
								5			
460	2"	10.54	M0					6	Vys 560	(Hazy) ~25/1 SN FOR H/W	
								7			2.4K
								8			
420	2.2"	9.65	M2					9	Margy	std vel	
								10			
								11			
350	1.2"	11	M0					12	Vys 549	for KK	
								13			

168 pg #4

Wed 1 Thru

Emulsion Batches:

Date 1997 Apr 2/3... Observers Lu. / Th.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CC44841	BIAS(A)			00 20					
42	Comp							FEAr NO 3	45
43	CK Boo	14 3503	2000 +09 0654	00 25 03					600
44	"			00 35 27					600
45	"			00 45 54					600
46	comp							"	45
47	CK Boo			00 58 17					720
48	"	"	"	01 10 43					600
49	"	"	"	01 21 07					600
50	comp							"	45
51	BIAS(4)			01 33					
52	CK Boo	"	"	01 34 13					600
53	"	"	"	01 44 44					600
54	comp							"	4
55	Comp							"	4

Spectr. Tem

Focus...

Spectr. Tem

Exp. Mtr.

568

511

440

394

380

460

560

550

Spectr. Temp. -100.5°C Dome Temp./Hum. $+7.2^{\circ}\text{C}/48.7\%$ Transparency Conditions *partly cloudy* 169Focus 6.85

Spectr. Temp. Dome Temp./Hum.

Comparison Filter	Exp.	Exp. Mtr.	Seeing	P _v Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
						CASS CCD	1800 46.9	306 μ		1			
										14			3-1A
	600	568		9.8	F8					15	DRL		
	600	511								16			
	600	340								17		through clouds	
	45									18			
	700	394								19		through clouds	
	600	380								20			
	600	440								21			
	45									22		CCD T = -100.6°C	
										1			
	600	560		1-2"						23			
	600	550								24			
	4									25			
	4									25			

p9#5

170

Date 1997 Apr 2/3 Observers Ly / Jh

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.
CC44856	V Z Lib	15 31 53	²⁰⁰⁰ -15 41 06	02 00 40					900
57	"	"	"	02 16 06					900
58	comp							FeAr ND3	4s
59	VZ Lib	"	"	02 33 42					902
60	comp							"	4s
61	BIAS(4)			02 50					
62	comp							"	4s
63	GR Vir	14 45 20	²⁰⁰⁰ -15 44 06	02 54 16					360
64	"	"	"	03 00 36					360
65	"	"	"	03 06 55					360
66	"			03 13 14					360
67	"			03 19 57					360
68	"			03 26 36					359
69	Comp							"	4s
70	GR VIR			03 35 22					360

CCD
Spectr. Tem

Focus.....

Spectr. Tem

Exp. Mir.

120 f/ke
260

261

270

810

810

840

870

805

780

770

780

CCD Spectr. Temp. -100.8°C Dome Temp./Hum. $+6.8^{\circ}\text{C}$ $49.5\% \text{RH}$ Transparency Conditions mostly clear (7)

Focus 6.85

Spectr. Temp. Dome Temp./Hum. $c2$ 390 0 50 1024 41 CCD FAT

Comparison plate	Exp.	Exp. Mtr.	Seeing	Pk. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emission	P.H.	Program	Remarks	Quality
900		no f/ke 260		10.1	FS	CASS CCD	1800 μ 46.90	306 μ	5184R	26	DRL		
900		261								27			
4s										28			
102		270								29			
4s										30			
4s										5		CCDT = -100.6°C	
360		810	2-3"	8.5	G0					6	DRL	80/1 S/N	680
360		810								7			
360		840								8			
360		830								9			
360		805								10			
350		780								11		CCDT = -98.8°C	
4s		7.								12		" -99.4°C	
360		780								13			

172 pg #6

Date 1997 Apr. 2/3 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.
CC44871	GR Vix	14 45 20 ⁽²⁰⁰⁰⁾	-06 44 06	03 41 59					360
72	"	"	"	03 48 23					360
73	"	"	"	03 54 46					360
74	"	"	"	04 01 13					360
75	Comp							FEAr NO 3	4s
76	BIAS (4)			04 08					
77	comp							"	4s
78	NSV 7457	16 06 02	50 11 12	04 15 20					901
79	comp							"	4s
80	NSV 7457	"	"	04 32 24					900
81	"	"	"	04 47 52					984
82	comp							"	4s
83	BIAS (4)			05 06					0s
84/85	Inpouan / out Board					01 30W	+50°	FEAr NO 3	4/7

CCD

Spectr. Temp.

Focus.....

Spectr. Temp.

Exp. Mtr.

740

790

766

740

380

393

483

CCD
Spectr. Temp. ... -100.1°C ...

Dome Temp./Hum. 6.2°C / 51.4%

Transparency Conditions ... clear ... 173.

Focus ... 6.85 ...

Spectr. Temp. ...

Dome Temp./Hum. 7.06°C / 45.4% H

Exp. Mtr.	Secing	Pl. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
360		8.5	60	CASS CCD	1800 46.9	306μ	5184	14	DRL		
360								15			
360								16		CCD T -100.0°C	
360	2-3"							17			
45								18			20K
								1			
45								19			
401	2-3"	9.5?	60?					20	DRL	} Topup during these Frames. And disconnected stand. Both comparison right on top of each other.	
45								21			
90								22			
90								23			
45								24			
05								1			
3 9/16								3/4	focus test		

174 p41

THURS / FRI

Emulsion Batches:

Date 1997 Apr 3/4..... Observers Gld / Tn.....

Gld doing photometry on 24"

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison	
								Type/Filter	Exp.
cc4480/87	In board / out Board							FeNe ND5	4/4
88	BIAS(4)			20 0033				"	3s
89	Comp							"	3s
90	HD 73593	08 40 065	+46 11 05	20 0345					108
91	Comp							"	3s
92	Comp							"	3s
93	HD 62504	07 39 12	+28 16 04	20 3108					148
94	Comp							"	3s
95	Comp							"	3s
96	FF Cnc	08 29 40	+17 17 02	20 5220					1569
97	Comp							"	3s
98	FF Cnc	"	"	2 12221					1129
99	Comp							"	3s
cc44900	BIAS(4)			21 43					
01	FF Cnc	"	"	21 4445					1679
02	Comp							"	AS

Spectr. Tem

Focus.....

Spectr. Tem

Exp. Mr.

No. of Exp
100 V

1.6k

148

250

180

380

Spectr. Temp. Dome Temp./Hum. + 7.7°C 72.4% H Transparency Conditions ... Hazy, part cloudy ... 175

Focus 6.98

Spectr. Temp. Dome Temp./Hum. + 05.4°C 78.0% H

CD

405 0.50 1024 41 CCD

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
4/4	1000 V			CHSS CCD	0600/25.00	250	4113A	3/4			
								1			
3s								5			7.7
108	1.6K	5.37	G8IV					6		just normal. 2.2K and test purpose.	10K
3s								7			1K
3s								11		Telescope Reversed.	7.4K
	14.8K	1.14	K0III					12	std (v)	202-00 00 24 1.5-00 00 18	
3s								13		Had to Reboot Aker. Back home parked.	
3s								14		(After comp) some cloud,	5.5K
156	2.50	3.5	10.6					15	Gld ppm.	202-00 00 24 1.5-00 01 24 @ 01 West	
3s								16			8K
112	180							17		cloud ended.	
3s								18			
								1			
167	280	2.4						8			
85								9			

(~ 25/1 S/N)

176
pg#2

Emulsion Batches:

Date 1997 Apr 3/4..... Observers Gld.. J.A..... E.... M.Ki helping

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CC44903	FF Cnc	08 2940	+17 17 02	22 14 58					1800
CC44904	Comp			22 47 26				FeNe ND5	3s
5	FF Cnc			22 49 14					1800
6	Comp							"	3s
7	FF Cnc			23 21 14					1769
8	Comp							"	3s
9	FF Cnc			23 52 51					1865
10	Comp							"	3s
11	B7HS (A)			00 24					
12	FF Cnc			00 26 14					2600
13/19	Comp	FLATS x 7				04W	+62°	TUNG ND2	719
20	Comp							FeNe ND5	3s
21	HD 44 579	16 01 30	+13 9 24 00	01 33 32					128
22	Comp								
23	B7HS (A)			01 37					

Spectr. Tem.

Focus...

Spectr. Tem.

Exp. Mtr.

300

280

250

217

256

12k

Spectr. Temp. Dome Temp./Hum. ... 105.4°C 77.9% Transparency Conditions ... Part cloudy ... 17.7.

Focus ... 6.98

Spectr. Temp. Dome Temp./Hum.

CJ 485 050 1074 9 1 CCD FWH

Exp. Mtr.	Seeing	Hg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emission	P.H.	Program	Remarks	Quality
1800 no filter	2-4"	10.6		CASS CCD	600/n 25.00°	250 _u	4113A	10	Gld pgm		
35 300				Tyrting ↗				11		30/1 S/H	8.3K
1804 280	3-4"							12			
35								13			
1769 250	3-5"							14			
35								15			
1815 217								16			
35								17			
210 256	4-5"							18			
215								19		Rack failed to go to °C posn.	
235								20			8.3K
128 112K	4"	6.66	dGS					21	stlbel	Tel westside near	800
								22		US 00 002 1.5.100 00 42	2E
								1			

Spectr. Temp. Dome Temp./Hum. $+1031^{\circ}C$ 67.18% Transparency Conditions *Fine* (179)

Focus ... *6:90*

Top up by 0150

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

370 0 50 1624 4 1 CCD Filter

Exp. Mtr.	Seeing	Pr. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
<i>No filter</i>				<i>CHSS</i>	<i>1200ln</i>	<i>306u</i>	<i>6473A</i>	<i>5</i>			<i>4K</i>
<i>1.4K</i>		<i>666</i>	<i>dG8</i>	<i>Grating →</i>	<i>41.620</i>			<i>6</i>	<i>std vel</i>		<i>3.8K</i>
								<i>7</i>			<i>5K</i>
								<i>1</i>			
								<i>8</i>			<i>3.4K</i>
<i>146</i>	<i>2"</i>	<i>15.1</i>						<i>9</i>		<i>AIR MASS 1.5</i>	
								<i>10</i>	<i>used nearby</i>	<i>Field positively identified</i>	
								<i>11</i>	<i>on with</i>	<i>16th mag star to guide</i>	
										<i>500 usoc ms. integration</i>	<i>9K</i>
								<i>1</i>			
				<i>Grating 1800</i>	<i>opt flint</i>	<i>BG</i>	<i>396H</i>	<i>3ci</i>		OVERWRITTEN	
								<i>1ci</i>			
								<i>3ci</i>			
								<i>4ci</i>			
								<i>4</i>			
								<i>4</i>			

180 IF4

Emulsion Batches:

Date 1997 Apr 3/4... Observers Gld... I.T.n.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CD00548 CC44954	B/AS(4)		2000	042839					
CD00549 55	S 92 NGC6819			043102					120
CD00550 7059 56/65	"	194103	401100					10x	120
60/62)66/68	"	"	"	045807				3x	120
63/65)69/71	"	"	"	050509				3x	120
66/67)72/73	FLATS								30s
68/70)74/76	FLATS	1856	+33°						24s
71/72)78	B/AS(4) x2			0528					
Renumbered to CD series now.									
They are now CD00532-CD00572.fts In Apr 8/97									

Spectr. Temp. ^{CD} -101.6 °C Dome Temp./Hum. +02.3°C 69% H Transparency Conditions Fine 187

Focus 6.90

Spectr. Temp. ^{CD} - °C Dome Temp./Hum. +02.2°C 69% H

CCD FMT for imaging

376 780 220 220 1 1

Exp. Mtr.	Seeing	Pg/Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS	optical	BG39		1			
				18.00°	FLAT			5			
120	-15		Direct Imaging					6		Gld photometry	A.R. mass 1.10
120								7		very nice ones.	Repeat phot. but x 3
120	12"		Focus improved	First				8			
30s								9			9.4k
24s								10 9			12k
								1			

182-pg#1

Fri / Sat

Emulsion Batches:

Date 1997 Apr 4/5... Observers ..r.g./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.
CC449 ^{79/80}	Inboard / Gary BOUARD		HURTSMANN			0 18E	+43°	FB4 ND2	8/13
81	BIAS(4)			00 33				"	4s
82	Comp			19 3631				"	4s
83	HD 70272	0815 59		19 3631					242
84	Comp							"	4s
85	Comp							"	4s
86	HD 47105	06 3156	+16 29 05	19 47 49					235
87	"	"	"	19 53 07					337
88	"	"	"	19 59 07				"	280
89	Comp							"	4
90	Comp							"	4s
91	HD 34578	0513 25	+33 51 13	20 14 05					592
92	Comp								4s
93	BIAS(4)			20 27					
94/98	FLATS x 5			20 44		3 46W	+34	TUNG ND1	110
98	BIAS(4)			21					

CO
Spectr. Tem

Focus... 6

Spectr. Tem

Exp. Nr.

8639
0001

41K

828K

73K

55K

36K

10

CCD Spectr. Temp. -100.7°C Dome Temp./Hum. $+9.4^{\circ}\text{C}$ $54.3\% \text{H}$ Transparency Conditions *P.A.T. Cloudy* 183

Focus 6.84

Spectr. Temp. $+09.0^{\circ}\text{C}$ Dome Temp./Hum. $52\% \text{H}$
 $400 \ 0 \ 260 \ 1024 \ 1 \ 1 \ \text{CCDFMT}$

Exp. Mtr.	Seeing	Pig. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
B639 1000V					1800h Teputing \Rightarrow 42.50	30 μ	4A63A	3/4	focus test		
								1			
								5			
4.1K	1.2'	^V 4.25		KA.5 III-IIIb				6	normalization	no trailing max	60 800
								7			5.5K
								8			
82.8K	1.2'	^B 1.93		A1 IVs				9	1G ppm	TRAILED much	5K
93K		1.93		A1 IVs				10		" "	4K
45K		"		"				11		cloud + end	
								12	cl Limit	no sky light seen 10 no mercury vapor lines	5K
								5			
2.6K	1.3"	^B 530		A5 II				8	1G ppm		
								5			4K
								1			
140	#1 used							3			11K

184

Pg#2

Fri - SAT

Emulsion Batches:

Date 1997 Apr. 7/5... Observers ...r.G./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.
CC45000	Comp			2047				FeAr ND2	As
01	14087737	10 01 53	+17 15 01	231600					670
02	"	"	"	232645					1316
03	"	"	"	234911					770
04	Comp ⁿ	"	"	000238				FeAr	838
05	Comp							"	As
06	BIA5 (4)			0018					

CCD
Spectr. Ten

Focus ...

Spectr. Ten

Exp. Mtr.

No. 402

21.8k

14.4k

12k

13.2k

CCD Spectr. Temp. -100.5°

Dome Temp./Hum. $+8.0^{\circ}$ 54.5% H

Transparency Conditions ... *partly clear, Hazy* 185

Focus 6.84

Spectr. Temp.

Dome Temp./Hum.

100 0 206 1024 1 1 CCD FATT

Comparison Filter Exp.	Exp. Mtr.	Seeing	Pl. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
A5	no filter		B		C455 CCO	1800M 4250	306u	4463A	8		4474 @ Row 459	
670	21.8K	2"	3.49	HO I/b					6	1.6 ppm	7300/1 S/N	
1316	14.4K		B	HO I/b					7		~250/1 S/N increasing cloud	1K
770	212K								8		2250/1 S/N	
888	132K								7			
A5									5			
									1			

186

SUN / MON

Emulsion Batches:

Date 1997 Apr 6/7... Observers [V.ys.] p.m. 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.
CC4500 ^{7/8}	Inboard/OutBOARD							Rele ND5	4/3
9	Comp							ND5	3s
10	HD115004	13 0911	40 4057	001312					133
11	Comp							"	3s
12	Comp							"	3s
13	BD-02 3000	094810	-031304	002155					966
14	Comp							"	3s
15	Comp							"	3s
16	BD+01 2447	10 23 49	40 12 36	00 43 33					1187
17	Comp							"	3s
18	BIAS(A)			0106					
19/23	FLATS x 5					00	-10°	Jung ND 4	115
24	BIAS(A)			0120					

NO - Brighter star nearby
 ↓ elot.

CCD
Spectr. Ten
Focus... 6"
Spectr. Ten

Exp. Mtr.

66
39 Filter
41 in.

1.4hr

100

F. 100

100

CCD Spectr. Temp. -10.5 °C

Dome Temp./Hum. +11.0°C 50%RH

Transparency Conditions PARTIAL CLEARING 187

Focus 6.75

90c gain

still very gusty SW

Spectr. Temp.

Dome Temp./Hum.

390 0 50 1024 4 1 CCD UNIT

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
86 39 Filter still in.				CASSCO Tgrating	1800/10m 47-56	306u	5298A @ raw 512 ± LA	3/4 5	focus test.		
1.4K	6"	492	KO117					6 7	non amplification e test		2K 64K
	5.7K							8	readout	yes, it's wrong stop!	
100	4-10"	M/D						6 7P	Vys 560.	maybe brighter fld stop LS-00 0021 LS-00 05 03	6K
No Filter now								9			55K
500	5-14"	9.65	M2					10 11	Murphy Std	LS-00 0016 LS-00 0133	
								1			
								2			155K
								1			

188

Times/wed

p9#1

Date 1997 Apr 8/9 Observers [Gld.] / T.P.K. / J.M.

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.
CC450 25/26	Inboard/outboard HURTmann						No order separation	rear ND 4	5/5
27	Comp						Filter Vet	ND 5	4
28	HD 115604	13 1304	+41 0557	00 30 50					345
29	Comp								4
30	BIAS (4)			00 33 54					
31	Comp						OG 560 in source beam	rear ND 5	4 s
32	HD 171232	18 2830	+25 25 00	00 58 48		No order sep	filter for stellar		3/4
33	Comp							"	4 s
34	HD 171232	"	"	01 11 02		GG 385	order sep for stellar		757
35	Comp							"	4 s
36	BIAS (4)			01 26 16					
37	Comp							"	4 s
38	S92 NGC 6819	19 41 03	+10 11 00	01 42 33		No order separation			3600
39	Comp						for stellar	"	4 s
40	BIAS (4)			02 45					

CCP
Spectr. Ter
Focus...
Spectr. Ter

Exp. Mir.

not for
1000

1000

13k

17k

17/sky

Spectr. Temp. ^{con} -100.5°C Dome Temp./Hum. -5.5°C 50% H Transparency Conditions Clearing by OEST

Focus 7.00

Spectr. Temp. Dome Temp./Hum. -07.4°C 50% H 189

370 050 1024 41 CCD FWH

Exp. Mtr.	Seeing	P.A. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
5/5	no filter 1000 V			1200 CASS CCD	1200/n 41.62	306a	6473A	3/4	focus	T = -5.5°C	
4								5			5K
3/5	1000	4.73	F3 III					6	Just normalization star		
4								7			
								1			
4.8								8		No difference noted between compo with or w/out without filter.	2.8K
5/4	1.3K	5"	773	G8 III				9	std vel		
4.5								10			
7.5	1.7K	4"	773	G8 III				11	std vel	with f. lens	
4.3								12			
								1			
4.5								13		ΔL +00 00 06 ΔS -00 00 24	4.3K
3/00	1.87 (sky) bad	~15.1						14	GLD pgn	Again, guiding using faint nearly star to SW 6" arc	
4.5								15			
								1			

190
Pg 27

Thurs/Wed

Emulsion Batches:

Date 1947
Apr 8/9 Observers [Gld]/mki/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.
CC45041	S 92 NGC 6819	19 41 03	+40 11 8	02 48 59			06580		3606
42	Comp						FOR Comparison NO 5	4s	
43	BIAS (4)			03 51 05					
44	S 92 NGC 6819	"	"	03 58 00					2065
43	Comp						"	4s	
45	Comp						"	4s	
46	HD 187235	19 43 55	+38 09 36	04 35 35					304
47	Comp						"	4s	
48	BIAS (4)			04 42					
49/50	FLATS x 6						[06580 filter removed 02 E +21°]	TUNES NO 5	4s

Spectr. Ten

Focus.....

Spectr. Ten

Exp. Nr.

15 f/110
174

44K

Spectr. Temp. Dome Temp./Hum. -080°C 5068H Transparency Conditions ... Fine - sl haze
 Focus 7.00 increasing clouds. 191
 Spectr. Temp. $-$ $^{\circ}\text{C}$ Dome Temp./Hum. -084°C 5068H 370 0 50 1024 x 1 CCD FMT

Exp. Mtr.	Seeing	Pub. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no filter 179	3"	15.1		CSS CCD	1200h	306u	6473A	16c	Gld pgn	[in 15/1 S/H - meaning 4 columns @ 20ADU above sky level]	
								17			
								18/1c			
								18		some thin cloud	
								19			3.5K
								20			
7.4K	4"	V 5.77	B8Vn					21	Telluric std.		3K
								22			
								1			
								2			13K

192 8901

Sun/Mon

& Rm p9m

Emulsion Batches:

Date ... 1997. APR 13/14 Observers [Vys.] / Th.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CC450 ^{55/} ₅₆	In board/out board					0 0	+29	Red ND 4	4/6
57	BIAS(4)			1957					
58	Comp							n	4s
59	H 79/58	09 0716	+33748	20 0213					51
60	Comp							"	4s
61	Comp							"	4s
62	HD 30282	04 4106	+363200	20 0934					1362
63	Comp							"	4s
64	Comp							"	4s
65	HD 44990	06 1949	+070825	20 3817					590
66	Comp							"	4s
67	BIAS(4)			20 49					
68	Comp							"	4s
69	HD 84441	09 4011	+241405	20 5452					40
70	Comp								(Lost too bad)
70	Comp							"	(for next std) 4s

CCD
Spectr. Term

Focus....

CCD
Spectr. Term

Exp. Nr.

no filter
pool

16K

32K

2K 3

5K

CCD
Spectr. Temp. -100.5°C

Dome Temp./Hum. $+01.8^{\circ}\text{C}$ $66\% \text{H}$

Transparency Conditions *clearing on time*

Focus 6.86

193

CCD
Spectr. Temp. -100.4°C

Dome Temp./Hum.

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
4/6 no filter 100V	T+	1.8 ^o		CLASS CCD Tgrating	1800/n 57-80	305u	6404	3/4	focus		
							A 512 I 1.5M	1			
								5			5.7K
		V 5.32	B8 III	pMn				6	normalization star.		1.1K
								7			5.8K
3.2K	4-6"	7.9 -8.8	F6-G1					8	Rm pgn capture	HW Per	3.5K 5.8K
								9	Rm pgn capture		
								10	Rm pgn capture		
								11			5.7K
4.2K	3-5"	B 6.5 -8.0	F7Iub -K1Iub					12	Rm pgn	T Mon	
								13			
								1			
								14			
6.5K		2.98	G1 II					15	std vel		7.8K
								16			
								16			

194 pg#2 Sun/Mon

Emulsion Batches:

Date 1997 Apr. 13/14 Observers SeAvise... 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.
cc45071	HD 62509	07 39 12	28 16 04	21 09 53					24s
72	Comp							FeAr ND4	4s
73	Comp							"	4s
74	HD 84441	09 40 11	+24 14 05	21 10 17					36
75	Comp								4s
76/82	FLATS x 7	edit headers		To obj = Tung etc				Jung ND4	3s
83	BIAS(4)			21 14					
84	Comp							FeNe ND5	3s
85	HD 84441	09 40 11	+24 14 05	21 21 12					42
86	Comp							"	3s
87	Comp							"	3s
88	BD-02 3000	09 48 10	-03 13 04	21 31 38					19/4
89	Comp							"	3s
90	BIAS(4)			22 05					
91	Comp							"	3s

Spectr. Ten

Focus...

Spectr. Ten

Exp. Nr.

16K

6K

68K

520

3

Spectr. Temp. Dome Temp./Hum. $+1.5^{\circ}\text{C}$ 65.28/4 Transparency Conditions Fine 195

Focus 6.86

Comet nice too

Spectr. Temp. Dome Temp./Hum. $+0.11^{\circ}\text{C}$ 63.67/4
 CD 380 0 56 1024 41 CCD FMT

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
16K		11.1A	KOTTB	CASS CCD	1800/4 54.80	306u	640A ⁰	17c			8K
								18			
								19			6.3K
6K		2.98	G1 II					20	std vel	Repeat	
								21			
								21			12K
								1			
				CASS CCD	1800/4 47.56	306u	5298A	5	ST.N	380 0 56 1024 41 CCD FMT	
6.8K		2.98	G1 II				± 1A @ Row 512	6	std vel		6K
								7			
								8		on the spot estimate I. say find vel ~ $+22.9$ in	4.3K
5.20	3-5"	10.54	M10					9	Vys 560	Field check for Hlw Fine	
								10			4.9K
								1			
								11			

196

pg # 3 Sun / Mon

Emulsion Batches:

Date ... 1947 Apr 13/14 ... Observers [V. G.] I. T. ...

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CC45092	BD+01 2447	10 2349	+01 2136	22 0844					1261
93	Comp							FNE ND5	3s
94	Comp							"	3s
95	AC+38 28746	093007	+37 5838	22 3646					3184
96	Comp							"	3s
97	BIAS(4)			23 31					"
98	Comp							"	3
99	HD 95735	10 5754	+36 3800	23 3802					211
CC45100	Comp							"	3s
01	Comp							"	3s
02	AC-02 1513-11	11 2810	-02 5102	23 5058					2266
03	Comp							"	3s
04	Comp							"	3s
05	AC+19 1971-31	11 4755	+19 2859	00 3545					2450
06	Comp							"	3s
07	BIAS(4)			01 19					

Spectr. Tem.

Focus... 6

CCP

Spectr. Tem.

Exp. Mtr.

P. 11/12/2

690

620

1K

370

390

390

Spectr. Temp.

Dome Temp./Hum.

Transparency Conditions ..O.K., ..slight..Haze.....

Focus ...6.86.....

197

Spectr. Temp. ^{CCD} ...100.6%.....

Dome Temp./Hum.

Exp.	Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emission	P.H.	Program	Remarks	Quality
28	1000V NO FILTER 690	3.5"	9.65	M2	CASSCOB	1800ln 47.56	306u	5298A	12	Marcy st/del		
3									13			
3s									14			
31/2	620	3.4"	11.0	M0					15	Vys 549	← 60/1 S/N Field checks nicely Not the brighter nearby star.	
3s									16			
3									1			
3									18			
31	1K		7.48	M2					17	Marcy st/del		900
3s									19			
3s									19			
22/2	370	2.4"	11.2	M0					20	Vys 613	Vys group pym 0.1/1.1?	
3s									21			
3s									22			
24/2	290	3.4"	11.7	M0					23	Vys 622	Vys group pym	
3									24			5.2K
									1			

198

pg #4

Sun / Mon

Emulsion Batches:

Date ... 1947 Apr. 13/14 ... Observers [Vys.] / 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.
CC45108	Comp							F ₄₅₀ ND5	35
09	Star 1 min Time west of BD+38 2445			01 28 14					797
10	Comp done at BD+38 2445							"	35
11	BD+38 2445	13 20 59	+38 14 21	01 47 10					1913
12	Comp							"	35
13	Comp							"	35
14	BC+61 23399	13 42 12	+61 28 51	02 26 49					2102
15	Comp							"	35
16/22	FLATS x 7							JUN 16 ND4	115
23	Comp							F ₄₅₀ ND5	35
24	BD+22 2632	13 42 58	+21 57 25	03 16 50					2139
25	Comp							"	35
26	BIAS (A)			03 55					
27	Comp							"	35
28	BD+21 2763	15 17 25	+21 20 06	04 10 38					1089
29	Comp P								

Spectr. Tem

Focus...

Spectr. Tem

Exp. Nr.

1000 ✓

10/1/49

180

360

450

375

470

Spectr. Temp. Dome Temp./Hum. $+00.2^{\circ}\text{C } 60\% \text{H}$ Transparency Conditions ... *Fine* 199.

Focus ... *6.86*

Spectr. Temp. Dome Temp./Hum. *380 0 50 1024 4 1 CCD FWT*

Comparison Filter	Exp.	Exp. Mtr.	Seeing	Plat Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	35	1000 V 110 F. 114				CASS COJ	1800 L 4756	306 μ	5298 Å	25			4.9K
	35	180	3"							26		wrong dir. got thrown by indicated westward proper motion	
	35									27			
	113	360	3"	11.2	MO					28	Vys 689AB	Field checks well Yes, on m-type	
	35									29			
	35									5			
	102	450	2-3"	11.0	MO					6	Vys 699		
	35									7			5.4K
	115									2		CCDT OK -101.5°C	14.7
	35									8			4.9K
	35	375	3"	11.1	MO					15	Vys 309	(45/1 S/N)	
	35		3"	11.1	MO					16		CCDT - 99.8°C	
	35									1		(Slow Tapup by 04:10 incomplete)	
	35			10.1						16	Vys 740		
	1089	570	2"	10.11	MO					17	Vys 740		
										18			

200 P985

Emulsion Batches:

Date 1927 Apr 13/14..... Observers [Vys] J. Tu.....

.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
Cc 45130	Comp							FB 16 NO5	35
31	BD-084352	16 5005	-080947	04 36 17					615
32	Comp							"	35
33/34	Inboard / outboard		Ha R. Timmer			0 0	-08°	"	2/3
135	BIH 5 (4)			04 56					

Spectr. Te.
Focus.
CCP
Spectr. Te.

Exp. Mir.

700

2/3 sec

Spectr. Temp. Dome Temp./Hum. -00.6°C 64.4%^H Transparency Conditions *sl. s. h. t. h. 14.2.9* 20/.

Focus *6.86*

^{CCD} Spectr. Temp. -100.5°C

Dome Temp./Hum. -00.7°C 65.5%^H
e)

Comparison Filter Exp.	Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
<i>3s</i>					<i>CHSS CCD</i>	<i>1800ln 47.56</i>	<i>306u</i>	<i>5298A</i>	<i>19</i>			
<i>15</i>	<i>700</i>	<i>3"</i>	<i>9.0</i>	<i>M5e</i>					<i>20</i>	<i>Vys 782AB</i>		
<i>3s</i>									<i>21</i>			
<i>4/3</i>	<i>secs</i>								<i>3/4</i>	<i>focus</i>		
									<i>1</i>			

202 p9#1

Mon / Tues

Emulsion Batches:

Date .. 1997 Apr 14 / 15 ... Observers ... [V. G. S.] / 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.
CC451 ^{36/37}	Inboard / Outboard					0 10E	+40	Rede ND5	
38	BIAS(4)			19 34					
39	Comp							n	3
40	HD 76943	08 5409	+42 10 44	19 39 56					52
41	Comp							u	3
42	Comp							u	3
43	HD 95735	10 5754	+36 38 00	19 51 56					285
44	Comp							u	3
45	Comp							u	3
46	BD -02 3000	09 48 10	-03 13 04	20 03 15					1071
47	Comp							u	3s
48	Comp							u	3s
49	BD +01 2447	10 23 49	+01 21 36	20 25 07					679
50	Comp							u	3
51	BIAS(4)			20 38					

Spectr. Ter

Focus

Spectr. Ter

Exp. Mir.

No Filter

200V

68k

21k

535

690

Spectr. Temp. ... 100.4 °C ... Dome Temp./Hum. 7.05.3.0 ... 49.284 Transparency Conditions ... Fine ... 203

Focus ... 6.8.6 ... no change needed

Spectr. Temp. ... Dome Temp./Hum. ... 380 0 50 1024 4 1 CCD FMT

Exp. Mir.	Seeing	Pl. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no filter 1000V				CHSS CCD	1800ln 4756 unchanged	306u	5298A	3/4	focus	set for only slightly cooler	
								1			
								5			5.7K
6.8K	1"	347	F5V					6			5.7K
								7			6.3K
								8			5.7K
2.1K	<1"	748	M2					9	Murcy std vel		1.7K
								10			
								11			5.5K
535	1"	1054	M0					12	V45 p4m for H12		
								13			
								14			
640	1-2"	965	M2					15	Murcy std vel		
								16			
								1			

w4 p4#2

Mon/Tues

Date 1997 Apr 14/15 Observers [Vys.] / 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.
CC45152	Comp							F16 ND5	3s
53	Vys 573	10 1152	-11 2717	20 4354					1388
54	Comp							"	3s
55	Comp							"	3s
56	AC+19 909-69	09 5837	+19 16 58	21 12 22					1466
57	Comp							"	3s
58	Comp							"	3s
59	AC+38 28746	09 3007	+37 58 38	21 43 35					1544
60	Comp							"	3s
61	BINS (A)			22 11					
62	Comp							"	3s
63	BD+33 2071B	10 5811	+33 2538	22 15 24					2044
64	Comp							"	3s
65	VYS 597C	"	"	"					1889
66	Comp							"	3s

Exp. Mtr.

Spectr. Ten

Spectr. Ten

Exp. Mtr.

No. Filter

460

340

460

315

140

CCD
Spectr. Temp. ... -100.4°C ...

Dome Temp./Hum. +04.5°C 49.19% H

Transparency Conditions ... FIRE, Hazy, South ...

Focus ... 6.86

205

Spectr. Temp. ... -100.4°C ...

Dome Temp./Hum. +02.4°C 56.27% H

380 0 50 1024 4 1 CCD/FIT

Comparison Ter. Exp.	Exp. Mtr.	Seeing	Plt Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
3s	no filter				CASS CCD	1800ln 17.56	306u	5798B	17			
18s	460	1.2"	11.0	MO					18	Vys p9m	Looks fine	
3s									19			
3s									20			
14s	340	2"	11.34	MO					21	Vys 564	Looks like MO type	
3s									22			
3s									23			
15s	460	1.2"	11.0	MO					24	Vys 549	Definitely the faintest SE one. Easy to get Right one if you don't check it out.	63K
3s									25			
									1			
3s									26			5.7K
20s	315	1"	11.8	K8					27	Vys 597B	Took some frames of slit view field.	
3s									28			
18s	160		~13						29	Vys 597C ₂	NWC faintest of triple	
3s									30			

256
pg#3 Mon/Tues

Emulsion Batches:

Date ..1997 Apr. 14/15..... Observers [Vys.] / T.L.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CC45167	BIAS(4)			23 25					
66	BD+332071A	10 5811	33 2538	23 2708					882
69	Comp							FeNe ND5	3s
70	Comp							"	3s
71	Vys 638	12 0817	17 1524	23 4952					2003
72	Comp							"	3s
73	BIAS(4)			00 26					
74	Comp							"	3s
75	Vys 635 AB	12 04 ^v 52	106 ^v 0042	00 3049	edit time				1504
76	Comp							"	3s
77	Vys 635 AB	"	"	00 5902					1109
78	Comp							"	3
79	Comp							"	3
80	BD+81 465	14 1024	81 0430	01 2940					1007
81	Comp								

CCD
Spectr. Ten

Focus.....

Spectr. Ten

Exp. Mtr.

no. / hr.
meter clock

320

300

260

155

450

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

Dome Temp./Hum. :

Transparency Conditions *Fine* 257

Focus 6:8.6

Spectr. Temp.

Dome Temp./Hum. $+01.7 \text{ }^\circ\text{C} \dots 57.7\% \text{H}$

Exp. Mtr.	Seeing	Plg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no filter 1 meter daked and falling slightly				CASS CCD	1800 l/m 47.56	306 μ	5298 \AA	1			
320	2" ~ 11							6	Vys 597A	Fainter star 5" to ENE partly on slit too	
								7			
								8			
300	1"	11.96	MO					9	Vys pgrm	2 40/1 S/N yes, spectrum good, and M type.	
								10			
								11		readout in 9	
260	1.2"	11.41	MO					12	Vys pgrm	pair just resolved Brighter is southern, I intend to guide on southern,	
								10			
155	2"	11.41	MO					13		guided on fainter close NORTH components	
								14			
								15			
450	2"	10.4	MO					17	Vys 152	U 2 +0000 28 S 2 -0000 09	
								18			

208 pgs 4 Mon / Tues

Emulsion Batches:

Date 1997. Apr 14/15..... Observers [V.ys] / 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.
CC45182	BIAS(4)			01 49					
183/190	FLATS x 8					0 48E	+39°	TUNG ND4	11s
191	Comp							TUNG ND5	3s
192	HD144579	16 0130	+39 2406	02 0327					226
193	Comp							"	3s
CG808 ^{55/58}	HD144579	"	"					4x	67m
59/62	DARKS x 4			All default Box				4x	67ms
63/64	DARKS x 2			and same Int setting				2x	133m
65/66	HD144579	"	"					2x	"
CC45194	Comp							TUNG ND5	3s
95	S92 NGC6819	2000 19 4103	+40 1100	02 36 11					2132
96	Comp							"	3s
97	BIAS(4)			03 16					
98	Comp							"	3s
99	AC +80 7 can	00 0753	+80 0631	03 2736					1744

CCP
Spectr. Ten
Focus...
Spectr. Ten

Exp. Mtr.

40 film

2K

110

390

Spectr. Temp. ^{CD} -100.6 °C Dome Temp./Hum.

Transparency Conditions ... Slightly hazy south ...

Focus 6.86

Spectr. Temp. Dome Temp./Hum. 40.4 °C 59% H

207

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no filter				CASS CCD	1800h 47.56°	36u	5298A	1			
								2			15K
								19			
2K	1"	666	G8V					20	Std vel		2.5K
								21			
	1.2"	666			Above 36u slit.				Seeing test	Dome SW Light East breeze Just NE Fan on	
								21			
110	1"	1511	early	I guess. This Region very flat.				22	Gld pgr.	15 ADU above sky much easier guiding than last time.	
								23			
								1			
								5.			
390	2"	10.7	m0					6	Vys 354A	Ad 00 00 50 Ad 00 00 06	

210

Pg#5

Date 1997 Apr 14/15 Observers [Vix] T9

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.
206 CC45200	comp Comp							FENe ND5	3
202	BD+452743	18 32 26	+45 39 53	04 06 02					1157
203	Comp							n	3c
204	BIA 5(4)			04 27					
205/06 07	Tub / unit Banno BIA 5(4)		HURTMAHA			0 40E	45°	FENe ND5	4/

Spectr. Tem

Focus

Spectr. Tem

Exp. Mr.

820

212
pg# 1

Thu/Wed

Emulsion Batches:

Date 1997 Apr 15/16..... Observers ... G/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.
CC152 ^{86/04}	inb/out							FeAr ND2	4/3
10	Comp								
11	HD 76943	08 54 09	1421014	19 37 36					58
12	Comp								
13	B/H S(4)			19 47					
14/18	FLATS x5					04 W	+34°	TUNG ND1	110
19	Comp							FeAr ND2	4.5
20	HD 34578	05 13 25	+33 51 13	20 09 27					1200
21	"	"	"	20 30 13					1207
22	"	"	"	20 57 11					15.18
23	Comp							FeAr ND2	15
24	B/H S(4)			21 18					
25	Comp							"	75
26	HD 89025	10 11 08	+23 54 57	21 25 41					725
27	"	"	"	21 38 13					690

(C)

Spectr. Temp.

Focus.....

Spectr. Temp.

Exp. Mtr.

No.

5K

5K

B6

39K/102

109K

5K

6K

2

58K

2

57K

^{CD}
 Spectr. Temp. $-100.9^{\circ}C$ Dome Temp./Hum. $+08.5$ $43.8\%RH$ Transparency Conditions $Hazy$

Focus 6.86 213

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

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emission	P.H.	Program	Remarks	Quality
4/3 no filter.				CHSS CD	1800h 42.50	306u	4463A		focus	390 0 50 1024 4 1 CCD FMT	
								1c		<u>390 0 200 1024 1 1</u>	
5/8 5K	Fine	3.97	F5V					2c	just test and normalization		
								3c			
								4c			
								4i			14K
BG 39 Filter in								5c			4K
409K	2"	B3 530	A5 II					1c	r 6 ppm	~ 150/1 S/N	
5K								2c			
6K	2-3"							3c			
								5c			
								1			
								5c			
58K	2"	B 3.75	F0 III					2c		> 500/1 S/N	
62K								3c	TRAILED higher column II, end of slit by accident.		

214 pg #2

Tues/Wed

Emulsion Batches:

Date . 1997. Apr. 15/16... Observers ... r.G./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.
CC45228	HD 89025	10 11 08	+235457	21 50 10					699
29	Comp							Red ND2	45
30	Comp BIAS (4)			22 08				"	45
31	Comp							"	45
32	HD 92125	10 33 06	+322945	22 11 00					772
33	"	"	"	22 24 25					1015
34	"	"	"	22 41 57					1036
35	Comp							"	45
36	Comp							"	45
37	HD 111812	12 46 50	+280506	23 05 08					879
38	"	"	"	23 20 13					958
39	"	"	"	23 36 37					741
40	Comp							"	45
A1/45	FLATS x5					0 30 W	+28°	Red ND1	11B
46	BIAS (4)			0005					

Spectr. Ten

Focus... 4

CCD

Spectr. Ten

Exp. Mtr.

86.39

56k

9.6k

9.5k

15k

7k

15.7k

Spectr. Temp. Dome Temp./Hum. $+07.1^{\circ}\text{C}$ $46.1\% \text{H}$ Transparency Conditions *Hazy... to part cloudy.*
 Focus ... *6-86*
 Spectr. Temp. *CCD* ... -100.9°C Dome Temp./Hum. $+05.8^{\circ}\text{C}$ $49.5\% \text{H}$ *increasing cloud. 215*

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
<i>699</i> RG 39 56K	2"	<i>B</i> 375	FOTM	CASS CCD	1800ln 42.50	306 μ	4463A	4e1	RG p9m		
								5ci			
								5ci			
								5c9			
<i>712</i> 19.6K	1.2"	<i>B=</i> 552	G1II					6ci	RG p9m	<i>some fixating</i>	
								3c0			
<i>1038</i> 9.5K								4			
								5			
								5			
<i>874</i> 15K	1"	<i>B=</i> 5161	GOTT					1			
<i>958</i> 17K								2			
<i>741</i> 15.2K								3			
								5			
								7			
								1			

216 p. #1

Wed / Thurs.

Emulsion Batches:

Date 1997 Apr. 16/17. Observers [r.G.] Lu. / Tn.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
cc 45247	Comp							FEAR ND2	4s
48	H083287			20 0300					247
49	Comp							"	4s
50	Comp							"	4s
51	HD61421	07 3404	+05 2852	20 1355					156
52	"			20 1656					113
53	"			20 1936					163
54	Comp							"	4s
55	BIAS(4)			20 24					
56/62	FLATS x 7					2 30W	+5 13	TUNG ND1	110s
63	BIAS(4)			20 48					
64	BIAS(4)			21 20					
cc 45265/66	In board / out board							FEAR ND3	4/6
67	BIAS(4)			00 00					
68	Comp							"	4s

cc
Spect. Te.

Focus...

Spectr. Te.

Exp. Mtr.

8639

2k

82k

81k

46k

+0400

CCD
Spectr. Temp. ... -102.1 °C

Dome Temp./Hum. ... +05.8 °C 82% H

Transparency Conditions ... Part. Clean: ... >17

Focus ... 6.86

Dome Temp./Hum. ... +05.2 °C 81.3% H

90 degree as usual

Spectr. Temp.

390 0 200 1024 1 1 CCDFWOT

Comparison Filter Exp.	Exp. Mtr.	Seeing	Mag. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
4	B639				CASS CCD	1800h 42.50	306u	7A63A	5			4K
242	2K	3"	5.25	FOV					6	normalization star		
45									5			
45									5			
146	82K	4"	0.34	F5 III					3	16 pym		7K
113	81K								4	"		
163	46K								4	"	cloud now	
45									5			
									1			
113									7			13K
									1			
									1			
3/4	+04.0 °C	6.86 set			CASS CCD	1800h 46.90	306u	5184	1/2	focus test	CCDFWOT 390 0 50 1024 4 1	
									1			
45									3			3K

218 p#2 wed/Thurs continued.

Emulsion Batches:

Date ..1997.. Apr 16/17 .. Observers .. L.u. / T.n.

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.
CC45269	GR Vir	²⁰⁰⁰ 144520	-064406	00 09 33					480
70	Comp							FeAr ND 3	45
71	Comp								45
72	NSV 7968	164654	F38 3858	00 24 28					924
73	"			00 40 27					915
74	Comp							"	45
75	BIHS (4)			00 58					
76	Comp							"	45
77	GR Vir	144520	-064406	01 03 26					420
78	"			01 10 51					420
79	"			01 18 18					420
80	"			01 25 42					420
81	comp								45
82	GR Vir			01 34 47					420
83	"			01 42 15					420

Spectr. Ten

Focus...

Spectr. Ten

Exp. Mtr.

110 F/162

550

150

167

582

590

580

620

624

620

Spectr. Temp. Dome Temp./Hum. *+04.0°C 74.8%* Transparency Conditions *PART Cloudy*.....

Focus *6.86*.....

Spectr. Temp. Dome Temp./Hum.

219

Comparison Exp.	Exp. Mtr.	Seeing	Pl. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
430	<i>no filter 550</i>	<i>5"</i>	<i>7.9</i>	<i>G0</i>	<i>CASS CCD</i>	<i>1800lm 46.90</i>	<i>306</i>	<i>5184A</i>	<i>4ci</i>	<i>DRL</i>		
45									<i>5</i>			
45									<i>6</i>			
920	<i>150</i>		<i>10.5</i>	<i>A6</i>					<i>7</i>	<i>DRL</i>		
715	<i>167</i>	<i>4"</i>	<i>"</i>	<i>"</i>					<i>8</i>			
45									<i>9</i>			
45									<i>10</i>			
420	<i>582</i>	<i>5"</i>	<i>7.9</i>	<i>G0</i>					<i>11</i>	<i>DRL</i>		
420	<i>590</i>								<i>12</i>			
420	<i>580</i>								<i>13</i>			
420	<i>620</i>								<i>14</i>			
45									<i>15</i>			
420	<i>624</i>								<i>16</i>			
420	<i>620</i>								<i>17</i>			

220
P #3

Date 1997 Apr 16/17

Observers Lu/Tn

Emulsion Batches:

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Plate No.	Object	R.A.	Declination	Starting Time	Ending Time	Hour Angle	Declination	Comparison	
		1900 1900 2000	1900	E.S.T.	E.S.T.	End		Type/Filter	Exp.
CC45284	GR Vir	14 45 20	-06 44 06		01 49 43				449
85	Comp							Fe4 NO 3	4s
86	B745 (4)			01 59					
87/94	FLATS x 8					0 40W	-70	JUNG NO 3	8s
95	Comp							Fe4 NO 3	4
96	HD136202	15 14 12	02 08 37	02 19 15					978
97	Comp							4	4s

Spectr. Tem

Focus.....

Spectr. Tem

Exp. Mtr.

740

660

227

p9#1

Thurs/Fri

Emulsion Batches:

Date ... 1997 Apr. 17/18... Observers L.H./T.S.....

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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.
CC45298/199	Inboard/outboard							FeAr ND3	7/6
300	BIAS (4)			19 44					
01	Comp							FeAr ND3	4s
02	HD 79158	09 07 16	43 37 48	19 49 26					448
03	Comp							"	4s
04	Comp							"	4s
05	HD 62304	07 39 12	42 8 16 04	20 00 30					444
06	Comp							"	4s
07/11	FLATS x 5							TUNG ND3	8s
12	BIAS (4)			20 12					
13/14	inb/outboard							FeAr ND3	4/5
15	Comp							"	4s
16	HD 61421	07 34 04	40 5 28 53	21 15 21					484
17	"	"	"	21 23 42					310
18	"	"	"	21 29 11					282
19	comp								

Exp. Mtr.

Spectr. Tem.

Focus ...

Spectr. Tem.

16.0 V

16.0 K

670

2.9 K

86.39

17.1 K

43 K

54.3 K

64 K

CCD Spectr. Temp. -102.0°C Dome Temp./Hum. $+02.6^{\circ}\text{C}$ 50%RH Transparency Conditions ... Part cloudy 223
 Focus 6.89 Then suddenly completely cloudy.
 Spectr. Temp. Dome Temp./Hum.
 CD 390 0 50 1024 4 1 CCD

Exp.	Exp. Mtr.	Seeing	F/# Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1/6	1020 V 16 filter				C455 CCD	1800 l/m 46.9	306	5184 Å	5/6		focus test done by wa. Lu	
									1			
4/5									7			
4/6	670	2"	5.32	B8 III p Mn					8		normalisation star	
4/5									9			
4/5									10			
4/4	2.9 K	2"	1.14	KO III b					11		std vel very cloudy	2K
4/5									12			
8/3									2			13.2K
									1			
4/5	BG 39 Filter				(T = $+02.7^{\circ}\text{C}$ 6.89 set)	1800 l/m 41.03	306	4220 Å	1/2		focus test.	
4/5									13			14K
4/6	43K	5"	0.34	F5 IV					14	56 ppm	cloudy	6K
3/10	54.3K								15			6.3K
2/8	64K								16			7.7K
									17			

224

p4#2

Tues/FRI

Emulsion Batches:

Date ... 1997. Apr 17/18. Observers ... Lu. Jh. Some for rG

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CC45370	BIAS(4)			21 35					
21/27	FLATS x 7							TUNG MD1	70
28	Comp		2000					Fetr ND 3	45
29	SX Crv	12 46 15	-18 48 00	21 59 05					720
30	"			22 11 49					720
31	"			22 24 20					720
32	comp								45
33	BIAS(4)			22 37					0
34	SX Crv			22 39 20					770
35	"			22 52 48					720
36	"			23 05 15					740
37	comp								45
38	SX Crv			23 20 05					720
39	"			23 32 47					720
40	comp								45
41	BIAS(4)			23 46					0

CCD
Spectr. Ten

Focus ...

Spectr. Ten

Exp. Mtr.

40/42

433

426

436

408

460

483

427

426

CCD Spectr. Temp. -101.9°C Dome Temp./Hum. $+01.8^{\circ}\text{C}$ 56% RH Transparency Conditions *part cloudy* 225

Focus 6.89

Spectr. Temp. Dome Temp./Hum.

FOR BOTH 2 REGIONS

390 0 50 1024 91 CCDFM

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CHSS CCD	1800 μ 41.03	306 μ		1			
							4220 \AA	18	for rG		
	no filter	9.		11	1808 μ 46.90	306 μ	5185 \AA	19ci			
	433	3"	9.5	F7V				20	DRL		
	436							21			
	436							22			
								23			
								1			
	408							24			
	460							25			
	483							26			
								27			
	427							28			
	426							29			
								30			
								1			

226 py# 3

THURS / FRI

Emulsion Batches:

Date 1947. Apr. 17/18. Observers Lu / 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.
CC45342	Comp							FEAR ND3	4s
43	HD 102870	11 4529	+02 19 42	23 56 52					298
44	Comp								4s
45/52	FLATS X8							TUNG ND3	8s
53	Comp							FEAR ND3	4s
54	CK BOO	14 3503	09 06 54	00 21 09					720
55	"			00 33 42					720
56	"			00 46 20					695
57	Comp								
58	BIAS (4)			00 59					
59	Comp							"	4
60	NSV 7457	16 06 02	50 11 12	01 08 33					1100
61	"			01 27 45					926
62	Comp							✓	4
63	comp								

Spectr. Tem.

Focus ...

Spectr. Tem.

Exp. Mr.

4.142

3.7K

13

465

502

370

240

315

Spectr. Temp. Dome Temp./Hum. 40.18°C 62% ²⁸⁴ Transparency Conditions ... East half cloudy

Focus 6.8.9.

227

Spectr. Temp. Dome Temp./Hum.

Exp.	Exp. Mtr.	Seeing	Hg Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
4s	100 filter				C155 CCD	1800ln 46.9°	306u	5185	7			4K
28s	3.7K	3"	361	F9V					8	std bel		2.9K
4s	23								9			
8s									2		Topup by 00:20 EST	13K
4s									10			43K
720	485	3"4"	9.8	F8					11	DRL		
720	502								12			
68s	370								13			
									14			
									1			
4									15			
11s	240	2.3"	9.5	G0					16	DRL	through clouds	
92	315								17			
4									18			3K
									19			

edited
read &
write in
13 ci

228 pg # 4

Date 1997 Apr 17/18 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.
CC45364	NSV 7968	16 46 54	38 38 58	01 52 13					900
65	"	"	"	02 07 42				Fe4r	901
66	comp							ND#3	4s
67	NSV 7968	"	"	02 24 41					915
68	"	"	"	02 40 22					901
69	comp							"	4s
70	BIAS(4)			02 56					0
71	NSV 7968	"	"	02 58 36					900
72	"	"	"	03 14 05					924
73	comp							"	4s
74	NSV 7968	"	"	03 31 43					900
75	"	"	"	03 47 13					901
76	comp							"	4s
77	BIAS(4)			04 03					0
78	NSV 7968	"	"	04 05 25					900

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

Exp. Mtr.

185

160

143

184

182

184

175

172

197

CCD
Spectr. Temp. -100.6°C

Dome Temp./Hum. $+0.2^{\circ}\text{C} / 61.3\%$

Transparency Conditions *hazy* 229

Focus *6.89*

Spectr. Temp.

Dome Temp./Hum.

Comparison Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
900		185		10.5?	A6	CASS CCD	1800 46.9	306 μ	5185	20	DRL		
	901	160								21			
3	45									22			
915		143								23			
900		184								24			
45										25			
0										1			
900		182	2"							26			
920		184								27			
15										28			
900		175	2"							29		clear	
701		172								30			
45										31			
2										1			
900		197								7			

230 pg #5

Date 1997 Apr 17/18 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 45379	NSV 7968	16 46 54	38 38 58	04 20 55					901
80	comp							ND #3	45
81	comp							"	45
82	HD 144579	16 01 30	+39 24 00	04 41 07					143
83	Comp							"	45
84	Bras (4)								0

CCP

Spectr. Temp

Focus...

Spectr. Temp

Exp. Mtr.

240

840

272 pg #1

Mon / Tues

Emulsion Batches:

Date 1997 Apr 21/22... Observers MKi / Ty... and some Shen

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
ce 137 ^{69/70}	Inboard / out board					22 W	~70°		
71	Comp							ThAr	1s
72	HP8790 1	10 0303	+12 2722	213315					708
73	Comp							ThAr	1s
74	BIAS (4)			214722					
75	Comp							"	1s
76	HD120136	13 4231	+175719	220620					1900
77	Comp							"	1s
78	HD120136	"	"	224043					619
79	Comp.							"	1s
80	BIAS(4)			2258					
81/90	FLATS x10					045E	+728	JUNG	6x2
91	BIAS(4)			0021					
92	comp							ThAr	1s
93	HD120136	13 4231	+175719	002607					1614

CCD
Spectr. Terr

Focus....

CCD
Spectr. Terr

Exp. Mir.

100 V

T

A-4K

150

1370 Volts

800

208

1000

1000

CCD Spectr. Temp. -100.4 °C

Dome Temp./Hum. +8.4 52% H

Transparency Conditions Part Cloudy 23.3

Focus : 228

CCD Spectr. Temp. -100.3 °C

Dome Temp./Hum. +06.5 °C 62.9% H

: 0 0 256 1024 4 1 CCD UNIT

Exp. Mtr.	Seeing	P. Mag.	Sp.	Inst.	Grating/ X Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1006 V				eJelle 19.00	0600h .308	~90u 400u 50u = .281 400u H	set = .265 Height = .275		focus test	0 0 129 1024 81 for 90 cgain for focus and different slit 30 cgain now	
2.4K	2"	1.35	B7V				6380A	3 4	Telluric Std		3K
								5			
								1			
								2			
1320 Volts, but not balanced yet.								6		for 150/1 S/H in and out of clouds 20 degs from moon	
800	2"	45	F7V					3			
2UB								4		Terminated by cloud.	
								7			
								1			
						50u W 600u Height		2			11K
Meter Balance 0. K.								1			
						50u W 400u Height		3			3.3K
1100	1-2"							2			

234 pg#2 Mon/Tues

Emulsion Batches:

Date ... 1997. Apr. 21/22. Observers .. M.Ki./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.
ce137 94	Comp							ThAr	1s
95	HD120136	13 4231	17 5719	01 03 30				"	1/40
96	Comp							"	1s
97	HD120136	"	"	01 29 03				"	1/29
98	Comp							"	1s
99	HD120136	"	"	01 49 33				"	1/200
800	Comp							"	1s
01	BIAS (4)			02 11					
02	HD120136	"	"	02 12 34				"	1/200
03	Comp							"	1s
04	HD120136	"	"	02 34 44				"	1/250
05	Comp							"	1s
06	BIAS (4)			02 57					
07	HD120136	"	"	02 58 58				"	1/250
08	Comp							"	1s

CCO
Spect. Tem.
Focus.....
Spectr. Tem.

Exp. Mtr.

1320V
f/142

145

120

2908

2350

2500

232

CCD Spectr. Temp. -100.6 °C

Dome Temp./Hum. +05.5°C 59.8%RH

Transparency Conditions .. Hu. 2.g.p. Bright. Full.....

Focus 22.8

moon nearby. 25
PART cloudy

Spectr. Temp. Dome Temp./Hum.

Exp. Mtr.	Seeing	Plg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1320V no filter				Echelle 1900	0600 1900	50μ = 281	6380A	7ci Approx		Big red shift red to previous comparison?	
1645	1-2"	45	F7V		.308			5ci			
								7ci			
1720								6ci			
								3ci		Blue shift red to 7ci oil pixel	
2908	2-3"							4ci			
								7ci		< 0.1 pixel more blue of previous	
								1			
2350	2"							2		2 1/3 blocked by dome for 1st part.	
								3ci			
2560	2-3"							4ci		some cloud	
								7ci			
								8ci			
2132								2ci		✓ cloudy (uneven)	1-3K
								3			35K

236
Pg 3

Mon/Tues

Date 1997 Apr 21/22... Observers *M.K.* / *J.N.*.....

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
ce13809	Comp							ThAr	15
10	HD187691	194614	+100955	033802					1200
11	Comp							"	15
12	B115(4)			359					
13	Comp							"	15
14	HD177724	190099	+134253	040432					946
15	Comp							"	15
16/25	FLATS x 10					0149W	+14°		6s
26/27	inb low focus test					226W	+14°		

CCD
Spectr. Tem

Focus...:

Spectr. Tem

Exp. Mtr.

320V
No filter

517

3208

+04.5

CCD Spectr. Temp. -100.7°C

Dome Temp./Hum. $+04.4^{\circ}\text{C} 59\% \text{RH}$

Transparency Conditions *mostly cloudy*

Focus $: 278$

237

Spectr. Temp.

Dome Temp./Hum.

Comparison Exp.	Exp. Mtr.	Seeing	P ₀ Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
15	1320V no filter						50 μ W 400 μ H	63808	3ci			
1200	517	1.2"	5.11	F7V					4c	stalled		
15									7c			
									1			
15									3c			
946	3208	1.2"	2.99	A0Vn					2c	Telluric Std, half cloudy		
13									7c			
65							600 μ H		3ci			11K
	+04.2 $^{\circ}\text{C}$						400 μ H		8/9c	focus test	8 i. Y bin	

238

pg#1 Tues/Wed

Date 1997 Apr 22/23 Observers MKI/TG

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.
CE138 ⁷⁸ ₂₉	Inb LOUDBOARD HERTMANN							ThAr	1/1
30	Comp							ThAr	1s
31	HD120136	13 42 31	+17 57 19	00 53 13					1200
32	Comp							"	1s
33	BIAS(A)			01 14					
34	Comp							"	1s
35	HD120136	"	"	01 17 22					1200
36	Comp							"	1s
37	HD120136	"	"	01 39 26					
38	Comp							"	1s
39	HD120136	"	"	02 00 46					1200
40	Comp							"	1s
41	BIAS(A)			02 22					
42	Comp							"	1s
43	HD120136			02 24 35					1200

COO
Spectr. Ter

Focus

Spectr. Ter

Exp. Mir.

4.5/12

1320V

40820

4.2K

4.4K

4.6K

4.4K

^{CCD}
 Spectr. Temp. $-100.5^{\circ}C$ Dome Temp./Hum. $+07.4^{\circ}C$ 67.12H Transparency Conditions clearing from NE
 Focus $.228$ No ground wind but cloud moving 259
 Spectr. Temp. $-100.8^{\circ}C$ Dome Temp./Hum. $+06.2^{\circ}C$ 68.45H FROM NE sky 259
 2 CCD 90 cgain however 2 MAX

Comparison of Exp.	Exp. Mtr. No Filter	Seeing	Ptg. Mag.	Sp.	Inst. Edelle	Grating/ Tilt x	Slit	Emulsion	P.H.	Program	Remarks	Quality
1/1	1320V $+08.2^{\circ}C$	F = .228			1910D	0600 .308	50u w 400u H	6380P	8/9	focus	0 0 128 1024 8 1 CCD	
1/5									3		0 0 256 1024 4 1 CCD	5K
1200	4.2K	2"	4.5	F7V					4			5K
1/5									5			
									1			
1/5									2			
1200	2.4K								6			
1/5									7			
	4.6K								4		Big dome turn	
1/5									3			
1200	4.4K								5			
1/5									7			
									1			
1/5									2		Dome turned	
1200									4		Some cloud	

240

Pg#2 Tues/Wed

Date .1997. Apr. 22/23... Observers .Mki./Tay.....

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.	Exp. Mtr.
ce 138AA	Comp							Th Ar	1s	
45	Comp							"	1s	
46	HD 120136	13 42 31	+17 57 19	02 56 01					1200	35K
47	Comp							"	1s	
48	HD 120136			03 17 16					1205	29K
49	Comp							"	1s	
50	BIAS (4)			03 38 45						
51	Comp							"	1s	
52	HD 130109	14 41 2	+02 10 57	03 45 56					970	3K
53	Comp							"	1s	
54	Comp							"	1s	
55	HD 1871691	19 46 14	+10 09 55	04 07 43					1131	1090
56	Comp							"	1s	
57/66	FLATS x10					2 32W	+14°	TUNG	3s	
67	BIAS (4)			04 38						
68/69	Inb / out Bouran					"	"	Th Ar	1/1	

C99
Spectr. Tem

Focus ...

Spectr. Tem

Exp. Mtr.

Spectr. Temp. ^{CD} ... -100.8°C ... Dome Temp./Hum. ... +06.1°C 68.4% H Transparency Conditions . PrAT Cloudy

Focus ... 228

Spectr. Temp. ... -101.9°C ... Dome Temp./Hum. ... +05.3°C 71.6% H

241

Exp. Mtr.	Seeing	Plg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
		#		19100	0600 X 308	50u 400u	6380A	3 2			
3.5K	2.5"	4.5	F7V					5			
								7			
2.9K								6			
								2			
								1			
								2			
3K	2.5"	3.72	A0V					4	telluric std.		
								3			
								3			
1090	2"	5.11	F7V					5	std vel		
								7			
						600u = 205		2			11K
								1			
								8/9	focus	2:1 in Y	

242. p4 #1 1 Wed/Thurs

Emulsion Batches:

Date 1997 Apr 23/24... Observers MKS.../Tg.....

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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.
CC138 ⁷⁰ / ₇₁	Inboard/out Board							THA	1/1
72	BIAS(4)			2034					
73	Comp							THA	1
74	HD 87901	10 03 03	+12 27 22	203605				SHORT	11K
75	Comp							"	1s
76	Comp							"	1s
77	HD 120136	13 42 31	+17 57 19	204409					989
78	Comp							"	1s
79	HD 120136			210209					1200
80	Comp							"	1s
81	HD 120136			212312					1200
82	Comp							"	1s
83	BIAS(4)			2144					
84	Comp							"	1
85	HD 120136			214558					856
86	Comp							"	1

CCD
Spectr. Tem
Focus...?
Spectr. Tem
Exp. Mr.
1320V
T=1107
8900
AK
59K
31K

COD
 Spectr. Temp. -100.8°C Dome Temp./Hum. $+10.8^{\circ}\text{C}$ 3868H Transparency Conditions clearing partially 243

Focus $\dots 230 \dots$
 Spectr. Temp. Dome Temp./Hum. 30c gain FROM NE,
 No wind again and some cloud moving [↑] N/A

Exp. Mtr.	Seeing	H.A. Mag.	Sp.	Inst. Eckelte	Grating/ x Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1320V T = $+10.7^{\circ}\text{C}$				19.00	0600 •308	50u W 400u H	6380	8/9	fowstect	0 0 178 1024 81	
						50u 400u		1		0 0 256 1024 41 30c gain now	
								3			
11K		1.35	B7V					4	Telluric Std		5K
								5			
								5			
3900	<1"	4.5	F7V					2		7200/1 S/H (C 300) cloud 02055 (last half)	3K
								3			
4K	1.20							4		some cloud	
								5			
5.9K	1"							6		clear	
								3			
								1			
								3			
3.1K	1"							2		cloud at end	
								3			

244

Pg #2

Wed / Thurs

Emulsion Batches:

Date ... 1997 Apr 23/24 ... Observers ... M.Ki. / T.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
ce13887	Comp							TbAr	1s
88	HD130109	14 41 12	+02 18 51	22 14 17					1218
89	Comp							TbAr	1
90	Comp							"	1
91	HD100870	11 45 29	+02 19 42	22 40 37					758
92	Comp							"	1
93	BIAS (4)			22 54					
94	Comp							"	1
95	HD 120136	13 42 31	+17 57 19	22 58 38					1082
96	Comp							"	1
97	Comp							"	1s
98	HD120136	"	"	23 26 36					605
99	Comp							"	1c
ce13900	BIAS (4)			23 47					
01	Comp							"	1s

CO
Spectr. Tem

Focus

Spectr. Tem

Exp. Mtr.

320V

37k

34k

14k

750

Spectr. Temp. ^{CO₂} - 100.7 °C... Dome Temp./Hum. +09.3°C 41% H₂O Transparency Conditions ... Part Cloudy ... 245

Focus 230

Spectr. Temp. Dome Temp./Hum. 30 c gain

Comparison Filter	Exp.	Exp. Mtr.	Seeing	Pg Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	1s	1320V				Echelle 19.00	0600h 1308	50u 400u	6380Å	5			
1218	1	37K	2"	3.72	HQV					7	telluric Std		
	1									3			
	1									5			
750	1	34K	2.3"	3.61	F9V					6	std vel		
	1									3			
	1									1			
	1									5			
1080	1	14K	1.2"	4.5	F7V					2	mti pgn	τ Boo	
	1									3			
	1s									5			
605	1c	750	1"							6		Thin cloud, Thick at end	
	1c									3			
										1			
	1s									3			

246

Py# 3

Wed / Thurs

Emulsion Batches:

Date 1997. Apr. 23/24... Observers ... M.Ki. / J.T.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CE13902	HD 120136	13 4231	+75719	23 4938					1400
03	Comp							THA	1s
04	HD 120136			00 1627					1200
05	Comp							"	1s
06	HD 120136			00 3743					120
07	Comp							"	1s
08	BIAS(A)			00 59					
09/18	Comp FLATS x 10					2 20 W	+18°	"	8s
	FD								

CCD
spect. Tem.

Focus...

CCD
spect. Tem.

Exp. Mtr.

30V

2870

2870

316K

CCD Spectr. Temp. -106.8°C Dome Temp./Hum. $+07.8^{\circ}\text{C}$ 509%RH Transparency Conditions ... Part. Cloudy 247.

Focus 2.30

CCD Spectr. Temp. -100.7°C Dome Temp./Hum. $+07.6^{\circ}\text{C}$ 509%RH 30c gain

Comparison Mtr. Exp.	Seeing	Pig Mag.	Sp.	Inst. Echelle	Grating/ X Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1400		4.50	F7V	19.00 ^h	0600 In/px 1308	50u W 400u H		6c _s	-	Intermittent Cloud	
15						400u H = .205		3			
1200	2"							7c _s			
15								8			
1300	1-2"							5c _s			
15								3			
								1			
8						600u = .205		3			13K

v48
pg#1

Thurs / Fri

Emulsion Batches:

Date .. 1977. Apr. 24/25. Observers .. M.Ki. / 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.
ce139 ^{19/20}	Inboard / outboard							ThAr	1/1
21	B/H5(4)			19 38					
22	Comp							ThAr	1 sec
23	HD 89021	10 11 04	+43 24 50	19 47 27					1225
24	Comp							v	15
25	Comp							"	15
26	HD 87901	10 03 03	+12 27 22	19 53 49					197
27	Comp							ThAr	1
28	Comp							"	1
29	HD 120136	13 42 31	+17 57 19	20 02 09					1201
30	Comp							"	1
31	HD 120136	v	"	20 23 32					1201
32	Comp							"	1
33	HD 120136	"	"	20 44 59					1250
34	Comp							"	1
35	B/H5(4)			21 06					

CCD
Spectr. Tem
Focus...
Spectr. Tem

Exp. Mtr.

320V
20 files

25K

19K

320V 21

43K

320V

CCD Spectr. Temp. ... 100.7°C Dome Temp./Hum. ... +10.6°C 5650^h Transparency Conditions ... Fine 249

Focus ... 230 ... unchanged 30c gain tonight
 Spectr. Temp. Dome Temp./Hum.
 Then some cloud moving from NORTH
 Light + NNW breeze

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ X Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1320V no filter				CCD Echelle 19.00 ^h	0600 λ /mm 308	50 100	6380Å	8/9	90c gain Focus Test	CCDFMT 0 0 128 1024 8 1	
								1	Now 30c gain	CCDFMT 0 0 256 1024 4 1	
								3			
2.5K	1"	3.45	A2IV					2	normalization	STHR	
								3			
								3			
19K	1"	1.35	B7V					4	Telluric Std.		
								3			
								3			
3.2K	2.2"	4.5	F7V					6		1.71 Air mass	
								3			
4.8K								7			
								3			
3080.		4.5	F7V					4		20:47 cloudy	
								3			
								1			

250 p9#2

Thurs / Fri

Emulsion Batches:

Date ... 1997 Apr 24/25 ... Observers ... Mki. / 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.
ce13936	Comp							ThA	1s
37	HD120136	13 42 31	+17 57 19	21 10 41					1215
38	Comp							"	1s
39	HD120136			21 33 12					1071
40	Comp							"	1s
41	HD120136 *			21 54 09					1125
42	Comp							"	1s
43	BIAS (A)			22 20					
44	Comp							"	1s
45	HD120136			22 22 42					1136
46	Comp							"	1s
47	HD120136			22 44 03					1005
48	Comp							"	1s
49	Comp							"	1s
50	HD102870	11 45 29	+02 19 42	23 06 24					591
51	Comp							"	1s

Spectr. Tem.

Focus...

CCD

Spectr. Tem.

Exp. Mtr.

1320V

200

3.4k

23k

3.6k

1.4k

Spectr. Temp. Dome Temp./Hum. +08.3°C 62.3% H Transparency Conditions .. PART cloudy 25/

Focus 230

Spectr. Temp. 101.7°C Dome Temp./Hum. -107.7°C 61.4% H
 CCD
 CA

Expansion Iter	Exp.	Exp. Mtr.	Seeing	Pig. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	15	1320V				Ecdelle 19.00	0600 x 308	50u 400u	6380A	3			
	215	3200		45	F7V					2			
	15									3			
	1071	3.4K	1.2"							4		cloudy	
	15									3			
	1125	2.3K								6	Lost	small file, probably a readout sandy streaks problem	
	15									3		After re load of tape	
										1			
	15									3			
	115	3.6K	1.2"							2			
	15									3			
	10	1.4K								4			
	15									3			
	15									3			
	59		1.2"	3.61	F9V					4		still	
	15									3			

15VP4#3 Thurs/Fri

Emulsion Batches:

Date 1997 Apr. 24/25... Observers ... M.K. / T.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CE13952	BIAS (4)			23 18					
53/62	FLATS x 10					5 51	+20	TUNG	8s
CE 13983	BIAS (4)			01 14					
64	Comp							ThAr	1s
65	HD 126136	13 4231	+75719	01:16:35					1200
66	Comp.							ThAr	1s
67	HD 120136			01:39:00					1200
68	Comp							ThAr / SO ₂	1200
69	Comp							11 sec	
70	HD 136202	15 1412	+020837	02:04:38					1274
71	Comp							"	1s
72	BIAS (4)			02 27					
73	Comp							"	1s
74	HD 177724	19 0049	+134253	02 34 38					585
75	Comp								1s

CCD
 Spectr. Ten
 Focus...
 Spectr. Ten
 Exp. Mtr.
 1320V
 4200
 2830
 300
 100

Spectr. Temp. ^{CD} - 10.7 °C Dome Temp./Hum.

Transparency Conditions ... *mostly cloudy* ... 25.3

Focus *230*

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

Exp. Mtr.	Seeing	P.V. Mag.	Sp.	Inst.	Grating/ X Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1320V				Echelle 19.00	0.660 in .308	50u W 400u H	6380Å	1			
						50u W = .281 600u H = .205		3			AK
						50u W 400u H = .225		1			
								3			
4300	1.2"	4.5						4			
								3			
2830								5			
								3			
								3			
300	2"	5.06	F8 IV-V					6		HR 5694 = 5 Star cloudy (weak)	
								3			
								1			
								3			
200	2"	2.99	A0Vn					2		Telluric std. (in cloud)	
								3			

pg #4
254

Date 1997 Apr 24/25..... Observers ... m.k.j./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.
ce13976	HD 177724	19 00 49	+13 42 53	02 46 16					970s
77	Comp							ThAr	1s
78	Comp							,	1s
79	HD 136202	15 14 12	+02 08 37	03 08 49					1456
80	Comp							n	1s
81	BIDS (4)			03 34					
82	Comp								1s
83	HD 120136	15 14 12	+17 57 19	03 50 00					688
84	Comp								1s
85/86	Inboard /out								1/1

Spectr. Ter

Focus...

Spectr. Ter

Exp. Mtr.

1320V

3.6/ka

3.2k

2K

Spectr. Temp. Dome Temp./Hum. $+06.6^{\circ}\text{C}$ 55% 27°H Transparency Conditions *part clear* 255

Focus 1230

Spectr. Temp. Dome Temp./Hum. $+06.2^{\circ}\text{C}$ 55%
ed

Comparison Exp.	Exp. Mtr.	Seeing	Pv. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emission	P.H.	Program	Remarks	Quality
9708	1320V no filter	2"	2.99	A0V	edette 19.00	0600 1308	50u 400u	5380Å	4.9	Telluric Std		
15	3.2K								3			
15									3			
1456	2K	2-3"	5.06	F8IV-V					5	sp Std	5 ser	
15									3			
15									1			
15									3			
688		2-3"	4.5	F7V					2		mostly SD part cloudy	
15									3			
111									7/8	fo cas	8-1 in Y	

Pg #1

Fri/SAT

Emulsion Batches:

256
Date 1997 April 25 Observers KK/Mki/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.
CE 13987	Hartmann inboard							Thin	2
88	outboard								4
89	Comp								1
90	HD 76943	08 54 09	+12 10 44	19 33 25					142
91	Comp							Thin	1
92	Comp							"	1
93	HD 47105	06 31 56	+16 29 05	19 47 20					174
94	Comp							"	1
95	HD 47105	"	"	19 51 53					290
96	Comp								1
97	HD 47105	"	"	19 54 03					330
98	Comp								1
99	BIAS (4)			20 05					
14000	BIAS (4)			20 24					
01	Comp								

Spectr. Tem

Focus...

Spectr. Tem

Exp. Mtr.

1320V

1000V

50

1346

1590

Spectr. Temp. Dome Temp./Hum. $+11.6$ 40.9% Transparency Conditions clear 257

Focus 0.232

Medium NNW wind

Spectr. Temp. Dome Temp./Hum.

Exp.	Exp. Mtr.	Seeing	P.P. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
2	1320V				echelle	300/ 19.00 .308	50 μ	6380A	7		0 0 128102981 90 cgain CCD FMT	
4									8		"	
1											CCDFMT	
142											0 * 0 256 12941	
1											"	
1											"	
174	1000V 650								4		30 cgain Now.	4K
1									3			
290	1346								5			6K
1									3			
330	1590								4			7K
1									3			
									1		CCDT still @ $\sim -115^{\circ}\text{C}$	
									1		Now to -100°C	
									3			

397 FSV

Note CCD Temp
unregulated for
this period

7.9 AONC

258

p4#2 Fri/Sat

Date .. 1997 Apr 25/26. Observers .. KK / MKi / Ta....

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CE4002	HD 8890	01 22 34	+88 46 26	20 26 12					284
03	Comp							ThAr	1s
04	HD 8890			20 32 35					300
05	Comp							"	1s
06	HD 8890			20 38 53					284
07	Comp							"	1s
08	Comp	15 10 2						"	1s
09	HD 102870	11 45 29	+02 19 42	20 51 42					1160
10	Comp							"	1s
11	Comp							"	1s
12	HD 120136	13 42 31	+17 57 19	21 18 50					1200
13	Comp							"	1s
14	HD 120136	"	"	21 40 14					1200
15	Comp							"	1s
16	BIAS(4)			22 02					

Spectr. Tem
 Focus
 Spectr. Tem

Exp. Nr.
 No. of
 200 V
 1.8K

1.8K

1.3K

413

268

260

Spectr. Temp. Dome Temp./Hum. 109.0°C $43.2\% \text{H}$ Transparency Conditions ... Fixed 25.9
 Focus 0.232
 Spectr. Temp. Dome Temp./Hum. 107.7°C $46.9\% \text{H}$
 wind "AIP port PARKSV" @ 21 EST
 NNW 15 kms/hrs

Expansion Exp.	Exp. Mtr. <i>no filter</i>	Seeing	P _v Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
284	1000 V 1.8K				Echelle 19.00	X 0600M .808	50u	6380A	6u	Polaris		8K
1s	1.8K								3			8K
300	1.4K								6		$\Delta\alpha = 0807W$ $= -001809$ $BS = -000057$	7K
1s									3			
284	1.3K		36						2			
1s									3			
1s									3			
1180	413	2"	361	F9V					4	stavel		4K
1s									3			
1s									3			
1200	268	2"	4.5	F7V					6			
1s									3			
1200	260	2"	4.5	F7V					4			
1s									3			
									1			

P#3
260

FRI / SAT

Emulsion Batches:

Date 1997 Apr 25/26... Observers M.K.I./T.H.

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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.
ce14017	Comp							JhAr	1s
18	HD 87901	10 0303	+12 27 22	22 08 28					
19	Comp							"	1s
20	Comp							"	1s
21	HD 120136	13 4231	+17 57 19	22 17 46					1201
22	Comp							"	1s
23	HD 120136			22:40:02					1200
24	Comp							"	1
25	BIAS(A)			23 02					
26	Comp							"	1
27	HD 136202	15 14 12	+02 08 37	23 05 56					1617
28	Comp							"	1
29	HD 136202			23 33 58					1687
30	Comp							"	1s
31	BIAS(A)			00 04					

CCO
Spectr. Term
Focus.....
Spectr. Term

Exp. Mtr.

1000V
No. F./Kp

1K

278

100

Water Bal.

120

Spectr. Temp. ^{CCO} -100.7°C Dome Temp./Hum. Transparency Conditions ... Fine ... 76/

Focus ... 232

Spectr. Temp. Dome Temp./Hum. 406.2°C 51.4%RH

Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ X Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1s	1000V no f. / ker				Echelle 19.00	0600 1308	50u 400u	6380A	3			
	K	1.35		B7V					2	Telluric Std		3.4
1s									3			
1s									3			
120	278		45	F7V					4			
1s									3			
100		2.4							4			
1									3			
1									1			
1									3			
167	100	2-3"	5.06	F7V					2	Sp Std 15 Ser		
1	meter balanced for 1000V new								3			
168	120								2	"		
1s									3			
									1			

P#4

Fri / SAT

Emulsion Batches:

262
Date ... 1997 Apr 25/26... Observers ... mki / Tg

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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.
CE14032	Comp			00 07 49				THAr	1s
33	HD 137909	15 2342	+29 27 01	00 08 27					72A
34	Comp							"	1s
35	Comp							"	1s
36	HD 120136	13 4231	+17 57 19	00 25 52					1440
37	Comp							"	1s
38	HD 120136	"	"	00:52:02					1203
39	Comp							"	1s
40	BIAS(A)			01 14					
41	Comp							"	1s
42	HD 130109	14 4112	+02 18 51	01:17:48					1019
43	Comp							"	1s
44	Comp							"	1s
45	HD 136202	15 1412	+02 08 37	01 38 47					1384
46	Comp			02 02 28				"	1s

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

Exp. Mtr.

204 V
572
394
520
200

CCD Spectr. Temp. -101.8°C Dome Temp./Hum. Transparency Conditions ... *Fine* 26.3

Focus 232

CCD Spectr. Temp. -100.5°C Dome Temp./Hum. 406.0°C 51.48H

Exp.	Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ X Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1/5	1000 V				Echelle 19002	0600 h .308	50μ 400μ	6380A	3c			
774 1/5	472	3-4"	366	Fp					2	KKpym		
1/5									3			
1/5									3			
1/5	340		4.5	F7V					5			
1/5									3			
1203 1/5	394	3-4"							4			
									3			
									1			
1/5									3			
1019 1/5	520	3"	372	A0V					2	Telluric Std.		
									3			
1/5									3			
138 1/5	200	3-4"							4	sp std.		
									3			

Pg#5

764

Date ... 1997 Apr 25/26 Observers ... M.K. / T.A.

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CE14047	Comp			02 05 46				T3Ar	1s
48	HD120136	13 42 31	+17 57 19	02 06 28					1250
49	Comp							"	1s
50	HD120136			02 30 29					
51	Comp							"	1s
52	B/H/S (4)			02 51					
53	Comp							"	1s
54	HD177724	19 00 49	+13 42 53	03 04 29					489
55	Comp							"	1s
56	Comp							"	1s
57	HD1871691	19 46 14	+10 09 55	03 18 30					1438
58	Comp							"	1s
59	Comp							"	1s
60	HD120136	13 42 31	+17 57 19	03 47 59					1505
61	Comp							"	1s

CCD
Spectr. Tem

Focus.....

Spectr. Tem

Exp. Mtr.

100 V

380

1280

578

125

270

CCD Spectr. Temp. -99.5 @ 02:54 Then Topup. Dome Temp./Hum.

Transparency Conditions Fine 265

Focus 232

Spectr. Temp. Dome Temp./Hum. 405.3°C 49.2% H

Comparison Filter	Exp.	Exp. Mtr.	Seeing	W. Mag.	Sp.	Inst. <i>Echelle</i>	Grating/ Tilt <i>X</i>	Slit	Emulsion	P.H.	Program	Remarks	Quality
	1s	1000V					0.600m 19.00 ^m .308	50 _u 400 _u	6380Å	3			
	1/26s	380	3.4"	4.5	F7V					6			
	1s									6			
	1s	2360								3			
	1s									1			
	1s									3		Topup by .03	
	489	578	4"	2.99	A0V _n					2	Telluric Std.		2.4k
	1s									3			
	1s									3			
	143	125	4.6"	5.11	F8V					4	std vel		
	1s									3			
	1s									3			
	150s	220	5.8"	4.5	F7V					4			
	1s									3			

P4#6

266

Date ...1997. Apr. 25/26.. Observers MKi / Tn.....

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
ce14062	BIAS(4)			6415					
63/72	FLATS x10					0 430	+17 28	JUNG	85

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

P9#1 SAT/SUN
268

Emulsion Batches:

Date 1997 Apr 26/27.... Observers .. In... for... K.K., ... M.Ki. + SAT TOUR
STUDENT MING ZHU.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
ce 14073	B115(4)			19 38					
74	Comp							ThAr	1s
75	HD 47105	06 3156	+16 29 05	19 46 20					304
76	Comp							ThAr	1s
77	✓ HD 47105	"	"	19 46 20					219
78	Comp							"	1s
79	HD 47105	"	"	19 50 47					338
80	Comp							"	1s
81	B115(4)			22 10					
82	Comp							ThAr	1s
83	HD 120136	13 40 31	+17 57 19	22 12 06					1200
84	Comp							ThAr	1s
85	HD 120136	"	"	22 34 03					1165
86	Comp							"	1s
87	Comp							"	1s

Spectr. Tem
Focus...
Spectr. Tem

Exp. Mtr.

1000V

1130

750

270

150

Spectr. Temp. -102.5°C *e* 1938 EST Dome Temp./Hum. $+10.9^{\circ}\text{C}$ 3728H Transparency Conditions *Fine* 269
 Focus *0.232* unchanged and unchecked, but should be *Fine*
 Spectr. Temp. Dome Temp./Hum. *30 cgain*

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ X Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1000V				Edelle 19.00	0600 308	50u 400u	W H 6380A	1		mean extracted ADU	
								3			
1130	4"	1.9	A0IV					2	kk ppm	1771	4.4K
								3			
								4		10778	2.6K
								3			
750								2		14918	
								3			
					30 cgain			1	After TOURS	30 cgain Reset CCD T = -100.7°C	
					30 cgain			3			3.2K
270	3"	4.5	F7V		90 cgain			2		9761	
								3			
150								5		5881	
								3			
								3			

270

pg #2

Date 1997 Apr 26/27 Observers [KK] / mki / 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.
ce14088	HD 87901	10 03 03	+12 27 22	23 00 53					741
89	Comp							THA	K
90	BINS(A)			23 15					
91	Comp							n	1s
92	HD 8890	01 22 34	+88 46 26	23 28 29					421
93	Comp							n	1s
94	HD 8890	n	n	23 37 37					375
95	Comp							n	1s
96	HD 8890	n	n	23 45 06					308
97	Comp			23 51					1s
98	Comp		not wai	then					1s
98	HD 120136	13 42 31	+17 57 19	23 57 27					2018
ce14099	Comp							n	1s
100	Comp							n	1s
101	HD 102870	11 45 29	+02 19 42	00 40 25					1016

Spectr. Ten

Focus.....

Spectr. Ten

Exp. Mir.

1/100 V

2.2K

460

420

280

205

434

Spectr. Temp. Dome Temp./Hum. $+07.9^{\circ}\text{C}$ 38.9% Transparency Conditions *Increasing cloud* $>7/1$
 Focus 0.232
 Spectr. Temp. -100.7°C Dome Temp./Hum. $+06.8^{\circ}\text{C}$ 41.6% *30c gain in tandem, but glitch switched it @ ce 4083.*

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
100 V 202K	4.5	1.35	B7V	edelle ccd 19.00	0600 1308	50 400	6380	6	Telluric	Std 90c gain ⁵¹⁴⁷⁷	15K
								3			
								1			
								3			
460	3"	2	F					2	kk pgr	a 11 hr wait 12-200 12 11 15-00 0127	5K
								3		gain now 90 somehow?	
420								4		13346	
								3			
280								2		7061	
								3			
								3			
205								4		9735	2.7K
								3			
								3			
424	3"	3.6	F9 V					6	std vel	21453	

272 pg#3 SAT/SUN

Date 1997 Apr 26/27... Observers [KK]/m.ki./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.
C014102	Comp							ThAr	2s
103	BIAS(A)			00 58					
104	Comp							n	1s
105	HD120136	13 4231	7175719	01 0732					1200
106	Comp							v	1s
107	HD120136			01:29:25					1200
108	Comp							v	1s
109	Comp							e	1
110	HP136202	151412	+020837	01 5444					1653
111	Comp							n	1
112	HD136202 (A)	HD136202	again	02 2356					1446
113	Comp							n	1
114	BIAS(A)			02 52					
115	Comp							n	1
116	HD130109	1474112	+0218.51	025610					

Spectr. Tem
 Focus...
 Spectr. Tem
 Exp. Mtr.
 1000V
 no filter
 627
 338
 160
 190
 Ccb

Spectr. Temp. Dome Temp./Hum. $+65.8^{\circ}\text{C}$ 43.9% Transparency Conditions *clearing again* 27.3

Focus *0.232*

Then cloudy again

Spectr. Temp. Dome Temp./Hum. *90 again*

Exp. Mtr.	Seeing	P _v Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1s				<i>Eddle</i> 19.00	0600h 1308	50u 400u	6380A	3			
								1			
1s								3			
200	427	4.5	F7V					2		<i>LS -00 00 07</i> <i>LS -00 00 09</i>	
1s								3			
120	338	2.3						4		13508	
1s								7			
1								3			
165	160	3 ^v	5.06	F7V				5	<i>Spectrum</i>	<i>Std 7713</i>	
1								3			
144	140	2.3 ^v	n	n				6	n	n 5959	
1								3			
1								1			
1								3			
				<i>CCD-Eddle pym Redoubt slow and very audable</i>				2	<i>Telluric Std cloudy</i>		

274 p9#4 SAT/SUN

Date ..1997. Apr. 26/27. Observers [Kk.] / mki. / Tq.....

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.
ce14117	Comp							ThAr	1s
18	Comp			03 38 24				"	1s
19	HP120/136	13 42 31	71 7 57 19	03 38 24					1390
20	Comp							"	1s
21/30	FLATS x 10 + [BIAS(4) ce14131]					02 40 W + 17°		TUNG	4s
ce14132/41	FLATS x 10					" "		TUNG	8s
42	BIAS(4)			04 27					
ce14143/44	Inboard / out Board					2 40 W 71.7°		ThAr	

CCD
Spectr. Tem
Focus...
Spectr. Tem

Exp. Mr.

60

CCD

T=

CCD Spectr. Temp. -100.5°C Dome Temp./Hum. $+059^{\circ}\text{C}$ 43/81% Transparency Conditions *mostly cloudy* 275

Focus 232

Spectr. Temp. Dome Temp./Hum.

Exp. Mtr.	Seeing	Plg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality	
65				Echelle 19.00	0600h '30S	50u 400u	6380Å	3				
65								3				
138	60	3"	45	F7V				6		2059		
65								3				
65								3		90c gain	125K	
65								4		30c gain	125K	
	CCDT @ 04:31 = -94.5°C ; just starting to warm up.								1	30c gain	for early gamma gen observations	
	T = $+060^{\circ}\text{C}$ 232 SET								1	30c gain		
								7	focus	90c gain		
								8				

Spectr. Temp. ^{CCD} -100.7°C Dome Temp./Hum. 108.8°C 61.4% H Transparency Conditions *Fine* 277

Focus 1.2.30 *changed from previous* Airport wind W 4 kts/hr @ 21 EST.

Spectr. Temp. Dome Temp./Hum. 30 cgain *nm 14x*

Comparison filter	Exp.	Exp. Mtr.	Seeing	PW Mag.	Sp.	Inst.	Grating/ X Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
4/3		1000 V no filter				Edelle CCD 19.00	0600 1308	50uW 400uH	6380A	11/2		D O 128 1024	
										1			
6	1s									3			32K
			BAD										
730		1630	>6"	1.9	A0IV					2	1/1c pgm		4K
1s										3			
931		940								4			
1										3			
944		1170	710"							2			
1										3			
										1		still 30 cgain indicated	
1s										3			2.6K
121		216	2-5"	4.5	F7V					5	Tau Boo		
1s										3			
122		922								2			
1s										3			

- I hand off NE fan, and seeing then improved? maybe coincidence?
 ↓ then much better

278
 py#2 Mon/Tues

Emulsion Batches:

Date 1997 Apr 28/29. Observers [HK]/mki./Tn.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CE14161	Comp							ThAr	1s
62	HD 8890	01 2234	+88 4626	21 3823				"	167
63	Comp							"	1s
64	HD 8890			21 4215				"	1s
65	Comp							"	1s
66	HD 8890			21 4614				"	184
67	Comp							"	1s
68	BIHS(A)			21 50				"	1s
69	Comp							"	1s
70	HD 120136	13 4231	+17 5719	22 5903				"	1383
71	Comp							"	1s
72	HD 120136	"	"	22 2305				"	1106
73	Comp							"	1s
74	Comp							"	1s
75	HD 87901	10 0303	+12 2722	22 4624				"	278
76	Comp							"	1s

CCD Spectr. Tem

Focus ...

CCD Spectr. Tem

Exp. Mir.

1000
in filter

680

720

630

280

880

1338

CCD Spectr. Temp. -100.8°C

Dome Temp./Hum. $+07.3^{\circ}\text{C}$ 61.7%RH

Transparency Conditions \dots Fine \dots 279...

Focus \dots 230

CCD Spectr. Temp. -101.7°C

Dome Temp./Hum. \dots CCD

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ X Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1000V 110 f/162				Edelble CCD 19.00	0600 1u/mm .308	50u 400u	u H 6380A	3		@ 09 32 west Reversed	
680	3"	2	F					6		00 -00 15 13 LS -00 00 27	3.5K
720								6			3.7K
630								3			
								6			
								3			2.8K
								1			
								3			
280	2'-3'	4.5	F7V					2	Tau Boo	maximized on smallest apparent image.	
								3			
280	3'							4			
								3		maximized on constant rate 2 equal rate above and below slit. image not so great.	
								3			
338		1.35	B7V					6	Telluric Std	1.50 Air mass	2.7K
								3			

p943
280

Mon/Tues

Emulsion Batches:

Date ... 1997 Apr 28/29 ... Observers [K.H.] / mki. / Th.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
ce14177	HD 87901	10 03 03	+12 27 27	22 52 31					607
78	✓ Comp							ThAr	1s
79	Comp							"	1s
80	HD 102870	11 45 29	+02 19 42	23 06 44					965
81	Comp							"	1s
82	BIAS(A)			23 24 36					
83	Comp			23 24 36				"	1s
84	HD 130609	14 41 12	+02 18 51	23 29 19					1560
85	Comp							"	1s
86	Comp.								1s
87	HD 136202	15 14 12	+02 08 37	00 05 00					1800
88	Comp							"	1s
89	HD 136202	"	"	00 36 06					1800
90	Comp							"	1s
91	BIAS(A)			01 07					1s

Exp. Mir.
1800
200
585
1400
167
168

CCD Spectr. Temp. -101.7°C Dome Temp./Hum. $+07.0^{\circ}\text{C}$ 64%RH Transparency Conditions \dots Fine 28/

Focus \dots 1230

CCD Spectr. Temp. \dots $^{\circ}\text{C}$ Dome Temp./Hum. $+06.2^{\circ}\text{C}$ 64%RH
 \dots $^{\circ}\text{C}$

Exp.	Exp. Mtr.	Seeing	Pl. Mag.	Sp.	Inst.	Grating/ X Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1507	1000V 3000		135	B7V	Echelle 19.00	0600h .30%	50u 400u	6380A	6	Telluric Std	Repeat	
1/5									3			
1/5									3			
965	585	3"	361	F9V					6	std vel		
1/5									3			
									1			
1/5									3			
1560	~400	2-3"	372	A0V					2	telluric std		
1/5									3			
1/5									3			
1800	162	2-3"	5.06	F7V					2	sp std	still 30% gain	> 1/5
1/6									3			
1800	168	2-4"							2			
1/5									3			
									1			

p944

Mon / Tues

Emulsion Batches:

282

Date 1997 Apr 28/29... Observers [K.K.] / m.ki. / T.H.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
ce14192	Comp							ThAr	1s
93	HD120135	134231	+175719	011202					1200
94	Comp							n	1s
95	HD120136	n	"	013319					1402
96	Comp							n	1
97	HD120136	n	"	015823					1606
98	Comp							n	1
99	BIAS (A)			0227					
ce14200	Comp							n	1
01	HD137909	152342	+292701	023405					930
02	Comp							n	1
03	Comp							n	1
04	HD187691	194614	+100955	025454					1605
05	Comp							n	1
06	BIAS (A)			0324					

Spectr. Temp. Dome Temp./Hum. Transparency Conditions ... *Fine* 283

Focus ... *230*

Spectr. Temp. ... *101.8 ± 0.03 EST* ... Dome Temp./Hum. *0 0 256 1024 4 1 CCD FMT*

Comparison filter	Exp.	Exp. Mtr.	Seeing	P.V. Mag.	Sp.	Inst.	Grating/ X Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	1s	<i>1000 volts</i>				<i>edelle CCD 19:00</i>	<i>0600 ln/mm 1308</i>	<i>50u W 400u H</i>	<i>6380A</i>	3			
	1200	299	34	45	F7V					2		<i>still 30 cgain</i>	
	1s									3			
	1400	368								6			
	1									3			
	1600	368								4			
	1									3			
	1									1			
	1									3			
	930	630	34	366	Fp					2	<i>1/4 pgm</i>		
	1									3			
	1									3			
	1605	148		5.11	F8V					2	<i>still vel</i>		
	1									3			
										1			

284 1945

Emulsion Batches:

Date 1947 Apr 28/29... Observers mki / T_h.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
ce14207	Comp							ThAr	1s
08	HD120136	13 4231	+17 5719	03 3012					1241
09	Comp							ThAr	1s
10	HD120136	"	"	03 5027					1430
11	Comp							"	1s
12	Comp							"	1s
13	HD177724	19 0049	+34 253	04 2040					760
14	Comp							"	1s
15/24	FLATS x 10					02 50W	+16 32	Tung	8s
25	B/H5(4)								
26/27	Inb lowt					"	"	ThAr	4/3

CCD Spectr. Terr
Focus.....
Spectr. Terr
Exp. Mtr.

193

228

100

CCD Spectr. Temp. -100.7°C Dome Temp./Hum. 40.59°C 6778H Transparency Conditions *Hazy* 285

Focus 230

Spectr. Temp. -101.5°C 0420 Dome Temp./Hum. 40.56°C 20

Comparison Exp.	Exp. Mtr.	Seeing	Mag. Mag.	Sp.	Inst.	Grating/ X Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality	
1/5					Edelke 19.00 $\frac{4}{2}$	0600 308	50 μ 400 μ	6380	3				
1/241	193	3 $^{\prime}$	4-5	FZV					3				
1/5									3				
1/430	228	3 $^{\prime}$							5		CCD T - 100.7 $^{\circ}\text{C}$		
1/5									3		Still 30 gain		
1/5									3				
7/60	900	3 $^{\prime}$	299	A0Vn					4	Telluric Std	64338 @ center		
1/3									3		of 2nd order from bottom.		
1/68									3			15K	
									1				
1/4/3					Still on E γ Edelke as well as Perseus								

286 pg#1 Tues / wed

Date ... 1997. Apr. 29 / 30. Observers [KK] / mrc / 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.
ce142 ^{28/} ₂₉	Inboard / outboard HARTMANN					~ 2 30W	~ + 30°	ThAr	4/3
30	BIAS(A)			19 39					
31	Comp							ThAr	1s
32	HD47105	06 3156	+162905	19 5357		03 51 W			1184
33	Comp							"	1s
34	HD47105	"	"	20 14 51		04 14 W			1341
35	Comp							"	1s
36	HD47105	"	"	20 38 24		04 32 W			957
37	Comp							"	1s
38	BIAS(A)			20 55					
39	Comp							"	1s
40	HD 8890	01 27 34	+88 46 26	21 02 17					406
41	Comp							"	1s
42	HD 8890	"	"	21 10 08					598
43	Comp							"	1s

CCD Spectr. Ten

Focus

Spectr. Ten

Exp. Mtr.

1006 V
no 8/1/92

1638

2100

1400

440

800

CCD Spectr. Temp. -100.7°C Dome Temp./Hum. $+13.3^{\circ}\text{C}$ 510%RH Transparency Conditions Hazy 287

Focus $\cdot 230$ Dome Temp./Hum. $+12.6^{\circ}\text{C}$ 50%RH ADU \sim MAX

Exp. Mtr.	Seeing	Pl [✓] Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
4/3				Echelle CCD 19.00Å	0600ms 1308	50μ W 400μ H	6380Å	7/8	Focus test	0 0 128 1024 81 Set for slightly cooler	
								1		0 0 256 1024 41	
1s					note Actual central			3			31K
11/4	1.2"	1.9	ADU		λ is 6363Å @ Row 512 & col 145			2	HK ppm	part cloudy	4K
1s								3			
3/4	2"				<u>4th ORDER FROM TOP</u>			4	"		8K
1s								3			
9/5	1400	23"						2	"		6K
1s								3			
1s								1			
1s								3			
4/4	440	2"	2	F				2	TEL	East side of course	2.6K
1s								3			2.2K
5/8	600							2			
1s								3			

288 p982 Tues/Wed

Emulsion Batches:

Date 1997 Apr 29/30.. Observers [R.H.]/m.k.i./T.L.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CE14244	HD 8890	01 22 34	+88 46 26	21 20 27					697
45	Comp							ThAr	1s
46	Comp							"	3s
47	HD 87901	10 03 03	+12 27 22	21 48 05					557
48	Comp							"	3s
49	BIAS (4)			21 59					
50	Comp							"	3s
51	HP120136	13 42 31	+17 57 19	22 02 53					1800
52	Comp							"	3s
53	HD120136	"	"	22 33 59					1369
54	Comp							"	3s
55	BIAS (4)			23 01					
56	Comp							"	3s
57	HD102870	11 45 29	+02 19 42	23 33 14					725
58	Comp							"	3s

Exp. Mir.
Spectr. Tem.
Focus...
Spectr. Tem.

Exp. Mir.
1000 V
245

27K

235

240

00

Spectr. Temp. ^{CO} -106.8°C Dome Temp./Hum. +12.4°C 49.2%RH Transparency Conditions ... Partly Cloudy 7/7

Focus 230

Spectr. Temp. Dome Temp./Hum. +12.0°C 50.0%RH

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ X Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
697 1000 V 245	2"	2	F	Eddle 19.00%	0600 h 130%	50u 400u	6380A	2	Polaris		1.5K
1s								3			
3s								3			10K
557 2.7K	1.5"	1.35	B7V					5	Telluric Std.	1.32 AIR MASS	8K
3s								7			
								1			
3s								3			8.9K
1400 235	1"	4.5	F7V					5	Tau Boo		
3s								3			
1364 240	1"							2			1K
3s								3			
								1			
3s								3			
725 100	2-1"	3.61	F9V					2	std vel	using cloudy	
3s								3			

292

p9#1

Sun/Mon

Gld, ~~Swk~~ Bur = Chris Burns, AH = Allen Attard

Swk = Marcin Sawicki

Emulsion Batches:

Date 1997 May 4/5... Observers Gld./F.W./Bur./AH./Swk

Plate No.	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 142 ^{70/} 71	Focus In board/outboard							ThAr	.
72	BIAS(4)			201607					
73	Comp							ThAr	17
74	HD 87901	10 03 03	+12 27'	202005					155
75	Comp							v	12
76	Comp								
77	HD 89025			203833					400
78	Comp							u	15
79	Comp							v	15
80	BD+63 985	11 57 24	+62 31 04	21 00 31					
81	Comp							u	15
82	Comp							n	1
83	BD+63 985	11 55 24	+62 31 04	21 40 52	edit header				1344
84	Comp							n	1
85	BD+63 985	u	u	22 04 33					1205
86	Comp							n	1

CCO

Spectr. Temp

Focus.....?

Spectr. Temp

Exp. Mtr.

10000

23K

1100

1320V

45

81

65

CCD Spectr. Temp. -100.8°C Dome Temp./Hum. $+08.3^{\circ}\text{C}$ 39.6% H @ 19:15 EST Transparency Conditions FINE 293

Focus 227

Spectr. Temp. Dome Temp./Hum.

90 deg gain

~ MAX

Exp. Mtr.	Seeing	Plg. Mag.	Sp.	Inst.	Grating/ X Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1000U				Echelle CCD		100u = .261	5888A	1/2	focus test		
				19.48	3455			1		0 0 256 1024 4 1	
								3		$\Delta x -00 00 23$ $\Delta y +00 01 36$	9K
~3K								4	Telluric std.		13K
								3			10K
								3			
1100	3"			F0 III				2	sp std	7 300/1 S/N	6K
								3	ci		
1320V								3		20/1 S/N	
45				and Balanced,				5		$\Delta x +00.00 03$ $\Delta y +00 02 18$	
				9.9 ASV ~105V				3		nearly 15	
								3		$\Delta x -00 00 34$ $+00 01 06$	
81	3"			9.9 ASV				6	written in SCI	$\Delta x -00 00 34$ $\Delta y +00 01 06$	
								3			
65								5		~ 35/1 S/N	
								3			

294 p9#2

Sun/Mon

Date .. 1997 May 4/5

Observers .. Gld./Tn./~~ADS./AA~~

Svk AH

Emulsion Batches:

.....

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.
ce14287	BIAS(4)		2000	2227				ThA	1
88	BD+63 985	11 5524	62 3104	223914					1395
89	Comp							7	1.
90	BIAS(4)			2305					
91	Comp							"	1s
92	HD103352	11 4900	+61 3500	231356					1293
93	Comp							"	1s
94	HD103352	"	"	233722					1200
95	Comp							"	1s
96	HD103352	"	"	235902					1385
97	Comp							"	1s
98	BIAS(4)			0023					
99	Comp							"	1s
ce14300	HD 121 409	13 5010	54 1313	00 3006					600
01	Comp							"	1s

Spectr. Temp

Focus.....

Spectr. Temp

Exp. Mtr.

1320

82

40

106

176

300

Spectr. Temp. Dome Temp./Hum. 10.49°C 76.1% Transparency Conditions ... *Fine* 295

Focus *227*

Spectr. Temp. ^{SEP} -100.8°C Dome Temp./Hum. 10.38°C 51.4% *90 cgaln*

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ X Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1	1320			Echelle	0600m 13455	100u 400u	5888A	1			
195	<u>82</u>	9.9	H5V					2			
1.								3			
								1			
15								3			
129	140	2-3"	9.5	G5				2		< 40/1 S/A	
15								3			
100	106							6		40/1 S/A	
15								3			
1385	176							6			
15								3			
								1		stats	
								3		406 414 410.075	
								3		σ 299	
600	1300	3"	5.7	AQV				2	Telluric	std.	1K
15								3			

296

P#3 Sun/Mon

Date 1997 MAY 4/5... Observers Gld./m.ki./J.T.m./~~M.S.~~

Swk

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.
ce14302	Comp							ThAn	15
03	BD+62 1191		1950	004853					1293
04	Comp							"	15
05	BD+62 1191	"	"	01257					1200
06	Comp							"	15
07	BD+62 1191			01:35:08					1206
08	Comp.							"	1
09	B/AS(4)			015731					
10	Comp.		1855					"	1
11	BD+49 237	14 35 14	149 19 54	02 06 36					1200
12	Comp							"	1
13	BD+49 2317			02 29 28					1201
14	Comp							"	1
15	B/AS(4)			02 50					
16	Comp							"	1

Spectr. Tem

Focus.....

Spectr. Tem

Exp. Mtr.

3200

15

10

14

350

380

3

Spectr. Temp.

Dome Temp./Hum.

Transparency Conditions .. *Fine* 29.7

Focus 227

Spectr. Temp.

Dome Temp./Hum.

Exp. Mtr.	Seeing	P.V. Mag.	Sp.	Inst.	Grating/ x Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1370U				<i>Eddle</i>	06004	100u	5888A	3			
65	3.4	9.3	KO	<i>CCD</i> 19.48	.3455	400u		4		~ 30/1 S/H	
								3			
60								4		Seeing worse.	
								3			
79								4			
								3			
								1		STATS 403 410 406 532	
								3			
350	3"	8.1	FO					2		Ident. - comp G"E - questionable	
								3			
380	3"							4			
								3			
								1		STATS 403 41 406.314 1.285	
								3			

298

Pg #4

Sun / Mon

SWK

Emulsion Batches:

Date ... 1997 May 4/5 ... Observers ... Gld / ~~SWK~~ / Th

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.
ce14317	BD+49 2320	14 43 37	+48 59 00	02 57 39					1200
18	Comp							ThA	5
19	BD+49 2320	"	"	03 18 54					1203
20	Comp							"	5
21	Comp							"	5
22	✓ BD+49 2319 ✓	14 42 09	+49 07 30	03 45 20					1204
23	Comp			Lost				"	5
23	Comp							"	5
24	HP1591319	17 27 54	+28 28 47	04 11 49					357
25	Comp							"	5
26	HD151584							"	1
27	HD197989	20 42 10	+33 35 44	04 22 53					129
28	Comp							"	1
29	BIAS(4)			04 27					
30/	FLATS x 10								

Spectr. Temp.

Focus ...

Cup

Spectr. Temp.

Mr.

S

235

205

205

205

1K

2.8K

Spectr. Temp. Dome Temp./Hum. $+03.7^{\circ}\text{C } 51.4\% \text{H}$ Transparency Conditions ... *Fine* 29.9

Focus ... 227

Spectr. Temp. ^{CD} - 2 Dome Temp./Hum. $+03.0^{\circ}\text{C } 54.4\% \text{H}$

Exp. Mtr.	Seeing	Ptg Mag.	Sp.	Inst.	Grating/ X Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1200	235	2.3"	87	G5	Echelle 19.48	0600h .3455	100u 400u	5888A	2		
5									3		
1203	205								4		
6									3		9.9K
6									3		
1204	205	2"	87	G5					5		
13	205								3		
6									3		
357	1K								6	std spectrum Telluric	
15									3		
1				KOIII					3		
109	4.8K	2.5		KOIII					4	std spectrum	
1									3		
									1		
									3		
										stats Aug = 405.96	

300 pg 5

Emulsion Batches:

Date ... 1997 MAY 4/5 Observers ... Gld... T.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.
ce14330	SKY near HD197789								128
3/40	FLATS X10		STILL East SIDE			01 35E	+34°	JUNG	3s

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

Exp. Mtr.

9

Spectr. Temp. Dome Temp./Hum. Transparency Conditions *Final* 30/

Focus *0.227*

Spectr. Temp. Dome Temp./Hum.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
<i>9</i>						<i>700</i> <i>400μ H=0.225</i>					
						<i>600μ H=0.205</i>		<i>2</i>			

Comparison
Exp. 178
35

202 pg#1

Kar = Jennifer Karr
Hml = Devon Hamilton

Emulsion Batches:

Date .1997.MAY.6/7... Observers Tn/Gld/Bur/Hml/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.
ce143 ^{4/43}	Inboard / out BOARD								
43	BIAS(4)			19 50	19 50				
44	Comp							mlr	1
45	HD 67901	10 ^h 03 03	12° 27 22	20 11 49	20 15				127
46	comp							ThAr	1
47	Comp							"	1
48	HD 111812	12 ^h 46 ^m 50	28° 05' 06"	20 37 20					600
49	Comp							"	1
50	comp							"	1
51	HD 111812	13^h 21^m 13^s	55° 30' 32"	20 57 38					390
52	comp	13^h 21^m 13^s	55° 30' 32"					"	1
53	BIAS(4)			21 06					
54	comp							"	4
55	BD+ 63985	11 ^h 55 ^m 24 ^s (J2000.0)	62° 31' 04" (J2000.0)	21 21 30					1800s
56	Comp							"	1s

CCO Spectr. Ten

Focus.....

Spectr. Ten

Exp. Mtr.

1320V
No. f. No.

9.5K

2490

4.3K

8K

12

CCD Spectr. Temp. -100.5°C Dome Temp./Hum. $+05.0^{\circ}\text{C}$ 4846 H Transparency Conditions *Fine* 303

Focus 227

Spectr. Temp. Dome Temp./Hum. $+03.6^{\circ}\text{C}$ 4956 H 90 C gain

Exp. Mtr.	Seeing	Plg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1320V No filter				1320V CCD 19.48	0600m 13455	100u 400u	5886	7/8	SHI3	Focus CCD FMT 0 0 128 1024 8 1	
								1		CCD FMT 0 0 256 1024 4 1	
								3ci			
9.5K	1.35		BOV					4		Telluric (Regular)	7.8K
								3ci			9K
								3ci			10K
2490	2"	4.9	GDM					2ci		spectral std.	
								3ci			
								3ci			
4.3K		4.0	A5V					5ci		spectral spec. std.	
		4.0	A5V					3ci			
								1ci		5 stars 398 406 Aug 101.88	
9.8K								3ci		1.410	
12	2"	9.9	A5V					2ci			
								3			

304 pg #2

Date 1997 May 6/7 Observers T.n./Gld./Bur./Hml/Kar

Emulsion Batches:

Plate No.	Object	R.A. +900	Declination +900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
Ce143 57 57	BD+63985	11 ^h 55 ^m 24 ^s (52000.0)	62°31'01" (32000)	21 58 28					1806s
58	Comp			22 23 25				TRAR	1s
59	Bias(4)			22 25					
60	Comp							TRAR	1s
61	BD+521826	14 ^h 44 ^m 20 ^s (1450)	91°50'08"	22 36 58					1800s 2800
62	Comp							"	1s
63	Bias(4)			23 11 02					
64	Comp							"	1s
65	BD+521826	"	"	23 25 53					1811
66	Comp							"	1s
67	BD+521826	"	"	23:57:53					1800s
68	Comp							"	1s
69	Bias(4)			00:29:51					
70	Comp							"	1s
71	BD+521826	"	"	00 32 20					1860s

Spectr. Temp.
 Focus... 2
 CCD
 Spectr. Temp.

Exp. Mtr.
 1320
 93

30

330

245

200

Spectr. Temp. ~~-100.5~~ Dome Temp./Hum. ~~+03.2~~ ^{+03.2} ~~50.6~~ ^{50.6} Transparency Conditions ~~Five~~ ^{Five} 305

Focus 227 + 2.0^c ^{54.79p}

Spectr. Temp. ~~-100.9~~ ^{CCD} Dome Temp./Hum. ~~3.4~~ ^{3.4} ~~49.9~~ ^{49.9}

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst. Echelle	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1320 V 1506 1/5	0.3	9.9	45V	19.48	0600 h 3455	100u 400u	5888	6ci 3ci 1	ETHI3	Very low SNR (~230-40)	
								3ci 1		1.09 399.691 σ 1.3	
1320 310	2-3"	8.7	AN					3ci 4ci		Secondary H ₂ cloud feature Pendant w. Intensifier off	
								3 1		Bias w. ? camera off → 398.249, 1.293	
330		"	"					3 5			
245	3"	"	"					3 6 3 1			
								3 1		ave 376.106 σ 1.174	
223	3"	.	"					3 2			

306
pg 3

Tues/Wed

Emulsion Batches:

Date 1997 May 6/7 Observers Th./Gld./Hrd./Bur./Kar.....

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.....
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
ce 1437TR	comp							Mr	1s
73	BD +52182L	14 ^h 44 ^m 20 ^s ⁽¹⁹⁵⁰⁾	51° 50' 03"	01 04 01					1800
74	comp							"	1s
75	BIAS(4)			01 35 50					
76	comp		Te/e					"	1s
77	SKY off BD+52182L	14 45 36	+51 38 12	01 40 48					1811
78	Comp							"	1
79	comp							"	1s
80	HD170073	18 22 27	+58 44 34	02 33 27	02 48 00				750
81	Comp							"	1s
82	HD 159 561 Comp								
83	HD 159 561	17 30 18	42 37 58	02 56 33					
84	Comp								
85	BIAS(4)			03 02 16					
86/85	Plate x20 (East side)					02 E	34° 46'	Tung	2s
06/07	FOCUS TEST			Also East SIDE					

Spectr. Temp.

Focus.....

Spectr. Temp.

Exp. Mtr.

226

6

1012

Spectr. Temp. Dome Temp./Hum. 2.0°C 55% Transparency Conditions *fine - clouding in*
 Focus 227
 Spectr. Temp. *50* -101.9°C Dome Temp./Hum. $+0.4^{\circ}\text{C}$ 63% *8A* 307

Exp. Mtr.	Seeing	PV Mag.	Sp.	Inst. Echell.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
15				CCD 19.48	0000 0.3455	100u 400u	5888	3	ETH3		
15	226	87	A2V					4			
15								3			
15								1		395.118 $\sigma = 1.259$	
15								3u			
15	6							5		increasing partial cloudiness	
15								3			
15								3			
15	1012	2"	499	A1V				6	std star	Faint companion seen To North (3" sep)	
15								3			
15								3			
15		3.4'	207	A5 III				4			
15								3			
15								1		393.99 $\sigma = 1.523$	
15								3		39	11K
				(Probably)	H=600u	still H=600u	for focus	3	OK though		

308 Tn/Ri/1B+ special Tour looked @ M3 (Fine view)

pg#1

Wed/Thurs

Emulsion Batches:

Date 1997 MAY 7/8 Observers Gld./Cas = Mike Casey / Tn + Sc

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
ce144 ^{08/09}	Inboard / Outboard		HARTMANN					THA	1/1
10	BIAS(4)			22 16					
11	Comp							THA	1s
12	HP 136849	¹⁹⁰⁰ 15 17 48	+33 17 30	22 19 46					300
13	Comp							"	1s
14	Comp							"	1s
15	BD+63 3985	^{J2000} 11 55 25	+62 31 00	22 40 04					1800
16	Comp							"	1s
17	BD+63 3985	"	"	23 12 34					1800
18	Comp			23 45				"	1s
19	BIAS (4)			23 47 26					1834
20	sky at BD+63 3985								
21	Comp							"	1
22	Comp							"	1
23	BD+52 1826	¹⁹⁵⁰ 14 44 20	+51 50 08	00 29 18					1805
24	Comp							"	1
25	BIAS (CA)			01 00					

CCO Spectr. Temp

Focus.....

CCO Spectr. Temp

Exp. Mtr.

132W

1050

44

115

1500

CCD Spectr. Temp. -100.5°C Dome Temp./Hum. $+07.0^{\circ}\text{C}$ 44/81 Transparency Conditions *Fine* 309

Focus 227

CCD Spectr. Temp. -100.80°C

Dome Temp./Hum. $+05.4^{\circ}\text{C}$ 42.6% H

90c gain

Exp. Mtr.	Seeing	Pkg. Mag.	Sp.	Inst.	Grating/ X Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1320V				Edelle 19.48	0600m .3453	100c 400a	5888	7/8	focus test	0 0 1281624 8 (CCDFort)	
						600c = .205 By mistake		3		Aug 158.227 σ 4.735	
								3			10K
1050	3-5"	5.4	B9V					2	Telluric Std		800
								3			10K
								3			
144	3-5"	9.9	A5V					4		$\Delta\alpha = -00\ 00\ 42$ $\Delta\delta = +00\ 01\ 24$ SN=45	
								3			
115	3-4"							5			
								3			
								6	Sky	only slightly hazy Na D em ~ 4-5 ADU above background.	
								3			
								3			
2500	3-4"	8.7	A2					2			
								3			
								1		Bias(4) stats 155061 σ 0.748	

310
Pg #2

Wed / Thurs

Emulsion Batches:

Date 1997 MAY 7/8..... Observers Gld./Th. I. Cas.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
Ce14426	BD+521826	14 44 ¹⁹⁵⁰ 20	+51 5008	01 0226					1800
27	Comp							ThAr	1
28	BD+521826			013439					1805
29	Comp							"	1
30	BIAS(x4)			02 06 00					
31	Comp							"	1
32	BD+492317	14 40 ²⁰⁰⁰ 17	+48 4230	021321				ThAr	1800
33	Comp							"	1
34	BD+492319	"	"						1800
35	Comp							"	1
36	BIAS(x4)			03 17					
37	Comp							"	1
38	BD+492320	14 43 ²⁰⁰⁰ 37	+48 4900	032242					1850
39	Comp							"	1
40	Comp							"	1

Spectr. Temp

Focus.....

Spectr. Temp

Exp. Mtr.
320V

3

420

640

764

840

840

Spectr. Temp. Dome Temp./Hum. 105.3°C 43.2% Transparency Conditions ... *Part Cloudy* ... 3/1
 Focus ... *227* ...
 Spectr. Temp. Dome Temp./Hum.

Exp.	Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
180	1320K	34	87	A2	Echelle 1948	660 1345	100a 100a	5888A	2			
1							600 for stellar = .205		3			
168	420								4			
1									3			
1									1			
1	640		8.1	F0					3			
1									6			
1									3			
180	764	2-3	11	11					5		$\Delta\alpha = -00\ 00\ 33$ $\Delta\delta = +00\ 00\ 21$	
1									5			
1									1		Aug 153.402 \pm 0.739	
1									3			
157	184	2-3	8.7	B5					5		very hazy	
1									3			
1									2			

312 #3

Wed / Thurs

Emulsion Batches:

Date .. 1957. May. 7/8. ... Observers Gid / 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.
ce14441	HD177724	190049	+134253	035527					238
42	Comp							ThAr	1
43	Comp							"	1
44	HD 210027	220221	+245124	041026					715
45	Comp							"	1
46	B175(C4)			0424					
47	SKY near HD 210027			042559					2/4
48	Comp							"	15
49/58	Flats X10					2h E		Tung	2
59/60	Inb/out Boards					"			1/1

Spectr. Tem

Focus.....

Spectr. Tem

Exp. Mtr.

320V

595

720

42

Spectr. Temp. Dome Temp./Hum. $+05.3^{\circ}\text{C}$ $+41.7\%$ Transparency Conditions ... *Hazy* 313

Focus *1227*

Spectr. Temp. Dome Temp./Hum.

Exp.	Exp. Mtr.	Seeing	H _v Mag.	Sp.	Inst.	Grating/ X Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
238	1320V											
	1595	2"	2.99	AQV _n	Echelle 19.48	0.600μ .3455	400μ 400μ	5888	2	Telluric Std.		
						probably 600μ	For		3			
						stellar = .205			3			
715	720	3"	3.77	F5V					4	sp std.	thin cloud and down	
									3			
									1			
24	42								2	sky		
15									3			
2						100μ			3		slit perhaps 600μ	
						700μ = .195			3		all night?	
						600μ = .205			3	focus test		

314
 py#1 Mon/Tues

Emulsion Batches:

Date 1997 MAY 12/13 Observers MKI/Sp. = SARAH POIRIER / 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.
CE144 64/62	Inboard / out board		Hopimann					ThAr	2/1
63	BIDS(4)			22 16					
64	Comp							ThAr	3s
65	HD 120136	13 42 31	+17 57 19	22 18 19					1201
66	Comp							ThA	3s
67	HD 120136	"	"	22 40 42					1201
68 25	Comp							"	3s
69	HD 120136	"	"	23 02 09					
70	Comp	"	"	23 24 44				"	3s
71	HD 120136	"	"	23 24 44					1200
72	Comp							"	3s
73	BIDS(4)			23 47					
74	Comp							"	3
75	HD 136202	15 14 12	02 08 37	23 54 45					1252
76	Comp							"	3

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

Exp. Nr.

1950

2350

2550

570

250

CCD Spectr. Temp. -100.7°C Dome Temp./Hum. $407.8^{\circ}\text{C} 60\% \text{H}$ Transparency Conditions Pure Clear 315

Focus 228

CCD Spectr. Temp. Dome Temp./Hum. 30C gain

$\sim \text{MAX}$

Exp. Mtr.	Seeing	Plg. Mag.	Sp.	Inst.	Grating/ X Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
211				Edelle 19-00	0600 .308	50u = .28 400u = .225		1/2	Focus test	0 0 128 1024 81 Focus Format	
							6380A	1		0 0 256 1024 41	
3								3			8/K
1201	~ 1950	$2.3''$	4.5	F7V				2			~ 900 ABOVE
3								3			
1201	2350							4			
3								3			
	2500							5			
3								3			
1200	1570.	$3''$						6		some cloud	
3								3			
								1			
3								3			
1201	450	$2.3''$	5.08	F7V				2	Spectrum std	@ $\sim \text{OHA L}$ SA -000006 AS -000140	
3								3			

316
Pg #2 men / tues

Date 1997 MAY 12/13. Observers mki / Sp / 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.
77	Comp							ThA	3s
78	HD 102870	11 45 29	02 19 42	00 20 57				ThA	940
79	Comp							"	3
80	Comp								3
81	HD 177724	19 00 49	13 42 53	0 42 23					3500
82	Comp								3
83	BIAS(4)			00 54:45					
84	^{Comp} HD 120136							ThAr	3
85	HD 120136	13:42:31	17:57:19	1:04:57					1200 2500
86	Comp							ThAr	3s
87	HD 120136	13:42:31	17:57:19	1:26:32					1200
88	Comp							"	3s
89	HD 120136	13:42:31	17:57:19	1:48:35					1200
90	Comp							"	3s
91	HD 120136	"	"	02 09 50					1200
92	Comp								3s

(c)
Spect. Tem
Focus.....
Spectr. Tem

Exp. Mir.

1370V

2940

4,000

2564

2-28

600

2776

CCD Spectr. Temp. Dome Temp./Hum. 6.1 °C Transparency Conditions 317

Focus 6.228

Spectr. Temp. Dome Temp./Hum. 63.7%

ci

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1320V				echelle 19.00	0600 .308	50μ = .291 400μ = .225		3		Q 0340W	
2940	3"	361	F9V					4		Uα -00 0014 ΔS -00 0124	
								3			
								53			
4,000		2.99	B0					5			
								3			
								1			
								3			
2569								6			
								3			
2428								2			
								3			
2600	3.5"							4			
								3			HK
2776								5			
								3			

318

#3 men/Tues

Date ... 1997 May 12/13. Observers ... Mk./Sp./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.
93	BIAS (4)			⁰² 03 :30:40					
94	Comp							Th Ar	3s
95	HD120136	13:42:31	17:57:19	⁰² 03 :34:19					689
96	Comp								3s
97/506	FLATS x10					+10W	+1729	TUNG	8s
307/05	Inboard/Out Board								3/2
09	BIAS(4)			032110					

Spectr. Tern

Focus

Spectr. Tern

Exp. Mtr.

552

Spectr. Temp. Dome Temp./Hum. ... 5.2°C Transparency Conditions ... Cloudy ... 49

Focus ... 0.228 ... Hum 67:1

Spectr. Temp. ... -100.8°C Dome Temp./Hum. ... 30°C gain
Li

Comparison Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
					echelle	6600	50μ = .281		1			
					19.00	.308	400μ = .225		3			
3s									3			
689	652								6		Thick clouds → Stopped exposure	
3s									3			
8s							600μ = .205		3			12AF
3/2						<u>600μ</u>			7/8			
									1			

pg#1 ²⁷⁰ Tues/Wed.

SP = SARAH POIKER Emulsion Batches:

Date 1997.11.19/31/4... Observers Miki / Sp / 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.
ce145 ¹⁰ /11	InBOARD / outBOARD					~3W	+12°	THAr	3/2
12	BIAS(4)								
13	Comp							THAr	3s
14	HD 87901	10 03 03	+12 27 22	20 39 57					400
15	Comp							"	3s
16	Comp							"	3s
17	HD 102870	11 45 29	+02 19 42	21 02 54					1645
18	Comp							"	3s
19	BIAS(4)			21 32					
20	Comp							"	3s
21	HD 120136	13 42 31	+17 57 19	21 39 39					1200
22	Comp							"	3s
23	HD 120136	"	"	22 00 50					1930
24	Comp							"	3s
25	HD 120136	"	"	22 26 20					1249
26	Comp								3s

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

Exp. Mtr.

1320V
10 filter

1000K

2630

2645

3180

2750

Spectr. Temp. ^{CCD} -100.5°C

Dome Temp./Hum. +08.1 63% H

Transparency Conditions ... Part cloudy 32/

Focus ... 228

Dome Temp./Hum. 40.6°C 69.2% H

Focus 0 0 178 1024 81 CCDPMT

Spectr. Temp.

Dome Temp./Hum. ... C2

Observing 0 0 256 1024 41 CCDPMT

Exp. Mtr.	Seeing	Pl. Mag.	Sp.	Inst.	Grating/ X Tilt	Slit	Emission	P.H.	Program	Remarks	Quality
3/2				Echelle 19:00	0600h '308	50u 30u 50u 400. H	W.281 H=.235 <u>6380A</u>	7/8 1 3	focus	90cgsa for focus 30cgsa now	MAX KDU
3s											8K
400	~10.8K	135	B0V					2	Telluric Std		~7K
3s								3			
3s								3			
11/25	2630	3"	36	F9V				4	std vel	in cloud	~1.7K
3s								3			
								1		Aug 182.537 <u>0.736</u>	
3s								3			
120	2645	2.3"	45	F7V				2	Tau Boo		1.7K
3s								3			
11/25	3180	2"						5			
3s								3			
120	2750		"	"				6			
3s								3			

322
 Pg #2: Tuesday/Wednesday
 Date ..1997..May.13/14.. Observers Mki/Sp./Tu.....

Emulsion Batches:

.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
14527 27	Bias(4)			22:49:47					
28	Comp							ThAr	3s
29	HD136202	151412	+020837	22:58:01					1421
30	Comp							"	3s
31	HD136202	151412	+020837	23:23:19					1220
32	Comp							"	3
33	Bias(4)			23:41:30					
34/543	Flats x10					0 10W	+1 45	JUNG	6s
544/15	Inboard/outboard								

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

Exp. Mtr. S
 202
 758
 247
 116

Spectr. Temp. Dome Temp./Hum. ... 5.6°C

Transparency Conditions ... *part cloudy* ... 32}

Focus ... 228

Hum 70%

Spectr. Temp. Dome Temp./Hum.

C₂ cacheComparison
ter. Exp.

Exp. Mtr.	Seeing	<input checked="" type="checkbox"/> Mag.	Sp.	Inst.	Grating/ X Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				Echelle 19.00	0600 .308	50u 400u	6380Å	1			
3s 1202								3			
142 758	2	5.08	F7V					2	Spectroscopic Attenuated		
3s								3			
1220 247	2	5.04	F7V					4		Thick clouds ~ 170 AM A800 B145	
3 4616								3			
								1			
6s						600uH = .205		3			12.6K
						300 = 0.335		7/8			

324
pg 1

SAT/SUN

Emulsion Batches:

Date .1997. MAY. 17/18 Observers .H.d.g./T.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
CC453 ⁸⁵ / ₈₆	Inboard Loui BOARD							FeAr ND3	4/6
87	BIAS(+)			20 21					
88	Comp							FeAr ND3	4s
89	HD87901								39
90	"			20 27 23					34
91	"			20 28 50					42
92	"			20 30 24					52
93	Comp							"	4s
94/103	FLATS X 10							JUNG ND3	3s
404	BIAS(+)			20 39					
405	Comp							FeAr ND3	4s
406	HD131156	14 46 46	+19 30 57	20 47 48					174
407	Comp							"	4s
408	Comp							"	4s
409	HD111395	12 43 55	125 23 19	20 59 48	edit time ✓				319s
410	Comp							"	4s

Spectr. Temp.
Focus 6
Spectr. Temp.
Mir.
S
no. 1/102
100V
30K
32K
36K
42K
3K
K

Spectr. Temp. Dome Temp./Hum. $\pm 0.7.8^{\circ}C$ $49.27^{\circ}H$ Transparency Conditions 325

Focus 6.80

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

Comparison Filter	Exp.	Exp. Mtr.	Seeing	Pt. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
		no filter 1000V				C155 CCD Tyratron	1400 h/m 55.90	250 μ	6563A	3/4	focus test		MAX
									6570A	1			
									Actual @ Row 512 μ	5			4K
		30K							$\pm 2A$	6			12K
		32K								6			10K
		36K								7			
		42K		1.35	B7V					7			12K
										8			4K
										9			15.8K
										1			
										10			
		3.8K	4"	4.55	G8					11		7 300/1 SIN	11K
										12			3.6K
										13			
		4K		6.31	G7V	(pandora in 11ci)				14			5.3K
										1A			3.8K

P942

326

Date 1997 May 17/18.. Observers Hdy. / 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.
CC45411	Comp							FeAr ND3	4s
12	HD109358	12 29 00	+41 54 03	21 13 27				h	109s
13	Comp							h	4s
14	Comp							h	4s
15	HD 115817	13 13 10	-17 49 18	21 29 21					320s
16	Comp							h	4s
17	Comp							h	4s
18	HD 131977	14 51 37	-20 57 49	21 37 40					555
19	Comp							h	4s
20	Comp							h	4s
21	HD 135101	15 08 15	+19 39 11	21 55 59					800
22	Comp							h	4s
23	Comp							h	4s
24	HD 113848	13 01 29	+21 41 24	22 15 49					493
25	Comp							h	4s
26	BIAS (4)			22 25					

Spectr. Temp.
 Focus.....
 CCD
 Spectr. Temp.
 Exp. Mtr.
 800
 5.5k
 59k
 7.2k

Spectr. Temp. Dome Temp./Hum. Transparency Conditions .. *mostly clear* ..

Focus .. *6.80* ..

327

^{CCD}Spectr. Temp. .. *100.7°C* .. Dome Temp./Hum. .. *+0.5°C.. 52.9%RH*

Exp. Mtr.	Seeing	Pg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				<i>c ASS CCD</i>	<i>1800ln</i>	<i>250u</i>	<i>6563A</i>	<i>15</i>			
<i>8900</i>		<i>4.26</i>	<i>G0V</i>	<i>Tgrating</i>	<i>55.96</i>			<i>16</i>			
								<i>17</i>			
								<i>18</i>			
<i>8800</i>		<i>4.74</i>	<i>G6V</i>					<i>19</i>			
								<i>20</i>			
								<i>21</i>			
<i>5.5K</i>	<i>5"</i>	<i>5.74</i>	<i>H4V</i>					<i>22</i>			
								<i>23</i>			<i>3.7K</i>
								<i>24</i>			
<i>5.9K</i>	<i>4"</i>	<i>6.68</i>	<i>G5V</i>					<i>25</i>			<i>5.3K</i>
								<i>26</i>			
								<i>27</i>			
<i>7.2K</i>	<i>4"</i>	<i>5.99</i>	<i>F4V</i>					<i>28</i>			
								<i>29</i>			
								<i>1</i>			

Spectr. Temp.

Dome Temp./Hum.

Transparency Conditions .. Part. Cloudy ... 329 ..

Focus 6.80

Spectr. Temp.

Dome Temp./Hum. .. +0.4.9°C .. 54.4% / 14

MAY
ADY

Exp. Mtr.	Seeing	P.V. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CCD CASS Tgrating	1800h 55.90	250u	6563A	5			4.4K
5645	3"	6.23	G1V					6			
								7			
								8			
283		4.93	F5V					9			8.3K
								10			7K
								12c			
1695	3"	4.46	F2V					13			8.5K
								14			
								15			
915		4.05	F7V					16			
								17			
								18			
6.9K	3-4"	6.30	G2V					19			
								20			

Spectr. Temp. Dome Temp./Hum. $+4.9 / 54.8\%$ Transparency Conditions .. *increasing cloud* ..
 Focus 6.80 33/
 Spectr. Temp. Dome Temp./Hum. $+04.3^{\circ}C / 57.0\%H$..

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800/n 55.90	25u	6563A	1		Avg 136813	σ 5.915
								21			
6135	6300	640	K2 V					22 ci			
3	4							23			
75								24			
688	8.7K	3 ^u	5.97	K0 IV				25			
4								26			
1	4							27			
748	6500	3-4	6.39	K3 V				28			
4								29			3.5K
4								5			
999	4175	3 ^u -4 ^u	6.43	G8 IV				6		cloudy	5.6K
4								7			
								1		σ 5.887	
								8			

pg #5 332

Emulsion Batches:

Date . 1997 May 17/18 Observers ... Hdy. / Jn.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
cc45457	HD 201636	21 05 48	+71 01 51	01 04 34					2406s
58	Comp							RAr ND 3	4s
59	Comp							"	4s
60	HD 185144	19 ^h 32 ^m 33.2	+69 29 28	01 51 39					182
61	Comp							"	4s
62	Comp							"	4s
63	HD 193664	20 16 32	+66 31 56	01 59 49					561s
64	Comp							"	4s
65	B145 (4)			02 11					
66	Comp							"	4s
67	HD 173949	18 43 7.5	+60 56 31	02 15 25					600s
68	Comp							"	4s
69	Comp							"	4s
70	HD 144284	16 00 00.8	+58 49 56	02 31 22					97s
71	Comp							"	4s

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

Exp. Mtr.
C/10
31/k

8-8/k

800

8170

8300

Spectr. Temp. Dome Temp./Hum. $10.4.3^{\circ}\text{C}$ $57.5\% \text{H}$ Transparency Conditions ... *mostly cloudy*

Focus 6.80

Spectr. Temp. Dome Temp./Hum. $10.4.5^{\circ}\text{C}$ $56.7\% \text{H}$

333

Comparison ter. Exp.	Exp. Mtr. <i>no. 6/100</i>	Seeing	<input checked="" type="checkbox"/> V. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
246s	8.1K	$3''$	5.87	F3IV	<i>c HSS CCD</i>	1800 lines/mm 55.90	250μ	6563\AA	9ci		CLOUDY <i>most exp</i> <i>in last 10 mins</i>	
4s									10			
8s									11			
182	8.8K	$2.3''$	4.68	K0I					12			11K
4s									13			
4s									14			
561s	8800		5.93	G3V					15			8.7K
4s									16			
									1		$\lambda = 5.901$	
4s									17			
600s	8170	$3.4''$	5.99	G7IV					18			7.9K
4s									19			
4s									20			
97s	8800		4.01	F8II					21			10K
4s									22			

P9#6

234

Date 1997 May 17/18 Observers Hdg. Tu.....

Emulsion Batches:

.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
cc45472	Comp							FeAr 1103	4s
73	HD 156826	17 14 38.3	-5 48 33	02 39 03					804s
74	Comp							"	4s
75	Comp							"	4s
76	HD 171834	18 31 47.2	+6 35 35	02 56 57					348
77	Comp							"	4s
78	Comp							"	4s
79	HD 173667	18 41 21.4	+20 27 02	03 10 29					112s
80	Comp							"	4
81	Comp							"	4
45482	HD 176051	18 53 16.6	+32 46 23	03 19 45					253s
83	Comp							"	4s
84	BINS(A)			03 26					
85	Comp							"	4s
86	HD 191067	20 0252	-00 5758	03 3320					586

Spectr. Temp. Dome Temp./Hum. ... $7.04.2^{\circ}\text{C}$ 57.8% Transparency Conditions ... *M.S. Fly. c. led*
 Focus 6.80 335
 Spectr. Temp. Dome Temp./Hum.

Exp. Mtr.	Seeing	Plg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS	1800	250	6563A	23c			
7400	4"	6.32	G9V					24			9.3 K
								25			
								26			
8600	3.4"	5.45	F3V					27			7.5K
								28			
								29			
8940		4.19	F6V					30			
								31			
								32			
8790		5.22	F9V					33c			
								34			
								1		on 5.995	
								5			
8200 8200	3"	5.99	K1 IV					6		FUNNY SPND ON READOUT LIKE OLD GPIB FAILURE TWILIGHT...	

336 P9#7

Emulsion Batches:

Date ... 1997. MAY 17/18. Observers ... Hdy. / 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.
CC45487	Comp							Fe An ND3	4s
88	Comp							"	4
89	HD 157347	17 17 38.2	-2 17 21	03 49 42					558s
90	Comp							"	4
91/500	FLATS x 10					02 18 W	-2 23	Tung ND3	3
501	BIAS(4)			04 03					
02/03	Inb/OUT BOARD					"	"	Fe An ND3	4/6
	MAY 18/19	Hdy/Tn	some	tests	Dome T = 08.7°C	54 48 H	CCDT = -		100.7
45504 -07	SINGLE BIASES								
45508 -09	DARKS			20:23:04 20:25:58					150s
45510 -13	SINGLE BIASES								
45514	DARK			20:30:05					1800s
45515 -18	SINGLE BIASES								
45519	DARK			21:02:29					1800s
45520 -23	SINGLE BIASES				21 43 01				

CCD Spectr. Temp. -100.6

Dome Temp./Hum. $+09.8^{\circ}\text{C}$ $46\% \text{H}$

Transparency Conditions *Some cloud in S.W.*

Focus 6.78

90c gain

339

Spectr. Temp.

Dome Temp./Hum.

cd

390 050 1024 41 CCD FMT \rightarrow IMAX AR4

Exp. Mtr.	Seeing	Pr. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1000 V 70-f/ker	8.4 $^{\circ}$ C			CASS CCD Tgrating	1800 l/mm 55.90	250 μ	6563A $^{\circ}$	4/5	Focus test		
								1			
								2			16K
								6			7K
4030	4"	6.38	K3 II					7		slight stry too	5K
								8			76K
8070	"	"	"					9			9K
								10			6.7K
								11			
8050	4"	6.23	K1 V					12		Telescope east side	10.3 K
								13			5.8K
								1			
8000		5.93	G9 IV					15c:			
								16c:			

240 Pg #2 Tues/Wed

Emulsion Batches:

Date ..1997..MHG. 20/21. Observers .Hdy./Tn.... + one star for [WxL]

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CC45549	Comp							FeAr ND2	45
50	HD 82074	9 24 31.1	-3 48 28	21 40 22					1280
51	Comp							"	45
52	Comp							"	45
53	HD 87901	10 0303	+12 27 22	22 07 18					47
54	Comp	"	"	22 08 37					48
55	"			22 09 48					38
56	"			22 11 25					50
57	Comp							"	45
58	BIAS(4)			22 14					
CC45559	Comp							FeAr ND2	45.
60	X7 Leo	10 02 34	+17 02 46	22 22 22					991
61	Comp							"	45
62/64	FLATS x 3							TUNG ND2	45
65	BIAS(4)			22 44					

Spectr. Temp

Focus.....

Spectr. Temp

Exp. Mir.

000V

7200

37800

34300

9K

40K

370

Spectr. Temp. Dome Temp./Hum. $+06.6^{\circ}\text{C}$ 52.9% Transparency Conditions .. *17.06 T. 14. C. 24. 341*

Focus *6.78*

Spectr. Temp. Dome Temp./Hum. *22*

Exp. Mtr.	Seeing	Plg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1000V				C455 CCD	1800ln 55.90	250u	6563A	17c:			
7200	5"	6.26	G6IV					18ci			
								19			
								20			6K
37800		1.35	B0V					21	Telluric std.		5K
39300								21			7K
39K								21			10.5K
40K								21			
								22			
								1			
					1800ln 46.9	306u	5784A	23			
370	4.5"	10						24			
								25			
								26			12K
							(omitted)	1			

pg#3
342 Tues/Wed

Emulsion Batches:

Date 1997 May 20/21 Observers Hdy./In.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp
CC 83787 45566	Comp							FeAr ND2	45
CC 455 67	HD 83787	09 3540	+31 4356	22 5511	edit				600
68	Comp							n	45
69	Comp							n	45
70	HD 89758	10 1622	+42 0009	23 1242					42
71	Comp							n	45
72	Comp							n	45
73	HD 90839	10 2414	+56 2936	23 2405					211
74	Comp							n	45
75	Comp								
76	HD 121146	13 4832	68 4839	23 37 24					77
77	Comp							n	4
78	Comp							n	45
79	HD 164058	17 5417	51 3002	23 5800					18
80	Comp							n	45
81	B/HIS(4)			00 00					

Spectr. Temp. Dome Temp./Hum. $+5.8^{\circ}\text{C}$ 57.0% Δ Transparency Conditions NORTH CLEAR

Focus 6-78

Spectr. Temp. Dome Temp./Hum. $+0.5.2^{\circ}\text{C}$ Δ Telescope STILL East Side

Exp. Mtr.	Seeing	Pg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				Back to	1800 ln/mm 55.90	250 μ	6566A	5			
600	7.9K	4.4	5.89	K6 III				6		Academy in 24	
								8			
								11			
42	8.1K	3.05		M0 II				12			
								13			6-3K
								14			
211	8K	4.84		F8 V				15			7K
								16			
								17			
37	8.35K	6.40		K2 IV				19			10.5K
								19			
								20		Row telescope west side.	
18	8200	2.23		K5 III				21			16K
								22			
								1		$\alpha = 5^{\circ}30'$	

Spectr. Temp. Dome Temp./Hum. Transparency Conditions ... *Fine* ... 345

Focus ... *6.78* ...

Spectr. Temp. Dome Temp./Hum. *10.48°C 65.3% H*

Comparison Filter	Exp.	Exp. Mtr.	Seeing	Pt. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	45					1800 In 55-90	CASS	306u	6566A	23			
	500	8A	5.93	K7 III						24			12.6K
	4									25			
	4									25			
	170s	7400	4.91	K4 III						26			
	4									27			
										28ci			
	1126	5750	6.52	G3 IV						29ci			
	4									30			
	4									31			
	200s	7500	4.94	F5 IV						32ci		(NEAR MOON) MOON LIGHT	
	4									33			
										1			
	4									5ci			
	56	7960	3-5	6.10	G0 IV					6ci			
	4									7			

Spectr. Temp.

Dome Temp./Hum.

Transparency Conditions .. *Fine* 347Focus *6.78*Spectr. Temp. *CCD - 100.9 °C*Dome Temp./Hum. *+04.4 °C 68.4% H*

Comparison Filter	Exp.	Exp. Mtr.	Seeing	Mag. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	↑	<i>no filter</i>					<i>1800 1/4 55.90</i>	<i>250μ</i>	<i>6566Å</i>	8			
223		7980	<i>5"</i>	4.65	F7 IV					9			<i>7K</i>
4										10			<i>7.1K</i>
5										11			
1047		7980		6.49	F9 IV					12		<i>LOTS OF COMPANIONS?</i>	
4										13			
9										14			
298		3800		5.23	F6 II					15		<i>Companion to ESE 2.10" - CLOSE TRIPLE</i>	
4										16			
4										1		<i>σ 5.576</i>	
4										17			<i>7.1K</i>
138		<i>8K</i>		4.37	G1 III					18			<i>6.6K</i>
4										19			
4										20			
656		<i>7.5K</i>	<i>3.5"</i>	6.00	G3 III					21			<i>5.7K</i>
4										22			

348

P9#C

Emulsion Batches:

Date 1977 MAY 20/21. Observers Hdg. 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.
CC4564	Comp							FeAr ND2	4s
15	HD 186675	19 4040	+37 0645	02 3028					219
16	Comp							"	4s
17	Comp							"	4s
18	HD 188947	19 5233	+34 4903	02 3800					105s
19	Comp							"	4s
20	Comp							"	4s
21	HD 161096	17 3832	+04 3632	02 4517					46s
22	Comp							"	4
23	Comp							"	4
24	HD 153751	16 5612	+82 1208	02 5342					135s
25	Comp							"	4
26	Comp							"	4
27	HD 78154	09 0136	+67 3226	03 0137					432
28	Comp								4
29	B1A5 (4)			03 10					

Spectr. Temp.

Dome Temp./Hum.

Transparency Conditions ... *cloudy in* ... 349Focus ... *6.78* ...Spectr. Temp. ... ^{CCD} - ... °CDome Temp./Hum. ... *104.3°C 70%RH* ...

Exp. Mtr.	Seeing	Plg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
					1800 55.90	250 _u	6566A	230 _u			
				<i>T grating</i>							
<i>7.8K</i>	<i>4"</i>	<i>4.89</i>	<i>G7 III</i>					<i>24</i>			
								<i>25</i>			
								<i>26</i>			
<i>8070</i>		<i>3.89</i>	<i>K10 III</i>					<i>27</i>			
								<i>28</i>			
								<i>29</i>			
<i>8.3K</i>		<i>2.77</i>	<i>K12 III</i>					<i>30</i>			<i>8K</i>
								<i>31</i>			
								<i>32</i>		<i>Telescope east side</i>	
<i>7900</i>		<i>4.23</i>	<i>G5 III</i>					<i>33</i>			
								<i>34</i>			
								<i>5</i>			
<i>8K</i>	<i>6"</i>	<i>4.80</i>	<i>F6 II</i>					<i>6</i>			
								<i>7</i>			
								<i>1</i>			

Pg# 7 30

350

Date 1997 May 20/21

Observers Hdy/Tn

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
cc 45630	Comp							FeAr ND2	4s
31	HD 127821	14 28 23.4	+63 37 40	03 13 47					1447
32	Comp							v	4s
33	Comp							v	4s
34	HD 179958	19 09 30	+49 40 09	03 46 45					598s
35	Comp							"	4s
36/45	FLATS x10					0 27W	50°	Tung ND3	3s
46	BIH5(4)								
47/48	Inb / out Board					"	"	FeAr ND3	4/5

Spectr. Tem

Focus

CCD

Spectr. Tem

Exp. Mir.

52k

730

Spectr. Temp.

Dome Temp./Hum.

Transparency Conditions ..

PART. cloudy 35/
Complete by Dawn.

Focus 6.78

Spectr. Temp. CCD - 100.9°C

Dome Temp./Hum. +04.5°C 71.9%RH

Exp. Mtr.	Seeing	Pk. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
4s					1800ln 5590	780u	6566A	8			
4s	5.2K	4"	6.09	F4IV				9			
4s								10			
4s								11			
598s	780	4	6.57	G4V				12		BRIGHT SKY cloudy	NORTH OF close pair
4s								13			
3s								2			15K
								1		$\sigma = 5.524$	
4/5								4/5	focus.		

352
#1

Sun / Mon

Emulsion Batches:

Date 1997 MAY 25/26. Observers ... WxL (L4) / 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.
C456 ^{49/50}	Inbound/out bound							F4r ND4	4/6
51	BIAS(A)			21 16 actual	21 05 because Acer				Time was out
52	Comp							"	4s
53	V361 Lyr	19 02 29	+46 58 42	21 37 11					1500
54	Comp							"	4s
55	V361 Lyr			22 05 45					1500
56	comp							"	4s
57	V361 Lyr			22 33 07					1500
58	Comp							"	4s
59	BIAS(A)			23 00					
60	V361 Lyr			23 02 25					1500
61	Comp							"	4s
62	V361 Lyr			23 31 50					1500
63	Comp							"	4s
64	V361 Lyr			23 59 40					1500

CCD
Spectr. Tem

Focus....

Spectr. Tem

Exp. Mtr.

No. film
200V

Exp. Mtr.

25

30

36

30

30

30

CCD Spectr. Temp. -100.5°C Dome Temp./Hum. +11°C 45.6% H Transparency Conditions .. Fine..... 353

Focus 6:87 90cguin

Spectr. Temp. Dome Temp./Hum. 175 0 50 1024 4 1

Comparison Exp.	Exp. Mtr.	Seeing	Pr. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
4/6	no filter 1000 V				CHSS CCD	831 l/m Tgratings → 3340	306 μ	6265A	3/4	focus test		
	Exposure meter	balance	OK						4		σ 3.260	
4s		2							5		AIR MASS 1.75	8.5
1500	95	2"	136						6	DRL	NO RA encoders tonight But Field checks well	
4s									7			
1500	90								8			
4s									9			
1500	86								10		SAO object move across slit view @ 2255 From West end of slit TO North end of field in 2 secs	
4s									11			
									1		σ 3.461	
1500	80	1-2"							12			
4s									13			
1500	80	1-2"							14			
4s									15			9.5K
1500	80								16			

354
#2

Sun/mon

Date 1997 May 25/26

Observers Lu./Tn

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.
cct5665	comp		0000					FaAr MP 4	4s
66	V361 Lyr	19 02 29	46 58 42	00 27 13					1500
67	comp							n	4s
68	BIAS(4)			00 54					0
69	V361 Lyr			00 56 13					1548
70	Comp							n	4s
71	V361 Lyr			01 24 06					1502
72	Comp							n	4s
73	V361 Lyr			01 52 22					1500
74	Comp							n	4s
75	BIAS(4)			02 19					
76	V361 Lyr			02 20 14					1505
77	Comp							n	4s
78	Comp							n	4s
79	SS Lac		2000	02 55 55					126
80	Comp							n	4s

c.c.D
Spectr. Tem
Focus.....
Spectr. Tem

Exp. Mtr.

c-f/42

81

87

78

74

72

500

3

ccd
 Spectr. Temp. ... -100.5°C ... Dome Temp./Hum. +0.8°C 49.2% H Transparency Conditions ... Fine ... 355

Focus ... 6,87 ...

90c gain

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

175 0 50 1024 41 CCD FINT

Exp. Mtr.	Seeing	Pl. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
43	no filter			CASS CCD	831/mm 33.40	306μ	6265Å	17			
1500	81	✓ 136	K?					18			
43								19			
0								1			
1548	87	2"						20			
43								21			
1502	78	1-2"						22			
43								23			9.9K
1500	74.							24			
43								25			10.4K
								1		<u>α = 4.26</u>	
1505	72							26			
43								27			
43								28			
126	500	3-4"	10.1	B9				29			
7								30			

356

#2 Sun/Mon.

Date 1947 MAY 25/26 Observers L.Y./T.H.....

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exposure
C CC456A	Comp							FEAR ND4	4 1/2
82	HD 18572	19 2012	1900 indeed +114349	032536					98
83	Comp							n	45
84	BIAS (4)			0329					
85/90	FLATS x 6							TUNG ND5	35
91/92	Inb / emul BOARD HURTMANN							FEAR ND4	4/6

meter
sta
r
+66

CCDT -100.8°C 106.7°C 61.4% H

meter

3K std vel

MAX $\sim 7.9\text{K}$ HDU.

$$\sigma = 4.327$$

 $\sim 14\text{K}$ max 2 Ci $+6.6^{\circ}\text{C}$ 687 SeT

